

SEVENTY-EIGHTH ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1955



Department of Health of the State of New Jersey  
Public Health Council

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HARRY N. LENDALL, C. E. .... New Brunswick  
HARRY J. ROBINSON, M. D. .... Union  
KATHLEEN SLETTELAND ..... Ridgewood

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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, 1955

*To His Excellency Governor Robert B. Meyner:*

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

*To the Public Health Council:*

Ladies and Gentlemen—I have the honor of submitting herewith the Annual Report of the Department of Health for the fiscal year ending June 30, 1955.

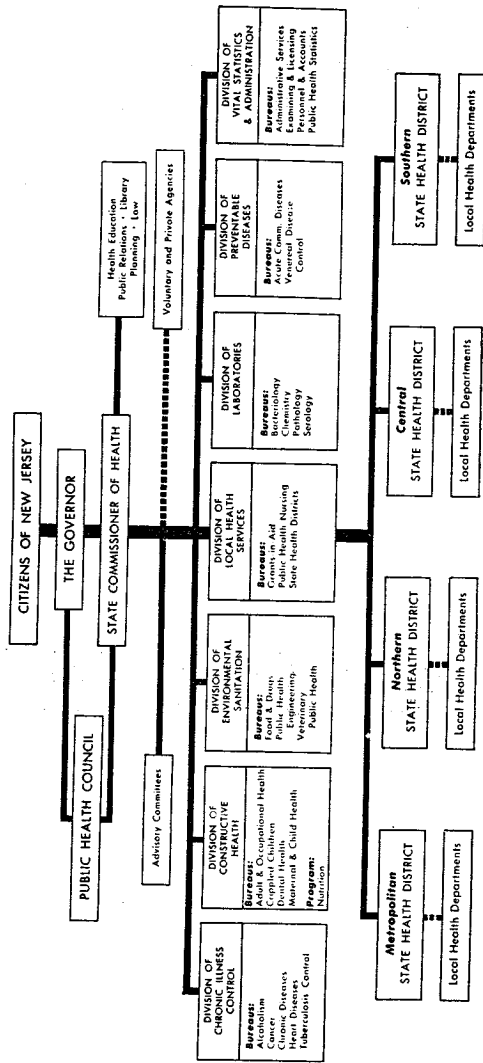
Respectfully submitted,

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

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## Report of the State Commissioner of Health

July 1, 1954—June 30, 1955

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

One of the significant developments in the year covered in this report was the inauguration of a study, at my request, by two committees of local health officers, to determine recognized local public health activities and minimum standards of performance. Upon completion, they will submit them for consideration and for possible recommendation of them to the Public Health Council for adoption and promulgation as prescribed activities and standards.

Chapter 177, P. L. of 1947, provides that "The commissioner shall cause studies to be made to determine whether the recognized public health activities of local health departments are being conducted and whether minimum standards of performance are being met in all municipalities of the State and for the purposes of this subsection, the commissioner shall recommend and the Public Health Council shall prescribe what are to be considered as 'recognized public health activities' and 'minimum standards of performance.' "

One committee is made up of local health officers serving municipalities of 50,000 persons or more and one is composed of local health officers serving municipalities with a population of from 10,000 to 50,000. Both groups will meet as a joint committee to consider to what degree the two reports can be made identical.

Frank J. Osborne, Health Officer of East Orange, is chairman of the Joint Committee. Dennis J. Sullivan, Health Officer of Jersey City, is chairman of the Committee for Municipalities of 50,000 Population and Over. Carl Wendel, Health Officer of Maplewood, is chairman of the Committee for Municipalities of 10,000 to 50,000 Population.

State law and the State Sanitary Code, which has the force and effect of law, provide basic public health law which must be enforced in every New Jersey municipality. This basic structure can serve as the standard, for a reasonable period of time, in municipalities having fewer than 10,000 persons.

A competent local health officer of long experience in New Jersey characterized this study as "the best thing that has happened in public health

in New Jersey since the adoption of the reorganization law of 1947." Another said adoption of standards will be helpful to every municipality in New Jersey.

I have not previously recommended to the Public Health Council that it prescribe recognized local public health activities and minimum standards of performance because there were, in my judgment, several tasks to be completed first. Following upon legislative reorganization of the Department, I undertook, upon becoming Commissioner in 1948, a substantial administrative revamping to secure an administrative organization based on functional lines. It now includes, pursuant to legislative direction, a division of chronic illness control. Next we sought and secured, with magnificent support from a citizens' committee and many organizations, enactment of legislation to permit municipalities to consolidate their local health services to offer a solution to the dilemma of small municipalities which cannot individually provide qualified, specialized public health services. A next task, in logical sequence, was the revision of the State Sanitary Code, a body of sanitary regulations with the force and effect of law, to assure that its provisions will have maximum applicability and effectiveness in meeting current public health needs. This task was accomplished by the Public Health Council of the Department, in accordance with its statutory responsibilities, with the Department serving as secretariat to the Council. The next step was writing our own programs in the State Department of Health so that we shall know specifically where we are going and how we propose to get there, and additionally to equip us to offer more realistic help to local health boards which choose to come to us for program consultation and guidance.

The next logical step, and the sixth in this sequence starting with the legislative reorganization of the Department, is the determination of what recognized local health activities and minimum standards of performance ought to be, beyond the basic requirements of law and the provisions of the State Sanitary Code.

The chairmen of the three committees referred to above gave progress reports at the 44th Annual Conference of State and Local Health Officials of New Jersey.

### Program Writing and Evaluation

By the close of the fiscal year covered in this report, the great majority of the departmental public health programs had been written in standard format. When the writing is completed, there will be approximately fifty separate programs. Each program charts a course for action. Short-range and long-range objectives and evaluation indices provide a yardstick by which it becomes possible to measure progress as time goes on.

The program writing of this Department is apparently without precedent in any other state department of health. We have had numerous requests for information from persons in other states.

In a summary report of this character, it is possible only to cite illustrative examples of program activity. The reader is invited to read the detailed reports, by division, which follow for a full recital of activity for the fiscal year ending June 30, 1955.

### Controlling Chronic Illness

The Department's Division of Chronic Illness Control is the newest of the Department's seven divisions. The demands for service made upon it, and the degree to which it has been able to meet those demands suggest that the need for this activity was long overdue.

Activities of health departments have had a favorable impact on the control of chronic illness for many years. Certainly to prevent tuberculosis and venereal disease—to mention only two areas of health department activity of long standing—is to prevent chronic illness. But the concept of a specific agency set up to foster control of chronic illnesses in a coordinated way is nevertheless a new one. The fact that few state departments of health have units dedicated to control of chronic illness attests to the newness of the idea and to the progressivism of New Jersey's legislators who determined, by statute, that such a division should be set up in the State Department of Health.

Division personnel are aware that older established agencies have been making a contribution, in specific areas, to the control of chronic illness, in some instances for many years. To avoid trying to do what is already being done and to foster a united rather than a disjointed effort, personnel of the Division have held meetings and conferences with other agencies, both public and private.

Efforts of the Division are directed toward strengthening or developing local services to detect incipient chronic disease, or diseases which may have chronic effects, and to institute methods of control as early as possible.

The grant-in-aid has been a productive way of fostering establishment of a needed community service. Responsibility is placed upon the local agency at the outset, and it is understood from the outset that the financial assistance from the State is temporary. At the end of the fiscal year covered in this report (June 30, 1955), contracts were in effect with seventeen general hospitals, three special hospitals, and two other agencies. Other contracts were being negotiated. With a temporary investment of \$147,000, the State was stimulating the development of twenty-two different kinds of services which affect the control of chronic illness.

## ALCOHOLIC CONTROL

At the end of the fiscal year, outpatient facilities for persons with an alcoholic problem were available in four general hospitals and arrangements were concluded to start a fifth in July, 1955. Grants-in-aid were used to encourage establishment of each of these community services. Group sessions were conducted weekly in three county tuberculosis hospitals and one county workhouse for persons with an alcoholic problem who wanted to do something about it.

Opening of an alcoholism treatment center for inpatients at the New Jersey Neuropsychiatric Institute in May, 1955 provided a much needed facility. The Institute is under the Department of Institutions and Agencies. Its existence supplements and strengthens the programs of all agencies concerned with alcoholism control.

## CANCER CONTROL

In response to our offer to provide them, 1,204 New Jersey physicians asked for 73,000 copies of a pamphlet entitled "Self-Examination of the Female Breast" for distribution to women patients. The pamphlet is said to be helpful in motivating women to seek the advice of the physician when suspicious symptoms are noted.

The Cancer Control Program and the Dental Health Program jointly arranged for courses in oral cancer for New Jersey dentists at the University of Pennsylvania and New York University.

## DIABETES SCREENING PROGRAM

Diabetes screening programs in which the Department has participated are of three types: a statewide diabetes detection campaign; diabetes screening programs undertaken by local health officers, in some instances in association with chest X-ray projects; diabetes screening as a part of multiphasic screening in general hospitals. The 1954 diabetes detection campaign was co-sponsored by the Medical Society of New Jersey, the New Jersey Diabetes Association, and the State Department of Health. Three per cent of those who returned Dreypaks was positive for sugar. The second annual diabetes symposium for physicians was held as a joint project of the New Jersey Diabetes Association and the State Department of Health.

## CONTROL OF EPILEPSY AND OTHER CONVULSIVE DISORDERS

There were 755 persons who received electroencephalograph examinations during the year in five hospitals with equipment placed in them by the Department. Electroencephalograph instruments were installed in four other

hospitals and service was scheduled to start soon after the beginning of the new fiscal year (July 1, 1955). Two additional instruments have been purchased. When these are placed, it is thought the coverage of the State with this kind of diagnostic aid will be adequate.

## HEART DISEASE CONTROL

A course in cardiology for the general practitioner and also a more advanced course were given for the fifth consecutive year at St. Michael's Hospital, Newark, as a joint project of the hospital and the Division of Chronic Illness Control. A one-day course in cardiac resuscitation was attended by 86 physicians.

Many persons owe added years of life to cardiac surgical services at St. Michael's Hospital which were introduced with support from the State Department of Health.

A study of 900 cases of heart disease, conducted in 1954, showed that ten per cent became known to the physician for the first time because the patient participated in a chest X-ray survey and the X-ray reading led to referral to a physician.

## HOMEMAKER SERVICE

Homemakers are women who do housework, for hire, in a household in which there is illness. Their presence often enables the breadwinner to continue working and tends to prevent disruption of the household. At the end of the year, there were seven community homemaker services in operation serving more than seven municipalities.

Homemakers take a 16-hour training course at Rutgers University. It is believed to be the first such course under university auspices. There are 126 women who have completed the course. This part-time vocational activity has been a mental tonic for many of the women who participate in it. They feel useful and needed and get some financial return for work performed. Several physicians have expressed interest in it not only for what it does for the family in which there is a sick member but for what it does for the homemaker herself.

## REHABILITATION

The Department strengthened its capacity to provide qualified consultative services in rehabilitation by appointment of a qualified medical-social worker to each of the four district offices of the Department.

Departmental grants-in-aid made possible appointment of social workers to the Hunterdon Medical Center, McKinley Hospital in Trenton, and St. Michael's Hospital in Newark. Each hospital will eventually assume full fiscal responsibility for the social worker.

The Department aided the Board of Freeholders of Essex County in establishment of a rehabilitative unit at Essex County Hospital, Belleville. The unit began functioning on May 1, 1955.

#### TUBERCULOSIS CONTROL

During the year, there were noted a continued decline in the death rate of tuberculosis; relative stability in the rate of newly reported active cases; an increase in average daily participation in mass chest X-ray screening; broader use of tuberculosis case registers; and increased emphasis on the chest X-ray as a part of routine screening on admission to a hospital. Emphasis was given to selection of high incidence areas, based on case reports, for mass X-ray screening to assure maximum return at minimum cost. Case registers were being maintained in five counties. Collectively, they constitute about one-third of the population of the State.

#### Constructive Health

Public health today extends beyond the abatement of nuisances. It extends beyond efforts to participate in the control of chronic illness. It includes the development of programs and activities to give our citizens the opportunity of the highest degree of health of which they are individually capable. In our Department, we consider these activities examples of constructive health.

Greater numbers of our citizens are beginning to realize that unless positive health programs are developed on the community level, physicians, clinics, and hospitals will be overwhelmed with the persons who will be referred to them for care.

There is a growing interest in adult health appraisals in industry and in the community at large. These appraisals, if sufficiently widespread, will reduce the incidence of chronic illness and the ability of the individual to maintain optimum health. A good case can be made for the proposition that the student of medicine ought to have included in his preparation some concept of health maintenance and enhancement. A very strong case can be made for the proposition that every New Jersey citizen should have information and facilities to help keep him well in body and mind.

#### AIR POLLUTION CONTROL

Duties of the State Department of Health with reference to air pollution control are now clearly defined in Chapter 212, State of New Jersey laws of 1954, known as the Air Pollution Control Act (1954) which became effective September 16, 1954. The Act created an Air Pollution Control Commission within the State Department of Health and authorized establishment of County

Air Pollution Control Associations. The Commission was granted power to formulate and promulgate codes, rules, and regulations controlling and prohibiting air pollution. The Commission was appointed by Governor Robert B. Meyner and organized in February, 1955. The Commission agreed at its second meeting that air pollution may be classified in four major categories:

1. Smoke and odor from open burning dumps.
2. Smoke, fly ash and odor resulting from incomplete combustion of solid, liquid and/or gaseous fuels, including incinerators.
3. Dust, gases, vapors, fumes, and odors resulting from commercial and industrial operations.
4. Pollens.

On May 4th, the Commission held a public conference on the first of the four categories to get information and points of view which would guide it in developing a code to control air pollution resulting from smoke and odor from open burning dumps. As the fiscal year covered in this report drew to a close, the Commission was hard at work on provisions of a code to control that phase of air pollution.

#### CRIPPLED CHILDREN'S PROGRAM

During the calendar year 1954, 2,725 children were placed on the State Register of Crippled Children. On January 1, 1955, there was a total of 17,944 children on the register. It is heartening to note, however, that 611 individuals were removed from the register as "cured." It is reasonable to assume that as more and more New Jersey children are given the protection of Salk poliomyelitis vaccine, there will be fewer children who must be placed on the State Register because of crippling caused by polio. This illustrates how an activity in one area of public health, preventable disease, affects other areas of activity. It further clearly illustrates that chronic illnesses are preventable as soon as basic research is completed, and we have an opportunity to apply it.

The Crippled Children's Program assumes financial responsibility for hospitalization and convalescent care of appropriate cases. Grant-in-aid assistance from the Department has contributed to development of clinics for children with rheumatic fever and cardiac conditions in Newark, Flemington, Trenton, and Camden. There were 846 children who received clinic services under this program of the Department.

## DENTAL HEALTH PROGRAM

Promotion of fluoridation has been a major activity in dental public health. Only one municipality introduced fluoridation during the year. Encouragement may be found, however, in the increase in the number of municipalities in which fluoridation is being actively discussed and urged. Discussion is an essential prelude to action in this kind of activity.

The dentist has a golden opportunity to detect early signs of cancer of the mouth, if he knows what to look for. With this thought in mind, the Department again sponsored and financed special courses in oral cancer which were attended by forty dentists.

## MATERNAL AND CHILD HEALTH PROGRAM

This program received national recognition for its efforts to stimulate parental awareness of situations hazardous to children.

I have appointed a committee to draft a proposed code governing the conduct of boarding homes for children.

Institutes for public health nurses on maternal and child health were held in the Metropolitan, Northern, and Southern State Health Districts.

## NUTRITION PROGRAM

Sound nutritional practices are essential elements of programs affecting other areas of health activity. A nutrition program is therefore successful to the extent that its implications are recognized and acted upon in all appropriate health activities. A considerable part of the work in the nutrition program this year was concerned with development of a complete public health nutrition program at the State and district levels.

## OCCUPATIONAL HEALTH

Through field visits and correspondence, the Occupational Health Program contributed to improvements in working conditions and occupational medical care. Sixteen surveys were conducted to initiate and improve health programs in industrial plants. There were twelve consultations on medical aspects, and twenty consultations on nursing aspects. The physician, nurse, engineer, and toxicologist team approach was used in 174 visits to study in-plant environmental conditions. These included studies of hazards, noise and vibration, illumination, and nutrition. Seventy-one atmospheric contaminants were determined in the field and 166 physical conditions were recorded. A study of conditions in iron mines and another of internal combustion engine emissions in motor vehicle inspection stations were completed during the year.

The State Commissioner of Health presented a paper on the "Potentials of an Occupational Health Program in a State Department of Health" before the American Conference of Governmental Industrial Hygienists. This was the first time a state commissioner of health appeared before the Conference.

Occupational health bulletins are issued monthly. These are requested regularly by personnel in New Jersey industries. Requests for them have been received from other states and from Australia, Canada, Cuba, England, France, Israel, and South America.

## RADIOLOGICAL HEALTH

Control of health hazards of a radiological character is becoming an ever more essential public health activity. One of our first activities in this field was to prepare for the consideration of the Public Health Council, Chapter Six of the State Sanitary Code on Radiation. Subsequently, under this code departmental regulations controlling the use of fluoroscopic shoe-fitting devices were adopted and applied with outstanding success.

An important function of the program is to provide information on radiological health hazards to individuals, industries, and institutions that use any sources of ionizing radiation.

Before the Atomic Energy Commission authorizes a New Jersey applicant to use radioactive isotopes, this Department is informed. This enables us to survey the situation, usually accompanied by a representative of the Atomic Energy Commission, and to make recommendations with reference to health aspects and other factors. In the period covered in this report, twenty-five such investigations were made. In two years, the number of authorized New Jersey users of Atomic Energy Commission isotopes has risen from 90 to 150.

Two of the largest manufacturers of X-ray equipment have advised us of the location of industrial X-ray machines in New Jersey. This facilitates our knowing where these sources of radiation are and steps can be taken to protect the users and others in the vicinity.

Similarly, the location of radium and polonium sources of radiation is provided to us quarterly by the two largest distributors. These materials do not come under the jurisdiction of the Atomic Energy Commission.

There are estimated to be between 10,000 and 15,000 X-ray machines in New Jersey used in the practice of the healing arts. Most are located in the offices of private practitioners.

As this fiscal year was drawing to a close, the Program had undertaken a study of the use of X-ray and fluoroscopic equipment in the practice of veterinary medicine in New Jersey. The veterinary medical profession was selected because its numbers are small enough to permit an effective pilot



study. It is also possible that conditions under which they must work make exposure higher than in other healing arts.

In April, 1954, Governor Meyner appointed an Advisory Committee on Radiation of which the Commissioner of Health was made a member. The Committee is preparing a proposed code to control radiation sources.

### Environmental Sanitation

Activities in environmental sanitation are so diverse as to require thirteen distinct public health programs. The interested reader is invited to explore them in detail in the appropriate section of this report. It is possible here to refer to only a few of them.

#### Housing

Enactment of Chapter 199, P. L. 1954—the Realty Improvement Sewerage and Facilities Act—placed in the hands of local boards of health a powerful means to prevent building which produces nuisances. It also enables them to control the source of pollution of shellfish waters. Pursuant to provisions of the act, standards for construction of sewerage facilities for realty improvements were adopted and promulgated. The Advisory Committee which drafted these standards was at work, as the year came to an end, on standards for construction of water facilities.

#### UNIFORM MILK INSPECTION SYSTEM

The State Department of Health and Newark, Jersey City, and Paterson worked out a uniform system for the inspection of dairy farms and milk plants and put it into effect. Each agency uses the same inspection forms. Information collected is exchanged. Duplication of inspections has been greatly reduced.

#### PSITTACOSIS CONTROL

Procedures were established in which our personnel participated, which have proven effective in rendering psittacine birds free from psittacosis. These procedures can be carried out by private veterinarians and are often the means of preventing the destruction of an infected flock. Similar studies have been made of the use of antibiotics in eliminating the disease in turkeys. These studies were being evaluated as the year drew to a close.

#### RABIES CONTROL

As in recent years, it was possible again this year to announce that New Jersey is free of rabies. While our neighboring states contend with this disease, effective control measures have achieved and maintained New Jersey's record.

### CONTROL OF SOLID WASTE DISPOSAL

The number of sanitary landfills operating more than doubled in a year. The number of municipalities served by sanitary landfills increased sevenfold. Seventeen landfills were operating at the end of the year and disposing of garbage and refuse from 68 municipalities.

### CONTROL OF STREAM AND WATER POLLUTION

Plans, specifications, and other engineering data were examined, approved, and permits issued for construction and operation of 184 stream pollution control projects. Their estimated cost is \$41,600,000. The projects include 33 new sewage and/or industrial waste treatment plants and 54 partial or complete sewage systems and pumping stations. Sixteen sewage treatment plants and three industrial waste treatment plants were completed and placed in service.

The Swimming Pool Code of New Jersey was approved and promulgated by the Department. It offers local boards of health an effective means to control the installation and operation of swimming pools.

### WEED CONTROL

Approximately 150 New Jersey communities now carry on routinely community directed ragweed control programs. Intensive roadside spraying programs on a county-wide basis have been put into effect in Salem, Sussex, and Warren Counties.

### Laboratory Services

While all elements of the Department are affected adversely by overcrowded and inadequate facilities, the future service of our laboratories is jeopardized most of all. The Department of Health laboratories will not be able to keep pace with increasing demands for service if they must continue to be housed in their present cramped and inadequate quarters. We already have had to "farm out" certain services to an out-of-state laboratory with the accompanying loss of control.

### IN-SERVICE TRAINING

Opportunity was afforded to laboratory technicians in the Department and in other laboratories throughout the state to participate in refresher courses. The objective, of course, is more efficient laboratory work throughout the state. In some instances, we have offered training in our laboratories to serologists working in other laboratories throughout the state.

## DEPARTMENT OF HEALTH

## ASSISTANCE TO OTHER LABORATORIES

The Division of Laboratories continued its inspection and evaluation of laboratories approved by the Department for bacteriological and serological examinations. There were 122 laboratories which bear the approval of the Department, as prescribed by the State Sanitary Code.

## MORE REQUESTS FOR SERVICE

The total number of samples submitted to the Chemistry Program alone during the fiscal year was two and one-half times as great as it had been two years before, and a third greater than it had been the previous year.

## PATHOLOGY AND CANCER CONTROL

The Pathology Program continues to work at its avowed objective of making the diagnosis of malignant disease sure, prompt, and a guide to proper treatment. The determination of diagnoses in seminars indicated that pathologists who have been cooperating in our program have developed greater acuity in diagnosis and differentiation of tumors.

## TESTS PERFORMED

More than 300,000 tests were performed in the Serology Program. Thousands of these were premarital tests for syphilis and other thousands were tests for syphilis of prospective mothers as required by law. Hundreds of tests were performed to determine whether parakeets and turkeys had psittacosis.

## Local Health Services

The 570 local boards of health in New Jersey reported that they expended for health services in 1954 the amount of \$6,626,125.41. This averages \$1.31 per capita.

As of June 30, 1955, 76 of the 93 municipalities having more than 10,000 populations had a licensed person to act for them on a full or part-time basis. In the 477 local health units under 10,000 population, only 119 had the services of a licensed health officer or a person eligible under the State Code to serve as executive officer.

The Division of Local Health Services through its four district offices, serves as the channel of communication between local boards of health and the technical and professional consultants of the State Department of Health. The four district staffs were strengthened this year by addition of consultants in medical-social rehabilitation.

The reader is urged to review the detailed reports which follow this summary report to get an idea of the volume of services performed by each district office.

## CENTRAL DISTRICT

Personnel of the Central District carried out a survey of housing conditions in Millstone Township, Monmouth County, which has had far-reaching repercussions. As in previous years, in cooperation with local health officers, District personnel participated in sanitary surveys of the bathing beaches in Monmouth and Ocean Counties prior to the opening of the bathing season. The District staff had a helping hand in the formation of a County Fluoridation Committee in Mercer County and a Coordinating Council for Children and Youth Safety in the same county. The year also saw the establishment of a county public health nursing agency in Burlington with an assist from the Department in the form of a grant-in-aid.

## METROPOLITAN DISTRICT

District staff stimulated development of and participated in the organization of a rheumatic fever prophylaxis sponsored by the Passaic County Heart Association in cooperation with the Department. Tuberculosis case registers were strengthened in Bergen and Passaic Counties. Information pertaining to tuberculosis persons discharged against medical advice from veterans' hospitals is relayed from the Veterans' Administration office through the district office to local boards of health. This offers the opportunity of follow-up to assure care of persons who may be carriers of tuberculosis. Every public water supply in the District was inspected and deficiencies found were corrected. As a result of strong promotion, free anti-rabic clinics were held in several municipalities which had not held them before. More than 25,000 dogs were vaccinated in sixty-seven municipally operated clinics. There was a striking rise in the reported incidence of venereal disease in specific areas of the district.

## NORTHERN DISTRICT

This fiscal year saw development of an operating Homemaker Program in Morris County. For the third straight year, an in-service training program was given for public health nurses in Hunterdon County. More than 900 inspections were made by district personnel relating to environmental sanitation. Certificates of approval were issued to 110 summer camps which complied with sanitary requirements of the camp program. District personnel assumed inspection responsibility for 14 plants under the milk inspection reciprocity program. Six human cases of psittacosis were diagnosed in the district during the year. Several aviaries were quarantined until the situation was satisfactorily remedied. Representatives of every municipality except one

in Sussex County met to plan for a regional dog control program. More than 8,400 dogs were inoculated.

#### SOUTHERN DISTRICT

Food handler training courses were conducted in Millville and for appropriate personnel of the State Colony at Woodbine. Sanitary landfills were established in Millville, Mount Ephraim, and Vineland. An Institute in Maternal and Child Health for all public health nurses in South Jersey was held. It included services for crippled children.

#### GRANTS-IN-AID

Six primary grant-in-aid contracts were entered into with local boards of health under which the Department agreed to pay specified sums to supplement local funds in payment of salaries of public health nurses. Renewal contracts were negotiated with nine local boards of health. In the renewal contracts, Departmental fiscal participation is reduced annually.

At the close of the fiscal year, there were 23 nurses assigned to local service who received part of their remuneration from the State and part from local boards of health and education. There were two others whose entire salary was paid by the State.

#### PUBLIC HEALTH NURSING

Nursing consultation with other programs of the Department and with outside agencies almost doubled during the year as compared with the previous year.

The principle of acceptance of local responsibility for local public health nursing services has been pressed in all districts. Examples cited above demonstrate there is increasing acceptance of this principle both on a municipal and on a county basis.

#### Preventable Diseases

##### ACUTE COMMUNICABLE DISEASE CONTROL

On April 12, 1955, Dr. Thomas Francis, Jr., Director of the Poliomyelitis Vaccine Evaluation Center at the University of Michigan, reported that on the basis of 1954 field experience, the Salk Poliomyelitis Vaccine was 70-90 per cent effective in preventing the paralytic effects of poliomyelitis.

Licensing of the material for interstate commerce as a biological product by the National Institutes of Health followed. Production was begun by six pharmaceutical laboratories. The National Foundation for Infantile Paralysis had gambled that the vaccine would be found effective and had committed

itself to purchase enough to offer vaccine to first, second, third, and fourth grade children in the 1954 field test areas and to first and second grade children generally. Efforts to carry out this program were coordinated by the four District offices of the State Department of Health.

As the program got under way, in certain western states some of the children who were inoculated with the product of one manufacturer were stricken with polio. Since the incidence was greater than would normally be expected by chance, the Public Health Service ordered the entire product of that manufacturer recalled. Subsequently, it ordered a halt to the entire program. More stringent production and testing regulations were required.

Public confidence in the vaccine was shaken. Although approximately 268,000 New Jersey children were eligible to be inoculated, only 71,033 received first inoculations and fewer than that number received second inoculations under the program of the National Foundation for Infantile Paralysis.

#### VENEREAL DISEASE CONTROL

Venereal diseases ranked second among the notifiable diseases for 1954. The total of venereal disease cases reported was the largest in any year since 1949. The most striking feature of 1954 venereal disease morbidity data is the 41 per cent increase in reported syphilis over 1953.

#### Vital Statistics and Administration

The work of this Division is encompassed in ten programs: Departmental Training, Administrative Services, Distribution of Biologics, Examination and Licensing, Board of Barber Examiners, Board of Beauty Culture Control, Fiscal Accounts, Personnel, Vital Statistics Registration, and Public Health Statistics.

An already busy division staff had its work load substantially increased as a result of development of the Salk poliomyelitis vaccine. Administrative Services, Biologics, Fiscal Accounts, and Public Health Statistics were all affected significantly.

Something of the record-keeping activity of the Division is indicated by the fact that the State Registrar has custody of more than 12,000,000 records of births, marriages, and deaths, dating back to 1848.

The Division continued to make a significant contribution in the statistical aspects of the Hunterdon County Survey of Chronic Illness.

### Summary

This report can do no more than highlight the work of the Department and its programs. The reader is urged to read the Division reports which follow to get a more adequate appreciation of work performed and of the status of public health in New Jersey as of the close of the year June 30, 1955.

#### ANNUAL MEETING PUBLIC HEALTH COUNCIL

The annual meeting of the Public Health Council was held on July 12, 1954. The following officers were elected for the fiscal year 1954-55: Dr. Marcus W. Newcomb, Chairman; Mr. Nelson S. Butera, Vice-Chairman; Mrs. Erma T. Dilkes, Secretary.

John J. Cane, D. D. S., of Phillipsburg, was appointed by the Governor and confirmed by the Senate on August 2, 1954, pursuant to enactment of Chapter 158, P. L. 1954, which increased the Public Health Council to eight members and provided that one member shall be a dentist licensed to practice in New Jersey. Mr. Harry N. Lendall was appointed by the Governor and confirmed by the Senate on August 2, 1954, to succeed himself.

The membership of the Public Health Council is as follows:

Name	Address	Expiration of Term
Harry J. Robinson	Union	March 13, 1957
Frederick P. Lee	Paterson	June 30, 1957
Nelson S. Butera	Morristown	May 4, 1958
Kathleen Sletteland	Ridgewood	June 30, 1958
Marcus W. Newcomb	Browns Mills	June 30, 1959
Erma T. Dilkes	Sewell	June 30, 1960
John J. Cane	Phillipsburg	June 30, 1961
Harry N. Lendall	New Brunswick	August 2, 1961

#### ANNUAL CONFERENCE STATE AND LOCAL HEALTH OFFICIALS

The 44th Annual Conference of State and Local Health Officials of New Jersey was held at the War Memorial Building, Trenton, N. J., on March 31 and April 1, 1955. The program follows:

##### FILM SHOWINGS

44th Annual Conference of State and Local Health Officers  
Stage of Main Auditorium—War Memorial Building

THURSDAY, MARCH 31, 1955

9:45 A.M.—“Nurse Midwifery, Education and Practice”

Produced by Maryland State Department of Health. Available from Alpha Film Productions, P. O. Box 5325, Baltimore, Maryland. Cost \$212.00

1:15 P.M.—“Broken Appointment”

Produced by Mental Health Materials Center, 316 W. 57th St., New York 19, N. Y. Cost \$115.60

FRIDAY, APRIL 1, 1955

9:45 A.M.—“Outbreak of Salmonella Infection”—No. M148A. Available on loan from: U. S. Public Health Service, CDC, Chamblee, Georgia

1:15 P.M.—“A Dishwasher Named Red”

Produced and available from: General Pictures Productions, Inc., 621 - 6th Ave., Des Moines, Iowa. Cost \$67.50

THURSDAY, MARCH 31, 1955

9:45 A.M.—Film Showing

Stage of Main Auditorium

10:15 A.M.—Registration in lobby

## DEPARTMENT OF HEALTH

## BALLROOM

10:30 A.M.—*Presiding*—Charles T. Foulk, II, President, New Jersey Health Officers Association

## LOCAL PUBLIC HEALTH ACTIVITIES AND MINIMUM STANDARDS OF PERFORMANCE

The Legal Requirements—Dr. Daniel Bergsma, State Commissioner of Health

Progress Report, Joint Advisory Committee—Frank J. Osborne, Health Officer, East Orange, Chairman

Progress Report, Committee for Municipalities over 50,000—Dennis J. Sullivan, Health Officer, Jersey City, Chairman

Progress Report, Committee for Municipalities 10-15,000—Carl Wendel, Health Officer, Maplewood, Chairman

## CURRENT PUBLIC HEALTH HIGHLIGHTS—

Dr. Daniel Bergsma, State Commissioner of Health

Address—Honorable Robert B. Meyner, Governor of New Jersey

1:15 P.M.—Film Showing

Stage of Main Auditorium

2:00 P.M.—*Presiding*—William H. MacDonald, Director, Division of Local Health Services

A New Perspective on Family Health—Dr. Geoffrey W. Esty, Director, Division of Constructive Health

The Mental Health Aspects of Public Health Nursing—Ruth E. Simonson, Mental Health Nurse Consultant, Public Health Service.

Integrated School and Public Health Nursing at Work—Charles A. Kientz, Jr., Health Officer, North Arlington

## VETERANS ROOM

2:00 P.M.—First Open Session for Registrars and Reporting Officers

Question and Answer Session

*Consultants*

Dr. Marguerite F. Hall, Director, Division of Vital Statistics and Administration

Anna P. Halkovich, Principal Statistician, Division of Vital Statistics and Administration

F. Merton Saybolt, Chief, Bureau of Public Health Statistics, Division of Vital Statistics and Administration

John S. Young, Supervisor of Vital Statistics Registration, Division of Vital Statistics and Administration

4:00 P.M.—Adjournment

## REPORT OF THE STATE COMMISSIONER OF HEALTH 25

FRIDAY, APRIL 1, 1955

9:45 A.M.—Film Showing

Stage of Main Auditorium

10:15 A.M.—Registration in lobby

## BALLROOM

10:30 A.M.—*Presiding*—Dr. Daniel Bergsma, State Commissioner of Health

Methods of Prevention and Diagnosis of Occupational Diseases—

Dr. Miriam Sachs, Chief

E. Lynn Schall, Industrial Hygiene Engineer

Preston C. Shimer, Senior Public Health Engineer, Bureau of Adult and Occupational Health

Recent Scientific Advances Affecting Public Health—Dr. Harry J. Robinson, Associate Director, Merck Institute for Therapeutic Research; Member Public Health Council

## VETERANS ROOM

10:30 A.M.—Open Session—Realty Improvement Act and Regulations

Question and Answer Session

*Consultants*

E. Powers Mincher, Assistant to the Commissioner

John H. Morris, Senior Public Health Engineer, Division of Environmental Sanitation

1:15 P.M.—Film Showing

Stage of Main Auditorium

## BALLROOM

2:00 P.M.—*Presiding*—Frank M. Doughty, Health Officer, Plainfield

## RESTAURANT SANITATION SYMPOSIUM

*Moderator*—Walter D. Tiedeman, Executive Director, National Sanitation Foundation Testing Laboratory, Inc.

Design and Maintenance of Restaurant Equipment—Milton Smith, Director of Operations, Slater Company

Sanitization of Eating Utensils—E. B. Osborn, President, Economics Laboratory, Inc.

Single Service Utensils—Robert Mytinger, Public Health Committee, Paper Cup and Container Institute

Health Department Responsibility—J. Robert Lackey, Assistant Health Officer, East Orange

## DEPARTMENT OF HEALTH

## VETERANS ROOM

2:00 P.M.—Second Open Session for Registrars and Reporting Officers  
Question and Answer Session

## SMALL VETERANS ROOM

2:00 P.M.—Open Session—Demonstration of Tuberculosis Register

William A. Hopper, Acting Program Coordinator

Tuberculosis Control Program

4:00 P.M.—Adjournment

44TH ANNUAL CONFERENCE PLANNED BY ADVISORY COMMITTEE  
ON STATE AND LOCAL HEALTH SERVICES

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

RALPH T. FISHER . . . . . *Assistant Director*  
Division of Local Health Services

CHARLES T. FOULK, II . . . . . *Health Officer*  
Englewood, New Jersey  
President, New Jersey Health Officers' Association

WILLIAM H. MACDONALD . . . . . *Director*  
Division of Local Health Services  
New Jersey State Department of Health

FRANK J. OSBORNE . . . . . *Health Officer*  
East Orange, New Jersey

T. EVERETT ROSS . . . . . *Health Officer*  
Somerville, New Jersey

## LEGISLATION

The following legislation of interest to health officials was enacted by the 1955 Legislature:

S-79, Chap. 168 (Dumont). Permits beauty culture students with over 500 hours training, upon request of head of a State institution, to practice beauty culture, under the supervision of a licensed teacher, upon any person in such State institution; provides for credits to such students toward the completion of the clinical portion of their curriculum.

S-132, Chap. 11 (Hand). Authorizes the county freeholders to admit to the county tuberculosis hospital for segregation and treatment persons suffering from non-tuberculous diseases; authorizes the designation of such hospital as "Hospital for Chest Diseases."

S-217, Chap. 22 (Wallace). Authorizes the county freeholders or municipal governing body to contract, for up to 50 year term, for the affiliation of any public hospital under their control with any corporation licensed in this State to conduct a college of medicine or dentistry and for the sharing of facilities and services.

S-253, Chap. 41 (Jones). Deems any educational institution approved by the State Board of Education and the State Board of Registration and Examination in Dentistry to teach the science of dentistry, to be so authorized by the State Legislature; permits such institution to use the words "college" or "school" in connection with its place where dentistry is taught, practiced or demonstrated.

S-268, Chap. 91 (Farley). Increases penalties for illegal practice of dentistry, from \$1,000 to \$2,000, for the second, and each subsequent, violation of the Dental Practice Act.

S-341, Chap. 69 (Shershin, Lance, Hand, Farley, Dumont, Vogel). Authorizes and directs the Commissioner of Health to purchase and distribute sufficient quantities of poliomyelitis vaccine, in addition to amounts which may be available from Federal grants, to inoculate children under age 20 according to priority groups based upon the relative susceptibility of the various age groups and for whom free vaccine is not available through the auspices of the National Foundation for Infantile Paralysis, or who are unable to pay the cost thereof; authorizes the commissioner to make and enforce rules and regulations relative to same; prohibits violations as disorderly conduct; appropriates \$570,000 to June 30, 1956, for such purpose.

S-372, Chap. 218 (Anton, Dumont, Sharp). Designated the New Jersey Water Supply Bond Act, authorizes \$100,000,000 bond issue for acquiring, constructing and developing the New Jersey Water Supply System, including a reservoir in the vicinity of Chimney Rock, Somerset County; requires referendum at the general election in November, 1955.

S-379, Chap. 234 (Jones). Appropriates \$25,000 to the State Old Age Study Commission, created by Joint Resolution No. 3, approved April 1, 1954 (P. L. 1954, JR 3).

S-382, Chap. 208 (Forbes, Anton, Dumont, Hand, Shershin). Establishes a research and training center, within the Department of Institutions and Agencies, to conduct research in the field of mental deficiency, to train instructors in the care, treatment and training of mentally retarded persons, for the rapid treatment of such persons, and to serve as a resource in training public school teachers in that field; vests management and control functions in the Commissioner of Institutions and Agencies; permits that Department to transfer unused facilities and property, with State House Commission approval, to the purposes of the center; appropriates \$1,500,000 to the purposes of this act.

S-387, Chap. 228 (Dumont). Appropriates sums from the General Treasury for the restoration of facilities damaged by flood waters.

S-391, Chap. 239 (Harper). Authorizes counties or municipalities to make emergency appropriations to meet extraordinary expenses for the repair and reconstruction of county or municipal streets, roads, bridges and other public property by reason of unforeseen damage caused by flood or hurricane; authorizes the issuance of special emergency notes payable in 5 years upon resolution of 2/3 declaring such emergency exists.

SCR-5, Filed with Secretary of State (Dumont). Constitutes an 8 member commission, 4 Senate, 4 Assembly, to consult with leaders of both houses of the Legislature, and other authorities, of Pennsylvania and New York, relative to proposed legislation for utilization of the development and construction of the Wallpack Bend Dam project, or of any other joint project for the utilization by the states, or such of them as are willing to join with New Jersey, of the water supply resources of the Delaware River Valley, to report thereon to the New Jersey Legislature at earliest possible date, but not later than March 7, 1955.

SCR-8, Filed with Secretary of State (Murray). Reconstitutes, and continues membership of the commission created pursuant to SCR-16, 1954, to study and report on, the problem of punishment of sex offenders; requires report on or before February 1, 1956.

SCR-14, Filed with Secretary of State (Shershin). Requests the New Jersey Medical Society to organize the medical profession of the State in the free administration of the Salk anti-polio vaccine provided by the State to the children of the State.

SCR-19, Filed with Secretary of State (Summerill, Anton, Forbes, Dumont). Creates a 6 member bi-partisan commission, 3 Senate, 3 Assembly, to study the desirability and practicability of the establishment of an institution for the care, training and rehabilitation of retarded children to be financed from funds remaining in the Veterans Guaranteed Loan Fund; requires report to the 1955 Legislature.

SJR-2, Chap. JR-2 (Hannold). Designates week of March 6th to 12th as "Save Your Vision Week."

SJR-7, Chap. JR-10 (Dumont, Farley, Hand, Stout, Vogel). Commends Dr. Jonas E. Salk for his outstanding contribution to the health of the world; recommends that an appropriation be made for the purchase of Salk vaccine as soon as more complete information concerning the availability of that product and possible Federal regulations concerning same become known.

SJR-10, Chap. JR-17 (Anton). Creates a 9 member commission, 3 each appointed by the President of the Senate, the Speaker of the Assembly, and the Governor, to study the causes for the lack of an adequate supply of decent, safe and sanitary housing in the State for middle income families for purchase or rent at prices such families can afford, to review existing legislation relative thereto, and to make recommendations for a solution, requires report to the 1956 Legislature; appropriates \$5,000 for such purposes.

A-3, Chap. 58 (Maebert). Requires all professional nurses to be licensed to practice, after September 1, 1956.

A-45, Chap. 46 (Dwyer). Authorizes and empowers Interstate Sanitation Commission to study smoke and air pollution in areas of New York and New Jersey and to recommend a program for control; appropriates \$30,000 to defray costs of study; requires report to Governor and Legislature; effective when New York enacts similar legislation and appropriation.

A-112, Chap. 249 (Newton). Requires the State, or local registrars, when furnishing birth or marriage certificates where a legal change of name has taken place, to show only the new name, unless a court of competent jurisdiction orders the issuance of a copy of the original.

A-179, Chap. 133 (Perfette). Authorizes the commissioner of registration to register voters, who are chronically or incurably ill or totally incapacitated and unable to attend a place of registration, at their place of residence or confinement, upon physician's affidavit certifying such fact, and to that place that person is mentally competent.

A-198, Chap. 34 (Haines). Prohibits the possession, in addition to the hunting, pursuing, capturing, killing, injuring or destroying, of any female English or ringnecked pheasant; prescribes \$20 penalty.

A-283, Chap. 122 (Newton). Authorizes the freeholder board in 2nd class counties in which there is no board of managers for the county communicable diseases hospital, to designate the board of managers and the superintendent of the county tubercular sanitarium as the board of managers and the superintendent of the county communicable diseases hospital.

A-386, Chap. 25 (Barnes). Provides that a free public school pupil who presents a statement, signed by his parent or guardian, that a medical examination interferes with the free exercise of his religious beliefs, shall be examined only to the extent necessary to determine whether he is ill or infected with a communicable disease, or to determine fitness to take part in the health, safety and physical education course required by R. S. 18:14-93.

A-393, Chap. 277 (Barnes, Kurtz). Prohibits as disorderly conduct the possession of or the selling, or giving to any person other than a licensed physician, dentist, veterinarian, undertaker, nurse, pediatrician, registered pharmacist, or hospital sanitarium, clinical laboratory or other medical institution or regular dealer in medical, dental or surgical supplies, a hypodermic syringe, needle or instrument for the use of narcotic drugs by injection without written prescription of a physician, dentist or veterinarian; requires prescription contain specific information and be retained for 2 years; requires such prescription be void after 6 months.

A-396, Chap. 112 (Mills). Authorizes township sewerage commissioners to enter into a contract with any body politic outside of its boundaries, permitting such political unit to use the sewerage system and disposal works maintained by such commissioners; requires such contracting body install and maintain its own connecting facilities.

A-466, Chap. 89 (Beadleston). Eliminates the requirement that 5 old school, 1 eclectic, and 3 homeopathic physicians shall be included among the 9 physician members of the State Board of Medical Examiners.

A-595, Chap. 219 (Beadleston, Salsburg, Waddington). Designated the "New Jersey Water Supply Law" establishes a 5 member bi-partisan New Jersey Water Supply Board in the Division of Water Policy and Supply, Department Conservation and Economic Development, to be appointed by the Governor with Senate advice and consent, to acquire and operate the New Jersey Water Supply System, including a reservoir in the vicinity of Chimney Rock, Somerset County, and to increase on a regional basis the dependable yield of existing water supply systems; specifies powers, duties and functions of the Board and methods of financing such projects; inoperative until the "New Jersey Water Supply Bond Act" (S-372) is approved by the voters at a general election.

ACR-19, Filed with Secretary of State (Haines). Re-establishes and reconstitutes the commission created by ACR-23 (1953) and reconstituted by ACR-4 (1954), to study the problem of drainage and stream clearance.

ACR-26, Filed with Secretary of State (Haines, Rutherford). Memorializes the Secretary of Agriculture of the United States to exclude from the call for any hearing relative to the production and marketing of milk any proposals which would extend the marketing area of any proposed orders beyond the State.

ACR-27, Filed with Secretary of State (Barnes, Hyland). Commends Doctor Jonas E. Salk for the outstanding contribution he has made to the health of the world; declares the Legislature prepared to provide the necessary appropriation for the purchase and distribution of the Salk vaccine pursuant to the regulations of the State Department of Health.

AJR-3, Chap. JR-1 (Savage). Designates month of April as "Cancer Control Month" in New Jersey.

AJR-4, Chap. JR-3 (Beadleston, Mills, Bowkley). Creates a 7 member bi-partisan Legislative Commission on Water Supply, 3 each from Senate and Assembly, 1 from general public appointed by Governor, to study State water resources facilities including Wharton, Round Valley, and Delaware River Valley water supply projects, and all other such projects and to report to the Legislature, on or before August 1, 1955, with its recommendations; authorizes the Commission to engage services of specialists; appropriates \$200,000 to purposes of study.

AJR-17, Chap. JR-5 (Dwyer). Designates the month of May as "Cerebral Palsy Month" in New Jersey.

The following bills of interest to health officials were introduced in the 1955 Legislature, but did not become laws:

S-8 (Hand). Authorizes the Interstate Sanitation Commission to study smoke and air pollution in the New York and New Jersey metropolitan areas and the problems caused thereby; requires report and recommendations for smoke and air pollution control program to Governor and the Legislature on or before February 1, 1956; appropriates \$30,000; effective when New York State enacts similar legislation.

S-22 (Anton, Hand, Shershin). Provides for referendum as to issuance of \$85,000,000 face value, State "North and South Jersey Water Supply Bonds" to provide for acquisition, construction, operation and maintenance by the North Jersey District Water Commission of the Round Valley Water Supply System, and by the South Jersey Water Supply Commission of the Wharton Water Supply System; pledges net revenues from operation of said systems and from Corporation Business Tax Act (P. L. 1945, c. 162) for payment of principal and interest.

S-23 (Anton, Hand, Shershin). Designated "North and South Jersey Water Supply Law," authorizes the existing North Jersey District Water Supply Commission as the agent of the State to acquire, construct, operate and maintain the Round Valley Water Supply System, and creates the South Jersey District Water Supply Commission to exercise the same functions in respect to the Wharton Water Supply System for South Jersey water supply district; effective upon enactment and approval by voters at referendum of act authorizing \$85,000,000 bond issue for such purposes.

S-33 (Shershin). Prescribes a \$50 annual fee for egg breaking business licenses; effective July 1, 1955.

S-34 (Shershin). Regulates the candling of eggs and candling, sale, disposition and packaging of inedible eggs; requires license at annual fee of \$10.00; defines "inedible eggs;" prescribes penalties for violations; effective July 1, 1955.

S-35 (Shershin). Requires containers of unbroken eggs removed from incubator to be used for biological, scientific or experimental purposes, other than for human consumption, be plainly and legibly marked on at least 2 sides with the words "inedible eggs;" increases penalties to \$500-\$1,000 or imprisonment up to 60 days for violations; effective July 1, 1955.

S-44 (Hannold). Excepts from provisions of Pharmacy Law regulating the sale of medicinal items, specified compounded packaged drugs, medicines and non-bulk chemicals sold under trade names and bearing labels containing specified information relative to its purposes, directions for use, quantity, ingredients and identity of manufacturer or distributor; also excepts sales of drugs, medicines and non-bulk chemicals for animal or poultry use or for use in feeding stuffs.

S-45 (Hillery). Authorizes municipalities to create a Conservation Authority and Board of Commissioners to institute Neighborhood Conservation Plans for prevention and elimination of slum and blighted areas, to issue bonds, to acquire, rehabilitate and dispose of property, and to require property owners to make repairs and improvements necessary to protect public health, safety and morals.

S-70 (Vogel). Requires applicants for veterinary licenses to have a diploma from a veterinary college or university in good standing, and to have studied at least 4 school years, including 4 courses of lectures, of at least 8 months each, including instruction in veterinary medicine, surgery and dentistry.

S-90 (Mathis, Vogel, Dumont). Admits to examination for license to practice medicine and surgery, applicants with degree of doctor of medicine after completing 4 year course of study, with 1 year's internship in approved hospital, and with service as resident physician for 5 years in New Jersey hospitals, or for 3 years in New Jersey hospitals and as practicing physician in another state for 7 years, or with the medical corps of the armed services for 2 years after December 7, 1941.

S-94 (Vogel). Authorizes State Health Commissioner to issue veterinary meat inspector license upon payment of \$20 fee.

S-97 (Vogel). Authorizes municipal health officer to certify cases of mental deficiency or epilepsy, reported to the State, directly to the municipal disbursing officer in order to obtain 10 cent fee for each such case reported; repeals provisions (R. S. 26:5-7,8) requiring State official certify such number of reported cases; effective October 1, 1955.

S-107 (Anton, Shershin). Authorizes the North Jersey District Water Supply Commission as agent for the State to acquire the Round Valley Water Reservoir site in Hunderdon County for the purpose of developing water supply for sale to the municipalities; appropriates \$3,000,000 out of the Veterans Loan Guaranty and Insurance Fund, in excess of the total guaranteed loans outstanding, for such acquisition; provides that areas acquired be available for public recreation, fishing and boating use.

S-150 (Dumont). Requires common carriers of passengers and freight having station or office facilities in State provide and maintain specified adequate sanitary facilities for the health and comfort of their employees.

S-187 (Shershin, Anton, Hand). Appropriates \$3 million to the State House Commission from amounts in the veterans Loan Guarantee and Insurance Fund in excess of the total amounts of guaranteed or insured loans outstanding, for the creation of the "Municipal Water Supply Loan Fund" to provide the municipalities with funds for the planning and acquisition of a water supply area in the State.

S-208 (Stout). Designated the County Water Commission Act, authorizes counties to create county water commissions to construct and acquire water supply systems and to purchase water from public or private water supply systems; specifies powers, duties and functions of such commissions.

S-214 (Shershin, Anton, Hand). Authorizes an \$85 Million Municipal Water Supply Loan Bonds issue to provide loans to municipalities for acquiring, developing, and constructing water supply systems having minimum daily capacity of 25 million



gallons, and to increase the water supply of the State; appropriates revenues from the corporation franchise taxes (P. L. 1945, c. 162) to finance same and requires any deficit be paid from increased property taxes; requires a referendum at the general election in November, 1955.

S-281 (Lance). Authorizes and directs the Commissioner of Health, State Department of Health, to purchase as soon as available, sufficient Salk antipolio vaccine to inoculate all children of the State between the ages of 1 and 10 and for whom free vaccine is not available through the auspices of the National Foundation for Infantile Paralysis; requires same be made available for free distribution to children whose parents desire same; appropriates \$2,000,000 for such purpose.

S-284 (Shershin). Authorizes and directs the Commissioner of Health, State Department of Health, to purchase, as soon as available, Salk antipolio vaccine for free distribution to children between the ages of 1 and 21 years; authorizes the Commissioner to prescribe rules and regulations relative thereto; appropriates \$300,000 for such purpose.

S-285 (Dumont, Farley, Forbes, Hand). Prohibits as a misdemeanor the selling, offering for sale or possession with intent to sell Salk antipolio vaccine by any person other than a manufacturer, wholesaler, physician, pharmacist or hospital; prescribes maximum penalties of \$5,000 fine or 2 years imprisonment.

S-292 (Lane, Shershin). Authorizes and directs the Commissioner of Health, State Department of Health, to purchase as soon as available, sufficient Salk antipolio vaccine to inoculate all children of the State between the ages of 1 and 10 and for whom free vaccine is not available through the auspices of the National Foundation for Infantile Paralysis; requires same be made available for free distribution to children whose parents desire same; appropriates \$500,000 for such purpose.

S-317 (McCay). Establishes the State Offices Building Fund, in the State Treasury, and appropriates \$6¼ million therefrom for the erection, furnishing and equipping of new office buildings for the Departments of Health, Law and Public Safety and Education; directs the State Treasurer to transfer \$4 million from the Veterans Guarantee Loan Fund, and \$2½ million from the proceeds of the sales of Permanent Veterans Emergency Housing to such fund; effective July 1, 1955.

S-356 (Smith). Requires each county have a 6 member county board of beauty culture, appointed by the freeholders for 3 year terms, to have exclusive power to enforce the provisions relative to the practice of beauty culture; specifies qualifications and duties; effective July 1, 1955.

S-375 (Summerill). Extends the cooperation of the State of New Jersey to the United States project of improving the Delaware River between Allegheny Avenue, Philadelphia, Pennsylvania, and Trenton Marine Terminal, Trenton; appropriates \$50,000 from the Department of Conservation and Economic Development to compensate property owners affected.

S-397 (Shershin, Lance, Hand, Farley, Dumont, Vogel). Prohibits the denial of poliomyelitis vaccination to a child for any reason whatsoever.

S-407 (Wallace). Abolishes all county health boards, and requires that the vital statistics kept by such boards be delivered to the respective county clerks.

SCR-1 (Dumont). Constitutes an 8 member commission, 4 Senate, 4 Assembly, to consult with leaders of both houses of the Legislature, and other authorities, of Pennsylvania, relative to proposed legislation for utilization of the development and construction of the Wallpack Bend Dam project, or of any other joint project for the utilization of the two States of the water supply resources of the Delaware River Valley,

to report thereon to the New Jersey Legislature at earliest possible date, but not later than March 7, 1955.

SCR-16 (Murray). Requests the Commissioner of Health, State Department of Health, to study the possible effects that may result from the lack of a complete supply of the Salk antipolio vaccine and to submit his recommendations to insure an equitable distribution of such vaccine, to the Governor and Legislature within 1 week from the date of passage.

A-17 (Maebert). Designated "Physical Therapists Practice Act," creates a Board of Registration and Examination of Physical Therapists to regulate practice of physical therapy, prescribe qualifications for and examine applicants for registration; requires practice of physical therapy by written prescription only and under direction and supervision of physician; requires records of treatment be kept for at least 5 years; prescribes penalties for violations.

A-18 (Maebert). Requires employment of a full-time nurse in school districts with average daily attendance over 1,000; requires salary be fixed in accordance with teachers' salary schedule where such nurse holds a State certificate; effective July 1, 1955.

A-22 (Marryatt). Authorizes optometry board to revoke or suspend the optometry license of a person practicing optometry in an office not exclusively devoted to the practice of optometry and where material or merchandise pertaining to a business unrelated to optometry are displayed, or of a person practicing optometry upon a lease basis of compensation; prohibits unlicensed person from practicing optometry by engaging services of licensed optometrist on a lease basis; operative 6 months after effective date.

A-23 (Marryatt). Prohibits the sale of ready-made eyeglasses or spectacles without prescriptions; permits duplications, replacements, reproductions or repetitions of ophthalmic lenses by licensed ophthalmic dispensers, optometrists or physicians, without prescriptions; operative 60 days after effective date.

A-32 (Mosch). Authorizes North and South Jersey Water Supply Bonds totaling \$85,000,000 to finance costs of 2 water supply systems to be known as the Round Valley Water Supply System and the Wharton Water Supply System for purposes of increasing the water supplies of the State; provides for financing from revenues from the operation of the water supply systems, from the revenues from the Corporation Business Tax Act (P. L. 1945, c. 162), and increased real and personal property taxes if needed; provides for referendum at general election in November, 1955.

A-33 (Mosch). Directs the North Jersey District Water Supply Commission, as agent for the State, subject to the approval of the State House Commission, to acquire the Round Valley Water Supply area in Hunterdon County; appropriates \$3,000,000 out of Veterans Loan Guaranty and Insurance Fund, in excess of total guaranteed loans outstanding; provides that areas acquired shall be available for public recreation, fishing and boating.

A-40 (Dwyer, W. R. Vanderbilt). Provides that any person who operates a motor vehicle in the State shall be deemed to have given his consent to a chemical analysis for the purpose of determining the alcoholic content of his blood; authorizes Director of Motor Vehicles to revoke the driver's license or reciprocity driving privilege of any driver who is arrested and who refuses to submit to such chemical test when police have reason to believe that he is driving while under the influence of intoxicating liquor.

A-44 (Maebert). Prohibits the unlicensed practice of nursing when performed for compensation after September 1, 1956, and the unlicensed practice of practical nursing without a license after September 1, 1957; excludes specified categories of trainees, aides, attendants, orderlies, helpers, qualified out of state nurse, U. S. government employees and free home care.

A-51 (Bianco). Authorizes the seizure as unlawful property by law enforcement officials of any vehicle owned or operated by any person found in unlawful possession of any narcotic drug while operating said vehicle.

A-54 (Mintz). Provides that any person operating a motor vehicle within the State shall be deemed to consent to chemical analysis of breath, blood or saliva for the purpose of determining the alcoholic content of his blood; provides for license revocation upon refusal to submit to such analysis, with opportunity for hearing.

A-62 (Musto). Authorizes municipalities to regulate and license the use, maintenance and operation of rented furnished apartments and rooms.

A-63 (Musto). Provides that any person who operates a motor vehicle in the State shall be deemed to have given his consent to a chemical analysis for the purpose of determining the alcoholic content of his blood; authorizes Director of Motor Vehicles to revoke the driver's license or reciprocity driving privilege of any driver who is arrested and who refuses to submit to such chemical test when police have reason to believe that he was driving while under the influence of intoxicating liquor.

A-221 (Bowser). Creates 7 member State Board of Psychological Examiners of New Jersey to be appointed by Governor; requires examination, certification and registration of psychologists; prescribes qualifications and requirements; fixes \$25 examination fee; prescribes penalties; effective July 1, 1955.

A-243 (Glenn). Increases license fees for stores selling milk from \$1 to \$5, for processors from \$250 to \$325, for subdealers from \$10 to \$15 per route, for dealers selling out of the State, or engaged only in manufacturing, from \$25 to \$75, and for milk dealers in specified amounts, depending upon monthly average quantity of milk sold; appropriates \$80,000 from license revenues; effective April 1, 1955.

A-247 (Brady). Designates a manufacturer or vendor of toys or furniture painted with lead paint, and intended for use of children under 5, as a disorderly person.

A-268 (Kraus). Authorizes county freeholders, in counties between 400,000 and 600,000 population to create and appoint a non-salaried occupational therapy commission for the county and to prescribe its size, powers and duties, with particular reference to serving the needs of the aged pensioners and inmates of the county.

A-289 (Lazzio). Authorizes the board of beauty culture control in the Bureau of Examination and Licensing, Department of Health, to compromise any penalty for violations of the provisions relative to the practice of beauty culture, in an amount equal to the license fee paid or payable by the person violating such provisions.

A-310 (Lazzio). Permits any corporation or company operating a waterworks in any municipality in the State for over 10 years, although not organized for such purpose, which has made reports of its operations relative to such waterworks to the Public Utilities Board, to apply to said Board for permission to continue the operation of such waterworks.

A-312 (Lazzio). Permits any company organized for the purpose of constructing, maintaining and operating a waterworks in any municipality and which fails to commence the construction of its proposed waterworks within 6 months after its organization or to complete same within the required time, to apply to the Public Utilities Board for permission to proceed with such construction, notwithstanding that its charter may have been revoked for nonpayment of taxes, provided same are paid.

A-343 (Musto). Permits municipal health officers, or other authorized municipal representatives, to enter upon privately owned lands for the purpose of removing poison ivy, ragweed, or other pollen bearing weeds deleterious to public health; prohibits refusal by land owner of permission for such entry under penalty between \$10 and \$100.

A-360 (Field). Authorizes any legally incorporated and approved Humane Society, to enforce prohibitions against cruelty to animals.

A-389 (Mills). Requires every employer having more than 75 persons in his employ to provide adequate medical care or attention for all injuries arising during such employment; requires establishments having under 200 employees to have a full time registered nurse, establishments over 200 employees to have a full time licensed physician; effective October 1, 1955.

A-395 (Barnes, Kurtz). Places the permanent commission on narcotics control, created by P. L. 1953, c. 449, in the Department of Law and Public Safety.

A-399 (Smith). Authorizes State licensed sanitary inspectors of the 1st and 2nd class to issue and serve a summons returnable to the municipal court, upon any person chargeable with violation a health law or ordinance or with an unsanitary substandard condition of premises.

A-405 (Junda, Mosch). Requires the licensing of artificial weather modifiers; defines same with respect to controlling and changing of weather phenomena; creates a 7 member Examining Board of Artificial Weather Modifiers, appointed by the Commissioner of Conservation and Economic Development, to examine applicants; prescribes license qualifications, fees and penalties; permits Commissioner to promulgate regulations.

A-412 (Field). Requires the State and counties share equally the cost of maintaining indigent patients in State and county tubercular hospitals.

A-432 (Barnes, Kurtz). Prohibits the probation or the suspension of sentence of any regulations (R. S. 24:18-47); specifies procedure for determining such fact prior to person convicted for a 2nd or subsequent time of violations of the narcotic drug sentencing.

A-442 (R. A. Vanderbilt). Eliminates the requirement that optometrists renew registration when changing their address; eliminates the requirement for branch office registration certificates; permits the display of eyeglasses, lenses and optometric instruments or advertising in offices; eliminates the required minimum examination of patient prior to providing eyeglasses; requires a 3 year interval between successive terms of the members of the Board of Optometrists; requires any hearings relative to violations be held in the county where the person charged was known to practice.

A-459 (Bowser). Prohibits the use of portable liquid fuel space heaters in dwellings, stores or places of business; requires such heaters be vented by masonry chimney or metal vent and have a connected fuel storage tank; prescribes penalties of \$100 or 60 days imprisonment; effective July 1, 1956.

A-464 (Barnes). Requires the State to pay specified hospital, medical and surgical expense benefits to all persons holding office, position or employment in the State service.

A-497 (Musto, Jamieson). Authorizes and directs the Commissioner of Health, State Department of Health, to purchase as soon as available, sufficient Salk antipolio vaccine to inoculate all minors in the State between the ages of 1 and 21 years and for whom free Salk antipolio vaccine is not available from the National Foundation for Infantile Paralysis; appropriates \$3,000,000 for such purpose.

A-521 (Lazzio). Permits persons not registered as optometrists to own establishments where ophthalmic dispensing is carried on, and to employ registered optometrists to practice optometry therein, provided such establishment is at all times in charge of a licensed optometrist or physician who shall not be under the supervision, control or direction of such proprietor contrary to the law, or board rules and regulations; authorizes persons licensed to practice medicine or surgery to practice optometry.

A-524 (Lazio). Provides that no provisions of R. S. 45:12, governing the licensing of optometrists, shall be taken to interfere with, or prohibit, the continued ownership and operation by any person or corporation of an establishment where licensed optometrists were otherwise lawfully employed, as of December 7, 1954, to practice optometry or to engage in ophthalmic dispensing.

A-542 (Bowser). Requires persons practicing trichology, or operating a school for the training of trichology technicians, defined as the science relative to the human hair and scalp, and the diagnosis and treatment of diseases thereof, to obtain a license therefor, upon examination, from the Board of Beauty Culture Control, Department of Health, specifies qualifications, \$25 examination fee, and annual license fee of \$5 for an individual and \$50 for a technician school; requires board of beauty culture control consist of 8, instead of 6 members and that a licensed physician and a practicing trichology technician be members; effective January 1, 1956.

A-558 (Lazio). Requires applicants for an examination, original registration certificate or license as an operator to practice beauty culture have completed 2 years of high school or the equivalent, instead of being an eighth grade graduate; effective July 1, 1955.

A-559 (Hyland). Establishes within the Department of Institutions and Agencies a research and training center to include the existing facilities comprising the Bordentown Manual Training and Industrial School for Youth, to promote research and development in the care, treatment, training and prevention of mental disabilities, and to serve as a resource to the Department of Education in the training of persons qualified to teach mentally retarded children; appropriates \$1½ million for such purpose; effective July 1, 1955.

A-566 (Field). Authorizes sewerage districts in 1st and 2nd class counties to issue by resolution bonds up to 15%, instead of 10%, of the assessed valuation of the real property, including improvements, in the municipalities which have signed contracts with such authority, plus the amount of the proceeds of the bonds authorized by such resolution and any monies required to be applied to the purchase, refunding or payment of the principal of bonds outstanding.

A-576 (Ozzard). Permits applicants to take examination to practice medicine and surgery who do not meet specified educational requirements, and who because of naval or military service were unable to appear before the board for examination prior to January 31, 1955; presently limited to such persons unable to appear prior to July 1, 1919.

A-605 (Barnes). Permits the leader of an Ethical Society or Ethical Cultural Society affiliated with the American Ethical Union, to solemnize marriages.

AR-2 (Ozzard). Creates a commission of 3 members of the General Assembly, 1 each from Union, Morris and Somerset Counties, to confer with the freeholder boards of those counties, and other county officials, authorities, and interested groups or persons, for the purpose of studying immediate water shortages, inadequacy of water storage facilities, and solutions to the common water supply problems, of the three counties.

AJR-1 (Lazio). Creates 7 member Blue Cross Hospital Service Plan Commission, 3 appointed by Governor, 2 Senate, 2 Assembly, to investigate the Hospital Service Plan of New Jersey, also known as the Blue Cross Hospital Service Plan, relative to the reasonableness of costs of operation and rates charged policyholders.

AJR-28 (Bowkley, Jamieson). Creates a 9 member Flood Relief Indemnity Study Commission, 3 each appointed from Senate and General Assembly, 3 appointed by the Governor, to study the subject of providing by law for indemnity to persons suffering and sustaining damage from floods.

## Division of Chronic Illness Control

### State Department of Health

ANNUAL REPORT 1954-55

<i>Director</i> .....	MARIAN R. STANFORD, M. D.
<i>Director of Medical Research</i> .....	WILLIAM J. DOUGHERTY, M. D., M. P. H.
<i>Program Coordinators</i>	
Alcoholism .....	WILLIAM J. HARRIS
Cancer .....	STELLA BOOTH, M. D.
Chronic Diseases .....	ARTHUR KROSINICK, M. D.
Heart Disease .....	BENJAMIN K. SILVERMAN, M. D.
Tuberculosis .....	WILLIAM A. HOPPER, (Administrative Secretary)
<i>Consultant in Medical Social Rehabilitation</i> ....	LEONORA B. RUBINOW
<i>Public Health Nurse Consultants</i>	
(Assigned from Bureau of Public Health Nursing) .....	JANE COOK, R. N. ELIZABETH HARRIS, R. N.

## Division of Chronic Illness Control

In all phases of public health signs point to a growing realization that those programs best serve the public interest which are the result of coordinated planning and execution by all interested health and welfare agencies and citizen groups. Efforts have been made during the past year to build this philosophy more firmly into all activities of the Division of Chronic Illness Control.

Because chronic illness control is relatively new as an organized project of health departments, it is hoped that leadership can be given in "working together" and "sharing together" in this area where lines of authority and tradition are not as firmly entrenched as in some types of public health work. There is also an awareness of the need for Division personnel to be thoroughly informed regarding the programs of other and, in most instances, older established agencies, to avoid duplication of efforts.

To this end meetings and conferences have been held with personnel of other State departments, particularly Institutions and Agencies, Education, and the Rehabilitation Division of the Department of Labor and Industry; with interested voluntary organizations such as the State Nursing Associations, social work groups, health organizations concerned with tuberculosis, heart disease, cancer and epilepsy; community welfare organizations; county and State Medical Society officials, hospital administrators, and many others.

On the national level, and on recommendation of the Association of State and Territorial Health Officers, a Committee on Chronic Illness has been appointed, composed of persons administering chronic illness programs in various states and representatives of the Public Health Service. The Director of the Division will serve on this Committee, which has one meeting scheduled for July 11, 1955, and has made preliminary arrangements for a meeting in the fall of representatives of all State Health Departments for exchange of ideas and clarification of program goals of the official health department.

It appears that New Jersey is more advanced than other State Departments of Health in having a functioning chronic illness unit within its structure. The Chronic Illness Act of 1952 which created the Division will, no doubt, serve as a guide to many other States. Many requests for details of our programs and prepared materials have been received from this country and other countries.

## INTEREST DEVELOPS IN GERIATRICS AND REHABILITATION

In such broad and rapidly developing fields as rehabilitation and geriatrics, it is particularly obvious that no one agency can meet the problems. The appointment by the Governor, of the New Jersey State Old Age Study Commission is a recognition of the broad scope of the problems posed by the increased number of older people in the population. The Director of the Division, representing the Commissioner of Health, has participated in the meetings of the Study Commission. Its findings will assist the Division in program planning.

An accumulative upsurge of interest in rehabilitation is noted, so great that the term "rehabilitation" seems to have taken on magic qualities. Services set up originally to meet certain specific medical needs are being referred to as "rehabilitation services" even though they still provide a rigidly limited form of help. It seems timely, therefore, that the first demonstration of a comprehensive rehabilitation program has been undertaken by the Board of Freeholders of Essex County in the Essex County Hospital-Belleville, with assistance from this Division. Officially inaugurated May 1, 1955, it has received very favorable comments and several other counties are becoming interested in assistance from this Division for the purpose of shifting hospital programs from a custodial to a rehabilitation emphasis. One of the major goals toward which this Division will continue to work is the re-direction and strengthening of existing community facilities to provide rehabilitation based on the total needs of the individual in his family and community setting, with emphasis on the newer thinking that the individual's capabilities rather than his disabilities should be considered. Restoration of capabilities and plans for rehabilitation should begin at the time of diagnosis in the general hospital.

Other examples of undertakings of the past year are listed as an indication of the trend toward coordinated efforts: (1) a one-day Institute for operators of nursing homes on the subject of Nutrition, which was planned by a committee of the State Department of Institutions and Agencies and the State Department of Health; (2) participation in an Interdepartmental Committee on Housing with representatives of the State Department of Institutions and Agencies, State Department of Labor and Industry, State Department of Conservation and Economic Development, State Department of Education, the State Department of Law and Public Safety; (3) participation in Interdepartmental Committee of the State Departments of Education and Health; (4) assistance in planning several county heart institutes sponsored by county heart and tuberculosis associations and in planning rheumatic fever programs in local hospitals; (5) consultation service was given with the local Council of Social Agencies, in a study of facilities for rheumatic fever patients in Essex County, resulting in a decision that the number of institu-

tional beds for children could be reduced and thus free one of two private institutions for community service in other fields.

## DEMONSTRATION PROJECTS

As in the past, efforts of the Division have centered around the promotion of local services to detect chronic disease or incipient disease and to institute methods of control as early as possible. This has been done on a demonstration basis through grants-in-aid to local facilities, public and voluntary, for the establishment of specific services. The method of encouraging local agencies, usually community hospitals, to initiate programs by providing financial assistance through grant-in-aid contracts seems to be an effective way of gaining community interest in providing services. The contract which is entered into, clearly indicates that the financial assistance given by the State is temporary. The contract also places responsibility upon the local agency at the onset for the operation of the program. Services far in excess of the actual expenditures from state funds have been provided for the people by this method of aiding local agencies already operating a service to the public. A list of the grant-in-aid contracts which were in force during all or part of the fiscal year follows (Table I) as a means of indicating the type of activities being demonstrated throughout the state.

Negotiating demonstration projects for the ensuing year also has been a time consuming activity of the Division. As of July 1, 1955 contracts will be in effect with seventeen general hospitals, three special hospitals and two other agencies in a total amount of \$147,000. (Table II.) By October 1, 1955, it is anticipated that preliminary negotiations for three additional contracts will be completed in the amount of \$12,500. This will bring the total number of agencies to twenty-five which are under contract with this Department to render chronic illness control services to the public, and in a total amount of \$159,500.

In addition to the grants-in-aid, which for the most part have covered salaries for technical personnel, the Division has continued to lend scientific equipment (Table III) to some of the hospitals for screening tests, for newly developed, complex diagnostic procedures, and for physical therapy. Without such assistance in demonstrating new methods and techniques, many years might elapse before the people of the community could be convinced of their value or benefit from their use.

Statistics are incorporated in succeeding pages of this report as evidence of benefits accruing to those persons who have received services through demonstration projects. Two developments are mentioned here in support of the grant-in-aid method of promoting local chronic illness services; (1) whereas in the past local agencies were often resistant to offers of assistance,

enough requests have come voluntarily this year to shift the problem from one of "selling" to one of selecting suitable agencies for a demonstration within the limits of the funds available; (2) in the negotiations for the renewal of contracts for the year 1955-56, local agencies amortized 8.8 per cent of the annual total amount of the contracts for the current year. Many of the programs were too new to have demonstrated results and amortization was not expected. Willingness to assume financial responsibility is a definite measure of acceptance of the value of the program. To the extent that the local hospital or other agency will and can finance the program, funds are released for state assistance elsewhere.

TABLE I

## GRANT-IN-AID CONTRACTS 1954-55

(Name of Agency and Type of Service)

ENGLEWOOD HOSPITAL:	Diagnostic and consultation service for convulsive disorders.
ESSEX COUNTY HOSPITAL, BELLEVILLE:	Comprehensive rehabilitation program.
ESSEX COUNTY SERVICE FOR THE CHRONICALLY ILL, EAST ORANGE:	Homemaker program.
FITKIN MEMORIAL HOSPITAL, NEPTUNE:	Routine chest X-ray of in-patients, out-patients and hospital personnel.
HUNTERDON MEDICAL CENTER, FLEMINGTON:	Routine chest X-ray of in-patients, out-patients and hospital personnel. Screening tests for cancer. Screening tests for diabetes. Diagnosis and prophylactic treatment of rheumatic fever. Medical social services.
McKINLEY MEMORIAL HOSPITAL, TRENTON:	Rehabilitation service for alcoholics. Routine chest X-ray of in-patients, out-patients and hospital personnel. Diagnosis and prophylactic treatment of rheumatic fever.
MONMOUTH MEMORIAL HOSPITAL, LONG BRANCH:	Routine chest X-ray of in-patients, out-patients and hospital personnel.
MORRISTOWN MEMORIAL HOSPITAL:	Diagnostic and consultation service for convulsive disorders.
NEWARK EYE AND EAR INFIRMARY:	Evaluation and correction of hearing and speech defects.

## N. J. HOSPITAL ASSOCIATION, TRENTON:

Training program for teachers of nursing aides.

## PASSAIC GENERAL HOSPITAL:

Diagnosis and prophylactic treatment of rheumatic fever.

## PATERSON GENERAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## ST. FRANCIS HOSPITAL, TRENTON:

Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Diagnostic and consultation service for convulsive disorders.

## ST. MARY'S HOSPITAL, PASSAIC:

Routine chest X-ray of in-patients, out-patients and hospital personnel.

## ST. MICHAEL'S HOSPITAL, NEWARK:

Rehabilitation service for alcoholics.  
Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Medical social services.

## SALEM MEMORIAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## WEST JERSEY HOSPITAL, CAMDEN:

Rehabilitation service for alcoholics.  
Routine chest X-ray of in-patients, out-patients and hospital personnel.

TABLE II

## GRANT-IN-AID CONTRACTS

NEGOTIATED AS OF JUNE 30, 1955 FOR THE YEAR 1955-56

(Name of Agency and Type of Service)

## BERGEN PINES HOSPITAL, PARAMUS:

Rehabilitation service for alcoholics.

## BOARD OF FREEHOLDERS, MIDDLESEX COUNTY (county program includes the county and three general hospitals):

Rehabilitation service for alcoholics.

## ELIZABETH GENERAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## ENGLEWOOD HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## ESSEX COUNTY HOSPITAL, BELLEVILLE:

Comprehensive rehabilitation program.

## ESSEX COUNTY SERVICE FOR THE CHRONICALLY ILL, EAST ORANGE:

Homemaker program.

## FITKIN MEMORIAL HOSPITAL, LONG BRANCH:

Routine chest X-ray of in-patients, out-patients and hospital personnel.

## HUNTERDON MEDICAL CENTER, FLEMINGTON:

Routine chest X-ray of in-patients, out-patients and hospital personnel.

Screening tests for cancer.

Screening tests for diabetes.

Diagnosis and prophylactic treatment of rheumatic fever.

Evaluation and correction of hearing and speech defects.

Diagnostic and consultation service for convulsive disorders.

Medical social services.

## MCKINLEY MEMORIAL HOSPITAL, TRENTON:

Rehabilitation service for alcoholics.

Routine chest X-ray of in-patients, out-patients and hospital personnel.

Diagnosis and prophylactic treatment of rheumatic fever.

Medical social services.

## MIDDLESEX GENERAL HOSPITAL, NEW BRUNSWICK:

Rehabilitation service for alcoholics.

Routine chest X-ray of in-patients, out-patients and hospital personnel.

Screening tests for diabetes.

## MONMOUTH MEMORIAL HOSPITAL, LONG BRANCH:

Routine chest X-ray of in-patients, out-patients and hospital personnel.

Diagnostic and consultation service for convulsive disorders.

## MORRISTOWN MEMORIAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## MOUNTAINSIDE HOSPITAL, MONTCLAIR:

Routine chest X-ray of in-patients, out-patients and hospital personnel.

Screening tests for cancer.

Arterial bank.

## NEWARK EYE AND EAR INFIRMARY:

Evaluation and correction of hearing and speech defects.

## N. J. HOSPITAL ASSOCIATION:

Training program for teachers of nursing aides.

## OVERLOOK HOSPITAL, SUMMIT:

Rehabilitation service for alcoholics.

## PASSAIC GENERAL HOSPITAL:

Rehabilitation service for alcoholics.

Diagnosis and prophylactic treatment of rheumatic fever.

## PATERSON GENERAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## PERTH AMBOY GENERAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## B. S. POLLAK HOSPITAL, JERSEY CITY:

Mobile chest X-ray screening and diagnostic service.

## ST. FRANCIS HOSPITAL, TRENTON:

Routine chest X-ray of in-patients, out-patients and hospital personnel.

Diagnostic and consultation service for convulsive disorders.

## ST. MARY'S HOSPITAL, PASSAIC:

Routine chest X-ray of in-patients, out-patients and hospital personnel.

## ST. MICHAEL'S HOSPITAL, NEWARK:

Rehabilitation service for alcoholics.

Routine chest X-ray of in-patients, out-patients and hospital personnel.

Medical social services.

## SALEM COUNTY MEMORIAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## WEST JERSEY HOSPITAL, CAMDEN:

Rehabilitation service for alcoholics.

Routine chest X-ray of in-patients, out-patients and hospital personnel.

Medical social services.

TABLE III

## SCIENTIFIC EQUIPMENT ON LOAN

Other equipment on loan by Tuberculosis Program is listed in Table XIII

(Name of Agency and Type of Service)

## ATLANTIC CITY HOSPITAL:

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

## BERGEN PINES HOSPITAL, PARAMUS:

Diagnostic service for cardiac and pulmonary pathology.

Cardiac catheterization.

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

## BETH ISRAEL HOSPITAL, NEWARK:

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

## BRIDGETON HOSPITAL:

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

## CLARA MAAS MEMORIAL HOSPITAL, NEWARK:

Diagnostic service for cardiac and pulmonary pathology.

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

## COLUMBUS HOSPITAL, NEWARK:

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

## COOPER HOSPITAL, CAMDEN:

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

- EAST ORANGE GENERAL HOSPITAL:**  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- ELIZABETH GENERAL HOSPITAL:**  
Diagnostic and consultation service for convulsive disorders.  
Diagnostic service for cardiac and pulmonary pathology.
- ENGLEWOOD HOSPITAL:**  
Diagnostic and consultation service for convulsive disorders.
- ESSEX COUNTY HOSPITAL, BELLEVILLE:**  
Comprehensive rehabilitation program.
- FITKIN MEMORIAL HOSPITAL, NEPTUNE:**  
Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Diagnostic service for cardiac and pulmonary pathology.  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- HACKENSACK HOSPITAL:**  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- HUNTERDON MEDICAL CENTER, FLEMINGTON:**  
Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Screening tests for cancer.  
Screening tests for diabetes.  
Evaluation and correction of hearing and speech defects.  
Diagnostic and consultation service for convulsive disorders.  
Diagnostic service for cardiac and pulmonary pathology.  
Cardiac research program.  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.  
Other special services.
- IRVINGTON GENERAL HOSPITAL:**  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- JERSEY CITY MEDICAL CENTER:**  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- MARGARET HAGUE MATERNITY HOSPITAL, JERSEY CITY:**  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- MARTLAND MEDICAL CENTER, NEWARK:**  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- McKINLEY MEMORIAL HOSPITAL, TRENTON:**  
Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Diagnostic service for cardiac and pulmonary pathology.
- MERCER HOSPITAL, TRENTON:**  
Diagnostic service for cardiac and pulmonary pathology.  
Hypertension clinic.  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- MIDDLESEX GENERAL HOSPITAL, NEW BRUNSWICK:**  
Routine chest X-ray of in-patients, out-patients and hospital personnel.

- MIDDLESEX REHABILITATION AND POLIO HOSPITAL, NEW BRUNSWICK:**  
Comprehensive rehabilitation program.
- MONMOUTH MEMORIAL HOSPITAL, LONG BRANCH:**  
Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Diagnostic and consultation service for convulsive disorders.  
Diagnostic service for cardiac and pulmonary pathology.  
Cardiac catheterization.  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- MONTCLAIR COMMUNITY HOSPITAL:**  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- MORRISTOWN MEMORIAL HOSPITAL:**  
Diagnostic and consultation service for convulsive disorders.
- MOUNTAINSIDE HOSPITAL, MONTCLAIR:**  
Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Screening tests for cancer.  
Arterial bank.  
Diagnostic service for cardiac and pulmonary pathology.
- MUHLENBERG HOSPITAL, PLAINFIELD:**  
Diagnostic service for cardiac and pulmonary pathology.  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- NEWARK EYE AND EAR INFIRMARY:**  
Evaluation and correction of hearing and speech defects.
- NEW JERSEY STATE HOSPITAL, GREYSTONE PARK:**  
Routine chest X-ray of in-patients, out-patients and hospital personnel.
- ORANGE MEMORIAL HOSPITAL:**  
Cardiac catheterization.  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- OUR LADY OF LOURDES HOSPITAL, CAMDEN:**  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- OVERBROOK HOSPITAL, CEDAR GROVE:**  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- OVERLOOK HOSPITAL, SUMMIT:**  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- PATERSON GENERAL HOSPITAL:**  
Diagnostic and consultation service for convulsive disorders.  
Teaching program for residents, internes, staff, etc. in pathology and cancer control.
- PERTH AMBOY GENERAL HOSPITAL:**  
Diagnostic and consultation service for convulsive disorders.
- B. S. POLLAK HOSPITAL, JERSEY CITY:**  
Mobile chest X-ray screening and diagnostic service.



**PRESBYTERIAN HOSPITAL, NEWARK:**

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

**PRINCETON HOSPITAL:**

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

**ST. BARNABAS HOSPITAL, NEWARK:**

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

**ST. FRANCIS HOSPITAL, TRENTON:**

Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Diagnostic and consultation service for convulsive disorders.  
Diagnostic service for cardiac and pulmonary pathology.

**ST. JOSEPH'S HOSPITAL, PATERSON:**

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

**ST. MARY'S HOSPITAL, ORANGE:**

Diagnostic service for cardiac and pulmonary pathology.

**ST. MARY'S HOSPITAL, PASSAIC:**

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

**ST. MICHAEL'S HOSPITAL, NEWARK:**

Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Cardiac evaluation program for referred patients throughout the State.  
Cardiac surgery.  
Cardiac catheterization.  
Cardiac teaching program for physicians.  
Hypertension clinic.  
Other special services.

**ST. VINCENT'S HOSPITAL, NEWARK:**

Diagnostic service for cardiac and pulmonary pathology.

**SALEM COUNTY MEMORIAL HOSPITAL:**

Diagnostic and consultation service for convulsive disorders.

**TRENTON GENERAL HOSPITAL:**

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

**VALLEY HOSPITAL, RIDGEWOOD:**

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

**WEST HUDSON HOSPITAL, KEARNY:**

Teaching program for residents, internes, staff, etc. in pathology and cancer control.

**WEST JERSEY HOSPITAL, CAMDEN:**

Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Diagnostic service for cardiac and pulmonary pathology.  
Cardiac catheterization.  
Cardiac teaching program for physicians.  
Other special services.

## HOMEMAKER SERVICES

Seven community homemaker services are now in operation with headquarters in the following areas: Summit, New Brunswick, Hackensack, Essex County, Eastern Union County, Morris County and Passaic County. These services have been established largely through the efforts of the Consultant Committee on Community Homemaker Service, which is continuing its efforts to interest other communities in this service.

As new Services have been established, the demand for homemakers has been prompt and is based in large measure on the confidence that derives from the training course which homemakers complete before they are accepted. This sixteen-hour training course is administered through the Rutgers University Extension Division and has been given nine times during the year to a total of 126 women. It is believed to be the first course under university auspices in the country. At the end of the year a committee of local instructors who have participated in the various courses evaluated the course with the help of advisors from several faculties of Rutgers University. The decision was that the material, as presented in its present form, is meeting the need and should be continued essentially unchanged for another year.

There is a lack of educational material about Homemaker Service. Accordingly, a strip-film is being prepared and also a pamphlet describing the service.

## MEDICAL SOCIAL REHABILITATION

Medical social workers, certified through a Civil Service examination, have been appointed in each of the District State Health Offices to serve as Consultants in Medical Social Rehabilitation.

Through grants-in-aid, medical social workers are now functioning as a part of the professional team in McKinley Hospital in Trenton, Hunterdon Medical Center, and at St. Michael's Hospital in Newark. These workers will develop social casework and rehabilitation programs as an integral part of the medical services of these community hospitals. The application of social work techniques and full use of community social agencies is of special importance as a supplement to medical services for chronically ill patients.

## PROFESSIONAL COURSES

In addition to courses reported in the Heart Disease and Diabetes sections of this report, lecture courses on chronic diseases were given again this year at St. Michael's Hospital, Newark, and at West Jersey Hospital, Camden. These consisted of two-hour sessions once a month for seven and nine months respectively. The course at West Jersey Hospital is a joint project of the Academy of General Practice and this Department.

## GOVERNOR'S CONFERENCE

The sixth Governor's Conference on subjects of chronic illness control was held on December 15, 1954 and was attended by about five hundred persons. Under the title of "New Horizons in Chronic Illness Control" eminent national authorities discussed trends and expanding opportunities in chronic illness control, followed by a panel discussion of "Rehabilitation is Everybody's Business."

## ALCOHOLISM

The Passaic General Hospital, Passaic, initiated part-time out-patient rehabilitation facilities for alcoholics during the year. This is to be expanded into a full-time service in the fall when the building program of the hospital is completed and space becomes available. Overlook Hospital, Summit, has entered into a contract with this Division to initiate a full-time service. Personnel has been secured and the opening date set as July 5, 1955.

This makes a total of five community hospitals providing out-patient services for alcoholics with assistance from this Department. In addition, a contract is being negotiated with the Middlesex County Board of Freeholders to provide service on a county basis, functioning in three general hospitals in the county in addition to the county hospital which will be the headquarters. Another county hospital is making preliminary plans for a service.

In addition to the out-patient services listed above, group sessions have been conducted weekly in three county tuberculosis hospitals and one county workhouse for those who have a problem with alcohol and want to do something about it.

The opening of the alcoholism treatment center for in-patients at the New Jersey Neuropsychiatric Institute in May of this year has provided a much-needed facility for those patients who require more than an out-patient facility. A good working relationship between the personnel of the Institute and those in charge of the out-patient facilities is making it possible for each to augment the program of the other.

Through an adequate educational program for the youth and public at large, it is hoped that alcoholism for some may be prevented. To promote the educational program, scholarships were granted to three State employees (two District Consultants, Medical Social Rehabilitation, and one professor from the Trenton State Teachers College) to attend the Yale Summer School of Alcohol Studies, Yale University. Two employees of the Neuropsychiatric Institute attended also.

A brochure describing the Alcoholism Control Program of the State Department of Health and listing the out-patient treatment facilities in New Jersey was completed this year and distributed to physicians, hospitals,

libraries, and interested civic groups. Thirty speaking engagements were met, there were 190 film showings with an attendance of more than 7,500 persons, and a panel discussion on "What About Drinking" with a group of teen-agers over a local radio station. Four times a year, a four-page leaflet entitled "Alcoholism—A Treatment Digest for Physicians" is sent to all New Jersey physicians.

The Division was instrumental in organizing a Camden Citizens Committee on Alcoholism, a local group whose primary function will be education on alcoholism on a community level.

## STATE EMPLOYEES HEALTH PROGRAM

This past year has marked the initiation of a coordinated effort by the State Personnel Council and this Division to develop a health program for State employees. As a result of joint planning, three specific programs were carried out.

(1) A total of 4,782 employees in the Trenton and Newark areas had a chest X-ray, of whom 279 (5.9 per cent) were referred to their physician for further examination. Suspected tuberculosis was responsible for 164 of the referrals, heart disease or abnormality for 58, and other pulmonary abnormalities for 57.

(2) State employees numbering 4,024 had a test for diabetes, of whom 106 (2.6 per cent) were screened positive and were referred to their physicians for further examination. Fifty-two proved to have diabetes.

(3) Showings were arranged for women employees of the film "Breast Self-Examination," followed by a question and answer period with a physician in attendance and the distribution of a pamphlet on the same subject. About 1,600 women attended.

Other programs under consideration are educational programs on alcoholism and programs with research aspects for the early detection of cancer and heart disease.

## CANCER

To stimulate early detection of breast cancer, a large supply of the pamphlet entitled "Self-Examination of the Female Breast" was purchased and offered to practicing physicians for their women patients. Physicians were most cooperative; 1,204 of them requested 73,000 copies of the pamphlet. The film "Breast Self-Examination" was shown to an estimated 6,000 women, including State employees.

Two fellowships were granted to New Jersey physicians for full-time study, one in the field of pathology and one in surgery. Two courses in oral cancer

were made available again for dentists in cooperation with the Dental Health Program; one at the University of Pennsylvania and one at New York University. These one-week courses were attended by 38 dentists.

The 1,500 cancer cases reported by 15 different hospitals as a pilot study were evaluated and indicated a wide variation in terminology. Accordingly, a meeting was held with a committee of the State Society of Pathologists and their recommendation approved by the Society, that all pathologists use standard nomenclature. It is planned to encourage the development of hospital cancer registers rather than a central State register at this time.

New screening techniques for early detection of cancer are being investigated in small pilot studies and as a part of the multiphasic screening program at four community hospitals.

Preliminary planning has been undertaken to assist in the development of cancer centers in appropriate hospitals of the State. As the mechanisms for diagnosis and treatment become increasingly complex and specialized, team concepts are increasingly important. Centers are needed because small communities and hospitals cannot provide the personnel or the costly instruments for the team of surgeon, physiologist, biochemist, therapist, physicist, and chemist. The medical profession as well as the public will benefit from the development of cancer centers, with their concomitant facilities for professional education, consultation, and research.

In view of the lack of facilities for diagnosis and treatment in the southern part of the state, funds available for equipment this year have been used to a large degree for an isotope laboratory at West Jersey Hospital in Camden and continued assistance is planned so that a complete service can be developed in this area of the state.

#### EPILEPSY

The five hospitals which have been providing electroencephalograph examinations throughout the past fiscal year, with financial assistance from this Division, reported 755 persons examined. These persons were referred because of symptoms of epilepsy or other brain injury or damage. Interpretations of the 755 EEG examinations were as follows: normal—268; focal lesion—87; convulsive disorder—280; trauma—12; cerebrovascular—13; other—17; undetermined—46; not reported—32.

EEG instruments have been installed and service will be started soon in four additional hospitals (Monmouth Memorial Hospital in Long Branch, Perth Amboy General Hospital, Elizabeth General Hospital, and the Hunterdon Medical Center in Flemington). Two additional instruments have been purchased and will be placed soon. It is believed that this will give adequate coverage of the state.

#### DIABETES

The major objectives of the Diabetes Control Program are based on early detection and control of diabetes by screening programs and the provision of educational material to patients, physicians and para-medical personnel.

Diabetes screening programs were of three major varieties: (1) the statewide Diabetes Detection Drive, November 14-20, 1954, (2) diabetes screening programs undertaken by local health officers, in some instances in connection with mass chest X-ray programs, and (3) diabetes screening as part of multiphasic screening programs in general hospitals, including a blood screening program in one hospital.

The 1954 Detection Drive was the second mass effort under the co-sponsorship of the Medical Society of New Jersey, the New Jersey Diabetes Association, and the New Jersey State Department of Health. In terms of the number of persons screened, the number of positive tests and the number of diabetics discovered, there was a definite improvement over the 1953 Drive. One hundred thousand Dreykaps were distributed and 14,456 were returned for testing to those laboratories from whom reports were received. This is more than double the response as compared to 1953. Of those tested, 3.1 per cent were positive for sugar in the urine. Careful study was made on 210 of the positive reactors in order to evaluate the follow-up procedures utilized by the physicians. Eighty-four of these persons were proved to have diabetes, of whom two-thirds were not previously known.

The Drive served several purposes: (1) to detect previously unknown cases of diabetes, (2) to educate the public to the need for prevention, early detection and prompt treatment of diabetes, (3) to stimulate known diabetics to utilize better health practices, (4) to determine the extent of the diabetes problem in New Jersey, (5) to distribute the latest scientific information on diagnosis and control to physicians, and (6) to foster a cooperative relationship between the sponsoring organizations and the cooperating agencies.

During the past year a patient-education program was demonstrated under the auspices of Mercer Hospital and the Division. The need for patient education in long-term control of diabetes has been emphasized in recent years. The acceptance of the course by the Mercer Hospital clinic patients was most gratifying and efforts will be made to extend this method of group teaching.

The Second Annual Diabetes Symposium for physicians was held in October 1954 as a cooperative project of the New Jersey Diabetes Association and the State Department of Health.

Four Public Health Nurse Consultants and one Community Health Organizer of the State Department of Health attended the one-week course held in Boston during the year at the Diabetes Field Research and Training Centers of the Public Health Service.

## HEART DISEASE

The course in "Cardiology for the General Practitioner" and the course in "Advanced Cardiology" were repeated for the fifth consecutive year at St. Michael's Hospital, Newark, as a joint project of the hospital and this Division. The basic course was attended by 61 physicians and the advanced course by 33 physicians who had previously completed the basic course. A one-day course in "Cardiac Resuscitation," initiated last year at St. Michael's Hospital, was repeated on Saturdays this year and was attended by 86 physicians.

A summary of the highly specialized cardiac services rendered to residents of the state at St. Michael's Hospital, Newark, over the past five years is as follows: cardiac surgery—279 persons; cardiac catheterization—282 persons; angiocardiology—88 persons; presented to conference for cardiac evaluation—2,250 persons. Many of these persons are leading active lives who would have been invalids; some owe life itself to this service.

Referral to their physicians for further examination is a routine procedure for all persons participating in community chest X-ray surveys (Table X, Page 62) if cardiovascular or other pathology is suspected. A study of questionnaires returned by physicians in 1954, involving about 900 cases of heart disease, indicated that 10 per cent of the cases had not been known to the physician before the individual participated in the chest X-ray survey. Others who had neglected medical care returned to their physicians.

The cardiac service at Hunterdon Medical Center now has a population of 150 rheumatic and congenital heart disease patients and averages two referrals a week from the physicians of the county. A hypertension clinic has been established at Mercer Hospital, Trenton, and at St. Michael's Hospital, Newark.

Planning and provision of equipment on a loan basis has been undertaken for a cardiac diagnostic center at West Jersey Hospital, Camden. This will provide some of the highly specialized services in the southern part of the state which are available at St. Michael's Hospital, Newark.

## MULTIPHASIC SCREENING

Routine chest X-ray of hospital admissions and hospital personnel has demonstrated its value as a means of discovering unsuspected and untreated disease. Reports of more than sixteen thousand persons screened during the fiscal year ending June 30, 1954, were received from six hospitals, which initiated this procedure with state assistance. Of these 16,000 persons, 12.7 per cent were referred for further examination for the following presumptive causes: heart disease 5.3%; tuberculosis 1.1%; tumor 0.3%; other pulmonary disease 5.8%; other disease 0.2%.

Arrangements are being made with seven other community hospitals for initiation of routine chest X-ray examinations. All of the necessary X-ray units have been purchased or re-conditioned and, in some instances installed, and local plans are being developed.

## TUBERCULOSIS CONTROL

During 1954 the Tuberculosis Control Program observed the following trends: a continued decline in death rate due to tuberculosis; relative stability in the rate of newly reported cases of active tuberculosis; increased average daily participation in mass chest X-ray screening programs; further development and broader use of tuberculosis case registers; and increased emphasis upon routine hospital admission chest X-ray screening programs.

The death rate due to tuberculosis for the state as a whole in 1954 was 11 per 100,000, a reduction over the preceding year and, as indicated in Table IV, a reduction of approximately 50 per cent in the past five years. The case to death ratio continues to rise due to the decline in the frequency of death. The case rate per 100,000 newly reported active tuberculosis declined slightly to 41.5 for the state as a whole. As indicated in Table V, this rate is quite stable from year to year. With increased application of control measures and case-finding procedures, a continued decline in deaths and new active cases of tuberculosis is anticipated.

Detailed statistical data for counties and municipalities of the state for 1954 are described in Tables VI, VII, VIII and IX.

In 1954 the Tuberculosis Control Program continued its mass chest X-ray screening program in communities of the state. One hundred eighty unit days of survey time were allocated to counties and specific population groups in the major cities of Newark, Jersey City, Trenton and Camden in proportion to the needs indicated by consideration of factors of mortality and morbidity. Within this time, 96,710 persons were examined for an average daily participation of 535 persons per day. As the result of this screening program, 6,715 persons were referred for further medical examination, of whom 3,201 required study due to the suspicion of tuberculosis. Table X indicates a marked increase in daily participation in the past three years. This increase has continued through early surveys in 1955 where average daily participation approached 600 persons per day.

An attempt was made in 1953 to evaluate the effect of the community mass chest X-ray survey as a case-finding measure. A preliminary study indicated that this survey resulted in the discovery and reporting of approximately 4 per cent of all newly reported cases of tuberculosis. This average was continued during 1954, as indicated in Table XI. Two hundred forty-three cases of tuberculosis were reported for the first time in that year due to the survey

conducted during 1953 and 1954. The percentage of cases reported due to the community effort has increased slightly.

The evaluation study initiated in 1953 covered other aspects of survey case-finding procedures. A summary of trends observed in 1953 and 1954 is presented in Table XII. Improvement is observed in the amount of follow-up service received by persons referred for medical examination and in the extent to which diagnoses were established. The amount of tuberculosis discovered has not changed materially. No improvement is noted in the reporting of discovered cases of tuberculosis. In the area under study, 56 per cent of the tuberculosis diagnosed as a result of survey remain unreported six months after completion of the survey.

During 1954, the Morris County Tuberculosis League and the B. S. Pollak Hospital for Chest Diseases, Jersey City, cooperated with the Public Health Service in a fact-finding study sponsored in selected areas in 25 states for the purpose of determining services and care provided for non-hospitalized cases of tuberculosis.

*Case Registers.* A new county tuberculosis case register was established in Middlesex County through the cooperative efforts of the Middlesex County Tuberculosis League, the Roosevelt Hospital and the Tuberculosis Control Program.

The existing Tuberculosis Case Register for Bergen and Passaic Counties located in the District Office in Hackensack was separated and transferred to Valley View Sanatorium, Passaic County and Bergen Pines Hospital, Bergen County.

Each of the registers in Middlesex, Bergen and Passaic Counties was placed under the direct supervision of medical personnel.

With registers already operating in Monmouth and Mercer Counties, coverage of nearly one-third of the population of the state has been achieved. Joint Planning Conferences with the Department of Institutions and Agencies and the New Jersey Tuberculosis League have promoted mutual understanding and joint planning.

*Clinic Services.* The Tuberculosis Control Program provided personnel and equipment to locally administered clinics and hospitals in areas listed in Table XIII during 1954.

TABLE IV  
DEATH RATE PER 100,000 DUE TO TUBERCULOSIS  
STATE HEALTH DISTRICTS OF NEW JERSEY 1950-54

Year	Total	State Health Districts			
		Metropolitan	Central	Southern	Northern
1950	24.2	25.4	26.0	22.4	13.2
1951	20.9	21.1	20.6	24.2	14.0
1952	16.8	17.8	16.6	15.4	12.1
1953	13.8	13.4	15.4	14.0	12.2
1954	11.0	10.4	12.9	11.6	8.6

TABLE V  
CASE RATE PER 100,000 ACTIVE TUBERCULOSIS  
STATE HEALTH DISTRICTS OF NEW JERSEY 1952-54

Year	Total	State Health Districts			
		Metropolitan	Central	Southern	Northern
1952	45.1	46.6	42.3	40.6	27.7
1953	45.6	44.3	49.6	41.0	28.2
1954	41.5	39.0	44.2	36.9	31.7

## DEPARTMENT OF HEALTH

TABLE VI. TUBERCULOSIS DATA BY RESIDENCE FOR COUNTIES AND MAJOR MUNICIPALITIES—NEW JERSEY, 1954

PLACE	Deaths			Cases*			Cases per Death (Case-Death) Ratio
	Number†	Rate‡	S.E.‡	Number	Rate‡	S.E.‡	
New Jersey	558	11.0	0.5	3,650	72.0	1.2	6.5
Atlantic County	15	11.0	2.8	192	141.2	10.2	12.8
Atlantic City	11	17.7	5.4	115	185.5	17.3	10.5
Bergen County	41	7.2	1.1	501	87.6	3.9	12.2
Burlington County	23	16.1	3.4	53	37.1	5.1	2.3
Camden County	42	12.3	2.1	195	61.7	4.4	4.6
Camden City	22	17.1	3.6	119	92.2	8.5	5.4
Cape May County	5	13.5	6.0	20	54.1	12.1	4.0
Cumberland County	15	16.1	4.2	90	96.8	10.2	6.0
Essex County	112	11.9	1.1	671	71.2	2.7	6.0
East Orange	7	8.5	3.2	33	40.2	7.0	4.7
Irington	2	3.2	2.3	33	53.2	9.3	16.5
Newark	54	18.4	2.0	487	106.6	4.8	5.8
Gloucester County	5	5.2	2.3	34	35.1	6.0	6.8
Hudson County	90	13.4	1.4	492	73.1	3.3	5.5
Bayonne	10	12.3	3.9	48	59.3	8.6	4.8
Hoboken	8	15.4	5.4	47	90.4	13.2	5.9
Jersey City	53	17.9	2.3	390	106.1	5.8	6.2
Union City	7	12.3	4.6	15	26.3	6.8	2.1
Hunterdon County	..	..	..	17	38.6	9.4	..
Mercer County	46	19.1	2.8	209	86.7	6.0	4.5
Trenton	32	24.2	4.3	137	103.8	8.9	4.3
Middlesex County	27	9.5	1.8	157	55.5	4.4	5.8
Monmouth County	25	10.5	2.1	140	59.1	5.0	5.6
Morris County	18	10.3	2.4	75	42.1	5.0	4.2
Ocean County	4	6.8	3.4	38	64.4	10.4	9.5
Passaic County	31	8.8	1.6	274	77.8	4.7	8.8
Clifton	5	8.5	3.8	51	73.9	10.3	9.2
Passaic	5	13.9	3.1	110	76.4	7.3	5.5
Paterson	20	13.9	3.1	110	76.4	7.3	5.5
Salem County	2	3.8	2.7	39	75.0	12.0	19.5
Somerset County	7	6.6	2.5	67	63.2	7.7	9.6
Sussex County	6	16.7	6.8	11	30.6	9.2	1.8
Union County	35	8.3	1.4	146	34.8	2.9	4.2
Elizabeth	13	11.0	3.1	51	43.2	6.1	3.9
Warren County	5	8.8	3.9	43	75.4	11.5	8.6
Institutions	3	..	..	126	..	..	42.0
Military Posts	1	..	..	60	..	..	60.0

\* Cases, regardless of activity, reported for first time in 1954.

† Rate per 100,000 estimated population.

‡ Standard error of rate. Must be considered for comparison of rates.

\*\* Residence allocation too unreliable. Rates not computed.

## DIVISION OF CHRONIC ILLNESS CONTROL

TABLE VII. TUBERCULOSIS MORBIDITY BY AGE GROUPS FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1954

PLACE	Age Group								
	All Under Ages: 1 Year	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
Atlantic County	192	2	2	17	13	48	76	33	..
Atlantic City	115	..	1	2	8	31	52	21	1
Bergen County	501	1	6	2	23	164	194	99	12
Burlington County	53	..	1	..	8	19	19	6	..
Camden County	195	..	4	3	13	74	71	28	2
Camden City	119	..	2	3	9	46	43	15	1
Cape May County	20	1	1	1	1	4	9	8	..
Cumberland County	90	..	..	9	9	29	25	11	7
Essex County	671	7	36	24	62	256	189	75	2
East Orange	33	..	1	2	5	11	11	8	..
Irington	33	..	..	..	1	15	8	9	..
Newark	487	7	26	18	64	186	141	44	1
Gloucester County	34	..	..	..	5	11	9	8	1
Hudson County	492	4	13	13	50	167	171	73	3
Bayonne	48	..	2	1	..	14	23	8	..
Hoboken	47	..	..	..	6	18	15	5	..
Jersey City	330	4	10	12	38	112	104	48	2
Union City	15	..	..	..	2	6	4	3	..
Hunterdon County	17	..	..	..	1	6	8	2	..
Mercer County	209	1	6	7	17	81	62	35	..
Trenton	137	1	4	5	8	54	42	23	..
Middlesex County	157	..	5	2	22	63	42	21	2
Monmouth County	140	3	2	7	15	47	45	20	1
Morris County	75	..	..	1	7	31	19	15	2
Ocean County	38	..	1	..	2	12	12	11	..
Passaic County	274	..	3	..	20	77	127	42	1
Clifton	51	..	1	1	2	14	25	3	..
Passaic	46	..	1	2	4	13	18	8	..
Paterson	110	..	1	..	11	30	55	13	..
Salem County	39	..	1	..	1	18	12	6	1
Somerset County	67	..	..	2	3	18	28	16	..
Sussex County	11	..	..	..	1	6	3	1	..
Union County	146	..	..	2	28	55	47	14	..
Elizabeth	51	..	..	..	11	15	23	2	..
Warren County	43	..	..	2	4	12	14	11	..
Institutions	126	..	..	..	10	41	39	86	..
Military Posts	60	..	1	..	40	16	2	1	..
Total	3650	19	82	96	373	1254	1222	567	35

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TABLE VIII. TUBERCULOSIS MORBIDITY BY SEX AND BY COLOR FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1954

PLACE	Sex			Color			
	Total	Male	Female	Total	White	Nonwhite	Unknown
	Atlantic County	192	107	85	192	142	47
Atlantic City	115	59	56	115	76	38	1
Bergen County	501	330	171	501	468	25	8
Burlington County	53	32	21	53	48	5	.....
Camden County	195	136	59	195	155	37	3
Camden City	119	81	38	119	83	34	2
Cape May County	20	15	5	20	17	3	.....
Cumberland County	90	48	42	90	68	18	6
Essex County	671	407	264	671	369	299	3
East Orange	33	20	13	33	17	16	.....
Irington	33	11	22	33	33	.....	.....
Newark	487	308	179	487	227	258	2
Gloucester County	34	19	15	34	25	8	1
Hudson County	492	321	171	492	392	98	2
Bayonne	48	34	14	48	44	4	.....
Hoboken	47	33	14	47	41	6	.....
Jersey City	330	213	117	330	241	87	2
Union City	15	7	8	15	15	.....	.....
Hunterdon County	17	13	4	17	14	2	1
Mercer County	209	135	74	209	132	57	.....
Trenton	137	88	49	137	95	42	.....
Middlesex County	157	105	52	157	136	18	3
Monmouth County	140	84	56	140	94	44	2
Morris County	75	53	22	75	65	7	3
Ocean County	38	22	16	38	32	6	.....
Passaic County	274	166	108	274	246	27	1
Clifton	51	22	29	51	51	.....	.....
Passaic	40	26	20	40	39	7	.....
Paterson	110	77	33	110	90	20	.....
Salem County	39	23	16	39	30	8	1
Somerset County	67	39	28	67	63	4	.....
Sussex County	11	6	5	11	10	1	.....
Union County	146	86	60	146	105	41	.....
Elizabeth	51	29	22	51	40	11	.....
Warren County	43	26	17	43	42	1	.....
Institutions	126	79	47	126	110	16	.....
Military Posts	60	51	9	60	47	13	.....
Total	3650	2303	1347	3650	2828	785	37

## DIVISION OF CHRONIC ILLNESS CONTROL

TABLE IX. TUBERCULOSIS MORBIDITY BY CLINICAL STATUS FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1954

PLACE	Clinical Status				
	Total	Active	Not Active	Undetermined	Not Stated
Atlantic County	192	51	107	27	7
Atlantic City	115	31	60	23	1
Bergen County	501	119	270	93	19
Burlington County	53	37	7	4	5
Camden County	195	138	35	7	15
Camden City	119	81	24	6	8
Cape May County	20	10	5	1	4
Cumberland County	90	35	44	7	4
Essex County	671	525	88	13	50
East Orange	33	19	8	3	.....
Irington	33	11	20	2	4
Newark	487	414	38	3	32
Gloucester County	34	23	4	2	5
Hudson County	492	286	153	44	4
Bayonne	48	24	20	4	.....
Hoboken	47	25	16	6	.....
Jersey City	330	199	103	26	2
Union City	15	6	7	1	1
Hunterdon County	17	14	2	.....	1
Mercer County	209	139	41	2	7
Trenton	137	106	26	2	3
Middlesex County	157	118	24	11	4
Monmouth County	140	92	16	13	19
Morris County	75	55	12	3	5
Ocean County	38	20	11	2	5
Passaic County	274	96	154	7	7
Clifton	51	14	34	2	1
Passaic	40	12	28	5	1
Paterson	110	58	45	4	3
Salem County	39	13	21	1	4
Somerset County	67	29	22	13	3
Sussex County	11	6	2	2	1
Union County	146	127	10	1	8
Elizabeth	51	46	3	1	1
Warren County	43	28	14	.....	1
Institutions	126	86	11	21	8
Military Posts	60	57	3	14	6
Total	3650	2104	1056	298	192

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TABLE X

TREND OF DAILY PARTICIPATION AND REFERRAL RATES FOR  
COMMUNITY AND INDUSTRIAL CHEST X-RAY SURVEYS, NEW JERSEY 1950-54

Year	Total Readable Plates	Average Daily Partici- pation	Per cent Referral Rates				
			TB	Cardiac	Cancer	Pulmonary (Non-TB)	Other
1950	138,176	519	3.09	1.53	.37	1.09	.44
1951	89,104	334	3.28	1.47	.12	.41	.24
1952	100,311	294	3.33	1.62	.19	.55	.49
1953	141,984	414	3.10	2.49	.19	.85	.24
1954	96,710	535	3.39	3.3	.19	.86	.27

TABLE XI

TUBERCULOSIS CASE REPORTS RESULTING FROM COMMUNITY AND INDUSTRIAL  
CHEST X-RAY SURVEYS RELATED TO TOTAL CASE REPORTING—1954

County	Total Cases Reported 1954	Total Cases Reported As Result of 1953-1954 Surveys	Per cent of Total
TOTAL	3,650	243	6.6
Atlantic .....	192	38	19.8
Bergen .....	501	0	No Surveys
Burlington .....	53	1	1.9
Camden .....	195	28	14.4
Cape May .....	20	1	5.0
Cumberland .....	90	8	8.9
Essex .....	671	33	5.0
Gloucester .....	34	2	5.9
Hudson .....	492	75	15.2
Hunterdon .....	17	1	5.9
Mercer .....	209	21	10.0
Middlesex .....	157	4	2.6
Monmouth .....	140	4	2.9
Morris .....	75	2	2.7
Ocean .....	38	2	5.3
Passaic .....	274	0	No Surveys
Salem .....	39	5	12.8
Somerset .....	67	15	22.4
Sussex .....	11	0	.....
Union .....	146	2	1.5
Warren .....	43	1	2.3
Institutions .....	126	0	No Surveys
Military Posts .....	60	0	No Surveys

## DIVISION OF CHRONIC ILLNESS CONTROL

TABLE XII

COMPARISON OF COMBINED RESULTS OF TUBERCULOSIS SURVEY FOLLOW-UP STUDIES  
FOR SOUTHERN, CENTRAL AND NORTHERN STATE HEALTH DISTRICTS  
1953 - 1954

	1953	1954
Number of Persons Surveyed .....	58,193	56,601
Number of Persons Referred Due to Suspicion of Pulmonary Abnormality .....	1,991	2,313
Per cent Pulmonary Referrals .....	3.4	4.1
Per cent of Referrals Receiving Follow-up .....	75.0	91.0
Per cent of Referrals for Whom Diagnoses Were Established .....	66.0	78.0
Number Newly Reported Cases of Tuberculosis .....	147	144
Number of Newly Reported Cases of Active Tuberculosis .....	28	29
Per cent of Discovered Cases of Tuberculosis Unreported ..	51.0	56.0
Prevalence Rate per 1,000 Persons Surveyed Newly Reported Tuberculosis .....	2.50	2.54
Prevalence Rate per 1,000 Persons Surveyed Newly Reported Active Tuberculosis .....	.38	.5



## DEPARTMENT OF HEALTH

TABLE XIII

DISTRIBUTION OF EQUIPMENT AND SERVICES PROVIDED TO HOSPITALS AND CLINICS  
BY TUBERCULOSIS CONTROL PROGRAM

<i>Clinics</i>	<i>Services</i>	<i>X-ray Equipment or Supplies</i>
<b>ATLANTIC COUNTY</b>		
Atlantic City .....	*	*
Hammonton .....	*	*
Mays Landing .....	*	*
<b>BERGEN COUNTY</b>		
Cliffside Park .....	..	*
Garfield .....	..	*
<b>BURLINGTON COUNTY</b>		
Burlington .....	..	*
<b>CAPE MAY COUNTY</b>		
Cape May Court House .....	*	*
<b>CUMBERLAND COUNTY</b>		
Bridgeton .....	*	..
Millville .....	*	..
Vineland .....	*	..
<b>ESSEX COUNTY</b>		
Newark .....	..	*
<b>GLOUCESTER COUNTY</b>		
Pitman .....	*	..
Woodbury .....	*	..
<b>MERCER COUNTY</b>		
Princeton .....	*	..
Trenton .....	*	*
<b>MONMOUTH COUNTY</b>		
Asbury Park .....	*	..
Freehold .....	*	..
Long Branch .....	*	..
Middletown .....	*	..

## DIVISION OF CHRONIC ILLNESS CONTROL

TABLE XIII—Continued

DISTRIBUTION OF EQUIPMENT AND SERVICES PROVIDED TO HOSPITALS AND CLINICS  
BY TUBERCULOSIS CONTROL PROGRAM

<i>Clinics</i>	<i>Services</i>	<i>X-ray Equipment or Supplies</i>
<b>OCEAN COUNTY</b>		
Toms River .....	*	*
<b>PASSAIC COUNTY</b>		
Paterson .....	..	*
<b>SALEM COUNTY</b>		
Elmer .....	*	..
Salem .....	*	*
<b>SUSSEX COUNTY</b>		
Newton .....	..	*
<b>WARREN COUNTY</b>		
Phillipsburg .....	*	*
<i>Hospitals</i>		
<b>ATLANTIC COUNTY</b>		
Atlantic County Mental—Northfield .....	..	*
<b>ESSEX COUNTY</b>		
St. Michael's—Newark .....	..	*
<b>MERCER COUNTY</b>		
St. Francis—Trenton .....	..	*
<b>PASSAIC COUNTY</b>		
Paterson General, Paterson .....	..	*

## DEPARTMENT OF HEALTH

## NEXT YEAR

In the coming year the Division will continue to encourage and assist community programs for the prevention and early detection of chronic illness and the rehabilitation of the chronic sick. Activities for which definite commitment of funds has been made or equipment loaned are listed in Tables II and III (pages 43 - 48, inclusive).

The contract form developed in the past year for grants-in-aid to local agencies included a termination clause. In most instances this allows the agency a maximum of four years in which gradually to amortize the grant. It is hoped that funds so released can be used for initiating similar programs in other agencies, for the addition of other chronic illness activities with the same agency, or for demonstrations of new programs.

Every effort will be continued to develop chronic illness services on the foundation of existing community facilities designed to serve the sick; to provide the stimulus of public and professional education necessary for maximum use of facilities provided; and to study and evaluate procedures in use and new techniques. The final goal of all programs is the prevention of illness and the physical, emotional, and economic sequelae of disability. To the extent that success is achieved that individual continues as a contributing member of society rather than a dependent.

## ADDENDUM

## ANNUAL REPORT TO THE GOVERNOR

OCTOBER 1, 1955

Division of Chronic Illness Control

Department of Health

State of New Jersey

This report of proposed activities in the Chronic Illness Program for the fiscal year beginning July 1, 1956 is submitted in accordance with the Chronic Illness Law (Chapter 102, P. L. 1952). Encouraging progress has been made in the fiscal year just ended in the development of programs cooperatively with local agencies. Twenty-five such agencies, most of them community hospitals, are now being assisted in the demonstration period of chronic illness programs by grants-in-aid in a total amount of \$160,000.

The method of encouraging local agencies to initiate programs by providing financial assistance through grant-in-aid contracts seems to be a very effective way of gaining community interest in providing services for the prevention and alleviation of chronic illness. The contract which is entered into clearly indicates that the financial assistance given by the State is temporary. The contract also places responsibility upon the local agency, at the very beginning, for the operation of the program. Services far in excess of the actual expenditures from State funds have been provided to the people by this method of aiding local agencies already operating a service to the public.

Many of the services initiated with grant-in-aid assistance will become wholly or partially self-supporting in time. For example, when the value of routine screening tests is understood, it is reasonable to expect that most people will pay a small fee for them. In renewing existing contracts for the current fiscal year, the hospitals assumed 8.8% of the total amount of the contracts for the preceding year. Many of the programs were too new to have demonstrated results and amortization was not expected. To the extent that the local hospitals can assume the cost of the programs which have demonstrated their value, funds are released for State assistance to other hospitals and agencies.

A brief summary of the programs proposed for the fiscal year 1956-57 is presented with the anticipated cost of such programs. Although presented, in part, under certain disease categories, experience in the development of the program has emphasized the common problems which must be solved in preventing or alleviating chronic disease and disability. Accordingly, all efforts will be directed toward an integrated attempt, by all agencies and professional groups which can contribute, to meet the total needs of those chronically ill.

#### ALCOHOLISM

Encouragement of general hospitals to provide out-patient services for alcoholics is continuing as a major objective of the program. Such facilities now exist in six community hospitals: McKinley Hospital in Trenton, West Jersey Hospital in Camden, the Passaic General Hospital, St. Michael's Hospital in Newark, Overlook Hospital in Summit, and a county program in Middlesex County providing services at Roosevelt Hospital, St. Peter's Hospital, the Middlesex General Hospital, and the Perth Amboy General Hospital. A service will be functioning soon at Bergen Pines Hospital for residents of Bergen County. The usual assistance given by the state is for salaries of a full-time psychiatric worker and secretary; the hospital provides medical and psychiatric services in the same way as other hospital clinics are operated.

Plans are being developed for close cooperation with the Neuropsychiatric Institute which is now providing hospitalization for a period of six to eight weeks for selected alcoholics. These patients will receive a thorough medical and psychiatric evaluation and a rehabilitative plan will be developed which is best suited to the needs of the individual patient.

Conferences with a committee of Essex County citizens are being continued with a view to providing a residence, a sheltered environment, temporarily for certain alcoholics after discharge from institutions or who for some other reason are not able to return immediately to their place in society. It seems probable that this will develop as a cooperative project with at least part of the financial support coming from the Essex County Board of Freeholders.

The creation of three new positions is recommended. One of these is for an Educator to head-up a more active program of prevention through education. Another is for a Supervisor of Psychiatric Social Workers. Because the field of alcoholism control is relatively new, experience in recruiting trained workers has indicated that few have had the opportunity to work to any extent with the alcoholic patient. A supervisor in the central office could serve in an advisory capacity to the social workers who are employed in the seven hospital out-patient services and to all voluntary and official agencies which must deal with the problem to some extent. The third position needed is an additional clerk-stenographer position.

Budget estimate for the needs of the Alcoholism Program in 1956-57 is \$115,225. This does not include the new positions described above which are included later under Salaries and Wages, in the amount of \$12,840.

#### EPILEPSY

Nine hospitals have now been equipped with electroencephalograph instruments and assisted through grants-in-aid for the employment of a technician. Five of these hospitals (Englewood Hospital, Morristown Memorial Hospital, Paterson General Hospital, St. Francis Hospital in Trenton, and the Salem Memorial Hospital) operated a service for the full fiscal year just ended and have reported examination of 755 persons who were referred because of symptoms of convulsive disorders or other brain injuries. The other four hospitals preparing to initiate the service are: Hunterdon Medical Center, Elizabeth General Hospital, Monmouth Memorial Hospital, and the Perth Amboy General Hospital.

It is anticipated that the hospitals will be able to amortize the grants-in-aid quickly in this program through collection of fees for services and that will release enough funds for any expansion of services indicated in 1956-57. The expenditure of perhaps \$1,000.00 will be needed to provide training for neurologists in the interpretation of electroencephalograms.

Budget request for the Epilepsy Program for 1956-57 is in the same amount as provided for the current fiscal year, \$27,000.

#### MULTIPHASIC SCREENING

Routine chest X-rays of all hospital patients and hospital personnel have demonstrated their value in discovering undetected and untreated disease. Partial reports for the fiscal year ending June 30, 1955, from the hospitals that have received state assistance for carrying on such routine chest X-ray examinations, indicates that 12.7% of the persons screened in this way were referred for further medical examination for the following presumptive causes: Heart Disease, 5.3%; Tuberculosis, 1.1%; Tumor, 0.3%; Other pulmonary disease, 5.8%; Other disease, 0.2%. Nine community hospitals in various parts of the state are receiving grants-in-aid for multiphasic screening programs on a demonstration basis.

It is recommended that assistance be given to two additional hospitals in 1956-57 to enable them to start screening programs. Also, efforts will be continued to develop a second project for providing all practical screening tests for patients of private physicians, similar to the project at Hunterdon Medical Center, in another area of the state.

The budget request for 1956-57 for multiphasic screening projects is \$60,551.

## HOMEMAKER SERVICE

Largely through the efforts of the State Consultant Committee on Homemaker Service, seven community homemaker services are now functioning, with headquarters in the following cities: East Orange, Elizabeth, Summit, New Brunswick, Hackensack, Paterson, and Morristown.

In the establishment of homemaker services, the state's function has been chiefly advisory; in only one instance is financial assistance being given. This is the form of a grant-in-aid to demonstrate the value of a trained medical social worker in this type of program. In the homemaker services, much of the administrative work is being carried on by volunteers, and an established agency of the community is providing office space. It is apparent that a full-time employee will be needed in most of these services as they grow. It is recommended, therefore, that funds be made available for grants-in-aid to two local services for the employment of a full-time worker in an administrative capacity on a demonstration basis.

A sixteen-hour training course for homemakers in cooperation with Rutgers University has proved to be of great value in the development of this new kind of community service. In the past fiscal year, nine courses were conducted by the University in seven different communities; 126 women completed the course of training. This training of homemakers through the University Extension Service is unique to New Jersey and has attracted favorable comment from other states as well as from the sponsors of local services, the persons trained, and the families served. It is recommended that funds be provided for a minimum of fifteen courses during the year 1956-57 to provide for training workers in new services and additional workers to meet the needs of services already established.

Educational material on homemaker service has been developed in the past year in the form of a strip film and pamphlets. There will be continued need for assistance to the State Consultant Committee and the local sponsoring agencies in the form of printed materials and other educational devices to stimulate interest in communities not yet providing the services and to explain the functions of the service to those whom it can help.

Budget estimate for the needs of the Homemaker Program in 1956-57 is \$21,100.

## DIABETES

In a joint effort with the Medical Society of New Jersey and the New Jersey Diabetes Association, 100,000 Dreyapak were distributed during Diabetes Detection Week in November, 1954. The use of this new device—the Dreyapak—simplifies mass screening for diabetes by making it possible to mail a dry specimen of urine instead of the fluid specimens formerly used.

Following this one-week drive, results of 14,456 tests were reported and of these 3.1% were positive for sugar. Diabetes Detection Week has been a useful way of discovering unsuspected cases of diabetes. It has also been of educational value in popularizing the importance of periodic tests, and has promoted closer working relationship between the state sponsoring agencies and the county medical societies, local parent-teacher associations, and other agencies which helped in the drive. It is proposed to continue this cooperative effort but to intensify the program of the State and local health departments in the direction of screening high prevalence groups on a year-round basis.

Educational programs for physicians and para-medical personnel will be continued to insure the wide-spread use of new knowledge in the prevention, diagnosis, and treatment of diabetes.

Budget estimate for the needs of the Diabetes Program for 1956-57 is \$18,245.

## STATE EMPLOYEES' HEALTH PROGRAM

In cooperation with the State Personnel Council, a chest X-ray and a test for diabetes were offered to all state employees during the past fiscal year. In addition, meetings on the subject of breast self-examination for the early detection of cancer were held for women employees in the Trenton and Newark areas. These programs will be continued and other programs are under consideration such as an educational program on alcoholism and a research project for the early detection of cervical cancer. A continuation of the budget item is requested for 1956-57 in the same amount as for the current year, \$12,800.

## SPECIAL SPEECH AND HEARING PROJECT

Necessary equipment has been purchased and loaned to the Newark Eye and Ear Infirmary in Newark and the Hunterdon Medical Center for the development of speech and hearing centers in these two hospitals. Grants-in-aid for personnel have also been negotiated. These centers will provide for the detection and evaluation of hearing loss and speech defects, particularly among children, and for rehabilitation measures. Continued assistance to these two centers is recommended and the development of two additional centers, one in the central and one in the southern part of the state. Interest has been expressed in both Trenton and Atlantic City and exploratory conferences have been held with local physicians and others. The Committee on Speech and Hearing Conservation of the Medical Society of New Jersey is very much interested in working with the Department for the development of additional centers needed to prevent or correct these disabilities.

Budget estimate of the needs of the Hearing and Speech Program for 1956-57 is \$19,000.

## PUBLIC HEALTH NURSING

To secure maximum effectiveness from diagnostic screening programs and from rehabilitative programs, additional public health nursing services are a vital need. It was hoped to undertake a demonstration of generalized public health nursing service on a county-wide basis in Hunterdon County, coordinating the services with the hospital services at Hunterdon Medical Center. A citizens' committee is studying the problem but definite accomplishments cannot be recorded yet. It is recommended that efforts be continued to set-up a demonstration project in Hunterdon County or some other area of the state.

The training program for nurses to supervise non-professional persons working as nurses aides in hospitals, nursing homes, and other institutions has been successful and the New Jersey Hospital Association has asked for an extension of the program for another year, or until October 1, 1956. Since the start of the program on October 1, 1954 for nine months until June 30, 1955, five workshops have been held which were attended by 200 nurses representing 136 different institutions. These institutions employ 3,000 nurses aides.

Budget estimates of the needs for the Nursing Program for 1956-57 is \$18,530.

## REHABILITATION TREATMENT

Rehabilitation is not merely a method, technique, or process but rather a concept or philosophy of treatment based on the conviction that if all rehabilitation services are made available to the patient, his residual physical limitations usually can become relatively insignificant when balanced against his total assets. This holds true even in the face of extensive physical limitations.

In the past few months, there has been an opportunity to see this philosophy in action for a group of public assistance patients at the Essex County Hospital—Belleville. With consultation services and financial assistance from this Department, a demonstration project was formally opened there on May 1, 1955. Half of the expense was assumed at the outset by the County Board of Freeholders and the remainder of the cost will be assumed by it gradually. This project uses the services of full-time well-trained physical and occupational therapists and a medical social worker, working in a team relationship with and under the direction of specialists in physical medicine and rehabilitation. These physicians are attached to the State Department of Health on a non-salaried basis, as Consultant and Associate Consultant in Rehabilitation. In addition, the project works in close cooperation with the usual medical services of the hospital and has involved the regular nursing and resident staffs in the total rehabilitative program. In the short time the program has been functioning, it has demonstrated the restorative potentialities which

exist in chronically ill and infirm aged persons. It has proved beyond a doubt that many can be helped to attain sufficient independence and self-direction to enable them to return to some form of community living with renewed self-confidence, self-esteem, and dignity.

That substantial savings have been effected through the rehabilitation of handicapped persons who return to industry has been demonstrated time and again. It has not been so clearly demonstrated in the case of patients whose disabilities are accentuated by advanced age and who are not potential wage earners. Yet for such persons, government purchases various categories of care on the basis of need. With an increase in the patient's ability to take care of himself, there is a corresponding decrease in the purchase price of services rendered. This will ultimately result in considerable savings in governmental expenditures for institutional and other expensive forms of care.

Emphasis in 1956-57 will be on initiating or strengthening rehabilitative programs in other county institutions. Interest has already been expressed by Camden County, Middlesex County, Ocean County, and the City of Trenton.

The earlier rehabilitation is undertaken the greater the savings. In addition to the programs in county hospitals, efforts will be continued to develop rehabilitative programs in general hospitals so that services can be available to patients at the time of diagnosis. Assistance in stimulating such programs is planned in the form of grants-in-aid for the employment of medical social workers and therapists in both in- and out-patient departments of hospitals and for the follow-up of patients discharged to their homes after hospital treatment.

Training will be needed for physicians and para-medical personnel in the new concepts and practices.

Budget estimates for the needs of the Rehabilitation Program in 1956-57 is \$98,000.

## TESTING AND RESEARCH CONTROL

Pilot studies are needed to test the practical applicability of new developments in the medical and allied sciences which could contribute to the prevention and early detection of chronic illnesses and the rehabilitation of those afflicted.

The budget estimate for this program for the year 1956-57 is \$25,000.

## DEPARTMENT OF HEALTH

## HEART DISEASE

It is anticipated that federal funds will be available, as in the past, for continuation of present programs in education and early diagnosis of heart disease. It is proposed, however, to assist hospitals with chronic illness funds in instituting and carrying on rheumatic fever programs and also with routine chest X-ray programs which are useful in the detection of heart abnormalities as well as in the discovery of tuberculosis and other chest diseases.

A research project in cooperation with a research team of Merck and Company is in the planning stage to develop a means of avoiding the onset of coronary heart disease. A group of adult males over 35 years of age (possibly state employees) would constitute the study group.

Budget estimate for the needs of the Heart Disease Program for the year 1956-57 is \$17,000.

## SALARIES AND ADMINISTRATION

In addition to the budget requests for various programs which have been outlined, general combined administrative and other costs common to all programs are anticipated in the amount of \$29,241.00 and salaries and wages in the amount of \$145,715.00.

## RECAPITULATION

Alcoholism .....	\$128,065
Epilepsy .....	27,000
Multiphasic Screening .....	60,551
Homemaker Service .....	21,100
Diabetes .....	18,245
State Employees Health Program .....	12,800
Speech and Hearing Project .....	19,000
Public Health Nursing .....	18,530
Rehabilitation .....	98,000
Testing and Research .....	25,000
Heart Disease .....	17,000
Administrative and other Common Costs .....	29,241
Salaries and Wages .....	145,715
Total .....	\$620,247

## Report of the Division of Constructive Health

July 1, 1954—June 30, 1955

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


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Bureau of Adult and Occupational Health .....	MIRIAM SACHS, M. D., M. P. H. <i>Chief</i>
Adult and Occupational Health .....	E. LYNN SCHALL, M. P. H. <i>Program Coordinator</i>
Air Sanitation .....	WILLIAM A. MUNROE <i>Program Coordinator</i>
Radiological Health .....	RICHARD SULLIVAN, M. P. H. <i>Program Coordinator</i>
Crippled Children Commission .....	GERTRUDE BUCH <i>Executive Director</i>
Crippled Children Program .....	GEOFFREY W. ESTY, M. D. <i>Program Coordinator</i>
Bureau of Dental Health .....	EARL G. LUDLAM, D. D. S., M. P. H. <i>Chief and Program Coordinator</i>
Bureau of Maternal and Child Health .....	RENEE ZINDWER, M. D., M. P. H. <i>Chief and Program Coordinator</i>
Nutrition Program .....	MARGARET P. ZEALAND, M. S. <i>Program Coordinator</i>

## Division of Constructive Health

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### INTRODUCTION

Positive physical and mental health promotion and optimum total health cultivation, keynoted by the Department in the several programs and activities of the Division of Constructive Health, is rapidly gaining professional and public recognition in both medicine and public health. As an example, the 5th International Congress on Mental Health held in Toronto in August 1954, repeatedly emphasized the importance of the primary prevention of mental illness and the responsibility of public health in this regard.

During the past year, there have been frequent discussions, formal and informal, on the part that public health in New Jersey should play in positive mental health programs at both the state and local levels. State-wide interest is growing and citizens are beginning to appreciate that unless steps are taken to develop positive mental health programs on the community level, it will not be possible for physicians, mental hygiene clinics, and hospitals to cope with the needs of the rapidly increasing numbers of the mentally ill. As soon as space, personnel and funds permit, a formal positive mental health program should be instituted in the Department which will furnish the necessary integration and leadership for similar programs on the community level.

Despite a growing interest in adult health appraisals in industry and in the community as a factor in maintaining and enhancing health and preventing chronic disease, studies during the past year have convinced this Division that substantial appreciation on the part of the public and particularly the physician of the importance of positive adult health will not be adequately realized until medical education in New Jersey can include this approach as a basic part of its medical training curriculum, and until a generation of physicians so conditioned have the interest to make use of our modern knowledge in disease prevention and total health cultivation.

The past year has been marked by increased coordination of program activities between divisions of the Department, between several State Departments, and with many non-official agencies. These cooperative efforts have permitted considerable expansion of certain Division programs.

With the passage of Chapter 212 of the Laws of 1954, creating an Air Pollution Control Commission in the Department, the Air Sanitation Program has been enabled to enlarge its staff and equipment necessary to cope more adequately with this public health problem. A similar appreciation of the

growing public health problem of radiation protection has resulted in a code and regulations which are setting a pattern for radiological health programs over the nation.

The Maternal and Child Health Program has received national recognition in the field of child home accident prevention for its successful and well publicized child safety project. The Dental Health Program has continued to spearhead the fluoridation of public water supplies. The enlarged nutrition program staff has resulted in even greater integration of this program with official and non-official agency nutrition activities. Finally the past year has seen a re-credescence of the Crippled Children Commission in reference to its responsibilities, interest and valuable program support.

As in previous years, the Division Director has continued his public relations activities with numerous official and private organizations as a means of familiarizing citizens with our mutual responsibilities for developing better public health services in New Jersey.

## Bureau of Adult and Occupational Health

### INTRODUCTION

It has been stated many times that the wealth and strength of this nation are based upon our technical manpower and our ability to produce the necessities and luxuries of living. In the rehabilitation of the impoverished and war-torn countries of the world, training and assistance in occupational health and industrial hygiene has assumed a major role. This development has been reflected in the Bureau of Adult and Occupational Health by a tremendous increase in requests for information from many foreign countries, and requests to allow students from other nations to visit the Bureau and observe our procedures and methods.

It is somewhat of a paradox, that although this country has an outstanding record in occupational health, trained industrial hygiene personnel are spread woefully thin. At the present time, official occupational health programs are found in 39 states, the District of Columbia, Hawaii, Puerto Rico, and 20 local health departments but their total professional staff (physicians, engineers, hygienists, chemists and nurses) consists of only 375 persons.

Some of this paucity of numbers is due to lack of interest on the part of some health officers in increasing the activities of an occupational health program, and subsequent failure of budgetary support. In New Jersey, we are extremely fortunate that our State Commissioner of Health has a vigorous interest in occupational health and the related specialties of air pollution and radiological health. The Commissioner is a member of the Advisory Committee to the Public Health Service on Occupational Health and his efforts and

support contributed in a large measure to the restoration of a Subcommittee on Occupational Health in the Association of State and Territorial Health Officers, and the appointment of the chief of this Bureau to this Subcommittee.

At the 1955 Industrial Health Conference, Doctor Bergsma presented a paper on the *Potentials of an Occupational Health Program in a State Department of Health*. This was the first time a state commissioner of health had ever appeared before the American Conference of Governmental Industrial Hygienists. Copies of this paper have been requested even by government officials so far afield as Canada and New Zealand and permission has been given for reprinting.

As a result of Doctor Bergsma's activities, the Bureau has gained enormously in prestige and we feel that many of the requests for information, for descriptions of the program and visits from students and trainees stem directly from the wide publicity we have gained. This is our only opportunity to make our gratitude and appreciation a matter of record.

## Occupational Health Program

Much progress has been made during the past year in safeguarding the lives and health of workers in New Jersey industries. The major factors in this achievement have been the notable improvements in working conditions and occupational medical care. Through research, and experience, effective methods have been devised for the protection of workers exposed to accident hazards and to such health hazards as toxic chemicals, harmful dusts and fumes, high temperatures, and excessive noise. In some industrial processes, noxious substances have been replaced by harmless ones, and the substitution of automatic for manual procedures has greatly reduced the health hazard. This is particularly true in the chemical industry where recent statistics reveal that mortality among skilled process workers has been reduced to the point where it is only one-fifth higher than the average for standard risks. Much has been done to control health hazards in this industry through wider and more intensive use of industrial hygiene and medical science to cope with plant problems. Adequate ventilation has been provided where fumes were scientifically proved to exist in concentrations harmful to the health of the workers. The use of automatic devices and remote controls has removed workers from dangerous areas. Still other harmful processes have been isolated or enclosed, thus preventing pollution of the entire work room atmosphere. Through field visits and voluminous correspondence, the Adult and Occupational Health Program has contributed to these advances.

Specific noticeable achievements during this fiscal year were the final completion of the iron mine study and a study of internal combustion engine emissions in certain motor vehicle inspection stations in New Jersey. Field



studies embracing a twelve-month period were completed in the 1953-1954 fiscal year. Sample results were determined, analyzed, correlated and comprehensive recommendatory reports prepared and forwarded management this year.

#### PROVIDE RELEVANT INFORMATION

The vigorous health education program continued with the publication and distribution of Occupational Health Bulletins issued monthly on such subjects as Fatigue, Formaldehyde, Arsenic, Ammonia, Selenium, Manganese, Sulfuric Acid, and Occupational Hearing Loss.

Many communications were received from persons residing within the United States for previous issues of these Bulletins and requesting future issues. A large number of requests were also received from persons residing in the following foreign countries: Australia, Canada, Cuba, England, France, Israel, and South America.

This program was honored by the presence of several representatives sent from local health organizations, other states and foreign countries for occupational health orientation. Among these were:

Dr. Alexander Hale from Israel  
 Dr. Luis Cantellano from Mexico  
 Dr. Jorge de Mello from Brazil  
 Dr. Melvin Udel from Cincinnati, Ohio  
 Miss Nancy Giordina, R. N., from Newark, N. J.  
 Miss Evelyn Davis, R. N., from North Carolina  
 Mr. Clarence Boyd from West Orange, N. J.  
 Mr. S. W. James from Elizabeth, N. J.

News releases, formal lectures, and exhibits were prepared and presented throughout the State. Fifty-four professional meetings were attended by medical, nursing, engineering, and toxicological personnel of this program.

#### PROMOTE HEALTH OF ADULTS

Sixteen surveys were conducted for the specific purpose of initiating and improving health programs in industrial plants. There were twelve consultations on medical aspects, and twenty consultations on nursing aspects.

#### PREVENT AND CONTROL OCCUPATIONAL DISEASES

The physician, nurse, engineer, and toxicologist team approach prevailed in 174 visits to study in-plant environmental conditions as:

Introductory visits .....	47
Occupational health surveys .....	43
Technical studies of hazards .....	36
Noise and vibration studies .....	13
Consultation only (advisory) .....	12
Follow-up on recommendations .....	17
Illumination studies .....	2
Nutrition studies .....	4

Seventy-one atmospheric contaminants were determined in the field and 166 physical conditions recorded. Occupational health laboratory analyses comprised 234 samples and 65 were completed as diagnostic analyses. Thirteen occupational diseases were investigated and plans were reviewed for a new industrial installation.

#### EVALUATE PROGRAM

A program evaluation was completed during this fiscal year. Weaknesses were clearly apparent as: too crowded working quarters, an insufficient number of personnel, etc. Plans have been made to correct these faults, and it is expected that future program activities will increase and expand.

In conclusion, it should be emphasized that a great many problems still remain in the prevention and control of occupational hazards. Their solution will require the continued effort of physicians, engineers, chemists, and other professional groups in private and public agencies. Constant vigilance, moreover, needs to be exerted in protecting workers against the effects of newer substances which may be potentially harmful.

A complete summary of activities, on form recommended by the Public Health Service, is attached.

#### NEW JERSEY STATE DEPARTMENT OF HEALTH ADULT AND OCCUPATIONAL HEALTH PROGRAM

#### STATISTICAL SUMMARY OF OCCUPATIONAL HEALTH ACTIVITIES

For period July 1, 1954 to July 1, 1955

##### Field Activities

* Number of industrial establishments given service .....	87
* Number of workers affected by services .....	32,310
* Number of other places and areas visited .....	8
* Number of employees in establishments visited .....	77,966

\* Starred items represent minimum requirements for a national system for standard reporting of occupational health activities.

## Number of field visits made:

Requested	
a. Management .....	22
b. Labor .....	11
c. Plant M. D. or nurse .....	7
d. Local Health .....	21
e. District Health .....	6
f. Citizen .....	10
Total Requests .....	77
Self-initiated .....	8
* Total .....	85

## Plant Environmental Services

## Environmental Recommendations

	No. of Visits		No. of Visits
Introductory visit .....	47	Number made .....	148
Industrial hygiene survey .....	43	Number complied with .....	61
Technical study of hazards .....	36	Estimated cost .....	\$11,000
Noise and vibration .....	13		
Consultation only (advisory) .....	12		
Follow-up on recommendations .....	17		
All other illumination .....	2		
Nutrition .....	4		
* Total .....	174		

## Field Determinations

Atmospheric contaminants .....	71
Physical conditions .....	166
Radiation monitoring .....	
* Total .....	237

## Laboratory Analyses

Routine .....	234
Air pollution .....	
Diagnostic .....	65
Research .....	
* Total .....	299
* Occupational diseases investigated .....	13
* Occupational diseases reported .....	5
Plans reviewed .....	1

## Worker Health Services

Promotion of plant health programs .....	16
Consultation on medical aspects .....	12
Consultation on nursing aspects .....	20
Consultation with local health dept. on plant health services .....	3
Other .....	1
* Total .....	52

\* Starred items represent minimum requirements for a national system for standard reporting of occupational health activities.

## Related Activities

Office consultation services and inquiries handled .....	201 + 25
Lectures given .....	4
Meetings attended .....	34 + 20
Demonstrations .....	1
Publications .....	11
Attendance .....	305

## Air Sanitation Program

The Air Sanitation Program was strengthened considerably this year as the result of action taken by the 1954 session of the State Legislature. The responsibilities and duties of the State Department of Health in matters of air pollution are now clearly defined in Chapter 212, State of New Jersey Laws of 1954, known as the Air Pollution Control Act (1954).

The Act created an Air Pollution Control Commission in the State Department of Health and authorized the establishment of County Air Pollution Control Associations. The Commission was granted power to formulate and promulgate, amend and repeal codes and rules and regulations controlling and prohibiting air pollution throughout the State of New Jersey. The Department is responsible further for the enforcement of any code, rule or regulation promulgated by the Commission and is empowered to conduct and supervise research projects and air pollution control education, to require registration of air effluents, to make inspections, investigate complaints and conduct hearings.

The Air Pollution Control Commission was appointed by the Governor and held its organizational meeting in February 1955.

At the second regular meeting of the Commission in March 1955, it was agreed that the overall subject of air pollution in this State might be generally classified into four major categories as follows:

1. Smoke and odor from open burning dumps.
2. Smoke, fly ash and odor resulting from incomplete combustion of solid, liquid and/or gaseous fuels including incinerators.
3. Dust, gases, vapors, fumes and odors resulting from commercial and industrial operations.
4. Pollens.

In making such classifications, it was fully recognized that the actual listing of the various items in the order of true importance was difficult in view of the vast amount of investigatory and experimental work that remains to be done in order to resolve more clearly some of the less tangible aspects of the problem. Hence it was decided to direct the initial efforts of the Commission toward

those phases of air sanitation that afforded the opportunity for most immediate solution. The control of air pollution from open burning of refuse and from salvage operations was given immediate, concerted action. A public conference was conducted with representatives of various civic and professional groups invited to attend and provide the Commission with guidance in matters regarding the scope of the proposed code. It is anticipated that a public hearing on a code drafted by the Commission will be conducted in the very near future.

Consideration is being given to organizing the initial County Air Pollution Associations in 8 counties where density of population, industrialization and urbanization are critical.

As the result of recommendations made by the Air Pollution Control Commission, additional personnel, scientific equipment and operating funds were allocated to the Bureau of Adult and Occupational Health for accelerating the activities of the Air Sanitation Program.

The experiences of the past year in integrating the new responsibilities assigned to the Department of Health with the previously established Air Sanitation Program have demonstrated that the objectives and activities of the Air Sanitation Program were fundamentally sound and no immediate change in the program is indicated.

*Providing Technical Assistance to Local Boards of Health and Investigation of Complaints* comprised the major field activity of the program. In all, 74 complaints were investigated requiring 102 field surveys of sources or affected neighborhoods. Recommendations for reduction of air contamination were made in 31 instances and 22 abatement actions were taken by the industries or other persons responsible.

*Technical Advisory Service* was given to 11 industrial organizations in matters relating to control of air effluents.

*Research Activity* has progressed slowly but satisfactorily. Seven permanent air sampling sites have been established and 24-hour samples have been taken one day each week. Plans have been made and equipment purchased to establish 40 continuous monitoring type air sampling stations throughout the State. Data collected in this project will provide a relative index of the soiling characteristics of the air in 40 municipalities having various degrees of industrial and residential concentration.

Lack of standard air testing and sampling procedures and the lack of minimum standards for "clean air" continue to be the major obstacles in attaining a satisfactory resolution to the problem of air pollution in New Jersey.

With the passage of the Air Pollution Control Act (1954) and the vigorous activity of the Air Pollution Control Commission together with the expanded

technical activity of the Air Sanitation Program, substantial strides toward efficient and effective air pollution control should ensue.

### Radiological Health

Fiscal 1955 was the third year in which a formal program on Radiological Health was conducted as a distinct function of the Bureau of Adult and Occupational Health. The activities of this past year can most logically be summarized under the essential objectives of the program.

#### PROGRAM ADMINISTRATION

The sanitary engineer assigned to this Bureau by the Public Health Service to assist in the development of a radiological health program was transferred early in the year. The responsibilities of program coordinator were then assumed by an engineer of this Bureau pending the return of an engineer on leave of absence for the study of public health administration. The latter returned at the end of the year and following a three-month orientation, will be assigned as coordinator.

Approval was secured for the employment of a radiation physicist with training and experience in the control of hazards associated with the use of radioactive materials. The position will be filled as soon as possible after the beginning of the new fiscal year.

#### PROVIDE INFORMATION

One of the most important functions of the program is to provide a reliable source of radiological health information for those individuals, industries, and institutions in the State that utilize any of the various sources of ionizing radiation. A consequent responsibility is that program personnel themselves be well informed in this changing field. A very useful organization designed to serve the latter purpose is the Regional Coordinating Conference on Radiological Health. This year program personnel attended all of the monthly meetings of this group which comprises radiological health representatives of ten government agencies in the New York metropolitan area. The same purpose was served more formally by the participation of a program engineer and the Bureau chief respectively in a Public Health Service course in radiation protection, and a post-graduate medical course in radiation biology.

In April of this year the Governor appointed an Advisory Committee on Radiation for the purpose of preparing a suggested code for the control of radiation sources, and recommending methods in general for effective State control of such sources. The Committee consists of representation from this Department, the Department of Labor and Industry, a practicing radiologist,

and members of the staff of several industries and universities. The Committee expects to submit its first recommendation in fiscal 1956.

This year a Bureau Industrial Health Bulletin, *Static Eliminators*, was published and distributed. It was designed to serve as a safe-practice manual for the ever-increasing number of industries that use radioactive material for the elimination of static electricity.

During the year four papers on radiological health were given at professional meetings and subsequently published. One of these—delivered at the annual meeting of the APHA—was presented to describe this Department's approach to the epidemiology of radiation hazards, and resulted in a considerable number of written requests for detailed information on our program.

#### LOCATE AND EVALUATE SOURCES OF RADIATION

##### *AEC Isotopes*

This Bureau continued to receive copies of all authorizations issued by the AEC to radioisotope users in New Jersey. Based on the information contained on these authorizations, program personnel made radiological health field surveys where the type, quantity, or method of use of radioactive material indicated the greatest need for such a service. In all, twenty-five such investigations were made; in eleven of these cases the Bureau engineer was accompanied by the area field representative of the AEC.

In two years the number of authorized users of AEC isotopes has risen from 90 to over 150. Approximately one-third of the latter has been visited at least once. Ideally, all users should be visited but the restriction imposed by the limited number of personnel available for these surveys has made complete coverage impossible.

##### *Industrial X-ray Radiography*

The information the Bureau has received concerning the location of industrial X-ray machines (non-medical) has been provided by the two largest manufacturers of this equipment, and from the published list of industries authorized to do industrial radiography on Federal Government contract. This information is by no means complete. Approximately forty installations are known; less than one-third have been surveyed, and none of these surveys were conducted in the year here reported upon. The use of industrial X-ray implies a considerable potential occupational health hazard, but because of the limited number of personnel, it is a radiological health problem still to be explored.

##### *Medical X-ray (Medical, Dental, and Veterinary)*

It is estimated that there are 10,000-15,000 X-ray machines in New Jersey employed in the three healing arts cited above. The great majority of these are located in the offices of private practitioners. This year, nine surveys were made, all but one of institutional installations. In June, preparations were made for an extensive study of the hazards associated with the use of X-ray and fluoroscopic equipment in the practice of veterinary medicine. An explanatory letter inviting participation was sent to the 300 licensed veterinarians in the State. The study, which will include a hazard evaluation of the X-ray equipment of every participant, and film badge personnel exposure monitoring for a two-month period, is expected to be completed in the first four months of the next fiscal year.

Veterinarians were selected because their number is small enough to allow good coverage and because it is expected that the conditions under which they are required to use X-ray equipment make it likely that exposure in higher than in the other healing arts.

A cooperative arrangement has been established with the Division of Chronic Illness whereby all of the hospital installations of X-ray equipment made under its grants-in-aid program will be evaluated from a radiological health standpoint when they are in the planning stage, and surveyed when installation is completed.

##### *Naturally Radioactive Material (radium and polonium)*

Information concerning the location of radium and polonium sources of radiation is provided the Bureau on a quarterly basis by the two largest distributors. It is not known if this information is complete, but surely the large majority of users are known. A common and growing use of these materials is in industrial devices for the elimination of static. Over one hundred such installations are known to exist in New Jersey. None of these were surveyed this year; over 50% have been surveyed to date however.

These materials do not come under the jurisdiction of the AEC; any control of these sources must be provided at state level. For this reason consideration is being given to the adoption of regulations under Chapter VI of the State Sanitary Code specifically governing the use of radioactive static eliminators.

##### *Fluoroscopic Shoe-Fitting Machines*

Based on information secured from the manufacturers, at the time of the adoption of Departmental Regulations on Shoe-Fitting Fluoroscopes (December 1952), 389 installations were known to be located in New Jersey. At the end of this fiscal year, all of these machines had been surveyed to

determine compliance or non-compliance; and all but 17 of those that failed to comply had been revisited; 216 investigations were conducted this past fiscal year. Over one-third of the machines have been removed from service. Of the balance all but the 17 still to be revisited are now known to be operating in compliance with the Departmental Regulations. It is expected that this program will be completed and a summary report issued early in the next fiscal year.

The conclusion of this time-consuming project will allow the efforts of program personnel to be directed to other areas of potential radiation exposure.

#### *Background Radioactivity Monitoring*

In March of this year, a field station was established in Trenton for the determination of the background radioactivity of air-borne material. On the average, four 24-hour tests have been run each week, in which large quantities of air are drawn through filter paper, and the filter paper subsequently assayed by program personnel for radioactivity. Several requests for the data collected in these tests, have already been received from other government agencies interested in the variations in air-borne radioactive matter.

#### *Establish a Film Badge Monitoring Service*

In the past fiscal year this objective has been fulfilled on an experimental basis by a contract with a commercial service organization. Starting in May 1955, 50 badges will be received, distributed, and returned for processing, for a 20-month period. In the first few months these badges will be used to assist the evaluation of exposure in the veterinary X-ray study.

This method of determining radiation exposure without requiring the presence of a program engineer is expected to be invaluable in the extension of radiological health services to other radiation source users, upon the completion of the veterinary study.

### **Crippled Children Program**

#### INTRODUCTION

The Crippled Children Program is essentially a case servicing program for individual children under the age of twenty-one with handicapping conditions defined and acceptable for such services by the Crippled Children's Commission. Financial assistance is given toward their hospitalization and convalescent care, their appliances and prosthetic devices. Psychological and nursing services, medical consultative, diagnostic, and follow-up clinic services are provided for those with cerebral palsy and to a limited extent for those with rheumatic heart disease.

#### CRIPPLED CHILDREN'S COMMISSION

The Commission, a legally constituted agency within the State Department of Health, is composed of ten members appointed by the Governor representing each of the following organizations: State Department of Health, Elks, Shrine, Rotary, Kiwanis, Lions, Medical Society of New Jersey, Senate, Assembly, and the public at large.

The original purpose of the Crippled Children's Commission was to aid, coordinate and encourage the humanitarian work being done for crippled children by the various fraternal organizations and public agencies. This policy was not altered when the Commission joined the Department of Health. The Commission concurs with the Department that it is a contributory organization and not an agency charged by law to assume full financial or administrative responsibility for the care and management of crippled children. For this reason, the Commission, through the Department, is free to determine not only the degree and extent of its services, but also to determine the diagnostic categories acceptable for contribution and assistance.

#### PROGRAM OPERATION

The operation of the Crippled Children Program is essentially a responsibility of the State Health District staffs. Nursing services are provided either by private nursing agencies under contract with the Department, or by public health nurses in official local health departments under District supervision. Under terms of the contract, certain qualified nursing agencies initiate their own case home visits and maintain complete case files, receiving the consultative and over-all program supervision from the District offices. Records of cases receiving nursing services from private and official agencies under District supervision are kept in the District offices. The Bureau of Crippled Children supplies program coordination and consultative services through its program coordinator, psychologists, orthopedic consultant, State cerebral palsy consultant, and the public health nurse consultant for crippled children.

#### PROGRAM ADMINISTRATION

The Executive Director of the Crippled Children's Commission prepares the agenda for monthly Commission meetings, notifies its members and attends its meetings. The individual case processing procedures, fully described in the 1952-53 report, have remained a primary function of the office of the Bureau of Crippled Children under her direction. Much time and effort is spent in evaluating the individual medical and social-economic status reports and the elaborate arrangements for hospitalization, bed day and appliance purchase for those children who are medically indigent. Each case eligible for contributions

by private and official matching agencies must have individualized agreements for such contributions.

#### STATE REGISTER OF CRIPPLED CHILDREN

The following services are supplied by the Bureau of Public Health Statistics from the State Register of Crippled Children:

A monthly alphabetic cumulative index for the Bureau of Crippled Children office.

A monthly geographic cumulative index broken down into counties for the State Health District offices.

A yearly alphabetic cumulative index which includes all cases registered for the Bureau office.

A yearly geographic cumulative index broken down into counties for the State Health District offices.

Individual duplicated IBM cards broken down by counties, filed in Districts, and used as case reference cards, replacing former registration cards.

Annual lists of cases reaching their sixteenth birthday for notification of the Rehabilitation Commission.

Annual list of overage cases to Bureau and Districts.

Annual tabulation by municipality and county of the number of cards (not individuals) in each diagnostic code supplied to each District.

Annual tabulation for State as a whole as in above with details as to sex, by color, by age group for each diagnostic code supplied to the Bureau.

Annual tabulation by municipality and by county of the number of individuals (unduplicated) on the register, by sex, color and age grouping for District use.

Table 1 gives the status of the register for the current year.

TABLE I

#### CRIPPLED CHILDREN ON STATE REGISTER

On Register as of January 1, 1954 .....	17,267
Placed on Register During Calendar Year .....	2,725
<b>Total Entered on Register .....</b>	<b>19,992</b>
Removed from Register for Specified Reasons .....	2,048
Reached age of 21 .....	710
Dead .....	139
Cured .....	611
Residence established in another State .....	148
Ineligible for service .....	65
Registration in error .....	19
Cannot locate .....	317
Other reasons .....	39
<b>On Register at End of Year .....</b>	<b>17,944</b>

#### HOSPITALIZATION AND APPLIANCES

Table 2 indicates that 318 children received hospitalization for a total of 12,534 bed days and that 90 children received convalescent home care for a total of 14,378 bed days. Total federal and state matching expenditure for hospitalization and convalescent home care was \$150,430.61. In addition \$33,859.06 was contributed by parents and voluntary agencies, particularly local Polio Foundation Chapters and Elks' Lodges.

There were 873 artificial limbs, braces and appliances purchased by the Program with a matched total of \$37,583.19. Payments from parents and private voluntary agencies totaled \$6,662.83.

## DEPARTMENT OF HEALTH

TABLE 2

CASE NUMBER AND PAYMENT OF HOSPITAL, CONVALESCENT HOME AND APPLIANCE SERVICES FOR FISCAL YEAR 1954	
<i>Hospital, Convalescent Care</i> —Total Number of Children .....	408
Total Bed Days .....	26,912
<i>In-Patient</i>	
Number of children receiving specialized services .....	318
Number of bed days .....	12,534
<i>Convalescent Home</i>	
Number of children receiving specialized services .....	90
Number of bed days .....	14,378
<i>Payment of Bed Days (Hospital and Convalescent Home) Total</i> .....	\$184,289.67
State and Federal Funds .....	\$87,878.00
County Boards of Chosen Freeholders .....	62,552.61
Total payments from tax sources .....	\$150,430.61
<i>Private Contributions</i>	
Local chapters of Polio Foundations .....	\$25,710.07
Parents .....	7,784.99
Elks Lodges .....	364.00
Total Contributions .....	\$33,859.06
<i>Appliances</i> —Total Number Purchased .....	873
Total Payments .....	\$44,246.02
State and Federal Funds .....	\$21,849.10
County Boards of Chosen Freeholders .....	15,734.09
Total payment from tax sources .....	\$37,583.19
<i>Private Contributions</i>	
Parents .....	\$2,315.71
Local Chapters of Polio Foundations .....	3,632.87
Elks Lodges .....	714.25
Total payments from private sources .....	\$6,662.83

## PHYSICIANS' SERVICES

Handicapped children in need of specialized surgical care are referred to panels of approved specialists in orthopedics, neurosurgery and plastic surgery. Cardiac and chest surgery are likewise available. These physicians examine, operate or prescribe for these children without charge in their approved hospitals and clinics. Hospitals and clinic reports are made a part of the Bureau and District case records and are also on file in the community nursing agencies responsible.

## FINANCIAL ASSISTANCE

Crippled children who have received hospital care through program assistance are followed up free of charge at the several orthopedic or other specialized clinics over the State. On request from these clinics, financial assistance by the Program is rendered toward the payment of appliance needs. The Program itself does not operate medical clinics except the state diagnostic, medical follow-up and consultation clinics for cerebral palsy. Grant-in-aid assistance has been furnished the Rheumatic Fever Clinic Project at St. Michael's Hospital, Newark. Consultant advice was provided to the Division of Chronic Illness Control in the setting up of three additional clinics for rheumatic fever and cardiac children. These clinics are located at Hunterdon Medical Center, Flemington; McKinley Hospital, Trenton; and the West Jersey Hospital, Camden. The Program assumes financial responsibility for the hospitalization and convalescent care of appropriate cases who pass through these clinics. Children with congenital heart disease are referred to St. Michael's Hospital, Newark, to receive definitive heart surgery as indicated. Financial support for evaluation and research studies on 88 referred post-operative cleft palate cases at the Reconstructive Surgery Center in St. Barnabas Hospital, Newark, has been continued.

During the calendar year, 846 children received clinic services under the Program for a total of 1,521 clinic visits. The total unduplicated count of children receiving hospital, convalescent home and clinic services paid for by the Program for the calendar year 1954-55 was 1,248. An analysis of these children relative to county distribution, race, age, new and old cases, and diagnosis by sex and age are given in Tables 3, 4 and 5.

TABLE 3

DISTRIBUTION OF CHILDREN RECEIVING CLINIC, HOSPITAL AND CONVALESCENT SERVICES  
CALENDAR YEAR 1954

Total—1,248

County	Number Children	County	Number Children
Atlantic .....	15	Middlesex .....	44
Bergen .....	30	Monmouth .....	94
Burlington .....	31	Morris .....	45
Camden .....	70	Ocean .....	27
Cape May .....	10	Passaic .....	24
Cumberland .....	15	Salem .....	9
Essex .....	476	Somerset .....	47
Gloucester .....	23	Sussex .....	23
Hudson .....	120	Union .....	38
Hunterdon .....	21	Warren .....	22
Mercer .....	64		

TABLE 4

DISTRIBUTION OF NEW AND OLD CASES RECEIVING CLINIC, HOSPITAL AND CONVALESCENT  
SERVICES BY NUMBER, RACE, AND AGE

CALENDAR YEAR 1954

	Number Children	Age in Years				
		Under 1	1-4	5-14	15-20	Unknown
Total .....	1,248	25	257	758	203	5
<i>Race</i>						
White .....	1,024	25	213	631	152	3
Other .....	224	...	44	127	51	2
Unknown .....	...	...	...	...	...	...
Number who received physician's services for the first time .....	454	25	161	231	36	1
Number who had received physician's services in previous years .....	794	...	96	527	167	4

TABLE 5

DISTRIBUTION OF CHILDREN RECEIVING CLINIC, HOSPITAL AND CONVALESCENT  
SERVICES BY DIAGNOSIS, SEX AND AGE

CALENDAR YEAR 1954

Report Group Code Number	Title	Total	Sex		Age in Years				
			Male	Female	Under 1	1-4	5-14	15-20	Unknown
Total .....		1,248	685	563	25	257	758	203	5
0120	Tuberculosis bones and joints, active or un- specified .....	1	...	1	...	...	1	...	...
0130	Late effects of tuber- culosis of bones and joints .....	6	2	4	...	2	4	...	...
0199	Other tuberculosis, ex- cept respiratory ...	1	...	1	...	1	...	...	...
0809	Poliomyelitis, acute ..	41	27	14	...	17	19	5	...
0818	Late effects of acute poliomyelitis .....	83	55	28	...	22	48	12	1
3510	Cerebral palsy .....	467	260	207	2	104	305	55	1
3590	Other diseases of the nervous system and sense organs, except eye, ear, and mental disorders .....	2	1	1	...	...	1	...	1
3899	Other diseases of the eye, except congeni- tal or diabetic cata- ract .....	1	...	1	...	...	1	...	...
3999	Other diseases and conditions of the ear and mastoid process	4	3	1	...	2	2	...	...
4090	Rheumatic fever, acute	119	59	60	...	...	80	38	1
4100	Chronic rheumatic heart disease .....	69	36	33	...	2	40	27	...
4300	Other diseases of the heart, except con- genital malforma- tions .....	99	48	51	...	4	77	18	...
7200	Arthritis and rheuma- tism, except rheuma- tic fever .....	1	...	1	...	...	1	...	...
7309	Osteomyelitis and peri- ostitis, except tuber- culosis .....	4	3	1	...	1	2	1	...



TABLE 5—Continued

Report Group Code Number	Title	Total	Sex		Age in Years				Unknown
			Male	Female	Under 1	1-4	5-14	15-20	
7459	Curvature of spine, except congenital or late effect of poliomyelitis or tuberculosis .....	11	...	11	...	1	7	3	...
7499	Other diseases of the bones and organs of movement, except congenital malformations .....	26	15	11	...	5	16	5	...
7510	Spina bifida and meningocele .....	15	10	5	3	6	4	2	...
7530	Congenital malformations of the circulatory system .....	37	23	14	1	5	23	8	...
7540	Cleft palate and hare-lip .....	133	74	59	13	42	72	6	...
7571	Congenital dislocation of hip .....	18	7	11	2	11	4	1	...
7584	Clubfoot, congenital or unspecified .....	14	10	4	...	4	7	3	...
7585	Flatfoot, congenital ..	1	1	...	...	...	1	...	...
7599	Other congenital malformations .....	45	20	25	3	20	18	4	...
7619	Other injuries at birth, except cerebral palsy and epilepsy .....	11	9	2	...	3	8	...	...
9400	Burns .....	16	9	7	...	3	7	5	...
9980	Other morbid conditions due to accidents, poisonings, and violence .....	11	7	4	...	...	5	5	...
9991	Other diagnosed diseases, injuries, or handicapping conditions, except provisional or deferred diagnoses .....	12	6	6	...	2	5	5	...

## CEREBRAL PALSY

Detailed descriptions of program activities and structure in behalf of cerebral palsy may be found in the annual report of 1952-53.

The cerebral palsy clinics have been staffed by four physicians who received specialized training under Dr. Winthrop M. Phelps, State Cerebral Palsy Consultant. These physicians refer cases when appropriate for Dr. Phelps' personal attention in consultation clinics held in the several Districts for two days on alternate months.

Private agencies such as the County United Cerebral Palsy Associations and the New Jersey Society for Crippled Children and Adults have continued to cooperate with the program in furnishing physical, occupational and speech therapists to the three State treatment centers which were originally designed as demonstration centers. The United Cerebral Palsy of Monmouth County with the cooperation of the Monmouth County Medical Society is now prepared to assume its responsibilities with regard to the supervision and conduct of the Center at Long Branch. The Center at Trenton is now under capable medical supervision and lay administration and ready to be taken over entirely under private auspices. The third center, in Camden, continues to operate as before until such time as discussions involving cooperation with the United Cerebral Palsy Associations of Southern New Jersey have been completed.

The program coordinator has actively participated in the formation and activities of the Essex County Coordinating Conference on Cerebral Palsy. This organization, representing all agencies official and private concerned with cerebral palsy in Essex County has been setting standards, defining needs, determining resources, and providing for an interchange of information so that all agencies can better co-ordinate and improve their services to the cerebral palsied.

The program coordinator has also had frequent conferences with local, state and national cerebral palsy organizations in an advisory, consultative and coordinating capacity for a more effective integration of the cerebral palsy activities of his program. He has assisted in three lecture courses to parents of handicapped children under the joint auspices of Rutgers University and the New Jersey Society for Crippled Children and Adults.

## RHEUMATIC FEVER DEMONSTRATION PROJECT IN ESSEX COUNTY

During the past fiscal year, operational and administrative responsibility for the Rheumatic Fever Demonstration Project in Essex County was taken over by St. Michael's Hospital with supervision supplied by the Heart Disease Control Program in the Division of Chronic Illness Control. The Bureau of Crippled Children cooperated by underwriting finances.

Payment for the project was made under a grant-in-aid contract on a reimbursable basis for services rendered. Under the present revised administrative structure, it will be possible for the hospital to carry on the rheumatic fever clinic under its own auspices upon the completion of the project on June 30, 1955. Payments were made for 701 clinic visits and 2,004 bed days during the fiscal year 1954-55.

#### RHEUMATIC FEVER AND CONGENITAL HEART DISEASE

At the beginning of the fiscal year, arrangements were completed for limited state-wide extension of hospitalization and convalescent home care for children with rheumatic fever or rheumatic heart disease under the Crippled Children Program. Any child referred to one of the newly established hospital heart clinics under the supervision of the Division of Chronic Illness Control, who has been diagnosed at such a clinic as being in need of hospitalization or convalescent care for rheumatic fever or rheumatic heart disease, is eligible for admission to the hospital upon recommendation of the clinic director and the Coordinator of the Heart Disease Control Program and with the approval of the Coordinator of the Crippled Children Program. Payment for these services is arranged by the Crippled Children Program toward hospital or convalescent home bed day purchase in the same manner as for orthopedically handicapped children. It has not been possible to reimburse contract nursing agencies for home follow-up visits made upon those children, except in Essex County under the special rheumatic fever project as described. This extension of services, though modest, has filled a real state-wide need, and was a logical outgrowth of the demonstration project in Essex County.

#### CONGENITAL HEART DISEASE

With the establishment of the Heart Center at St. Michael's Hospital equipped for complete evaluation and surgery, and made possible by the assistance of the Department through the Division of Chronic Illness Control, arrangements have been completed to send children with possible congenital heart disease to the Center upon direct referral or upon referral from any of the other approved heart clinics under the supervision of the Department. When children are admitted to St. Michael's Hospital for the purpose of cardiac surgery, and upon approval of the Coordinator of the Crippled Children Program, the hospital receives the regular hospitalization bed day purchase rate paid by the Program together with a special pre-operative work-up fee for each case. This new extension of services is expected to meet a great state-wide need.

#### CLEFT PALATE EVALUATION PROJECT

The Program has continued its financial support for the evaluation of post-operative cases of cleft palate and cleft lip which have formerly received hospitalization assistance under the Program. As described in detail in the Annual Report of 1952-53, the Cleft Palate Center, now called the Center for Reconstructive Surgery or the "Peer Clinic," at St. Barnabas Hospital, Newark, received a fee for the complete evaluation of these children by the clinic "team." Cases are referred back to their physicians for treatment and follow-up or are given such services at the Center. The Center also serves as a teaching center for plastic surgeons, nurses, social workers and speech therapists. A parents' group for Reconstructive Surgery has also been started. The Crippled Children Program Coordinator has been appointed as a consultant to that organization. The Center holds regular meetings and conferences for both the professional groups and for parents. The Coordinator has given lectures held at the Center for students in the speech class under the auspices of the Newark State Teachers College. He has also participated in other educational activities and meetings at the Center.

#### NURSING ACTIVITIES

The acceptance of responsibility by the local community for the nursing care of crippled children has continued to improve during the past year. There is growing evidence that many locally employed nurses by official agencies are giving or are interested in giving nursing service to crippled children. Discussion took place during the year concerning the possibility of permitting nurses employed by local official agencies to give services to crippled children when they work in areas already covered by nursing contracts. After much discussion, it was decided not to reduce the number of contracts with private nursing agencies at this time. However, there is indication for need of grant-in-aid contracts with the official agencies.

Under the nursing contract a third type of nursing agency category was developed which tended to increase agency responsibility. This type of agency was one where there is a combined Nurse Director and Supervisor and staff nurses meeting the standards set up by the National League for Nursing. The six months demonstration for this type of agency under the contract, proved successful and the contract manual was revised to include other agencies who will fit into this category for the coming fiscal year.

The interpretation of the responsibility of the community and its agencies for the conduct of crippled children services is always in process. Effort is continually being made to reduce the administrative and clerical work in the State Health District Offices relative to the nursing aspects of the Crippled

Children Program. The following guides were completed during the year to assist State Health District Offices in delegating their responsibilities: "Guide for Case Summaries" and "Guide for the Operation of Cerebral Palsy Centers."

The Southern State Health District has now generalized its Crippled Children Program. Public health nurse supervisors are now supervising the services to crippled children in their respective areas including the supervision of contract nursing agencies. During the year, two new contracts with nursing agencies in this District were initiated.

The Metropolitan State Health District is working toward and planning for generalization of their Crippled Children Program. There is still a direct service area in this District, but plans for change in this type of service are under discussion.

During the fiscal year 1954-55, contract nursing agencies made a total of 8,683 nursing visits to crippled children, receiving the services of the program for a total payment of \$21,707.50 at the rate of \$2.50 per visit.

Plans have been formulated to develop a "Guide for the Selectivity of Case and Priority of Nursing Care to Crippled Children."

The Public Health Nurse Consultant contributed to the special polio control study by performing 19 muscle examinations on polio cases in Monmouth and Cape May Counties. The study was conducted from April 1, 1954 to December 31, 1954.

#### PSYCHOLOGICAL SERVICES

The psychological services in the Bureau of Crippled Children include examination of children, research, counseling, addressing public meetings, and participation in conferences with professional organizations, individuals and groups.

Psychological evaluation involves a preliminary study of the case record; the examination itself; conferences with parents and interested professional people such as physicians, nurses and teachers, and a written report which includes the findings and recommendations. Approximately 90 percent of those examinations are requested by a physician, or a physician and educator jointly, for the purpose of determining the level at which a child can profit by training prior to school experience or by education when he has reached the appropriate age. The remaining examinations are requested because institutional placement is desired, vocational planning is appropriate, or amelioration of some emotional condition is desired. In the better centers in the country, there is now a growing tendency to accept the psychological findings in the case of cerebral palsied children as a point of departure for the education or

training of the child without making as positive a prediction of the child's ultimate development as sometimes is made. Strong points in a child's development and special disabilities are discovered and reported.

Conferences were held with either individuals or groups as occasion arose. Group conferences involved discussion of a variety of problems related to crippled children. While these have been primarily concerned with problems within the State, several during the past year included larger areas. Such meetings have been concerned with planning and development of research dealing with cerebral palsied children, and assisting in training professional people who work with them.

Research at present under way is concerned with various aspects of sensation and perception and their bearing on education. Writing for professional journals and books has been a result of the research as was previously true. During the past ten years, twenty pamphlets, booklets, journal articles and chapters of books have resulted from the work of the psychologist. In addition, there was participation in a number of symposia that have been published.

The demand for counseling has continued. Parents feel that it has a value to them that they do not find in any other service. As many sessions were scheduled as time permitted.

The demand for public addresses on the part of the psychologist has grown largely out of the counseling services. Other subjects in which interest has continued include the appraisal of mental competence of children with cerebral palsy and special learning problems of these children. A major public service is rendered by the psychologist as a member of the Educational Advisory Board of United Cerebral Palsy, Inc.

Psychological services have been improved by the addition of an assistant in the Department. This worker assists with examinations and is developing skills for a wider variety of services.

#### EDUCATION FOR THE HANDICAPPED CHILD

The Program Coordinator has had repeated work sessions and conferences with representatives of the New Jersey Conference for the Handicapped and the newly appointed Director of Special Education for the State Department of Education for the purpose of assisting the drawing up of special legislation, now passed, and in determining standards for the education of the several types of handicaps including orthopedic, heart, blind, hard of hearing, speech and mental deficiency. These standards when completed and approved by the Department of Education will implement the new legislation.

The Program also assisted in the State Survey of the education needs of handicapped children conducted by the State Department of Education as a

preliminary to legislation by furnishing the Survey with specific local and state registration lists for case coverage checking.

### Dental Health Program

The primary aim of an organized dental health program is to maintain the highest standard of dental health in any community in which it operates. It is a widely accepted axiom that any service concerned with promoting public health should be preventive rather than curative in character. This philosophy governs the activities of the Bureau of Dental Health which are directed towards:

1. Development and promotion of methods for the prevention of dental diseases.
2. Early detection and treatment of such conditions when they are not prevented.
3. Development of attitudes that will motivate the dental profession to practice, responsible officials to sponsor and the public to accept these preventive and control measures.

Public interest in the dental health of the children of this state has increased tremendously during the past several years, and in many communities parents, teachers, school nurses and other interested persons have been untiring in their efforts to obtain necessary dental services. Numerous requests for the services of the Bureau have been received this past year but all were not fulfilled because the demand was greater than the supply. However, many local and county groups have increased their appropriations, enabling program expansion in some areas.

The fine working relationships between this Bureau and the New Jersey State Dental Society were continued during this year and were strengthened in many ways. Much time and effort were expended in arranging the program for National Children's Dental Health Week, the first week in February. Governor Robert B. Meyner issued a Statewide Proclamation endorsing this event.

This Bureau was responsible for the preparation, purchase and presentation of a kit of guides, source material, radio scripts, T.V. presentations and lecture materials in conjunction with the State Society's Council on Dental Health and the American Dental Association. Three of the Program's mobile dental clinics were on exhibition in several areas of New Jersey. Children's Dental Health Week proved very successful.

The Dental Health Program offered its services to eighteen (18) counties emphasizing the following basic principles:

1. Public health is primarily interested in the *prevention* of disease, and the development of optimum health.
2. Dental diseases are to a large extent preventable.
3. The prevention of dental diseases depends largely upon individual and community initiative and knowledge.
4. Individual initiative and knowledge must be gained through education.
5. Dental health education can effectively be promoted by helping classroom teachers in the elementary grades incorporate such education in their daily curricula.

A prime objective in Public Health Dentistry in this State has been to prevent and combat the widespread dental and oral diseases prevalent in our school population. Four (4) fundamental means have been employed in attempting to attack this problem:

#### 1. EDUCATION

The educational activities of the Dental Health Program may be divided into two categories—(a) professional and (b) lay or public.

(a) *Professional education* has been rendered in cooperation with the New Jersey State Dental Society and the New Jersey Society of Dentistry for Children; through sponsorship in courses for oral cancer; through accredited courses and dental health education for dentists, teachers and oral hygienists; through scientific information provided to dentists, physicians, nurses, oral hygienists, etc., on request, and through lectures at four (4) different dental schools.

During this fiscal year the following postgraduate courses were offered the members of the N. J. State Dental Society. These courses were sponsored and paid for by the N. J. State Department of Health.

February 28th through March 24th—Eighteen (18) dentists attended Oral Cancer Courses at the University of Pennsylvania.

March 28th through April 1st—Twenty-two (22) dentists attended Oral Cancer Courses at New York University.

March 11-18-25—Sixteen (16) dentists attended Pedodontia Courses at Beth Israel Hospital in Newark.

May 9th through 11th—Twelve (12) dentists attended "Dentistry for Handicapped Children" courses at the University of Pennsylvania.

The dental profession is very grateful for these opportunities, and there is a great demand for more such courses, especially "Dentistry for Handicapped Children."

Dental societies, dental health committees and individual dentists have a responsibility for contributing to the health and welfare of children and adults both through making dental care available in their private offices and by providing leadership and consultation to the community health program.

(b) *Lay or public education*—has been provided through cooperation with local officials and voluntary agencies and the four State Health Districts by means of the dissemination of authoritative dental information; and through the stimulation of community interest in local treatment programs. County and local dental health committees have made marked contributions in the field of public health education by means of posters, leaflets and films provided by the Dental Health Program. These committees were able to disseminate authentic information. The dentists participating in the treatment program frequently took opportunities to present to school administrators, teachers, pupils and parents, information concerning preventive measures. The three dental health supervisors covering the four State Health Districts coordinated the promotion of dental health education programs in their areas. Methods of providing information for teachers and nurses enabling them to carry on dental health education programs in the classrooms are presently being investigated. Teaching Outlines recently purchased are now in readiness for distribution.

The educational program has not been confined to teaching the individual the things he himself can do to have good teeth. It has also made efforts to educate the individual and the public concerning fluoridation as a public health preventive measure. During the year 1954-55, promotion of fluoridation has been the major activity in the field of dental public health. Following the endorsement of fluoridation by the American Dental Association, the American Medical Association, and many other leading health organizations of the nation, the Dental Health Program has been increasingly active in promoting this project. Fluoridation is looked upon as a measure which restores to the water the naturally essential element, which in the proper proportions markedly reduces the incidence of dental caries. The Chief of the Dental Health Program has met with and addressed national, state and local dental societies; city councils; P.T.A.'s civic clubs and other interested groups in many communities throughout the State of New Jersey. Literature secured from the U. S. Public Health Service, the American Dental Association, the N. J. State Dental Society, and the N. J. State Department of Health, has been very widely distributed. A great reduction in the occurrence of tooth decay in New Jersey is expected in a few years after fluoridation has been more widely adopted by the municipalities. In the meantime, the condition of dental health of our children is of major public health concern and all personnel of the Dental

Health Program are active in combating this problem by means of an excellent dental treatment program.

## 2. RESEARCH AND EVALUATION

These basic activities deal principally with improving methods of administering public health dental programs; of analyzing methods of dental research, particularly on a public health level; and appraising methods of prevention of dental disease. The Chief of the Dental Health Program has continued a study to compare dental conditions found among children in naturally fluoridated water communities with children residing in areas with non-fluoridated waters. Studies have also been conducted in communities now adding fluorine to the water, and surveys have been made prior to fluoridation in cities which anticipate fluoridation of their water supply within a very short period of time. Increasing evidence indicates that a communal water supply containing 1 ppm to 1.4 ppm will result in a 65% reduction of the dental caries rate.

The following are recommended criteria for measuring the trends of caries susceptibility rates by dentists, using mouth mirrors and sharp explorers:

1. DMF rates and age groups.
2. Percentage of children requiring dental treatment.
3. Average number of defective teeth per child.
4. Number of lost permanent teeth per 100 children in the 12-14 age groups.

The following criteria are recommended for the evaluation of the dental treatment program:

- (a) Individual records and periodic reports as recommended by the N. J. State Department of Health and the N. J. State Department of Education.
- (b) Increase in the percentage of completed cases (all necessary extractions, fillings and topical sodium fluoride applications) from year to year.
- (c) Consistent decrease in the extraction of permanent teeth.
- (d) Professional supervision of the operations of participating dentists.
- (e) Emphasis on prevention treatment for young children (4-10 yrs.) and incremental care thereafter.
- (f) The community approach with collaboration of state and local dental societies.
- (g) Information as to the number of children obtaining treatment in private dental offices.

## 3. PREVENTION

(a) Fluorine—Table No. 3 shows the number of 2% sodium fluoride topical applications provided by Program dental operators this past year on children receiving care under the Dental Health Program. The use of this procedure in this program and in private offices as well has been encouraged.

(b) Fluoridation—The Chief of the Dental Bureau has been very active in assisting local communities in discussing and planning all phases of fluoridation of public water supplies. During the past year he has given many talks to service clubs and P.T.A.'s, attended public hearings, radio broadcasts and the Governor's TV Program and debated with the opponents of fluoridation. The Program has provided new literature on the subject of fluoridation including new posters, and two exhibits. It is felt that preventive and control methods, such as fluoridation, are the only logical solutions to the caries problem since it will never be possible for treatment to keep pace with the present rate of dental caries. The task ahead of us is to employ this highly effective procedure in all public water supplies having a natural fluorine content of less than one part per million. We can be gratified at what has been accomplished in New Jersey, but we have no reason for complacency.

(c) Nutrition—Through cooperation with the Nutrition Program, the State Nutrition Council, and other allied organizations, much effort is being directed toward encouraging the reduction in the consumption of carbonated beverages and refined carbohydrates. Many schools have discontinued the sale of these items this past year.

## 4. DENTAL CARE FOR CHILDREN

This activity consists essentially of initiating, sponsoring and supervising local dental treatment programs for children who are financially unable to receive private dental care. Financial eligibility is determined by formula on a county-wide basis, and is approved by the County Dental Health Committee and the local dental society.

In the fiscal year 1954-55, 6,422 children received dental care through programs sponsored by the Department. Emphasis is placed upon providing all necessary fillings and extractions, prophylaxes and sodium fluoride applications in children of younger age. These children then receive incremental dental care at least once a year, if possible. Since most of the children are reached through the public or parochial school, the youngest age is usually six years, although pre-school children are being included wherever possible. The children receiving such treatment in 1954-55 came from 201 communities in eighteen counties. (The Program is not conducted in Salem, Mercer and Hudson Counties).

Treatments were provided by 102 dentists in four basic types of installations: mobile clinics, trailers, clinic, and private office (Table 3). The total number of hours employed in the State Program is determined at the beginning of each fiscal year. All the dentists are approved by the local dental societies and their work is supervised by three dental health supervisors in the four State Health Districts. One full-time field worker, under civil service, assists in administering local dental programs. It is only the limitation of funds which prevents the expansion of many of the existing activities and initiation of new State programs.

There are a few local programs which are not State sponsored. Some receive "advice," supervision, assistance and educational materials from the Dental Bureau. Information concerning these is available from the Chief of the Dental Health Program.

Emphasis this past year continued to be directed toward more local community and county responsibility and financial support for local dental programs. The responsibility of local participation belongs essentially to the community. The Dental Health Program acts in an "assisting" role only. Results obtained from the requests for local financial assistance in most all of the eighteen counties has been very gratifying.

The personnel carrying on the activities of the Dental Health Program are as follows:

- 1—Chief of Bureau of Dental Health Program Coordinator (Sr. Public Health Physician)
- 3—Dental Supervisors (Public Health Physicians)
  - 1—Supervisor in Northern and Metropolitan Districts
  - 1—Supervisor in Southern District
  - 1—Supervisor in Central District
- 1—Dental Aide
- 1—Mobile Dental Clinic Operator
- 1—Senior Clerk
- 1—Clerk-Stenographer
- 1—Clerk-Typist
- 102—Participating Dentists

The following tables present the Dental Treatment Program data, budget and expenditures.

TABLE 1  
DENTAL TREATMENT PROGRAM AND BUDGET  
July 1, 1940 to June 30, 1955

Year	Number of Dentists	School Districts	Number of Children Treated	Budget Contributions			Number of Operations per 100 Children Treated	Number Extractions of Permanent Teeth per 100 Children Treated	Percentage of Completed Cases	Types of Program
				Federal	State	Local				
1940-41	2	25	839	\$12,948	80	\$3,200	781	39	1940-41 Clinics only	
1941-42	13	48	2,086	14,615	38	4,900	690	60	1941-44 Clinics, Private Offices and one Trailer.	
1942-43	23	109	2,846	14,972	46	4,900	671	30	1944-55 Clinics, Private Offices, two Trailers and four Mobile Clinics.	
1943-44	49	150	3,328	15,091	37	4,900	681	68		
1944-45	67	171	5,094	16,270	20	5,000	540	64		
1945-46	86	171	5,732	19,368	21	5,000	666	68		
1946-47	108	188	7,713	23,233	18	5,000	697	63		
1947-48	100	189	8,539	20,049	17	5,000	711	60		
1948-49	107	170	8,782	20,257	15	5,000	800	60		
1949-51	107	189	7,869	12,450	8	4,150	837	67		
1950-51	102	179	7,890	13,627	8	4,150	779	67		
1951-52	98	173	6,874	13,450	9	4,150	705	64		
1952-53	92	177	6,179	9,813	9	4,150	688	62		
1953-54	92	177	6,179	9,450	6	4,150	667	62		
1954-55	102	189	6,422	23,681	13	4,248	782	62		

\* This includes Federal Funds to the amount of \$12,898, for the purchase of a new Dental Mobile Unit (Trailer Type) for use in Cumberland County.

TABLE 3  
REPORT—DENTAL TREATMENT PROGRAM  
July 1, 1944 to June 30, 1955

Programs By Counties and Communities	Initiated	Type of Program*	Dentists	Communities	Operating Time (Hours)	Examinations	Visits	Extractions				Permanent	Deciduous	Amalgam	Silicate	Temporary Fillings	Propylaxis	X-rays	Things and Others	Fluoride Treatment	Total Operations	Children Treated	Cases Completed	Percentage of Cases Completed			
								Permanent	Amalgam	Silicate	Temporary																
Atlantic	1947	Mo. Cl.	1	2	259	839	445	222	124	75	37	128	8	198	342	1,083	133	62	46	133	133	62	46	104	70		
Bergen	1943	P. O.	1	1	397	1,238	898	29	222	716	75	56	125	38	156	60	1,837	148	104	70	148	148	104	70	191	89	
North Arlington	1940	Cl.	1	1	525	519	1,367	12	283	703	79	11	511	674	84	2,557	192	191	89	192	192	84	71	34	71	34	
Rutherford	1945	P. O.	1	1	147	915	172	7	21	164	8	11	48	20	74	..	363	48	39	17	48	48	39	17	39	17	
Burlington	1943	P. O.	1	1	214	1,712	869	54	177	291	53	23	116	48	215	..	868	225	98	82	225	225	98	82	98	82	
City of Burlington	1943	Mo. Cl.	2	2	1,052	1,744	1,616	45	286	375	149	47	550	28	220	846	4,884	564	540	92	846	846	540	92	540	92	
Camden	1944	Mo. Cl.	1	1	46	62	132	28	187	99	5	30	80	29	186	46	310	62	70	7	310	310	70	7	70	7	
Lawnside	1947	Mo. Cl.	1	1	305	841	490	28	194	512	64	25	244	26	166	362	1,115	276	137	45	362	362	137	45	137	45	
Cape May	1942	P. O.	8	8	599	277	967	104	338	812	140	82	363	443	882	297	3,071	307	233	84	307	307	233	84	233	84	
Cumberland	1942	P. O.	1	1	645	352	1,163	11	412	1,690	38	89	425	538	98	110	3,409	449	118	26	449	449	118	26	118	26	
Essex-Orange	1944	Cl.	2	2	859	3,112	1,024	42	106	478	33	30	119	14	170	33	953	459	118	38	459	459	118	38	118	38	
Gloucester	1940	Cl.	1	1	306	922	1,166	42	106	278	74	32	5	8	121	24	744	87	81	38	87	87	31	38	31	38	
Hunterdon	1942	P. O.	3	3	207	78	485	36	192	597	..	268	..	..	..	..	1,124	268	81	38	268	268	81	38	81	38	
Middlesex	1942	P. O.	1	1	285	308	746	11	35	173	20	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Kiddie Keep-Well Camp	1942	Tr.	1	1	107	43	169	11	35	173	20	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Deans	1945	Cl.	2	2	107	43	169	11	35	173	20	50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Monmouth	1941	P. O.	2	2	254	723	414	23	69	1,217	125	141	265	226	245	36	2,632	341	157	46	2,632	2,632	157	46	157	46	
Matawan	1946	Cl.	1	1	254	723	414	23	69	1,217	125	141	265	226	245	36	2,632	341	157	46	2,632	2,632	157	46	157	46	
Union Beach	1946	Cl.	1	1	42	33	96	80	340	210	194	147	435	322	24	24	654	4,939	548	337	61	4,939	548	337	61	337	61
Collier Foundation	1945	Cl.	1	1	1073	485	2,081	412	70	325	27	19	75	31	860	628	3,953	4,939	548	337	61	4,939	548	337	61	337	61
Morris	1944	P. O.	6	6	200	100	412	124	284	978	649	633	177	..	..	..	..	..	..	..	..	..	..	..	..	..	
Ocean	1944	P. O.	2	2	787	184	434	124	284	978	649	633	177	..	..	..	..	..	..	..	..	..	..	..	..	..	
Trailer	1946	Tr.	1	1	168	83	350	12	66	310	30	26	87	..	..	..	..	..	..	..	..	..	..	..	..	..	
Passaic	1944	Cl.	1	1	190	80	376	60	101	348	20	4	79	..	..	..	..	..	..	..	..	..	..	..	..	..	
Bloomington	1944	Cl.	1	1	180	80	376	60	101	348	20	4	79	..	..	..	..	..	..	..	..	..	..	..	..	..	
Wanaque	1942	Tr.	1	1	863	6,514	1,372	24	199	1,113	55	4	437	..	..	..	..	..	..	..	..	..	..	..	..	..	
Somerset	1942	P. O.	8	8	906	5,119	1,545	163	449	1,547	36	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Sussex	1945	P. O.	1	1	75	427	102	1	15	129	6	6	12	9	9	..	..	..	..	..	..	..	..	..	..	..	
Union	1948	P. O.	1	1	116	979	97	38	374	985	103	39	264	582	758	546	3,689	261	193	74	3,689	261	193	74	193	74	
Kenilworth	1945	Cl.	1	1	342	1,518	1,289	39	97	374	70	3	7	..	..	..	..	..	..	..	..	..	..	..	..	..	
Warren	1947	Mo. Cl.	3	3	250	4,301	2,27	39	97	374	70	3	7	..	..	..	..	..	..	..	..	..	..	..	..	..	
Phillipsburg	1954	P. O.	1	1	102	201	34,021	22,591	1,288	5,083	19,005	2,013	1,869	5,693	3,601	6,467	5,490	50,849	6,422	3,982	6,422	3,982	6,422	3,982	6,422	3,982	

TOTALS (18 Counties)....  
 \* Code for Type of Program: P. O.—Private Office; Cl.—Clinic; Mo. Cl.—Truck Mobile with complete dental equipment; Tr.—Trailer with dental equipment.  
 † Linings and Others: Vincent's Infection—Guttapercha; Post Operative Root Canal—Anesthesia for extraction or cavity preparation.  
 ‡ Collier Foundation (Institution) not included.

## Maternal and Child Health Program

### STAFF

The appointment of a Public Health Nurse Consultant in Pediatrics has been arranged for the beginning of the fiscal year 1955-56 and recruitment of a Public Health Nurse Consultant for Hospitals has been started as well. The position of a Public Health Physician has been established on the Bureau staff and recruitment has been initiated.

### HOSPITAL ADVISORY ACTIVITY

The licensing of hospitals and maternity homes in New Jersey is the function of a special Licensing Board under the Department of Institutions and Agencies, which Department is also responsible for approval of structural changes and new construction of hospitals and for the administration of funds allocated to the State under the Hill-Burton (Hospital Construction) Act. In the past the Maternal and Child Health Program cooperated by making available to hospitals special advisory and consultation services on maternity and newborn care and by exchanging pertinent information with representatives of the Department of Institutions and Agencies and the New Jersey State Board of Nursing. This activity had to be curtailed severely in recent years due to lack of necessary staff. With the appointment of the Public Health Nurse Consultant in Pediatrics and the Public Health Nurse Consultant for Hospitals, however, reactivation of this important function is foreseen for the coming fiscal year.

### HOSPITAL REPORTS

Hospitals are required to make an annual statistical report to the Department of Institutions and Agencies, which includes statistical information on maternity and newborn services. The reports are submitted on a form originally designed in cooperation with the Bureau of Maternal and Child Health and are made available to the Bureau by the Department of Institutions and Agencies. Data supplied by the individual hospital reports are then compared with data obtained from the Division of Vital Statistics and Administration. Discrepancies for given items are noted, particularly as related to premature births, as in the preceding two years. Some improvement in hospital reporting was noted since the initiation of this activity in 1952-53. To assist hospitals to realize the need for improvement of their records and statistics and to continually focus their attention on the problem, several tables of selected comparative hospital statistics (1953 data) were prepared with the assistance of the Division of Vital Statistics and Administration, listing individual hospitals by code number only and grouping them according to number of deliveries. These tables were distributed to all hospital

administrators, together with an explanatory letter and identification of their own respective hospital code number. The administrators were asked to arrange for staff discussions of the materials presented to them. Correspondence indicates that such staff discussions took place in a number of hospitals. The tables were also made available to the Department of Institutions and Agencies, the New Jersey Hospital Association and the Maternal Welfare Committee of the Medical Society of New Jersey. Since the response to this service has been gratifying we expect to continue it in the coming fiscal year.

### MATERNITY HOMES

All maternity homes are subject to annual licensing by the Department of Institutions and Agencies. Certain minimum standards must be met prior to issuance of license. Six (6) such maternity homes were licensed in 1954, the same as in the preceding year.

### MATERNAL AND CHILD HEALTH INSTITUTES FOR NURSES

#### 1. *Metropolitan State Health District*

The institute for public health nurses employed by official and non-official agencies in East Orange, West Orange, Orange, Maplewood, Millburn and Bloomfield, continued during 1954-55. This has been the third year of continuous in-service training in Maternal and Child Health for the area. As in the preceding two years, hospital nurses were invited to participate. As previously, the institute was sponsored and planned locally by a representative committee, with active assistance in the planning and execution from members of the State Department of Health (Metropolitan State Health District, Bureau of Maternal and Child Health, Bureau of Public Health Nursing).

Subject matter was chosen by the staff nurses of the various participating agencies, who also assumed the main responsibility for the selection and invitation of speakers. Various problems of Maternal and Child Health, clinical as well as administrative, were considered in eight afternoon sessions. Emphasis was placed on mental health aspects. Field trips were included. These Maternal and Child Health In-Service Training sessions have contributed to a better understanding and working relationship between the various participating groups and have been highly successful. Continuation has already been planned for the year 1955-56.

#### 2. *Southern State Health District*

The State Health Department sponsored an In-Service Training Institute for Nurses in the Southern State Health District, which was initiated in 1953-54 and was continued and concluded in 1954-55. The institute dealt with the physical, emotional and socio-economic aspects of pregnancy, motherhood



and child growth and development, as well as the public health approach to these problems. Primarily designed for public health nurses, it included subjects which were also of considerable interest to hospital nurses. The institute was attended by public health nurses throughout the Southern State Health District, including not only nurses under State Health Department supervision, but those from official and non-official agencies as well. Hospital nurses were also represented. During 1954-55 four full day sessions were held, completing a series of 11 sessions. Speakers came from New Jersey and New York City, some of them holding teaching positions in University Medical Schools. Each lecture was followed by a discussion period. Reference materials and bibliographies were distributed at each session for further study.

### 3. Northern State Health District

An extensive In-Service Training Institute, similar to the one held in the Southern State Health District, was initiated early in 1955. Five (5) full day sessions were held at monthly intervals devoted to the following subjects:

- Maternal and Child Health, Scope and Problems.
- Scope of Public Health Nursing in Maternal and Child Health.
- Pregnancy Cycle: Prenatal, Delivery, Postpartum Aspects.
- Medical Complications of Pregnancy.
- Dental Health.
- Emotional Aspects of Pregnancy.
- Nutrition—During Pregnancy and Lactation.
- Team Approach to Social Problems in Maternal and Child Health.
- The Care of the Premature Infant—Medical and Nursing Aspects.

The teaching method of discussion groups, with resource people available to each group, was used very successfully, notably in the sessions on nutrition and social problems. Since the above sessions dealt primarily with maternal health or interrelated subjects, continuation of the institute in 1955-56 was anticipated, emphasizing child health.

### COURSE IN PREVENTIVE PEDIATRICS FOR PRACTICING PHYSICIANS

Arrangements have been made for the establishment of a course in preventive pediatrics for physicians throughout the state to be given in 1955-56. The course will be given under the auspices of Seton Hall University and will be co-sponsored by the State Department of Health and the Medical Society of New Jersey, and will consist of 15 to 18 sessions. Detailed plans as to subject matter and lectures have been made. All anticipated speakers hold teaching positions in a university medical school.

### HEALTH EDUCATION

#### 1. Pamphlets and Films

Printed health education materials on maternal and child health were purchased and made available for distribution to and by public health nurses under state supervision. This method of distribution has been in force because, due to financial limitations, materials cannot be purchased in sufficient quantities to allow unrestricted distribution to citizens upon request. Furthermore, health education materials prove much more valuable, if implemented by a visit from the public health nurse. Carefully selected films, dealing mostly with emotional growth and development, are made available to the Districts for in-service training and parent education. Other films were purchased for distribution through the State Museum.

During the report year the Bureau of Maternal and Child Health took over from the Bureau of Venereal Disease Control the responsibility of selecting, purchasing and distributing sex education materials. These materials are on the general distribution list.

#### 2. Health Education Materials prepared by Bureau of Maternal and Child Health

(a) Two new pamphlets: "Food for Expectant Mothers" and "A Message to Parents about the New Baby" have been prepared and arranged for printing and placement on the general distribution list. The considerable demand for these pamphlets prove their need and value. The safety questionnaire "What's Your Answer?" has also been made available in quantity.

(b) A guide book to the "New Jersey Child Safety Project" has been prepared and submitted for printing just prior to the closure of the report year. This book should be helpful to those who may want to start a similar project regardless of scope, and has been prepared because of considerable demand for detailed description of the project.

(c) Recommended Procedures relative to Establishment and Conduct of Child Health Conferences: These procedures were prepared by the Bureau of Maternal and Child Health and approved by the Medical Society of New Jersey and the New Jersey Chapter of the American Academy of Pediatrics. They were distributed widely through the State Health Districts, not only to personnel of the State supervised Baby Keep-Well Stations but also to health officers and to voluntary health agencies conducting child health conferences.

It is intended, during the coming fiscal year, to prepare and distribute additional materials, implementing the "procedures" which provide only a frame work.

Other professional materials, such as books, reprints, were obtained for the Bureau Library, as well as made available to the State Health Districts, Public Health Nurses, Hospitals, Physicians.

#### HOSPITAL EQUIPMENT

Three (3) Isolette Incubators and three (3) Hoke Flow Meters and three (3) Beckman Oxygen Analyzers were purchased at the end of the fiscal year 1954-55. These will be placed, on loan, in hospitals with greatest need and on a demonstration basis.

#### ACCIDENT PREVENTION

##### (a) *Child Safety Project*

The New Jersey Child Safety Project, which was conducted in the preceding year and described in the previous annual report, has received considerable national attention. During the report year the statistical tabulation was completed and the results published by the National Safety Council. These results point out the need for intensified safety education in general and for attention to specific problem areas in particular. An evaluation survey was conducted by requesting each local PTA president to complete an evaluation questionnaire. The returns, although incomplete, indicated that the project had met with considerable interest among the participants, that it had resulted in increased interest in child safety, and that many local PTA units were stimulated to conduct special sessions and parent education groups on child safety. In some areas efforts were made towards coordinated community action for child safety. One notable example is Mercer County, where, as a direct result of the child safety project, there has been formed a "Coordinated Council for Safety of Children and Youth" under the leadership of the County PTA president. This effort received considerable assistance from the Program Coordinator and from the Central State Health District staff.

##### (b) *APHA Accident Project*

Program Coordinator has been appointed a member of the APHA's Subcommittee on Accident Prevention and was asked to serve as Chairman of the Committee's Study Group on Public Health Aspects of Childhood Accidents.

#### CODE FOR CHILDREN'S BOARDING HOMES

The Committee appointed by the Commissioner to deliberate and propose a code governing the conduct of boarding homes for children has been submitted to the Department for review and consideration.

#### FIELD ACTIVITIES ON LOCAL LEVEL

The operation of Maternal and Child Health Program activities on the local level is the responsibility of the four State Health Districts. The nurses under State Health Department supervision made 30,055 visits to 11,254 prospective mothers averaging about three (3) visits per case. They reported as having attended 22,419 postpartum cases in 42,404 visits averaging approximately two (2) visits per case. These figures indicate that the nurses attended about twice as many postpartum as prenatal cases and that comparatively few contacts are made with the prenatals carried on the case load. There were 688 fewer prenatal cases and 365 fewer postpartum cases reported on the nurses' case load than in the preceding year.

Again it is important to stress that, if we consider public health nursing services as an important factor in good prenatal care and if we further consider that good prenatal care is probably one of the most significant approaches toward the reduction of prematurity, stillbirths and perhaps even neonatal mortality, more emphasis will need to be placed on locating and working with prenatal cases. Since the work load of the individual nurse is great, emphasis on case selection on basis of priorities is essential. An increase of group activity may, to some extent, alleviate the problem.

The supervised nurses reported as having rendered services to 26,612 infants in 156,785 home or conference visits, averaging approximately six (6) visits per infant. They reported 19,282 preschool children under their care and recorded 129,033 home or conference visits, an average of approximately seven (7) contacts per child. They had 903 less infants and 1,242 less preschool children under their care than in the preceding year. Altogether they reported 285,818 home or conference infant and preschool children visits as compared to 301,611 such visits for 1953, amounting to a decrease of approximately 5%.

The generalization of public health nursing services, resulting in increased activities in other program areas, combined with the fluctuation in the number of State supervised nurses, is probably the reason for this change. It is particularly important, therefore, to offer nurses in the field adequate supervision and in-service training so that cases and visits may be carefully selected on basis of priorities and needs.

There were 4,422 infants and 4,108 preschool age children attending 96 medical child health conferences. Infants, as well as preschool age children, averaged three (3) visits to these conferences. The nurses who participated in school health services supervised 143,404 school children. They made 30,370 field visits to these children, assisted school physicians at 91,631 examinations, did inspections themselves and assisted at 278 dental clinic sessions.

## MIDWIVES

The number of licensed midwives who registered to practice in the State for the year 1954 was 112, two less than in the preceding year. Thirty-five of the 112 licensed and registered midwives were active. These midwives delivered a total of 129 babies, representing .1% of the births occurring in New Jersey. The number of deliveries by the active midwives is as follows for 1954: one delivered 19 babies, one delivered 12 babies, one delivered 11 babies, 18 delivered two to nine babies, and 14 delivered one baby each.

## MISCELLANEOUS PROGRAM ACTIVITY COORDINATION

In connection with general program activities, the Program Coordinator has given lectures at the several in-service training institutes for nurses, and at a course in public health nursing at Rutgers. Interpretation of the childhood safety project has been rendered to local and state safety councils, and a paper has been presented by the Coordinator to the Annual Meeting of the American Public Health Association. This paper entitled "An Educational Project in Childhood Accident Prevention" was published in the May issue of the Journal of the American Public Health Association, with abstracts in Public Health Reports and the International Medical Digest.

The close working relationships of the Program with the Maternal Welfare Committee of the Medical Society of New Jersey has continued, and new relationships have been instituted with the New Jersey Chapter of the American Academy of Pediatrics. Planning for training institutes in school health for nurses has been started with the Coordinator being represented in a special interdepartmental committee of the Departments of Health and Education. The Program, through its Coordinator, has also been represented at meetings of the New Jersey Welfare Council's Committee on Child Welfare.

## ANALYSIS OF VITAL STATISTICS

All the following statistical tables and data submitted were assembled and prepared by the Division of Vital Statistics and Administration. Further statistical information will be found in the report of that Division.

## BIRTHS

The 118,252 resident live births reported in 1954 represented a crude birth rate of 23.3 per 1,000 estimated population (see Table 1). This all-time high of live births reported in 1954 was almost double the number of births registered in each of the years 1933 through 1940. The year 1954 was the ninth consecutive year in which the annual number of births exceeded 95,000

and the birth rate was greater than 20.0 Boards of education and health have become increasingly concerned with the problems which these steady increases present.

TABLE 1  
LIVE BIRTHS: INFANT AND MATERNAL DEATHS (NO. AND RATE)  
BY COUNTY OF RESIDENCE  
New Jersey, 1954

	Live Births	Infant Deaths		Maternal Deaths	
		No.	Rate a	No.	Rate a
New Jersey .....	118,252	2,789	23.6	59	0.5
Atlantic County .....	2,900	92	31.7	4	1.4
Bergen County .....	14,371	260	18.1	3	0.2
Burlington County .....	3,660	82	22.8	..	..
Camden County .....	8,009	191	23.8	4	0.5
Cape May County .....	788	21	26.6	..	..
Cumberland County .....	2,212	74	33.5	1	0.5
Essex County .....	19,563	541	27.7	16	0.8
Gloucester County .....	2,576	59	22.9	1	0.4
Hudson County .....	13,476	321	23.8	3	0.2
Hunterdon County .....	984	19	19.3	1	1.0
Mercer County .....	5,290	134	25.3	4	0.8
Middlesex County .....	8,264	176	21.3	6	0.7
Monmouth County .....	6,209	142	22.9	2	0.3
Morris County .....	4,339	72	16.6	3	0.7
Ocean County .....	1,583	33	20.8	..	..
Passaic County .....	7,985	198	24.8	3	0.4
Salem County .....	1,275	33	25.9	..	..
Somerset County .....	2,648	49	18.5	..	..
Sussex County .....	893	23	25.8	1	1.1
Union County .....	9,550	236	24.7	7	0.7
Warren County .....	1,198	20	16.7	..	..
State Institutions .....	13	2	b	..	..
Military Establishments .....	526	11	b	..	..
State Health Districts:					
Metropolitan .....	64,945	1,556	24.0	32	0.5
Northern .....	10,062	183	18.2	5	0.5
Central .....	24,946	567	22.7	12	0.5
Southern .....	17,760	470	26.5	10	0.6

- a. Expressed per 1,000 live births. When based upon small numbers, rates are unreliable for comparative purposes unless standard errors of rates are computed and considered.  
b. Due to small numbers, rates are not computed.

TABLE 2.  
BIRTHS IN NEW JERSEY BY WEIGHT GROUPS, BY SPECIAL AGE GROUPS OF MOTHER: 1954

AGE GROUPS	Total	WEIGHT GROUPS							Weight not Stated
		5 lbs. 9 ozs. and over	4 lbs. 7 ozs. to 5 lbs. 8 ozs.	3 lbs. 5 ozs. to 4 lbs. 6 ozs.	2 lbs. 3 ozs. to 3 lbs. 4 ozs.	1001-1500 Grams	under 1001 Grams	less than 2 lbs. 3 ozs.	
All Ages	114,425	105,580	5,543	1,480	636	535	651		
10-14	85	64	13	1	3	3	1		
15-19	7,254	6,474	469	147	58	54	52		
20-24	31,553	29,082	1,591	381	184	154	161		
25-29	36,955	34,423	1,590	422	191	135	194		
30-34	25,187	23,343	1,140	322	119	112	144		
35-39	10,952	9,908	599	152	64	55	84		
40-44	2,351	2,121	134	51	17	14	14		
45-49	88	75	7	4		1	1		
50-54	.....	.....	.....	.....	.....	.....	.....	.....	
55-59	.....	.....	.....	.....	.....	.....	.....	.....	
Unknown	.....	.....	.....	.....	.....	.....	.....	.....	

RESIDENT INFANT DEATHS BY CAUSE AND AGE GROUPS:  
NEW JERSEY, 1954

In 1954, New Jersey acquired 118,252 live-born babies. During the same year, the State lost by death 2,789 infants. This loss occurred at the rate of 24 infants for each 1,000 live births.

In the attached table, the 2,789 infant deaths are considered in terms of causes with public health significance and causes without public health significance. Of these deaths, 96 per cent or 2,670 were charged to causes which should be of concern to public health workers. Of these, 572 (21 per cent) were classified as prematurity unqualified. If clinical and pathological examinations had been emphasized more, perhaps specific causes could have been discovered. An additional 670 deaths, designated with immaturity, had causes assigned.

As a result of congenital malformations and mental deficiency, 503 infants died. That represents 19 per cent of all infant deaths of special interest to public health workers. The causes of congenital malformations and mental deficiency with resultant deaths near birth lend themselves to attack in the research field.

Public health workers should also be concerned with the 301 infant deaths classified as diseases of the respiratory system. It is interesting to note that 222 or nearly  $\frac{3}{4}$  of these 301 deaths occurred in infants 28 days old or older. This is the leading cause of death during the later infancy period. The 301 deaths include 76 from pneumonia of the newborn.

More than 10 per cent of the deaths assigned to causes which are thought to have public health significance was charged to birth injuries. This is an obstetrical problem which should be studied intensively by a medical committee as the problem of maternal deaths has been studied in New Jersey.

In 1954, New Jersey lost 39 infants by accidental mechanical suffocation in bed or cradle. Studies have shown that diagnoses in this category may be subject to great error unless substantiated by careful autopsy. A medical committee should relate such deaths to the autopsy records in the hospitals.

If New Jersey's live-born babies die, they experience death early in their brief existence. See following table.

TABLE 3.  
RESIDENT INFANT DEATHS BY CAUSE AND AGE GROUPS  
(Separated Into Those With and Those Without Public Health Significance)  
NEW JERSEY, 1954

Cause of Death Shoeving International List (6th Revision) Numbers	Total Infant Deaths	Less Than 1 Day	1 Day But <1 Week	1 Week But <28 Days	28 Days and Over
ALL CAUSES (001-637, 690-999)	2,789	1,082	752	244	711
Total causes with public health significance	2,570	1,013	742	232	623
Prematurity, unqualified (774-776)	572	370	161	31	10
Postnatal asphyxia and atelectasis (762)	180	299	239	28	6
Without immaturity	180	92	76	8	4
With immaturity	392	207	163	20	2
Congenital malformations and mental deficiency (750-759, 325)	503	118	118	77	190
Diseases of the respiratory system (470-527, 763)	301	8	37	34	222
Pneumonia of the newborn (763)	76	8	34	31	3
Without immaturity	51	7	18	24	2
With immaturity	25	1	16	7	1
Other diseases of the respiratory system (470-527)	225	..	3	3	219
Birth injuries (760-761)	271	165	98	7	1
Without immaturity	132	79	49	4	1
With immaturity	139	86	49	3	1
Diseases of the digestive system (530-587, 764)	106	3	4	4	..
Diarrhea of the newborn (764)	18	1	1	20	79
Without immaturity	15	..	1	16	..
With immaturity	3	1	1	14	..
Other diseases of the digestive system (530-587)	88	2	..	2	..
Hemolytic disease of the newborn (770)	76	39	3	4	70
Without immaturity	69	37	29	5	3
With immaturity	7	2	26	5	1
					2
External causes other than mechanical suffocation (E800-E923) (E925-E999)	41	1	4	2	34
Infective and parasitic diseases (001-138)	24	2	1	1	20
Hemorrhagic disease of the newborn (771)	20	2	12	5	1
Without immaturity	11	2	6	2	1
With immaturity	9	..	6	3	..
Other causes with public health significance	184	66	39	22	57
Ill-defined diseases of early infancy (773)	112	57	33	11	11
Without immaturity	33	13	6	4	10
With immaturity	79	44	27	7	1
Accidental mechanical suffocation in bed or cradle (E924)	39	..	1	4	34
Other specific diseases of early infancy (765-769)	17	8	5	3	1
Without immaturity	6	1	3	1	1
With immaturity	11	7	2	2	..
Nutritional maladjustment (772)	14	1	..	4	9
Without immaturity	9	..	..	1	8
With immaturity	5	1	..	3	1
Avitaminosis and other metabolic diseases (280-289)	2	..	..	..	2
Diseases of the nervous and sense organs (330-398)	119	9	10	12	88
Diseases of other endocrine glands (270-277) (a)	47	1	4	6	36
Neoplasms (140-239)	19(a)	..	..	..	19
Symptoms and ill-defined conditions (780-789, 795)	9	2	..	2	15
Diseases of the genito-urinary system (590-637)	8	3	4	1	1
Diseases of the blood and blood-forming organs (290-299)	7	..	..	1	7
Diseases of the bones and organs of movement (720-749)	5	3	..	..	4
Diseases of the circulatory system (400-468)	2	..	1	..	3
Diseases of the skin and cellular tissue (690-716)	2	..	1	1	..
Diseases of the thyroid gland (250-254)	1	..	..	..	2

(a) On the basis of studies made, it has been found that diagnoses in this category are subject to error unless substantiated by careful autopsy.

Note: Diseases in which prematurity was either the only cause or a contributory cause represented a grand total of 1,242 infant deaths. The age distribution was as follows: Under 1 day, 719; 1 day but under 1 week, 427; 1 week but under 28 days, 78; 28 days and over, 18.

TABLE 4.  
INFANT DEATHS BY AGE AND IMMATUREITY  
NEW JERSEY, 1954

Age	Cumulative Totals		Immaturity Indicated on Death Certificate		Immaturity Not Indicated on Death Certificate	
	No.	%	No.	%	No.	%
< 1 day .....	1,082	38.8	719	57.9	363	23.5
< 1 week .....	1,834	65.8	1,146	92.3	688	44.5
< 28 days .....	2,078	74.5	1,224	98.6	854	55.2
< 1 year .....	2,789	100.0	1,242	100.0	1,547	100.0

Of all the babies who died in 1954, 39 per cent failed to live 24 hours beyond birth. Before one week elapsed, 66 per cent of the 2,789 babies had died. Before the end of the neonatal period (28 days), 75 per cent of the 2,789 babies had completed their short lives.

In 1954, the immature babies so designated on the death certificates contributed 1,242 or approximately 45 per cent of the total 2,789 infant deaths. Of these 1,242 babies, 719 or 58 per cent died within the first day of life. The immature babies dying within their first day of life accounted for 66 per cent of the 1,082 infants who died within 24 hours of birth. Before attaining one week of age, 1,146 or 92 per cent of these 1,242 immature babies died. Twelve hundred and twenty-four or nearly 99 per cent of the immature babies who died did so before attaining 28 days of age. This contrasts sharply with the 55 per cent of the mature babies who died during their neonatal period, i. e., 854 of the total 1,547 mature babies failed to live 28 days.

*Stillbirths:* The 1,933 stillbirths reported for 1954 accounted for a rate of 16.3 per 1,000 live births (see Tables 5, 5a, 5b). In 1953 there were 2,046 stillbirths with a rate of 18.2. The nonwhite rate for 1954 was 24.8. On 10 reports, race or color was not stated. Twenty-nine per cent (29%) of these stillbirths were mature babies; 46% were premature babies (weighing 2,500 grams or less). On 25% of the stillbirth certificates no weight was stated. This indicates that we need better completion of stillbirth certificates. As anticipated, the highest incidence of stillbirths in all weight categories occurred in the mothers of the 20-29 year age group, which is the peak of the child bearing period.

TABLE 5.  
TOTAL STILLBIRTHS BY WEIGHT BY AGE OF MOTHER  
NEW JERSEY, 1954

Weight	AGE GROUP									
	Total	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown
5 lbs. 9 ozs. and over	563	...	21	91	177	153	87	31	2	1
2500 grams										
4 lbs. 7 ozs. to 5 lbs. 8 ozs.	203	...	12	37	60	54	35	5	...	...
2001-2500 grams										
3 lbs. 5 ozs. to 4 lbs. 6 ozs.	169	1	10	27	54	38	28	11	...	...
1501-2000 grams										
2 lbs. 3 ozs. to 3 lbs. 4 ozs.	180†	1	18	47	41	44	23	5	...	1†
1001-1500 grams										
less than 2 lbs. 3 ozs.	343‡	...	38	81	99	72	35	13	...	5‡
less than 1001 grams										
Unknown	475§	2	28	83¶	132	136	58	21	...	15§
Total	1,933*	4	127	366†	563	497	266	86	...	22‡

† Includes 1 stillbirth of unknown color.  
‡ Includes 2 stillbirths of unknown color.  
§ Includes 6 stillbirths of unknown color.  
¶ Includes 7 stillbirths of unknown color.  
‡ Includes 9 stillbirths of unknown color.  
\* Includes 10 stillbirths of unknown color.

TABLE 5a.  
WHITE STILLBIRTHS BY WEIGHT BY AGE OF MOTHER  
NEW JERSEY, 1954

Weight	AGE GROUP									
	Total	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown
5 lbs. 9 ozs. and over	477	...	14	75	147	130	80	28	2	1
2500 grams										
4 lbs. 7 ozs. to										
5 lbs. 8 ozs.	169	...	9	30	50	48	29	3	...	...
2001-2500 grams										
3 lbs. 5 ozs. to										
4 lbs. 6 ozs.	141	...	6	24	44	32	24	11	...	...
1501-2000 grams										
2 lbs. 3 ozs. to										
3 lbs. 4 ozs.	146	...	11	41	33	38	19	4	...	...
1001-1500 grams										
less than										
2 lbs. 3 ozs.										
less than	275	...	19	67	81	63	30	13	...	2
1001 grams										
Unknown	410	...	20	72	120	124	51	18	...	5
Total	1,618	...	79	309	475	435	233	77	2	8

TABLE 5b.  
NONWHITE STILLBIRTHS BY WEIGHT BY AGE OF MOTHER  
NEW JERSEY, 1954

Weight	AGE GROUPS									
	Total	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown
5 lbs. 9 ozs. and over	86	...	7	16	30	23	7	3	...	...
2500 grams										
4 lbs. 7 ozs. to										
5 lbs. 8 ozs.	34	...	3	7	10	6	6	2	...	...
2001-2500 grams										
3 lbs. 5 ozs. to										
4 lbs. 6 ozs.	28	1	4	3	10	6	4	...	...	...
1501-2000 grams										
2 lbs. 3 ozs. to										
3 lbs. 4 ozs.	33	1	7	6	8	6	4	1	...	...
1001-1500 grams										
less than										
2 lbs. 3 ozs.										
less than	66	...	19	14	18	9	5	...	...	1
1000 grams										
Unknown	58	2	8	10	12	12	7	3	...	4
Total	305	4	48	56	88	62	33	9	...	5

*Illegitimate Births:* There were 2,926 illegitimate births reported among New Jersey residents. This represents 2.4 per cent of the total number of resident births for the State, the same as in the preceding year.

TABLE 6.  
ILLEGITIMATE BIRTHS BY AGE OF MOTHER

	All						35 Over
	Ages	10-14	15-19	20-24	25-29	30-34	
Number of Illegitimate Births	2,926	60	1,119	975	423	208	141
Per Cent of Illegitimate Births	100	2	38.2	33.3	14.5	7.1	4.9

Although the percentage figure for total illegitimate births has not changed appreciably over the past decade, the actual number for such births was 967 or almost 49 per cent higher than the 1944 figure. Efforts to help these mothers must accordingly receive greater consideration. There is much to be done to provide adequate social service and medical care for unmarried mothers. Coordinated planning of medical, public health and social service groups on State and local level is essential for developing the needed facilities and services for the necessary prenatal care and postpartum follow-up of these mothers and their babies.

*Maternal Mortality:* During 1954 there were 59 deaths allocated to pregnancy, delivery and the puerperium according to the rules of the International List of Diseases, Injuries and Causes of Deaths (see Tables 7 and 8). This is a rate of five maternal deaths for each 10,000 live births, the same as for 1953, and the lowest rate yet attained by the State. Again, it must be stressed, however, that the maternal death rate has as yet not reached the irreducible minimum, as can be seen from field physicians' reports. Continued efforts towards solving the problem must be made in the following areas:

1. Educate women to realize the importance of seeking early and adequate prenatal care.
2. Provide the best possible maternal care.
3. Have necessary facilities, equipment, supplies and blood available for any emergency.

TABLE 7.  
MATERNAL DEATHS BY SPECIFIC CAUSE

NEW JERSEY, 1954	
Toxemias of pregnancy (642)	10
Ectopic pregnancy (645)	3
Other complications arising from pregnancy (648)	1
Total complications of pregnancy (640-649)	14
Abortion without mention of sepsis or toxemia (650)	2
Abortion with sepsis (651)	5
Total abortions (650-652)	7
Delivery complicated by placenta praevia or antepartum hemorrhage (670)	3
Delivery complicated by retained placenta (671)	1
Delivery complicated by other postpartum hemorrhage (672)	2
Delivery complicated by prolonged labor of other origin (675)	1
Delivery with other trauma (677)	5
Delivery with other complications of childbirth (678)	1
Total delivery with specified complications (670-678)	13
Sepsis of childbirth and the puerperium (681)	2
Puerperal pulmonary embolism (684)	11
Puerperal eclampsia (685)	6
Other forms of puerperal toxemia (686)	1
Cerebral hemorrhage in the puerperium (687)	3
Other and unspecified complications of the puerperium (688)	2
Total complications of the puerperium (680-689)	25
Total Maternal Deaths	59



TABLE 8.

## MATERNAL DEATHS BY CAUSE, COLOR, AND AGE GROUPS

NEW JERSEY, 1954

Cause* and Color	Age Groups			
	All Ages	5-14	15-24	25-44
Complications of pregnancy (640-649) .....	14	1	4	9
White .....	6	1	2	3
Nonwhite .....	8	..	2	6
Abortion (650-652) .....	7	..	1	6
White .....	2	..	..	2
Nonwhite .....	5	..	1	4
Delivery with specified complications (670-678) .....	13	..	6	7
White .....	12	..	5	7
Nonwhite .....	1	..	1	..
Complications of the puerperium (680-689) .....	25	..	7	18
White .....	21	..	6	15
Nonwhite .....	4	..	1	3
All causes (640-689) .....	59	1	18	40
White .....	41	1	13	27
Nonwhite .....	18	..	5	13

\* Cause numbers are those of International List, 6th revision.

### Nutrition Program

The Nutrition Program, through the three nutritionists now employed by the Department, has continued to assist in planning and carrying out in-service training for other health department personnel and to give a working knowledge of food needs, nutritive values, and methods of improving the dietary habits of the people served by them.

In August 1954, a well qualified nutritionist, Mrs. Nadeene Brunini, was added to the staff of the Central State Health District office. After a period of orientation for three months on both the state and district level, progress in integrating nutrition into other programs of the Central State Health District has been very evident.

Miss Clara Hill, the District Consultant Nutritionist in the Southern District, has continued her fine work in building a well rounded nutrition program in that District by correlating the nutrition activities there and integrating nutrition into other health department programs and projects.

The Metropolitan District, although it has not had a nutritionist on its staff this year, is looking forward to having its own nutritionist in 1955-56. This District has had many requests for nutrition services. Some of these requests were referred to other agencies in the area having qualified personnel, and

some were filled by the Coordinator of the Nutrition Program at state level. Many could not be filled because of lack of personnel. We are confident that we will be able to report significant progress from this District next year.

Although the Coordinator of the Nutrition Program was technically assigned to the Northern District by Civil Service, she has had so many demands on her time at State level that this District has received less direct nutrition services. This lack of nutrition personnel in both the State and private agency nutrition programs has been a handicap in meeting essential needs for services. The Program, therefore, has urged the establishment of a State Nutrition Consultant as well as similar positions at the State Health District level.

The Program Coordinator has endeavored to develop a complete nutrition program both on state and district level by consulting with and assisting other health department staff plan programs of nutrition education and control of dietary deficiencies. She has met with representatives of other agencies to work out inter-agency relationships and carry on educational, service and research programs in nutrition. Consultant services were not only rendered to other State Departments such as Education, Welfare and Agriculture, but also to industries and the professions of medicine, nursing, and dentistry. Both the Coordinator and the District Nutritionists have helped to plan and participate in community studies and projects. They have also assisted in the preparation and selection of both technical and popular nutrition educational material to be used by other professional as well as lay personnel throughout the State.

A limited amount of direct services to individuals and groups with specific nutritional needs has been offered by the Nutrition Program on a demonstration basis only. Nutrition consultation to other health agencies having direct contact with the public has continued to be the chief contribution of the program. In this way, nutritionists both on State and district level have been able to spread their services into more homes and to influence directly and indirectly more people at the local level.

Some of the Health Department activities to which the Nutrition Program has contributed during 1954-55 are as follows:

### DIVISION OF CONSTRUCTIVE HEALTH

#### Orientation

Orientation and in-service training was conducted for Mrs. Brunini, Nutritionist, Central State Health District. This was done by the Coordinator of the Nutrition Program who reviewed available recent research material in nutrition with her and arranged conferences with other State personnel of this Department and other departments as well as introducing her to the nutrition personnel of other agencies.

*In-Service Training*

The District Consultant Nutritionist of the Southern District attended the 8th Community Nutrition Institute at Syracuse University, June-July, 1954.

The Coordinator of the Nutrition Program attended the Weight Control Colloquium at Ames, Iowa, in January.

The Program Coordinator and the District Consultant Nutritionist of the Southern District each attended Civil Defense Mass Feeding Courses at Fort Dix in August and September, 1954, sponsored by Federal Civil Defense and the U. S. Army.

*Crippled Children*

The Program Coordinator with the Division Director and Nurse Consultant in Crippled Children has attended conferences at the Matheny School for Cerebral Palsy in Peapack on the planned nutrition research project. This will be a joint project of the Biochemistry Department of Rutgers University and the Matheny School with representatives of this Department acting as consultants.

*Dental Health*

The Program Coordinator presented a paper at the Dental Health Conference at Rutgers University.

District Nutritionists have worked with personnel of the dental trailers and supplied nutrition material to dental personnel.

*Maternal and Child Health*

The Program Coordinator prepared a leaflet on "Nutrition in Pregnancy and Lactation" at the request of the Chief of the Bureau of Maternal and Child Health. This leaflet has been published and distributed throughout the State.

The Program Coordinator assisted in the State level planning of the Maternal and Child Health In-service Training Institute for Nurses. Both the Program Coordinator and the District Consultant Nutritionist of the Southern District gave talks at the Southern District Institute. The Program Coordinator and the Nutritionist of the Central District acted as Group Leaders at the session on Nutrition for the Northern District. Talks have been given at State and local levels to P.T.A. groups on Feeding Problems of Children.

*Adult and Occupational Health*

The Coordinator of the Nutrition Program with personnel from Adult and Occupational Health has visited and helped plan a nutrition education program for industrial workers in one of our large industrial plants.

## DIVISION OF LOCAL HEALTH SERVICES

*Public Health Nursing*

The Coordinator of the Nutrition Program has been asked to attend staff conferences of the Program on Public Health Nursing to discuss additional ways and means of integrating the Nutrition Program in the public health nursing services throughout the State.

*Camps*

The Coordinator of the Nutrition Program has supplied nutrition material to all the Districts doing a Camp Program. In the Central and Southern Districts, the Nutritionists have accompanied the sanitarians on regular camp inspections to present and interpret nutrition material to the personnel responsible for food purchasing and menu planning when requested.

## DIVISION OF ENVIRONMENTAL SANITATION

*Food and Drug*

The Program Coordinator and District Nutritionists have worked closely with the personnel of Food and Drug on related problems on both State and district levels.

## DIVISION OF CHRONIC ILLNESS CONTROL

The Nutrition Program through the Coordinator and District Nutritionists has had an opportunity to aid in program planning in the areas of Chronic Illness Control where nutrition contributes not only to prevention, but to patient care and rehabilitation. The Nutritionists have offered individual and group instruction as opportunities arose. The Coordinator has helped plan the Overweight Project at Hunterdon Medical Center and also acted as a group leader on a demonstration basis to three groups at this Center. She will continue to act as consultant to the project which will be conducted by the Nutrition Department of the Douglass College for Women.

The Coordinator has acted as consultant to the planning of the Nutrition Institutes for Operators of Nursing Homes and Homes for the Aged which is a joint project of the State Department of Institutions and Agencies and the Department of Health. One Institute was held in May of 1955 in East Orange, and several are planned for other areas of the State this coming year.

As a result of the survey of available health personnel performed in each District by the District State Health Offices for program writing, the Central District Nutritionist has been developing a consultation service to the dietary departments of hospitals in her District. This has been a long needed service in our State.

Nutritionists have been asked to participate in planning in-service training in Diabetes Control for professional personnel throughout the State.

The Southern District Nutritionist has been asked to act as a consultant on Nutrition to the T. B. Clinic in Atlantic County where a demonstration project has been carried out.

#### SERVICES TO OTHER AGENCIES

The Nutrition Program was asked to prepare material for a nutrition project for teenagers for Secondary School Health Chairmen of the Congress of Parents and Teachers. There have been a great number of requests for this material now available in mimeographed form.

The Coordinator of the Nutrition Program with personnel of the Department of Education has been asked to develop a handbook on Nutrition for the use of teachers in secondary schools throughout the State.

The Program Coordinator has been invited to participate in planning programs on nutrition with the home demonstration agents in the Metropolitan District. She has also been a member of the inter-State committee of the Extension Service which is preparing leaflets on nutrition for Puerto Ricans. One leaflet has been published and is available for distribution throughout the State.

Inducing people to change their food habits to meet the present day knowledge of nutrition requirements is a task which is a challenge not only to the personnel of the Nutrition Program, but to all who are interested in health. Much has been accomplished, but the Program hopes to be able to accomplish a great deal more when its staff is augmented by a nutritionist in each State Health District.

## Report of the Division of Environmental Sanitation

July 1, 1954—June 30, 1955

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ALFRED H. FLETCHER, M. S., *Director*

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Bureau of Food and Drugs .....	MILTON RUTH, <i>Chief.</i>
Bureau of Public Health Engineering .....	ROBERT S. SHAW, B.S.E., M.P.H., <i>Chief.</i>
Bureau of Veterinary Public Health .....	OSCAR SUSSMAN, D.V.M., M.P.H., <i>Chief.</i>

## Division of Environmental Sanitation

The broad objective of the Division of Environmental Sanitation is to influence the planning, designing, construction, maintenance and operation of the physical elements that are important to healthful living, to prevent the transmission of animal diseases to humans, and in general to develop and encourage programs to prevent environmental conditions which are detrimental to the health of humans. More specifically this includes; the water supplies, liquid and solid waste disposal systems, bathing, and food supplies; the animal diseases including the encephalitis, psittacosis, trichinosis, brucellosis and rabies; and such environmental health problems as housing, ragweed and poison ivy, insects, and rodents.

To meet these objectives the Division is organized into three Bureaus, which are Engineering, Food and Drugs and Veterinary Public Health. The activities can be grouped into the following thirteen (13) programs:

<i>Engineering</i>	<i>Food and Drugs</i>	<i>Veterinary Public Health</i>
Bathing	Milk and Milk Products	Rabies
Housing	Shellfish	Other Animal Diseases
Potable Water	Food	
Solid Waste Disposal	Drugs	
Stream Pollution Control		
Ragweed and Poison Ivy Control		
Insects and Rodents		

### ADVISORY COMMITTEES

The activities which must be carried on to reach these objectives depend in a large measure on municipal officials. For this reason one of the more important projects undertaken by this Division has been the drafting of codes that could be adopted by reference. Advisory committees which include representatives of local health departments have drafted such codes on the following subjects: Retail Food Handling, Smoke Control, Weed Control, Plumbing, Swimming Pools, Nuisance Control, Individual Sewage Disposal Systems, Trailer Camps and Industrial and Commercial Water Supplies. All but the last two of these codes have been approved and are recommended for adoption by local communities. The last two are undergoing the final checking before being approved and recommended for adoption.

An Advisory Committee drafted a code covering Fluoroscopic Shoefitting which was incorporated in the State Sanitary Code.

An Advisory Committee on Garbage and Refuse has completed a report which now serves as the basis for a program to stimulate the proper handling of garbage and refuse. Standards for the Storage, Collection, and Disposal of Garbage and Refuse have been set and recommendations for encouraging the use of these standards by all local communities are included in the report. Steps are now being taken to implement these recommendations.

Other Advisory Committees have assisted the Department in developing standards, recommending best procedures, and in recommending new legislation or revisions to existing legislation.

Chapter 199, P. L. 1954, an Act known as "The Realty Improvement Sewerage and Facilities Act" was enacted on July 28, 1954 and took effect September 1, 1954. This Act requires that no building permits can be issued by a municipality until the local board of health shall have certified that the proposed water supply system and sewerage facilities are in compliance with the standards established in accord with this Act. An Advisory Committee, provided for in this Act has already drafted such Standards for the Construction of Sewerage Facilities for Realty Improvements which were promulgated in December. This Advisory Committee is now drafting Standards for the Construction of Water Facilities for such Realty Improvements.

An Advisory Committee to recommend revisions to our Food and Drug Laws (Title 24) was organized into four (4) subcommittees to deal with four separate categories of the total subject. The Subcommittees on Meat, General Foods and Drugs have completed their work and made recommendations for revision of the Chapters of Title 24 assigned to them. At the recommendation of the Subcommittee dealing with Milk (Chapter 10) this committee was dissolved and its work is to be continued by a proposed committee of the New Jersey Health Officers Association.

An Advisory Committee to the Bureau of Public Health Engineering has completed its work on the proposed revision and modernization of our Rules and Regulations for the Submission of Plans for Water and Sewerage Systems. It is expected that a revised set of these rules and regulations will be adopted during this coming year.

The Advisory Committee on Animal Diseases Transmissible to Man met once during this past year. Problems regarding the control of rabies, trichinosis, psittacosis and the encephalitis were considered and recommendations were made to the Bureau to improve our procedures.

#### AN INTERDEPARTMENTAL COMMITTEE ON HOUSING

Another type of committee that has been most helpful in finding answers to difficult problems is the Interdepartmental Committee. The solution to some health problems is not found in Health Department programs and activities

alone but they can be handled by the joint effort of several departments or even sometimes by one other department. In order to find solutions to such problems, Interdepartmental Committees have been organized for Housing and Weed Control.

An Interdepartmental Committee on Housing was organized on September 29, 1954 at the suggestion of the State Commissioner of Health and with the approval of Governor Robert B. Meyner. Representatives to the Committee were appointed by the Commissioners of six (6) Departments, namely, the Departments of; Conservation and Economic Development, Education, Health, Institutions and Agencies, Labor and Industry and Law and Public Safety. Two (2) representatives representing Bureaus or Divisions having some direct responsibilities for various aspects of the housing problem were appointed from each of these Departments. The major objective in setting up the Committee was to promote cooperation and integration of the housing programs of these six (6) Departments and thus influence affirmatively the improvement of housing conditions throughout New Jersey. During the past year, eight (8) meetings have been held. To date, the Committee has reviewed in some detail the responsibilities and activities of each of the separate housing programs as carried on by the six Departments. These discussions have developed both the strong and weak points of each program various places at which cooperation can be helpful; and points at which some of the programs should be strengthened. In addition, several specific problems have been given considerable attention. The Committee cooperated with the Department of Conservation and Economic Development in a successful "Governor's Conference on Housing." The Committee also cooperated with the Department of Education, Division Against Discrimination, in the preparation of a survey form to obtain information relative to the public housing program in New Jersey. The Committee adjourned for the summer months with the recommendation that the Chairman develop a preliminary report with recommendations which could be approved by the various participants and submitted to the Governor for his consideration. It is anticipated that this report when approved will serve as the basis for an integrated attack on housing conditions in this State.

#### EXHIBITS

This Division has been quite successful in developing exhibits in cooperation with the Museum Director of the Department of Education. An exhibit on fluoridation was designed this year in cooperation with the Bureau of Dental Health and with the active sponsorship of the State Parent-Teacher Association. It is to be shown in the museum over a period of about four months beginning in May 1955. It is planned to convert the important message conveyed in this large exhibit into a portable exhibit which can be displayed

throughout New Jersey by health departments, parent-teacher groups and others.

A portable exhibit on milk was prepared this year following the development of a large milk exhibit last year in cooperation with the Museum Director. This portable exhibit has been in constant demand for use by milk dealer and producer groups. It has been shown in a number of elementary and high schools and before a number of civic groups throughout the State.

#### BUREAU OF VETERINARY PUBLIC HEALTH

Activities of this Bureau continue in the search for new facts and in the evaluation of data, reports and epidemiological investigations relative to disease outbreaks in humans either traced directly to animals or through potential animal and insect vectors. Specific major attention was given to the following:

##### ENCEPHALITIS

The encephalomyelitis project was continued with Doctor Preston Holden, a U. S. Public Health Service Veterinary Virologist, on loan, as project leader. Results of the study to date indicate the following:

1. Eastern equine encephalomyelitis was isolated twice with certainty, and probably three times, from the mosquito *Culiseta melanura* collected at the South River Game Farm, Mays Landing, New Jersey, during an epizootic among ring-necked pheasants confined in pens on the same farm.
2. Two recoveries of Eastern equine encephalomyelitis virus were obtained from English sparrows trapped on the pheasant farm referred to above during the same period of time.
3. Antibodies against both Eastern equine encephalomyelitis and Western equine encephalomyelitis virus were found in domestic birds of the area.
4. Epizootiological studies made on outbreaks of Eastern equine encephalomyelitis among confined pheasants suggested that Eastern equine encephalomyelitis virus was transferred among that species by some means of direct contact.
5. In the laboratory it was found that pheasants could occasionally be infected through dropping Eastern equine encephalomyelitis virus in the oral cavity. The virus could later be recovered from the blood, brain and oral secretions of pheasants infected either through the oral or subcutaneous route. The virus could not be detected in cloacal excretions, the only other specimens tested for this purpose.

This study is being continued in the fiscal year 1954-55 in cooperation with the Communicable Disease Center, U. S. Public Health Service; Graduate School of Public Health, University of Pittsburgh; New Jersey State Department of Health; Rutgers University; and, the New Jersey Fish and Game Commission.

Another study involving encephalitis of humans, of unknown origin, is proceeding along investigational lines with neurologists in an attempt to determine some recent occurrences of encephalitis resulting in death. Conclusive results are not as yet available. This study, in progress for two years, will continue until definite aid to physicians in determining the causative agent is secured.

##### PSITTACOSIS

During 1954, 17 cases of psittacosis in humans were reported. Psittacosis was found following investigations by the Department to have been present on at least seven turkey farms in New Jersey. Indications point to the strong possibility that the disease was imported into New Jersey via chicks (turkey) and eggs which came from a known endemic area in Texas.

The Department initiated serum samplings of farmers, poultry packing house workers and, in cooperation with their physicians, patients that suffered from pneumonia. It is felt from the results of this study that many cases of psittacosis in humans are not diagnosed specifically as psittacosis but are categorized under the broader term of virus pneumonia or atypical virus pneumonia. Studies were made to determine the therapeutic effects of antibiotics in eliminating the disease in turkeys when an infection has been determined. This was initiated inasmuch as infected turkeys could not be sold and the losses to farmers would be tremendous. Final results on this study are being evaluated in cooperation with Dr. Raymond Fagan, Virologist, at the University of Pennsylvania.

The Department set up procedures whereby parakeet aviaries determined to be infected are treated by licensed veterinarians in accordance with a treatment schedule set up by this Department in the event the owner wishes to do so in place of destroying the birds. Considerable research was conducted by the Department in cooperation with private practicing veterinarians in arriving at suitable treatment schedules.

Technical papers on the research initiated to answer the practical public health problems presented by these disease control problems are being prepared for presentation and publication in suitable scientific journals.

## MEAT INSPECTION AND TRICHINOSIS

During 1954, 7 cases of trichinosis were reported. Efforts to obtain proper cooking of garbage prior to feeding to swine, in cooperation with the U. S. Department of Agriculture, are beginning to show results. As a part of the activity on meat inspection, information relating to the proper processing of meat was prepared and forwarded to meat processors in the State. There were 137 slaughterhouse licenses issued. Efforts were initiated during this period to limit the number of licenses issued to those actually in operation and complying with full sanitary requirements. A committee is presently engaged in making suggested revision of the Slaughterhouse Regulations. Legislation to permit lay meat inspectors to be licensed has as yet not been passed by the Legislature. It is felt, without this, an adequate system cannot be instituted.

It is noteworthy to indicate that, at the moment, of the 100 some odd meat inspection establishments in New Jersey, only 20 have what may be considered adequate inspection of carcasses. Inspection consists, normally, of inspection for sanitary conditions and inspection of the individual carcass for disease findings. Unless each carcass is examined, there can be no definite assurance that the meat or poultry eaten is in actual fact fit for consumption.

## BRUCELLOSIS

The Department continues to work with the New Jersey State Department of Agriculture and the U. S. Department of Agriculture in their efforts to eliminate brucellosis as a major public health problem as well as a livestock disease problem. A deadline of April 1, 1958, as stated in the State Sanitary Code, will be met by all producers of milk within the State of New Jersey in accordance with present estimates, and will definitely be met by all milk imported into New Jersey.

## RABIES

Surveys to determine the incidence of rabies in fox and other wildlife, particularly bats, were instituted. To date, there are no known foci of infection in New Jersey. There has been no reported case of rabies in New Jersey, while the disease continues in Pennsylvania, New York and Delaware. Efforts to keep the disease out of New Jersey continue along the lines of control of dogs, vaccination clinics, where indicated, and educational programs for children and adult groups. The Department operates four trucks, used to control dogs in emergency situations and to train personnel to operate their own control programs.

During 1954, 362,315 dogs were licensed and \$90,578.75 in registration tag fees were collected. A total of \$20.00 in penalties was collected for violation

of R. S. 4:19-15.2. There was \$18,864.00 spent for rabies vaccine for canine use and \$367.86 was spent for human vaccine.

## MEETINGS

Personnel of the Bureau participated in a Biological Warfare Conference April 15 and 16, 1955, in New York City, under the sponsorship of the Federal Civil Defense and U. S. Public Health Service.

A technical meeting of Veterinary Epidemiologists was attended at the Communicable Disease Center, Atlanta, Ga., March 28 to April 2, 1955.

The Advisory Committee on Animal Diseases Transmissible to Man met on April 14, 1955.

The Chief of the Bureau was designated as Delegate to represent New Jersey veterinarians at the Annual American Veterinary Medical Association Meeting.

## Bureau of Public Health Engineering

## STREAM POLLUTION

Plans, specifications and other engineering data were examined, approved and permits issued for the construction and operation of 184 stream pollution control projects having an estimated cost of construction of \$41,656,678. The projects consist of seventy-seven (77) sewer extensions, twenty (20) additions and alterations to existing sewage projects, thirty-three (33) new sewage and/or industrial waste treatment plants and fifty-four (54) partial or complete sewage systems and pumping stations.

Seventeen (17) permits were issued for the establishment of factories or workshops on potable watersheds.

Sixteen (16) "Orders of Necessity" were issued to permit municipalities to exceed their bonded indebtedness in order to construct necessary sewerage improvements. Seventeen (17) formal orders to abate pollution were issued.

The State Department of Law and Public Safety was requested to institute necessary court action against five (5) municipalities or industries to enforce compliance with the terms of Notices issued. In most instances satisfactory stipulations and time tables were promulgated.

Sixteen (16) sewage treatment plants and three (3) industrial waste treatment plants were completed and placed in service. Of the sewage treatment plants, five will serve municipalities, four the Garden State Parkway, one a State institution, two housing developments, one school, one camp and two will serve industries. The trend toward the so-called "package" sewage treatment plants for the smaller installations continues.

Many conferences were held with industrial management relating to proposed sites for new industry including quality standards for waste disposal, discussion of waste treatment methods, progress in pilot plant studies and general policies and practices of the Department.

Conferences of the industrial waste committee of the New Jersey Sewage and Industrial Waste Association were attended.

Nearly all of the municipalities eligible to join the Bergen County Sewer Authority have signified their intention to do so by formal resolutions during the last fiscal year.

At the end of the fiscal year all plans and other engineering data had been received, examined, approved and permits issued for the construction and operation of the Middlesex County Sewerage Authority trunk sewer project.

#### WATER

Plans for thirteen projects, alterations, improvements and additions to water works, totaling \$4,434,000.00 were approved. Thirty-one new systems and supplies were also approved. The estimated cost of these projects amounted to \$2,472,000.00.

There were nine original cross-connection permits issued pursuant to Chapter 308, P. L. 1942.

Four Orders of Necessity were issued pursuant to the provisions of R. S. 40:1-16 (g).

The Township of East Brunswick instituted fluoridation of their public water supply system. This raises the number of fluoridated water supplies to seven and the number of persons receiving fluoridated water to approximately 255,000.

In order to obtain additional data concerning the efficiency of existing fluoridation installations, arrangements were made to obtain samples on a monthly basis for fluoride determinations by laboratory methods. Arrangements were also made to obtain samples at quarterly intervals from public water supplies containing the optimum amounts of natural fluorides.

Chemical and physical analysis of all potable water supplies are being made as a part of a State-wide program to bring our records up to date. The laboratory results will be tabulated and made available to those interested.

#### BATHING

Certification of lake bathing places continued as an activity. Some 12 places received a certificate during the 1954 season. It is anticipated that this phase of the Bathing Program will receive greater attention, particularly in the Central and Southern District areas.

The "Swimming Pool Code of New Jersey (1955)" was approved by the Department and is now recommended to all local boards of health and licensed health officers for adoption by reference. The code will now provide boards of health with a tool to aid in the control of the installation and operation of swimming pools.

Ocean, bay and other tidal waters used for bathing were sampled and inspections made of sewage treatment plants discharging effluents into these waters to assure their suitability for bathing. This activity was carried on jointly by the Divisions, District Health Officers and local organizations and personnel.

#### SOLID WASTE

Considerable progress has been made during the past year in the conversion of open dumps to sanitary landfills. The number of sanitary landfills now operating has more than doubled in one year and the number of municipalities served has increased almost seven fold. Seventeen such landfills are now operating and disposing of garbage and refuse from 68 municipalities in this State. Fifteen additional sites found suitable for the operation of the sanitary landfill method will be placed into operation as soon as municipal budgetary items are approved for the purchase of bulldozers and other necessary heavy equipment.

Legal action was instituted at the request of this Department to abate an open dump on a potable watershed. This matter is receiving the active consideration of the Attorney General.

#### RAGWEED AND POISON IVY CONTROL

Eighteen pollen collection stations were in operation during this fiscal year. The daily pollen count from August 1 to September 30 was collected and tabulated through the cooperative efforts of local health departments in this State. This information was presented in the Information Bulletin No. 3 and was widely circulated by this Division.

The highest pollen count of 428 per square centimeter occurred in Red Bank on August 26, 1954. The highest average pollen count for the season was recorded for the station located in Flemington. Three municipalities, Jersey City, Newark and Summit recorded the lowest pollen counts for the ragweed growing season. The average pollen count for the eighteen pollen collection stations in the State during the collection period was 21.2 grains per square centimeter or 76.3 grains per cubic yard. This is three times the amount of pollen considered to be required for most sensitive people to be affected by hay fever.

Approximately 150 communities in New Jersey are now carrying on routinely, community-directed ragweed control programs. During this past



summer intensive roadside spraying programs were placed into effect on a county-wide basis in Sussex, Warren and Salem Counties. Many rural communities in these counties also participated in this program to control weeds along roadsides for not only health purposes but accident prevention, road maintenance, conservation and economy.

Recently, a most significant report on the "Cultivation and Chemical Weed Control in Potatoes" was issued by the New Jersey Agricultural Experiment Station. This report shows that public health has an important economic ally in the Dinitros. Potato yields will be increased at less cost and ragweed is destroyed as a by-product of better cultivation thus providing a public health benefit. It is estimated that 75% of the potato growers in New Jersey will use this method of cultivation during the summer of 1955.

The Experiment Station also reports that new information regarding the control of weeds in connection with raising tomatoes may soon provide a means of controlling ragweed while growing more and better grade tomatoes.

In addition to the efforts in the field of research, County Agricultural Extension Agents are translating this new knowledge into practice to bring about control for the benefit of crops and the farmers. This has resulted in greater yield of crops at a lower production cost. More courses and meetings to pass on new information and stimulate more and better control work are being held by the extension specialists with the farmers throughout the State.

New Jersey last year adopted a new law for the control of air pollution and an air pollution control commission appointed in accordance with the Statute has staked out four major fields of activity. One of these is the control of air borne pollen. Broad powers have been given to the State Health Department and the Commission. The passage of this law and the appointment of the Commission strengthens the legal basis for the control of pollen.

Two significant papers by New Jersey officials dealing with highway maintenance and safety were published during this past year; one by Oliver Deakin, Engineer of Parkway Design for the New Jersey Highway Authority, entitled "The Way of Weed Control—Highway Maintenance and Safety" and the other by Lester M. Price, Sussex County Freeholder, entitled, "Highway Weed Control in Sussex County." Both articles, appearing in the Journal of the New Jersey State League of Municipalities, emphasize the added benefits of health, safety, and beautification in addition to the necessary maintenance of highway rights-of-way at a saving in cost.

The Interdepartmental Weed Control Committee met in June 1955. A second report is now in preparation. It will include recommended second steps and when approved by the participating Departments will become the basis for our integrated State-wide program for the immediate future.

## Bureau of Food and Drugs

### DRUGS

During the Spring of 1955, administration of the first inoculations of Salk Anti-Poliomyelitis Vaccine was made on a nationwide scale. Within a short time, wide-spread publicity was given to the possibility of vaccine manufactured in California having caused the disease in children receiving inoculations in States other than New Jersey. Prompt steps were taken by the Department to determine if any of the suspected vaccine had been distributed for use in New Jersey. Information received from the New Jersey branch of the manufacturer revealed that over 1,800 cc. of the vaccine had been distributed to 12 wholesale drug firms in New Jersey. A company-by-company canvass of each of the distributors disclosed that 1,845 cc. of the product had been received, of which approximately 280 cc. had been used by physicians. In addition, the New Jersey outlet had distributed quantities of the vaccine throughout the eastern United States.

Acting upon advice of the United States Public Health Service, the manufacturer recalled all polio vaccine from the market until further study of the matter could be made. The New Jersey branch of this company collected approximately 8,400 cc. under our supervision which were eventually returned to the California plant for research and destructive testing. Information regarding the return of the polio vaccine to the manufacturer was relayed to interested Federal and State Agencies as a cooperative control measure.

In order to permit New Jersey manufacturers of drugs and cosmetics to maintain their foreign markets, the Department cooperated with the above industries by issuing certificates of inspection, which many foreign governments were demanding. The importing countries required proof from State or local health agencies that the manufacturing establishments and products complied with State laws and regulations. After satisfactory information was gathered regarding sanitary condition of the plant and labeling of products, the Department issued 62 such certificates in response to appeals for assistance.

Four hundred and seventeen (417) samples of various drugs were collected from retail outlets for analysis to determine compliance with standards of quality and strength and labeling requirements. A number of instances occurred where drugs were found to be misbranded or adulterated. Vendors were notified in writing of the violations and advised to correct the deficiencies. Subsequent samples were collected to check compliance. In two cases penalties of \$50.00 each were collected by the Attorney General from pharmacists who ignored the letter of warning.

Twenty-two (22) drug manufacturing and wholesale establishments were inspected during the year in connection with sanitation, security precautions in narcotic handling establishments and general labeling requirements.

In addition, an agreement was reached whereby agents of the Federal Bureau of Narcotics would accompany representatives of this Department during inspections of narcotic drug establishments to determine license status. Such joint inspections provided for uniform interpretations of security requirements and resulted in uniform recommendation regarding issuance of necessary State licenses and Federal tax stamps.

A meeting was held with the newly appointed Secretary of the State Board of Pharmacy to discuss better exchange of information relating to drug control programs of both agencies.

#### MILK

The reciprocity program which includes the Health Departments of Jersey City, Newark, Paterson and the State of New Jersey was activated. Each of the participating agencies is using the same forms for rating dairy farms and milk plants, and information regarding results of inspection is being exchanged with the other agencies in the program.

Information was received from the above three local health departments on the sanitary status of 167 out-of-State milk plants and 45 milk plants located in New Jersey.

Twelve (12) additional district sanitarians were certified as approved milk raters.

During the year 27 fewer milk plant permits were issued and in addition 21 applications for new permits were not approved.

Department personnel participated on Committees of the New Jersey Health Officers Association in continuing studies of new technological developments in the production and handling of milk including the Bulk Farm Tank system of handling milk, cleaning of sanitary piping in-place, Tetra-Pak (Swedish) method of packaging milk, milk vending machines and milk dispensers, the development of pasteurizing equipment employing ultra-high temperatures, the use of new materials and methods for capping bottles, and the preparation of special products such as Lo-Sodium milk and milk in hermetically sealed containers.

The Division continued to cooperate with the Public Health Service, especially in regards to inspection of milk plants and ice cream factories for listing on the Interstate Milk Shippers list and for approval for interstate carriers.

The following tabulation contains the number of inspections made by Department personnel of various establishments handling milk, cream, milk products and ice cream:

	<i>In-State</i>	<i>Out-of-State</i>
Creameries .....	55	....
Dairy farms .....	1,489	2,106
Goat dairy farms .....	24	....
Goat milk plants .....	15	....
Ice cream factories .....	1,346	29
Milk plants .....	549	93

#### FOOD

Licenses for non-alcoholic beverage bottling plants, egg-breaking, refrigerated warehouses and locker plants are issued under the provisions of Title 24 of the Revised Statutes. The laws also establish standards of sanitation for such establishments and all other places where food may be produced, packed, stored, distributed or sold. The same statutes prohibit the adulteration or misbranding of food, establish definitions and standards of identity for certain classes of food and provide mandatory penalties for infractions of the laws and regulations adopted by the Department.

Enforcement of the various sections of the law involves sanitary inspections, collection of samples of food for chemical or bacteriological analyses and review of labels to determine compliance with statutory requirements.

During the year approximately 200 samples of enriched bread, enriched white rolls and enriched flour were collected to determine compliance with the Flour and Bread Enrichment Act (R. S. 24:11A-1, et seq.) which requires the products to contain specified amounts of vitamins and minerals. An estimated 10% of the samples were found to be deficient in mineral or vitamin content. Letters were sent to the bakeries calling attention to the violations and advising the operators to enrich the products in compliance with the statute. Follow-up sample collection showed substantial compliance with our requirements.

Samples of various meats were collected for analysis for chemical adulteration, and substitution of horseflesh for beef. Samples of non-alcoholic beverages were collected for analysis to detect substitution of non-nutritive sweeteners and review of labels. Samples of other foods were also collected to determine compliance with existing statutes.

Assistance was rendered to other State agencies in solving food problems and to local boards of health. Agents of the Department also cooperated with Federal agencies by placing embargoes on food in interstate commerce. In cases where embargoes were made at the request of Federal agencies, the articles were held until seizure was made by the United States Marshal or the food was released.

During the year \$700.00 in penalties was collected by the Attorney General for violation of Food and Drug Laws.

The Legislature enacted an amendment to the Non-Alcoholic Beverage Law which permits the manufacture and sale of non-alcoholic drinks which contain water obtained from a public water supply, treated with fluorides in a manner approved by the State Department of Health. The exemption was deemed necessary inasmuch as the law specifically prohibits the sale of non-alcoholic beverages which contain fluoride, fluoborate, fluosilicate or other fluorine compounds. Source of the new legislation is Public Laws of 1954, Chapter 252.

The following tabulation lists the number and types of food establishments other than milk, ice cream and shellfish inspected by representatives of the Department:

Bakeries .....	27
Candy factories .....	37
Canneries .....	7
Cider plants .....	27
Eating establishments .....	159
Egg-breaking plants .....	56
Food Warehouses .....	21
Frozen food processing plants .....	43
Meat processing plants .....	35
Non-alcoholic beverage bottling plants .....	222
Pickling plants .....	8
Refrigerated warehouses and locker plants .....	133
Miscellaneous food establishments .....	107
	<u>873</u>

#### SHELLFISH

The following tabulations show the number of inspections of shellfish establishments performed and the number of samples of shellfish and water collected for bacteriological analysis during the year:

<i>Number of Inspections</i>	
Shellfish shucking plants .....	76
Shellfish shipping plants .....	630
	<u>706</u>
<i>Number of Samples Collected</i>	
Shellfish waters .....	5,776
Special waters .....	49
Shell oysters .....	159
Shucked oysters .....	374
Shell hard clams .....	382
Shell soft clams .....	39
Mussels .....	2
Frozen shellfish .....	116
	<u>6,897</u>

These samples of water were collected for bacteriological analysis from approved and condemned shellfish areas and from supplies used in shellfish shucking plants. Samples of shucked and shell stock are also collected for examination. In addition, sanitary inspections of all types of establishments handling shellfish are performed and periodic patrols of condemned waters to prevent illegal removal of shellfish are made.

During patrolling of condemned shellfish areas, personnel of the Department apprehended twenty-five individuals removing shellfish from polluted waters. All but one were found to be first offenders, including some vacationers. Warning letters were sent to each of the first offenders with copies of our law and charts showing areas condemned by this Department for the taking of shellfish. The case of one chronic offender was referred to the Attorney General for prosecution.

The Department has long been concerned over the unrestricted building development in our coastal areas and the possible encroachment of additional pollution onto the State's shellfish producing areas. Enactment of Chapter 199, P. L. 1954—The Realty Improvement Sewerage and Facilities Act—placed in the hands of local boards of health a powerful means of regulating such building. Shellfish program personnel alerted the State Health Districts to several such existing and proposed developments which were then brought to the attention of local boards of health. Proper enforcement of the new statute by municipalities within their own jurisdiction will do much to protect our shellfish areas as well as other natural resources. During the year approximately 200 new water sampling stations were established in water in close proximity to the new developments. Periodic sampling of the water at these points may indicate to what extent such waste treatment facilities influence the condition of the water.

Steps were taken to condemn that portion of the Bay lying within a radius of one-half mile from the outer end of a new sewer outfall line installed by the Borough of Cape May in the Delaware Bay at Cape May Point. The order was made effective September 7, 1954 and is in keeping with Department policy relating to the discharge of sewage treatment plant effluent into shellfish waters.

Recently, a number of new frozen shellfish products were placed on the market. Frozen oyster stews, oyster pies, breaded oysters, clam chowder and clam fritters are some of the products developed by frozen food processors. The nature of the products, their ingredients and manner of handling during processing, are of concern to public health officials. Approximately 115 samples of various frozen products were collected from retail outlets and processing plants and analyzed in our laboratories. Based on a series of unsatisfactory results of analysis, one processor was requested to discontinue the shipment

of frozen oyster pies into New Jersey until the number of coliform bacteria was reduced in the product.

New Jersey oyster growers suffered the worst shortage of oysters in twenty years. Shucking plant operators faced by a similar shortage next year requested the Department to revise our regulations which prohibit the repacking of shucked shellfish from one container to another. The suggested revision would enable New Jersey packers to import shucked shellfish from other states in bulk containers and repack the oysters in their own containers for reshipment. A tour was made of a number of plants in Virginia and Maryland where such practices are permitted, and it was determined that if the practice was to be condoned in New Jersey, certain basic improvements would be recommended to our operators before permission could be granted.

The Division of Shellfisheries of the Department of Conservation and Economic Development with statutory authority can establish certain areas as Shellfish Sanctuaries and prohibit the removal of shellfish from these areas except under prescribed conditions. In cooperation with the State Health Department the Shell Fisheries Council, by resolution designated all Shellfish Areas Condemned by this Department as Shellfish Sanctuaries. This action permits agents of the Division of Shellfisheries to assist this Department in patrolling condemned areas and preventing the removal of shellfish from polluted waters and increases protection of the public health.

Licenses, permits and certificates issued and revenue derived from all food establishments under the laws and regulations of the Department are tabulated herewith.

<i>Establishment</i>	<i>Licenses</i>	<i>Permits</i>	<i>Certificates</i>	<i>Revenue</i>
Milk Plant .....	579	...	...	\$14,475.00
Goat Milk Plant .....	25	...	...	232.50
Refrigerated Warehouse and/or Locker Plant .....	98	...	...	4,500.00
Ice Cream Factory .....	1,200	...	...	10,800.00
Narcotic Drug Plant .....	66	...	...	870.00
Creamery and/or Cheese Factory .....	55	...	...	No fee
Egg-Breaking Plant .....	14	...	...	No fee
Non-Alcoholic Beverage Bottling Plant .....	192	...	...	No fee
Shellfish Interstate Shipping Plant .....	...	...	270	No fee
Shellfish Intrastate Shipping Plant .....	...	...	75	No fee
	<u>1,625</u>	<u>604</u>	<u>345</u>	<u>\$30,877.50</u>

## Report of the Division of Local Health Services

July 1, 1954—June 30, 1955

WILLIAM H. MACDONALD, M. Sc., *Director*

RALPH T. FISHER, M. P. H., *Assistant Director*

Bureau of Grants-In-Aid ..... WALLACE T. EAKINS, M.S.,  
*Chief.*

Bureau of Public Health Nursing ..... GLADYS J. WILSON, R.N., M.P.H.,  
*Chief.*

### STATE HEALTH DISTRICTS

Central ..... JESSE B. ARONSON, M.D., M.P.H.,  
*District State Health Officer.*

Metropolitan ..... JAMES E. PETERMAN, M.D., M.P.H.,  
*District State Health Officer.*

Northern ..... HARRY R. H. NICHOLAS, B.S.,  
*District State Health Officer.*

Southern ..... HUGH D. PALMER, M.D., M.P.H.,  
*District State Health Officer.*

## Division of Local Health Services

The Division of Local Health Services with the staff of the four State Health District Offices comprises the task force of the Department for the implementation of programs. Its job is to translate program plans and objectives into the reality of progress in public health. It serves also as the intelligence arm of the Department, for it has a working knowledge of New Jersey's public health needs as reflected by local boards of health and other local health agencies. Backing the public health team in each State Health District Office are the technical and professional staffs of the six other Divisions of the Department.

During the past year the efforts of the staff of the Division have been concentrated in two fields: that of implementing the work assigned to the Districts in existing programs and the job of completing the writing of the four District Plans.

New personnel has been added during the year, bringing closer to completion the original plan for the professional staffing of the State Health District Offices. Professional personnel added during the year were: four District Consultants, Medical-Social Rehabilitation; a District Consultant, Public Health Nutrition; a Public Health Nutritionist; a Public Health Veterinarian and two Senior Sanitarians.

At the close of the fiscal year, the following personnel were on the staff of the central office of the Division: Director and Assistant Director of the Division; Chief, Bureau of Grants-in-Aid; Chief, Bureau of Public Health Nursing; four Public Health Nurse Consultants (one each for Crippled Children and Maternal and Child Health Programs, and two for Chronic Illness Program); and a Public Health Nurse Supervisor.

The staff of the four State Health Districts is shown in Table 1.

TABLE 1.

Title	Total	Central	Metro	Northern	Southern
District State Health Officer .....	4	1	1	1	1
District Health Officer.	1	..	1	..	..
District Chief Public Health Engineer ....	3	1	1	..	1 (Vacant)
Senior Public Health Engineer .....	2	1 (Vacant)	1	..	..
Principal Sanitarian ...	1	1	..	..	..
Senior Sanitarian .....	4	1	1	1	1
Sanitarian .....	5	1	2	1	1
Assistant Sanitarian ...	6	1	1	1	3
District Consultant, P. H. Nutrition .....	2	..	..	1	1
Nutritionist .....	1	1	..	..	..
*Senior Public Health Physician .....	1	..	..	..	1
*Public Health Physician .....	2	1	..	1	..
Medical Assistant, Grade II .....	1	1	..	..	..
District Consultant, Com. H. Org. ....	4	1	1	1	1
District Consultant, Medical-Social Rehabilitation .....	4	1	1	1	1
District Chief Public Health Nurse .....	4	1	1	1	1
Public Health Nurse Supervisor .....	27	5 (1 Vacant)	9	6 (2 Vacant)	7 (1 Vacant)
Public Health Nurse ...	21	1	..	9	11
Graduate Nurse .....	3	..	..	2	1
Public Health Veterinarian .....	4	1	1	1	1
Rabies Control Warden	2	1	..	..	1
Investigator, Rabies Control .....	2	..	1	1	..
Veterinarian (part-time)	1	..	1	..	..
Physical Therapist ....	2	1	..	..	1

\* Chest Clinics and X-ray reading only.

## LOCAL BOARDS OF HEALTH

The total number of local boards of health in New Jersey is 570. This includes the board in each municipality and also the board in each of two Camp Meeting Associations created under special laws and the board authorized by statute in the New Jersey section of the Palisades Interstate Park.

The total amount reported by these local boards of health as available for their use specifically for health purposes during the calendar year 1954 was \$6,863,431.13, a per capita of about \$1.353. The amount recorded as spent specifically for health purposes by local boards of health during 1954 was \$6,626,125.41, a per capita expenditure of about \$1.306.

Laws of New Jersey and regulations of the State Sanitary Code anticipate each of the 570 local boards of health shall have the services of a health officer licensed by the State Department so to act. Although this objective has not been reached by each of these boards, as of June 30, 1955, seventy-six boards in the 93 municipalities having a population of 10,000 or over employed such a licensed agent either on part or full time. In the 477 local health units under 10,000 population, a much lower proportion, 119 to 358, had the services either of a licensed health officer or a person eligible under the State Code to serve as executive officer for such boards. There still exists the problem of aiding local health boards, particularly in the smaller municipalities, in securing the services of skilled personnel.

The activities of the Division and the work of the State Health District Offices is spread throughout this report of the State Department of Health, for much of the field work reported upon by the various programs is done by the personnel of the District offices. If all of the work done were to be reviewed here, it would of necessity be a repetition of other parts of the report. We have, therefore, left the definitive reporting of many of these activities to the responsible Division while indicating special participation by the District staffs in certain programs.

## Central State Health District

## DISTRICT ORGANIZATION

The major organizational activity of the district staff during the year 1954-1955 was the writing of the district plan. This plan was patterned after the departmental programs and provides for the implementation of these programs by the district staff. In addition, it outlines the integration of these programs and the function of the district as liaison between the several program coordinators and local health agencies. During the year considerable efforts were made to align district activities with the departmental programs as approved.

There were a number of staff changes during the year. There were three new clerk-stenographers replacing resignations. The Senior Public Health Engineer was promoted to Principal Engineer in the Bureau of Public Health Engineering and the position was vacant at the end of the year. There were two resignations of Public Health Nurse Supervisors. One was replaced by a transfer from another district. The other position was open at the termination of the fiscal year. A Public Health Nutritionist was added to the staff. A Consultant in Medical-Social Work and Rehabilitation was also added to the staff. This was also a new position and represents a new district activity. One Physical Therapist position was eliminated as a result of successful negotiations for the United Cerebral Palsy of Monmouth and Ocean Counties to assume the responsibility for the employment and salary of a Physical Therapist. This was facilitated by a grant-in-aid contract.

During the year the District Veterinarian was on educational leave at Columbia University School of Public Health. At the end of this course he secured his Master of Public Health degree.

As of June 30, 1955 the staff consisted of 30 members including a District State Health Officer, District Chief Public Health Nurse, District Chief Public Health Engineer, Public Health Veterinarian, Medical Assistant Grade II, District Consultant on Community Health Organization, 4 Public Health Nurse Supervisors (one vacancy), 1 staff Public Health Nurse, 1 Senior Public Health Engineer (vacancy), 1 Principal Sanitarian, 1 Senior Sanitarian, 2 staff Sanitarians, 1 Public Health Nutritionist, 1 Consultant on Medical-Social Rehabilitation, 1 Physical Therapist, 1 Rabies Control Warden, 2 Venereal Disease Investigators, 6 office personnel, and 1 Building Service Worker.

#### COMMUNITY HEALTH ORGANIZATION

Community Health Organization in the District developed in certain spheres of health activities rather than in health councils per se. It was evident that individuals and organizations would devote a large amount of their time and effort toward the solution of a specific health problem. Although this same health problem might have been effectively handled through the Community Health Council, the people did not appear ready to utilize this idea. However, notable accomplishments have been made by citizens' groups in specific health fields in the various counties.

In Burlington County the Nursing Committee, composed of representatives of the several Visiting Nurse Associations, Boards of Health, Tuberculosis League, Board of Freeholders, the C. I. O., and other interested citizens, completed its study of the public health nursing needs in Burlington County. They recommended that a Burlington County Public Health Nursing Association be

formed and that a Nurse Director be employed to coordinate the public health nursing activities in the County. These recommendations were accepted by the Board of Chosen Freeholders and they agreed to subsidize such a project with the initial help of a grant-in-aid contract with the State Department of Health.

There has developed in Middlesex County a similar movement to study the nursing situation in this County. A planning committee was set up which is in the process of organizing a working committee to study the public health nursing facilities of the County. It is hoped that the interested members of this committee will continue with this excellent beginning.

One of the largest committees developed was that of the Mercer County Fluoridation group composed of over 50 organizations. This Committee headed by the County Dental Society, the Congress of Industrial Organization, and the Parent Teacher Association County Council and its local member organizations, are trying to obtain fluoridation for the residents of the City of Trenton and neighboring municipalities supplied by the same water utility. Their efforts are being climaxed by the circulation of a petition for the adoption of fluoridation by referendum in the next general election in the City of Trenton.

Another committee has been formed in Mercer County called the Coordinating Council for Children and Youth Safety. At present it is in the process of being organized as a permanent group. When formed, some of its aims and purposes will be:

1. To focus citizen attention on children and youth safety.
2. Stimulate and further the interest of organizations in safety programs.
3. Set up a central bureau where organizations can come for assistance.
4. Plan and conduct a Children and Youth Safety Week in the fall of the year.

The Polio Vaccination Program in the District throughout the five counties required the active support of the program by many local professional, voluntary, and lay groups without whose support the program could not have been carried out. It was necessary for the District State Health Officer to assign a member of his staff to each of the counties to coordinate the program under his guidance. The persons assigned to each county in the District were responsible for the polio program in that county, and to disseminate necessary information and instructions of the County Vaccination Coordinating Committee. By use of the staff members as assistants, it was possible for the District State Health Officer to be relieved of a good deal of the routine administration problems of the polio program, allowing more time for special administrative details. The

persons assigned to each county in the district were responsible for the polio program in that county, and to disseminate necessary information and instructions to the County Vaccination Coordinating Committee. This group headed by the County Superintendent of Schools, and composed of representatives from the County Medical Society, County Chapter of National Foundation for Infantile Paralysis, Public and Parochial Parent-Teacher Associations, County Chapter of the American Red Cross, Nursing Organizations, and Health Officers, took the responsibility for working out procedures and carrying out the program in cooperation with the local municipal officials.

#### ENVIRONMENTAL SANITATION

Under the direction of the District Chief Public Health Engineer, a generalized environmental sanitation program was carried on in the District. Sanitary activities were under the direction of a Principal Sanitarian, with the assistance of a Senior Sanitarian, a Sanitarian, and one Assistant Sanitarian. A Senior Public Health Engineer was assigned to the District to assist the District Chief Public Health Engineer in performing the several types of public health engineering activities.

In cooperation with this office, local Health Officers, Sanitarians, and members of Boards of Health carried on a wide variety of sanitation activities, including inspections, investigations, and recommendations for licensing on behalf of the District. Local Health Officers of the following communities accepted responsibility as indicated above: Trenton, Perth Amboy, Woodbridge, New Brunswick, Red Bank, Burlington, Long Branch Regional Health Commission, Ocean Township, Deal, Allenhurst, Neptune Township, and Bradley Beach.

Listed below is a tabulation of inspections of food and related establishments made by representatives of the Central State Health District during the fiscal year 1954-55:

<i>Type of Establishment</i>	<i>No. of Inspections</i>
Bakeries .....	6
Candy .....	1
Canneries .....	1
Dairy Farms	
(a) Pasteurizing plants .....	220
(b) Producer-Distributor .....	3
(c) Goat dairy .....	5
Milk Plants .....	196
Goat Milk Plants .....	10
Ice Cream Plants .....	286
Eating Establishments .....	72
Egg Breaking .....	20
Food Warehouses .....	0
Frozen Food Processing Plants .....	27
Meat Processing Plants .....	6
Non-alcoholic Beverage Bottling Plants .....	31
Pickling Plants .....	0
Shellfish Establishments .....	0
Refrigerated Warehouses .....	20
Miscellaneous Food Establishments	
(a) Meat Markets .....	20
(b) Cider Plants .....	11
Creameries .....	4

During the year the following also were inspected on a routine basis:

Dumps .....	3
Water Certification (U.S.P.H.S.) .....	10
Drug Stores .....	2
Well tests .....	13
Water—	
(Public) .....	76
(Private) .....	52
Sewage—	
(Public) .....	80
(Private) .....	16
Housing (Inspection of Sub-standard) .....	2
Trailer Camps .....	3
Stream Survey .....	17
Special Board of Health Investigations .....	194
Realty Subdivisions .....	95
Camps .....	36



Tabulated below is a list of the various samples collected during the fiscal year, itemized by months:

Month	Ice		Other	Drugs	Water	Surf	Sewage
	Milk	Cream	Food				
July, 1954.....	31	18	2	..	93	..	50
Aug., 1954.....	43	..	4	..	19	412	12
Sept., 1954.....	22	26	2	..	63	..	12
Oct., 1954.....	33	18	2	..	30	..	10
Nov., 1954.....	60	0	8	5	33	..	12
Dec., 1954.....	53	12	25	7	32	..	13
Jan., 1955.....	51	0	5	3	20	..	22
Feb., 1955.....	62	..	35	..	46	..	10
Mar., 1955.....	84	..	40	13	50	..	15
Apr., 1955.....	64	15	7	5	5	..	..
May, 1955.....	39	..	19	..	33	..	10
June, 1955.....	55	..	37	..	54	220	12
Fiscal Year 1954-55	597	89	186	33	478	632	178

In conjunction with the Bureau of Public Health Engineering, the District Staff assisted in making special investigations of sewage treatment plants serving the boroughs of South Amboy, Keyport, Atlantic Highlands and Island Heights.

The Monmouth and Ocean County Bathing Beach Committee, consisting of members of the Monmouth and Ocean County Health Officers' Association and the Monmouth and Ocean County Sewage and Industrial Waste Association, in cooperation with the District Staff, carried on their program of bathing beach sanitation, with necessary inspections, sampling, and public relations activity. During the fiscal year surveys were made in August, 1954 and June, 1955. The areas surveyed included Raritan Bay, the Atlantic Coast from Sea Bright to Beach Haven, and Barnegat bay waters including tributary streams (Metedeconk and Toms Rivers).

The District Staff was called upon in numerous instances to discuss the provisions of the Public Health Nuisance Code of New Jersey and the Individual Sewage Disposal System Code of New Jersey. As a result of these discussions, considerable interest was shown and several municipalities in the District enacted these codes. The District was also called upon to explain in detail the provisions of the Plumbing Code of New Jersey.

It will be noted that the District staff reviewed and/or processed engineering data submitted upon 95 realty subdivisions. The enactment of Chapter 199, P. L. 1954, and the Standards adopted under the provisions of this law, clarified in the minds of many engineers and developers the requirements for the proper installation of individual sewage disposal systems. Numerous conferences have been held, and excellent cooperation has been secured from de-

velopers who are proposing the development of new tracts throughout the District. Many developments are planned and are in the process of construction in the Ocean County area as a result of the construction of the Garden State Parkway.

During the year District personnel cooperated with health authorities of Brick Township in an effort to secure improvements in the method of treatment and operation of the sewage treatment plant owned and operated by the Lakewood Water Company. As a result of legal action initiated by the authorities of Brick Township, the court decreed and enacted a time schedule whereby the Lakewood Water Company must provide for additions and alterations to their sewage treatment plant. With improved operation at this plant, no complaints were received by the District during the latter part of this fiscal year.

During the week of February 14, 1955, personnel of the Central State Health District made a survey of dwelling conditions in 11 survey areas of Millstone Township, Monmouth County, N. J. This survey was requested by the Board of Health of Millstone Township following a preliminary meeting with the Township Planning Committee, who were interested in providing proper and adequate health and safety programs for the Township. Approximately 15 man days were expended in the performance of these surveys and preparation of the detailed report required. As a result of the survey the Township Committee was urged to adopt an adequate housing ordinance prescribing minimum standards of fitness for human habitation, and further were requested to review existing building ordinances, plumbing codes, individual sewage disposal codes, public health nuisance codes, and planning and zoning regulations to determine their adequacy or suitability for revision or adoption by Millstone Township.

District personnel also conferred with authorities of Edison Township and made a survey of sub-standard housing in the Potters Village section of the Township. As a result of this survey, recommendations issued to the authorities involved as to the measures to be taken to correct all unsatisfactory conditions existing in Potters Village.

In conjunction with activities in Ocean County, District personnel made numerous inspections of hatcheries and egg dealers in the Lakewood area. No concrete evidence was obtained which would indicate violations of existing statutes.

The District Chief Public Health Engineer arranged for a conference with Fish and Game Wardens serving the 5 counties of the District for the purpose of orienting them as to the provisions of Department statutes and procedures in controlling stream pollution throughout the District. At the same time, the District staff were familiarized with the procedures taken by the Division of

Fish and Game in their control over stream pollution. The conference was mutually advantageous to all concerned.

District personnel cooperated with the Interstate Sanitation Commission in the performance of special investigations at the South Amboy and Keansburg sewage treatment plants. Inspection service was also extended to the Department of Labor and Department of Institutions and Agencies in matters pertaining to bakeries and nursing homes, respectively. We also cooperated with the Department of Conservation and Economic Development in determining the quality of water supplies and bathing waters at State parks and conducting inspection surveys for the Department of Institutions and Agencies at State institutions.

Two food poisoning outbreaks occurred during the year and District personnel conducted epidemiological studies at Trenton State Teachers College and the Borough of Barnegat Light. As a result of these studies recommendations issued to those concerned for the correction of apparent deficiencies.

Inspections were made of the railroad and steamship watering points as a cooperative activity with the U. S. Public Health Service.

During the year the Township of East Brunswick instituted fluoridation of its public water supply. As a result there are 25 municipalities in the District now receiving fluoridated water.

The City of Trenton dedicated its new water treatment plant during the month of April, 1955, with the result that an improved supply of water is being served to consumers in the city. The City of Burlington installed a well field on Burlington Island and placed this supply source in service during the year. The surface water treatment plant formerly serving Burlington is being maintained on a standby basis.

As a result of the large developments being undertaken in Ocean County, letters issued to all local Boards of Health alerting them to the provisions of Chapter 199, P. L. 1954, and the Standards enacted thereunder, controlling the installation of individual sewage disposal systems. Their attention was directed to the need for proper supervision of such installations to prevent the pollution of shellfish and bathing waters in Barnegat Bay and tributary streams.

District personnel actively promoted sanitary landfills as a method of solid waste disposal. One such installation was in Stafford Township, which serves Beach Haven and other municipalities on Long Beach Island.

Conferences were held and correspondence issued to several water purveyors in the District, recommending immediate and future planning in order that an adequate quantity of water be available to consumers at all times. Particular reference is made to the Middlesex Water Company and the City of Perth Amboy.

During the year the Principal Sanitarian, Senior Sanitarian, Sanitarian and Assistant Sanitarian qualified as raters under the milk program.

#### VETERINARY PUBLIC HEALTH

The Veterinary Public Health Report is somewhat abbreviated due to the fact that the District Public Health Veterinarian was on educational leave during nine of the twelve months. During his absence the Zoonoses epidemiological investigations were carried out by the Chief of the Bureau of Veterinary Public Health.

##### *Psittacosis*

An outbreak of Psittacosis occurred in a flock of turkeys during the past year. The Chief of the Bureau of Veterinary Public Health made a thorough epidemiological study of the outbreak. Blood samples taken from humans in contact with the turkeys were positive to the Psittacosis complement fixation antigen indicating human infection in individuals in contact with the turkeys. A more detailed epidemiological report can be secured by reference to the Bureau of Veterinary Public Health's Annual Report.

Two aviaries were quarantined and blood samples taken from the Parakeets. The samples were positive for Psittacosis. Aviaries can now be released from quarantine by treating all the birds in the aviary with tetracycline hydrochloride. In the two above instances, the owners of the Parakeets refused to treat the birds because the treatment was more expensive than the value of the Parakeets. These aviaries are presently under quarantine and will be under quarantine until the birds are negative to Psittacosis. Recent research indicates that the injections may be reduced to five by increasing the dosage. This will be less expensive for the bird owner and better cooperation can be secured from Parakeet breeders in treating infected birds.

##### *Slaughterhouse Inspections*

The 31 slaughterhouses were inspected at least once and a follow-up inspection was made at those places where it was deemed necessary. The main objective of securing good sanitation and at the same time encouraging approved meat inspection procedures, was stressed at the local level.

The following is a summary of the meat inspection status of the 31 slaughterhouses in the District. Ten slaughterhouses have ante and post mortem inspection compared to nine during the previous fiscal year. Eight slaughterhouses have post mortem inspection and the remaining thirteen licensed plants have no meat inspection. This is very unsatisfactory and it is in this area that we must concentrate our efforts. The local boards of health must be educated as to the public health significance of good meat inspection

and consulted in regard to the formulation and adoption of a meat inspection ordinance for their localities.

#### *Rabies Control*

No cases of Rabies were reported in the District in 1954-55. The Rabies Control Warden carried out the main objectives of the program under the guidance of Dr. Aronson and Dr. Sussman, Chief of the Bureau of Veterinary Public Health. The primary objectives of the Rabies Control Program and its accomplishments are as follows:

- I. The primary objective, "Fostering Proper Dog Control Practices," was actively carried out by assisting local communities in either adopting dog pick-up services or to improve existing facilities. The assistance was primarily educational and promotional rather than direct assistance in the form of pick-up service. The Rabies Control Warden acted as a consultant to local health officials and helped to indoctrinate dog wardens in the proper methods of dog control.
- During 1954-1955, 114 local boards of health carried out adequate dog control measures. This figure compares favorably with the 75 local boards of health in the previous year. The remaining 52 local boards of health do have some type of dog control. However, these measures are inadequate. Many of these are small communities having insufficient funds to foster approved dog control measures, however, there are local boards of health with sufficient funds but have not been successful in obtaining the services of satisfactory dog wardens. It is in this field that we must concentrate our efforts in order to improve dog control in these areas.
- II. Rabies Vaccination Clinics were encouraged and during the year 49 communities conducted 103 Rabies Vaccination Clinics, vaccinating 18,770 dogs. This is an improvement as compared to 1953-54 when 42 communities conducted 92 clinics vaccinating 16,103 dogs. This preventive measure will help to insure an immune dog population and make it more difficult for Rabies to infect the dog population. All boards of health in Middlesex County conducted Rabies Vaccination Clinics in 1954-55.
  - III. Officials in all of the 163 municipalities were consulted and advised regarding the proper procedures to follow in handling and quarantining dogs having bitten humans. Also on many occasions physicians consulted members of the District Staff in regard to proper treatment given humans bitten by animals.

- IV. Routine inspection of dog pounds, kennels, and consultation regarding their operation was carried out.
- V. The Rabies Control Warden continued to assist in rounding up and destroying wild dog packs that are not only a menace to domestic animals but to our wild life. Cooperation was extended to wild life organizations to secure proper bacteriological examination of tissues submitted from wild life.

#### PUBLIC HEALTH NURSING

The most notable activity in public health nursing in the District was the establishment of a county-wide non-official public health nursing agency in Burlington County. This organization and the activity which preceded it, were made possible by the active participation of representatives of the several visiting nurse associations in the county, a number of boards of health, the Tuberculosis League, the Community Service Committee of the C. I. O., and other interested citizens. The establishment of this agency was given the firm support of the County Medical Society and the Board of Trustees of the Burlington County Hospital. The setting up of this agency and the employment of a Public Health Nurse Director were made possible by the approval of the Burlington County Board of Chosen Freeholders and their acceptance of the responsibility to subsidize this organization to the extent of the salary of a Public Health Nurse Director, her travel expense, and certain office expenses. This was facilitated by a grant-in-aid contract with the State Department of Health.

A Committee on Public Health Nursing was set up in Middlesex County to consider the problems and needs of public health nursing in that county and to make appropriate recommendations. These problems are especially pressing because of serious overlapping of services, particularly the development of bedside nursing services under the jurisdiction of local boards of health in areas where visiting nurse associations have been operating. These services when developed, were lacking in adequate supervision, standards, policies and equipment.

In the City of Perth Amboy, where there are four agencies administering various types of public health nursing services, definite negotiations are in progress which may lead to a total or a partial combination of these services.

#### CRIPPLED CHILDREN

The Crippled Children Program continued to be operated on a decentralizing basis. The cases residing in the areas under the jurisdiction of the Trenton Visiting Nurse Association, the New Brunswick Visiting Nurse

Association, Monmouth County Organization for Social Services, and the Ocean County Nursing Service were supervised locally. The remainder of the cases residing in areas covered by the smaller nursing services were under the supervision of the State Public Health Nurse Supervisor of the particular area.

Agreement was made with the United Cerebral Palsy of Monmouth and Ocean County that this organization take over full responsibility for the maintenance and operation of the Cerebral Palsy Treatment Center in Long Branch. This was facilitated by a grant-in-aid contract which provides for subsidizing the salary of the physical therapist by the State Department of Health on a gradually reduced basis over a three year period. The physical therapist formerly employed by the State Department of Health resigned and was taken on to the payroll of the United Cerebral Palsy of Monmouth and Ocean Counties in accordance with the terms of the contract.

#### MEDICAL-SOCIAL REHABILITATION

The District Consultant in Medical-Social Rehabilitation joined the Central Health District Staff on October 15, 1954. Participating in the over-all program of the Health District, with major emphasis in the area of Chronic Illness Control, her activities have been directed toward eventual goals of development of medical-social and rehabilitation services for the chronically ill and toward better coordination of existing services.

Since this is a newly created position, emphasis has been placed on orientation of the Consultant to the activities of the Health District and to the other agencies within the District, as the first step toward defining unmet needs and areas wherein the Consultant may work effectively. Personal visits have been made to most of the hospitals within the District and telephone contact was had with all of them during the writing of the District Program. Thus, it was learned that although most of the hospitals have an employee designated as Social Worker, who performs a wide variety of duties, none of them employ a professionally trained social worker giving case work services. Concomitant with the absence of social services in hospitals, it has been found that in other public and voluntary agencies there is minor emphasis on the social implications of chronic illness. Although there is awareness of and concern about lack of resources, primarily in the areas of custodial care and financing of expensive medications and equipment, little attention has been given to the more positive and rehabilitative planning for the long term patient.

As a means of familiarizing herself with existing services and interpreting her function, the Consultant has visited many agencies within the District, has attended the Cerebral Palsy Clinics, the Consultation Service for Convulsive Disorders, and has utilized memberships in such organizations as the National Association of Social Work, Mercer County Social Workers Club, New Jersey State Welfare Council, and Council for Local Public Health Services.

During the year, the Consultant was a member of the Committee on Aging, Trenton Council of Social Agencies, and Chairman of the Subcommittee responsible for planning the Annual Institute on Aging. In connection with the Mercer County X-ray survey, she visited several Homes for the Aged and the Happy Hours Club.

An orientation conference with the Public Health Nursing Supervisory Staff has led to several requests for consultation on social aspects of public health nursing. At the request of one supervisor, a group conference was held with the public health nursing staff of 3 townships and a series of monthly conferences with the same group is planned for the coming winter. As an outgrowth of an introductory conference with the Director of a tuberculosis nursing service in another county, a staff conference is planned for the fall.

As a result of visits to hospitals, several requests for consultation were made regarding the social planning for specific patients as well as some administrative aspects of social services in hospitals.

The Consultant attended an exploratory conference between a hospital administrator and Chronic Illness Division representatives, and accompanied the District Health Officer on a visit to a Rehabilitation Center. Similar exploratory conferences in other counties are in the planning stage.

The Consultant has participated in several nutrition activities, including the previewing of films on nutrition, visiting the weight control groups conducted by the P. C. of the Nutrition Program, and attending a meeting with the Executive Director of the Mercer County Heart Association to discuss the possibilities for weight control groups in Mercer County.

A meeting of the State Committee on Home Maker Service was attended. Except for an already existing Home Maker Service, no definitive steps have been taken toward initiating other services, and further exploration of this with local committees is an immediate objective.

The past 9 months have laid the groundwork for a consultation service new to the District, and it is felt the coming year will consolidate these beginnings into more effective services for the chronically ill.

#### NUTRITION

The Public Health Nutritionist was added to the Staff of the Central State Health District on August 1, 1954. The first few months were devoted to orientation, both on the State and District level. Part of the orientation included attendance at regularly scheduled clinics, well child conferences, staff conferences, a Governors Conference, and In-Service training institutes both in this and other districts.

During the orientation, visits were made with other Health Department personnel to local health officers, introducing nutrition services available.

Growing out of these visits, a small community nutrition project for infants and mothers has been developed in Edison Township, Middlesex County and others are being planned in Burlington County.

The Nutritionist has also been introduced to other nutritionists, teachers, home economists and allied professional people. Contacts such as these have led to numerous invitations to present nutrition material to various interested groups, both lay and professional.

As part of the preparation for the writing of the Central State Health District Program, the Nutritionist was asked to take part in a survey of hospital personnel available in this District. The survey has shown that only 8 of the total of 23 general and tuberculosis hospitals in the Central District are employing at least one dietitian who is a member of the American Dietetic Association. Seven hospitals employ no dietitian, and the other 8 hospitals have used the title "Dietitian" for persons with varying amounts of training and experience, some with totally inadequate therapeutic diet background. This condition might tend to decrease the efficacy of total patient care. Where the nutritionist has been able to offer assistance the majority of hospitals have welcomed it and requests are increasing in this field. It is planned that this type of service will be continued and extended during the coming year.

Staff Conferences with Central District Supervising Nurses and with local public health nursing groups have been used as a means of introducing the services of the Nutritionist. These activities have been followed by group classes, discussions and consultations, making nutrition materials available to local public health nurses. Booklets, pamphlets and pieces of illustrative material are distributed by the Public Health Nurses through their supervisors.

A planning Committee for School Nurses Institutes in Mercer County was recently formed, and the Nutritionist has been asked to be an active member.

At the request of the Director, the Nutritionist has attended staff conferences of a Visiting Nurse Association to discuss various phases of Public Health Nutrition. This activity has been requested for the coming year by other Visiting Nurse Associations.

The Nutritionist attended a training course "Nutritional Aspects of a Diabetes Program," at the United States Public Health Service, in Boston, in the Spring. This course was very valuable as a refresher course. It also furnished additional resource material for use in interpreting diabetic diets, and in work with a demonstration project planned for patient education in a hospital in Mercer County.

The Sanitarian was accompanied on regular summer camp inspection visits, to present nutrition material to the personnel responsible for food purchasing and menu planning. Reference material has been made available. This activity will be continued next summer.

A number of films on nutrition have been reviewed with the Program Coordinator and other interested personnel, and help was given in planning and preparing materials such as leaflets and exhibits for In-Service training as well as for public education.

The importance of weight control is being emphasized as both a preventive and treatment factor. Consultation and active participation has been requested by several interested agencies, including a County Heart Association and two YWCA groups.

A Nutrition Institute for Nursing Home Operators, is now being planned in the District as an outgrowth of one held in East Orange last Spring.

As a result of attending the Annual Institute on Aging sponsored by the Trenton Council of Social Agencies, a request for consultation service has been received from a home for the aged in Mercer County.

By means of personal contacts, written material, staff conferences, clinics, and visits to treatment centers, consultation has been given to the Crippled Children Program.

The Nutritionist attended the Annual Dental Health Conference, and has contributed to the Dental Health Program by means of personal contacts with local dentists and school officials, with the Central District Dental Supervisor, and by supplying them with nutrition material.

The Nutritionist is a member of the State Nutrition Council. Membership in National, State and local professional associations, has enabled her to keep in touch with other nutritionists, teachers, and home economists, and become familiar with work being done in Education, School Lunch, Red Cross, Extension, Public Service, nutrition research, etc.

Of the five counties covered, four have started to use the services of the Nutritionist and it is felt that the program is progressing. One county has not been reached as yet but it is anticipated that this county will be reached in this coming year.

#### TUBERCULOSIS CONTROL

The Tuberculosis Registries for Mercer County, Middlesex County, and Monmouth County continue to operate in a satisfactory manner. Efforts to secure the development of a registry in Ocean County have not as yet been successful.

Although the Tuberculosis mortality rate in Mercer County continues to show a precipitous drop paralleling that of other counties, it still remains the highest county rate for New Jersey. Likewise the new case rate still remains high. Considerable effort was made in cooperation with the Bureau of Tuberculosis Control and with the officials of the Trenton Department of Health to plan an intensive case finding project for the next year.

## COMMUNICABLE DISEASE

The District participated in the State-wide free distribution of poliomyelitis vaccine for school children in the selected age group 5 to 9 years. This was a cooperative effort of the county superintendents of parochial and private schools, county medical societies and local health officers who were responsible for the distribution of the vaccine on the local level. Certain other ancillary agencies also gave invaluable assistance in promoting favorable public relations and in providing personnel and transportation services.

Epidemiological data forms were completed on 15 cases of children in the study group who contracted polio i. e. the first 3 school grades and their contacts. These forms were collected for the polio vaccine evaluation center at the University of Michigan.

Outbreaks of 5 or more cases of infectious hepatitis were reported from several areas in the District. Investigations did not reveal the causative factors. However, from the course and termination of these episodes it was felt that respiratory infections transmitted by personal contacts were the epidemiological factors rather than water, milk, or food. This view was shared by the attending physicians.

An outbreak of gastroenteritis occurred at Barnegat City following a dinner where 1,000 people ate lobster salad. From 4 to 6 hours later, symptoms of acute gastroenteritis occurred among 400 of those who were present. All of the food had been consumed therefore there were no samples for analysis. Recovery of all patients was prompt.

## VENEREAL DISEASE

The Venereal Disease Clinics in the Central District continue to operate as heretofore with the assistance of the Venereal Disease Investigators who conducted contact interviews and followed up cases, contacts, and suspects. With the closing of Camp Kilmer the number of investigators assigned to Central District was reduced from 3 to 2. The Venereal Disease Investigator is now assisting with the contact interviewing and investigations at Ft. Dix. In addition to the routine investigations, a series of serologic surveys for Syphilis were conducted in areas where the population composition suggested the probability of high rates of case finding. The following surveys were performed in the Central District:

	Total Specimens	Total Reactive	Brought or Returned to Treatment
<i>Mercer County:</i>			
Hightstown and West Windsor Twp. ....	410	70	15
<i>Middlesex County:</i>			
Edison Twp. ....	353	46	8
<i>Monmouth County:</i>			
Asbury Park .....	809	90	19
Manalapan Township .....	282	39	14
Millstone Township .....	207	34	16
Monmouth Race Track .....	224	22	2
Selective Survey Total .....	2,285	301	74

In addition serologic surveys were an integral part of the examination of agricultural migrant laborers. The following table indicates the extent of this activity:

	Total Specimens	Total Reactive	Brought or Returned to Treatment
<i>Migrant Farm Labor Clinics:</i>			
Freehold Clinic .....	276	65	24
Prospect Plains Clinic .....	489	103	41
Migrant Clinic Total .....	765	168	65

## Metropolitan State Health District

The District, entering its fourth year of existence on October 1, 1954, has assumed a major portion of responsibilities assigned by the several Departmental Programs to the extent permitted by limited manpower. Preparation of the District plan was initiated and had advanced well toward conclusion during the year.

## PERSONNEL

As of June 30, 1955, the following personnel comprised the active, full-time District Staff:

District State Health Officer  
 District Health Officer  
 District Chief Public Health Engineer  
 Senior Public Health Engineer  
 Public Health Veterinarian  
 Senior Sanitarian

2 Sanitarians  
 Assistant Sanitarian  
 Rabies Control Warden  
 District Chief Public Health Nurse  
 9 Public Health Nurse Supervisors  
 District Consultant, Community Health Organization  
 District Consultant, Medical-Social Rehabilitation  
 Health Program Representative (V. D.)  
 2 Venereal Disease Inspectors  
 8 Clerical Personnel  
 Senior Veterinary Inspector (Quarter-time basis)

There also served jointly in the Northern and Metropolitan Districts a part-time Dental Supervisor, administratively responsible to the Program Coordinator of the Dental Health Program.

The District Consultant, Medical-Social Rehabilitation, and an additional Public Health Nurse Supervisor joined the Staff on October 1, 1954. A Senior Clerk was transferred from Central office in January 1955 with promotion to Principal Clerk, effective July 1, 1955. There is need for additional personnel to adequately carry the responsibilities assigned to the District to render proper services to an area comprising 60 per cent of the State's population. Approval for appointment of a Public Health Nutritionist is in process. There is also specific need for a public health physician in the field of epidemiology and program promotion as well as to assist the District State Health Officer in the many administrative problems of this heavily populated area; also an additional sanitarian and a clerk.

#### ADMINISTRATION

The overburdened clerical load has been further embarrassed during the year by several resignations and by long delays in filling vacant positions.

Staff members have continually demonstrated great interest and loyalty by attendance at many evening meetings in the interest of promoting improvement in and better interpretation of local public health services. Considerable effort has been directed toward the proper assumption of direct services by local agencies and with an appreciable degree of success.

#### STAFF EDUCATION

Monthly Staff Conferences have permitted dissemination of current program information, exchange of ideas, and joint decision as to solution of pressing problems. A portion of each conference has been devoted to a presentation of specific public health problems by representative of Departmental

Programs and voluntary agencies with opportunity for questions and discussion.

Separate conferences are periodically held by the section of Environmental Sanitation and Public Health Nursing and by Public Health Nurse Supervisors with local nurses in the field.

The District Consultant, Medical-Social Rehabilitation, attended the Yale Conference on the Public Health Aspects of Rheumatic Fever and Pediatric Cardiology. The District Consultant, Community Health Organization, attended the Yale Summer School of Alcohol Studies. Four Public Health Nurse Supervisors completed the three-week Seminar on Physical Rehabilitation Methods for Nurses in New York City. One Public Health Nurse Supervisor completed a one-week course, "Nursing Aspects of a Diabetes Program," in Boston. Two Public Health Nurse Supervisors have continued their studies toward a Masters Degree at Columbia University (their own time and expense).

The entire District nursing staff attended the Governor's Conference on "New Horizons in Chronic Illness Control."

#### HEALTH EDUCATION

In addition to health education activities reported as part of specific departmental programs, consultation concerning general use of health education methods and materials was provided upon request to three local health departments in major cities of the Metropolitan District.

District staff also participated in Adult Education programs at Weequahic and West Side High Schools, Newark. Interpretation of local health department services, as well as information concerning programs of voluntary health agencies, was included in the presentation.

Arrangements were made with the Health Chairman of the Bergen County Council of P.T.A.'s for distribution of selected departmental pamphlets to local health chairmen.

The District Consultant, Community Health Organization, has worked closely with other staff members in the development and execution of health education plans.

#### EVALUATION OF LOCAL HEALTH SERVICES

##### *Newark:*

Evaluation Survey was initiated in February, 1954 by the Health and Hospitals Division of the Council of Social Agencies. Fact-finding activities of the Sanitation Committee have been completed and final reports are in preparation. The fluoridation sub-committee, upon completion of its report,

continued to function as an action group and participated in arrangements for a public hearing before members of a study committee of the Newark City Council.

As a result of fact-gathering activities of other sub-committees, a number of improvements related to environmental sanitation have been acted upon or are receiving consideration by municipal officials.

*Irvington:*

A survey sponsored by the Community Welfare Council got under way in January, 1955, with the organization of four major committees. Fact findings as outlined in the Departmental Evaluation Schedule have been essentially completed. A major interest in the problems and needs of public health nursing has resulted in a continuing and detailed study of various patterns for provision of service in the field. Continuing consultation by District personnel has been rendered.

*Clifton:*

In response to a request from the Board of Health, an evaluation of current public health activities in the municipality was made by the District Staff. Recommendations submitted to the Board and to the City Manager were related to organization, qualifications of staff, salaries, program growth and development, and suggested changes in existing practices.

#### DEVELOPMENT OF LOCAL HEALTH SERVICES

*Union County:*

A series of meetings with representatives of governing bodies and local boards of health of the municipalities of Berkeley Heights, Mountainside, New Providence, Springfield, and Summit was held for the purpose of considering consolidation of health services under the provisions of the Local Health District Act. In addition to study of the Act, these meetings had as an objective the interpretation of basic local health department services and their value to the community. All principal Staff of the District office participated in the program.

*Passaic County:*

Integration of chronic illness services in the local health department program was discussed at a meeting of representatives from local boards of health and interested voluntary health agencies in Passaic County. Attention was specifically directed toward follow-up of tuberculosis, diabetes, and rheumatic fever cases as part of a generalized nursing program. Although there is apathy on the part of some local health departments, there has been considera-

ble acceptance of these responsibilities by local nurses, especially those receiving State supervision and those in the City of Paterson which has shown marked program improvement in recent months.

#### HEALTH COUNCILS

*Union County:*

Exploration of possible extension of service on the part of the Community Welfare Council of Eastern Union County and the Plainfield Community Planning Council was undertaken with representatives of the above agencies and the Union County Steering Committee for Organization of a County Health Council. Each of the existing planning groups has a section on health programs. The area which they serve encompasses seven of the twenty-one municipalities in the County containing 60% of the population. Extension of service was not considered feasible at present with the exception of possible participation in educational activities.

*Passaic County:*

The County Health and Welfare Association recommended to the newly reorganized Greater Paterson and Passaic Community Chests that provisions for Councils of Social Agencies be included in their organizational plan. These recommendations have been accepted for study by both Chest groups.

*Hudson County:*

Resignation of the executive secretary of the Hudson County Council of Social Agencies has led to inactivity on the part of the Health Division.

In earlier consideration of the establishment of a Health Council in Hudson County, it was the consensus of opinion that the Health Division of the County Council of Social Agencies could best assume that role in the County. However, resignation of the executive secretary of the council has led to inactivity. An attempt is being made to reorganize the council structure and consider possible alternatives to full-time employment of an executive.

#### CHRONIC ILLNESS

Considerable staff effort has been devoted to the promotion of greater nursing responsibilities in chronic illness. Local nurses have an increasing awareness that chronic illnesses can occur at any age and that their efforts in the areas of prevention and early detection are invaluable. References to increased nursing participation are made elsewhere in this report.



## GRANTS-IN-AID

The resources in this District for the prevention, early detection, and control of chronic illnesses have been initiated or improved through grant-in-aid contracts from the Division of Chronic Illness Control. There are at present sixteen grant-in-aid contracts in effect in this District, including technical services, case-finding equipment, and diagnostic aids to the medical management of chronic diseases. Negotiations for three additional contracts were completed for operation in the coming year.

Multiphasic Screening is now in operation in three hospitals; a fourth is in the process of completing negotiations and two others have indicated interest. During this year, plans were completed for a second out-patient Alcohol Study Clinic, and there were established a second rheumatic fever control program, a rehabilitation unit for chronically ill patients, and a speech and hearing center.

## ALCOHOLISM

District office staff have worked in co-operation with the Sub-committee on Alcoholism Rehabilitation of the Essex County Service for the chronically ill. Consideration has been given to establishment of a residence for alcoholics who do not use hospital care but who do need semi-sheltered care as a step to rehabilitation. A committee on alcoholism has also been formed by the Board of Chosen Freeholders of Essex County. Efforts are being made to coordinate the planning of these two committees in the establishment of the residential facility with the help of the Division of Chronic Illness Control. Study Clinics for Alcoholics are already in operation at St. Michael's Hospital, Newark; and Passaic General Hospital. An additional clinic at Overlook Hospital, Summit, will begin operation July 1, 1955.

## CANCER PROGRAM

One hospital in the District is conducting a case-finding study to determine the value of mass screening in large sections of the population for the detection of early, unsuspected cancer of the genito-urinary systems by Papanicolaou Staining Techniques. An educational program for women employees of the State, assigned to Newark offices, was held under the direction of the Cancer Control Program and the State Medical Society.

## CHRONIC DISEASES

In this District there are three agencies, each concerned with a specific chronic disease, who are thinking and planning in terms of a diagnostic and consultation clinic for the specific disease with which each is concerned. Dis-

trict personnel have made exploratory visits to these agencies. The Muscular Dystrophy Association of America has conferred with officials of two hospitals in this District concerning planning, standards, and financial aid in setting up muscular dystrophy clinics for diagnosis, consultation, and medical supervision of patients with muscular dystrophy. One of the hospitals is now making final plans for the clinic. The Multiple Sclerosis Society of New Jersey is in the process of selecting a site for a multiple sclerosis center. The Arthritis and Rheumatism Foundation of New Jersey is considering a diagnostic center but activity has not yet been started. There are at present no diagnostic or consultation centers for these diseases in the State.

## DIABETES

District Staff participated in promotional and operational activities of the Diabetes Detection Drive. Material assistance in these efforts resulted from co-operation of local health officers and the work of District public health nurse supervisors in enlisting the support of local public health nurses. In addition, arrangements for nursing follow-up were made for all cases referred for such service by the Diabetes Program Co-ordinator.

## EPILEPSY

A second and third electroencephalograph machine have been placed in the District with trained technicians in addition to the existing Consultation Service for Epileptics. District public health nurse supervisors and local nurses receiving State supervision have been oriented to the services provided by the Epilepsy Consultation Clinic at Englewood Hospital.

## HEART DISEASE

District Staff stimulated the development and participated in the organization of a rheumatic fever prophylaxis program sponsored by the Passaic County Heart Association in co-operation with the Department. Follow-up service for children registered in this program has been established through local health department nurses. District personnel also took part in planning for a Cardiac Institute for Nurses held by the Passaic County Heart Association.

An evaluation study was conducted under the sponsorship of combined councils of social agencies with participation by the District office to consider services to the rheumatic fever patient available from two convalescent homes in northern New Jersey. As a result of the study, Victoria Foundation diverted its resources to other community needs. The remaining institution is considered adequate to provide for the needs of patients in the area.

## TUBERCULOSIS CONTROL

Ardent promotion by District Staff, with the support and assistance of the Division of Chronic Illness Control, resulted in the establishment of case registers in Passaic and Bergen counties. Promotional effort is well along toward placement of registers in the other three Metropolitan counties.

Case-finding surveys, locally sponsored, provided screening X-rays for 74,527 persons in Bergen and approximately 54,000 persons in Passaic counties during the calendar year 1954. In the latter half of 1954, departmental sponsored units provided similar service to 22,921 individuals in Hudson, 15,749 in Essex, and 8,270 in Union counties. A survey of 688 State employees, assigned to Newark offices, was accomplished in March 1955 in co-operation with the Tuberculosis Control Program.

Negotiations were in final stages at the end of the fiscal year to make available grant-in-aid and X-ray loan equipment to the Freeholders of Hudson County so as to provide a mobile X-ray unit for the dual purpose of X-ray service to outlying county chest clinics and case-finding surveys.

Information relating to tuberculosis cases discharged against medical advice from Veterans' Hospitals is continuing to be transmitted from the Veterans Administration, Newark office, through this District to local health departments or other District offices and to the Tuberculosis Control Program for the purpose of retaining control and providing continuing treatment of the patient.

District nursing personnel assisted in planning for a Tuberculosis Institute for Nurses presented by the Bergen County Tuberculosis and Health Association. State-supervised nurses in Bergen County attended. Local nurses in Passaic County received considerable orientation to the tuberculosis needs of that county and became familiar with their own tuberculosis caseloads through the case register. Integration of tuberculosis follow-up in the local nursing program is gradually taking place. As a specific example of this, the Union County Anti-Tuberculosis League has started to place responsibility for direct nursing follow-up on local health department nurses.

## ADULT AND OCCUPATIONAL HEALTH

Industrial aerial pollution, noises, and vibrations are sources of annoyance to residents that are frequently called to the attention of the District office and usually referred to the Adult and Occupational Health Program; a conference to resolve problems of excessive industrial vibration was recently scheduled in which management, complainant, representative of the local board of health, Adult and Occupational Health Program, and the District office participated.

## CRIPPLED CHILDREN

District nursing staff participated in planning for a workshop on cerebral palsy which was conducted by the Essex County Cerebral Palsy Coordinating Conference. Due to lack of procedures for negotiating a grant-in-aid for crippled children services, no progress has been made toward having Jersey City assume its own responsibility for crippled children service. Supervisors who attended the Seminar on Physical Rehabilitation Methods for Nurses have shared pertinent information with local nurses and have become stimulated to seek opportunities for integrating orthopedic nursing in the generalized program. Extensive effort has been expended to clear files, reduce the volume of paper work, and simplify administrative procedures as outlined in the program.

## DENTAL HEALTH

County dental societies, particularly that of Essex, have continued and intensified educational efforts in behalf of fluoridation. The City of Newark as well as several smaller municipalities are presently considering, on a governmental level, fluoridation of public water supplies. As part of an educational program sponsored by the Essex County Tuberculosis League, the District office provided posters and kits of instructional materials on dental health to teaching personnel of elementary schools in low income areas in the City of Newark.

## ANNUAL SUMMARY REPORT ON DENTAL HEALTH PROGRAM

*Bergen County—*

387 children on program, 336 received complete treatment.

*Essex County—*

277 children on program, 233 received complete treatment.

*Passaic County—*

94 children on program, 69 received complete treatment.

*Union County—*

40 children on program, 26 received complete treatment.

	<i>State funds expended</i>	<i>Local funds expended</i>
Bergen County—(7 programs) .....	\$5,670.00	\$4,802.00
Essex County—(1 program) .....	1,800.00	8,119.71
Passaic County—(2 programs) .....	1,070.00	1,178.60
Union County—(2 programs) .....	648.00	654.00
<i>Total</i> .....	<u>\$9,188.00</u>	<u>\$14,754.31</u>

*Note:* There is no program in Hudson County.

## MATERNAL AND CHILD HEALTH

The series of nurses' conferences in the Oranges and Maplewood area were continued for the third year, with the year's topic being "Mental Health" as related to the Maternal and Child Health field. Several Baby Keep-Well stations were discontinued after careful study of community needs and resources. There has been constant evaluation of attendance at stations and nursing performance in relation to the conferences. Medical evaluation and stimulation are still a great need. The "Recommended Procedures Relative to Establishment and Conduct of Child Health Conferences" have been used in communities receiving State supervision and have also been suggested for other official agencies throughout the District, in an effort to improve the quality of service in Child Health Conferences. Demonstration visits to midwives were given the supervisory staff on an individual basis by the Public Health Nurse Consultant in Maternal and Child Health in order that supervisory visits to active midwives might become more meaningful. A better understanding of responsibilities in midwifery supervision and improved service has been effected. There has been a further reduction in activity of midwives, with 17 having delivered 49 cases as compared with 20 having delivered 68 in the previous year.

## NUTRITION

Interest in weight control was evidenced in several counties of this District during the past year. A public meeting on the subject held at the Newark Evening News Auditorium was so heavily attended that provision had to be made for a second session. Approximately 600 people participated in these meetings which were sponsored by the Essex County Medical Society and the Essex County Agricultural Extension Service (Home Demonstration Program) in cooperation with this Department's Nutrition Program and the Newark Evening News. An exploratory meeting pertaining to development of weight control classes was held with the Bergen County Home Demonstration Agent. This meeting was the result of a request for consultation from the Bergen County service to this Nutrition Program Coordinator. No progress has been made in organization of classes due to the inability of Bergen County Home Demonstration personnel to allocate time to such activities.

## ENVIRONMENTAL SANITATION

The inspection of all establishments licensed by the State Department of Health was completed according to schedule and in compliance with the provisions of the various programs. Staff members have received sufficient experience and orientation to enable them to efficiently perform in most phases of environmental sanitation. District personnel have actively continued to en-

courage local boards of health to assume complete responsibility for all health services in their respective municipalities. Nevertheless, the District office continues to receive many requests to render direct services. District personnel, at every opportunity, are encouraging local boards of health to adopt by reference the various codes that have been made available.

## MILK CONTROL

A reciprocal dairy plant inspection program is now in progress whereby three of the larger municipalities and the Metropolitan District exchange information on the operation and sanitary conditions of dairy establishments within their respective assignments. A uniform inspection form is used, and inspection personnel have received orientation in order to permit uniform grading.

## BATHING

The Metropolitan District has witnessed the construction of new swimming pools operated on the "club" plan. As the result of the availability of a new Swimming Pool Code, engineering personnel of the District have been requested by local health boards to review plans and specifications for new swimming pools. Owners of swimming pools appear to desire to construct their pools in compliance with the Code in order to avoid future complications.

## POTABLE WATER

Every public water supply in the District received a thorough inspection resulting in correction of many existing minor deficiencies. The long continued drought during the past summer created several emergencies due to potable water shortages and low water pressures. This condition may periodically occur until an adequate surface water reserve is established. Certification of watering facilities for railroad, vessel, and aircraft terminals continues to be an important part of routine District duties; there is indication that this service may be expanded to include watering facilities for vessels of foreign registry.

## STREAM POLLUTION CONTROL

As new sewage treatment plants are constructed, the pollution load on streams decreases. This District has performed "as built" inspections on several new municipal sewage treatment plants of large capacity that were completed during the past year. Investigations of stream pollution from improperly operating individual sub-surface sewage disposal facilities including comprehensive dye testing activities were made. In one instance, investigation resulted in the serving of a Notice of Abatement upon a municipality. It has been indicated that the installation of sanitary sewers and a sewage treatment

plant is contemplated. Realty sub-division construction continues on available land sites in urban areas. Recent promulgation of Chapter 199, P. L. 1954 and the Standards for the Construction of Sewerage Facilities for Realty Improvements have provided a required definite means of enforcement by local agencies. It is anticipated that this District will now be relieved of some of the assistance heretofore requested of it by representatives of local boards of health. The improper operation of dumps located on a watershed has been receiving the attention of this Department, and one municipality has been ordered to abate a public health nuisance and cease the pollution of a brook, tributary to a potable stream; it is anticipated that other municipalities will also soon be required to cease the improper operation of open dumps.

#### SOLID WASTE DISPOSAL

The operation of open dumps continues to be a problem throughout the District, especially in the more populated areas where realty is at a premium and dump sites are scarce. There is apparently no practical control measure to eliminate the burning of open dumps which contribute to aerial pollution and the formation of smog.

#### VETERINARY PUBLIC HEALTH

Continuing effort was made in encouraging municipalities to adopt the annual free anti-rabic vaccination program. Many communities held clinics which had never held them in the past, resulting in over 25,000 animals being vaccinated in sixty-seven municipally operated clinics. Several of these new communities are located in Bergen and Passaic Counties and are situated close to the endemic areas of New York State. Results from the new plan of vaccinating dogs in Newark revealed the process initiated last year to be a success as almost 2,500 dogs were vaccinated against rabies. Rabies health education programs were held in a few of the District municipalities upon request.

Pet shops, shelters, dog pounds and kennels were routinely inspected, and where necessitated, guidance was given municipal officials to properly license and inspect all of these establishments within their jurisdiction. Several municipally operated dog pounds were found to be lacking facilities to properly handle apprehended stray dogs. Local officials were advised and encouraged to correct the conditions and, in a few specific instances, new dog pounds with excellent facilities were constructed. In many areas wild animal packs have been destroyed and emergency aid extended to communities where one or more wild or suspiciously rabid dogs have been biting or threatening to bite.

Continual supervision and inspection have been maintained in all state licensed abattoirs and in several meat and food processing plants. Three establishments previously licensed to operate as abattoirs have been denied

slaughterhouse licenses either because they do not have the proper facilities to slaughter animals and/or they are not and have not killed animals for several years. A poultry processing plant in Little Falls was processing ready-to-eat stuffed poultry in a manner hazardous to the individual ingesting the product. Through persistent supervision, this establishment has undergone much physical improvement, especially in the addition of a new oven and stuffing room.

Epidemiological investigations and follow-ups on diseases transmissible from animal to man such as brucellosis, psittacosis, trichinosis, salmonellosis, etc., were made during the year. Psittacine birds were blood-tested for psittacosis during epidemiological investigations and routine checks in suspicious aviaries. Many such places checked showed the presence of psittacosis on the premises. One aviary in Paterson housing over 4,000 parakeets was found to be infected, presumably from the illegal importation of birds. The birds here were experimentally treated with aqueous and oil solutions of biologicals in an effort to determine whether or not the living psittacosis virus could be eliminated from an infected flock. This experiment proved to be successful. Over 2,000 parakeets were treated by New Jersey state accepted methods resulting from the above experiment prior to their use as prizes at a parakeet stand in Cliffside Park. In several other instances, aviaries operating on a small scale elected to treat their parakeets. Nevertheless, in several other instances, parakeets totalling over 2,100 were destroyed because of infection being present on the premises and their owner's election not to treat. Another recently completed experiment on 250 parakeets in a Scotch Plains aviary proved successful in cutting the involved professional veterinary services down 67% in treating parakeets for psittacosis. In several instances, chain stores have been found to be dealing with unscrupulous parakeet dealers who illegally smuggled parakeets into this state. In one instance, infected parakeets were found in a store which purchased the parakeets from an aviary which gave a fictitious address. Many pet shops and aviaries throughout the District have been found to be keeping improper, incomplete, and, in some cases, no records at all for incoming and outgoing birds as required by the New Jersey State Sanitary Code. Health officials were advised and encouraged in every case to make frequent inspections of the establishment failing in this respect and to inspect all other businesses dealing with psittacine birds.

#### GRANTS-IN-AID

Three new grant-in-aid contracts for nursing were negotiated with the State participating on the basis of half of the nurse's salary the first year. The renewal of contracts decreased the state's financial participation and in the instance of the terminated contract, total responsibility for payment of the

nurse's salary was assumed locally. Status of grant-in-aid nursing contracts may be summarized as follows:

Hoboken—new—started February 1, 1955  
 Waldwick—new—started September 1, 1954  
 Hawthorne—new—started November 15, 1954  
 New Milford—renewed (2nd year)—May 1, 1955  
 North Arlington—renewed (2nd year)—May 1, 1955  
 Union City—terminated 3 years (December 31, 1954)

#### PUBLIC HEALTH NURSING

The supervisory staff have concentrated their efforts on giving qualitative service to nurses and communities showing the greatest needs as well as desire to improve existing programs. Twenty-one newly employed local nurses received orientation to public health nursing. In-service education programs for local nurses have emphasized total family health and considerable time was devoted to various phases of chronic illness.

Requests for consultation from official and voluntary agencies are increasing and are met promptly. Several voluntary county-wide health agencies have accepted the philosophy that provision of direct nursing service is a local responsibility and have changed the functions of the nurse employed by the agency to consultative service in the specialty.

The health departments of three large municipalities have expressed an awareness of the need to enlarge their nursing programs, although no tangible accomplishments can be reported to date. There has been definite progress in improving the nursing program in another large municipality which has received frequent consultation from this office.

The District Chief Public Health Nurse is serving as a nursing consultant to the health officers assigned to develop activities and standards for public health nursing service in local health departments.

#### ACUTE COMMUNICABLE DISEASES

The District office in April 1955 assumed responsibility for administration of the NFIP Poliomyelitis Vaccination Program in the five metropolitan counties.

A District organizational meeting was held with participation by the five county Superintendents of Schools, the Superintendent of Catholic Education, the executive secretaries of the five county Polio Chapters and representative local health officers from the several counties. In the week following, five county level meetings were held under leadership of the county School Super-

intendents with attendance by local health and education officials, physicians, nurses, polio chapter members and others logically participating in local actions. Upon information made available at these meetings, municipal committees were organized who planned and implemented vaccination at the local level.

The District office received and distributed vaccine to the 141 municipalities through county distribution points by cooperation of four health officers and the Hackensack office.

Receiving the first inoculation were 40,589 (29.7 per cent) of 136,761 eligible children in the District and 1,450 (16.7 per cent) of the 8,707 children vaccinated in the 1954 trials were given booster doses.

There were 15 out of the 141 municipalities not participating in the program having a total eligible child population of 10,479.

#### VENEREAL DISEASE

The major portion of New Jersey's venereal disease problem lies in the highly urbanized, industrial, and waterfront areas of the Metropolitan District. The City of Newark, which last year was one of seven major cities of over 200,000 population in the United States to report an increase in the incidence of both syphilis and gonorrhoea for the fiscal year 1953 over 1952, again this year reported an increase of 164.2 in the rate of syphilis and 18.6 in the rate of gonorrhoea. In the absence of an immunizing agent, the only feasible method of controlling venereal diseases is finding and treating cases. Accordingly, there was offered to selected cities of high incidence of venereal disease qualified lay venereal disease investigators to assist in case-finding and general integration of their program. Paterson, Orange, Elizabeth, and Jersey City accepted this help. As a result of this intensified emphasis, many new cases of venereal disease were reported. To cite an example, *reported* gonorrhoea increased in Paterson from 105.6 per estimated 100,000 population in 1953 to 185.4 per estimated 100,000 population in 1954, an increase of 79.8%. There was a noteworthy improvement in cooperation and interchange of information among health officers, public health nurses, clinics, private physicians, and hospitals.

Mass blood testing among selected groups of people continues to be the best and most economical device for finding either new or previously inadequately treated cases of syphilis. In Orange, beginning April 11 and continuing through April 15, an intensive multiphasic survey was conducted simultaneously in a high prevalence area and in an area of low reported incidence of venereal disease. This concerted case-finding activity was a co-operative project of the Bureau of Venereal Disease Control, Metropolitan State Health District, and the Orange Health Department. The survey consisted of chest

X-ray, a device for diabetic urinalysis, and serologic test for syphilis. Two blood-testing stations were in operation, one at the X-ray location and one at a predetermined street corner. The bases for this selection were morbidity, laboratory, and epidemiologic data previously collected. Public response was considered good in spite of very inclement weather conditions. Laboratory services were provided by the State Department of Health laboratories. As a result, a total of 1001 blood specimens were tested for syphilis; of this number 94 or 9.4% showed positive reaction; 95% of these positive reactors were brought to medical observation and diagnosis.

For every one case of gonorrhoea reported by a local clinic, it is estimated there are ten cases being treated by the private physician, a majority of which go unreported. A tactful program has been initiated to overcome the feeling of complacency among private physicians, without whose help venereal diseases will continue to be a major public health problem.

#### CO-OPERATION WITH OTHER DEPARTMENTS OF STATE GOVERNMENT

District personnel participated in planning for Glaucoma Workshops for Nurses, held in three counties during the past year.

The District nursing staff supplied Miss Lula Dilworth, Assistant in Health Education, with the names and addresses of local nurses employed jointly by boards of health and education who are receiving state supervision. Tentative plans for School Nursing Institutes were made with the District County Chairman of the Institutes on School Nursing toward implementing the recommendations of the State Inter-Departmental Committee on School Nursing.

An outbreak of amoebic dysentery with several fatalities occurred at the North Jersey Training School, Totowa. The institution called upon the Metropolitan District to give assistance and consultation. Several conferences with Institutions and Agencies staff were held and a sanitary inspection of the plant was made. Recommendations were submitted with regard to improvement in sanitation, garbage disposal and fly control. There were also recommended certain personnel changes and duties thereof and, further, that the Department of Institutions and Agencies established an "on the spot" laboratory for immediate examination of specimens.

#### CIVIL DEFENSE

The District Chief Public Health Nurse served as chairman of a sub-committee to develop material pertaining to nursing responsibilities in welfare operations and mass care centers. This material was completed and submitted to the State Nurses Association.

#### SPECIAL ACTIVITIES OF THE METROPOLITAN DISTRICT THROUGH THE HACKENSACK OFFICE

The Salk Vaccine Program of 1954 required the completion of certain factors in the program after July 1, 1954 such as blood specimens from the first, second, and third graders in Bergen County to the number of 621, bringing the blood taking total of the program to 2,010. Histories of polio cases of second graders who received Salk vaccine with attendant discharge specimens in accordance with the research program of NFIP were also obtained.

The 1955 Salk Vaccine Program in Bergen County and other New Jersey Counties in the 1954 Field Trial Program included the inoculation of first, second and fourth graders with "booster" doses offered to those third graders who as second graders in 1954 had received the three inoculations of Salk vaccine. After considerable delays due to the determination of procedures of testing of the large batches of vaccine produced by the various biological manufacturers, in order to assure a safe and effective vaccine, the Vaccine Program was started on June 9, 1955. Second shots and "boosters" followed but due to school closings and vacation plans of many families, the number of second inoculations did not nearly compare with the number of first shots which were small enough because of adverse national publicity.

There follows a summary of inoculations given.

Total enrollment of public, private and parochial school pupils . . . .	54,720
Total original parental requests . . . . .	41,836
No. of first inoculations given . . . . .	13,208
No. of second inoculations given . . . . .	8,356
No. of "booster" inoculations given of 8,707 pupils in 1954 . . . . .	2,218

The state's biological station at the Hackensack office had many calls by physicians for gamma globulin during a measles cycle in several towns. There is always the request for the other biologicals carried in the station, such as whooping cough, smallpox, diphtheria, tetanus and gamma globulin for family polio contacts.

Due to preference by many local physicians, a supply of Wasserman tubes is maintained at the Hackensack office rather than the physicians' keeping a supply in their individual offices.

The Bergen County portion of the pilot tuberculosis register that had been operated in the Hackensack office for several years was transferred in October to Bergen Pines County Hospital. The Passaic County section of the register had earlier been transferred to the Passaic County Hospital at Valley View.

The Hackensack office participated in several health connected activities such as conferences on meadow reclamation projects including use of municipi-

pal waste and refuse on meadow fill, mass inoculation of gamma globulin in Franklin Lakes following two polio deaths in an area, diabetes and tuberculosis conferences, conferences with towns appointing new health officers, assisting local inspectors in procedures in inspecting local food establishments and sources of nuisance complaints; besides conferences with doctors and health officials on communicable disease control procedures. Also participation in food handlers training courses, public meetings on fluoridation, groups of health officers on public health procedures, besides attendance and participation in New Jersey Health Officers' Association meetings. Stream pollution and air pollution have entered into our work.

Swimming pools in this area are, with few exceptions, of the dirt wall, non-filtration type. Many thousands of persons use these pools and only local opinion determines if the pool waters are clean and non-hazardous. The concrete pool with a filtration system has not been a problem.

In accordance with present program procedures a serious attempt is continuing to have local health officials care for their own local health problems. However, a constant stream of questions over the phone or by personal visit to the office makes it necessary to try and explain that certain problems go to one division, other questions should go directly to another division in Trenton and certain others to the main office in Newark.

In general, the Hackensack office continues to assist the Newark office by handling the many queries and problems that are received from Bergen and Passaic Counties and oftentimes also from other counties in the Metropolitan District.

### Northern State Health District

#### INTRODUCTION

The Northern State Health District encompasses the five counties of Hunterdon, Morris, Somerset, Sussex and Warren. Within the framework of available personnel, the present unit is functioning as a team in rendering service and integrating Departmental programs with the local core of public health activities.

This office has emphasized:

1. the improvement and maintenance of effective local public health services through
  - a. implementation of the several Departmental programs as specifically assigned in each program
  - b. interpretation of Departmental policies and programs to local agencies and interpretation to specific programs of the problems and needs of the local communities and agencies

- c. assistance to local health authorities in analyzing health needs, formulating plans and developing program content
  - d. promotion of cooperative programs between local health departments and other official and voluntary agencies
  - e. consultative and advisory services in special health activities
2. coordination and integration of activities of staff personnel.

Within the framework of the outlined objectives and functions of the State Health District Offices, and in conformity with the activities detailed in the Departmental Programs, the following is a summary of the more important phases of the District program for the year 1954-55.

A minimum of detail and routine activity is included in this annual report.

#### ADMINISTRATION

##### *Programs*

In line with established policy and priority, the entire District staff made every effort to integrate and coordinate their activities and utilize available man-hours in line with written programs and in spite of shortage of personnel.

##### *District Plan*

A great deal of time and effort was expended in completing the District Plan, a portion of which was completed last year. The status of the Plan at the close of this fiscal year is as follows:

*Section I—Problems, Needs and Legal References*—This is a short summary of the functions and responsibilities of the Northern State Health District, and the resources, problems and needs of the area covered, including tables relating to population distribution and local board of health personnel.

Forty-seven program sheets are appended to this section, indicating, by county tabulation, particular facilities and resources in the District as they apply specifically to the Departmental programs.

*Section II—Objectives and Activities*—This is an outline of the administrative objectives of the District.

*Section III-A—Supporting Materials and General Procedures*—This is a general descriptive narration of the objectives and activities outlined in Section II.

*Section III-B—Manual of Information, Technical Procedures and Work Schedules*—This section carries six chapters as follows:

- Chapter 1—District Administration  
Table of organization, staff relationships, District relationships, office procedures, budget, etc.
- Chapter 2—Development of Local Health Services  
Definition; determination of need, legal status of service and possible sources of revenue; and strengthening of local boards of health.
- Chapter 3—Environmental Sanitation (including work schedules)  
Only work schedules completed.
- Chapter 4—Medical and Nursing Services (including work schedules)  
Only work schedules completed.
- Chapter 5—Operational services—not completed.
- Chapter 6—Educational Supplies, Equipment and Forms—not completed.

*Section IV—Evaluation*—not completed.

It is anticipated that all sections of the Plan, with the exception of Section IV, will be completed early in the next fiscal year.

#### *Departmental Programs*

The entire staff made every effort to review the Evaluation Sections of the Departmental Programs as they were circulated.

Material for inclusion in the proposed Public Health Nursing Manual, "Public Health Nursing Responsibilities in the Dental Health Program" was prepared by the District Chief Public Health Nurse and submitted to the Chief Public Health Nurse.

#### *Local Board of Health Organizations*

This office was called upon to assist in the reorganization of five local boards of health and to consult with new members of these boards. Two new boards of health, created under the provisions of Chapter 349, P. L. 1953, requested the assistance of this office in describing and implementing the work and duties of a local board of health and obtaining proper licenses for the executive officer.

Request was received by this office for a grant-in-aid for a Sanitary Inspector for Somerville as of July 1st. After investigation, this office favored

such a contract. However, funds were not available. Somerville plans to re-apply next year for such a grant-in-aid.

#### *Health Council Activities*

Members of the staff cooperated with the Council for Local Public Health Services and participated in its annual and spring conferences. A District workshop was held during the afternoon session of the spring meeting of the Council at Princeton. Discussion leader, recorder and resource people were secured from voluntary agencies and other interested lay personnel in the District. The workshop proved to be both stimulating and informative and demonstrated the possibilities inherent in agency coordination.

The Phillipsburg Regional Health Council has requested and received the assistance of the District State Health Officer and the District Consultant, Community Health Organization, during the year.

Of particular interest was the council-sponsored meeting on fluoridation in Phillipsburg as well as the council's efforts to promote a sanitary code. This Regional Health Council has also requested the "Introductory Course in Sanitation" for the Phillipsburg area in the fall term of 1955.

Interest was manifested in the District in the Health Careers Project sponsored by the National Health Council and the Equitable Life Assurance Society. Several of the schools conducted surveys among the student population to determine interest in career opportunities. At the request of one of the high schools in Morris County, a member of the staff participated as a "career consultant" on a panel discussion relating to medical social work.

A school health council was organized at one of the schools in Sussex County in May, with the assistance of the Council for Local Public Health Services and the District Consultant, Community Health Organization. Plans were completed for the council to carry on an active program in the fall.

Efforts were expended in public health activities of civic groups or voluntary agencies whenever the opportunity was available in order to coordinate and interpret Departmental programs and to stimulate local activities and participation.

#### *Teaching Activities*

An "Introductory Course in Public Health" (20 hours) was taught in Paterson in the fall and Newark in the spring. Members and personnel of the local boards of health as well as interested citizens and some State Department of Health staff members attended. Generally it was well received and it was felt that the course provided essential basic information.



*Conferences, Conventions and Meetings*

In order to keep abreast of current developments and trends in the total field of health, members of the staff attended the National Health Forum, the APHA, the League of Municipalities Convention, the Annual Health Officers Conference, the N. J. Health Officers Association meetings, the N. J. Health and Sanitary Association meetings, the Adult Education Association annual and district workshops, the State Dental Health Conference, the Governor's Conference on "New Horizons in Chronic Illness" and the annual convention of the N. J. State Nurses' Association and N. J. League for Nursing.

## OTHER

*Plan for Executive Operation*

The Plan for Executive Operation was completed and submitted to the Central Office in April. This included a map of the District indicating full-time health units.

*Medical Society Liaison*

In January the Morris County Medical Society appointed its Public Health Chairman to serve as liaison between the County Medical Society and the District State Health Office.

*Public Health Nurse Census*

Public Health Nurse census for 1954 was completed in March at the request of the Public Health Nursing Program. This census included all public health nurses, exclusive of school nurses, in the District. All individual nurses and agency cards were brought up-to-date and organized according to county.

*Combination Public Health Nursing Agency*

The Hunterdon County Public Health Association has been studying the possibility of developing a county-wide combination public health nursing agency. Members of the board requested assistance from the District in their study of the problem and have visited several agencies in order to obtain pertinent information and observe administrative organization.

The program of the annual meeting of the Association was devoted to the nursing services included in a generalized nursing program. Following this, a Citizens Advisory Committee on Nursing was organized in Hunterdon County in June, its members being appointed by the Board of Trustees of the Hunterdon Medical Center. The Public Health Nurse Supervisor in Hunterdon County was requested to participate as a member of the committee.

*Public Health and School Nurses Association*

An exploratory meeting was held in Sussex County in November with the County Board of Freeholders and the Public Health Nurses to consider the possibility of a county supervisor of nurses to be paid for by the Freeholders on a grant-in-aid basis. The Sussex County Public Health and School Nurses Association was organized in February.

*Pilot Study—Nurses Record System*

On July 1, 1954 a pilot study of a generalized Family Health Record system began in Hunterdon County.

The system has now been in operation a year and is being continued in that county. Recommended changes have been submitted to the Director of the Division of Local Health Services and to the Chief of the Bureau of Public Health Nursing.

*Child Welfare*

State Board of Child Welfare sponsored a Child Welfare Conference in order to coordinate child welfare work in three counties in the District. This was not only an effort to explain the policy of the official agency but was also an effort to integrate health, welfare and school resources in behalf of the child. It was also the beginning of an attempt to continually integrate program and policy of the concerned agencies.

*Field Student*

A social work student from Chile visited this office for two days during the month of June. She had the opportunity of visiting a mental health clinic, a Family Service Society and the Hunterdon Medical Center as well as conferring with members of the staff on sanitation and on community organization problems.

*Time Study*

Time studies covering the period of one week were completed in January and April, 1955. These studies included the activities of selected personnel and the recording of time spent on various programs.

*Merit Ratings*

Merit ratings were completed twice during the year.

*U. S. Public Health Service Reports*

The U. S. Public Health Service Facilities Reports were completed, checked and submitted to the Central Office in February.

*Education Inventories*

Education inventories were completed by all personnel in April.

## ALCOHOLISM

Interest in establishing alcoholic clinics has been expressed in Morris, Somerset and Sussex Counties. Plans to establish a clinic in a hospital in Morris County did not materialize. However, community interest has developed in the use of alcoholic clinics, and referrals are being made to facilities outside this District.

An alcoholic exhibit was shown at the Sussex County Horse Show in August for a period of one week. Aside from personnel from the Central Office and from the District who manned the exhibit, volunteers were secured from those persons in the area interested in alcoholism and its prevention.

The District Consultant, Community Health Organization, attended the course given at the Summer School of Alcoholic Studies at Yale University. The Public Health Nurse Supervisors received some orientation to the program in the course from the District Consultant. Supervisors and field nurses have been given information regarding treatment facilities in the state.

Consultation was offered by District staff and the Chronic Illness Division to a professional Association of Psychiatric Social Workers in regard to the role of a psychiatric worker in an alcoholic clinic. The need for group therapy sessions and follow-up services has been promoted by staff in the District. The need for broader policies of community social agencies in order to promote follow-up services for alcoholics has been pointed out.

## CANCER

Cooperative relationships have been established with county chapters of the American Cancer Society in two counties in an effort to promote services to the chronically ill cancer patients. The value of the use of Homemaker Service for this patient group has been noted.

## CIVIL DEFENSE

The Northern District Health and Sanitary Association at its annual meeting discussed the responsibility of local public health officials in Civil Defense. The interest and response of the local boards of health indicated the need for further basic and practical planning in the District.

The District Consultant, Community Health Organization, assisted in the preparation of visual aids for a Civil Defense Symposium for the medical profession held in Trenton in October.

Several of the dentists from the District attended the Civil Defense Course for the dental profession at Princeton in June. Central office as well as District personnel oriented one of the dentists in the District to give the basic principles of the N. J. Medical and Health Preparedness Plan on the second day of the course.

## CRIPPLED CHILDREN

The Public Health Nurse Supervisor (Orthopedic) was a panel moderator for the Parent Education Program presented at Morristown High School by the N. J. Society for Crippled Children and Adults in cooperation with Rutgers University. Approximately 25 parents, nurses, teachers and workers with the handicapped children attended.

The grant-in-aid Public Health Nurse in Newton continued to serve at the Newton Memorial Hospital Orthopedic Clinic and contributed greatly to the efficient services rendered at this clinic and assisted in developing better community interest and support of this program.

All crippled children case folders were screened for the IBM case screening project.

A total of 583 cases were admitted to public health nursing service, 73 of these being admitted or readmitted through direct service given by the Public Health Nurse Supervisor. A total of 841 nursing visits were made during the year; of these 614 were authorized nursing visits made by contract agencies and 227 were made by nurses employed by official and non-official agencies who do not hold contracts.

All five nursing contracts with the Bureau of Crippled Children were renewed this year and three new nurses were oriented to the program.

A total of 1,312 cases were reviewed through supervisory nursing visits made with nurses, case conferences and supervisory visits made to non-contract-holding agencies. Fifty-nine visits were made to hospitals, convalescent homes, clinics and schools.

Five cerebral palsy clinics were held in Somerset County, two in Sussex County and one in Morris County. At these clinics a total of 28 new cases were seen and 82 re-examined.

Conferences were held with hospital administrators and coordinators of the crippled children centers. These conferences were for the purpose of making arrangements for the crippled children clinics.

Newton Memorial Hospital, Somerville Elks Crippled Children Center and Morris County Easter Seal Rehabilitation Center are continuing to provide facilities for speech and physical therapy for Northern State Health District cerebral palsy children. Hunterdon Medical Center provides speech therapy and a limited physical therapy program for these children.

Plans were completed at Morristown Memorial Hospital for registration of all crippled children cases in the Pediatric Neurological Clinic.

Other activities of the Public Health Nurse Supervisor (Orthopedic) are recorded in Section II under Poliomyelitis.

#### DENTAL HEALTH

At the request of the Dental Health Program, a survey of dental clinics other than in the school program was made in the District. This included a list of clinics, time, place, services given and sample copies of records used.

In April a survey of all the schools in the District was made to ascertain how many schools had discontinued the sale of candy and carbonated drinks. The findings revealed that three public schools and one parochial school in Morris County as well as two parochial schools in Warren County had discontinued the sales. This information was requested by the Dental Health Program.

The Public Health Nurse Supervisors were appointed as members of their respective County Dental Health Committees. They attended committee meetings and submitted reports to the District Office. Supervisors and field nurses work in the Dental Health Treatment Program in public and parochial schools and those that are state-supervised receive nursing supervision from the District Office.

#### DIABETES

Diabetes Week was scheduled for the middle of November. This office assisted the County Medical Society and the P.-T.A. organizations in assuring as full a distribution as was possible for the Dreykaps. A total of 493 used Dreykaps were returned to this office for distribution to the participating hospitals.

Although the demand for Dreykaps from the participating organizations far exceeded the supply, the number processed through participating hospitals and local board of health personnel was extremely low.

Each of the participating hospitals was contacted by members of the staff of this office prior to receiving any of the Dreykaps for laboratory analysis. All of the 11 participating hospitals were sent Dreykaps for processing.

The District Consultant, Community Health Organization, assisted in setting up a radio broadcast on diabetes which was given on Veterans Day with the Diabetes Chairman of the Morris County Medical Society as well as the Research Consultant of the Chronic Illness Division participating. The Public Health Nurse Supervisory staff participated in the detection drive and through the field staff, a limited number of Dreykaps were distributed. Diabetic suspects referred by the Diabetic Coordinator were followed up by the nurses.

Problems of distribution, processing and availability of Dreykaps for next year's Diabetes Detection Drive were clarified in a preliminary planning conference and subsequently discussed in Hunterdon and Morris Counties. A survey questionnaire was sent to all full-time health officers as well as to some executive officers of local boards of health in the District in order to estimate participation in the 1955 drive and to anticipate local needs for the program. An analysis of the returned data revealed that only 10 local boards of health in the Northern District were interested and were in a position to participate in the drive and that approximately 3,500 Dreykaps would be distributed by them to selected groups.

One local board of health requested assistance in January in carrying out a pilot demonstration in the public health school population with regard to diabetes. A total of 750 Dreykaps were released for this pilot demonstration. This was to be part of a broad local plan to do a three-phase program of multiple screening: Patch testing, sedimentation rates and hemoglobin counts as well as diabetes testing. The three population groups concerned were the high school, maternal and foodhandling populations. Statistical results and data were to be forwarded to the Division of Chronic Illness for interpretation and analysis.

#### EPILEPSY

Monthly Convulsive Disorder Consultative Clinics were held in all five counties in the District. The clinics were rotated during the year with one each in Hunterdon, Somerset, Sussex and Warren Counties and the remainder in Morris County. The one held in Hunterdon County was the first consultative clinic of this type held in that county.

The Public Health Nurse Supervisor and field staff participated in this program by acquainting local physicians with the consultative clinic, stimulating physician referrals, arranging for county consultation clinics and providing follow-up nursing service.

The North Jersey Epileptic Committee composed of professional and lay representatives from the five counties in the District promoted and developed the Epilepsy Program, including the establishment of the Convulsive Disorder Consultation Clinic. During the year two meetings of the committee were held for discussion of problems regarding reporting, referral and follow-up of cases as well as educational efforts.

Staff participated in a conference regarding a grant-in-aid contract for an EEG machine and operator for the Morristown Memorial Hospital. Through this grant-in-aid contract a diagnostic facility which met an established need was provided to the county.

## HEART

In January, representatives of the Morris County Heart Association and the Morris County Tuberculosis and Health Association requested assistance of this office in planning and holding a Heart Institute for professional personnel in the five counties in the District. This is the first time the county organization included the other four county organizations in the District in its planning. It was decided that the Institute will be held during the early part of October, 1955 and that the major responsibilities will be carried by the county heart organizations with Morris County assuming the leadership. The District staff provided consultative service. By June, meetings of the various committees for the Institute were held and plans were tentatively completed for the place and program.

As a result of the planning for the above-mentioned Institute, a new Rehabilitation Committee has been created in Morris County to consider the possibility of establishing a work classification unit.

## HOMEMAKER PROGRAM

Early in November, the Community Chest and Council in Morris County surveyed to determine the need for a Homemaker Service. The Chairman of the Consultant Committee, the Community Homemaker Service of the Division of Chronic Illness Control, as well as the District Consultant, Medical Social Rehabilitation, assisted the county in the survey, discussion of the results and presentation of the need.

In March, a Social Planning Committee of the Community Chest and Council approved the proposed plan and made plans to implement the program on a county level. The following month the Junior League of Morristown agreed to sponsor this service for two years on a demonstration basis with administrative responsibility for the program being assumed by the Family Service Agency of Morris County. Ten homemakers were trained through the Rutgers University Extension course and six are now actively serving in their communities.

Interest in establishing this type of service in Hunterdon, Somerset and Sussex Counties has been evident. A member of the County Board of Welfare in Sussex County reviewed the need for this type of service in a radio broadcast.

## MATERNAL-CHILD HEALTH

An attempt to focus the interests of health and welfare agencies on common problems and concerns proved successful at the May session of the Maternal-Child Health Institute at Morristown. (Details of this Institute are given in the Nursing Section III). This meeting on community resources offered the

opportunity to combine resources and was a step toward the promotion of agency coordination.

## MENTAL HEALTH

The Warren County Welfare Council has been active in proposing the establishment of a Mental Health Clinic associated with the Warren County Hospital now under construction. In November, the Boards of Health and Education in the county culminated their concerted action and advised the Freeholders of their interest in and need for such a clinic. A resolution was approved by the council to request \$6,000 of the Board of Freeholders to establish a clinic on a part-time basis with a full-time Executive Secretary.

A meeting of the Hunterdon County Mental Health Committee was held in June at the Medical Center with representatives from the Commonwealth Fund. Plans for an educational program and an annual evaluation of the Mental Health Program of the hospital were discussed.

## POLIOMYELITIS

*Polio Vaccine Field Trials*—Two counties in this District, Morris and Warren, were chosen for inclusion in the 1954 national poliomyelitis field trial. Because of the nature of the local administrative organizations in the two counties, the District was used as coordinator for organization and operation of the project, using the schools, nurses and citizens committees on a local level for the conduct of the trials. Where there was a full-time local health officer, this responsibility was assumed by him.

The third blood sampling phase of the field trial was completed in the fall. In Morris County 216 samples were received from blood donors and in Warren County 96 samples.

By the end of the trial at the close of the calendar year, 29 polio cases required epidemiological investigation and reporting. These investigations were completed primarily by the Public Health Nurse Supervisor (Orthopedic) who spent many hours from July through December on the project. Activities included home visits, conferences with hospitals and with physicians, writing and checking epidemiological reports, collecting and shipping of specimens to special laboratories and orienting other public health nurses to these routines.

This office was the nucleus for the guidance and assistance required to bring about an optimum assimilation of all of the activities, yet retaining to each of the participating agencies and professions its rightful professional concern and individuality.

As October was a serious month in this District as far as the polio case-load and public reaction, three areas in the District requested gamma globulin for mass inoculation. A total of 2,180 children in the Dover grammar school system and 96 in Denville Township were given gamma globulin as well as 76

in Mountain Lakes and 115 in Fredon Township. These records had to be integrated with the study project records.

*Salk Vaccine Program*—In March this office began planning and preparing for the Salk vaccination program being contemplated. Each individual county medical society was contacted for its approval of the project and such information as was available in regard to special problems encountered and data gained from last year's trials was given to each society.

A general meeting of all local boards of health personnel in the District was held in order to acquaint them with the project and orient them as to their responsibilities. County meetings were held in four of the five counties with representation of school, medical, board of health and National Foundation Chapter personnel.

By the end of April, plans had been completed in all of the five counties for the administration of the Salk vaccine. Each of the Public Health Nurse Supervisors was assigned to a respective county to assist with specific problems and to coordinate nursing aspects. Materials were distributed from the county superintendents' offices in the five counties. District Office personnel were called upon to explain the program at a meeting of a county medical society.

Upon receipt of the vaccine early in May, the orderly distribution to each county was immediately carried out. However, the distribution was stopped pending Federal clarification of the lots to be used. Considerable time was spent by both professional and clerical staff in clarifying both state and Federal actions relative to this program, as well as attempting to maintain public relations.

District staff checked with physicians in the District to assure that persons inoculated by them with Cutter vaccine were under medical observation.

At the end of the month all of the distributed vaccine, Wyeth brand, was picked up from the five counties of the District and returned to Trenton. The following week, Salk Vaccine (Eli Lilly brand) was delivered to this office and promptly distributed throughout the five counties. In three counties, Public Health Nurse Supervisors were in charge of the vaccine distribution and in the other two counties the vaccine was distributed through the health officers and other personnel.

Considerable time was spent in maintaining public relations throughout this phase of the program. Several of the municipalities alternately rejected and then accepted the program. In one of the counties, Somerset, the County Medical Society, the County Superintendent of Schools and the NFIP Chapter Chairman arranged to hold a full-day clinic for any of the eligible children from municipalities which rejected the program. Of the 25,187 eligible to receive first inoculations in the five counties, 11,074 participated in the pro-

gram. According to the counties, the percentage of eligible population participating was as follows:

Hunterdon .....	43.07%
Morris .....	54.60%
Somerset .....	18.20%
Sussex .....	24.43%
Warren .....	65.52%

There is considerable difficulty in gaining acceptance for the second inoculations which are just beginning with the close of the fiscal year.

In accordance with instructions received from the Central Office, staff members were alerted to the surveillance project as requested by the Public Health Service.

In June, all of the hospitals in the District which admitted acute polio cases were contacted. The pathologist in each of these hospitals was oriented as to the specimens that would be required for all hospitalized, diagnosed cases. All hospitals planned to participate by alerting the District Office immediately when a diagnosis was made and to follow through in obtaining the necessary blood and stool specimens. A second orientation to the program and its requirements was found to be necessary. It was also necessary to supply the hospital with a sufficient number of specimen tubes for anticipated immediate use. Good relations have been developed by the Public Health Nurse Supervisor (Orthopedic) and are being maintained.

A deep freeze unit has been loaned to this office by a local ice cream distributor to assure that the fecal samples would reach the laboratory in a satisfactory condition.

Though considerable time and effort were spent by all members of the professional and clerical staff, it was felt that the program in the Northern District was carried to a successful completion due to the efforts of the Public Health Nurse Supervisors in their respective counties as well as to the efforts of the Public Health Nurse Supervisor (Orthopedic) in integrating and coordinating required procedures and efforts of allied professional personnel, and on following through in orientation and interpretation to the program.

#### TUBERCULOSIS

The District participated for the second year in a state-wide survey of the follow-up of suspected tubercular patients found during state-conducted mass chest X-rays. The survey was directed by the Tuberculosis Control Program. As the five county Tuberculosis Associations in the District gave direct service to patients, the follow-up was done in cooperation with these associations. This survey resulted in improved follow-up of patients.

The Morris County Tuberculosis and Health Association requested assistance from this office in the spring of the year in planning a Tuberculosis Institute to be held in the fall. This institute has been planned by all agencies in Morris County concerned with tuberculosis and is being co-sponsored by the County Tuberculosis Sanatoria and the local health officers as well as the association. Final plans were completed early in June.

The schedule for State Mobile X-ray Unit Service was completed in the District in March. District staff cooperated with the five county tuberculosis organizations in planning, scheduling and completing their surveys.

#### VENEREAL DISEASE

Considerable progress has been made in developing this program throughout the year. Working relationships previously developed with the full-time health officers in the District have been strengthened. Thirty-eight of the forty-three nurses supervised by the District have now included venereal disease nursing as part of their generalized nursing program. The five nurses not doing this work are in districts where the local health officer does the work himself. The Somerset Valley V. N. A. does the venereal disease nursing in the district covered by the agency. The Public Health Nurse Supervisors give direct service in areas where there are no Public Health Nurses. A Venereal Disease Investigator was assigned to the District at the end of May to give direct service in areas not covered by full-time health officers nor by nurses.

At the request of the Venereal Disease Program, a survey of serological testing of the twelve general hospitals in the District was completed. The survey showed that the hospitals varied widely in their policies regarding serological testing for syphilis of patients admitted.

#### PUBLIC HEALTH NURSING

During the year emphasis has been placed primarily on (1) promoting the Departmental policy of stimulating local official agencies to assume responsibility for direct public health nursing services, and (2) providing in-service training for nurses and educational opportunities.

##### *Public Health Nursing Staff*

The present supervisory staff consists of the District Chief Public Health Nurse and four Public Health Nurse Supervisors including a supervisor assigned to the Crippled Children Program. During the year two Public Health Nurse Supervisors resigned and to date have not been replaced.

As of June 30, 1955 the District office was supervising the work of 43 local nurses including:

5 grant-in-aid nurses  
11 partially State-paid nurses  
27 locally-paid nurses

Three nurses resigned and at the request of local officials three replacements were secured. One additional grant-in-aid nurse was added to the nursing staff of the Phillipsburg Board of Health. Three nurses took full-time school nursing positions in their local communities. These three nurses were not replaced by community public health nurses.

#### A. *Stimulation of Local Agencies to Assume Responsibility*

##### 1. *Nursing Grant-in-Aid Contracts*

Three new grant-in-aid contracts were negotiated with the following Boards of Health:

Phillipsburg, Warren County  
Raritan Borough, Somerset County  
South Bound Brook, Somerset County

Two contracts, Raritan Borough and South Bound Brook, replaced partly State-paid nurses. Phillipsburg employed an additional nurse.

Two grant-in-aid contracts were renewed for the second year, namely, Newton, Sussex County and Hillsborough, Somerset County.

##### 2. *Partly State-Paid Nurses*

The entire salaries of three partly State-paid nurses were taken over by their local communities.

During the fiscal year, 29 local Township Committees, Borough Councils, Boards of Health and Boards of Education increased their share of the salaries of partly State-paid nurses.

### 3. Meetings and Conferences Attended

Promotional work included negotiating grant-in-aid contracts, securing local increases toward partly State-paid nurses' salaries, assisting local officials in securing nurse replacements, and developing and interpreting the generalized nursing program involved, participating and attending the following meetings and conferences:

Local evening board meetings .....	47
Conferences with local officials .....	273
Conferences with local health officers .....	73
Conferences with physicians .....	77
Conferences with hospital personnel .....	256
Conferences with non-official nurses and agencies .....	51
Conferences with official nurses (not supervised by District office) .....	46
Conferences with lay groups and individuals .....	198
Total .....	1,021

## B. Provision of In-Service Training and Educational Activities

### 1. Departmental Planned In-Service Training

#### a. Maternal and Child Health Institutes

In cooperation with the Program Coordinators of the Public Health Nursing and the Maternal and Child Health Programs, a series of five one-day institutes on Maternal and Child Health was given. The Institutes were held monthly at Morristown Memorial Hospital from February, 1955 through June, 1955.

All graduate and public health nurses in the District were invited. The average attendance was 61.

The topics covered included:

- Maternal and Child Health, Scope and Problems
- The Pregnancy Cycle
- Medical Complications of Pregnancy
- Dental Health
- Emotional Aspects of Pregnancy
- Nutrition
- Team Approach to Social Problems
- Community Resources
- Care of the Premature Infant

The afternoon sessions of two of the Institutes were devoted to workshops on nutrition and community resources. All present participated in the workshops. Films were shown and educational materials were distributed.

### b. In-Service Training, Hunterdon County

For the third year an intensive in-service training program was given for the Hunterdon County Public Health Nurses. The series was planned in cooperation with the Chief Public Health Nurse, a Public Health Nurse Consultant Chronic Illness, the Associate Director of Nurses of Hunterdon Medical Center, the District Chief Public Health Nurse and the Public Health Nurse Supervisor assigned to the county.

The series of 14 two-hour lectures included the following topics:

	<i>Sessions</i>
Diabetes Control .....	4
The Child in the School Health Program .....	6
Communicable Disease Control .....	2
Records and Reports .....	2
Total .....	14

### 2. Accredited University Courses

The five grant-in-aid nurses, some partly State-paid and some local official nurses took approved university courses in public health nursing.

### 3. Special Courses

#### a. Venereal Disease

Two local official nurses took a one-week course entitled "Techniques of Interviewing for Contacts." The course was sponsored by Public Health Service and given at Fulton County Health Department, Georgia.

#### b. Diabetes

The District Chief Public Health Nurse attended a one-week training course "Nursing Aspects of a Diabetic Program." The course was sponsored by Public Health Service and was given at the Diabetes Field Research and Training Unit, Boston, Mass.

### 4. Field Visits and Observation at Clinics

The Somerset County nurses visited the Somerset Guidance Clinic, Somerville (Somerset County). All supervisors and field nurses were given the opportunity to observe cerebral palsy and convulsive disorder clinics held in the District.

C. *Supervision and Field Activities*1. *Supervisors' Staff Meetings*

The District Chief Public Health Nurse held 10 meetings with the supervisory staff. For each meeting an agenda was prepared and the minutes recorded. At all meetings educational materials were distributed. The information and materials obtained at the supervisors' staff meeting were in turn discussed with the field nurses at the monthly meetings scheduled by their respective supervisors.

At the afternoon sessions of six meetings, Public Health Nurse Consultants, the District Medical Social Work Consultant or the District Consultant, Community Health Organization was present. Topics covered included:

- Maternal and Child Health
- Diabetes Detection Drive
- Alcoholism
- Muscular Dystrophy
- The Functions of the Medical Social Worker

2. *Supervisors' Staff Meetings with Field Nurses*

The Public Health Nurse Supervisors held 47 staff meetings with field nurses. With the exception of Hunterdon County for which a special in-service program was planned, some of the meetings included guest speakers. The topics discussed were cancer, rheumatic fever, alcoholism, orthopedics, medical social work, and care of the premature infant.

3. *Supervisors' Group and Individual Conferences with Field Nurses*

The supervisors held 45 group conferences and 550 individual conferences with field nurses.

4. *Crippled Children Case Conferences*

The Public Health Nurse Supervisor (Orthopedic) held 27 case conferences with contract agencies and local officials nurses. At these conferences cases carried by the agencies were reviewed.

5. *Supervisory Field Visits with Nurses*

Child Health Conferences .....	31
Clinics .....	16
Home .....	284
School .....	124
Other .....	19
Total .....	474

6. *Orientation of New Nurses*

Four new State-supervised nurses were oriented to their work. This phase of the work took 41½ days of supervisory time.

7. *Direct Nursing Service by Supervisors*

Direct Nursing Service is given by the District supervisory nursing staff in emergencies, in some areas uncovered for public health nursing services, and relieving nurses who are off duty ill or on vacation.

a. *Direct Nursing Service Visits*

Chronic Illness .....	5
Communicable Disease .....	40
Crippled Children .....	136
Infant .....	6
Post Partum .....	2
School Children .....	2
Schools .....	4
Tuberculosis .....	1
Venereal Disease .....	104
Total .....	300

b. *Clinics and Child Health Conferences*

Cerebral Palsy Clinics .....	8
Child Health Conferences .....	5
Total .....	13

8. *Nursing Activities in Departmental Programs*

These activities are included in Section II—Program Integration, Coordination and Promotion.

D. *Public Health Nursing Problems and Needs*1. *Shortage of Supervisors*

During the entire year the District was short one supervisor and from May, 1955 short two supervisors. To date, these supervisors have not been replaced. This drastic shortage of a previously-limited supervisory staff has seriously affected the work.

2. *Shortage of Qualified Local Public Health Nurses*

The continued shortage of qualified local public health nurses makes necessary the local employment of graduate nurses. Additional supervisory time is required in orienting graduate nurses to their work and providing in-service training.



### 3. *Trend Toward Full-time School Nursing*

During the year this trend has been accelerated. Local official Public Health Nurses are accepting full-time school nursing positions in their local communities. Local nursing services which combined school nursing with community nursing are thereby dissolved and local officials are not employing full-time community nurses due to lack of local funds.

#### PUBLIC HEALTH ENGINEERING

In order to assist municipalities in assuming their responsibilities to meet the needs for more comprehensive sanitation services and to promote better public health practice, 67 conferences were held with local health officials and inspectors in regard to their local programs.

Routine inspections were performed as program needs and requirements indicated. A total of 906 inspections were made as follows:

Milk Program .....	524
Food Program .....	191
Drug, Cosmetic and Device Program .....	4
Potable Water Program .....	64
Stream Pollution Program .....	100
Other programs (Solid Waste, Housing, etc.) .....	23
	906

Samples of milk, water, drugs and food were forwarded to the laboratory for analysis. Approximate totals for the year were:

Milk—	
Bacteriological .....	473
Chemical .....	466
Water .....	157
Drugs .....	113
Food .....	316

Percolation tests, dye tests, residual chlorine tests, use of HTH and other methods of determining hazards, disinfecting, treatment and control were demonstrated by staff to personnel and members of local boards of health.

#### *Camp Program*

Certificates of approval were issued to all summer camps which complied with the sanitary requirements of the Camp Program—a total 110. Nine of these were day camps. In accordance with the procedure initiated by this office in 1952, a supplementary list recording facilities available in the event of emergency or disaster was compiled, thereby expediting the continuance of the roster for civil defense purposes.

#### *Milk Program*

Consultation and information were supplied to local health officials in Bernards Township (Somerset County) and Vernon Township (Sussex County) regarding the establishment of local milk inspection programs.

District personnel were oriented to the contemplated reciprocity program on March 1, 1955. Under this program, inspection of 14 reciprocity plants during the year were the District's responsibility. Members of the staff continued to fulfill their obligations in this regard.

In accordance with the needs of the Milk Program, records were prepared and the filing systems revised by District staff.

#### *Potable Water Program*

Survey of new water supplies was made in September. Approximately 400 water bottles were released to local officials for sampling of private and semi-public water supplies. These were subsequently analyzed by the laboratory and results forwarded to this office for transmittal to the concerned individuals or agencies.

#### *Ragweed and Poison Ivy Program*

Through the courtesy of the Dow Chemical Company, a spraying demonstration was held in Sussex County last August. Approximately 60 miles of roadside property were sprayed with 2,4-D and 2,4,5-T.

#### *Miscellaneous*

A conference was held with staff and District personnel of the Fish and Game Commission in order to correlate the work of the two agencies.

Staff assisted in the preparation of and participated in the one-day Food-handler Course given by the Morristown Board of Health in November.

#### VETERINARY PUBLIC HEALTH PROGRAM

##### *Abattoir Inspections*

Two or more inspections each were conducted of all abattoirs in the District during the year. Environmental sanitation and quality control have been emphasized. It was felt that slaughterhouses licensed for the year 1955-56 met the minimum State standards.

In order to eliminate duplication of inspections, arrangements were made with Newark to jointly inspect abattoirs in the District which are shipping into this area.

*Anthrax*

Death occurred in four cows of two different herds. Representatives of this office were primarily concerned with prevention of human infection by investigating the milk outlet for these herds, and advising owners of the herd and local officials of the inherent dangers of human infection.

*Psittacosis*

Under the supervision of personnel from the District office, 5,792 parakeets out of an original 8,186 were quarantined for psittacosis. The birds, donated for research, were shipped to Viral and Rickettsial Laboratory, U. S. Public Health Service, Montgomery, Alabama.

Six cases of human psittacosis in the District were diagnosed by the laboratory. As a result, approximately 150 parakeets throughout the District were bled as part of the epidemiological investigation.

One flock of approximately 200 parakeets was presently under quarantine for psittacosis. Another flock of approximately 250 recently completed the antibiotic treatment as outlined by the State Department of Health. Considerable time was devoted to the antibiotic treatment of over 4,000 birds in Paterson, N. J. This project was sponsored by the Department for research purposes.

In cooperation with a research project conducted by Merck & Co., a flock of breeding turkeys was bled by the laboratory for diagnosis of psittacosis.

*Rabies Control*

Consultation and meetings were held, when requested, with local officials and individuals concerning adequate dog control.

In Sussex County, municipal officials of 23 municipalities (all except one in the county) met in January, 1955 to plan for a regional dog control program.

Considerable emphasis has been placed on the promotion of dog control on a regional level when the resources of small municipalities singly would not support an adequate program. Personal contacts were made when reports received by the Division of Rabies Control indicated municipalities were not carrying out the necessary activities for a complete program.

Officials of all municipalities in the District were contacted and given copies of new kennel license form, revised laboratory report form for rabies diagnosis, new kennel record form, kennel report form, and two rabies leaflets.

The following activities indicate some of the major aspects of the Rabies Control Program:

Rabies clinics held .....	61
Dogs inoculated .....	8,467
Vaccine used .....	59,500 cc
Court appearance scheduled and held .....	1
Surveys conducted .....	6
Inspections made .....	24
Investigations completed .....	31
Conferences held .....	37
School programs arranged .....	2

One shelter and one pound lost their licenses and were compelled to close through the joint activities of this office and the local boards of health in an attempt to maintain the minimum standards of operation.

*Trichinosis*

One case of human trichinosis was reported in Morris County. Epidemiological investigation indicated possible infection from the ingesting of uncooked pork.

*Tularemia*

One human case of tularemia was reported in Hunterdon County. Epidemiological investigation revealed possible infection from hides of wild rabbit.

*Miscellaneous*

Professional meetings, conferences and courses attended—8.

Survey completed of all municipalities and townships in District regarding existing poultry eviscerating plants. Of particular interest were those with a weekly output of 10,000 pounds. This information was relayed to the Program Coordinator for the purpose of future study of poultry inspection program.

Public Health Veterinarian participated with a local sanitary inspector in a Morris County broadcast "Parrot Fever as a Public Health Concern," prepared with the assistance of the District Consultant, Community Health Organization and the Community Chest and Council.

## TRENDS

A trend manifested throughout the District during the past year emphasized the need for scope in leadership that official agencies must provide and maintain in spite of lack of personnel and shortage of qualified personnel on a local level. This was evident in both the Poliomyelitis Field Trial and the

Salk Vaccine Program as well as in routine programs of local agencies such as heart, tuberculosis, venereal disease and the public health engineering programs.

The District Office was seriously handicapped, however, because of lack of personnel. For example, the counties lacking District public health nursing supervisory personnel could not meet the challenge of the poliomyelitis programs as well as did the other counties. Municipalities which had a shortage of local board of health personnel required a greater amount of staff time and direct service in coping with local problems.

Active interest in health has spread beyond the limits of the provisions concerned with the delivery of health services and all of the social agencies with related interests in health and safety have become aware of the need for cross-integration of programs.

Community planning and provision for adequate medical care was evidenced by the opening of Forrest Chilton Memorial Hospital in Pompton Plains in the late summer of 1954 and the Riverside Hospital in Boonton Township. This followed the opening of a hospital in Morris County the previous year, the planned addition to another hospital, and the current reconstruction of the Warren County Hospital. The value of these hospitals as they are developing into the health foci of whole communities is a significant trend. Perhaps as significant is the cross-integration of hospital and State Health Department efforts. This was evidenced by the diabetes drive, the poliomyelitis programs and in-service training courses. The District State Health Officer also has been requested by one of the hospitals to assist with the educational standards for hospital nurses.

The problems of mental health and the promotion of programs concerned with the prevention of mental diseases are becoming recognized in the District and are gaining wider community support. The provision of a District Consultant, Medical Social Rehabilitation on the staff during the past year has assisted in bringing to the fore the chronic illness programs and the need for related public rehabilitation services which are seriously lacking in the District. Although nothing concrete has resulted, there is an indication of awareness of responsibility.

The value of public relations activities in the District has not only increased in importance but has demonstrated its indispensability.

The Departmental Programs and District Plan, though serving as a guide administratively to staff, pointed out the impossibility of practical application and local participation at the present time because of shortage of staff, lack of practical application in many instances and the overall increase in special Departmental projects. However, the details and resources considered in the District Plan as well as administrative configurations have immeasurably aided

in assisting staff to assess its own ability in line with requirements as well as local needs.

### Southern State Health District

#### PERSONNEL

The District Chief Public Health Engineer resigned in March to accept a position in North Jersey as a municipal engineer, at a considerably higher salary. Thereafter his duties were assumed in part by other District personnel and in part by personnel from the Bureau of Public Health Engineering.

The District's Public Health Veterinarian resigned in August to accept a better paying and more responsible position as veterinarian in charge of rabies control in another state. He was replaced on December 1, 1954, by a veterinarian with experience in the control of animal diseases in the State Department of Agriculture.

An entirely new type of activity in the District began with the employment in mid-September of a District Consultant, Medical Social Rehabilitation, Chronic Illness. This represented the fulfillment of part of a long-term plan for activities in the field of chronic illness control. The District was fortunate to obtain a highly qualified medical social worker for this purpose.

The Public Health Nurse Supervisor assigned to the crippled children program was transferred in March to another District. Pending the filling of this position the District Chief Public Health Nurse assumed responsibility for the administration of this extensive and complex program.

The services of a senior clerk-stenographer were obtained for the first time as of July 1, 1954, although the vacancy had existed since the previous December. On July 12, 1954, the clerical pool was brought to its full strength, i.e. six members, with the employment of an additional clerk-stenographer. This was the first time in the history of the District that the clerical pool had been fully and adequately staffed. However, the lack of a person who could take charge of the clerical pool and relieve the District State Health Officer of certain administrative details continued to be a serious handicap to the efficient operation of the District.

#### COMMUNITY HEALTH SERVICES

Approximately 4,460 first and second grade children in public, parochial and private schools received the first inoculation of Salk poliomyelitis vaccine toward the close of the school year. Public apprehension and supply difficulties resulted in many school children not receiving the second inoculation before the advent of the "polio season."

District personnel continued to give advice and support to the health councils in Salem and Camden Counties. A member of the District staff also served on the Board of Directors of the Council for Local Public Health Services of New Jersey, chairing one of its committees.

In cooperation with the health departments concerned, serological surveys were conducted in the Cities of Bridgeton and Camden in May, with the help of representatives of the Bureau of Venereal Disease Control assigned from the Public Health Service. These activities resulted in 36 individuals being treated or returned to treatment for syphilis in Bridgeton and 131 in Camden.

Over 23,000 individuals received diagnostic chest X-rays in communities where such surveys were most indicated. In addition, surveys were conducted for employees at the two race tracks in the District.

#### REHABILITATION

A project was begun in January in Cumberland County for the presentation of one or more problem cases to the state-supervised nurses, utilizing the consultation services of the Consultants in Medical Social Rehabilitation and Public Health Nutrition, the Public Health Nurse Supervisor for crippled children and the county Public Health Nurse Supervisor. This activity was subsequently extended to Atlantic, Camden and Salem Counties and served to give the nurses a broader perspective on the needs of the patient and his family and an opportunity to discuss and work out the best solution of the various problems involved. This activity served to help the nurses improve the quality of their service and also pointed up some of the difficulties which exist when various agencies work independently of one another in the health and welfare fields.

#### NUTRITION

The District Consultant in Public Health Nutrition conducted meetings with each county group of state-supervised nurses on the subject of nutrition in old age.

Consultation service was given by the Nutrition Consultant to parents whose children attend the cerebral palsy clinic conducted under Department auspices in Camden. Her recommendations are sent together with the consulting physician's report, to the family physician and the local public health nurse. This service has helped to broaden the area of usefulness of the nurse to the family and has resulted in improvement in the nutritional status of several cerebral palsied children.

A similar demonstration was begun at the chest clinic conducted under the auspices of the Department and the local Regional Public Health Commission, in Hammonton. This service was begun in May and its value is not yet apparent. Conferences with parents and teacher at a pre-school training center

for retarded children in Camden County were also begun in May, 1955. This training center is relatively new and experience so far indicates that there is considerable need for help with nutrition and feeding problems.

The Nutrition Consultant, in cooperation with District sanitation personnel, gave help in regard to food handling and sanitation for personnel of two summer camps. It is expected that this type of activity will be expanded eventually to include all overnight camps, in the District.

#### ENVIRONMENTAL SANITATION

District personnel conducted a food handlers training course for the supervisory and kitchen personnel at the State Colony for Feeble-minded Males at Woodbine. A similar course was conducted in cooperation with the local sanitary inspector in the City of Millville.

Previous efforts to stimulate interest in sanitary disposal of solid wastes resulted in the setting up of sanitary landfills in Vineland, Millville and Mt. Ephraim.

Continuing efforts were made to make boards of health aware of their legal responsibilities for the provision of local public health services for the protection of their citizens. Whenever possible and appropriate, problems in the field of environmental sanitation addressed to the District were referred for action to the local board of health concerned.

#### PUBLIC HEALTH NURSING

There was little change in the total number of nurses employed in public health nursing activities in the District. However, certain undesirable trends became evident. Services became increasingly fragmented in certain areas through the employment of part-time nurses. Several nurses withdrew from general community service to do full-time school nursing. In some instances, this was warranted by the number of school children in need of nursing services, but in all instances it left practically all age groups, except the elementary school children, without the services of a public health nurse. This was the case in nine municipalities. Because of recent legal requirements in regard to the provision of full-time nursing service for school children, it is expected that this trend will continue, to the detriment of comprehensive public health nursing services.

Several communities increased their appropriations for local public health nurses, thus permitting a decrease in the share contributed by the Department toward their salary. A basic problem which remained unsolved is that of the thinning out of nursing services caused by increase in the population. In one community in Camden County the population increased over 100% in a two-year period.

When the Southern District was activated in February, 1951, there were 23 public health field nurses receiving all or a portion of their salary from the Department. As of July 1, 1955, this number had decreased to 11. There were no public health field nurses on the Department's payroll in Atlantic County and only one each in two other counties (Camden and Cape May).

An Institute in Maternal and Child Health for all public health nurses in South Jersey was completed during the year and included a session devoted to services for crippled children. District personnel also participated in two institutes on tuberculosis and one on cardiovascular disease.

All crippled children records in the District were reviewed and summarized. A card file was set up for tickler purposes and put into full operation. Two more contracts were signed with visiting nurse associations for the provision of public health nursing services to crippled children. Further steps were taken toward decentralization of responsibility to the county Supervisors. One result of this was an increase in case-finding activities on the part of local Public Health Nurses.

#### Bureau of Grants-In-Aid

Early in the fiscal year, a change was made in the grant-in-aid procedures in the Department. Formerly, the Bureau of Grants-in-Aid assisted in preparation and processing of all contracts for grants for both the Division of Local Health Services and other Divisions of the Department. Under the revised procedure, the Bureau functions only in the field of grants by the Division of Local Health Services to local boards of health and other official health agencies. The Division of Chronic Illness and other Divisions, such as Constructive Health, prepare and process their own grants.

Also early in the year, grant-in-aid contract forms were revised, with legal advice, to comply with new legislation which requires that any contract made by the state shall be approved by the Division of Purchase and Property and that the grantee shall warrant that no commission, percentage or brokerage fee has been paid to secure said contract (Chapt. 48, Laws of 1954).

For the reasons set forth above, this report is restricted to the activities of the Bureau in making grants to local boards of health. Such grants, as in the past, were exclusively for the purpose of assisting such boards in the field of public health nursing.

#### GRANTS FOR PUBLIC HEALTH NURSING SERVICES

During the year six primary grant-in-aid contracts were entered into with local boards of health under which the Department agreed to pay certain sums to supplement local funds in payment of the salaries of public health nurses. Each contract was for one year. The names of the local boards with

which contracts were negotiated for the first time and the amounts of the Department's obligations are given in Table 1.

TABLE 1.

<i>Primary Contracts with Boards of Health of</i>	<i>Amount of Contract (One Year)</i>
Raritan Boro .....	\$1,551.70
Waldwick Boro .....	1,500.00
South Bound Brook Boro .....	800.00
Hawthorne Boro .....	1,560.00
Phillipsburg Town .....	2,080.00
Hoboken City .....	1,560.00
Total .....	\$9,951.70

Renewal contracts were negotiated during the year with nine local boards of health. In each instance, the amount the Department agreed to pay was substantially lower, usually one-third, than that of the previous contract. This is in accord with the policy of the Department under which a local board is expected to take over full support of the nurse at or before the expiration of the third grant-in-aid contract.

TABLE 2.

<i>Renewal Contracts with Boards of Health of</i>	<i>Amount of Contract (One Year)</i>
Raritan Twp. (Middlesex Co.) .....	\$2,610.00
Clayton Boro .....	1,210.00
Madison Twp. .....	1,545.00
Maurice River Twp. .....	1,092.00
Hillsborough Twp. .....	1,000.00
North Arlington Boro .....	1,493.33
New Milford Boro .....	1,500.00
Gloucester City .....	1,186.00
Newton Town .....	1,560.00
Total .....	\$13,196.33

The total amount of money obligated by the Department under the six primary and nine renewed contracts referred to above was \$22,248.03. Since grant-in-aid contracts went into effect at various times in the year, the term of some contracts which were effected in the fiscal year 1953-54 extended into the 1954-55 year and the terms of some entered into in the latter year extend into the 1955-56 year. Therefore, the total amounts of the primary and renewal contracts as shown in Tables 1 and 2 do not represent the actual amount expended by the Department for grants to local boards of health in the nursing field during the fiscal year ending June 30, 1955. This amount was \$21,329.48.

The board of health of Union City, after the expiration of its third contract on December 30, 1954, took over full payment of the nurse's salary.

A final renewal contract with the board of health of Clayton expired on June 30, 1955. After that date the local board of health assumed the nurse's entire salary.

**PUBLIC HEALTH NURSES PARTLY OR WHOLLY  
STATE-PAID ASSIGNED TO LOCAL SERVICE**

As in past years, efforts were made by the District State Health Officers to have the local boards of health to which state-paid nurses were assigned take over the nurses' entire salaries, or increase their shares of the nurses' salaries or, in the case of nurses serving in a single municipality, accept a grant-in-aid contract.

(a) Grants-in-Aid Accepted.

These efforts resulted in the acceptance of contracts by the local boards of health of Hawthorne Borough, Raritan Borough and South Bound Brook Borough. Prior thereto, the Department had paid the entire salary of the nurse assigned to Hawthorne and part of the salaries of the nurses in the other two places. These changes to grants-in-aid resulted in a saving to the Department of \$2,448.00 on an annual basis.

(b) Increased Local Contributions.

Table 3, which follows, shows that during the fiscal year 18 local boards of health or governing bodies increased their shares of the salaries of partly state-paid nurses, assigned to local service, by \$2,607.00, and 15 local boards of education increased their shares by \$2,054.60, a total increase of \$4,661.60.

In the previous fiscal year 27 local boards of health or governing bodies increased their shares by \$4,816.58 and 20 local boards of education provided increases of \$3,908.25.

TABLE 3.

Amount of Increased Payments by Local Boards of Health and Education  
to Salaries of Partly State-Paid Nurses, Assigned to Local Service,  
during the Year Ending June 30, 1955, by State Health Districts

State Health District	Increases by Boards of Health*		Increases by Boards of Education	
	No. of Boards	Amounts	No. of Boards	Amounts
Northern .....	14	\$1,868.00	13	\$1,758.60
Southern .....	4	739.00	2	296.00
	<hr/>	<hr/>	<hr/>	<hr/>
	18	\$2,607.00	15	\$2,054.60

\* or governing bodies.

(c) Other Changes in Nurses' Status.

The following additional changes affecting the number of nurses who had been partly paid by the Department took place during the year.

TABLE 4.

No. of Nurses	Change in Status	No. of Municipalities Served
3	Entire salary assumed by local boards ....	11
2	Service discontinued locally .....	2
1	Resigned—not replaced .....	1
2	Entirely paid by local board of education ..	3

The changes set forth in Table 4 resulted in a reduction in the Department's annual expenditures of \$12,809.00.

**NURSES ASSIGNED TO LOCAL SERVICES AS OF JUNE 30, 1955**

At the close of the fiscal year there were 23 nurses assigned to local service who received part of their salaries from the state and part from local boards of health and education. In addition, there were two such nurses whose entire salary was paid by the state. These 25 nurses served in 55 municipalities and received pay from 48 local boards of health and 51 boards of education.

The municipalities served were all located in the Northern and the Southern State Health Districts.

Table 5, which follows, shows by Districts the number of nurses, the number of municipalities served, the number of boards of health and education contributing to the nurses' salaries, the amount of their contributions (on an annual basis), and the amount of the state's share of such salaries.

Compared with the previous fiscal year, Table 5 shows the following reductions: ten in the number of nurses, 22 in the number of boards of health served and 17 in the number of boards of education served. These reductions are reflected in the financial figures which show that during the fiscal year ending June 30, 1955 the State Department of Health expended on an annual basis \$12,573.54 less in salaries of nurses assigned to local service than in the previous fiscal year.

TABLE 5.  
ANNUAL RATE OF COMPENSATION OF NURSES ASSIGNED TO LOCAL SERVICE AS OF JUNE 30, 1955

State District	No. of Nurses	No. of Municipalities Served	State		*Boards of Health			Boards of Education		
			Salary	Expenses	No.	Salary	Expenses	No.	Salary	Expenses
Northern .....	11	31	\$16,164.40	\$516.00	29	\$11,620.00	\$1,252.50	30	\$14,995.36	\$2,134.00
Southern .....	14	24	29,556.23	1,175.00	19	10,816.25	813.75	21	12,895.52	1,135.00
Totals .....	25	55	\$45,720.63	\$1,691.00	48	\$22,436.25	\$2,066.25	51	\$27,890.88	\$3,269.00

\* or governing bodies.

Note: Table does not include one wholly State-paid nurse in the Central State Health District assigned to a County Tuberculosis Association.

## SUMMARY

Paid by	Amount of Salaries	Percent
*Boards of Health .....	\$22,436.25	48
Boards of Education .....	27,890.88	52
Local Total .....	\$50,327.13	52
State .....	45,720.63	48
Grand Total .....	\$96,047.76	100

## Bureau of Public Health Nursing

The Nursing Program continues as a service unit to the various health programs of the State Department of Health. Through consultations and advisory services its primary objective is to stimulate the development of local public health nursing services.

## CONSULTATIONS

Consultations to the four State Health Districts, local agencies, and other state agencies and state departments have increased remarkably from those of last year. Approximately 140 consultations were rendered this year as compared to 78 last year by the Bureau staff alone. Many other consultation services were provided by District nursing staffs to assist local agencies and citizen groups to expand or combine existing nursing programs. Consultations provided by the Bureau staff emphasized the nursing aspects of the Chronic Illness, Maternal and Child Health and Crippled Children Programs. Many consultations involved general public health nursing aspects with overall program implications such as generalization of public health nursing, records and reports, program evaluation, inservice training, job specifications, nursing standards and procedures, etc.

Also, conferences related to planning with Division personnel for activities including public health nursing follow-up services were substantially increased. There has been considerable activity in the area of Rheumatic Fever Control due to the development of facilities in community hospitals by County Heart Associations. In some of these areas the nursing follow-up services to patients have been accomplished; in others, local problems are being considered. Nursing follow-up in the Diabetes Detection Drive for 1955 increased and efforts toward expanding these services are being made. Consultations in Tuberculosis Control were rendered as a result of a planned team approach in evaluation of agency records (official and non-official) in relation to follow-up of suspects found in state chest X-ray surveys. A conference with the New Jersey Tuberculosis League and chest clinicians has indicated the need to explore services on District level. This type of conference has proven of such value that plans have been made to have similar conferences in the fall of 1955. Problems vary in regard to hospital admissions and discharges, pre and post hospital care, nursing care, social service, rehabilitation methods, medications and interpretation of public assistance programs.

Consultations to local agencies regarding practices in Child Health Conferences were increased this year as a preliminary to making recommendations for better facilities and conduct of the conferences. Also, many consultations with individual public health nurses and supervisors included that phase of

the Maternal and Child Health Program which involves the supervision of midwives, and the procedure for conducting parents' classes.

Crippled Children consultations were extended to all four State Health Districts. Administrative details of the Program on District level have been decreased, with an increase of responsibility for nursing care on the local level, through changes made in the public health nursing contracts. In addition, special Cerebral Palsy Clinics, treatment centers and schools for handicapped children received advisory services in regard to their particular problems.

Consultations and advisory services to other state Departments and state agencies provided opportunities for better coordination of nursing services on a State-wide basis. The State Nurses' Association, the New Jersey League for Nursing, and the National League for Nursing assisted in planning and implementing services in Chronic Illness and Maternal and Child Health Programs and also in stimulating desirable organization and coverage for local public health nursing services in several counties of the state.

Participation in state-wide nursing projects, studies and surveys provided opportunities for closer working relationships among agencies utilizing nursing service. A few examples include: Civil Defense, Nursing Aide Committee, New Jersey League for Nursing, and State Nurses' Association, Seton Hall University, New Jersey Health Officers Association and the Inter-departmental Committee on School Nursing Institutes.

#### PROMOTION SERVICES

The principle of local responsibility for public health nursing services has been activated to varying degrees in all four State Health Districts. As an example, Central State Health District with assistance from the Bureau of Public Health Nursing initiated and assisted with the establishment of a county-wide, non-official public health nursing agency in Burlington County. Several meetings have been held in Middlesex and Hunterdon counties to obtain like results. Combination services are contemplated for other areas of the state where several nursing agencies are administering services of various types.

More partially state-paid public health nurses are now paid entirely from local funds as compared to last year. In rural areas where official funds are lacking, particularly in the Northern and Southern State Health Districts, the problem of local assumption for full payment of nursing service is a real challenge.

The purchase of nursing bags by an increased number of local agencies, particularly in the Metropolitan State Health District, shows positive evidence of local agencies' interest in better patient care.

Initiation of promotion services are, for the most part, the result of work done by District Public Health Nurse supervisory personnel.

#### EDUCATION

Nursing personnel attended special orientation and training courses: Alcoholism Institute at the Yale Center on Alcohol Studies, Seminar on Rehabilitation Methods for Nurses at New York University—Bellevue Medical Center, Annual Conference on Aging at Ann Arbor, and the Diabetes Training Course at Boston.

Other nursing representatives attended Cancer Institutes, Cardiac Institutes, Maternal and Child Health Institutes, County Tuberculosis Institutes, School Nursing Institutes, Meeting on the Handicapped, Glaucoma Institute, Cerebral Palsy Institute, Safety Conference, State Directors meeting in Washington and the National League for Nursing meeting in St. Louis.

District nursing personnel and Bureau personnel have initiated, assisted and participated in in-service education for local nurses. This year Chronic Illness received particular emphasis in Central, Metropolitan and Southern State Health Districts; Maternal and Child Health in Northern and Southern State Health Districts. Participation in planning in-service sponsored by other organizations or agencies, in addition to the above departmental sponsored in-service training, included Tuberculosis, Safety, Homemakers, Aging, Alcoholism, Maternal and Child Health, Cardiac, Cancer, etc.

#### SPECIAL PROJECTS

Nursing participation in overall plans for developing in-service education for state nursing personnel has recently been started in the Bureau of Public Health Nursing; in addition, a committee of representatives from each District are formulating policies and procedures for in-service training on local level.

Preparation of the Nursing Program Manual for submission to the Commissioner has afforded the staff a splendid opportunity for integration of the nursing aspects of health programs on the state level.

The Generalized Family Health Record and Daily Report form have been utilized by public health nurses in Hunterdon County since July 1, 1954 and is being continued. It is hoped that in the near future all state-supervised personnel will be using the proposed forms rather than the specialized Maternal and Child Health records. It is thought that a more accurate analysis of nursing services could be made if such a form is utilized.

The Planning and Policy Committee of the Bureau of Public Health Nursing had fewer meetings this year. Major activity involved preparation of material for the Program Manual. Other activities included further revision of the policy on bedside nursing care which has been submitted for approval, and preparation of an initial statement of the definition and value of super-



vision. Because of curtailed meeting time, necessary revision of this statement was completed at the Bureau of Public Health Nursing staff meeting and submitted for approval.

Staff meeting activities related to the items mentioned above and major activity also involved preparation of Program materials.

#### PROBLEMS AND NEEDS

One need of the Nursing Program is for more personnel to assist local agencies in expanding, combining and integrating nursing service toward total family health services. Problems are arising in some local official agencies regarding tuberculosis nursing, especially where the voluntary nursing services are being withdrawn. This creates an imperative need for public health nursing consultation services in tuberculosis. Other areas of need for nursing consultation services include venereal disease, cancer, industrial nursing, infants and crippled children, particularly in regard to nursing follow-up services in the home.

An Educational Director or Assistant Chief Public Health Nurse is urgently needed in the Bureau of Public Health Nursing to coordinate and assist in inservice training. The employment of a well-qualified person would greatly aid in the establishment of a uniform pattern of operation. Also, the necessary tools for supplementing in-service training and the promotion of generalized nursing services are needed. Some of these are a written guide for orientation of new staff, a manual of public health nursing procedures and techniques, generalized nursing records and reports, and medical recommendations for nursing care.

Recruitment of nurses on the District level remains a problem. Withdrawals to full-time school nursing, lack of funds and personnel, and particularly lack of qualified personnel, leaves many communities without nursing service in rural areas.

Decentralization of programs is a slow weaning process which requires a great deal of interpretation to local agencies and citizen groups. In many areas there are very few full-time health officers, and the reporting officers are usually part-time employees who have little or no knowledge of public health nursing needs. Local boards of health employ nurses with neither training nor experience in public health nursing; and in some instances, the basic pay does not warrant the nurse obtaining higher qualifications.

Despite these problems, it is felt that better coordination of nursing services on state and local level has been accomplished and with continued effort, total family health services will be extended to all citizens in New Jersey.

## Report of the Division of Laboratories

July 1, 1954—June 30, 1955

ELMER L. SHAFFER, PH. D., *Director*

Bureau of Bacteriology .....	JOHN H. SPOONER, JR., B. Sc. <i>Chief</i>
Bureau of Chemistry .....	JOHN J. NELSON, M. S. <i>Chief</i>
Bureau of Pathology .....	EDWIN O. GILBERT, D. V. M. <i>Principal Histologist</i>
Bureau of Serology .....	ELEANOR M. THOMAS, B. A. <i>Principal Serologist</i>

## Division of Laboratories

In some of the annual reports of the Division of Laboratories of prior years, mention was frequently made of the need for increase in physical facilities. This year's report must begin with more than a passing allusion to the need for modern laboratory quarters. The demands for laboratory services have been increasing steadily through the past ten years, not only in keeping with the increased tempo of activities in the other programs of the Health Department, but also for direct services to the public through physicians and health officers. Due to competent and conscientious personnel, the laboratories have been able to meet these demands beyond their expected capacity. The handicaps of space and facilities have often strained the normal elasticity of our operations, enabling us to give all required services. However, the time has come when it must be made clear that the continuous pressure of intensive operation becomes of serious import to the present and future development of laboratory services. All laboratories dealing with public health and medicine have experienced similar intensified programs. In most cases, the requirements have met with commensurate increase in facilities and personnel.

The conditions in our laboratories today are so limited by space and utilities that even the addition of new employees or equipment could not effectively solve the problems. What is most urgently needed is a modern laboratory structure of sufficient area and an adequate supply of utilities to supply present and future needs. Until such facilities are supplied, the laboratory programs must remain at present levels of activity, despite demands for increase in needed services. The limit of participation with our present facilities has been reached.

We have maintained a continuing interest and responsibility in the professional educational activities initiated several years ago. Laboratories throughout the state have enthusiastically participated in refresher courses in laboratory subjects we have offered. During April, 1955, two refresher courses were given using the laboratory facilities at Rutgers University. The subjects were Medical Mycology and Parasitology. Instructors, Drs. Melvin and Ajello, were furnished by the Public Health Services, assisted by Miss Jedynak and Messrs. Spooner, Welsh and Olex of our staff. Over 25 registrants for each course attended and favorable comment was made by each at the conclusion of the courses.

During October and November 1954, a "workshop" refresher course in tests for syphilis was conducted with a total of 59 registrants. This course was given in our laboratories on Saturdays during the above months by our own personnel in the Serology Program, led by Mrs. Thomas and Mr. Lucci.

A preliminary evaluation of the "Penn Test" for cancer was initiated. We had the benefit of Dr. H. S. Penn's presence visiting our laboratories for almost a week to instruct us in the techniques of the test. Dr. Penn is Associate Professor at the Medical School of the University of California. While it is manifestly too early in the experience with this test to make conclusions regarding its usefulness, we have been stimulated to continue our studies with its use in screening programs. It is anticipated that with further improvements in the techniques, we shall continue our evaluation studies during the coming year.

As usual, we have maintained a continuing interest in developing our personnel to higher scientific levels. Accordingly we have sent selected individuals to various institutions for varying periods for advanced training in laboratory subjects as listed below:

J. N. Welsh, Principal Bacteriologist, began April 18, 1955 with a practical training in virology at the Virus Research Laboratories in Philadelphia.

Roland Eves, Bacteriologist, attended a 2-week course in bacteriology of water and milk at Sanitary Engineering Center (PHS), in Cincinnati.

Miss Banko, Assistant Chemist, attended a semester course at Rutgers University, on "Chemical Spectroscopy."

Mr. Ventura, Senior Chemist, attended a one term course on "Instrumental Analysis" at Rutgers University.

Mr. Weller, Senior Chemist, participated and attended a course in "Principles of Air Pollution Control" at Rutgers University.

Miss Baldwin and Mrs. Leventhal attended courses in chemistry and physics, respectively, at Trenton Junior College.

E. L. Shaffer, Ph. D., attended a course in "Civil Defense B W" at Communicable Disease Center.

In all cases, we have felt that the training received has been of benefit to the Department.

During the year, we experienced an unusual increase in our "turn-over" in lower echelon personnel. We lost several valuable workers by competitive offers from private industry. We continue to find difficulty in obtaining well-trained technical personnel and this is the experience of other health and hospital laboratories. The seriousness of this situation is becoming more evident each year and must be met by all laboratories requiring such personnel.

The need for virological diagnostic services was made more and more evident by increased demands. This must eventuate in our developing an approved program in this field. Looking toward this development, we have begun to face the problem by sending key personnel for training in this field to the Virus Research Laboratory of the University of Pennsylvania. The impact of the Salk Poliomyelitis Program emphasized the need for diagnostic

services associated with the nation-wide surveillance program. We were designated by the Public Health Service as a collaborating laboratory to serve the state in the investigation of poliomyelitis cases occurring during the vaccination program. Funds were made available to us by Public Health Service for our participation and arrangements have been completed for its extension into the next fiscal year. We have been enabled to do this by the cordial invitation of the Philadelphia Virus Diagnostic Laboratory to use their laboratories for the New Jersey needs. We must develop our own facilities for carrying this work forward in a modern virological laboratory. This cannot be attained in our present space allotment in the State House building.

Continued economical operation of the budget has resulted in further fiscal savings, while services were being extended. The third year of operation of the stock inventory control has clearly demonstrated all the advantages sought when it was initiated.

#### LABORATORY INSPECTION, EVALUATION, AND ASSISTANCE

The required inspection and evaluation of laboratories approved by the Department for bacteriological and serological examinations have been continued. There were 122 laboratories bearing our approval as prescribed by the Sanitary Code. Serological evaluation of the approved laboratories is carried out by mailing of "unknown" specimens and study of reports issued. The more intensified activity in this respect initiated in the previous year, together with our refresher course offerings, has resulted in a moderate improvement in the performance of the approved serological laboratories. There is still need for better work from some laboratories. We are offering these special assistance and have had some of their serologists spend time in our laboratories to become trained in standard methods. We have advised laboratories that unless they meet the accepted standards, approval will be withdrawn.

Inspection and evaluation of laboratories approved for bacteriological examinations of communicable diseases have not been adequately carried out. The reason for this has been the lack of available man-power in this field. Bacteriological test specimens are not too readily sent out, as in the case of serological testing, and require personal visitation of approved laboratories by one of our Bacteriologists on a regular basis.

The number of approved laboratories is growing larger annually and the proper inspection and evaluation of such laboratories will require increased time of our personnel. It may well be that an additional bacteriologist will be required to assume this responsibility, together with the duty of integrating our refresher education program.

**Bacteriology Program**

In the annual report of 1953-1954, it was intimated that consideration for the closing of the branch laboratory at Leonardo was being given. During the present year this was consummated. The activities of this branch were transferred to the other laboratory branches at Bivalve and Tuckerton and the Central Laboratory in Trenton. This has resulted in fiscal economy without loss of services.

Our water and milk laboratories were inspected during May, 1955 by Dr. Luther Black of the Public Health Service. Dr. Black's thorough review of equipment and procedures indicated that our laboratories were in essential compliance with standard procedures except in a few minor categories which were immediately corrected.

**TUBERCULOSIS**

Increase by 1,100 examinations in culture for *M. tuberculosis* made, of which 10% were positive as compared to 5.5% positive spreads. We have been evaluating a blood agar medium along with the regular Lowenstein medium and after over 8,000 parallel cultures, have found good agreement (93%).

	Total	Positive	Negative	Unsatisfactory
Cultures:	17,990	1,005	16,440	545
	9,595	964	8,597	34
		5.5%		
		10%		

**ENTERIC BACTERIOLOGY**

The number of specimens received in this category was less than the previous year; however, a greater number of positives were found and a greater variety of *Salmonella* and *Shigella* species were determined. Of 71 positive cultures for *Salmonella*, 13 different types were isolated from 44 patients; of 11 positive *Shigella* cultures, 6 types were isolated from 9 patients.

	Total	Positive	Negative	Unsatisfactory
<i>Salmonella</i>	3,819	56	3,625	137
<i>Shigella</i>	3,817	6	3,674	137
No examination	199	..	..	199
	7,835	62	7,300	473

**DIPHTHERIA CULTURES AND THROAT AND NOSE CULTURES FOR OTHER ORGANISMS**

	Total	Positive	Negative	Unsatisfactory
<i>C. diphtheriae</i>	5,850	7	5,499	344
Hemolytic streptococci	3,292	388	2,904	..
Vincent's angina	32	2	29	1

**WATER AND MILK BACTERIOLOGY**

Total bacteriological examinations in the water and milk laboratories continue to increase. Information from the Public Health Engineering Program and Food and Drug Program indicates additional samples are to be expected above those processed this year. The reduction from over 12% last year to 10.5% of below standard samples in milk and milk products indicates that the increased activity in milk sampling is having positive results.

Total waters examined in Central Laboratory .....	8,038
Total milks examined in Central Laboratory .....	4,223

**NUMBER AND PERCENTAGE OF MILK AND DAIRY PRODUCTS FOUND BELOW STANDARD**

Total	O. K.	B. S.	Percentage
4,223	3,815	408	10.5

**EXAMINATIONS MADE AT BIVALVE AND TUCKERTON LABORATORIES**

	Bivalve Laboratory	Tuckerton Laboratory
Waters .....	1,728	3,771
Shellfish .....	750	365
Total .....	2,478	4,136

Total All Waters .....	13,537
Total All Milks .....	4,223
Total Shellfish .....	1,115

**GONORRHEA SPREADS**

Total	Positive	Negative	Unsatisfactory
4,926	606	4,251	69

**RABIES**

Animal brains for rabies examination continue to play an important role in the program. The State Sanitary Code requires, under Chapter IV, Reg. 6 (e) that: Animal brains examined for rabies and found to be Negri-negative shall have a suitable portion thereof inoculated into mice in those circumstances where there is a record of a bite or intimate human or animal contact. This has been done as part of the Bacteriology Program for years and should now become a necessity for all laboratories approved for rabies examinations.

Animal brains from various species of animals include: dogs, 99; cats, 29; squirrels, 19; rabbits, 13; foxes, 4; rodents, 8; hamsters, 2; skunk, 1; raccoon, 1; bats, 14; mice, 3; parakeet, 1; woodchuck, 1; ground hog, 1; calf, 1; and monkey, 1.

Total	Positive	Negative	Unsatisfactory
198	...	192	6

Swiss mice, 18 days old, are inoculated intradurally on all suspected brains where the animal has bitten or had intimate contact with humans. There were 594 such inoculations made during the year.

#### BLOOD AGGLUTINATIONS

A total of 4,096 blood specimens were received for agglutination tests for typhoid, paratyphoid, undulant, Rocky Mountain spotted typhus fevers and tularemia. Of this number, 32 gave "positive" results. All antigens were made in our laboratories.

#### COMPARISON CHART 1953-1954 AND 1954-1955

	1953-1954	1954-1955
Total .....	63,158	65,541
Central Laboratory—		
Communicable Diseases .....	46,071	46,666
Waters .....	7,006	8,038
Milks .....	3,173	4,223
Branch Laboratories—		
Shellfish Waters & Shellfish .....	6,908	6,614

#### Chemistry Program

##### SUMMARIZED STATISTICS, 1954-55

Character of Samples	Number of Samples	Number of Determinations
Milk and Dairy Products .....	3,645	8,880
Other Foods .....	597	1,278
Drugs .....	441	586
Water and Sewage .....	3,030	17,802
Atmospheric and Industrial .....	275	299
Urinalyses* .....	4,782	5,523
Miscellaneous** .....	131	1,082
<b>Totals .....</b>	<b>12,901</b>	<b>35,450</b>

\* Figures cited for "Urinalyses" include 4,543 urine-sugar determinations (Dreypak) conducted as a cooperating program in the screening survey for diabetes detection.

\*\* "Miscellaneous" includes methods development, experimentals and referee samples.

This program during 1954-55 was marked by a volumetric increase in samples examined. There was more than a 2½ fold increase in milk and dairy products examined and more than a 5½ fold increase in water and sewage specimens received.

The second biennial sanitary chemical survey of all public water supplies, as prescribed in the Potable Water Program, was begun in February of this year. This is primarily a mail (express) project with occasional collaboration from the District Offices in cases where express service is not available. The numbers involved in this survey are in the approximate order of 400 samples requiring 6,400 separate determinations.

The increasing over-all work load of the Chemistry Program as cited last year continued to rise in 1954-55 as shown in the following summary:

Fiscal Year	Total number of samples	Total number of determinations
1952-53	5,821	24,239
1953-54	9,499	33,067
1954-55	12,901	35,450

In addition to the 299 laboratory analyses performed for the three programs in the Bureau of Adult and Occupational Health, Chemistry Program personnel participated, directly or indirectly, in 338 field tests and 4 plant visits. Also, the field equipment required by personnel of the Adult and Occupational Health, Air Sanitation and Radiological Health Programs was serviced by the Chemistry program along with the preparation and standardization of the appropriate reagents.

#### FUTURE PROJECTS—TRENDS

(1) Accelerated activities being planned for 1955-56 under the Potable Water and Stream Pollution Control Programs can be expected to result in much larger work loads in the areas of water and sewage analyses.

(2) With the enactment of the "Air Pollution Control Act (1954)," the activities of the Industrial Health Laboratory of the Chemistry Program are expected to develop greatly.

(3) Vitamin and mineral assays in connection with the Flour and Bread Enrichment Act of 1946 are now conducted routinely as a service to the Food Program.

(4) The further development of the spectrographic laboratory continues to be handicapped by the lack of proper electrical power.

(5) Increasing activities in the coming fiscal year as noted above will require new personnel and will accentuate the already pressing need for more laboratory space and equipment.

### Pathology Program

While this program shows moderate statistical declines in some categories of operations, this was forecast in the annual report of 1953-54. In that year, a pilot study for a cancer registry produced a large number of contributions of tumor specimens not available during 1954-55. Furthermore, we have discontinued accumulating the more common types of tumors since our files are well stocked with these, and have concentrated on accumulating the rarer and more controversial types.

The activities in photography which form a valuable teaching adjunct in the program also suffered a decline because of reduction in number of specimens received and also because of illness of key personnel. There has also been some decline in consultation specimens received. Since this activity is dependent on the interest of the pathologists and our own field operations, we can expect annual variations in this participation.

Since this program is largely one of professional education directed to Pathologists, we attempt to fill those needs as demanded. For example, there is a growing number of requests for us to supply normal tissue histological slides for use by pathologists for teaching purposes for residents and internes. These are to be used as a review for the comparative study of diseased (cancer) tissues. We are in the process of developing such a series of slides.

We have frequent calls for consultation and assistance on technical and photographic problems by institutional pathologists. These physicians have come to recognize us as competent to perform these services. We have continued to evaluate new technical methods as they appear in the literature and make known our findings to the cooperating laboratories of this state.

As has been the case in the past years, the annual tumor seminar was held in Newark Presbyterian Hospital on December 11, 1954. This was conducted jointly with the New Jersey Society of Clinical Pathologists and had an attendance of 85. Not only New Jersey pathologists attended, but we received requests for permission to attend from pathologists of neighboring states, and received national notice in pathologists' circles. The moderators for the seminar were Drs. Fred Stewart and Frank Foote, Jr., of the Memorial Hospital for Cancer, New York. The transactions and discussions of this seminar have been published and distributed to all who attended. We have had requests from a number of out-of-state pathologists for reprints.

It is difficult to assess the effects of the Program in Pathology as to its accomplishing its avowed objective of making the diagnosis of malignant disease sure, prompt, and a guide to proper treatment. No statistical rule of measurement is available to determine accurately the effectiveness of an educational program. However, the seminar voting of diagnoses indicates that the pathologists who have been cooperating in our program have shown an

increased acuity in diagnosis and differentiation of tumors. Their continued use of our facilities is an indication of the desirable qualities they have found in this program.

#### HISTOLOGY

Contributions to tumor registry .....	1,110
Consultation cases .....	104
Slides prepared .....	8,266
Slides stained .....	7,438
Specimens processed .....	494
Slides stained with special stains .....	868
Slides distributed .....	849
Field trips .....	53
Institutions visited .....	76

#### PHOTOGRAPHY

Kodachromes (micro) .....	1,860
Kodachromes (gross) .....	161
Ektachromes (micro) .....	169
Photographs for other agencies .....	203

### Serology Program

While the previous year, 1953-54, showed a decline in the number of blood specimens received for syphilis tests, the present year, 1954-55, shows a slight upward trend again. This has been due to an increase in the number of premarital and prenatal specimens received.

There has been an increase in the number of reference specimens received from other laboratories. Since these are usually "problem" specimens, a battery of tests is run on each, thus increasing the number of tests performed. Since February 1, 1955, we have used the Venereal Disease Research Laboratories slide test as a screening test for premarital and prenatal specimens, discontinuing the Mazzini test in these cases. This has enabled us to make more prompt reporting and eliminate a group of slightly reacting sera which previously delayed reporting.

We participated in an evaluation study conducted by the Venereal Disease Research Laboratories of the Public Health Service. This sought to determine the relative efficiency of the 60 participating laboratories compared to a controlled performance of the various tests. Our Mazzini test performance was exactly identical to the results of the author (Mazzini) on the same sera. Our score with the V.D.R.L. test was slightly better than that reported by the Venereal Disease Research Laboratory, and our score with the Kolmer test was also slightly better than that of the author (Dr. Kolmer). While we feel satisfied that our syphilis serological tests are being conducted according to

strict standards and that our results are as reliable as the limits of the tests afford, we are alert to the need for constant surveillance of our procedures.

The *Treponema pallidum* immobilization test was offered by the Venereal Disease Research Laboratories for use as an aid to syphilis diagnosis in problem cases, where the usual flocculation and C.F. tests gave inconclusive data. This test was publicly offered to the medical profession of the state and we acted as an intermediary in receiving and forwarding blood samples to the V.D.R. Laboratories. Development of tests similar to the T.P.I. test is proceeding. This category of tests is intended to yield a more specific determination of the presence of true syphilitic antibodies.

The Serology Program has been performing all complement fixation tests for virus diagnosis. This has shown about a 2½ fold increase in the number of specimens received. In addition, we cooperated with the Public Health Veterinary Program by performing C.F. tests for psittacosis on 832 parakeets and 587 turkey specimens.

## TESTS PERFORMED

Specimens received .....	262,587
Tests performed .....	315,056
Rh .....	105,913
Blood Grouping .....	105,913
Total Protein .....	782
Heterophile (1,102 specimens) .....	1,700
Colloidal Gold .....	298
Cold Agglutinins .....	68
Virus (459 specimens) .....	900
Antistreptolysin .....	78
Parakeets .....	832
Turkeys .....	587

## PREMARITALS

	Total	Positive	Doubtful
1953-54 .....	42,396	741	914
1954-55 .....	43,972	601	632

## PRENATALS

1953-54 .....	60,600	896	1,029
1954-55 .....	64,282	699	935

## SUMMARY

Not mentioned in the body of this report is the completion in the four (4) written programs this year of the "Evaluation Indices." All the program coordinators cooperated in this difficult task and one particular program evaluation of the Division received the commendation of the Commissioner of Health as a working model for others to follow. We feel sure that much has been learned in this effort to evaluate the extent and purpose of the activities in which we are engaged.

We must be ever alert to meet changing trends in the development of new fields of service as demanded, and to de-emphasize those activities where demands are diminishing. A review of the preceding reports indicates a high degree of activity in the four programs of the Division being carried out under conditions far from ideal or those attainable.

This report must end as it began with the direct statement that the greatest need for the successful operation of the Division, now and in the future, is a modern laboratory edifice that will enable us to make full use of our personnel and equipment for services to the public health. We feel we have made progress in most of our activities; we may not have been completely adequate to our tasks. But, we have tried to do so under conditions not always the best and with a full realization of our responsibilities.

**Report of the Division of Preventable Diseases**

July 1, 1954—June 30, 1955

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

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Bureau of Acute Communicable Disease Control... ADELE C. SHEPARD, M. D., M. P. H.  
*Program Coordinator*

Bureau of Venereal Disease Control ..... ADELE C. SHEPARD, M. D., M. P. H.  
*Program Coordinator*



## Division of Preventable Diseases

On April 12, 1955, Dr. Thomas Francis, Jr., Director of the Poliomyelitis Vaccine Evaluation Center at the University of Michigan, gave a report of international significance when he presented clinical and epidemiologic evidence of the effectiveness of a triple vaccine against paralytic poliomyelitis. Thus, another tremendous step forward was taken in the control of the communicable diseases.

### ACUTE COMMUNICABLE DISEASE CONTROL PROGRAM

#### *Morbidity, Mortality, and Trends of Notifiable Diseases*

The reported cases of all notifiable diseases (exclusive of cerebral palsy, mental deficiency, tuberculosis, and venereal diseases) numbered 36,192 in 1954 as compared with 82,150 for the preceding year. This decrease is largely attributable to the fact that 1954 was the first full year in which the reporting of chickenpox, German measles, and mumps was not called for. The revised State Sanitary Code, enacted on June 22, 1953, omitted these requirements. Measles, with 26,534 cases reported, represented 73.3% of the total of reportable diseases this year.

The number of recorded deaths for 1954 from reportable diseases (exclusive of cerebral palsy, mental deficiency, tuberculosis, and venereal diseases) was 1,267. Omitting the 1,136 deaths from pneumonia and influenza, there were only 131 deaths due to the remaining notifiable diseases. Fifth in rank for all ages, influenza, pneumonia and bronchitis were responsible for 2.4% of the total deaths in 1954. Deaths due to these respiratory diseases numbered 1,235 in 1954 as compared with 1,350 in 1953. As in the preceding year, these diseases ranked first in the 1 - 4 age group in 1954.

Poliomyelitis incidence in 1954 rose above that for 1953 with the reporting of 908 cases, 152 more than in 1953 (Graph I). A review of statistics since 1910, the first year of reporting of this disease, shows that in only four years besides 1954 has the number of reported cases exceeded 900. Those years were:

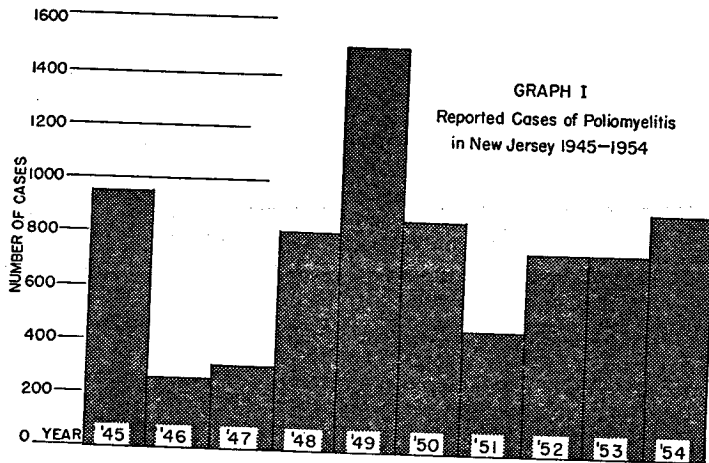
<i>Year</i>	<i>Reported Cases</i>
1916 .....	4,055
1931 .....	975
1945 .....	952
1949 .....	1,513

The number of cases of poliomyelitis per 100,000 population was 17.9 in 1954 compared with 15.1 for the previous year. Counties reporting the largest numbers of cases in 1954 were Essex with 108 cases, Bergen with 90, Union with 86, Monmouth with 75, and Camden with 65.

The reported cases of poliomyelitis in the months of October, November, and December of 1954 exceeded by far the 5 year medians for 1950-1954 for those months. The number of cases reported in December, 1954, was greater than in any December for the last five years.

	1950-1954	1954
October .....	125	221
November .....	38	116
December .....	18	50

Of the 908 cases of poliomyelitis reported in 1954, 550 were reported as paralytic, 333 as non-paralytic, and 25 as unspecified or unknown. The largest number of cases, 416 occurred in the 5 - 14 year age group.



There were 37 deaths from poliomyelitis in 1954. This number is less than in any year since 1947 when only 10 deaths from this disease were recorded.

With a rate of 0.6 cases of typhoid fever per 100,000 estimated population, New Jersey appears 31st in rank order among the States in typhoid fever incidence, (32nd including Washington, D. C.). The provisional incidence rate for the United States as a whole for 1954 was 1.4 per 100,000. Only 17

states had a lower case rate than did New Jersey. The same number of cases of typhoid fever (31) were reported in this state in both 1953 and 1954, representing an all-time low in reported incidence of this disease. The largest concentration of cases (12) was in the 5 - 14 year age group and 14 of the 31 reported cases occurred in one month, May. The Central District had 18 cases or 58.17% of the total. One death was reported from this disease representing a 3.2% fatality. No deaths were reported in either 1952 or 1953.

The all-time record low for diphtheria in 1952 with 32 cases reported was further reduced in 1954 with the reporting of only 15 cases. One death was recorded, giving a 6.7 fatality percentage. The majority of the cases, 7 of the 15, were reported from Middlesex County. Thirteen of the cases were in the age group 24 years or younger. The provisional rate for diphtheria was 1.3 per 100,000 estimated population for 1954 in the United States. Ranked in order of frequency, New Jersey, with a rate of 0.3, was 33rd among the states in diphtheria incidence. Only 15 states and the District of Columbia showed lower rates.

The first full year in which the reporting of dengue, infectious hepatitis (including serum hepatitis), leptospirosis, and Q fever was required by the State Sanitary Code was 1954. There were 653 cases and 17 deaths recorded for infectious hepatitis in that year. This compares with 122 case reports in 1953. The disease occurred most commonly among children and young adults, with 59.5% of the reported cases in 1954 being in the age group 5 - 24. A greater proportion of the cases, 60.2%, were in males. No cases or deaths were reported for dengue, leptospirosis, and Q fever in 1954.

There have been no cases of smallpox reported since 1947.

Of the 350 reported cases of amebiasis in 1954, only 1 was not reported from a State Institution. Up to 1954, the State Laboratories had accepted blood specimens for forwarding to the Communicable Disease Center to aid in the diagnosis of amebiasis. The following information was received regarding this test. "Due to the conflicting evidence on the value of the complement fixation test in the diagnosis of amebiasis, the Communicable Disease Center is discontinuing this as a reference diagnostic service. Although certain research workers have reported satisfactory correlation between the test results and clinical amebiasis, the experience of others indicates that the test has not reached the degree of reliability necessary for a routine diagnostic procedure." The State Laboratories, therefore, discontinued this service to physicians.

In addition to dengue, leptospirosis, and Q fever, mentioned above, there were no reported cases in 1954 from anthrax, botulism, cholera, glanders, leprosy, plague, human rabies, smallpox, tularemia, typhus fever, and yellow fever.

No deaths were recorded in 1954 from anthrax, botulism, brucellosis, cholera, dengue, glanders, leprosy, leptospirosis, ophthalmia neonatorum, plague, psittacosis, Q fever, rabies, Rocky Mountain spotted fever, salmonellosis, smallpox, trachoma, trichinosis, tularemia, typhus fever, whooping cough or yellow fever.

For the last several years recorded deaths from diarrhea of the newborn have exceeded reported cases.

<i>Year</i>	<i>Cases</i>	<i>Deaths</i>
1950 .....	1	15
1951 .....	3	12
1952 .....	9	12
1953 .....	2	14
1954 .....	9	18

There has been a rather marked increase in the reporting of psittacosis in 1954. In 1950, 1951, and 1953, no cases of this disease were reported. In 1952, one case was reported and in 1954 case reports rose to 17. There has also been a substantial increase in the number of cases throughout the country. The State Department of Health and local health officers have tried to protect both bird buyers and breeders within the State from the threat of contagion which can come about if birds from areas of infection are shipped into the state. The State Sanitary Code provides that psittacine birds may not be shipped into this State unless accompanied by a certificate by an authorized agency in the state of origin "indicating such birds have not been transported from an area of that state in which psittacosis exists and that it has no reason to believe that such birds may be infected with or recently exposed to such disease."

#### SALK VACCINATION FOR POLIOMYELITIS

The dramatic announcement that an effective weapon against paralytic poliomyelitis had been realized was made at the University of Michigan on April 12, 1955. The triple anti-poliomyelitis vaccine was developed by Dr. Jonas E. Salk, a member of the faculty at the University of Pittsburgh's School of Medicine. Licensing of the material for inter-state commerce as a biological product followed promptly by the National Institute of Health. The vaccine was made available without charge by the National Foundation for Infantile Paralysis and the Department, through its four district offices, with the cooperation of school officials and others organized and coordinated efforts for the necessary inoculations. The vaccine was offered to all first, second, third and fourth grade children in last year's control counties of Bergen, Cape May, Monmouth, Morris, and Warren who were not inoculated in 1954. In all other counties children registered in 1955 in the first and second grades were eligi-

ble to receive the vaccine. The recommended procedure for administration was 1 cc at 0 week, 1 cc at 2 to 4 weeks, and a final booster dose of 1 cc seven months later. As of June 30, 1955, there were 71,033 children in New Jersey who had received the first inoculation of Salk vaccine.

#### GAMMA GLOBULIN

Gamma globulin was available in 1954 for administration to contacts of cases of measles, German measles, infectious hepatitis, and poliomyelitis. The rules applied for its distribution in 1953 were used again in 1954. There was, however, a clarification of the restrictions on the release of the material for contacts of cases of poliomyelitis. It read as follows:

"Distributing stations may release gamma globulin for the following contacts of poliomyelitis:

- (1) Household contacts of a reported case.
- (2) Individuals who have been intimately exposed in another household to a reported case during the last four days of the incubation period, or the first week of illness.

'Intimately exposed in another household' refers to persons who have been in a household under conditions resembling the intimacy of family living.

This does not include lesser degrees of exposure, such as contact at play, on street cars and buses, in stores, theaters, churches, day camps, schools, and other public places.

Dosage: 10 cc per individual.

Requests for withdrawal of gamma globulin for other purposes must be made directly to the State Department of Health."

Since the use of gamma globulin began as an anti-polio weapon all supplies had been obtained through the National Foundation for Infantile Paralysis and the American Red Cross. The Office of Defense Mobilization had controlled distribution under a voluntary system. The exclusive purchase contract expired October 1, 1954 and supplies were released for sale under physicians' prescriptions. When physicians in the State wished to make use of gamma globulin for purposes that did not come within the rules set by the Department, they were advised that the material was available for purchase commercially.

During the 1954 poliomyelitis season, gamma globulin was administered in mass immunizations to 7,789 children in 15 communities where an epidemic of poliomyelitis appeared to be started.

EDUCATION AND INFORMATION

Circular 191, "Communicable Diseases Among School Children," which was revised last year, was distributed in large numbers in January, 1955 by local boards of health and education, health officers and the State Department of Health. The booklet is intended to supplement the State Sanitary Code and State law relating to communicable diseases.

Legislation of interest to this Division which was enacted by the 1954 legislature was S-79, Chapter 263. This amends Sections 26:4-15, 16, 17, 18, and 19 of the Revised Statutes to conform existing laws as to the reporting of communicable diseases with the State Sanitary Code.

Staff members of the Division again took part in teaching the Basic Public Health Course conducted each year by the State Department of Health and Rutgers University for training sanitarians for employment in health departments and as preparation for the examination for sanitary inspector's license. In addition, lectures were given to graduate nurses who were taking courses in public health at Rutgers University.

A notice was placed in the February, 1955 issue of the Membership News Letter of the Medical Society of New Jersey to apprise physicians of rules concerning the distribution of gamma globulin.

PROGRAMS

Considerable time was given by the staff of the Division to the preparation of Program Evaluation Indices. Indices for the Venereal Disease Control and the Acute Communicable Disease Control programs were approved by the Commissioner's Staff Conference.

BOARD OF EXAMINERS OF HEALTH OFFICERS, INSPECTORS, AND PUBLIC HEALTH LABORATORY TECHNICIANS

The Director of the Division continued to serve as Chairman of the Board of Examiners of Health Officers, Inspectors, and Public Health Laboratory Technicians. The usually scheduled examinations were conducted.

DISABILITY INSURANCE SERVICE

The Disability Insurance Service of the Division of Employment Security is in the State Department of Labor and Industry, but the medical services needed to authorize the payments of benefits continued to be provided by the personnel of the Division of Preventable Diseases.

TABLE I  
REPORTED CASES OF NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE  
(Exclusive of Cerebral Palsy, Mental Deficiency, Tuberculosis and Venereal Diseases)  
New Jersey, 1954

COUNTIES	Amebiasis	Diphtheria	Epilepsy	Food Poisonings & Infectious	Hepatitis Infectious	Influenza	Malaria	Measles	Meningococcal Meningitis	Opthalmia Neonatorum	Pneumonia
Atlantic	0	0	0	0	0	0	0	0	0	0	0
Bergen	0	0	0	0	0	0	0	0	0	0	0
Burlington	0	0	0	0	0	0	0	0	0	0	0
Cape May	0	0	0	0	0	0	0	0	0	0	0
Cumberland	0	0	0	0	0	0	0	0	0	0	0
Essex	0	0	0	0	0	0	0	0	0	0	0
Hudson	0	0	0	0	0	0	0	0	0	0	0
Hunterdon	0	0	0	0	0	0	0	0	0	0	0
Mercer	0	0	0	0	0	0	0	0	0	0	0
Middlesex	0	0	0	0	0	0	0	0	0	0	0
Monmouth	0	0	0	0	0	0	0	0	0	0	0
Morris	0	0	0	0	0	0	0	0	0	0	0
Ocean	0	0	0	0	0	0	0	0	0	0	0
Passaic	0	0	0	0	0	0	0	0	0	0	0
Salem	0	0	0	0	0	0	0	0	0	0	0
Somerset	0	0	0	0	0	0	0	0	0	0	0
Sussex	0	0	0	0	0	0	0	0	0	0	0
Union	0	0	0	0	0	0	0	0	0	0	0
Warren	0	0	0	0	0	0	0	0	0	0	0
State Institutions	0	0	0	0	0	0	0	0	0	0	0
Military Posts	0	0	0	0	0	0	0	0	0	0	0
State Total	0	15	52	21	653	138	27	26,354	143	4	3,178

## DEPARTMENT OF HEALTH

TABLE I—Continued  
 REPORTED CASES OF NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE  
 (Exclusive of Cerebral Palsy, Mental Deficiency, Tuberculosis and Venereal Diseases)  
 New Jersey, 1934

COUNTIES	Poliomyelitis	Rocky Mountain Spotted Fever	Salmonellosis	Scarlet Fever & Streptococcal Sore Throat	Shigellosis	Tetanus	Trauma	Trichinosis	Typhoid Fever	Undulant Fever	Whooping Cough
Atlantic	10	0	1	20	0	0	0	0	0	0	10
Bergen	80	1	1	270	0	0	0	3	0	0	35
Burlington	31	1	0	46	1	2	0	0	3	0	64
Camden	62	0	0	100	1	0	0	0	1	0	131
Cape May	7	0	0	20	0	0	0	0	0	0	11
Cumberland	16	0	0	20	0	0	0	1	4	0	7
Gloucester	108	0	0	354	0	1	0	1	1	0	55
Hudson	41	1	1	23	0	1	0	0	1	1	12
Hunterdon	22	0	0	113	8	0	1	0	0	1	52
Madison	40	3	0	70	0	0	1	0	0	0	133
Mercer	31	1	0	147	0	1	0	0	13	2	87
Morris	75	1	2	55	2	1	0	0	1	2	20
Ocean	10	0	0	80	0	0	0	1	0	0	12
Passaic	44	1	0	102	0	0	0	0	0	0	62
Salem	7	0	0	112	0	0	0	0	0	0	4
Somerset	35	0	0	11	0	0	0	0	0	0	104
Sussex	83	1	1	45	0	0	0	0	0	0	4
Union	68	7	0	25	0	0	0	0	0	1	14
Warren	15	0	0	24	0	0	0	1	3	0	186
Washington	0	0	0	33	0	0	0	0	0	0	3
Military Posts	5	0	2	130	0	0	0	1	0	0	0
State Total	908	17	20	2,604	12	7	1	7	31	6	1,907

Notes: No reported cases of Anthrax, Botulism, Cholera, Dengue, Glanders, Leprosy, Leptospirosis, Plague, Q Fever, Rabies (human), Smallpox, Tularemia, Typhus Fever and Yellow Fever.

## DIVISION OF PREVENTABLE DISEASES

TABLE II  
 RECORDED DEATHS FROM REPORTABLE DISEASES BY COUNTIES  
 (Exclusive of Epilepsy, Mental Deficiency, Tuberculosis and Venereal Diseases)  
 New Jersey, 1934

COUNTIES	Disease and International List (6th Rev.) Numbers																
	Amebials (046)	Diarthera of Newborn (764)	Diphtheria (055)	Infections Encephalitis (052-053)	Infectious Hepatitis (092)	Influenza (450-453)	Malaria (110-117)	Measles (085)	Polio (046)	Scarlet Fever & Streptococcal Sore Throat	Shigellosis	Tetanus	Trauma	Trichinosis	Typhoid Fever	Undulant Fever	Whooping Cough
Atlantic	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Bergen	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
Burlington	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0
Camden	0	1	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0
Cape May	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumberland	0	1	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0
Essex	1	7	0	3	3	1	0	0	0	0	0	0	0	0	0	0	0
Gloucester	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Hunterdon	0	0	0	4	3	4	0	0	0	0	0	0	0	0	0	0	0
Hunterdon	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mercer	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
Middlesex	2	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0
Morris	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Ocean	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
Passaic	0	0	1	0	2	2	0	0	0	0	0	0	0	0	0	0	0
Essex	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
Somerset	0	0	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0
Sussex	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
Union	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Warren	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Washington	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
Military posts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
State total	4	18	1	17	17	26	1	7	31	6	1,907						

TABLE II—Continued  
RECORDED DEATHS FROM REPORTABLE DISEASES BY COUNTIES  
(Exclusive of Epilepsy, Mental Deficiency, Tuberculosis and Venereal Diseases)  
New Jersey, 1954

COUNTIES	Disease and International List (6th Rev.) Numbers						
	Meningococcal (057.0)	Polioviruses* (080-081)	Pneumonia (490-493)	Shigellosis (045)	Streptococcal Sore Throat (Including Scarlet Fever) (050-051)	Tetanus (061)	Typhoid Fever (040)
Atlantic	0	1	25	0	0	0	0
Bergen	1	6	106	0	0	0	0
Hurlington	0	1	59	0	0	0	0
Clenden	2	0	10	0	0	0	0
Cape May	0	0	0	0	0	0	0
Cumberland	0	0	20	0	0	0	0
Essex	0	0	188	1	0	0	0
Gloucester	0	6	1	0	0	0	0
Hamilton	1	4	161	0	0	0	0
Hantsdon	0	1	17	0	0	0	0
Mercer	1	2	59	0	1	0	0
Mid Essex	0	4	52	0	0	0	0
Monmouth	0	1	55	0	0	0	0
Morris	0	1	16	0	0	0	0
Ocean	1	1	0	0	0	0	0
Passaic	0	2	90	0	1	0	0
Paterson	0	0	11	0	0	0	0
Somerset	0	0	22	0	0	0	0
Sussex	0	0	6	0	0	0	0
Union	1	0	68	0	0	0	0
Warren	0	1	15	0	0	0	0
State institutions	0	0	4	0	0	0	0
Military posts	0	0	1	0	0	0	0
State total	9	37	1,110	1	2	3	1

\* Includes lino effects.  
Note: No recorded deaths from Anthrax, Botulism, Brucellosis, Cholera, Diphtheria, Leptospirosis, Ophthalmia, Necrotic Gangrene, Plague, Psittacosis, Q Fever, Rubella, Rocky Mountain Spotted Fever, Shistosomiasis, Smallpox, Trachoma, Typhoid, Typhus Fever, Whooping Cough, or Yellow Fever.

TABLE III  
CASES AND DEATHS FROM TYPHOID FEVER: 1954  
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	0	0	0	0	0	0
1 to 4 years	3	0	1	0	2	0
5 to 14 years	12	0	7	0	5	0
15 to 24 years	3	0	0	0	3	0
25 to 44 years	7	0	3	0	4	0
45 to 64 years	4	0	3	0	1	0
65 years and over	2	1	1	1	1	0
Unknown	0	0	0	0	0	0
All ages	31	1	15	1	16	0

TABLE IV  
CASES AND DEATHS FROM STREPTOCOCCAL SORE THROAT (Including Scarlet Fever): 1954  
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	9	0	5	0	4	0
1 to 4 years	533	0	288	0	245	0
5 to 14 years	1,268	1	639	0	629	1
15 to 24 years	133	0	122	0	31	0
25 to 44 years	33	1	15	1	15	0
45 to 64 years	5	0	0	0	5	0
65 years and over	0	0	0	0	0	0
Unknown	3	0	0	0	3	0
All ages	2,004	2	1,072	1	932	1

TABLE V  
CASES AND DEATHS FROM DIPHTHERIA: 1954  
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	1	0	1	0	0	0
1 to 4 years	2	1	1	1	1	0
5 to 14 years	3	0	2	0	1	0
15 to 24 years	7	0	0	0	7	0
25 to 44 years	1	0	1	0	0	0
45 to 64 years	1	0	0	0	1	0
65 years and over	0	0	0	0	0	0
Unknown	0	0	0	0	0	0
All ages	15	1	5	1	10	0

TABLE VI  
CASES AND DEATHS FROM WHOOPING COUGH: 1954  
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	176	0	85	0	91	0
1 to 4 years	466	0	230	0	236	0
5 to 14 years	1,285	0	577	0	708	0
15 to 24 years	40	0	16	0	24	0
25 to 44 years	16	0	8	0	8	0
45 to 64 years	8	0	0	0	8	0
65 years and over	2	0	0	0	2	0
Unknown	4	0	2	0	2	0
All ages	1,997	0	921	0	1,076	0

TABLE VII  
CASES AND DEATHS FROM MENINGOCOCCAL MENINGITIS: 1954  
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	11	2	5	0	6	2
1 to 4 years	31	3	22	2	9	1
5 to 14 years	24	0	14	0	10	0
15 to 24 years	53	1	51	1	2	0
25 to 44 years	14	1	6	0	8	1
45 to 64 years	7	1	4	0	3	1
65 years and over	2	1	1	1	1	0
Unknown	1	0	1	0	0	0
All ages	143	9	104	4	39	5

TABLE VIII  
CASES AND DEATHS FROM POLIOMYELITIS: 1954  
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	16	1	12	1	4	0
1 to 4 years	213	3	119	3	94	0
5 to 14 years	416	7	257	4	159	3
15 to 24 years	114	5	50	3	64	2
25 to 44 years	144	15	58	7	86	8
45 to 64 years	4	5	2	3	2	2
65 years and over	1	1	0	0	1	1
Unknown	0	0	0	0	0	0
All ages	908	37	498	21	410	16

TABLE IX  
CASES OF ACUTE POLIOMYELITIS BY MONTH BY COUNTY: 1954

AREA	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Atlantic County	19	0	0	0	0	0	0	2	3	7	3	2	1
Bergen County	29	1	0	0	0	1	4	6	16	19	18	19	6
Burlington County	31	0	0	0	0	0	3	5	12	6	4	1	0
Camden County	65	2	0	0	0	0	7	19	24	7	2	4	4
Cape May County	7	0	0	0	0	0	0	1	2	2	1	0	1
Cumberland County	13	0	0	0	0	0	1	6	1	3	2	2	1
Essex County	105	1	0	0	0	1	2	8	20	27	15	7	7
Gloucester County	41	0	0	0	0	0	0	7	14	11	7	2	0
Hudson County	57	0	1	0	0	0	0	2	14	11	21	5	8
Hunterdon County	22	0	0	0	0	0	2	2	0	5	8	1	4
Mercer County	40	0	0	0	0	0	1	0	6	12	11	7	1
Middlesex County	51	0	0	0	1	0	0	4	14	11	11	9	1
Monmouth County	75	0	0	0	0	0	0	4	11	17	21	14	8
Morris County	64	0	0	0	1	0	0	3	12	11	26	10	1
Ocean County	16	1	1	0	0	0	0	1	3	3	1	3	3
Passaic County	44	0	1	1	0	0	1	3	8	15	5	6	4
Salem County	7	0	0	0	0	0	0	0	2	4	1	0	0
Somerset County	55	0	0	0	1	0	1	2	5	5	14	3	4
Sussex County	14	0	0	0	0	0	0	0	2	4	4	0	0
Union County	52	0	0	0	1	0	1	11	16	27	19	10	1
Warren County	15	0	0	0	0	0	0	2	3	1	8	1	0
*State Institutions	0	0	0	0	0	0	0	0	0	0	0	0	0
*Military establishments	3	0	0	0	0	0	0	1	1	1	2	0	0
State Total	995	5	3	1	3	3	16	78	186	226	221	116	50

\* Not included in totals of counties where located.

TABLE X  
MALARIA: 1945-54

Year	Total No. Reported Cases	No. Cases in Military Personnel	No. Cases in Civilians	Probable Place of Infection of Civilian Cases		
				Out of State	New Jersey	Doubtful
1945	1,412	1,397	15	10	5*	0
1946	931	917	14	8	5†	1
1947	59	59	0	48	2	0
1948	36	33	3	11	2‡	0
1949	26	16	10	5	5	0
1950	11	5	6	3	1†	2
1951	371	355	6	6	0	0
1952	101	175	13‡	12	0	1
1953	6	3	3	2	0	1
1954	27	24	3	1	0	2
Totals	3,110	2,977	133	106	20	7

\* Two of these cases infected through blood transfusion.

† One of these cases infected through blood transfusion.

‡ Diagnosis not confirmed, based on clinical symptoms, on one of these cases.

TABLE XI

CASES AND DEATHS, WITH RATES AND PER CENT FATALITY: 1954  
FOR SELECTED REPORTABLE DISEASES

DISEASES	CASES		DEATHS		Per Cent Fatality
	No.	Rate*	No.	Rate*	
Chickenpox .....	0	...	0	...	...
Diphtheria .....	15	0.3	1	<0.1	6.7
German Measles .....	0	...	0	...	...
Influenza .....	133	2.7	26	0.5	18.8
Measles .....	26,534	523.2	19	0.4	0.1
Meningococcal Meningitis .....	143	2.8	9	0.2	6.3
Mumps .....	0	...	0	...	...
Pneumonia .....	3,178	62.7	1,110	21.9	34.9
Polymyelitis .....	908	17.9	37†	0.7	4.1
Rocky Mountain Spotted Fever .....	6	0.1	0	...	...
Streptococcal Sore Throat (Includes Scarlet Fever) .....	2,004	39.5	2	<0.1	0.1
Typhoid Fever .....	31	0.6	1	<0.1	3.2
Whooping Cough .....	1,997	39.4	0	...	...

\* Expressed per 100,000 estimated population.  
† Includes deaths from late effects.  
Note: <0.1 means less than 0.1.

## Annual Report

## Bureau of Venereal Disease Control

July 1, 1954—June 30, 1955

## MORBIDITY, MORTALITY AND TRENDS

Reported morbidity rates for venereal diseases must be regarded as a minimum estimate of incidence because these diseases are generally under-reported in spite of statutory requirements. All rates are expressed per 100,000 population.

From a high of 11.2 in 1940, the death rate for all syphilis dropped gradually to 2.7 in 1951. There was a slight rise to 2.9 in 1952 but a new low was established with a rate of 2.0 in 1954 when syphilis was listed as the cause of death for 99 persons, 64 of whom were white and 35 non-white. The death rate for whites was 1.4 per 100,000 and for non-whites, 10.3 per 100,000.

There has been a gradual decline in first admissions to mental hospitals due to syphilis in New Jersey. During the five-year period fiscal 1930-34, 9.8% of first admissions to State and county mental hospitals were due to syphilis. During the five-year period just completed, fiscal 1951-1955, the percentage in State mental hospitals was 1.4%.

With 10,125 cases reported, venereal diseases ranked second among the notifiable diseases for 1954. These diseases were outnumbered only by measles with 26,534 cases reported. The total of venereal disease cases reported was the largest in any year since 1949. The most striking feature of 1954 venereal disease morbidity data is the 41% increase in reported syphilis over 1953.

There were 5,334 cases of syphilis reported in 1954 and 3,783 in 1953 (Table I). New Jersey's reported syphilis rate rose from 75.6 to 105.2 (Graph I). Improved casefinding, including selective mass blood testing, and better reporting were largely responsible for this increase. In the fiscal year 1954 the reported syphilis case rate for the United States as a whole was 88.3 per 100,000 population.

The reported syphilis incidence rates by year since 1947 were: 197.0, 176.6, 162.9, 120.8, 82.0, 79.1, 75.6, and 105.2 (Graph I). The largest part of the increase in reported syphilis cases is attributable to private physicians, who reported a total of 2,817 cases, compared with 1,574 in 1953. While there were increases for every classification of syphilis, reports in the late and late latent categories showed the largest gain. The trend in early syphilis for the last several years had been downward. The peak year for primary and secondary syphilis was 1946 when 2,010 cases were reported and, after that year, the decline was consistent until 1953. However, the 206 cases of primary and secondary syphilis reported during 1954 represent an increase of 12.6% over 1953. Evidence that the increase in syphilis morbidity may be attributed chiefly to increased epidemiological activities is presented in Table IV, and discussed later in this report.

The reported gonorrhea incidence rates by year since 1947 were: 145.4, 107.2, 93.0, 81.4, 72.7, 102.3, 94.9, and 92.7 (Graph I). In the fiscal year 1954, the reported gonorrhea case rate for the United States as a whole was 152.7 per 100,000 population. During 1954 there were 4,703 cases of gonorrhea reported in New Jersey (Table I).

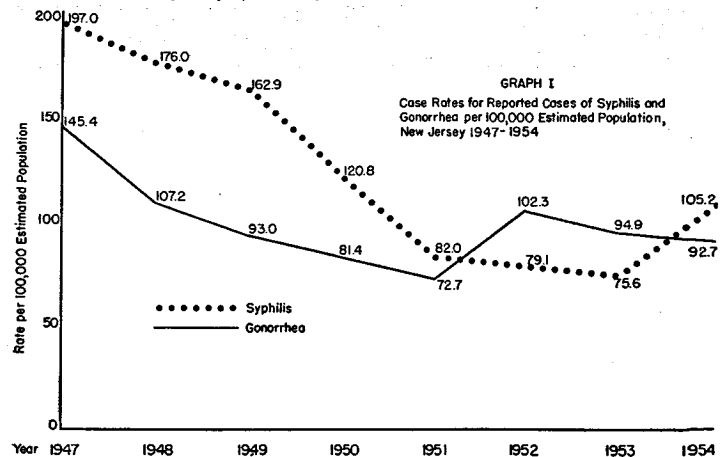




TABLE I  
 REPORTED CASES OF SYPHILIS,\* BY STAGE, AND OTHER VENEREAL DISEASES  
 BY REPORTING AGENCY, NEW JERSEY, 1952-1954

Disease	1954			1953			1952		
	Private Doctor	Clinics and Others†	Military	Private Doctor	Clinics and Others†	Military	Private Doctor	Clinics and Others†	Military
Syphilis	2,817	2,470	49	1,574	2,192	41	3,783	1,808	70
Primary and Secondary	110	74	22	396	72	31	3,783	1,808	70
Early Latent	638	530	23	476	629	18	1,023	498	31
Late and Late Latent	1,947	1,750	4	902	1,484	6	2,451	1,290	11
Not Stated	12	13	0	35	69	3	107	71	2
Gonorrhea	1,054	2,077	912	885	2,807	1,071	4,708	2,211	1,098
Chancroid	0	26	41	8	20	53	76	21	0
Gonorrhoea Inguinalis	0	1	0	1	6	1	7	2	0
Lymphogranuloma Venereum	2	10	2	3	17	5	23	4	5
Total	5,234	5,234	14	3,783	5,234	23	5,234	5,234	14

\* Includes all cases reported in New Jersey and venereal disease cases occurring to New Jersey residents reported in other States and referred to the Division of Vital Statistics and Administration.  
 † Hospitals, jails, reformatories, and other institutions.

The problem of obtaining more complete reporting of gonorrhea is complex. Laboratory services have been reduced and some physicians are reluctant to report a case on the basis of clinical evidence alone. The most discouraging aspect of under-reporting in gonorrhea is that relatively little follow-up can be done, which accounts, in part, for the disproportionate number of males, 2,893, in the total cases reported. Until the number of females treated for gonorrhea approaches the number of males reported with gonorrhea, the control of gonorrhea is not within reach.

Venereal disease among young people is a matter of major concern. Of the 3,759 cases of gonorrhea reported in 1954 among civilians, 1,851, or 49.2% were in the age groups 10 to 24. The group 15 to 29 produced 72.5%. Infectious syphilis is likewise a problem of young people. Herein lies a crucial point in venereal disease control. Sexual activity under the age of 25 involves, in many instances, illicit relations with at least one unmarried individual. This contributes to reticence in seeking medical care for symptoms of venereal disease, since the patient feels as if he tacitly admits illegal sex behavior by presenting himself for diagnostic observation. In addition, transitory symptoms of early syphilis and, in the female, scant evidence of gonorrheal infection are often not sufficient to motivate uninformed individuals to consult a physician.

There remain areas in the state which serve as pockets of high prevalence; areas where venereal disease rates are considerably higher than those for the state as a whole. Table II presents a breakdown of syphilis and gonorrhea numbers and rates by District and county and Table III, a breakdown by District and selected city. Comparing these data with those for 1953, it is noted that all counties, except Mercer, Middlesex, Monmouth, and Cape May, and 12 of the 14 selected cities were involved in the increased syphilis morbidity picture.

The Central and Southern Districts show syphilis rates that are substantially higher than the rate for New Jersey as a whole, in spite of the fact that the Central District has two counties and the Southern District, three counties in which the rates are lower than that for the state. In the Metropolitan District, there were reported 5,273 cases of syphilis and gonorrhea, the majority of which was reported in Newark. From a quantitative standpoint, the City of Newark accounted for more cases of venereal disease than the Southern and Central Districts combined. One fact of great significance is that the number of cases of syphilis reported from Newark rose from 593 in 1953 to 1,350 in 1954. These figures represent rates of 131.2 and 295.4 per 100,000 population, respectively. No essential changes, except the serological survey (discussed later in this report) and its attendant publicity, were observed in the program during 1954. It is fair to assume, therefore, that the survey significantly raised the "index of suspicion" of individual citizens and the

medical profession in Newark, since the number of persons treated as a direct result of follow-up could not account for the difference in rates.

In each city and county where the rate for gonorrhea or syphilis exceeds the rate for the state, the Venereal Disease Control Program focuses its case-finding techniques in order to reduce, area by area, the existing reservoirs of infection. For the Northern District, the minimum objective is to maintain the rates at their present level, chiefly through contact and suspect tracing, until such time as comparable gains shall have been made in other Districts.

TABLE II

SYPHILIS AND GONORRHEA CASES AND RATES\* BY DISTRICT AND COUNTY OF RESIDENCE, NEW JERSEY, 1954

AREA	Syphilis		Gonorrhea	
	Number	Rate	Number	Rate
New Jersey .....	5,334	105.2	4,703	92.7
Northern District .....	149	35.7	39	9.4
Hunterdon County .....	16	36.4	5	11.4
Morris County .....	62	35.6	16	9.2
Somerset County .....	32	30.2	8	7.5
Sussex County .....	12	33.3	4	11.1
Warren County .....	27	47.4	6	10.5
Metropolitan District .....	2,756	93.1	2,517	83.0
Bergen County .....	221	88.6	46	8.0
Essex County .....	1,700	180.3	1,836	194.7
Hudson County .....	390	57.9	229	34.0
Passaic County .....	101	54.3	295	83.8
Union County .....	254	60.5	111	26.4
Central District .....	1,200	124.6	735	70.3
Burlington County .....	85	59.4	35	24.5
Mercer County .....	399	165.6	805	126.6
Middlesex County .....	289	102.1	165	58.3
Monmouth County .....	297	167.5	220	92.8
Ocean County .....	30	80.8	19	16.9
Southern District .....	941	128.7	892	53.6
Atlantic County .....	222	163.2	66	48.5
Camden County .....	216	68.4	160	50.6
Cape May County .....	26	70.3	19	51.4
Cumberland County .....	316	339.8	108	116.1
Gloucester County .....	84	86.6	22	22.7
Salmon County .....	17	148.1	17	32.7
Institutions .....	139	†	†	†
Military Posts .....	49	†	944	†
Out-of-State .....	110	†	57	†
Unknown .....	...	...	...	...

\* Rates expressed per 100,000 estimated population.

† Rates not computed due to lack of population base.

TABLE III

SYPHILIS AND GONORRHEA CASES AND RATES\* BY DISTRICT AND SELECTED CITY OF RESIDENCE, NEW JERSEY, 1954

AREA	Syphilis		Gonorrhea	
	Number	Rate	Number	Rate
New Jersey .....	5,334	105.2	4,703	92.7
Northern District .....	149	35.7	39	9.4
Metropolitan District .....	2,756	93.1	2,517	83.0
Bayonne .....	32	33.5	2	2.5
Clifton .....	16	23.2	1	1.4
East Orange .....	131	159.8	43	52.4
Elizabeth .....	72	61.0	30	25.4
Hoboken .....	25	30.0	6	11.5
Irrington .....	19	30.6	...	...
Jersey City .....	274	88.1	217	69.8
Newark .....	1,350	295.4	1,721	376.6
Passaic .....	39	66.1	20	33.9
Paterson .....	122	84.7	267	185.4
Union City .....	12	21.1	2	3.5
Central District .....	1,200	124.6	735	70.3
Trenton .....	303	229.5	274	207.6
Southern District .....	941	128.7	892	53.6
Atlantic City .....	138	254.8	65	88.7
Camden .....	140	103.5	135	104.7

\* Rates expressed per 100,000 estimated population.

EPIDEMIOLOGIC ACTIVITIES

The quantitative and qualitative aspects of epidemiologic activity have improved steadily since 1950. Table IV indicates that a total of 10,877 contacts and suspects were referred for investigation during 1954. Of these referrals, 8,112, or 74.6%, were brought to examination. Of those examined, 3,470 (42.8%) required treatment. The best index of investigative efficiency is the percent of referred suspects brought to examination. This percentage for contacts was 48% in 1951, 56.6% in 1952, 56.1% in 1953, and 61.6% in 1954. For suspects other than contacts, the figure of 83.2% brought to examination represents good follow-up of such referrals. Not shown in Table IV are the wide variations in results from District to District. Breakdowns of 1954 epidemiologic activity were made by District and forwarded to each District State Health Office with appropriate comments.

Quantitatively, the epidemiologic activities reported to the Bureau have gained significantly since 1950. The total number of referrals in 1954 (10,877) is nearly four times the number completed in 1950 (2,772). The figure for 1954 does not include 727 referrals of venereal disease suspects made by the Bureau to other states, nor does it include approximately 1,500 contacts of military personnel which were referred directly by military installations in New Jersey to other state departments of health.

One needs only to correlate the data contained in Table IV with reported morbidity data in Table I to appreciate the impact of case-finding activity on reported case rates. A total of 5,734 infections were identified by follow-up procedures and a large proportion of these were reportable cases. Of the 206 cases of primary syphilis reported in 1954, 46 were brought to treatment directly through contact and suspect investigation. No figure is available for

TABLE IV  
Results of Investigation of All Venereal Disease Suspects Reported  
New Jersey, 1954

Type of Suspect	Total Number	Brought to Treatment					Infections Identified										Not Infected—Not Examined				
		F & S	M, L, S	O	GC	OVD	Returned to Rx—Syphilis	Returned to Rx—GO	Under Rx Time of Invest.	Prev. Rx Adeq.	No Prev. Rx	Dpl. Rx	Not Inf.	Un-operative	Unable to Locate	Out of Jurisdiction	Instrument Inform.	Other	No Reply		
Contacts	3,253	12	30	12	844	10	18	3	94	84	627	754	80	701	63	188	64	132			
Of Military Syphilis	501	2	4	1	33	3	2	1	6	6	141	89	13	153	9	77	2	31			
Primary and Secondary	22	1	3	1	1	1	1	1	1	1	2	15	1	2	1	1	1	1			
Early Latent	13	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Other Syphilis	535	1	1	1	53	2	1	1	4	4	139	64	12	148	8	74	1	31			
Gonorrhea	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Of Other Venereal Diseases	2,664	10	25	12	289	7	16	3	87	78	486	665	67	606	86	111	52	101			
Syphilis																					
Primary and Secondary	198	1	2	1	4	1	1	2	2	5	1	73	3	21	5	3	9	6			
Early Latent	207	1	1	1	3	2	1	1	1	1	148	8	35	13	11	7	21				
Other Syphilis	229	1	5	2	2	2	1	1	19	3	242	11	11	19	4	2	18	0			
Of Other Venereal Diseases	1,972	1	7	3	280	4	3	3	70	39	470	343	48	529	63	95	18	68			
Other Venereal Diseases	7,627	9	23	13	378	4	1,029	1	9	2,337	3	14	1,910	169	530	210	1	160	443		
Positive Test and Other Suspects	3,061	1	11	5	271	7	41	1	446	2,337	71	41	1,910	169	530	210	1	160	443		
Pre-employment	243	1	13	35	1	32	3	3	33	83	3	6	49	12	16	17	5	36	36		
Prenatal	238	2	8	16	1	41	1	1	42	51	2	29	4	13	9	6	2	24	18		
Private Physicians' Lab. Report	3,641	17	84	27	7	2	529	1	311	701	37	15	253	162	102	2	112	240			
Separate	60	1	3	1	1	1	1	1	1	6	5	2	2	2	2	2	1	2	7		
Survey	3,435	8	209	580	2	5	342	1	117	23	1	12	2	2	2	6	1	3	1		
Miscellaneous	163	1	2	8	12	3	18	3	1,179	23	1	20	0	23	11	1	23	81			
All Contacts and Suspects	10,857	46	333	970	305	17	1,047	4	540	2,321	71	668	1,706	189	1,391	305	107	214	575		

the additional number of primary and secondary cases identified, and subsequently reported, in the categories "Returned to Treatment," "Under Treatment at Time of Investigation," and "Previous Treatment Adequate."

Perhaps the major area of deficiency in the statewide venereal disease control program is the failure to interview many infected patients for sex contacts. Some indication of the extent of this problem is found in the relatively low contact index. The contact index is obtained by relating the numbers of contacts reported for investigation to the numbers of infectious cases diagnosed in clinics, hospitals, and institutions. The standard set for such activity is 2.7 and 1.1 contacts per case of lesion syphilis and gonorrhea, respectively. Records kept by the Venereal Disease Program show a contact index among civilians of 1.91 for lesion syphilis and .58 for gonorrhea. The contact index among civilians interviewed by investigators during 1954 was 3.57 for patients with primary and secondary syphilis and 1.62 for gonorrhea patients. The extension of the services of trained personnel seems indicated in order that a larger proportion of diagnosed patients be interviewed and that their contacts be reported and placed under medical care.

#### SPECIAL CASE-FINDING PROJECTS

The placement of trained venereal disease control personnel was continued during the fiscal year 1955. As of June 30, 1955, specialized personnel were assigned to the four District State Health Offices, in addition to special full-time assignments to the Newark Department of Health and Monmouth County. Personnel assigned to the Districts vary from performing a full-time field operation to half-time in the field and half-time in the District Office. Such assignments are now an integral part of the program and are well received by the Districts and local health departments, where they provide consultative and direct field services.

Other special projects consisted chiefly of selective serologic surveys. Results of bloodtesting operations in Newark in May and June, 1954 were tabulated during fiscal year 1955. Some salient points from the evaluation of this survey are:

1. A total of 19,963 persons received blood tests at street corner testing stations in carefully selected areas of the city during the period May 19 through June 26, 1954.
2. Of the number tested 15,594 were Negroes, 4,071 were whites, and 298 were of other or "not stated" races. The rates of reactivity were 10.8% for Negroes and 2.8% for whites, with an overall positivity rate of 9.1% for the survey.
3. Approximately 24% of the Negro population 10 years old or more were tested.

4. Nearly 30% of the reactors required treatment for syphilis.
5. 75% of the Negroes tested were born elsewhere and consistently gave higher positivity rates than those born in Newark.

Following this community survey, several other surveys were done in urban and rural communities. A total of 14,671 persons were tested in these smaller surveys with the result that 2,252, or 15.3%, were reactive for syphilis. It is obvious from the high proportion of reactive specimens that serologic surveys can be very productive if "pin-point" selection is exercised in the choice of areas and population groups to be tested.

The Bureau has found it necessary to provide a variety of services in connection with survey activities. It is always necessary to provide personnel for all or part of activities such as advance work, scheduling, clerical functions, and taking blood specimens. It also has been necessary to provide medical and technical personnel to supplement local facilities for the laboratory and clinical procedures involved in initial screening and diagnostic work.

#### VENEREAL DISEASE AMONG MIGRANT WORKERS

During the summer of 1954, a total of 3,288 migrants employed in agriculture received blood tests in three permanent clinics established in areas of heavy migrant concentration and in a mobile unit operated for about six weeks during the peak season.

Patients were examined according to the following policies:

1. All persons over 12 years of age were tested serologically for syphilis.
2. Genital and mouth inspections were performed on all males.
3. More complete physical examinations were performed on:
  - (a) Persons having positive or doubtful serological tests for syphilis.
  - (b) Contacts to cases of infectious venereal disease.
  - (c) Persons complaining of or manifesting obvious signs or symptoms of disease.

As in previous years, persons tested were predominantly young male adults.

Of the 3,288 persons tested serologically in 1954, 749 or 22.8% were reactive for syphilis. This confirms the fact that migratory agricultural workers still constitute a group of very high syphilis prevalence. In 1953 the proportion reactive for syphilis was 25.2%. Of the total of 758 suspects investigated (9 forwarded from other states), 645 or 85.1% were brought to examination. Although lower than the proportion in 1953, which was 95.6%, this percentage still represents good follow-up considering the transient nature of the migrant laborer.

The number of people treated for syphilis dropped from 406 in 1953 to 232 in 1954. Many individuals were not treated because they were judged either to have had adequate treatment previously or not to be infected with syphilis. Records of previous blood tests and previous therapy for many who return to New Jersey year after year are now accumulating to assist physicians in ruling out the need for treatment. Also, when patients with positive results on STS gave a fairly reliable history of previous treatment elsewhere, they were not required to return for re-treatment.

With regard to contact investigation, thorough epidemiological study was very difficult in the migrant health clinics for several reasons:

1. There was inadequate space for proper contact interviewing.
2. Lack of privacy in interviewing reduced the effectiveness of this activity.
3. In crowded clinic situations, physicians often failed to refer patients for interview.
4. Interviewers were often pressed into service as clerks or bloodletters in order to process large numbers of patients during short clinic sessions.

In addition to those employed in agriculture, migrant workers were also tested at three large tracks devoted to horse racing. A total of 1,172 such workers had serological tests for syphilis during 1954. Of these, 180, or 15.4%, were reactive for syphilis. Of the reactors 59, or 33%, were treated. As in the agricultural migrant group, more than half of the suspects examined were declared previously adequately treated or not infected with syphilis.

Many thousands of migrants other than the groups reported are tested each year in New Jersey. The State Department of Health has urged hotels, manufacturing industries and others who employ migrants to perform the required health examinations. The result of this emphasis has been that a major share of the responsibility for examining migrant workers has been assumed by employers.

#### EDUCATION AND INFORMATION

One of the more important events of the year was the Venereal Disease Control Seminar for the New England and Middle Atlantic States which was held in Atlantic City in March, 1955. Topics for discussion included current fiscal, medical, educational, and epidemiologic problems in venereal disease control. Dr. Aaron Haskin, Health Officer of Newark, gave a paper "A Selective Blood Testing Program in Newark," and the Program Coordinator presented a paper "Venereal Disease in Migrant Agricultural Workers." This meeting, of two days duration, was co-sponsored by the Department and the Public Health Service. There were 226 individuals registered at the seminar.

The Chief of the Bureau participated in a radio panel discussion on Newark's station WAAT in March. The half-hour program was sponsored by the American Social Hygiene Association and dealt with the present-day importance of the venereal disease problem, particularly as it relates to teenagers and young adults.

In April the Program Coordinator attended the Seventh Annual Symposium on Recent Advances in the Study of Venereal Diseases in Washington, D. C. This meeting, attended by private practitioners and public health personnel, produced discussions of a variety of problems in research, in treatment, and in the epidemiology of the venereal diseases. National and international figures in the field of venereal disease control were present.

A notice was placed in the Journal of the State Medical Society that another therapeutic agent for syphilis, bicillin, was being distributed to physicians, without charge. An additional notice indicated the availability of the Treponema Pallida Immobilization Test through the Department.

In August, 1954, there was printed in "Public Health News" an article prepared by the Association of State and Territorial Health Officers, American Venereal Disease Association, and the American Social Hygiene Association. This "Joint Statement on the Present Status of Venereal Disease Control and Future Needs" highlighted the increased venereal disease rates which occurred in many states and large cities following reductions in funds for venereal disease control and outlined fiscal and program needs for the future. The New Jersey Venereal Disease Control Program contributed statistical data and other materials for the preparation of this nationwide report.

From a practical standpoint, perhaps the most effective educational effort of the year was realized through selective serological surveys. It is believed that the following were important concomitant values:

1. The interest of voluntary and official agencies in venereal disease control was stimulated.
2. The interest and participation of the general public was aroused, thus stimulating discussion of venereal disease. Such discussion in itself helps to disseminate information and remove the veil of stigma which has shrouded the venereal diseases for so long. Pamphlets and public information offered factual information which enhanced the value of "word-of-mouth" communication.
3. Greater interest and participation by the medical profession almost invariably accompanies a blood-testing operation. A blood test is more likely to be included in the physician's routine examination of his patients, which ultimately will be reflected in venereal disease morbidity.

#### DRUG DISTRIBUTION

The Venereal Disease Control Program distributed drugs for the treatment of venereal disease without charge to physicians, clinics and hospitals. Requests for drugs are required of all agencies using this service and distribution is made to venereal disease clinics semi-annually on the basis of case loads.

An important advance in venereal disease control was made during the fiscal year 1955 when the Department ordered a supply of a new antibiotic, bicillin, which will permit the treatment of the vast majority of syphilis patients with a single injection of the drug. Utilizing the new drug, the case-holding problems should be minimal. A considerable saving in personnel costs in public clinics and expense to private patients should result from the use of this new preparation.

#### PERSONNEL

The staff of the Venereal Disease Control Program, as of June 30, 1955, consisted of the following personnel:

##### *Administrative*

Chief  
Health Program Representative

##### *Field*

3 Health Program Representatives (District and Field)  
1 Public Health Adviser (District and Field)  
1 Project Coordinator (Selective Survey)  
2 Venereal Disease Investigators (Field)

##### *Clerical*

1 Senior Clerk  
1 Clerk-Stenographer  
3 Clerks (1 temporary)

One of the clerk positions was added during the year in order to process and tabulate the increased volume of venereal disease suspect referrals.

# Report of the Division of Vital Statistics and Administration

July 1, 1954—June 30, 1955

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MARGUERITE F. HALL, Ph. D., *Director*

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Bureau of Administrative Services .....JOHN B. VAN ELLIS  
*Chief*

Bureau of Examination and Licensing .....KENNETH J. CARHART  
*Chief*

Bureau of Personnel and Accounts .....WILLIAM R. PEEBLES, B. A.  
*Chief*

Bureau of Public Health Statistics .....F. MERTON SAYBOLT, B. S., M. S. P. H.  
*Chief*

State Registrar of Vital Statistics .....F. MERTON SAYBOLT, B. S., M. S. P. H.  
*State Registrar*

## Division of Vital Statistics and Administration

July 1, 1954—June 30, 1955

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MARGUERITE F. HALL, Ph. D., *Director*

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The Division of Vital Statistics and Administration continues to operate principally as a service unit to the Department. Nine program coordinators with the Director are responsible as participating personnel in those Department programs assigning activities to the Division as well as for those programs emanating within the Division itself.

By the close of the fiscal year, the nine programs for which the Division was committed were completed and distributed in bound volumes to the various units in the Department. A tenth program designed by the Commissioner's Office was transferred to this Division. These programs follow:

- Departmental Training—1a
- Administrative Services—71a
- Distribution of Biologics—71b
- Examination and Licensing—72
- Board of Barber Examiners—72a
- Board of Beauty Culture Control—72b
- Fiscal Accounts—73a
- Personnel Program—73b
- Vital Statistics Registration—74a
- Public Health Statistics—74b

The Director has continued to give considerable time to all Department programs operating and integrating with the services offered by the Division. Particular emphasis was given to the preparation and review of the Evaluation Section IV of Department programs. The application of Section IV of each program for which the Division is responsible was begun. This technique proved its value in budget preparation.

Morbidity reporting has consistently been improving. Problems still arise in connection with tuberculosis morbidity reporting. As tuberculosis registers become operating at the local level these problems should be lessened. The Division through its Public Health Statistics Program has given increasing services which aid the State's participation in the Polio Vaccine Study carried

out under the direction of the Poliomyelitis Surveillance Unit of the Public Health Service.

The Division has increased its services in the areas of Chronic Illness Control. The Department's commitment in Phases I, II and III of the Hunterdon County Health Survey—a commitment begun in 1952—was completed by the close of 1954. A preliminary summary of the above phases has been prepared for the Department's use.

Cooperation with the American Cancer Society adds strength to the Department's Cancer Control Program especially in the development of cancer registers.

Significant administrative problems challenging the Director working with Division personnel are inherent in the nature of the Division services such as:

1. Helping interpret to Department personnel those services centralized in the Division;
2. Trying to meet shortages of qualified personnel through orientation and inservice training;
3. Improving, whenever and wherever possible, inadequate housing by constant vigilance over property including equipment, materials and supplies, as well as by continual review and improvement of work methods.

#### Bureau of Administrative Services

July 1, 1954—June 30, 1955

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JOHN B. VAN ELLIS, *Chief*

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Functions of the Administrative Services Program include the design and production of educational materials; maintenance and display of exhibits; maintenance of audio-visual aids; warehousing and distribution of materials and supplies; production of printed materials, mimeographing, addressographing and mailing services.

The Distribution of Biologics Program is also administered by this Bureau. Personnel at the end of the fiscal year for all activities totaled fifteen.

Requests for all services of the Bureau have increased to the degree that personnel and facilities are completely and constantly taxed. In the past, the general work load was such that most of the requests received could be handled by the Bureau through temporary reassignment of personnel from one activity to another. This procedure is no longer possible.

#### HEALTH EDUCATION SERVICES

Several new exhibits were completed for various Programs of the Department. A considerable increase in the use of all health education exhibits was noted.

Catalogs, including illustrations, of exhibits available have been prepared and were distributed to each of the District State Health Offices.

Both professional and lay film bookings increased during the year. Lay film bookings are made for the Department by the New Jersey State Museum. Attendance reports received from the Museum indicate that these films were seen by a minimum of 170,000 persons.

While a few new films were purchased by the Department, there is a definite need for many additional films. It was again necessary to withdraw from circulation several films which were no longer usable, and which in most instances have not been replaced.

A new multilith printing press was purchased by the Division of Chronic Illness Control. This was necessary due to the considerable increase in the work completed for Chronic Illness activities.

#### WAREHOUSE

Printed materials, office supplies and nurses' field supplies were stored and distributed on a department-wide basis. A perpetual inventory was maintained for all items.

Considerable time was devoted to other projects such as large mailings requiring special packaging, mimeographing and many special truck deliveries.

Storage facilities in the warehouse are still inadequate, to the degree that many items could not be accepted for storage and processing. It has been determined that additional storage space at least equal to the present storage space in the warehouse is required in order to properly serve all Programs of the Department. There are still a few Programs in the Department for whom the warehouse cannot render any services.



**Distribution of Biologics**

July 1, 1954—June 30, 1955

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 LYLE G. COOK, *Distributor of Biologics*


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Demand for biologics during the fiscal year continued high.

Two additional distributing stations were established in this period which makes a total of sixty-eight distributing stations serving the physicians and local boards of health, without charge, at strategic points in the twenty-one counties of the state.

The following biologics were distributed during the fiscal year:

- Diphtheria Toxoid, alum precipitated
- Smallpox Vaccine
- Diphtheria-Tetanus-Pertussis (fluid)
- Diphtheria-Tetanus-Pertussis (alum refined)
- Typhoid Vaccine
- Rocky Mountain Spotted Fever Vaccine
- Rabies Vaccine (human)

Also made available to the State by the American Red Cross and the National Foundation for Infantile Paralysis was Gamma Globulin in 2cc and 10cc vials which were placed in our distributing stations.

Gamma Globulin distribution for Poliomyelitis, Measles and Infectious Hepatitis, showed a 900% increase over the previous fiscal year. This entailed a considerable amount of additional field and office activity.

Aureomycin, Bicillin, Penicillin and other drugs were distributed for the Venereal Disease Program, as was Canine Rabies Vaccine for the Rabies Control Program. Also the State allotment of Salk Vaccine received from the National Foundation for Infantile Paralysis was distributed to the District State Health Offices.

A large supply of biologics was maintained in our warehouse refrigerator from which daily requests of distributing stations ordering new supplies were packaged and mailed.

A daily inventory of all warehouse biologics was maintained and records were made of all materials sent to distributing stations.

Records were also kept of the release of biologicals from distributing stations and to whom these biologicals were released.

During the year one hundred and twelve field trips were made in maintaining the Department's policy of constant supervision of all distributing stations. On these visits local problems governing biologic and Gamma Globulin distribution were corrected, inventories and supplies checked and expired biologics collected.

**Bureau of Examination and Licensing**

July 1, 1954—June 30, 1955

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 KENNETH J. CARHART, *Chief*


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The progress of the programs coming under the title "Examination and Licensing" may not be easily measured inasmuch as it provides services that are difficult to measure as to effectiveness.

A service initiated in 1953-54 and accomplished in 1954-55 was a listing forwarded to our District State Health Offices of all known and approved Public Water Supply Systems, Public Water Treatment Plants, and Public Sewage Treatment Plants including ownership of licenses required and name of operator-in-charge. It is anticipated this kind of information will relieve engineering staffs at District levels of a great deal of clerical time.

Licenses for all programs have been re-designed and it is anticipated that again greater efficiency and also more rapid service will be provided license holders.

Studies have been continuous in the efforts to improve examination techniques; definite steps being initiated in providing examination materials on a current basis.

The number of applicants for examinations during this period definitely increased which perhaps may be the result of our population trend and public participation in community health needs of licensed personnel.

During this period 87 examinations were conducted with 1,868 examined, resulting in \$232,732.50 revenue being received.

## Board of Barber's Examiners

July 1, 1954—June 30, 1955

FRANK MARCHESE, *Secretary-Treasurer*

The report discloses that during the past year there has been an increase in the number of candidates examined. This may be attributed to the fact that employment in factories has fallen off and former licensees are returning to the trade.

A new style of license was initiated with the anticipation of providing more sufficient service to the various license holders.

GENERAL SUMMARY OF WHAT HAS BEEN ACCOMPLISHED BY  
THE BOARD OF BARBER EXAMINERS

Number of shops inspected .....	11,642
Special Investigations .....	2,753
Shops found with sanitary violations .....	529
Reinspections .....	529
Hearings held .....	17
Shop licenses suspended as a result of a hearing .....	6
Court Cases .....	1
Convictions .....	1
Barbers found working with expired certificate .....	79
Barbers found working without a certificate .....	59
Shops found operating with expired license .....	35
Shops operating without a license .....	23
Complaints received from public .....	26
Shops reported out of business .....	78
Barbers reported deceased .....	155
Number of applicants scheduled for examination .....	550
Barbers examined .....	462
Barbers passed examinations .....	357
Applicants failed to appear for an examination .....	88
Barbers failed to pass examinations .....	105
Forfeited fees .....	26
Incoming mail .....	13,925
Outgoing mail .....	18,658

## STATEMENT OF REVENUE

FISCAL YEAR ENDED JUNE 30, 1955

*License Revenues*

8,014 Renewal Fees @ \$5.00 .....	\$40,070.00
17 Renewal Fees @ \$3.00 .....	51.00
316 Restoration Fees @ \$10.00 .....	3,160.00
362 Certificates Issued by Examination @ \$5.00 .....	1,810.00
250 Apprentice Certificates @ \$3.00 .....	750.00
519 Examination Fees @ \$15.00 .....	7,785.00
4,169 Shop License Renewals @ \$5.00 .....	20,845.00
143 Shop License Renewals @ \$10.00 .....	1,430.00
* 273 Shop Licenses @ \$25.00 .....	6,825.00
114 Barber Shop Removals @ \$5.00 .....	570.00

Total License Revenues .....	\$83,296.00
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## STATEMENT OF ACCOUNTS

AT JULY 1, 1955

*Debits*

Cash in Bank .....	\$33,695.00
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*Credits*

State Treasurer 1955 Revenues .....	762.00
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*1956 Revenues (Collected in June)*

Renewal Fees .....	\$20,233.00
Restoration Fees .....	70.00
Shop License Renewals .....	11,265.00
New Shop Licenses .....	500.00
Shop Removals .....	10.00
Application Fees .....	855.00

Total 1956 Revenues .....	\$32,933.00
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Total Credits .....	\$33,695.00
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\* 273 Shop Licenses @ \$25.00 represents:

136 New Shops
137 New Owners

273 Total of New Shop Licenses Issued

## Board of Beauty Culture Control

July 1, 1954—June 30, 1955

RAYMOND V. SANTORO, *Secretary*

Since combining various types of applications into one, the work in the office has been expedited.

The distribution of information cards regarding annual renewals to beauty shops and persons engaged in the beauty culture profession prior to renewal season has eliminated the returning of many applications which formerly were submitted to this office with incomplete information and incorrect fees.

During this period the number of applicants for examination has increased considerably.

A program has been initiated with Rutgers University for a 50 clock hour teachers training course in beauty culture. A course at Rutgers University for shop owners on public relations, office management and merchandising also is anticipated.

## BOARD OF BEAUTY CULTURE CONTROL

## STATEMENT OF REVENUE

FISCAL YEAR ENDED JUNE 30, 1955

*License Revenues*

1,291 Student Registration Permits @ \$2.00 .....	\$2,582.00
510 Senior Student Operator Permit @ \$2.00 .....	1,020.00
316 Temporary Permit @ \$15.00 .....	4,740.00
9 Demonstration Permit @ \$10.00 .....	90.00
363 Shop Initial Licenses @ \$25.00 .....	9,075.00
3,508 Shop Renewal Licenses @ \$6.00 .....	21,048.00
2 School Initial Licenses @ \$100.00 .....	200.00
15 School Renewal Licenses @ \$50.00 .....	750.00
6,765 Operator Licenses @ \$4.00 .....	27,060.00
6,224 Manager-Operator Licenses @ \$7.00 .....	43,567.00
153 Teachers Licenses @ \$10.00 .....	1,530.00
60 Duplicate Licenses @ \$2.00 .....	120.00
1,138 Examination Fees @ \$10.00 .....	11,380.00
240 Restoration Fees @ \$20.00 .....	4,840.00
197 Manicurists Licenses @ \$4.00 .....	788.00
48 Demonstrator Licenses @ \$10.00 .....	480.00
Excess Fees .....	10.50
Violations .....	14,617.50
Prior Years Licenses .....	221.00
177 Reciprocity Fees @ \$20.00 .....	3,540.00
Total License Revenues .....	\$147,659.00

## Bureau of Personnel and Accounts

July 1, 1954—June 30, 1955

WILLIAM R. PEEBLES, *Chief*

The evolution of certain new health programs and the expansion of other health programs demanded certain adjustments and realignments in our organizational pattern and in our accounting procedures. In addition, the limitations of existing physical facilities became more pronounced. The Bureau of Personnel and Accounts was assigned the tasks of considering and recommending the personnel, fiscal and physical adjustments necessary to meet the problems concerned, as well as the task of maintaining existing departmental personnel and fiscal policies and procedures.

The Personnel Section of the Bureau was concerned with the establishment and allocation of positions needed in the new and expanding programs, and with the recruitment of qualified persons to fill newly created and existing vacancies. Specifications for new positions were written, and, in many instances, specifications for older positions were reviewed and rewritten as working situations indicated functional shifting of responsibilities. Approximately thirty positions were reclassified during this period.

As of July 1, 1954, a general upward revision of all professional and technical salary ranges was accomplished in cooperation with the State Department of Civil Service.

The orientation course and the refresher course in stenography, which were instituted in fiscal year 1952-1953, were continued, as was the personnel administration of the Professional Training Program. The in-service training programs for Administrative Assistants to Division Directors and the telephone conduct courses were continued. Several lecture courses on the new Retirement System plan were conducted for the benefit of our employees.

The new integrated Public Employees' Retirement plan was instituted as of January 1, 1955, and all interested employees were enrolled in the plan and also covered by the Federal Social Security Program.

A new Kardex record system was devised and installed in the Personnel Office. The new system allows for more rapid posting, greater accessibility to records, and is much more compact.

The Departmental personnel program was completed and was approved by the Commissioner's Staff during this period.

The Accounting Section of the Bureau was concerned primarily with the proper accounting of all monies received and expended by the various organizational units of the Department, and with the adjustments to procedures made necessary by the changing health programs. Several accounting procedures were revised in order to further simplify the system; to provide greater controls; and to provide increased fiscal information for the Program Coordinators.

The analysis of time spent on the job by each employee on each of the health programs, and its relationship to the allocation of funds, was accomplished on two separate sample weeks. Comprehensive cost studies of laboratory tests, consultations costs, and other departmental services were undertaken and are continuing.

The physical inventory of all departmental property and equipment started in fiscal year 1953-1954 is two-thirds completed. All inventoried property and equipment has been marked with the new departmental property tag.

A new procedure manual for fiscal operations was developed and circulated to all operating units of the Department during the period concerned.

The departmental fiscal program was completed and was approved by the Commissioner's Staff.

Project control accounts were maintained, as was a budgetary working reserve account. The accounting of the Department was operated on an encumbrance basis.

As of June 30, 1955, there were 516 budgeted positions in the Department, of which 442 were filled by persons with permanent civil service status, 34 by persons with temporary civil service status. In addition, nearly 200 professional workers, as doctors, dentists, nurses, etc., were hired during the year on a per hour or per diem basis.

Immediately below is a consolidated financial statement of the Department as it was constituted on June 30, 1955.

## STATE DEPARTMENT OF HEALTH

## FINANCIAL STATEMENT

FISCAL YEAR 1954-1955

*Receipts*

Received for Transfer to State Treasury—	
License and Permit Fees .....	\$358,824.00
Penalties .....	670.00
Certified Certificates .....	33,843.91
Examination Fees .....	2,537.50
Miscellaneous .....	5,301.88
	<hr/>
Net Total .....	\$401,177.29
Received for Disbursement—	
State Appropriation and Transfers .....	\$2,437,298.32
United States Department of Health, Education and Welfare—Public Health Service .....	475,958.56
United States Department of Health, Children's Bureau .....	374,596.04
Hunterdon County Health Inventory Fund .....	98.50
	<hr/>
Net Total .....	\$3,287,951.42

## DEPARTMENTAL ALLOCATIONS

	Subtotal—		Other Allocations—		Total State	Total Federal	Total All Funds
	State	Federal	State	Federal			
Office of the Commissioner	\$50,236.00	\$11,250.00	\$25,549.05	\$470.98	\$111,586.05	\$11,020.98	\$126,806.63
Vital statistics and administration	300,303.81	107,061.45	143,045.10	12,475.00	549,885.41	120,256.25	669,612.16
Environmental sanitation	169,765.00	27,040.00	71,070.73	10,174.13	240,846.73	13,104.52	271,457.68
Environmental diseases	60,074.72	44,030.00	18,336.44	137,350.46	249,791.62	177,063.14	426,854.76
Chronic illness	208,705.43	23,010.92	194,538.50	137,350.46	331,888.96	89,135.40	421,024.36
Laboratories	153,894.73	53,010.92	23,397.05	78,865.50	290,092.48	102,264.37	376,035.88
Constructive health	511,029.37	102,982.50	153,539.46	45,407.62	612,959.95	208,450.21	821,410.16
Local health services					644,500.43		644,500.43
Total allocations	\$1,551,178.00	\$488,788.54	\$886,218.82	\$301,700.06	\$2,437,896.82	\$850,254.00	\$3,288,050.82

## DEPARTMENTAL EXPENDITURES

Office of the Commissioner	\$82,876.18	\$11,250.00	\$21,383.46	\$670.98	\$107,711.11	\$11,020.98	\$119,032.60
Vital statistics and administration	308,830.87	107,710.66	143,849.50	12,475.00	560,466.03	110,068.61	670,534.64
Environmental sanitation	171,712.26	27,401.26	65,405.08	10,174.13	234,692.73	13,104.52	247,797.25
Environmental diseases	77,581.00	44,030.00	17,226.14	137,350.46	176,187.60	109,242.22	285,429.82
Chronic illness	208,705.43	23,010.92	152,258.46	137,350.46	339,618.91	89,135.40	428,754.31
Laboratories	148,313.61	53,010.92	23,397.05	78,865.50	253,587.08	102,264.37	355,851.45
Constructive health	483,133.61	100,000.24	125,450.26	45,407.62	653,991.73	208,450.21	862,441.94
Local health services					684,550.61		684,550.61
Total expenditures	\$1,507,796.80	\$485,790.06	\$895,732.20	\$324,033.21	\$2,443,520.00	\$810,734.17	\$3,254,254.17
Balance June 30, 1955	\$48,381.20	\$2,097.58	\$50,478.62	\$36,852.86	\$97,807.82	\$30,830.48	\$128,638.25

## 1954 Annual Report

## Calendar Year

## Vital Statistics Registration Program

This Program is responsible for collecting, editing, querying, coding, filing and preserving the original records of births, marriages, stillbirths, and deaths. Upon request from individuals and various agencies, the Program prepares and issues certified copies of such records.

By law, the State Registrar has supervisory power over the more than 500 local registrars of vital statistics, and must furnish the blanks and forms used by them and others in the registration of vital events.

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 old 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 statistical reports, which have been published since 1879, were prepared from records not in the custody of the Bureau.

Effective July 1, 1954, Mr. John S. Young, who had been Field Representative since March 1, 1944, was appointed Supervisor of Vital Statistics Registration.

Due to the urgent need for more vault space for the storage of vital statistics records, an extensive microfilm project was instituted. During 1954 the birth, marriage and death indices from 1848 to 1903 were microfilmed, together with the books containing geographical indices of births, marriages and deaths from June 1878 to 1900, inclusive. In addition, the books containing the original records of births, marriages and deaths from 1848 to May 31, 1878 were microfilmed. A total of 278 bound books was removed from the vaults and permanently stored in the Archives Division of the New Jersey State Library. One hundred and thirty-five 100 ft. rolls of positive film containing the microfilmed images of these records are stored in the vaults and used for searching purposes. Thirty-one 100 ft. rolls of positive film containing the birth, marriage and death indices from 1848 to 1903 are also stored in the vaults, but at present are not used for searching purposes. The 79 bound volumes of these indices are retained in the vaults and used by the searchers

because it has been found that a book search is quicker than a film search. All the negative film of the above volumes is stored in the Archives Division for safety. One Recordak Reader was received for the searching program. As only two readers are available for both the census searching and the handling of requests for certified copies of the 1848-1900 records, this phase of the program has been seriously handicapped. Two additional readers are urgently needed to alleviate the situation.

During 1954 the rolls containing the microfilmed images of the 1905 and 1915 New Jersey State Census records were moved from the State Library to the Vital Statistics Vaults. The searching and the preparation of the necessary transcripts require the full-time assignment of one clerk. One Recordak Reader was transferred to service this activity. An average of 10 requests for searches of either or both of the 1905 and 1915 records is received daily.

During 1954 the Program received and processed 207,620 original returns of vital events, 1,150 delayed reports of births and 6,600 corrections to the records. New birth certificates in names received by adoption decrees were established for 1,624 individuals, and local registrars notified as required by law. Approximately 80,000 premarital certificate forms were examined and detached from the marriage records.

By law, the Department must certify monthly the names of all deceased veterans dying in New Jersey, together with the place and date of burial, cremation or removal, and the war in which each veteran served. This required the preparation of 3,693 such certificates in 1954, all of which were sorted by county and forwarded to the respective county supervisor of veterans' interment. Deaths from police action on behalf of the United Nations Forces were not included.

The offices of six local registrars were visited during the year at their special request. The lack of a field representative makes it impossible to give all local officers the help they need routinely. This lack also prevents the initiation of the planned training program for local registrars at a county level.

For the effective operation of this Program in the future, it is necessary that consideration be given to methods for the recruitment and retention of additional skilled search clerks. Only in that manner will it be possible to continue to meet the ever-increasing demands for services.

A General Summary of some of the activities of the Program follows:

<i>Certificates received, examined, coded and permanently filed</i>	<i>Calendar Years</i>		
	<i>1952</i>	<i>1953</i>	<i>1954</i>
Births .....	110,215	112,522	114,424
Stillbirths .....	2,002	2,046	1,914
Marriages .....	41,125	40,886	39,744
Remarriages .....	1,071	2,004	1,179
Deaths .....	51,430	52,794	50,359
Total .....	205,843	210,252	207,620
		<i>Fiscal Years</i>	
		<i>1952</i>	<i>1953</i>
Searches made and/or certified copies issued for which fees were received .....	33,904	33,366	33,723
Searches made and/or certified copies issued for which no fees were received .....	13,563	11,801	13,745
Fees-received for searches and certified copies...	\$35,554.15	\$32,258.30	\$33,843.91

In addition there were 6,585 office or telephone calls by persons interested in various phases of registration procedures.

### Report of the Program of Public Health Statistics Calendar Year, 1954

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The Public Health Statistics Program is responsible for the collection of morbidity reports for those illnesses which are reportable by law or regulation and for providing statistical services. These two functions are carried out through two units—the Analysis and Research Unit and the Machine-processing Unit.

The collection of illness reports involves close cooperation between the physicians, the local health departments and the State Department of Health. Through correspondence and instructions to physicians and local health departments, the Public Health Statistics Program emphasized this three-way cooperation in its attempt to stimulate reporting.

Involved in providing statistical services is the preparation of public health statistics—coding, punching, verifying, sorting, tabulating and interpreting

information from records of births, marriages, deaths and morbidities. (Except for morbidity reports, all other records are collected by the Vital Statistics Registration Program whose annual report appears elsewhere.)

Technical assistance on special projects was given throughout the year not only to Departmental Programs but to other agencies working in behalf of public health.

Newly proposed or revised report forms were reviewed as requested by the varied Departmental Programs.

Resource materials were provided to the Program Coordinators in accordance with the needs specified in their Programs. These included monthly and annual tabulations of marriages, births, deaths, maternal deaths, infant deaths and stillbirths; monthly copies of special lists of tuberculosis deaths and case reports; monthly and annual cumulative alphabetic lists of crippled children; IBM punch cards for crippled children's cases shown on the monthly listing of cases; monthly lists of midwives who attended births; weekly, monthly, and annual counts of reportable diseases; and annual statistical tables covering population estimates, vital events (births, marriages and deaths), reportable diseases, and selected causes of death.

Statistical processing of schedules for the Hunterdon County Chronic Illness Survey continued throughout 1954, as well as tabulation of these data. This project was undertaken in cooperation with the Hunterdon Medical Center.

Primarily, the Public Health Statistics Program provides services to the Department of Health. However, basic statistical information is provided on an increasing scale to many agencies and individuals working either in public health or related fields.

*Population:* The population estimate for New Jersey as of July 1, 1954 was 5,071,000. This figure and the estimates for the counties and major cities as shown at the end of Table 22 were obtained by adding the excess of births over deaths for the period April 1, 1950 through June 30, 1954 to the 1950 census count and rounding each estimate to the nearest thousand.

According to the data on characteristics of the New Jersey population as of April 1, 1950, the nonwhite races represented 6.7 per cent of the total population. Application of that percentage to the July 1, 1954 estimate of total population gave a figure of 340,000 as the estimated number of nonwhite persons. The estimate of the white population was 4,731,000 as of July 1, 1954.

*Births:* The 118,252 resident live births reported in 1954 represented a crude birth rate of 23.3 per 1,000 estimated population. This all-time high of live births reported in 1954 was almost double the number of births registered in each of the years 1933 through 1940. The year 1954 was the ninth con-

secutive year in which the annual number of births exceeded 95,000 and the birth rate was greater than 20.0. Boards of education have become increasingly concerned with the school problems which steady increases in births present.

Of the 105,937 births in 1954 to white mothers, 1,254 or 1.2 per cent were reported as illegitimate. Of the 12,315 births to nonwhite mothers, 1,672 or 14 per cent were listed as illegitimate. Although the percentage figure for total illegitimate births has not changed appreciably over the past decade, such births in 1954 were 967 or almost 49 per cent greater than the 1944 figure. Plans of social agencies and nurses to help these mothers and babies must accordingly receive greater emphasis.

Except where otherwise specified, all births have been allocated to the usual residence of the mother.

Births occurring in New Jersey have been tabulated and analyzed monthly for certain characteristics. Annual totals are accumulated from the monthly data. Of the 114,424 births occurring in New Jersey during 1954, there were 651 records having no entry for weight at birth. Therefore, only 113,773 births were used as the denominator in computing the following percentages by weight.

<i>Weight Group</i>	<i>Number</i>	<i>Per Cent</i>
Over 2500 grams .....	105,579	92.8
2001-2500 grams, incl. ....	5,543	4.9
1501-2000 grams, incl. ....	1,480	1.3
1001-1500 grams, incl. ....	636	0.6
1000 grams or less .....	535	0.4
Total with weight given .....	113,773	100.0

Of the 114,415 birth records on which the attendant was clearly indentified, 113,234 births or 99 per cent occurred in hospitals; 972 or 0.8 per cent were attended by physicians outside of hospitals; and 131 or 0.1 per cent had midwives in attendance. The midwife data presented here may differ from figures accumulated by the Maternal and Child Health Program after it checks back on information given on these original birth records. The rest of the births were attended by other persons of a specific or unknown category.

There were 1,253 sets of twins born, but in 74 of these only one was born alive. Mothers in New Jersey gave birth to 17 sets of triplets. In 16 instances all three were born alive; in one case, one was born alive.

*Marriages:* The crude marriage rate for 1954 was 7.8 per 1,000 estimated population. The total of 39,744 marriages reported was 1,142 or 2.8 per cent less than in 1953. The trend in marriage rates has been downward since 1946.

In that year, the number of marriages reached an all-time high of 61,020, representing a rate of 14.2 per 1,000 population.

Tables 7 and 7a of this report give information on marriages by age and previous marital status of the individuals. The text associated with the tables may be of interest to many agencies.

All marriage tabulations are by place of occurrence.

*Deaths:* A total of 51,203 resident deaths from all causes was recorded for New Jersey in 1954. The crude death rate of 10.1 per 1,000 estimated population was lower than the 1953 rate of 10.5. The 1949 rate of 10.0 was the lowest in the State's experience.

As of January 1, 1949, two important changes occurred in the mortality registration and classification system. A new standard certificate of death form was put in use and the 6th Revision of the International Classification of Diseases, Injuries and Causes of Death was used in selecting the underlying cause of death. The introduction of these changes, with their accompanying rules and regulations for use, may have resulted in making totals for certain causes or groups of causes not strictly comparable to prior years.

Table 19 and its text on principal causes of death by age groups deserve careful study by persons interested in learning more of the health hazards facing the citizens of New Jersey.

Summarization of monthly tabulations of deaths in New Jersey revealed the following items of interest.

Of the 50,359 deaths, 3,792 or about 7.5 per cent were veterans. Of these deaths, 2,223 were World War I veterans; 1,033 were World War II veterans; and 47 were veterans of both wars. Spanish-American War veterans accounted for 170 deaths and an additional 13 persons who died were veterans of both the Spanish-American and First World Wars. United Nations Force accounted for 99 deaths and an additional 17 decedents were veterans of other wars. On the remaining 190 death certificates, military service was indicated but war service was unspecified.

Except where otherwise specified in the titles of the Tables, all deaths have been allocated to the usual place of residence of the deceased.

*Infant Mortality:* During 1954, there were 2,789 infant deaths for New Jersey. The resulting infant mortality rate of 23.6 per 1,000 live births was the same as that recorded for 1953. Both in 1953 and 1954, New Jersey experienced the lowest infant mortality rates since these were first computed. The white infant mortality rate in 1954 was 21.2 and for nonwhite infants, the rate was 44.3. When New Jersey in 1921, by virtue of meeting high standards of reporting, was admitted to the United States Birth Registration Area, its infant mortality rate was 73.8. The rapid and consistent decrease in the rates

as shown in Table 4 has been influenced tremendously by the extensive baby welfare work carried on in New Jersey. Since most infant deaths occur in the first day or week of life, no great reduction in New Jersey's infant mortality rate can be expected unless the neonatal rate is reduced. This will need adequate staffing and equipment for the care of immature babies in hospitals and continued efforts to get expectant mothers under the care of physicians soon enough to increase the babies' chances of survival. Table 18 and its text point out those fields in which greater effort must be placed if a further reduction in infant mortality is to be achieved.

*Maternal Mortality:* In 1954, there were 59 maternal deaths, representing a rate of 0.5 per 1,000 live births. There were 55 deaths and a rate of 0.5 due to this cause in 1953. The nonwhite maternal mortality rate of 1.5 in 1954 was the same as that for the preceding year. Tables 6 and 6a may serve to indicate more clearly where greater emphasis can be placed if fewer mothers are to die as a result of conceiving and bearing children.

*Stillbirths:* The 1,933 stillbirths reported for 1954 accounted for a rate of 16.3 per 1,000 live births. In 1953, there were 2,046 stillbirths with a rate of 18.2. The nonwhite rate for 1954 was 24.8. On 10 reports, race or color was not stated.

*Cancer:* The number of deaths from malignant neoplasms in 1954 was 9,504 and the rate was 187.4 per 100,000 estimated population. The mortality from this cause, with few exceptions, has steadily increased since records were first kept in New Jersey. (See Chart 2.) This may be due, in some measure, to the higher proportion of persons in the older age groups and to more accurate diagnosis of the disease by physicians. Tables 12 and 12a give the mortality detail by site, sex, and color and age.

*Tuberculosis:* The number of deaths from all forms of tuberculosis during 1954 was 558 of which 503 were charged to tuberculosis of the respiratory system. The rates per 100,000 estimated population were 11.0 and 9.9 respectively.

There were 427 deaths of white persons from all forms of tuberculosis and 131 deaths of nonwhite persons. Per 100,000 estimated population, the white rate was 9.0 and the nonwhite rate was 38.5. Reference to Tables 14, 15, 17, 19, and 20 is recommended. Additional discussion of the disease may be found in the report of the Tuberculosis Control Program in this volume.

*Deaths From Other Reportable Diseases:* By law and regulation, morbidity reports of certain diseases are required. Although the number of deaths from these diseases can be found in the mortality tables following, reference should also be made to the reports in this volume by the Acute Communicable Diseases Program and the Venereal Disease Control Program.



## TABLES AND CHARTS—1954

- Table 1. Population: Numbers and rates for births, marriages and deaths: 1921-1954. (Births and deaths adjusted for residence.)
- Chart 1. Birth and death rates per 1,000 population (based on five-year averages of events and population): 1880-1954.
- Table 1a. Births, marriages and deaths in New Jersey by month of occurrence: 1954.
- Table 1b. Births, marriages, deaths, stillbirths, maternal deaths, infant deaths and neonatal deaths by counties and municipalities: 1954. (Births, deaths and stillbirths adjusted for residence.)
- Table 2. Deaths by age groups; number and percentage for past decade: 1945-1954.
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- Table 5. Total stillbirths by weight by age of mother: 1954.
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- Table 6. Maternal deaths by specific cause: 1954.
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- Table 7. Marriages by age of husband versus age of wife: 1954.
- Table 7a. Marriages by previous marital status: 1954.
- Table 12. Deaths from malignant neoplasms by site, sex, color and age groups; benign and unspecified neoplasms by sex, color and age groups: 1954.
- Table 12a1. Deaths from neoplasms by sex, color and age groups for each site group: 1954.
- Table 12a2. Deaths from malignant neoplasms; percentage distribution by age, site, sex and color: 1954.
- Table 12a3. Cancer death rates by age, sex and color per 100,000 estimated population: 1954.

- Chart 2. Cancer death rates per 100,000 population (based on five-year averages of cancer deaths and population): 1880-1954.
- Table 13a1. Deaths in New Jersey from transportation accidents by cause groups and month of death: 1954.
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- Table 13a3. Deaths in New Jersey from suicide, homicide and other violence by cause groups and month of death: 1954.
- Table 13b. Motor vehicle deaths in New Jersey by primary cause of death, sex and age groups: 1954.
- Table 13c. Accidental deaths in New Jersey by immediate cause of death and type of accident: 1954.
- Table 13d. Accidental deaths in New Jersey by immediate cause of death and county of accident: 1954.
- Table 13e. Non-transport accidental deaths in New Jersey by primary cause of death and place of accident: 1954.
- Table 13f. Accidental deaths in New Jersey by immediate cause of death by age groups: 1954.
- Table 13g. Motor vehicle deaths in New Jersey by type of vehicle by age groups: 1954.
- Table 14. Causes of death (abridged list) as percentage of total deaths; with percentage by sex for each cause: 1954.
- Table 15. Death rates: total, white and nonwhite by abridged list cause: 1954.
- Table 17. Deaths by abridged list cause by sex, color and age groups: 1954.
- Table 18. Infant deaths by cause and age groups: 1954.
- Table 18a. Infant deaths by age and immaturity: 1954.
- Table 19. Principal causes of death by age groups; numbers and percentages: 1954.
- Table 20. Deaths from each cause, detailed international list, by sex, color and age groups: 1954.
- Table 22. Deaths by abridged list cause by sex, color and age groups for each county, cities having estimated populations of 50,000 or more, State institutions and military posts: 1954.

TABLE 1

POPULATION: NUMBERS AND RATES FOR BIRTHS, MARRIAGES AND DEATHS: 1921-1954

(Births and deaths adjusted for residence)

YEAR	Estimated Population	BIRTHS		MARRIAGES		DEATHS	
		Number of Births Reported	Birth Rate per 1,000 Population	Number of Marriages Reported	Marriage Rate per 1,000 Population	Number of Deaths Reported	Death Rate per 1,000 Population
1921	3,285,475	78,172	23.7	27,815	8.4	37,862	11.3
1922	3,371,539	74,479	22.0	27,114	8.0	40,086	11.8
1923	3,453,243	74,811	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	72,396	19.4	28,424	7.6	44,396	11.9
1927	3,802,779	72,739	19.1	28,316	7.4	41,562	10.9
1928	3,890,163	70,076	18.0	29,129	7.4	44,535	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	45,190	10.7
1931	4,056,200	64,078	15.8	26,468	6.5	44,135	10.9
1932	4,083,100	61,215	15.0	22,549	5.5	42,823	10.5
1933	4,090,000	56,672	13.7	24,433	6.0	43,350	10.6
1934	4,061,800	54,841	13.4	23,991	5.9	43,547	10.6
1935	4,103,700	55,059	13.4	23,724	5.8	43,267	10.5
1936	4,115,600	54,145	13.2	22,771	5.5	44,839	10.9
1937	4,127,500	53,197	12.9	22,100	5.3	45,312	11.0
1938	4,139,400	56,802	13.7	31,006	7.5	44,045	10.6
1939	4,151,300	56,839	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	4,193,000	67,194	16.0	46,338	11.1	45,971	10.9
1942	4,226,426	80,512	19.1	50,498	11.9	46,270	10.9
1943	4,235,233	82,356	19.4	41,045	9.7	49,751	11.8
1944	4,167,840	75,652	18.2	36,094	8.7	47,340	11.4
1945	4,139,941	76,995	18.3	39,711	9.5	47,833	11.3
1946	4,304,291	85,044	22.1	51,020	14.2	46,291	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
1949	4,786,000	97,414	20.4	44,489	9.3	47,706	10.0
1950	4,875,000	97,734	20.2	46,291	9.6	48,837	10.1
1951	4,896,000	103,218	21.5	44,564	9.1	50,098	10.2
1952	4,949,000	110,215	22.3	41,125	8.3	51,430	10.4
1953	5,006,000	112,522	22.5	40,886	8.2	52,794	10.5
1954	5,071,000	118,252	23.3	39,744	7.8	51,203	10.1

Note: For similar data for period 1879-1920, see Table 1 in any annual report prior to 1950.

CHART 1.  
BIRTH AND DEATH RATES  
per 1,000 population  
1880 - 1954  
(Based on Five-Year Averages of Events and Population)

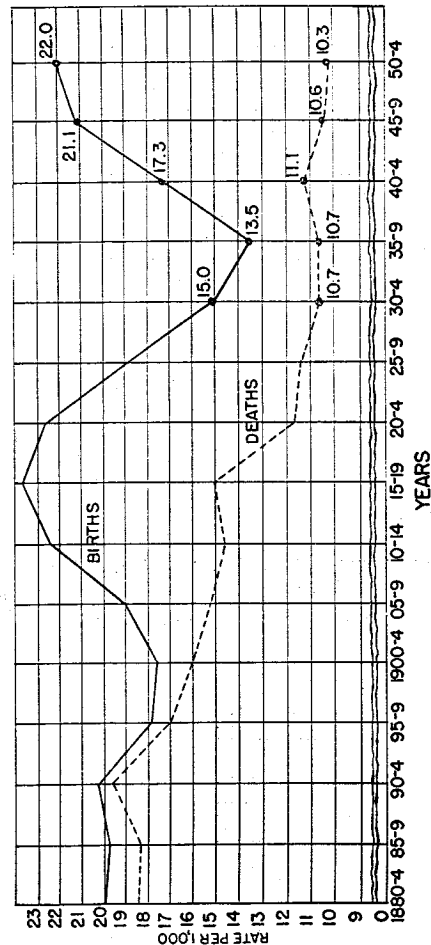


TABLE 1a. BIRTHS, MARRIAGES, AND DEATHS: 1954

Month	Births	Marriages	Deaths
January	9,102	2,744	4,727
February	8,703	2,998	3,919
March	9,361	1,829	4,293
April	9,035	2,872	4,175
May	9,382	3,955	4,202
June	9,296	4,821	4,036
July	9,980	3,242	4,095
August	10,165	3,023	3,859
September	10,097	4,504	3,917
October	10,143	4,183	4,221
November	9,421	3,196	4,307
December	9,739	2,377	4,608
Total	114,424	39,744	50,359

Death 43 (24)  
 Marriages 44 (3)

The birth and death data have not been adjusted for residence but, like the marriage figures, represent events occurring in New Jersey. The environmental conditions responsible for seasonal influence on the occurrence of these events exist in New Jersey. It would be illogical to include in New Jersey's seasonal trend those events occurring to New Jersey residents in other states where the natural conditions may differ.

TABLE 1b. BIRTHS, MARRIAGES, DEATHS, STILLBIRTHS, MATERNAL DEATHS, INFANT DEATHS AND NEONATAL DEATHS BY COUNTIES AND MUNICIPALITIES: 1954

(Births, deaths and stillbirths adjusted for residence. Neonatal deaths are those under 28 days of age.)

ATLANTIC COUNTY

Marriages 44 (3) (24)

CIVIL DIVISION	Births	Marriages	Deaths	Stillbirths	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Absecon City	98	17	26	1	...	4	2
Atlantic City	1097	582	1000	23	3	46	33
Brigantine City	59	6	24	1	...	3	3
Buena Borough	79	25	19	4	...	...	...
Buena Vista Township	45	10	20	...	...	3	3
Corbin City	4	...	...	...	...	...	...
Egg Harbor City	140	4	45	48	1	5	5
Egg Harbor Township	65	27	45	...	...	2	1
Estell Manor City	6	1	1	...	...	...	...
Folsom Borough	9	...	5	...	...	...	...
Galloway Township	53	16	33	1	...	...	...
Hamilton Township	102	24	55	1	...	3	2
Hammonton Town	231	57	83	7	...	7	6
Lindwood City	35	22	22	...	...	...	...
Longport Borough	21	1	14	...	...	...	...
Margate City	141	26	64	...	...	2	1
Mollica Township	24	18	18	1	...	...	...
Morrisville City	84	10	39	3	1	3	2
Northfield City	304	100	134	6	...	11	7
Pleasantville City	8	3	8	...	...	...	...
Port Republic City	63	36	53	1	...	...	2
Ventnor City	110	93	108	2	...	2	2
Weymouth Township	12	...	9	...	...	...	...
Total	2900	1120	1841	52	4	82	69

BERGEN COUNTY

CIVIL DIVISION

CIVIL DIVISION	Births	Marriages	Deaths	Stillbirths	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Allendale Borough	61	16	22	3	...	...	...
Alpine Borough	19	...	5	...	...	...	...
Bergenfield Borough	579	121	171	5	...	10	7
Bogota Borough	132	67	79	1	...	2	2
Carlstadt Borough	124	14	35	1	...	2	...
Cliffside Park Borough	238	78	158	4	...	4	4
Clester Borough	122	26	40	3	...	4	3
Cresskill Borough	133	34	29	2	...	1	1
Demarest Borough	74	9	17	1	...	1	...
Dumont Borough	349	86	105	1	...	10	8
East Paterson Borough	396	41	100	3	...	12	9
East Rutherford Borough	147	64	86	5	1	3	2
Edgewater Borough	70	78	54	...	...	1	...
Emerson Borough	97	17	17	...	...	...	...
Englewood City	511	231	263	6	1	14	10
Englewood Cliffs Borough	26	9	6	...	...	...	...
Fair Lawn Borough	730	180	221	8	...	12	9
Fairview Borough	194	132	74	4	...	4	3
Fort Lee Borough	473	158	151	3	...	8	7
Franklin Lakes Borough	53	6	23	...	...	2	2
Garfield City	650	193	238	8	...	12	9
Glen Rock Borough	198	46	81	3	...	6	5
Hackensack City	631	330	324	11	...	21	13
Harrington Park Borough	7	16	...	...	...	...	...
Hasbrouck Heights Borough	239	81	91	2	...	3	2
Haworth Borough	43	5	26	1	...	1	...
Hillsdale Borough	129	29	62	2	...	2	1
Hoboken Borough	56	32	30	...	...	2	1
Leonia Borough	122	49	67	...	...	8	5
Little Ferry Borough	83	37	42	1	1	1	...
Lodi Borough	578	93	132	8	...	8	7
Lynchhurst Township	432	132	169	7	...	5	5
Mahwah Township	89	30	46	1	...	4	2
Maywood Borough	223	40	70	2	...	4	4
Midland Park Borough	163	40	47	2	...	...	...
Monivale Borough	53	8	15	1	...	...	...
Moonachie Borough	78	8	13	...	...	...	...
New Milford Borough	96	60	98	8	1	10	8
North Arlington Borough	367	76	113	4	...	4	3
Northvale Borough	49	12	12	2	...	...	...
Norwood Borough	43	9	15	1	...	2	2
Oakland Borough	68	9	23	...	...	2	1
Old Tappan Borough	41	1	13	1	...	1	1
Oradell Borough	72	24	46	2	...	...	...
Palisades Interstate Park	...	...	...	1	...	...	...
Palisades Park Borough	246	72	95	1	...	2	2
Parsons Borough	528	44	98	6	...	11	9
Park Ridge Borough	90	28	39	2	...	...	...
Ramsey Borough	139	33	47	5	...	2	1
Ridgefield Borough	152	47	84	4	...	3	1
Ridgefield Park Township	245	82	136	3	...	5	3
Ridgewood Village	384	170	189	5	...	...	...
River Edge Borough	264	45	74	1	...	4	3
River Vale Township	71	1	17	...	...	...	...
Rochelle Park Township	121	27	36	1	...	...	...
Rockleigh Borough	1	1	1	...	...	...	...
Rutherford Borough	382	124	208	1	...	4	4
Saddle River Borough	21	11	15	...	...	...	...
Saddle River Township	225	12	43	2	...	5	2
South Hackensack Township	23	3	7	1	...	...	...
Tenack Township	636	206	282	6	...	15	13
Tenafly Borough	174	90	168	3	...	8	2
Teterboro Borough	...	1	...	...	...	...	...
Upper Saddle River Borough	...	8	14	...	...	2	1
Waldwick Borough	223	11	38	2	...	6	2
Wallington Borough	187	68	68	3	...	2	2
Washington Township	50	4	10	1	...	2	...
Westwood Borough	161	7	65	...	...	3	2
Woodcliff Lake Borough	33	5	19	...	...	1	1
Wood-Ridge Borough	131	37	52	...	...	2	2
Wyckoff Township	151	28	60	...	...	1	...
Total	14371	3955	5271	164	3	260	190

**BURLINGTON COUNTY**

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Bass River Township	9	8	14	...	...	1	1
Beverly City	167	42	21	...	...	1	1
Bordentown City	137	84	58	5	...	3	2
Bordentown Township	51	22	1	...	...	1	1
Burlington City	280	144	138	4	...	1	1
Burlington Township	121	7	32	2	...	1	10
Chesterfield Township	27	8	13	1	...	2	1
Cinnaminson Township	22	23	17	1	...	2	1
Delanco Township	103	13	34	2	...	4	2
Delran Township	30	8	18	...	...	1	1
Eastampton Township	25	2	6	...	...	1	1
Edgewater Park Township	18	11	17	...	...	1	1
Evesham Township	70	14	30	2	...	1	1
Fieldsboro Borough	14	2	9	...	...	1	1
Florence Township	173	66	63	6	...	4	4
Hainesport Township	56	20	13	1	...	1	1
Lumberton Township	54	4	14	1	...	2	2
Mansfield Township	46	4	18	...	...	1	1
Maple Shade Township	293	68	64	3	...	1	1
Medford Lakes Borough	31	8	4	...	...	3	3
Medford Township	76	19	42	2	...	2	1
Moorestown Township	202	76	109	5	...	5	3
Mount Holly Township	318	77	106	4	...	9	8
Mount Laurel Township	38	5	30	2	...	2	1
New Hanover Township	37	...	4	1	...	1	1
North Hanover Township	21	13	4	1	...	1	1
Palmyra Borough	176	60	67	1	...	6	5
Pemberton Borough	106	11	22	2	...	5	2
Pemberton Township	275	36	40	4	...	4	1
Riverside Township	229	80	79	5	...	3	2
Riverton Borough	79	39	43	...	...	1	1
Shamong Township	12	2	10	...	...	1	1
Southampton Township	73	20	30	3	...	5	3
Springfield Township	36	11	15	...	...	3	3
Tabernacle Township	28	13	17	...	...	1	1
Washington Township	11	5	9	...	...	1	1
Westampton Township	21	...	4	...	...	1	1
Willingboro Township	11	1	8	1	...	...	...
Woodland Township	13	...	8	...	...	...	...
Wrightstown Borough	60	43	2	...	...	...	...
Total	3600	1046	1259	61	...	82	59

**CAMDEN COUNTY**

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Audubon Borough	197	36	116	2	1	5	5
Barrington Borough	30	...	9	3	...	1	1
Bellmawr Borough	182	5	36	4	...	3	3
Berlin Borough	237	21	26	...	...	3	1
Berlin Township	103	41	32	...	...	3	2
Brooklawn Borough	69	4	16	...	...	1	1
Camden City	50	4	14	...	...	2	1
Ceskillhurst Borough	293	1404	1885	54	1	86	64
Clementon Borough	1	...	...	...	...	...	...
Colemanswood Borough	92	7	37	2	...	1	1
Delaware Township	459	118	224	5	1	9	9
Dillsboro Borough	134	19	72	2	...	1	1
Glocester City	13	13	8	...	...	12	11
Glocester Township	349	113	152	3	...	6	4
Haddonfield Borough	213	44	105	3	...	8	6
Haddon Heights Borough	561	119	148	6	...	5	3
Haddon Township	187	96	76	1	...	3	3
Hi-Nella Borough	132	53	111	1	...	1	1
Hi-Nella Township	14	1	2	1	...	...	...
Laurel Springs Borough	86	12	16	...	...	...	...
Lawsdale Borough	35	10	18	1	1	1	1
Lindenwold Borough	104	48	39	1	...	3	1

**CAMDEN COUNTY—Continued**

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Magnolia Borough	71	15	37	2	...	3	1
Merchantville Borough	254	96	86	4	...	5	4
Mount Ephraim Borough	120	38	41	...	...	1	1
Oaklyn Borough	118	37	45	2	...	2	2
Pennsauken Township	515	101	203	5	...	10	10
Pine Hill Borough	50	35	23	1	...	2	2
Pine Valley Borough	...	...	1	...	...	...	...
Runnemede Borough	153	54	33	2	...	2	1
Somerdale Borough	63	14	12	...	...	1	...
Stratford Borough	105	14	16	...	...	...	...
Tavistock Borough	...	...	...	...	...	...	...
Voorhees Township	10	9	14	...	...	...	...
Waterford Township	100	39	33	1	...	5	5
Winslow Township	113	28	59	1	...	3	2
Wood-Lynne Borough	89	30	29	1	...	1	1
Total	8000	2679	3270	106	4	191	147

**CAPE MAY COUNTY**

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Avon Borough	9	1	8	...	...	...	...
Cape May City	78	34	51	...	...	1	1
Cape May Point Borough	1	1	5	...	...	...	...
Dennis Township	47	22	33	...	...	...	...
Lower Township	75	21	55	...	...	1	1
Middle Township	97	38	84	3	...	2	1
North Wildwood City	45	16	36	2	...	...	...
Ocean City	125	54	131	3	...	3	2
Sea Isle City	29	7	8	3	...	...	...
Stone Harbor Borough	17	11	15	1	...	1	1
Upper Township	46	14	39	2	...	6	3
West Cape May Borough	19	2	13	...	...	...	...
West Wildwood Borough	...	...	2	...	...	...	...
Wildwood City	123	84	95	1	...	4	3
Wildwood Crest Borough	48	4	24	...	...	2	2
Woodbine Borough	29	6	22	...	...	1	...
Total	788	315	621	15	...	21	14

**CUMBERLAND COUNTY**

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Bridgeton City	488	189	249	12	...	23	14
Commercial Township	91	20	54	3	...	5	3
Deerfield Township	64	11	28	1	...	3	2
Dowse Township	47	13	30	1	...	3	1
Fairfield Township	73	39	36	1	...	2	1
Greenwich Township	37	2	16	...	...	...	...
Hopewell Township	56	14	24	3	1	1	...
Lawrence Township	71	25	25	...	...	1	1
Maurice River Township	39	18	32	...	...	2	...
Millville City	880	125	183	4	...	9	7
Shiloh Borough	14	3	5	...	...	...	...
Stow Creek Township	19	1	11	...	...	...	...
Upper Deerfield Township	123	23	31	...	...	4	2
Vineland City	655	186	238	7	...	16	12
Total	2212	658	982	38	1	74	43

## ESSEX COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Belleville Town	717	236	264	8	...	14	7
Bloomfield Town	1122	286	480	18	...	21	18
Caldwell Borough	103	22	77	...	...	...	...
Caldwell Township	42	9	15	...	...	1	1
Cedar Grove Township	246	16	53	5	1	5	4
East Orange City	1670	569	938	22	2	40	32
Essex Falls Borough	21	21	14	1	...	2	...
Glen Ridge Borough	107	33	83	...	...	...	...
Irrington Town	1138	478	597	16	...	22	18
Livingston Township	421	62	94	10	1	5	5
Maplewood Township	304	139	243	2	...	4	4
Millburn Township	224	112	113	1	1	4	4
Montclair Town	794	363	514	14	...	22	16
Newark City	9960	4576	4921	203	10	325	242
North Caldwell Borough	44	1	16	...	...	...	...
Nutley Town	347	235	237	7	...	20	14
Orange City	847	339	413	14	1	32	23
Roseland Borough	57	6	17	2	...	2	1
South Orange Village	227	152	147	2	...	4	2
Verona Borough	231	72	92	3	...	4	4
West Caldwell Borough	124	3	40	...	...	4	2
West Orange Town	708	161	267	11	...	9	6
Total	19363	7973	9647	340	16	541	403

## GLOUCESTER COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Clayton Borough	94	43	37	2	...	1	1
Deptford Township	124	54	71	4	...	9	6
East Greenwich Township	55	9	32	1	...	...	...
Elk Township	18	8	10	...	...	...	...
Franklin Township	114	14	51	3	1	1	...
Glassboro Borough	200	52	71	1	...	5	3
Greenwich Township	53	16	26	1	...	1	...
Harrison Township	71	15	31	...	...	...	...
Logan Township	56	7	19	...	...	...	...
Mantua Township	104	23	44	3	...	4	2
Monroe Township	163	52	69	2	...	4	2
National Park Borough	67	29	22	2	...	1	1
Newfield Borough	44	23	11	1	...	3	3
Paulsboro Borough	268	71	68	2	...	3	1
Pitman Borough	181	45	96	2	...	2	1
South Harrison Township	16	4	5	...	...	...	...
Swedesboro Borough	98	17	31	...	...	2	1
Washington Township	28	15	19	1	...	1	1
Wenonah Borough	35	11	11	...	...	1	1
West Deptford Township	103	17	30	2	...	4	4
Westville Borough	129	50	64	3	1	4	2
Woodbury City	493	106	121	8	...	16	13
Woodbury Heights Borough	27	6	11	...	...	...	...
Woolwich Township	7	...	7	...	...	...	...
Total	2576	689	966	39	1	59	40

## HUDSON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Bayonne City	1703	544	786	25	...	42	28
East Newark Borough	32	22	15	...	...	2	2
Guttenberg Town	98	25	58	1	...	1	...
Harrison Town	267	137	183	9	...	7	5
Hoboken City	1130	568	583	29	...	25	19
Jersey City	6475	2909	3308	121	3	176	127
Kearny Town	743	242	392	12	...	15	10
North Bergen Township	83	171	398	14	...	18	10
Secaucus Town	160	53	105	3	...	...	...
Union City	1045	536	603	22	...	22	18
Weehawken Township	250	84	147	10	...	2	1
West New York Town	742	533	857	9	...	11	10
Total	13476	5814	6359	255	3	321	230

## HUNTERDON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Alexandria Township	23	4	8	...	...	...	...
Bethlehem Township	14	1	13	...	...	...	...
Bloomsbury Borough	13	11	9	1	...	...	...
Calton Borough	23	9	10	...	...	...	...
Clinton Town	37	19	15	...	...	...	...
Clinton Township	44	7	40	...	1	2	2
Delaware Township	37	13	27	1	...	...	...
East Amwell Township	40	3	15	...	...	...	...
Flemington Borough	83	63	37	...	...	1	1
Franklin Township	40	8	40	...	...	1	1
Frenchtown Borough	25	10	27	...	...	...	...
Glen Gardner Borough	26	...	12	...	...	1	...
Hampton Borough	25	17	10	...	...	...	...
High Bridge Borough	47	18	22	...	...	...	...
Holland Township	21	3	14	...	...	1	1
Kingwood Township	36	7	20	...	...	2	...
Lambertville City	99	39	53	2	...	4	3
Lebanon Borough	19	6	11	1	...	1	...
Lebanon Township	27	7	16	...	...	1	...
Milford Borough	34	13	13	1	...	...	...
Raritan Township	40	...	20	...	...	1	1
Readington Township	105	50	51	...	...	3	1
Stockton Borough	2	11	2	...	...	...	...
Tewksbury Township	34	12	17	1	...	...	...
Union Township	15	...	11	...	...	1	1
West Amwell Township	23	...	12	...	...	...	...
Total	984	302	521	9	1	19	12

## MERCER COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
East Windsor Township	53	3	11	1	...	1	1
Ewing Township	331	106	352	6	1	20	16
Hamilton Township	1244	232	403	26	...	21	15
Hightstown Borough	120	50	56	4	...	1	1
Hopewell Borough	55	16	27	...	...	1	1
Hopewell Township	104	13	56	2	...	4	4
Lawrence Township	44	62	44	4	...	3	...
Pennington Borough	45	24	20	...	...	...	...
Princeton Borough	198	140	102	4	...	5	5
Princeton Township	184	12	33	1	...	1	1
Trenton City	2410	1153	1373	59	3	74	56
Washington Township	43	9	24	...	...	1	1
West Windsor Township	73	22	30	...	...	2	2
Total	5290	1839	2349	107	4	134	106

## MIDDLESEX COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still-births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Carteret Borough	404	99	118	3	...	16	14
Dranburi Township	67	24	32	3	...	1	1
Duellen Borough	212	73	66	1	...	1	1
East Brunswick Township	286	35	59	6	1	7	2
Edison Township	802	104	156	13	1	13	12
Helmetta Borough	2	10	9	1	...	1	1
Highland Park Borough	248	90	71	...	...	2	1
Jamesburg Borough	106	35	37	2	...	5	3
Madison Township	159	27	70	3	...	10	5
Metuchen Borough	458	100	104	10	1	11	9
Middlesex Borough	184	27	40	2	...	3	3
Milltown Borough	163	54	60	1	...	4	3
Monroe Township	38	6	28	2	...	...	...
New Brunswick City	1058	479	387	21	2	18	14
North Brunswick City	159	8	41	2	...	1	1
Perth Amboy City	751	309	421	13	...	21	16
Piscataway Township	280	34	73	1	...	11	6
Plainsboro Township	23	5	13	1	...	...	...
Sarteville Borough	322	47	92	6	...	5	4
South Amboy City	285	75	102	4	...	3	3
South Brunswick Township	89	22	39	2	...	...	...
South Plainfield Borough	351	49	77	5	...	10	10
South River Borough	328	92	110	6	...	6	3
Spotswood Borough	107	20	14	...	...	2	2
Woodbridge Township	1376	177	318	...	1	25	20
Total	8264	2086	2545	144	6	176	131

## MONMOUTH COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still-births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Allenhurst Borough	12	3	10	1	...	1	...
Allentown Borough	42	22	14	2	...	3	1
Asbury Park City	889	267	225	5	...	14	11
Atlantic Highlands Borough	99	45	48	1	...	5	2
Atlantic Township	32	5	7	2	...	...	...
Avon-by-the-Sea Borough	31	19	28	...	...	...	...
Belmar Borough	113	68	63	...	...	1	...
Bradley Beach Borough	49	40	53	2	...	4	4
Brielle Borough	39	2	26	1	...	1	1
Deal Borough	27	25	18	...	...	1	1
Easton Borough	382	24	47	6	...	7	7
Englishtown Borough	41	31	18	...	...	7	6
Fair Haven Borough	111	16	45	2	...	1	1
Farmingdale Borough	20	27	13	...	...	...	...
Freehold Borough	167	101	90	...	...	5	4
Freehold Township	133	4	55	1	...	2	2
Highlands Borough	82	18	43	1	...	1	1
Holmdel Township	21	15	17	1	...	2	1
Hawell Township	130	11	67	3	...	2	1
Interlaken Borough	12	70	7	1	...	1	1
Keansburg Borough	125	70	77	3	1	1	1
Keyport Borough	144	86	73	3	...	2	2
Little Silver Borough	60	12	28	...	...	2	2
Long Branch City	808	176	245	10	...	22	17
Manalapan Township	57	17	24	1	...	2	2
Manasquan Borough	87	38	48	1	...	2	2
Marlboro Township	63	24	25	1	...	...	...
Matawan Borough	142	40	49	1	...	...	...
Matawan Township	176	28	41	3	...	...	...
Middletown Township	516	84	198	7	...	9	6
Millstone Township	42	9	15	...	...	1	1
Nonmouth Beach Borough	30	5	12	...	...	2	2
Neptune Township	376	76	228	5	...	8	6
Neptune City Borough	29	38	38	...	...	3	3
New Shrewsbury Borough	43	11	25	3	...	2	2
Oceanport Borough	68	8	26	1	...	4	4

## MONMOUTH COUNTY—Continued

CIVIL DIVISION	Births	Mar-riages	Deaths	Still-births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Ocean Township	169	25	61	3	1	1	1
Raritan Township	90	12	24	1	...	2	1
Red Bank Borough	333	187	182	10	...	12	11
Roosevelt Borough	10	1	...	...	...	1	1
Ransom Borough	402	40	46	...	...	1	1
Sea Bright Borough	22	12	18	...	...	...	...
Sea Girt Borough	21	20	36	...	...	2	2
Shrewsbury Borough	66	11	20	...	...	2	2
Shrewsbury Township	29	1	32	...	...	...	...
South Belmar Borough	22	1	20	...	...	...	...
Spring Lake Borough	54	36	36	...	...	2	2
Spring Lake Heights Borough	72	17	28	...	...	1	1
Union Beach Borough	67	8	37	...	...	1	1
Upper Freehold Township	71	2	25	...	...	4	3
Wall Township	196	27	70	6	...	2	1
West Long Branch Borough	87	21	21	2	...	2	1
Total	6209	1862	2675	93	2	142	112

## MORRIS COUNTY - 1954

CIVIL DIVISION	Births	Mar-riages	Deaths	Still-births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Boonton Town	156	66	63	1	...	3	2
Boonton Township	42	5	15	2	...	...	...
Butler Borough	125	46	37	...	...	...	...
Chatham Borough	191	57	76	3	...	4	4
Chatham Township	79	1	23	3	...	...	...
Chester Borough	24	14	14	...	...	...	...
Chester Township	30	...	12	...	...	...	...
Denville Township	171	37	61	5	...	5	3
Dover Town	311	105	137	7	...	11	10
East Hanover Township	31	14	12	...	...	1	1
Florham Park Borough	123	14	25	3	...	2	2
Hanover Township	165	37	51	2	...	2	1
Harding Township	32	13	14	...	...	1	...
Jefferson Township	85	24	35	2	...	1	...
Kinnelon Borough	2	2	21	...	...	1	1
Lincoln Park Borough	85	21	34	1	...	2	2
Linderoth Borough	288	85	112	6	1	5	3
Menhaden Borough	32	26	14	...	...	1	...
Mendham Township	34	3	34	3	...	...	...
Mine Hill Township	56	6	16	2	...	1	1
Montville Township	110	27	51	2	...	2	2
Morris Plains Borough	90	55	32	1	...	2	2
Morristown Town	435	188	203	12	...	7	6
Morris Township	126	43	59	...	...	...	...
Mountain Lakes Borough	...	...	...	...	...	...	...
Mount Arlington Borough	20	15	11	2	...	...	...
Mount Olive Township	7	15	22	...	...	1	...
Netcong Borough	62	41	31	1	...	3	3
Parishanby-Troy Hills Township	246	43	84	1	...	4	2
Passaic Township	75	25	30	2	...	2	1
Pequanock Township	179	41	58	1	...	2	...
Randolph Township	94	6	34	1	...	1	1
Riverdale Borough	52	2	13	1	1	1	1
Rockaway Borough	101	43	43	...	...	...	...
Rockaway Township	112	20	50	...	...	3	2
Rosbury Township	175	34	51	4	...	3	2
Victory Gardens	22	1	1	...	...	...	...
Washington Township	51	10	27	1	...	1	...
Wharton Borough	100	52	47	3	1	2	2
Total	4339	1240	1664	71	3	72	62

## OCEAN COUNTY - 1954

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Barnegat Light Borough	12	2	...	...	...	...	...
Bay Head Borough	11	12	8	...	...	...	...
Beach Haven Borough	20	18	15	1	...	...	...
Beachwood Borough	53	3	18	...	...	...	...
Berkeley Township	39	11	29	1	...	2	2
Brick Township	151	16	54	2	...	3	2
Dover Township	310	81	98	4	...	6	4
Eaglewood Township	18	6	12	1	...	3	2
Harvey Cedars Borough	3	1	3	...	...	...	...
Island Beach Borough	...	...	2	...	...	...	...
Island Heights Borough	18	3	9	...	...	1	1
Jackson Township	59	19	36	1	...	1	1
Lacey Township	21	8	19	...	...	...	...
Lakehurst Borough	110	3	17	1	...	3	3
Lakewood Township	279	129	184	5	...	6	5
Lavallette Borough	14	8	14	...	...	...	...
Little Egg Harbor Township	6	...	4	...	...	...	...
Long Beach Township	12	...	5	...	...	...	...
Manchester Township	16	15	4	...	...	...	...
Mantoloking Borough	18	2	11	...	...	...	...
Ocean Gate Borough	12	2	8	...	...	1	1
Ocean Township	14	1	8	...	...	...	...
Pine Beach Borough	14	1	8	...	...	...	...
Plymstead Township	91	16	18	1	...	...	...
Point Pleasant Borough	130	33	88	6	...	...	...
Point Pleasant Beach Borough	29	9	18	...	...	1	1
Seaside Heights Borough	19	11	20	...	...	...	...
Seaside Park Borough	12	2	14	...	...	1	1
Ship Bottom Borough	10	5	6	...	...	2	2
South Toms River Borough	26	7	20	...	...	...	...
Surf City Borough	...	3	3	...	...	...	...
Tuckerton Borough	37	16	23	...	...	1	1
Union Township	14	15	20	1	...	2	1
Total	1583	509	797	24	...	33	27

## PASSAIC COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Bloomfield Borough	91	20	31	1	...	1	1
Clifton City	1695	311	531	33	1	31	24
Haledon Borough	116	51	66	2	...	2	2
Hawthorne Borough	304	103	179	6	...	6	6
Little Falls Township	178	53	62	3	...	3	3
North Haledon Borough	82	10	33	2	...	3	3
Passaic City	1947	594	617	21	1	23	18
Paterson City	3029	1250	1692	50	1	88	67
Pompton Lakes Borough	213	56	56	1	...	4	3
Prospect Park Borough	95	49	50	1	...	1	1
Ringwood Borough	47	5	13	...	...	3	2
Totowa Borough	138	21	60	2	...	4	2
Vanauque Borough	190	26	87	5	...	5	2
Wayne Township	425	62	89	2	...	3	2
West Milford Township	102	32	50	...	...	9	6
West Paterson Borough	170	41	39	2	...	1	...
Total	7985	2684	3397	131	8	198	147

## SALEM COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Alloway Township	43	11	15	...	...	...	...
Elmer Borough	52	11	25	...	...	2	2
Elsinboro Township	14	...	10	...	...	1	1
Lower Alloway Creek Township	27	6	9	1	...	...	...
Lower Penns Neck Township	174	44	57	...	...	6	5
Mannington Township	42	9	23	3	...	2	1
Oldmans Township	53	7	13	4	...	1	1
Penns Grove Borough	247	98	71	5	...	6	5
Pilesgrove Township	59	16	18	1	...	3	1
Pittsgrove Township	72	6	37	...	...	1	1
Quinton Township	49	10	18	1	...	1	1
Salem City	224	81	107	3	...	5	5
Upper Penns Neck Township	88	27	44	3	...	1	1
Upper Pittsgrove Township	33	15	19	1	...	1	1
Woodstown Borough	98	27	41	...	...	3	2
Total	1275	368	509	27	...	33	27

## SOMERSET COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Bedminster Township	31	8	21	...	...	...	2
Bernards Township	102	49	35	3	...	3	3
Bernardsville Borough	72	35	45	2	...	1	1
Bound Brook Borough	318	97	93	2	...	1	1
Branchburg Township	54	3	28	3	...	1	1
Bridgewater Township	231	33	79	5	...	5	5
Far Hills Borough	22	5	11	2	...	2	2
Franklin Township	291	54	81	9	...	5	1
Green Brook Township	37	1	11	...	...	...	...
Hillsborough Township	190	23	33	...	...	1	1
Manville Borough	262	74	59	3	...	4	3
Milstone Borough	11	4	1	...	...	...	...
Montgomery Township	58	8	23	...	...	2	1
North Plainfield Borough	333	89	125	1	...	4	4
Peapack Gladstone Borough	37	17	11	...	...	...	...
Raritan Borough	123	67	57	1	...	...	2
Rocky Hill Borough	14	5	4	1	...	...	...
Somerville Borough	332	83	117	7	...	9	7
South Bound Brook Borough	77	22	22	2	...	2	2
Warren Township	77	11	32	...	...	4	4
Watchung Borough	26	17	22	2	...	1	1
Total	2648	696	912	48	...	49	38

## SUSSEX COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death			
				Still- births	Maternal Deaths	Total	Under 28 Days
Andover Borough .....	20	8	7	...	...	...	...
Andover Township .....	41	2	15	...	...	...	...
Branchville Borough .....	21	13	11	...	...	...	...
Bram Townshp .....	20	3	9	...	...	...	...
Frankford Township .....	46	8	15	1	1	1	1
Franklin Borough .....	56	37	41	1	1	2	2
Fredon Township .....	17	4	10	...	...	...	...
Great Township .....	23	13	7	...	...	...	...
Hamburg Borough .....	37	23	23	...	...	2	2
Hampton Township .....	12	14	5	...	...	1	1
Hardystron Township .....	40	2	12	...	...	1	1
Hopatcong Borough .....	46	7	17	...	...	1	1
Lafayette Township .....	28	6	11	...	...	...	...
Montague Township .....	41	1	6	...	...	...	...
Newton Town .....	130	58	75	...	...	5	4
Ogdensburg Borough .....	36	4	16	...	...	1	1
Sandston Township .....	16	2	11	...	...	1	1
Sparta Townshp .....	81	27	37	...	...	1	1
Stanhope Borough .....	32	8	18	1	1	...	...
Stillwater Township .....	22	5	14	1	1	...	...
Sussex Borough .....	48	27	31	...	...	2	2
Vernon Township .....	35	8	19	1	1	...	...
Walpack Township .....	5	...	3	...	...	...	...
Wantage Township .....	68	4	20	1	1	4	3
Total .....	893	279	433	9	1	23	18

## UNION COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death			
				Still- births	Maternal Deaths	Total	Under 28 Days
Berkeley Heights Twp. ....	102	10	29	4	...	5	5
Clark Township .....	237	57	41	7	...	8	7
Cranford Township .....	441	123	154	7	1	8	4
Elizabeth City .....	2384	898	1149	51	2	51	39
Fanwood Borough .....	150	12	38	2	...	4	3
Garwood Borough .....	110	32	30	1	...	3	2
Hillside Township .....	237	105	195	8	...	10	10
Kenilworth Borough .....	162	25	37	2	...	2	2
Linden City .....	776	187	244	20	...	26	23
Mountainside Borough .....	91	6	18	3	...	2	2
New Providence Borough .....	189	21	44	1	...	11	8
Plainfield City .....	1132	360	487	20	1	31	26
Rahway City .....	598	165	218	15	...	13	10
Roselle Borough .....	490	115	166	6	...	15	7
Roselle Park Borough .....	232	71	107	4	...	4	3
Scotch Plains Township .....	262	47	74	4	1	6	5
Springfield Township .....	185	83	79	2	...	5	5
Summit City .....	373	178	176	7	...	7	7
Union Township .....	772	200	321	11	1	15	10
Westfield Town .....	534	185	198	6	...	9	8
Winfield Township .....	39	...	9	4	...	1	...
Total .....	9550	2854	3812	185	7	236	186

## WARREN COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death			
				Still- births	Maternal Deaths	Total	Under 28 Days
Allamuchy Township .....	19	...	7	...	...	...	...
Alpha Borough .....	58	19	21	1	...	2	1
Belvidere Town .....	52	36	35	...	...	2	2
Blairstown Township .....	45	9	30	2	...	1	1
Franklin Township .....	51	8	14	1	...	1	1
Frelinghuysen Township .....	13	1	5	...	...	...	...
Greenwich Township .....	25	23	15	1	...	...	...
Hackettstown Town .....	50	33	57	1	...	1	1
Hardwick Township .....	12	1	5	...	...	2	2
Harmony Township .....	34	16	18	...	...	...	...
Hope Township .....	10	5	5	1	...	...	...
Independence Township .....	27	11	13	...	...	...	...
Knowlton Township .....	33	13	13	...	...	1	1
Liberty Township .....	9	...	2	...	...	...	...
Lopatcong Township .....	7	5	8	...	...	...	...
Mansfield Township .....	27	12	14	...	...	...	...
Oxford Township .....	51	14	21	...	...	...	...
Pahaquarry Township .....	...	...	2	...	...	...	...
Phillipsburg Town .....	434	149	211	7	...	7	4
Pohatcong Township .....	27	7	23	...	...	...	...
Washington Borough .....	138	53	71	2	...	4	3
Washington Township .....	32	3	11	1	...	...	...
White Township .....	13	3	10	1	...	...	...
Total .....	1198	421	616	18	...	20	15
STATE INSTITUTIONS .....	13	...	30	...	...	2	2
MILITARY POSTS .....	526	355	27	2	...	11	10



TABLE 2. RESIDENT DEATHS BY AGE GROUPS; NUMBER AND PERCENTAGE FOR PAST DECADE: 1945-1954

YEAR	AGE GROUPS																
	Total Deaths	Under 1 year		1 to 4		5 to 14		15 to 24		25 to 44		45 to 64		65 and over		Unknown	
		No.	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.
1945	47,683	2,470	5.2	479	1.0	469	1.0	840	1.8	4,127	8.7	15,670	32.9	24,254	50.7	.....	.....
1946	46,281	2,703	5.8	480	1.0	398	0.9	708	1.5	3,960	8.5	15,066	32.6	22,889	49.5	.....	.....
1947	48,270	2,959	6.1	428	0.9	317	0.7	708	1.5	3,960	8.5	15,066	32.6	22,889	49.5	.....	.....
1948	48,107	2,589	5.4	419	0.9	377	0.8	682	1.4	3,710	7.7	15,485	32.2	24,270	50.3	.....	.....
1949	48,827	2,445	5.0	414	0.9	353	0.7	680	1.4	3,655	7.5	15,485	32.2	24,270	50.3	.....	.....
1950	46,008	2,510	5.4	392	0.9	323	0.7	590	1.2	3,517	7.6	15,338	33.3	24,848	54.0	.....	.....
1951	51,480	2,633	5.1	439	0.8	331	0.6	507	1.1	3,381	7.2	15,739	31.4	29,210	56.7	.....	.....
1952	52,734	2,654	5.0	417	0.8	344	0.6	500	1.1	3,581	7.2	15,983	30.3	27,082	51.4	.....	.....
1953	51,323	2,789	5.4	440	0.9	344	0.7	481	1.0	3,337	6.5	15,293	29.7	24,988	48.6	.....	.....
1954	51,323	2,789	5.4	440	0.9	344	0.7	481	1.0	3,337	6.5	15,293	29.7	24,988	48.6	.....	.....

Total at age of a mother?  
 of illegitimate variety too tall?  
 Deaths 4-9

*Births 4d (4)*

TABLE 3. ILLEGITIMATE BIRTHS BY COLOR AND AGE OF MOTHER: 1954

Age of Mother	Total No.	Total %	Color			
			White		Nonwhite	
			No.	%	No.	%
All Ages	2,926	100.0	1,254	100.0	1,672	100.0
10-14	60	2.0	13	1.0	47	2.8
15-19	1,119	38.2	416	33.2	703	42.0
20-24	975	33.3	439	35.0	536	32.1
25-29	423	14.5	200	15.9	223	13.3
30-34	208	7.1	106	8.5	102	6.1
35-39	108	3.7	57	4.5	51	3.1
40-44	31	1.1	21	1.7	10	0.6
45-49	2	0.1	2	0.2	.....	.....

Although it is recognized that not all births to unmarried mothers are correctly reported as such, the discrepancy between actual and reported figures probably does not vary significantly between age groups. Bearing that qualification in mind and assuming that there is no race difference in the reluctance of females to give correct information, the data in the table may be studied to advantage.

Of the total illegitimate births, 71.5 per cent were assignable to two age groups, 15-19 and 20-24.

The percentage of nonwhite females who became mothers out of wedlock prior to reaching twenty years of age was relatively higher than that for white females. This was also true for 1952 and 1953.

After age twenty-nine a greater percentage of illegitimate births occurred to white mothers. The percentage for white mothers was 14.9 as compared with 9.8 per cent for nonwhite mothers.

Although constituting approximately 6 per cent of New Jersey's population, the nonwhite races accounted for 57.1 per cent of the total illegitimate births. One out of every hundred births to white mothers occurred out of wedlock, while 14 out of every hundred occurred to nonwhite mothers. These ratios were approximately the same in 1952 and 1953.

*Deaths 4d (2) anal 4d (6)*

*1942-1943  
1944-1945  
1946-1947*

TABLE 4. NUMBER OF BIRTHS, DEATHS UNDER ONE YEAR, DEATHS UNDER ONE MONTH,\* STILLBIRTHS AND MATERNAL DEATHS WITH RATES PER 1,000 LIVE BIRTHS: 1921-1954 (Adjusted for Residence)

Year	Births Reported		Deaths Under 1 Year		Deaths Under 1 Month*		Stillbirths		Maternal Deaths	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1921	78,172	6.773	4,830	36.2	5,242	41.5	464	5.9		
1922	74,619	5,864	2,779	37.2	3,033	40.7	466	6.2		
1923	74,619	5,864	2,779	37.2	3,033	40.7	466	6.2		
1924	76,630	6,359	2,951	38.1	3,169	42.5	424	5.4		
1925	74,193	6,109	2,917	39.1	3,176	43.5	460	6.0		
1926	72,386	5,990	2,637	35.1	3,018	41.7	391	5.2		
1927	70,076	4,604	2,462	35.8	3,074	42.2	460	6.1		
1928	68,297	4,116	2,253	32.9	2,804	40.9	460	5.7		
1929	68,297	3,870	2,107	30.9	2,647	40.3	367	5.3		
1930	64,078	3,649	1,862	29.2	2,078	38.3	378	5.7		
1931	61,919	3,608	1,802	29.4	2,343	38.3	351	5.7		
1932	56,972	3,489	1,602	28.4	2,073	36.9	378	5.7		
1933	56,972	3,489	1,602	28.4	2,073	36.9	378	5.7		
1934	54,841	2,686	1,534	27.3	1,973	36.9	289	5.1		
1935	55,050	2,608	1,534	27.3	1,973	36.9	289	5.1		
1936	54,145	2,589	1,560	28.3	1,905	34.1	294	4.7		
1937	54,145	2,589	1,560	28.3	1,905	34.1	294	4.7		
1938	56,102	2,218	1,337	24.0	1,731	31.4	182	3.2		
1939	56,859	2,180	1,349	24.1	1,704	31.4	191	3.3		
1940	59,228	2,094	1,449	24.0	1,644	31.4	186	3.0		
1941	57,104	2,392	1,432	24.6	1,578	31.4	162	2.9		
1942	57,104	2,392	1,432	24.6	1,578	31.4	162	2.9		
1943	82,352	2,792	1,631	22.5	1,732	25.8	152	1.9		
1944	75,052	2,507	1,580	21.8	1,644	25.8	151	1.9		
1945	76,995	2,470	1,680	21.8	1,578	25.8	151	1.9		
1946	85,044	2,705	2,020	21.8	1,978	25.1	119	1.4		
1947	85,044	2,705	2,020	21.8	1,978	25.1	119	1.4		
1948	97,778	2,580	2,217	21.8	2,265	25.4	105	1.3		
1949	97,778	2,580	2,217	21.8	2,265	25.4	105	1.3		
1950	97,734	2,521	1,901	20.2	1,664	20.2	70	0.8		
1951	105,218	2,445	1,875	19.2	1,672	20.2	72	0.7		
1952	105,218	2,445	1,875	19.2	1,672	20.2	70	0.7		
1953	112,322	2,516	1,917	18.2	1,693	18.2	60	0.6		
1954	118,262	2,684	1,963	17.8	2,002	18.2	70	0.6		
			2,043	16.2	2,046	16.2	55	0.5		
			2,078	17.6	1,933	16.3	59	0.5		

\* Beginning with 1951, number and rate are based on neonatal deaths under 28 days of age.

*Stillbirths 4d (2)*

TABLE 5. TOTAL STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1954

Weight	AGE GROUPS									
	TOTAL	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown
5 lbs. 9 ozs. and over	563	...	21	91	177	153	87	31	2	Unknown
2500 grams over										
4 lbs. 7 ozs. to										
5 lbs. 8 ozs.										
2001-2500 grams	203	...	12	37	60	54	35	5	...	...
3 lbs. 5 ozs. to										
4 lbs. 6 ozs.										
1501-2000 grams	169	1	10	27	54	38	28	11	...	...
2 lbs. 3 ozs. to										
3 lbs. 4 ozs.										
1001-1500 grams	*180	1	18	47	41	44	23	5	...	*1
less than										
2 lbs. 3 ozs.										
less than										
1001 grams	*343	...	38	81	99	72	35	13	...	*5
Unknown	*475	...	28	*83	132	136	58	21	...	*15
Total	*1933	4	127	*366	563	497	266	86	2	*22

a. Includes 1 stillbirth of unknown color.  
 b. Includes 2 stillbirths of unknown color.  
 c. Includes 6 stillbirths of unknown color.  
 d. Includes 7 stillbirths of unknown color.  
 e. Includes 9 stillbirths of unknown color.  
 f. Includes 10 stillbirths of unknown color.

TABLE 5a. WHITE STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1954

Weight	AGE GROUPS										Unknown
	TOTAL	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown	
5 lbs. 9 ozs. and over	477	...	14	75	147	130	80	28	2	1	
over											
2500 grams											
4 lbs. 7 ozs. to											
5 lbs. 8 ozs.	169	...	9	30	50	48	29	3	...	...	
2001-2500											
grams											
3 lbs. 5 ozs. to											
4 lbs. 6 ozs.	141	...	6	24	44	32	24	11	...	...	
1501-2000											
grams											
2 lbs. 3 ozs. to											
3 lbs. 4 ozs.	146	...	11	41	33	38	19	4	...	...	
1001-1500											
grams											
less than											
2 lbs. 3 ozs.											
less than	275	...	19	67	81	63	30	13	...	2	
1001 grams	410	...	20	72	120	124	51	18	...	5	
Unknown											
Total	1618	...	79	309	475	435	233	77	2	8	

TABLE 5b. NONWHITE STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1954

Weight	AGE GROUPS										Unknown
	TOTAL	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown	
5 lbs. 9 ozs. and over	86	...	7	16	30	23	7	3	...	...	
over											
2500 grams											
4 lbs. 7 ozs. to											
5 lbs. 8 ozs.	34	...	3	7	10	6	6	2	...	...	
2001-2500											
grams											
3 lbs. 5 ozs. to											
4 lbs. 6 ozs.	28	1	4	3	10	6	4	...	...	...	
1501-2000											
grams											
less than											
2 lbs. 3 ozs. to											
3 lbs. 4 ozs.	33	1	7	6	8	6	4	1	...	...	
1001-1500											
grams											
less than											
2 lbs. 3 ozs.											
less than	66	...	19	14	18	9	5	...	...	1	
1001 grams	58	...	8	10	12	12	7	...	...	4	
Unknown											
Total	305	4	48	56	88	62	33	9	...	5	

Stillbirths 4d(2)

Stillbirths 4d(2)

TABLE 6. MATERNAL DEATHS BY SPECIFIC CAUSE: 1954

Toxemias of pregnancy (642)	10
Ectopic pregnancy (645)	3
Other complications arising from pregnancy (648)	1
<b>Total complications of pregnancy (640-649)</b>	<b>14</b>
Abortion without mention of sepsis or toxemia (650)	2
Abortion with sepsis (651)	5
<b>Total abortions (650-652)</b>	<b>7</b>
Delivery complicated by placenta praevia or antepartum hemorrhage (670)	3
Delivery complicated by retained placenta (671)	1
Delivery complicated by other postpartum hemorrhage (672)	2
Delivery complicated by prolonged labor of other origin (675)	1
Delivery with other trauma (677)	5
Delivery with other complications of childbirth (678)	1
<b>Total delivery with specified complications (670-678)</b>	<b>13</b>
Sepsis of childbirth and the puerperium (681)	2
Puerperal pulmonary embolism (684)	11
Puerperal eclampsia (685)	6
Other forms of puerperal toxemia (686)	1
Cerebral hemorrhage in the puerperium (687)	3
Other and unspecified complications of the puerperium (688)	2
<b>Total complications of the puerperium (680-689)</b>	<b>25</b>
<b>Total Maternal Deaths</b>	<b>59</b>

TABLE 6a. MATERNAL DEATHS BY CAUSE, COLOR AND AGE GROUPS: 1954

Cause* and Color	Age Groups			
	All Ages	5-14	15-24	25-44
Complications of pregnancy (640-649)	14	1	4	9
White	6	1	2	3
Nonwhite	8	..	2	6
Abortion (650-652)	7	..	1	6
White	2	..	..	2
Nonwhite	5	..	1	4
Delivery with specified complications (670-678)	13	..	6	7
White	12	..	5	7
Nonwhite	1	..	1	..
Complications of the puerperium (680-689)	25	..	7	18
White	21	..	6	15
Nonwhite	4	..	1	3
All causes (640-689)	59	1	18	40
White	41	1	13	27
Nonwhite	18	..	5	13

\* Cause numbers are those of International List, 6th revision.

## DISCUSSION OF TABLES 7 AND 7A

The age groups below 21 years in Table 7 differ for males and females because this variation is necessary to correctly reflect the legal requirements for marriage in New Jersey.

Of the 39,744 married males, 4,115 or 10.4 per cent were less than 21 years of age and had to furnish parental consent. There were 2,110 or 5.3 per cent of the 39,744 females who, being under 18 years of age, had to receive consent.

Of the 4,115 males who were required to furnish parental consent, 207 or 5.0 per cent, being less than 18 years old, had to receive judicial approval of the parental consent. Of the 2,110 females under 18 years of age, 193 or 9.1 per cent were less than 16 years old and so had to receive similar judicial approval of parental consent.

As would be expected, more marriages of both males and females occur in the 20-24 age group than in any other. After males reach 25 years, they seem to prefer to marry females in the next lower age group. Males in the age group 50-59 years tend to select mates in the same age group.



TABLE 7a. MARRIAGES BY PREVIOUS MARITAL STATUS: 1954

Wife's Status	Husband's Status				
	Total	Single	Widowed	Divorced	Unknown
Single .....	32,862	29,610	675	2,276	301
Widowed .....	2,404	681	1,110	580	33
Divorced .....	4,324	2,076	553	1,668	27
Unknown .....	154	57	24	34	39
Total.....	39,744	32,424	2,362	4,558	400

*Compiled annually from monthly coverage tabulations 4 b(2)*

*Deaths 4 d (17)*

TABLE 12. DEATHS FROM MALIGNANT NEOPLASMS BY SITE, SEX, COLOR AND AGE GROUPS, DESIGN AND UNSPECIFIED NEOPLASMS BY SEX, COLOR AND AGE GROUPS: 1964

SITE, SEX AND COLOR	List No.	AGE GROUPS																		
		Under 1 year	1 to 4	5 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 and over	Unknown		
All Malignant	140-205	9504	0	150	158	220	220	290	320	403	103	311	521	821	1022	1240	1500	1280	2073	.....
Total		4831	0	220	250	330	330	433	533	433	433	511	621	821	1022	1240	1500	1280	2073	.....
White Male		4141	2	24	28	36	36	42	52	42	42	49	59	79	99	119	139	159	219	.....
White Female		370	4	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	.....
Nonwhite Male		253	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	.....
Nonwhite Female		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Lip	140	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White Male		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White Female		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nonwhite Male		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nonwhite Female		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Tongue	141	70	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total		59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White Male		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White Female		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nonwhite Male		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nonwhite Female		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Salivary Gland	142	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total		13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White Male		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
White Female		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nonwhite Male		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nonwhite Female		.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....









TABLE 12. DEATHS FROM MALIGNANT NEOPLASMS BY SITE, SEX, COLOR AND AGE GROUPS; BENIGN AND UNSPECIFIED NEOPLASMS BY SEX, COLOR AND AGE GROUPS: 1964—Continued

SITE, SEX AND COLOR	List No.	AGE GROUPS																	
		Total	Under 1 year	1 to 4	5 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 and over	Unknown
<b>Corpus Uteri</b>	172	37							1			0	0	0	0	0	4	7	
Total		37							1			0	0	0	0	0	4	7	
White Male		34							1			0	0	0	0	0	4	7	
White Female		3																	
Nonwhite Male																			
Nonwhite Female																			
<b>Other Parts of Uterus, Including Chorionepithelioma</b>	173	4						1											
Total		4						1											
White Male		4						1											
White Female																			
Nonwhite Male																			
Nonwhite Female																			
<b>Uterus, Unspecified</b>	174	220						2	6	13	17	26	43	37	48	40	26	32	
Total		220						2	6	13	17	26	43	37	48	40	26	32	
White Male		193						2	4	13	16	24	41	36	45	39	26	32	
White Female		27										3	5	8	5	2	2		
Nonwhite Male																			
Nonwhite Female																			
<b>Ovary, Fallopian Tube and Broad Ligament</b>	175	280						2	4	13	16	24	41	36	45	39	26	32	
Total		280						2	4	13	16	24	41	36	45	39	26	32	
White Male		278						2	4	13	16	24	41	36	45	39	26	32	
White Female		11																	
Nonwhite Male																			
Nonwhite Female																			

TABLE 12. DEATHS FROM MALIGNANT NEOPLASMS BY SITE, SEX, COLOR AND AGE GROUPS; BENIGN AND UNSPECIFIED NEOPLASMS BY SEX, COLOR AND AGE GROUPS: 1964—Continued

SITE, SEX AND COLOR	List No.	AGE GROUPS																	
		Total	Under 1 year	1 to 4	5 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 and over	Unknown
<b>Other and Unspecified Female Genital Organs</b>	176	23																	
Total		23																	
White Male		22																	
White Female		1																	
Nonwhite Male																			
Nonwhite Female																			
<b>Prostate</b>	177	407																	
Total		407																	
White Male		373																	
White Female		34																	
Nonwhite Male																			
Nonwhite Female																			
<b>Testis</b>	178	26																	
Total		26																	
White Male		24																	
White Female		1																	
Nonwhite Male																			
Nonwhite Female																			
<b>Other and Unspecified Male Genital Organs</b>	179	10																	
Total		10																	
White Male		9																	
White Female		1																	
Nonwhite Male																			
Nonwhite Female																			

\* Out-of-state death to New Jersey resident. Dual sex organs.





TABLE 12. DEATHS FROM MALIGNANT NEOPLASMS BY SITE, SEX, COLOR AND AGE GROUPS, DESIGN AND UNSPECIFIED NEOPLASMS BY SEX, COLOR AND AGE GROUPS: 1944-Continued

SITE, SEX AND COLOR	List No.	AGE GROUPS																	
		Under 1 Year	1 to 4	5 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 and over	Unknown	
		Total	Male	Female	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite	White
<b>Leukemia and Anemia</b>		379	10	22	4	7	12	15	10	15	18	23	33	41	57	51	50		
Total		379	10	22	4	7	12	15	10	15	18	23	33	41	57	51	50		
White Male		171	16	11	2	3	6	7	9	8	9	9	17	13	24	33	16		
White Female		170	13	11	1	4	5	7	4	7	9	13	16	18	24	18	34		
Nonwhite Male		12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Nonwhite Female		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
<b>Mesodermic Fungoides</b>		203																	
Total		203																	
White Male		119	4	7	2	4	4	4	10	12	13	9	9	12	8	8	6		
White Female		136	4	5	2	2	3	4	10	12	13	9	9	12	8	8	6		
Nonwhite Male		62	4	3	2	2	3	3	4	6	7	7	4	6	6	4	4		
Nonwhite Female		18	1	1	1	1	1	1	3	2	2	1	1	1	1	1	1		
<b>All Benign Neoplasms</b>		110-229																	
Total		110-229																	
White Male		74	6	2	1	1	2	1	4	1	4	13	9	3	0	4	11		
White Female		20	2	1	1	1	2	1	1	1	2	7	8	4	2	2	6		
Nonwhite Male		20	2	1	1	1	1	1	1	1	2	5	1	4	2	2	6		
Nonwhite Female		3	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1		
<b>All Neoplasms of Unspecified Nature</b>		230-239																	
Total		230-239																	
White Male		74	6	2	1	1	2	1	4	1	4	13	9	3	0	4	11		
White Female		20	2	1	1	1	2	1	1	1	2	7	8	4	2	2	6		
Nonwhite Male		20	2	1	1	1	1	1	1	1	2	5	1	4	2	2	6		
Nonwhite Female		3	2	1	1	1	1	1	1	1	2	1	1	1	1	1	1		

TABLE 12a-1. DEATHS FROM NEOPLASMS BY SEX, COLOR AND AGE GROUPS FOR EACH SITE GROUP: 1954

AGE GROUPS	All Neoplasms (140-203) (210-239)	Malignant						Benign or Unspecified (210-239)	
		Total (140-203)	Buccal Cavity and Pharynx (140-148)	Digestive and Peritoneum (150-159)	Respiratory (160-168)	Breast and Genito-urinary (170-181)	Other and Unspecified (190-199)		Lymph and (200-205)
All Ages	9,691	9,504	212	3,821	1,262	2,559	902	748	187
Under 1 yr.	19	9	0	0	0	0	0	5	10
1-4	64	59	0	0	0	0	0	32	5
5-14	67	58	0	3	0	0	0	17	35
15-24	60	53	0	0	0	0	0	18	9
25-44	710	673	11	148	56	245	105	24	7
45-64	3,812	3,734	87	1,351	649	986	368	108	37
65 plus	4,959	4,918	114	2,315	555	1,314	369	293	78
Male	5,191	5,110	188	2,103	1,084	775	520	440	81
Female	4,500	4,394	24	1,718	178	1,784	382	308	106
White	9,137	8,972	198	3,596	1,211	2,395	863	709	165
Nonwhite	554	532	14	225	51	164	39	39	22

Deaths 47 (13)

10/10/54  
 10/10/54  
 10/10/54  
 10/10/54

TABLE 12a-2. DEATHS FROM MALIGNANT NEOPLASMS; PERCENTAGE DISTRIBUTION BY AGE, SITE, SEX AND COLOR: 1954

AGE GROUPS	Total	Site Distribution by Age, Sex and Color							Other and Unspecified (190-199)	Lymph and Blood (200-205)
		Buccal Cavity and Pharynx (140-148)	Digestive and Peritoneum (150-159)	Respiratory (160-165)	Breast and Genito-urinary (170-181)	100.0	100.0	100.0		
All Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Under 1 yr.	0.1	...	...	...	...	...	...	0.4	0.7	
1-4	0.6	...	...	...	...	...	...	2.3	4.3	
5-14	0.6	...	...	...	...	...	...	1.9	4.7	
15-24	0.6	...	...	...	...	...	...	2.0	3.2	
25-44	7.1	5.2	0.1	0.2	0.1	0.2	0.2	11.7	14.4	
45-64	39.3	41.0	3.9	4.4	5.4	9.6	38.5	40.8	39.2	
65 plus	51.7	53.8	60.6	51.4	44.0	51.4	40.9	33.5	33.5	
Male	53.8	88.7	55.0	85.9	30.3	30.3	57.6	58.8	58.8	
Female	46.2	11.3	45.0	14.1	69.7	69.7	42.4	41.2	41.2	
White	94.4	93.4	94.1	96.0	93.6	93.6	95.7	94.8	94.8	
Nonwhite	5.6	6.6	5.9	4.0	6.4	6.4	4.3	5.2	5.2	

Age, Sex and Color Distribution by Site

AGE GROUPS	Total	Site Distribution by Age, Sex and Color							Other and Unspecified (190-199)	Lymph and Blood (200-205)
		Buccal Cavity and Pharynx (140-148)	Digestive and Peritoneum (150-159)	Respiratory (160-165)	Breast and Genito-urinary (170-181)	100.0	100.0	100.0		
All Ages	100.0	2.2	40.2	13.3	26.9	9.5	7.9	9.5	7.9	
Under 1 yr.	100.0	...	...	...	...	...	...	44.4	55.6	
1-4	100.0	...	...	...	...	...	...	35.6	54.2	
5-14	100.0	...	...	...	...	...	...	29.3	60.3	
15-24	100.0	...	...	...	...	...	...	34.0	45.3	
25-44	100.0	1.6	7.5	3.8	9.4	15.6	15.6	16.1	16.1	
45-64	100.0	2.3	22.0	8.3	36.4	26.4	26.4	9.9	7.8	
65 plus	100.0	2.3	47.1	11.3	26.7	26.7	7.5	5.1	5.1	
Male	100.0	3.7	41.1	21.2	15.2	10.2	10.2	8.6	8.6	
Female	100.0	0.5	39.1	4.1	40.6	8.7	7.0	7.0	7.0	
White	100.0	2.2	40.1	13.5	26.7	9.6	7.3	7.3	7.3	
Nonwhite	100.0	2.7	42.3	9.6	30.8	7.3	7.3	7.3	7.3	

*Change  
Age group  
in Pub 12a-1*

TABLE 12a-3. MALIGNANT NEOPLASM DEATHS AND RATES SPECIFIC FOR AGE, SEX AND COLOR (PER ESTIMATED POPULATION): 1954

Age Groups	Estimated Population(a)	Deaths		
		Number	Rate	S.E.(b)
All Ages	5,071,000	9,504	187.4	1.9
Under 5 yrs.	481,000	68	14.1	1.7
5-14	695,000	58	8.3	1.1
15-24	674,000	53	7.9	1.1
25-44	1,648,000	673	40.8	1.6
45-64	1,157,000	3,734	322.7	5.3
65 plus	416,000	4,918	1,182.2	16.9
Male	2,500,000	5,110	204.4	2.9
Female	2,571,000	4,394	170.9	2.6
White	4,731,000	8,972	189.6	2.0
Nonwhite	340,000	532	156.5	6.8

- (a) Estimated population calculated as follows: total population is the excess of births over deaths from April 1, 1950 to July 1, 1954 added to the 1950 census count and rounded to the nearest thousand. Population break-down by age group, sex and color is the 1950 census percentage distribution applied to the total estimated population.
- (b) Standard error of rate must be considered if comparisons are to be made.

*from Table 12a-1*

*Pub 12a-1*

*Oct 1954*







*Deaths 42 (22)(d)*

*Booze and remainder for 1956  
Remove the breaks*

TABLE 13b. MOTOR VEHICLE DEATHS IN NEW JERSEY BY PRIMARY CAUSE OF DEATH, SEX AND AGE GROUPS: 1954  
International List (8th Revision) Numbers 810-835, 900

PRIMARY CAUSE	List No.	Total	Sex		AGE GROUPS						
			Male	Female	Under 1 year	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65 and Over
Total	810-835, 900	823	624	199	1	25	51	145	243	295	140
Collision with											
Railway train	810	21	11	10	1	1	3	5	8	4	
Street car	811	1	1	0	1	0	0	0	0	0	
Tramcar	812	2	2	0	2	0	0	0	0	0	
Trolley	813, 817, 831	21	21	0	20	1	0	0	0	0	
Motorcycle	815, 832	5	5	0	5	0	0	0	0	0	
Other motor vehicle	810, 833	232	182	70	3	0	51	98	69	25	
Horse or horse-drawn vehicle	814, 819	11	11	0	11	0	0	0	0	0	
Fall from object	820-824, 834	216	174	7	6	3	10	12	12	1	
Non-collision	825, 835, 899	13	9	4	6	4	65	92	50	10	
Other and unspecified		13	9	4	6	4	65	92	50	10	

*Deaths 42 (22)(c)*

*Delete in 1956*

TABLE 13c. ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE OF DEATH AND TYPE OF ACCIDENT: 1954  
International List (8th Revision) Numbers 800-903

TYPE OF ACCIDENT	IMMEDIATE CAUSE										
	Poisonous Coke	Poisonous Smoke	Burns	Mechanical Suffocation	Drawn- In	Cutting or Piercing	Falls	Crushing, Fractures and Lacerations	Electric Current	Foreign Bodies	Other Accidents
Total	72	51	105	4	600	924	10	7	114		
Home	67	43	11	2	517	15	4	5	69		
Other occupational	4	2	8	0	42	63	10	1	8		
Public place nonoccupational	0	0	0	0	0	0	0	0	0		
Public place occupational	0	0	0	0	0	0	0	0	0		
Public place nonoccupational and Not specified or unknown	1	12	1	140	0	46	5	1	10		
Total	72	51	105	4	600	924	10	7	114		

These totals vary in some instances from figures in other tabulations of accidental deaths. In this table the deaths are classified by the immediate cause irrespective of the underlying cause of death.

TABLE 13d. ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE OF DEATH AND COUNTY OF ACCIDENT: 1954  
International List (6th Revision) Numbers 800-902

Total	Poisonous Gas and Smoke	Burns	Mechanical Strangulation	Drowning	Cutting or Piercing	Falls	Crushing, Fractures and Landslides	Electric Current	Foreign Bodies	Other Accidents										
											Atlantic County	Burlington County	Camden County	Cape May County	Essex County	Gloucester County	Hudson County	Hunterdon County	Middlesex County	Monmouth County
100	4	11	2	9	15	56	1	6	...	...										
165	1	4	4	8	8	57	15	1	...	...										
82	1	4	4	8	8	47	8	1	...	...										
133	1	3	5	9	5	55	15	1	...	...										
64	1	2	6	10	11	64	11	1	...	...										
851	14	34	1	12	11	20	41	1	...	...										
177	7	7	1	6	179	87	3	1	...	...										
128	13	14	2	17	14	42	2	2	...	...										
29	2	4	1	1	8	14	2	1	...	...										
111	5	12	4	6	35	74	2	1	...	...										
147	9	4	4	1	46	46	1	1	...	...										
128	3	8	4	13	39	68	4	1	...	...										
83	2	2	1	8	10	65	2	1	...	...										
112	7	2	2	10	16	25	4	1	...	...										
36	1	5	1	7	39	44	1	1	...	...										
48	1	4	2	2	4	18	1	1	...	...										
117	6	1	3	1	0	28	1	1	...	...										
29	1	1	2	10	7	13	1	1	...	...										
12	0	0	2	2	4	47	1	1	...	...										
30	1	1	1	1	0	3	2	1	...	...										
83	1	1	2	2	0	4	20	1	...	...										
2187	72	151	51	165	4	690	924	10	7	114										

These totals vary in some instances from figures in other tabulations of accidental deaths. In this table the deaths are classified by the immediate cause irrespective of the underlying cause of death.

TABLE 13e. NON-TRANSFERT ACCIDENTAL DEATHS IN NEW JERSEY BY PRIMARY CAUSE OF DEATH AND PLACE OF ACCIDENT: 1954  
International List (6th Revision) Numbers 870-899, 901-902

PRIMARY CAUSE	List No.	Total	Home	Farm	Mine and Quarry	Industrial Places and Premises	Place for Recreation and Sport	Street and Highway	Public Building	Resident Institution	Other Specified Place	Place Not Specified
Total	800-959	1247	704	23	10	77	37	78	40	50	185	16
Poisoning by solid and liquid substances	870-885	20	20	...	...	...	...	...	...	...	...	...
Poisoning by gases and vapors	880-895	55	40	...	...	...	...	...	...	...	...	...
Falls	900-904	638	403	7	2	26	5	52	20	59	6	9
Crushing, fractures and land slides	905	142	110	5	1	11	2	2	3	2	3	...
Mechanical suffocation in bed	909	142	41	...	...	...	...	...	...	...	...	...
Drowning	909	136	4	...	...	...	...	...	...	...	...	...
Other causes	910-915	186	62	10	7	36	1	23	6	4	17	20
	917-923	...	...	...	...	...	...	...	...	...	...	...
	924	...	...	...	...	...	...	...	...	...	...	...
	930	...	...	...	...	...	...	...	...	...	...	...
	939	...	...	...	...	...	...	...	...	...	...	...
	901-902	...	...	...	...	...	...	...	...	...	...	...

*Deaths 40-899*  
*Deaths 900-912*  
*Deaths 910-915*  
*Deaths 917-923*  
*Deaths 924*  
*Deaths 930*  
*Deaths 939*  
*Deaths 901-902*

*OK*  
*Deaths 900-912*  
*Deaths 910-915*  
*Deaths 917-923*  
*Deaths 924*  
*Deaths 930*  
*Deaths 939*  
*Deaths 901-902*

Deaths 4d (22) (h)  
 Table m. 1956

TABLE 18f. ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE OF DEATH BY AGE GROUPS: 1954  
 International List (8th Revision) Numbers 800-903

IMMEDIATE CAUSE	All Ages	AGE GROUPS							Unknown
		<1 year	1-4	5-14	15-24	25-44	45-64	65+	
Total	2107	73	96	103	217	454	478	723	...
Poisonous gas and smoke	72	1	3	6	6	6	14	24	...
Burns	131	3	10	7	13	20	32	48	...
Mechanical suffocation	111	39	1	2	1	6	2	15	...
Drowning	105	1	22	98	30	31	28	28	...
Crushing or piercing	4	..	..	..	..	..	..	..	...
Falls	600	7	6	0	6	2	123	1	...
Crushing, fractures, lacerations	924	1	20	60	146	277	241	412	...
Electric current	19	..	..	..	..	..	..	..	...
Foreign bodies	7	..	..	..	..	..	..	..	...
Other accidents	114	20	13	8	7	21	23	20	...

These totals vary in some instances from figures in other tabulations of accidental deaths. In this table the deaths are classified by the immediate cause irrespective of the underlying cause of death.

Table

Deaths 4d (22) (h)  
 Table m. 1956

TABLE 18g. MOTOR VEHICLE DEATHS IN NEW JERSEY BY TYPE OF VEHICLE BY AGE GROUPS: 1954  
 International List (8th Revision) Numbers 810-835, 990

ACCIDENT INVOLVING	All Ages	AGE GROUPS							Unknown
		<1 year	1-4	5-14	15-24	25-44	45-64	65+	
Goods transport vehicle(s), but no other motor vehicle	60	1	3	4	0	24	18	10	...
Goods transport vehicle and passenger motor vehicle	54	..	..	..	14	23	13	4	...
Goods transport vehicle and motor bus	2	..	..	..	..	2	..	..	...
Tractor or tractor-trailer	688	..	..	..	..	130	111	163	...
Passenger motor vehicle and motor vehicle	688	..	20	14	112	132	2	1	...
Passenger motor vehicle and motor bus	6	..	..	..	..	..	..	..	...
Passenger motor vehicle and unspecified motor vehicle	..	..	..	..	..	..	..	..	...
Motor bus(es), but no other motor vehicle	4	..	..	..	..	..	..	..	...
Motor bus and unspecified motor vehicle	..	..	..	..	..	..	..	..	...
Other motor vehicles	829	1	20	51	145	248	208	146	...
Total	829	1	20	51	145	248	208	146	...

Table

TABLE 14. CAUSES OF DEATH AS PERCENTAGE OF TOTAL 51,203 DEATHS; WITH PERCENTAGE BY SEX FOR EACH CAUSE: 1954

Classified by International Abridged List of Causes (6th Revision)

Table with columns: Abridged List No., Detail List No., CAUSE GROUPS, Per Cent of Total, Per Cent Male, Per Cent Female. Rows include Infective and parasitic diseases, Tuberculosis of respiratory system, Typhoid fever, Cholera, Dysentery, all forms, etc.

TABLE 15. DEATH RATES(a): TOTAL, WHITE AND NONWHITE BY CAUSE: 1954

Classified by International Abridged List of Causes (6th Revision)

Table with columns: Abridged List No., Detail List No., CAUSE GROUPS, Total, RATE PER 100,000 ESTIMATED POPULATION (White, Nonwhite). Rows include Infective and parasitic diseases, Tuberculosis of respiratory system, Typhoid fever, Cholera, Dysentery, all forms, etc.

(a) Data from which rates were calculated appear in Table 17. (b) Death rates for complications of pregnancy, childbirth and the puerperium (640-639) are excluded from this table as they are computed per 1,000 live births.





## DISCUSSION OF TABLES 18 and 18a

In 1954, New Jersey acquired 118,252 live-born babies. During the same year, the State lost by death 2,789 infants. This loss occurred at the rate of 24 infants for each 1,000 live births.

In the attached table, the 2,789 infant deaths are considered in terms of causes with public health significance and causes without public health significance. Of these deaths, 96 per cent or 2,670 were charged to causes which should be of concern to public health workers. Of these, 572 (21 per cent) were classified as prematurity unqualified. If clinical and pathological examinations had been emphasized more, perhaps specific causes could have been discovered. An additional 670 deaths, designated with immaturity, had causes assigned.

As a result of congenital malformations and mental deficiency, 503 infants died. That represents 19 per cent of all infant deaths of special interest to public health workers. The causes of congenital malformations and mental deficiency with resultant deaths near birth lend themselves to attack in the research field.

Public health workers should also be concerned with the 301 infant deaths classified as diseases of the respiratory system. It is interesting to note that 222 or nearly  $\frac{3}{4}$  of these 301 deaths occurred in infants 28 days old or older. This is the leading cause of death during the later infancy period. The 301 deaths include 76 from pneumonia of the newborn.

More than 10 per cent of the deaths assigned to causes which are thought to have public health significance was charged to birth injuries. This is an obstetrical problem which should be studied intensively by a medical committee as the problem of maternal deaths has been studied in New Jersey.

In 1954, New Jersey lost 39 infants by accidental mechanical suffocation in bed or cradle. Studies have shown that diagnoses in this category may be subject to great error unless substantiated by careful autopsy. A medical committee should relate such deaths to the autopsy records in the hospitals.

If New Jersey's live-born babies die, they experience death early in their brief existence. See following table.

TABLE 18a  
INFANT DEATHS BY AGE AND IMMATURETY: 1954

Age	Cumulative Totals		Immaturity Indicated On Death Certificate		Immaturity Not Indicated On Death Certificate	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
< 1 day	1082	38.8	719	57.9	363	23.5
< 1 week	1834	65.8	1146	92.3	688	44.5
< 28 days	2078	74.5	1224	98.6	854	55.2
< 1 year	2789	100.0	1242	100.0	1547	100.0

Of all the babies who died in 1954, 39 per cent failed to live 24 hours beyond birth. Before one week elapsed, 66 per cent of the 2,789 babies had died. Before the end of the neonatal period (28 days), 75 per cent of the 2,789 babies had completed their short lives.

In 1954, the immature babies so designated on the death certificates contributed 1,242 or approximately 45 per cent of the total 2,789 infant deaths. Of these 1,242 babies, 719 or 58 per cent died within the first day of life. The immature babies dying within their first day of life accounted for 66 per cent of the 1,082 infants who died within 24 hours of birth. Before attaining one week of age, 1,146 or 92 per cent of these 1,242 immature babies died. Twelve-hundred and twenty-four or nearly 99 per cent of the immature babies who died did so before attaining 28 days of age. This contrasts sharply with the 55 per cent of the mature babies who died during their neonatal period, i. e., 854 of the total 1,547 mature babies failed to live 28 days.

## PRINCIPAL CAUSES OF DEATH BY AGE GROUPS: 1954

In the following selection of principal causes of death, certain groupings were made when the causes were functionally or etiologically related. If such relation did not exist, then individual causes were chosen. Although one might expect that the list for each age group would include the same number of causes, such an arbitrary method would in some instances result in placing undue importance upon the causes at the end of the list. For some groups, the small numerical totals of causes further down such a list would be so nearly alike that one could not truly be ranked above another. Where the numbers were meaningful, an attempt was made to include for each age group most of the principal causes of death which affected the total population regardless of age.

In 1954, as in 1953, twelve principal causes of death are listed for all ages. Combined, the twelve causes account for 88.6 per cent of the 51,203 resident deaths which occurred during 1954.

Heading the 1954 list are the same three principal causes of death in the same rank order as they appeared on the 1953 listing. These are the diseases of the circulatory system, malignant neoplasms, and vascular lesions. Of importance is the rank order change which occurred for tuberculosis and accidental falls. In 1953 tuberculosis ranked ninth while in 1954 it dropped to the twelfth position. Accidental falls, on the other hand, moved up from the eleventh place held in 1953 to the ninth position in 1954.

Deaths from diseases of the circulatory system, still the leading cause of death, decreased by 4.0 per cent or 983 deaths. In 1954 there were 23,460 deaths assigned to this category, accounting for 45.8 per cent of the total deaths vs 24,443 deaths and 46.3 per cent in 1953. Primarily, the decrease affected the age groups 45-64 and 65 and over. Specifically, the drop in deaths occurred

Reconsider for 1956  
 1956  
 1956

in (1) arteriosclerotic and degenerative heart disease and (2) hypertension with heart disease.

In 1954 deaths from malignant neoplasms (cancer and allied conditions) accounted for 18.6 per cent of the total deaths. The 1953 percentage was lower by nearly one per cent. Cancer appears as one of the first two principal causes in each age group, starting with 1-4 years. As compared with 1953, the number of deaths due to cancer in 1954 decreased by 3.5 per cent in the 45-64 age group, while a 6.8 per cent increase occurred in the age group 65 years and over.

Immaturity unqualified and diseases with immaturity, fourth in rank, constituted 2.4 per cent of the total deaths and affected specifically the age group under 1 year. It is important to note that 58 per cent of the 1,242 immature babies died within their first day of life; 92 per cent of the 1,242 babies failed to survive one week; approximately 99 per cent of the immature babies died before reaching the age of 28 days. A slight increase in the 1954 deaths was noted in this category as compared with 1953.

Fifth in rank for all ages, influenza, pneumonia and bronchitis were responsible for 2.4 per cent of the total deaths in 1954. Deaths due to these respiratory diseases numbered 1,235 in 1954 as compared with 1,350 in 1953. As in the preceding year, these diseases ranked first in the 1-4 age group in 1954.

Diabetes was sixth in rank for all ages, fifth in the age group 45-64 years, and fourth in the age group 65 years and over. In 1954 there was a slight increase in deaths from diabetes as compared with 1953. The increase affected the two age groups, 45-64 years and 65 years and over, in which most of the diabetes deaths occurred. In 1954 there were 1,106 diabetes deaths or 2.2 per cent of all deaths recorded for the year.

Cirrhosis of the liver, with a total of 754 deaths, was the seventh leading cause of death for all ages. More than half of the deaths due to cirrhosis of the liver occurred in the age group 45-64 years in both 1953 and 1954.

Motor vehicle accidents, eighth in rank for all ages, accounted for 743 deaths or 1.4 per cent of the total deaths in 1954. As compared with 763 deaths in 1953, there was a slight decrease in the number of deaths due to motor vehicle accidents in 1954. Considered as a single cause of death, motor vehicle accidents appeared as the fourth leading cause of death in the age group 1-4 years, second in 5-14 years, first in 15-24 years, and third in 25-44 years.

Deaths due to accidental falls were higher in 1954. Accidental falls were responsible for 667 fatalities as compared with 632 in 1953. In 1953 falls ranked eleventh among the twelve leading causes of death; in 1954 the rank order was ninth. In both years accidental falls took the highest toll in the age group 65 years and over.

Tuberculosis, twelfth in rank for all ages in 1954, was ninth in order of frequency in 1953. There were 558 tuberculosis deaths in 1954 as compared

with 693 in the preceding year. This represents a decrease in 1954 of 135 deaths or nearly 19 per cent. In comparing the tuberculosis deaths by age groups for the years 1953 and 1954 it was found that though each age group showed a decrease in deaths in 1954, the age groups 25-44 and 45-64 were affected most by the decline.

Although poliomyelitis is not one of the leading causes of death, it is of interest to know that there were 37 deaths due to this cause in 1954. This total was three less than the 40 poliomyelitis deaths recorded in 1953. Fifteen of the 37 deaths in 1954 occurred to persons in the 25-44 age group.

Suicide did not appear as a principal cause of death for all ages, but ranked fourth in 15-24 years, fourth in 25-44 years, and eighth in 45-64 years. In 1953 suicide was the eighth leading cause of death in the age group 25-44 years. In this age group there were 136 deaths due to suicide in 1954 as against 100 deaths in 1953. There were 470 suicides in 1954 as compared with 451 in the preceding year.

Fire and explosion of combustible materials caused 33 deaths of children under 15 years of age as compared with 39 deaths in 1953. This category appeared as the seventh leading cause of death in each of the age groups 1-4 and 5-14 years.

In the age group 15-24 years, pregnancy, childbirth and the puerperium was the sixth leading cause of death. Eighteen deaths, or approximately 31 per cent of the 59 deaths due to maternal causes, occurred in this age group. There were 55 maternal deaths in 1953.

On the whole, residents of New Jersey experienced a lower mortality rate in 1954. Careful study of the causes of death in each age group, with particular reference to those of a preventable nature, may reveal problem areas in which public health workers could work to an advantage.

TABLE 19. PRINCIPAL CAUSES OF DEATH BY AGE GROUPS;  
NUMBERS AND PERCENTAGES: 1954

ALL AGES

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Diseases of the circulatory system (400-468) .....	23,460	45.8
2	Malignant neoplasms (140-205) .....	9,504	18.6
3	Vascular lesions (330-334) .....	4,897	9.6
4	Immaturity unqualified and diseases with immaturity (714-716, 760-743 with 0.5 or more) .....	1,242	2.4
5	Influenza, pneumonia, and bronchitis (480-502) .....	1,235	2.4
6	Diabetes (290) .....	1,106	2.2
7	Cirrhosis of liver (581) .....	754	1.5
8	Motor vehicle accidents (810-835) .....	743	1.4
9	Falls (900-904) .....	667	1.3
10	Congenital malformations (750-756) .....	636	1.2
11	Nephritis and nephrosis (890-894) .....	572	1.1
12	Tuberculosis (001-019) .....	558	1.1
	All other .....	5,829	11.4
	Total deaths .....	51,203	100.0

Deaths 4.19  
and Circulation  
from p. 17



TABLE 19. PRINCIPAL CAUSES OF DEATH BY AGE GROUPS;  
NUMBERS AND PERCENTAGES: 1954—Continued  
UNDER 1 YEAR

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Postnatal asphyxia and atelectasis (762)	572	20.5
2	Immaturity unqualified (774-776)	572	20.5
3	Congenital malformations and congenital diseases of the nervous system (325, 750-759)		
4	Birth injuries (760-761)	503	18.1
5	Pneumonia and pneumonia of the newborn (490-493, 763)	271	9.7
6	Diseases of the digestive system (530-537, 764)	251	9.0
7	Hemorrhagic disease of the newborn (770)	106	3.8
	All other	76	2.7
	Total deaths	438	15.7
		2,780	100.0

## 1-4 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Influenza, pneumonia, and bronchitis (480-502)	73	16.3
2	Malignant neoplasms (140-205)	59	13.1
3	Congenital malformations (750-759)	32	11.6
4	Motor vehicle accidents (810-835)	25	5.6
5	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn (543, 571, 572)	23	5.1
6	Drowning (929)	20	4.5
7	Fire and explosion of combustible material (916)	18	4.0
8	Measles (053)	10	2.2
9	Nephritis and nephrosis (590-594)	10	2.2
10	Meningococcal infections (057)	9	2.0
11	Vascular lesions (330-334)	9	2.0
	All other	141	31.4
	Total deaths	449	100.0

## 5-14 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Malignant neoplasms (140-205)	58	16.8
2	Motor vehicle accidents (810-835)	47	13.7
3	Drowning (929)	37	10.7
4	Diseases of the circulatory system (400-468)	21	6.1
5	Influenza, pneumonia, and bronchitis (480-502)	15	4.4
6	Congenital malformations (750-759)	15	4.4
7	Fire and explosion of combustible material (916)	12	3.5
8	Nephritis and nephrosis (590-594)	11	3.2
	All other	128	37.2
	Total deaths	314	100.0

## 15-24 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Motor vehicle accidents (810-835)	127	25.8
2	Malignant neoplasms (140-205)	58	10.7
3	Diseases of the circulatory system (400-468)	38	7.7
4	Suicide (970-979)	24	4.9
5	Drowning (929)	20	4.1
6	Pregnancy, childbirth and the puerperium (640-689)	18	3.7
7	Tuberculosis (001-019)	18	3.7
8	Influenza, pneumonia, and bronchitis (480-502)	12	2.4
9	Nephritis and nephrosis (590-594)	12	2.4
	All other	177	35.0
	Total deaths	493	100.0

TABLE 19. PRINCIPAL CAUSES OF DEATH BY AGE GROUPS;  
NUMBERS AND PERCENTAGES: 1954—Continued  
25-44 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Diseases of the circulatory system (400-468)	949	28.4
2	Malignant neoplasms (140-205)	673	20.2
3	Motor vehicle accidents (810-835)	197	5.9
4	Suicide (970-979)	196	4.1
5	Tuberculosis (001-019)	121	3.6
6	Cirrhosis of liver (581)	121	3.6
7	Vascular lesions (330-334)	115	3.4
8	Nephritis and nephrosis (590-594)	94	2.8
9	Influenza, pneumonia, and bronchitis (480-502)	83	2.5
10	Falls (900-904)	66	2.0
11	Homicide (980-983)	65	2.0
	All other	717	21.5
	Total deaths	3,337	100.0

## 45-64 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Diseases of the circulatory system (400-468)	6,890	45.3
2	Malignant neoplasms (140-205)	3,734	24.6
3	Vascular lesions (330-334)	1,204	7.9
4	Cirrhosis of liver (581)	404	2.6
5	Diabetes (200)	352	2.3
6	Tuberculosis (001-019)	225	1.5
7	Influenza, pneumonia, and bronchitis (480-502)	226	1.5
8	Suicide (970-979)	213	1.4
9	Nephritis and nephrosis (590-594)	198	1.3
10	Motor vehicle accidents (810-835)	195	1.3
	All other	1,561	10.3
	Total deaths	15,205	100.0

## 65 YEARS AND OVER

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Diseases of the circulatory system (400-468)	15,556	54.4
2	Malignant neoplasms (140-205)	4,918	17.2
3	Vascular lesions (330-334)	3,543	12.4
4	Diabetes (200)	695	2.4
5	Influenza, pneumonia, and bronchitis (480-502)	621	2.2
6	Falls (900-904)	430	1.6
7	Nephritis and nephrosis (590-594)	245	0.9
8	Cirrhosis of liver (581)	226	0.8
9	Ulcer of stomach and duodenum (540-541)	193	0.7
10	Tuberculosis (001-019)	187	0.6
	All other	1,950	6.8
	Total deaths	28,586	100.0







TABLE 20. DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST (8th REVISION), FOR THE STATE BY SEX, COLOR AND AGE GROUPS, 1934.—Continued

CAUSE OF DEATH	Total		White		Nonwhite		Age Groups								
	Total	Male	Female	Male	Female	Male	Female	<	1-4	5-14	15-24	25-44	45-64	65+	Unknown
335. Other diseases of brain.....	30	9	16	3	2										
337. Other diseases of spinal cord.....	39	25	14	14	3										
340. Facial paralysis.....	11	4	6	1											
342. Bell's palsy.....	2														
343. Facial neuritis.....	2														
345. Sciatica.....	1														
344. Polyneuritis and polyradiculitis.....	5	8	1	1	1										
346. Ergosterolemia polyneuritis.....	1														
347. Other and unspecified forms of neuritis and neuropathy.....	1														
348. Other diseases of cranial nerves.....	1														
349. Other diseases of peripheral autonomic nervous system.....	1														
350. Compactionitis and ophthalmia.....	1														
351. Eosinophilitis.....	1														
352. Iritis.....	1														
353. Iritis (serous type).....	1														
374. Keratitis.....	1														
376. Choroiditis.....	1														
377. Inflammation of vent tract.....	1														
378. Inflammation of lacrimal gland and ducts.....	1														
379. Inflammation of lacrimal gland.....	1														
380. Inflammation of lacrimal duct.....	1														
381. Other inflammatory diseases of eye.....	1														
382. Conjunctivitis.....	1														
383. Conjunctivitis (acute).....	1														
384. Corneal opacity.....	1														
385. Pterygium.....	1														
386. Strabismus.....	1														
387. Detachment of retina.....	1														
388. Other diseases of eye.....	1														
389. Blindness.....	1														
390. Blindness (congenital).....	1														
391. Otitis media without mention of mastoiditis.....	4	3	1	1	1										
392. Otitis media with mastoiditis.....	1														
393. Mastoiditis without mention of otitis media.....	1														
394. Other inflammatory diseases of ear.....	2														
395. Otitis externa.....	1														
396. Other diseases of ear.....	1														
397. Deaf mutism.....	1														
398. Deaf mutism.....	1														
399. Other deafness.....	1														
400. Rheumatic fever without mention of heart involvement.....	6	4	4	1	1										
401. Rheumatic fever with heart involvement.....	34	12	14	1	1										
402. Chorea.....	6	4	4	1	1										

410. Diseases of mitral valve.....	221	87	118	9	1										
411. Diseases of aortic valve specified as rheumatic.....	42	27	12	1	2										
412. Diseases of tricuspid valve.....	1														
413. Diseases of pulmonary valve specified as rheumatic.....	46	19	27	2	2										
414. Other heart diseases specified as rheumatic.....	10	105	222	12	12										
415. Other heart disease specified as rheumatic.....	14119	8427	5346	307	240										
416. Other heart disease specified as rheumatic.....	100	82	88	11	11										
421. Chronic endocarditis not specified as rheumatic.....	3999	1827	1096	124	103										
422. Acute and subacute endocarditis.....	40	19	18	2	1										
431. Acute myocarditis not specified as rheumatic.....	4	2	1	1	1										
432. Acute pericarditis specified as nonrheumatic.....	52	24	23	3	3										
433. Functional disease of heart.....	234	137	94	18	5										
441. Essential benign hypertension with heart disease.....	8	8	6	1	1										
442. Hypertensive heart disease with arteriolar nephrosclerosis.....	628	294	272	30	32										
443. Hypertensive heart disease with hypertensive heart disease.....	1810	693	908	68	121										
444. Essential benign hypertension without mention of heart.....	38	13	10	2	5										
445. Hypertension with arteriolar nephrosclerosis without mention of heart.....	36	19	16	6	7										
446. Hypertension with arteriolar nephrosclerosis without mention of heart.....	200	88	94	12	11										
447. Other hypertensive disease without mention of heart.....	33	23	23	3	4										
451. Aortic aneurysm specified as nonmycotic and dissecting aneurysm.....	473	117	40	10	22										
452. Other aneurysm, except of heart and aorta.....	15	9	4	2	2										
453. Arteriplex vascular disease.....	9	6	8	1	1										
454. Gangrene of unspecified cause.....	22	7	13	1	1										
455. Gangrene of unspecified cause.....	2	4	1	1	1										
456. Other diseases of arteries.....	18	4	1	1	1										
457. Varicose veins of lower extremities.....	2	2	5	1	1										
458. Varicose veins of other specified sites.....	4	2	2	2	2										
459. Varicose veins of other unspecified sites.....	5	4	1	1	1										
463. Phlebitis and thrombophlebitis of lower extremities.....	27	12	13	1	1										
464. Phlebitis and thrombophlebitis of other sites.....	56	26	22	4	4										
465. Pulmonary embolism and infarction.....	10	10	9	1	1										
467. Other disease embolism and thrombosis.....	10	6	2	2	2										
468. Certain diseases of lymph nodes and lymph channels.....	2	2	2	2	2										
470. Acute sinusitis (common cold).....	1	1	1	1	1										
471. Acute sinusitis.....	1	1	1	1	1										
472. Acute sinusitis.....	4	4	1	1	1										
473. Acute tonsillitis.....	4	2	1	1	1										
474. Acute laryngitis and tracheitis.....	1	1	1	1	1										
475. Acute upper respiratory infection of multiple or unspecified sites.....	17	8	7	1	2										
476. Influenza with pneumonia.....	5	5	3	1	2										
481. Influenza with other respiratory manifestations, but without respiratory symptoms.....	21	10	8	3	4										
482. Influenza with digestive manifestations, but without respiratory symptoms.....	1	1	1	1	1										
483. Influenza with nervous manifestations, but without digestive or other symptoms.....	1	1	1	1	1										
490. Lobar pneumonia.....	114	69	108	32	33										
491. Bronchopneumonia.....	622	281	258	52	52										

TABLE 20. DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST (6th REVISION), FOR THE STATE  
BY SEX, COLOR AND AGE GROUPS, 1954--Continued

CAUSE OF DEATH	Total		White		Nonwhite		Age Groups							
	Total	Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
499. Primary atypical pneumonia.....	133	68	65	7	0	2	9	32	49	.....	.....	.....	.....	.....
500. Acute bronchitis.....	6	3	2	1	0	.....	.....	.....	.....	.....	.....	.....	.....	.....
501. Bronchitis unqualified.....	53	18	11	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
502. Chronic bronchitis.....	171	99	77	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
503. Pyelonephritis of bladder and adenoids.....	6	3	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
511. Chronic pharyngitis and nasopharyngitis.....	32	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
512. Chronic sinusitis.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
513. Infective sinusitis.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
514. Infective nasal septum.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
515. Other diseases of upper respiratory tract.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
516. Chronic laryngitis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
517. Empyema.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
518. Stenosis of larynx.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
520. Stenosis of trachea.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
521. Abscess of lung.....	11	6	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
522. Pulmonary congestion and hyopneumia.....	16	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
523. Pneumococci due to silico and silicatos (occupational).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
524. Other pneumococcal pneumonias and pulmonary abscess of occupationally active.....	33	33	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
525. Other chronic interstitial pneumonias.....	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
526. Bronchiectasis.....	54	41	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
527. Other diseases of lung and pleural cavity.....	73	67	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
528. Abscess of suppurative structure of tooth.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
531. Other inflammatory diseases of suppurative structures of teeth.....	203	153	39	9	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
532. Disorders of occlusion, eruption and tooth development.....	217	172	30	11	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
533. Parodontia from unspecified cause.....	6	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
534. Other diseases of teeth and supporting structures.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
536. Stomatitis.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
537. Diseases of salivary glands.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
538. Other diseases of buccal cavity.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
540. Ulcers of esophagus.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
541. Ulcer of duodenum.....	203	153	39	9	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
542. Gastrojejunal ulcer.....	217	172	30	11	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
543. Gastritis and duodenitis.....	6	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
544. Other diseases of stomach.....	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
545. Other diseases of esophagus and duodenum.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
550. Acute appendicitis.....	101	10	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
551. Appendicitis unqualified.....	88	38	22	6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
552. Other appendicitis.....	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
553. Other diseases of appendix.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
559. Hernia of abdominal cavity without mention of obstruction.....	53	28	23	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
561. Hernia of abdominal cavity with obstruction.....	65	49	41	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
570. Intestinal obstruction, without mention of hernia.....	153	61	47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
571. Gastro-enteritis and colitis, except ulcerative, age 4 weeks and over.....	100	47	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
572. Chronic enteritis and ulcerative colitis.....	106	48	55	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
573. Functional disorders of intestines.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
574. Abscess of anal and rectal regions.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
575. Abscess of anal and rectal regions.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
576. Peritonitis.....	18	12	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
577. Peritoneal adhesion.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
578. Other diseases of intestines and peritoneum.....	38	16	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
580. Acute pancreatitis.....	18	11	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
581. Cirrhosis of liver.....	74	40	29	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
582. Suppurative hepatitis and liver abscess.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
583. Other diseases of liver.....	18	12	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
585. Cholecystitis without mention of calculus.....	176	79	114	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
586. Other diseases of gallbladder and biliary ducts.....	13	13	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
587. Disease of pancreas.....	53	32	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
590. Acute nephritis.....	35	13	17	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
592. Chronic nephritis.....	42	19	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
593. Nephritis not specified as acute or chronic.....	180	175	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
594. Other renal sclerosis.....	19	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
595. Infections of kidney.....	41	21	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
596. Other diseases of kidney.....	133	60	51	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
602. Calculi of kidney and ureter.....	36	18	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
603. Other diseases of kidney and ureter.....	37	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
604. Calculi of other parts of urinary system.....	11	10	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
605. Cystitis.....	12	7	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
606. Stricture of urethra.....	5	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
607. Trichinosis (nonvenereal).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
608. Stricture of urethra.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
609. Other diseases of urethra.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
610. Hyperplasia of prostate.....	178	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
612. Other diseases of prostate.....	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
613. Hydronephrosis.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
614. Orchitis and epididymitis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
615. Stenosis of prepuce and phimosis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
617. Other diseases of male genital organs.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
620. Chronic cystic disease of breast.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
621. Other diseases of breast.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
622. Carcinoma of breast.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
623. Carcinoma of breast.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
624. Subcutaneous abscesses, unqualified.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
625. Other diseases of ovary and Fallopian tube.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
626. Diseases of parametrium and pelvic peritoneum (female).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
630. Infective disease of uterus, vagina and vulva.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
632. Metrorrhagia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
633. Other diseases of uterus.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
634. Disorders of menstruation.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
635. Menorrhagia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
636. Sterility, female.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABLE 20. DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST (8th REVISION), FOR THE STATE  
BY SEX, COLOR AND AGE GROUPS: 1964—Continued

CAUSE OF DEATH	Total		White		Nonwhite		Age Groups								
	Total	Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
637. Other diseases of female genital organs															
640. Erythema and pyelonephritis of pregnancy															
642. Toxic infections of genito-urinary tract during pregnancy															
643. Toxemia of pregnancy															
644. Placenta previa	10	8	2	1	1	1	1	1	1	2					
645. Other hemorrhages of pregnancy															
646. Ectopic pregnancy	3	2	1	1	1	1	1	1	1	2					
647. Premia of pregnancy															
648. Other complications of fetus in uterus															
649. Pregnancy associated with other conditions															
650. Abortion without mention of sepsis or toxemia	2	1	1	1	1	1	1	1	1	2					
652. Abortion with sepsis	5	4	1	1	1	1	1	1	1	4					
660. Delivery without complication of sepsis															
670. Delivery complicated by placenta previa or antepartum hemorrhage	3	2	1	1	1	1	1	1	1	2					
671. Delivery complicated by retained placenta	2	2	2	2	2	2	2	2	2	1					
673. Delivery complicated by other postpartum hemorrhage															
674. Delivery complicated by abnormality of bony pelvis															
675. Delivery complicated by abnormality of fetus															
676. Delivery with laceration of perineum, without mention of other	1	1	1	1	1	1	1	1	1	1					
677. Delivery with other trauma															
678. Delivery with other complications of childbirth	5	5	1	1	1	1	1	1	1	4					
680. Puerperal urinary infection without other sepsis	1	1	1	1	1	1	1	1	1	1					
682. Sepsis of childbirth and the puerperium	2	2	2	2	2	2	2	2	2	1					
683. Pyrexia of unknown origin and thrombosis															
684. Pyrexia of unknown origin during the puerperium	11	9	2	2	2	2	2	2	2	8					
685. Puerperal eclampsia	10	8	2	2	2	2	2	2	2	5					
687. Other forms of puerperal toxemia	1	1	1	1	1	1	1	1	1	1					
688. Other and unspecified	3	3	3	3	3	3	3	3	3	1					
689. Mastitis and other disorders of lactation															
690. Boil and carbuncle	1	1	1	1	1	1	1	1	1	1					
692. Other infection of finger and toe															
693. Other infections of the puerperium	1	1	1	1	1	1	1	1	1	1					
694. Other cellulitis and abscess with lymphangitis	8	4	4	4	4	4	4	4	4	3					
695. Acute lymphadenitis															
696. Impetigo															
697. Multibacillary waris															
698. Other local infections of skin and subcutaneous tissue															
700. Seborrheic dermatitis	2	2	2	2	2	2	2	2	2	1					
702. Occupational dermatitis															
703. Other dermatitis															
704. Pimplular dermatitis	6	4	2	2	2	2	2	2	2	4					
705. Erythematous conditions															
706. Psoriasis and similar disorders															
707. Lichen planus															
708. Other unclassified conditions															
709. Corns and calluses															
710. Other hypertrophic and atrophic conditions of skin	5	1	4	1	1	1	1	1	1	4					
711. Other dermatoses															
712. Diseases of nail and hair															
713. Diseases of sweat and sebaceous glands															
714. Diseases of avian and ungulate															
715. Chronic ulcer of skin															
716. Other diseases of skin	1	1	1	1	1	1	1	1	1	1					
720. Acute arthritis due to zoonotic organisms															
722. Rheumatoid arthritis and allied conditions	39	11	24	11	11	11	11	11	11	24					
723. Osteo-arthritis (arthrosis) and allied conditions	10	2	8	2	2	2	2	2	2	8					
724. Other specified forms of arthritis	1	1	1	1	1	1	1	1	1	1					
725. Muscular rheumatism	4	1	3	1	1	1	1	1	1	3					
727. Rheumatism unspecified	4	1	3	1	1	1	1	1	1	3					
730. Gouty arthritis and periarthritis															
732. Osteoarthritis	10	5	4	3	3	3	3	3	3	4					
733. Other diseases of bone	4	2	2	2	2	2	2	2	2	2					
734. Internal derangement of knee joint															
735. Displacement of intervertebral disc	3	1	1	1	1	1	1	1	1	1					
737. Ankylosis of joints															
738. Other diseases of joint	2	1	1	1	1	1	1	1	1	1					
740. Bunion															
741. Synovitis, bursitis, and tenosynovitis without mention of occupa-															
742. Sporadic, localized, and tenosynovitis of occupational origin	1	1	1	1	1	1	1	1	1	1					
743. Infective myositis and other inflammatory diseases of tendon and															
744. fasciis															
745. Other diseases of muscle, tendon and fascia	25	13	13	13	13	13	13	13	13	13					
746. Flat foot of spine															
747. Hallux valgus and varus															
748. Clubfoot															
749. Other deformities															
750. Myelitis	1	1	1	1	1	1	1	1	1	1					
751. Spina bifida and meningocele	96	51	45	45	45	45	45	45	45	90					
752. Congenital malformations of nervous system and sense organs	57	24	30	24	24	24	24	24	24	51					
753. Other congenital malformations of circulatory system	36	20	10	10	10	10	10	10	10	31					
754. Congenital malformations of digestive system	263	121	123	111	118	118	118	118	118	210					
755. Congenital malformations of genito-urinary system	2	1	1	1	1	1	1	1	1	1					
757. Congenital malformations of bone and joint	43	27	12	12	12	12	12	12	12	33					
758. Congenital malformations of bone and joint	14	0	7	7	7	7	7	7	7	14					
759. Other and unspecified congenital malformations, not elsewhere															
760. Intracranial and spinal injury at birth	54	24	19	9	8	8	8	8	8	48					
761. Other birth injury	143	79	43	30	31	31	31	31	31	128					

TABLE 20. DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST (8th REVISION), FOR THE STATE  
BY SEX, COLOR AND AGE GROUPS: 194—Continued

CAUSE OF DEATH	Total		White		Nonwhite		Age Groups							
	Male	Female	Male	Female	Male	Female	<	1-4	5-14	15-24	25-44	45-64	65+	Unknown
162. Postnatal asphyxia and atelectasis	572	285	290	51	39	572								
704. Diarrhea of newborn	31	31	31	0	7	31								
705. Ophthalmia neonatorum	18	4	4	0	4	18								
766. Hemiphysalium neonatorum	1	1	1	0	1	1								
767. Umbilical sepsis	1	1	1	0	1	1								
768. Neonatal diarrhoea	7	2	3	2	2	7								
770. Hemolytic disease of newborn (erythroblastosis)	9	3	3	1	3	9								
771. Hemorrhagic disease of newborn	17	41	29	4	8	76								
772. Nutritional maladjustment	14	11	11	0	1	29								
773. Intrauterine asphyxia	11	11	11	0	1	11								
774. Immaturity with sequelae to early infancy	112	40	38	13	13	141								
775. Immaturity subsidiary to sequelae of other subsidiary condition	23	9	9	2	3	123								
776. Immaturity unqualified	310	232	178	74	64	549								
780. Certain symptoms referable to nervous system and special senses	3	2	2	1	1	3								
782. Certain symptoms referable to nervous system and special senses	5	2	2	1	1	5								
783. Symptoms referable to respiratory system and lymphatic system	1	1	1	0	1	1								
784. Symptoms referable to upper gastro-intestinal tract	1	4	4	1	1	1								
785. Symptoms referable to abdomen and lower gastro-intestinal system	1	1	1	0	1	1								
786. Symptoms referable to genito-urinary system	1	1	1	0	1	1								
787. Symptoms referable to bones and back	1	1	1	0	1	1								
788. Other general symptoms	1	1	1	0	1	1								
789. Abnormal urinary constituents of unspecified cause	1	1	1	0	1	1								
791. Nervousness and debility	1	1	1	0	1	1								
792. Uremia unqualified	1	1	1	0	1	1								
793. Observation, without need for further medical care	4	1	2	1	1	4								
794. Senility without mention of psychosis	1	1	1	0	1	1								
795. Declined and unknown causes of morbidity and mortality	58	25	25	7	21	58								
8900. Railroad accident involving railroad employee	42	26	26	7	21	42								
8901. Railway accident involving other and unspecified person	7	7	7	2	2	7								
8902. Railway accident involving other and unspecified person	8	8	8	2	2	8								
8903. Motor vehicle traffic accident involving collision with railway train	3	3	3	1	1	3								
8910. Motor vehicle traffic accident involving collision with street car	24	13	10	2	2	24								
8912. Motor vehicle traffic accident to pedestrian	174	40	28	8	8	174								
8913. Motor vehicle traffic accident to rider or passenger of motorcycle, in collision with other motor vehicle or object	7	7	7	1	1	7								
8915. Motor vehicle traffic accident involving two or more motor vehicles	5	5	5	0	0	5								
8916. Other motor vehicle traffic accident involving two or more motor vehicles	207	183	47	10	6	207								
8917. Motor vehicle traffic accident to occupant of motor vehicle in collision with pedestrian or pedal cyclist														
8918. Motor vehicle traffic accident involving collision with animal or animal-drawn vehicle														
8919. Motor vehicle traffic accident involving collision with fixed or unspecified object	26	17	6	3	3	26								
8920. Motor vehicle traffic accident while boarding and alighting														
8921. Motor vehicle traffic accident to rider of motorcycle not involving collision	5	5	5	1	1	5								
8922. Motor vehicle traffic accident involving overturning in roadway	25	20	4	14	4	25								
8923. Other noncollision motor vehicle traffic accident	143	103	24	14	4	143								
8924. Other noncollision motor vehicle traffic accident	7	5	5	2	2	7								
8925. Motor vehicle traffic accident of unspecified nature	21	13	8	1	1	21								
8931. Motor vehicle nontraffic accident to pedal cyclist	6	1	4	1	1	6								
8932. Motor vehicle nontraffic accident to rider or passenger of motorcycle	1	1	1	0	0	1								
8933. Other motor vehicle nontraffic accident involving two or more motor vehicles	8	1	1	1	1	8								
8934. Motor vehicle nontraffic accident while boarding and alighting														
8936. Motor vehicle nontraffic accident of other and unspecified nature														
8940. Street car accident to pedestrian	1	1	1	0	0	1								
8941. Other street car accident except collision with motor vehicle	1	1	1	0	0	1								
8942. Accident to rider of pedal cycle not involving collision with a motor vehicle	1	1	1	0	0	1								
8943. Accident to pedestrian caused by other nonmotor road vehicle	1	1	1	0	0	1								
8944. Other nonmotor road vehicle accidents	1	1	1	0	0	1								
8945. Submersion	2	2	2	0	0	2								
8946. Other water transport injury by submersion	12	10	2	4	4	12								
8952. Fall on stairs and ladders in water transport	0	0	0	0	0	0								
8953. Other falls from one level to another in water transport	1	1	1	0	0	1								
8954. Unspecified falls in water transport	1	1	1	0	0	1								
8956. Machinery accident in water transport	1	1	1	0	0	1								
8957. Other specified accidents in water transport	2	2	2	0	0	2								
8958. Other unspecified accidents of unspecified cause	19	19	19	0	0	19								
8960. Accident to occupant of commercial "transport" aircraft	1	1	1	0	0	1								
8981. Injury to occupant by accident to commercial "transport" aircraft	1	1	1	0	0	1								
8982. Injury to occupant by accident to other aircraft	1	1	1	0	0	1								
8983. Accident to occupant of aircraft to person not in aircraft	1	1	1	0	0	1								
8984. Aircraft accident to person not in aircraft	24	23	1	1	1	24								
8986. Other and unspecified aircraft accidents	10	5	11	1	1	10								
8970. Accidental poisoning by barbituric acid and other opium derivatives	6	8	11	1	1	6								
8971. Accidental poisoning by morphine and other opium derivatives	10	5	11	1	1	10								
8972. Accidental poisoning by aminin and salicylates	6	8	11	1	1	6								
8973. Accidental poisoning by other anesthetic and soporific drugs	1	1	1	0	0	1								
8974. Accidental poisoning by antiparasitics	1	1	1	0	0	1								
8975. Accidental poisoning by strychnine	1	1	1	0	0	1								
8976. Accidental poisoning by potassium, hyoscyne and atropine	1	1	1	0	0	1								
8977. Accidental poisoning by potassium and sodium iodides	1	1	1	0	0	1								
8978. Accidental poisoning by noxious foodstuffs	1	1	1	0	0	1								
8980. Other and unspecified poisoning by alcohol	1	1	1	0	0	1								
8981. Accidental poisoning by petroleum products	1	1	1	0	0	1								
8982. Accidental poisoning by industrial solvents	1	1	1	0	0	1								
8983. Accidental poisoning by corrosive anionics, acids and caustic alkalis	1	1	1	0	0	1								
8984. Accidental poisoning by mercury and its compounds	1	1	1	0	0	1								



TABLE 80. DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST (6th REVISION), FOR THE STATE  
BY SEX, COLOR AND AGE GROUPS: 1964—Continued

CAUSE OF DEATH	Total		White		Nonwhite		Age Groups								
	Total	Male	Female	Male	Female	Male	Female	<1	1-1	5-14	15-24	25-44	45-64	65+	Unknown
E888. Accidental poisoning by lead and its compounds	1														
E889. Accidental poisoning by arsenic and antimony and their compounds															
E887. Accidental poisoning by fluorides															
E888. Accidental poisoning by other and unspecified solid and liquid															
E890. Accidental poisoning by utility (flammability) gas	4	4													
E891. Accidental poisoning by motor vehicle exhaust gas	18	15													
E892. Accidental poisoning by other carbon monoxide gas	5	5													
E893. Accidental poisoning by cyanide gas	8	5													
E894. Accidental poisoning by unspecified solid and liquid	3														
E895. Accidental poisoning by unspecified gases and vapours	3														
E896. Fall on stairs	137	72	48												
E900. Fall from ladders	8	6	2												
E901. Fall on same or lower level to another	151	103	38												
E902. Fall from falling object	224	145	78												
E903. Unspecified falls	19	13	6												
E904. Blow from falling object	4														
E912. Accident caused by vehicle	25	21	4												
E913. Accident caused by cutting, piercing instruments	10	10													
E914. Accident caused by electric current	16	16													
E915. Accident caused by explosion of pressure vessel	1	1													
E916. Accident caused by fire and explosion of combustible material	137	56	40												
E917. Accident caused by fire and explosion of liquid and steam	11	11													
E918. Accident caused by radiation	17	15	2												
E919. Accident caused by thromb	9	9													
E920. Foreign body entering eye and adnexa	23	9	6												
E921. Inhabitation and ingestion of food causing obstruction or suffocation	11	11													
E922. Inhabitation and ingestion of other object causing obstruction or suffocation	2	2													
E923. Foreign body entering other orifice	41	33	13												
E924. Accidental mechanical suffocation in bed and cradle	7	4													
E925. Accidental mechanical suffocation in other and unspecified circum	1	1													
E926. Lack of care of infants under 1 year of age	1														
E927. Accidents caused by bites and stings of venomous animals and insects	1														
E928. Other accidents caused by animals	1	1													
E929. Accidents caused by drowning and submersion	136	91	10												
E930. High and low falls	3	3													
E931. Excessive heat and insolation	5	3	2												
E932. Excessive cold	2	2													
E933. Hunger, thirst and exposure	2	1	1												
E934. Lightning	1	1													

E866. Other and unspecified accidents	24	14	4												
E940. Generalized vaccinia following vaccination	1														
E941. Intracranial encephalitis	1														
E942. Post-immunization convulsions	1														
E943. Post-immunization paralysis and paralysis															
E944. Other complications of prophylactic inoculation	1														
E945. Complications of amnesia for nontherapeutic purpose															
E946. Other complications due to nontherapeutic medical and surgical															
E960. Therapeutic misadventure in surgical treatment															
E951. Therapeutic misadventure in incision or transection															
E952. Therapeutic misadventure in local applications															
E953. Therapeutic misadventure in administration of drugs or biologicals															
E954. Therapeutic misadventure in administration of drugs or biologicals															
E955. Other and unspecified therapeutic misadventure															
E956. Late complication of surgical operation															
E957. Late complication of amputation stump															
E958. Late complication of operation	1	1													
E959. Late complication of treatment															
E960. Late effect of motor vehicle accident	3	1	2												
E961. Late effect of accidental poisoning	5	5													
E962. Late effect of other accident injury	5	5													
E963. Late effect of self-inflicted injury	12	8	4												
E964. Late effect of injury purposely inflicted by another person (not in war)															
E965. Late effects of injuries due to war operations	1														
E970. Suicide and self-inflicted poisoning by analgesic and euphoric substances	24	8	15												
E971. Suicide and self-inflicted poisoning by other solid and liquid substances	15	6	9												
E972. Suicide and self-inflicted poisoning by gases in domestic use	3	20	33												
E973. Suicide and self-inflicted poisoning by other gases	51	40	13												
E974. Suicide and self-inflicted injury by hanging and strangulation	171	129	30												
E975. Suicide and self-inflicted injury by firearms and explosives	12	3	8												
E976. Suicide and self-inflicted injury by cutting and piercing instruments	132	103	7												
E977. Suicide and self-inflicted injury by jumping from high place	24	14	9												
E978. Suicide and self-inflicted injury by other and unspecified means	12	8	4												
E981. Assault by stream and explosive	34	13	11												
E982. Assault by cutting and piercing instruments	41	33	2												
E983. Assault by intervention of police	40	13	6												
E984. Intervention of police	3	3													
E985. Poisoning															
E986. Injury due to war operations by gas and chemicals															
E987. Injury due to war operations by gunshot															
E988. Injury due to war operations by other and unspecified means															
E989. Injury due to war operations by machine, mine, depth charge and															
E990. Injury due to war operations by other and unspecified means															
E991. Injury due to war operations by explosion of ammunition															
E992. Injury due to war operations by aircraft destruction															
E993. Injury due to war operations by other and unspecified means															
E994. Injury due to war operations but occurring after cessation of hostilities															

TABLE 28. TABULATION OF DEATHS OF RESIDENTS OF ATLANTIC COUNTY FOR 1964  
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
B1	001-133	Infective and parasitic diseases	10	6	8	3	8	3	1	0	0	1	0	9	8	
B2	001-008	Tuberculosis of respiratory system	10	6	4	2	4	2	1	1	1	2	1	6	7	2
B3	010-019	Tuberculosis, other forms	3	3	4	1	4	1	1	1	1	1	1	1	1	1
B4	020-029	Syphilis and its sequelae	3	3	4	1	4	1	2	2	2	2	2	2	2	2
B5	030-039	Cerebrovascular diseases	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B6	040-049	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B7	050-059	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B8	060-069	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B9	070-079	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B10	080-089	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B11	090-099	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B12	100-109	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B13	110-119	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B14	120-129	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B15	130-139	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B16	140-149	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B17	150-159	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B18	160-169	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B19	170-179	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B20	180-189	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B21	190-199	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B22	200-209	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B23	210-219	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B24	220-229	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B25	230-239	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B26	240-249	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B27	250-259	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B28	260-269	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B29	270-279	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B30	280-289	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B31	290-299	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B32	300-309	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B33	310-319	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B34	320-329	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B35	330-339	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B36	340-349	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B37	350-359	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B38	360-369	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B39	370-379	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B40	380-389	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B41	390-399	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B42	400-409	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B43	410-419	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B44	420-429	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B45	430-439	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B46	440-449	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B47	450-459	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B48	460-469	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B49	470-479	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B50	480-489	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B51	490-499	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B52	500-509	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B53	510-519	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B54	520-529	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B55	530-539	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B56	540-549	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B57	550-559	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B58	560-569	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B59	570-579	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B60	580-589	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B61	590-599	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B62	600-609	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B63	610-619	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B64	620-629	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B65	630-639	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B66	640-649	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B67	650-659	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B68	660-669	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B69	670-679	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B70	680-689	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B71	690-699	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B72	700-709	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B73	710-719	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B74	720-729	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B75	730-739	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B76	740-749	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B77	750-759	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B78	760-769	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B79	770-779	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B80	780-789	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B81	790-799	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B82	800-809	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B83	810-819	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B84	820-829	Ischemic heart disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B85	830-839	Coronary artery disease	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B86	840-849	Myocardial infarction	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B87	850-859	Stroke, cerebral	8	8	8	8	8	8	3	3	3	3	3	3	3	3
B88	860-869	Ischemic heart disease	8	8	8	8	8	8	3	3						

TABLE 23. TABULATION OF DEATHS OF RESIDENTS OF ATLANTIC CITY FOR 1954 Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	White		Nonwhite		Age Groups by Years							
				Male	Female	Male	Female	<	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-138	Infective and parasitic diseases	11	5	4	7	2	1	1	1	5	3	4	0	0
B2	001-008	Tuberculosis of respiratory system	10	2	8	4	2	1	1	1	8	3	4	0	0
B3	010-019	Tuberculosis and other forms	6	2	4	3	1	1	1	2	2	2	4	0	0
B4	020-029	Syphilis and its sequelae	6	2	4	3	1	1	1	2	2	2	4	0	0
B5	030-039	Typhoid fever	6	2	4	3	1	1	1	2	2	2	4	0	0
B6	040-049	Dysentery, all forms	6	2	4	3	1	1	1	2	2	2	4	0	0
B7	045-048	Dysentery, all forms	6	2	4	3	1	1	1	2	2	2	4	0	0
B8	060-061	Scarlet fever and streptococcal sore throat	6	2	4	3	1	1	1	2	2	2	4	0	0
B9	085	Diphtheria	6	2	4	3	1	1	1	2	2	2	4	0	0
B10	088	Whooping cough	6	2	4	3	1	1	1	2	2	2	4	0	0
B11	083	Whooping cough	6	2	4	3	1	1	1	2	2	2	4	0	0
B12	080	Plague	6	2	4	3	1	1	1	2	2	2	4	0	0
B13	084	Acute poliomyelitis	6	2	4	3	1	1	1	2	2	2	4	0	0
B14	085	Smallpox	6	2	4	3	1	1	1	2	2	2	4	0	0
B15	090-099	Measles and other febrile diseases	6	2	4	3	1	1	1	2	2	2	4	0	0
B16	110-117	Measles and other febrile diseases	6	2	4	3	1	1	1	2	2	2	4	0	0
B17	035-074, 081-088, 089-096, 120-138	Residual (035-074, 081-088, 089-096, 120-138)	2	1	1	1	1	1	1	1	1	1	1	1	1
B18	140-209	Neoplasms	174	91	83	35	21	2	1	14	00	101	101	0	0
B19	210-229	Neoplasms	174	91	83	35	21	2	1	14	00	101	101	0	0
B20	240-289	Allegic, endocrine system, metabolic and nutritional diseases	29	14	15	11	4	1	1	1	1	1	1	1	1
B21	290-299	Diseases of the blood and blood-forming organs	4	2	2	2	2	1	1	1	1	1	1	1	1
B22	300-309	Residual (240-248, 250-254, 270-277, 280-283)	4	2	2	2	2	1	1	1	1	1	1	1	1
B23	310-349	Arthritis (290-299)	103	32	71	14	20	1	1	1	1	1	1	1	1
B24	400-402	Diseases of the nervous system and sense organs	98	31	67	14	22	1	1	1	1	1	1	1	1
B25	410-416	Chronic rheumatic heart disease	49	15	34	14	20	1	1	1	1	1	1	1	1
B26	420-422	Arteriosclerotic and degenerative heart disease	43	15	28	16	7	1	1	1	1	1	1	1	1
B27	430-433	Hypertension with heart disease	20	8	12	5	7	1	1	1	1	1	1	1	1
B28	440-443	Hypertension without mention of heart	10	5	5	2	3	1	1	1	1	1	1	1	1
B29	444-447	Residual (430-436, 460-468)	10	5	5	2	3	1	1	1	1	1	1	1	1
B30	470-527	Diseases of the respiratory system	10	5	5	3	2	1	1	1	1	1	1	1	1
	480-485	Infuenza	10	5	5	3	2	1	1	1	1	1	1	1	1

B31	480-485	Pneumonia	11	4	7	1	2	1	1	1	1	1	1	1	1
B32	500-502	Bronchitis	4	1	3	1	2	1	1	1	1	1	1	1	1
B33	530-537	Residual (470-475, 510-527)	4	1	3	1	2	1	1	1	1	1	1	1	1
B34	540-541	Diseases of the digestive system	41	21	20	15	10	1	1	1	1	1	1	1	1
B35	550-553	Ulcer of stomach and duodenum	10	6	4	2	2	1	1	1	1	1	1	1	1
B36	560, 561, 570	Appendicitis	7	5	2	2	2	1	1	1	1	1	1	1	1
B37	543, 571, 572	Intestinal obstruction and hernia	1	1	0	0	0	0	0	0	0	0	0	0	0
B38	581	Gastritis, duodenitis, enteritis and colitis, except chronic of newborn	8	1	7	2	2	1	1	1	1	1	1	1	1
B39	582-587	Charlaria of newborn	12	6	6	1	2	1	1	1	1	1	1	1	1
B40	600-650	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	8	2	6	4	1	1	1	1	1	1	1	1	1
B41	660-680	Diseases of the genito-urinary system	8	2	6	4	1	1	1	1	1	1	1	1	1
B42	690-699	Hepatitis and nephrosis	19	6	13	4	6	1	1	1	1	1	1	1	1
B43	700-716	Residual (690-699, 701-707, 720-729, 730-737)	11	3	8	4	1	1	1	1	1	1	1	1	1
B44	720-729	Pregnancy, childbirth and the puerperium	4	2	2	1	1	1	1	1	1	1	1	1	1
B45	730-739	Diseases of the skin and cellular tissue	3	2	1	1	1	1	1	1	1	1	1	1	1
B46	740-749	Congenital malformations and organs of movement	3	2	1	1	1	1	1	1	1	1	1	1	1
B47	750-759	Accidents, poisoning and violence	11	4	7	4	2	1	1	1	1	1	1	1	1
B48	760-762	Certain diseases of early infancy	20	10	10	6	4	2	2	2	2	2	2	2	2
B49	763-768	Birth injuries, postnatal asphyxia and atelectasis	7	4	3	2	2	1	1	1	1	1	1	1	1
B50	769-770	Infections of the newborn	1	1	0	1	1	1	1	1	1	1	1	1	1
B51	780-785	Charlaria of newborn	18	3	15	5	6	4	4	4	4	4	4	4	4
B52	790-795	Symptoms, semility and ill-defined conditions	3	1	2	1	1	1	1	1	1	1	1	1	1
B53	800-809	Accidents, poisoning and violence	32	10	22	11	11	6	6	6	6	6	6	6	6
B54	810-815	Motor vehicle accidents	10	3	7	4	2	2	2	2	2	2	2	2	2
B55	820-825	All other accidents except falls	11	4	7	3	2	2	2	2	2	2	2	2	2
B56	830-835	Falls	4	2	2	2	2	1	1	1	1	1	1	1	1
B57	840-845	Intoxication	3	3	0	0	0	0	0	0	0	0	0	0	0
B58	850-855	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B59	860-865	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B60	870-875	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B61	880-885	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B62	890-895	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B63	900-905	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B64	910-915	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B65	920-925	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B66	930-935	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B67	940-945	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B68	950-955	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B69	960-965	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B70	970-975	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B71	980-985	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B72	990-995	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0	0	0	0
B73	001-999	ALL CAUSES	1000	357	643	324	102	127	46	4	2	7	61	276	604

July 1, 1954, Estimated Population, 62,000. Total Resident Deaths, 1,000. Rate per 1,000 Population, 16.1.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF BERGEN COUNTY FOR 1954  
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-138	Infective and parasitic diseases	49	16	6	6	1	1	1	6	2	1	17	23	10	1
B1	001-008	Tuberculosis of respiratory system	28	6	3	3	1	1	1	1	1	1	1	12	12	1
B2	001-009	Tuberculosis of other forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B3	023-020	Syphilis and its sequelae	3	3	3	3	3	3	3	3	3	3	3	3	3	3
B4	040	Typhoid fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B5	045-048	Cholera	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B6	045-049	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B7	053-051	Dysentery, shigellosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B8	053-052	Dysentery, other forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B9	068	Diphtheria and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B10	087	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B11	088	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B12	084	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B13	084	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B14	085	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B15	100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B16	109	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B17	110-117	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B18	140-230	Neoplasms	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B19	210-230	Malignant neoplasms	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B20	240-289	Benign and unspecified neoplasms	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B21	290-293	Allergic, endocrine system, metabolic and nutritional	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B22	300-320	Diseases of the blood and blood-forming organs	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B23	330-334	Diseases of the circulatory system	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B24	400-468	Diseases of the nervous system and sense organs	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B25	410-410	Alzheimer's disease	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B26	430-432	Chronic rheumatic and degenerative heart disease	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B27	430-432	Chronic rheumatic and degenerative heart disease	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B28	440-443	Arteriosclerosis	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B29	444-447	Hypertension with heart disease	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B30	470-527	Residual (450-456, 480-488)	10	2	1	1	1	1	1	1	1	1	1	1	1	1
B30	480-483	Influenza	10	2	1	1	1	1	1	1	1	1	1	1	1	1

B31	490-493	Fractures	47	9	1	1	19	11	2	1	1	1	8	9	58	1
B32	500-502	Residual (470-475, 510-527)	47	9	1	1	19	11	2	1	1	1	8	9	58	1
B33	530-537	Diseases of the digestive system	4	2	1	1	3	4	1	1	1	1	1	1	12	1
B34	540, 541	Ulcer of stomach and duodenum	4	2	1	1	3	4	1	1	1	1	1	1	12	1
B35	540, 541, 572	Gastroenteritis	110	90	6	6	3	4	1	1	1	1	1	1	1	1
B36	540, 541, 572	Gastroenteritis	37	11	2	2	1	1	1	1	1	1	1	1	1	1
B37	581	Diarrhea of newborn	8	3	2	2	1	1	1	1	1	1	1	1	1	1
B38	590-594	Diseases of the genito-urinary system	15	7	7	7	15	2	1	1	1	1	1	1	1	1
B39	610	Nephritis and nephrosis	7	7	7	7	15	2	1	1	1	1	1	1	1	1
B40	600-680	Diseases of the skin and cellular tissue	38	36	1	1	7	7	1	1	1	1	1	1	1	1
B41	700-749	Diseases of the bones and organs of movement	26	24	2	2	3	3	1	1	1	1	1	1	1	1
B42	750-759	Congenital malformations	24	24	2	2	3	3	1	1	1	1	1	1	1	1
B43	763-768	Infections of the newborn	24	24	2	2	3	3	1	1	1	1	1	1	1	1
B44	769-776	Other diseases peculiar to early infancy and infancy	24	24	2	2	3	3	1	1	1	1	1	1	1	1
B45	780-785	Symptoms unclassified and ill-defined conditions	40	24	1	1	6	6	1	1	1	1	1	1	1	1
B46	800-809	Accidents, poisonings and violence	15	15	1	1	3	3	1	1	1	1	1	1	1	1
B47	830-835	Motor vehicle accidents	15	15	1	1	3	3	1	1	1	1	1	1	1	1
B48A	830-835	All other accidents except falls	15	15	1	1	3	3	1	1	1	1	1	1	1	1
B48B	890-904	Falls	37	37	2	2	6	6	1	1	1	1	1	1	1	1
B48C	970-979	Suicide	44	44	1	1	1	1	1	1	1	1	1	1	1	1
B49	980-989	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B50B	980-989	ALL CAUSES	2792	2882	76	51	289	53	84	44	331	1061	2988	5271	5271	5271

July 1, 1954, Estimated Population, 672,000.

Total Resident Deaths, 5,271.

Rate per 1,000 Population, 9.2.



TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF CAMDEN COUNTY FOR 1934  
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
B1	001-003	Infective and parasitic diseases	61	16	5	6	5	6	2	2	1	2	10	27	12	
B2	004-008	Respiratory system	30	7	0	0	0	0	1	1	1	1	2	2	2	
B3	010-019	Tuberculosis, other forms	24	2	0	0	0	0	1	1	1	1	2	2	2	
B4	020-029	Septicemia, other forms	9	1	1	1	1	1	1	1	1	1	1	1	1	
B5	030-039	Typhoid fever	0	0	0	0	0	0	0	0	0	0	0	0	0	
B6	040-049	Dysentery	0	0	0	0	0	0	0	0	0	0	0	0	0	
B7	050-059	Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0	0	
B8	060-069	Scarlet fever and streptococcal sore throat	0	0	0	0	0	0	0	0	0	0	0	0	0	
B9	070-079	Whooping cough	0	0	0	0	0	0	0	0	0	0	0	0	0	
B10	080-089	Pneumococcal infections	0	0	0	0	0	0	0	0	0	0	0	0	0	
B11	090-099	Acute poliomyelitis	0	0	0	0	0	0	0	0	0	0	0	0	0	
B12	100-109	Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	
B13	110-117	Scarlet fever and streptococcal diseases	0	0	0	0	0	0	0	0	0	0	0	0	0	
B14	118-127	Residual (030-039, 041-042, 044, 049, 052-054, 056-074, 081-083, 086-096, 120-133)	5	9	2	9	2	9	1	1	1	1	1	1	1	
B15	128-137	Septicemia	275	272	250	272	250	272	5	5	5	5	10	23	31	
B16	138-147	Meningitis	378	264	285	264	285	264	10	10	10	10	20	30	31	
B17	148-157	Residual (341-343, 350-357, 360-369, 370-389, 390-393)	17	8	8	8	8	8	1	1	1	1	1	1	1	
B20	200-209	Diseases of the blood and blood-forming organs	100	35	35	35	35	35	2	2	2	2	5	10	10	
B21	210-219	Diseases of the heart	81	27	27	27	27	27	1	1	1	1	1	1	1	
B22	220-229	Residual (201-206)	2	1	1	1	1	1	1	1	1	1	1	1	1	
B23	300-309	Diseases of the nervous system	33	11	10	10	10	10	1	1	1	1	1	1	1	
B24	310-319	Diseases of the endocrine system, metabolic and nutritional	393	159	170	159	170	159	4	4	4	4	8	11	10	
B25	320-329	Residual (311-313, 320-327, 330-339)	35	18	17	18	18	18	1	1	1	1	1	1	1	
B26	330-339	Residual (341-343, 350-357, 360-369, 370-389, 390-393)	24	14	14	14	14	14	1	1	1	1	1	1	1	
B27	400-409	Chronic rheumatic heart disease	1459	775	669	677	669	677	2	2	2	2	5	7	7	
B28	410-419	Chronic rheumatic heart disease	4	1	1	1	1	1	1	1	1	1	1	1	1	
B29	420-429	Other diseases of heart	1038	635	311	635	311	635	1	1	1	1	1	1	1	
B30	430-439	Residual (410-419, 420-429)	46	20	17	20	17	20	1	1	1	1	1	1	1	
B31	440-449	Hypertension with lesion of heart	230	88	100	88	100	88	1	1	1	1	1	1	1	
B32	450-459	Residual (400-409, 420-429)	32	14	15	14	15	14	1	1	1	1	1	1	1	
B33	460-469	Diseases of the respiratory system	31	28	28	28	28	28	1	1	1	1	1	1	1	
B34	470-479	Influenza	93	51	51	51	51	51	1	1	1	1	1	1	1	

B35	480-489	Pneumonia	75	36	24	36	24	36	0	1	1	1	2	6	18	35
B36	490-499	Residual (470-475, 510-527)	15	12	2	12	2	12	1	1	1	1	1	1	1	
B37	500-509	Diseases of the digestive system	16	9	4	9	4	9	1	1	1	1	1	1	1	
B38	510-519	Ulcer of stomach and duodenum	3	2	2	2	2	2	1	1	1	1	1	1	1	
B39	520-529	Appendicitis	2	1	1	1	1	1	1	1	1	1	1	1	1	
B40	530-539	Intestinal obstruction and hernia	18	9	8	9	8	9	1	1	1	1	1	1	1	
B41	540-549	Diarrhea of newborn	15	9	4	9	4	9	1	1	1	1	1	1	1	
B42	550-559	Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)	28	13	10	13	10	13	1	1	1	1	1	1	1	
B43	560-569	Nephritis and nephrosis	58	17	15	17	15	17	1	1	1	1	1	1	1	
B44	570-579	Hyperplasia of prostate	43	23	14	23	14	23	1	1	1	1	1	1	1	
B45	580-589	Pregnancy, childbirth and the puerperium	18	7	11	7	11	7	1	1	1	1	1	1	1	
B46	590-599	Diseases of the bones and ligaments	4	1	1	1	1	1	1	1	1	1	1	1	1	
B47	600-609	Diseases of the bones and ligaments	2	1	1	1	1	1	1	1	1	1	1	1	1	
B48	610-619	Congenital malformations	40	17	2	17	2	17	1	1	1	1	1	1	1	
B49	620-629	Certain diseases of early infancy	123	70	38	70	38	70	1	1	1	1	1	1	1	
B50	630-639	Birth injuries, postnatal asphyxia and atelectasis	64	30	18	30	18	30	1	1	1	1	1	1	1	
B51	640-649	Other diseases peculiar to early infancy and infancy	5	1	3	1	3	1	1	1	1	1	1	1	1	
B52	650-659	Symptoms, senility and ill-defined conditions	54	30	17	30	17	30	1	1	1	1	1	1	1	
B53	660-669	Accidents, poisoning and violence	6	8	1	8	1	8	1	1	1	1	1	1	1	
B54	670-679	Motor vehicle accidents	150	88	45	88	45	88	7	7	7	7	12	20	36	83
B55	680-689	All other accidents except falls	30	10	5	10	5	10	2	2	2	2	4	6	13	41
B56	690-699	Falls	46	19	24	19	24	19	1	1	1	1	1	1	1	
B57	700-709	Self-suffocation	10	13	3	13	3	13	1	1	1	1	1	1	1	
B58	710-719	Homicide	1	1	1	1	1	1	1	1	1	1	1	1	1	
B59	720-729	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	1	
B60	001-999	ALL CAUSES	3270	1027	1343	1027	1343	1027	191	28	40	36	201	670	1804	

July 1, 1934, Estimated Population, 316,000.

Total Resident Deaths, 3,270.

Rate per 1,000 Population, 10.3.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF CAMDEN CITY FOR 1934  
Classified by International Abridged List of Causes (9th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-193	Infective and parasitic diseases	31	15	8	5	1	1	1	1	1	2	0	18	4	.....
B2	001-008	Tuberculous respiratory system	19	11	4	3	1	1	1	1	1	2	4	13	2	.....
B3	010-019	Tuberculosis other for...	8	1	.....	1	1	1	1	1	1	1	1	1	.....	
B4	040	Syphilis and its sequelae	6	3	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B5	040-049	Typhoid fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B6	050-059	Typhus, all forms	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B7	050-048	Scarlet fever and streptococcal sore throat	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B8	050, 061	Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B9	060	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B10	067	Meningococcal infections	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B11	067	Acute poliomyelitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B12	080	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B13	084	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B14	088	Typhus and other rickettsial diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B15	100-109	Residual (330-039, 041-049, 050-059, 059-074, 081-083, 085-088, 120-136)	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B16	140-289	Neoplasms	200	100	23	15	1	1	1	1	1	1	10	110	127	
B17	210-226	Malignant neoplasms	250	130	22	15	1	1	1	1	1	1	1	16	108	
B18	230-239	Benign neoplasms	8	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B19	240-289	Allergic diseases, metabolic and nutritional	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B20	290	Diabetes mellitus	10	19	2	1	1	1	1	1	1	1	1	2	10	
B21	290-299	Diseases of the blood and blood-forming organs	5	9	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B22	290-293	Residual (244-290)	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B23	300-328	Mental, psychoneurotic and personality disorders	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B24	330-334	Diseases of the nervous system and sense organs	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B25	410-412	Diseases affecting central nervous system	144	61	67	4	1	1	1	1	1	1	1	1	14	
B26	420-422	Noncommunicable diseases	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B27	430-434	Residual (341-345, 350-357, 360-369, 370-389, 390-399)	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B28	440-443	Diseases of the circulatory system	60	28	4	1	1	1	1	1	1	1	1	1	1	
B29	444-447	Ischemic heart disease	10	4	9	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B30	470-527	Other diseases of heart disease	418	221	147	80	20	2	1	1	1	1	1	1	1	
B31	530-539	Other diseases with heart disease	100	10	10	3	18	.....	.....	.....	.....	.....	.....	.....	.....	
B32	540-543	Hypertension without mention of heart disease	8	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B33	544-547	Diseases of the respiratory system	20	11	12	7	8	.....	.....	.....	.....	.....	.....	.....	.....	
B34	570-577	Influenza	54	29	10	7	2	.....	.....	.....	.....	.....	.....	.....	.....	

B35	580-587	Pneumonia	46	21	9	7	1	1	1	1	1	1	1	1	1	1
B36	590-592	Bronchitis	6	16	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B37	590-597	Residual (470-476, 510-527)	35	16	12	5	4	4	4	4	4	4	4	4	4	
B38	600-609	Ulcer of stomach and duodenum	6	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B39	610	Appendicitis	4	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B40	640-680	Intestinal obstruction and hernia	6	3	1	1	1	1	1	1	1	1	1	1	1	
B41	690-699	Gastritis, duodenitis, enteritis and colitis, except chronic of newborn	12	4	6	2	1	1	1	1	1	1	1	1	1	
B42	700-709	Diseases of the genito-urinary system	7	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B43	710-719	Hyperplasia of prostate	30	10	10	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B44	720-729	Residual (600-609, 611-617, 620-629, 630-637)	20	12	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B45	730-739	Pregnancy, childbirth and the puerperium	7	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B46	740-749	Diseases of the skin and cellular tissue	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B47	750-759	Diseases of the bones and organs of movement	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B48	760-779	Congenital malformations	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B49	780-789	Certain diseases of early infancy	5	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B50	790-799	Certain diseases of the newborn	50	27	6	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B51	800-809	Certain injuries, postnatal asphyxia and atelectasis	20	14	6	8	2	1	1	1	1	1	1	1	1	
B52	810-819	Other diseases peculiar to early infancy and immature unqualified	4	1	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B53	820-829	Symptoms, senility and ill-defined conditions	23	12	0	1	20	.....	.....	.....	.....	.....	.....	.....	.....	
B54	830-839	Accidents, poisonings and violence	5	3	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B55	840-849	Motor vehicle accidents	82	43	21	12	6	4	3	10	17	4	2	2	.....	
B56	850-859	All other accidents except falls	10	11	3	1	1	1	1	1	1	1	1	1	1	
B57	860-869	War	29	12	1	8	2	3	2	6	2	3	2	5	.....	
B58	870-879	Falls	12	14	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B59	880-889	Struck by or against objects	27	10	7	1	1	1	1	1	1	1	1	1	1	
B60	890-899	Fire	5	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B61	900-909	Homicide	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B62	910-919	Police intervention, execution and operations of war	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
B63	920-929	ALL CAUSES	1883	643	510	129	108	86	15	17	23	100	400	684	.....	

July 1, 1934, Estimated Population, 129,000. Total Resident Deaths, 1,358. Rate per 1,000 Population, 10.7.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF CAPE MAY COUNTY FOR 1954  
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSAL GROUPS	Total		White		Nonwhite		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	001-138	Infective and parasitic diseases	8	6													
B2	010-016	Tuberculosis of respiratory system	6	4													
B3	020-020	Tuberculosis of other organs															
B4	030-029	Syphilis and its sequelae															
B5	040	Typhoid fever	2														
B6	043	Cholera															
B7	050, 051	Scarlet fever and streptococcal sore throat															
B8	065	Diphtheria															
B9	066	Whooping cough															
B10	067	Meningococcal infections															
B11	080	Scarlet fever															
B12	080	Scarlet fever															
B13	084	Scarlet fever															
B14	100-108	Measles															
B15	109-111	Measles															
B16	110-111	Measles															
B17	110-111	Measles															
B18	140-239	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 085-106, 120-128)	1	1													
B19	240-259	Neoplasms	165	54	41	41											
B20	260-269	Malignant neoplasms	141	54	39	39											
B21	270-289	Benign neoplasms	2														
B22	300-309	Alleged endocrine system, metabolic and nutritional diseases	13	4	8	1											
B23	310	Diabetes mellitus	10	2	7	1											
B24	320-329	Residual (240-245, 250-254, 270-277, 290-299)	3	2	1	1											
B25	330-339	Diseases of the blood and blood-forming organs	2	2													
B26	340-349	Residual (331-345, 350-352, 360-369, 370-389, 390-395)	2	2													
B27	400-408	Mental, psychoneurotic and personality disorders	70	37	31	6											
B28	410-415	Diseases of the nervous system and sense organs	2	2													
B29	420-422	Residual (411-415, 420-422)	2	2													
B30	430-434	Cardiovascular diseases	322	171	133	8											
B31	435-438	Ischemic heart disease	224	128	86	6											
B32	439-441	Other diseases of heart disease	9	6	6	4											
B33	442-444	Hypertension with heart disease	6	2	2												
B34	444-447	Residual (440, 444-447)	17	7	10	6											
B35	470-527	Diseases of the respiratory system	13	4	9	2											
B36	480-485	Influenza	1	1													

B37	500-503	Pneumonia	6	3	3												
B38	500-502	Bronchitis	1	1													
B39	500-507	Diseases of the digestive system	2	2													
B40	510-515	Ulcer of stomach and duodenum	4	6	10	1											
B41	520-523	Intestinal obstruction and hernia	1	1													
B42	530-531, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	4	2	2												
B43	581	Diarrhoea of newborn	2	1	1												
B44	590-597	Diseases of the genitourinary system	8	3	5												
B45	590-594	Nephritis and nephrosis	3	3													
B46	610	Hypertrophy of prostate	2	2													
B47	620-629	Residual (600-609, 611-617, 620-628, 630-637)	1	1													
B48	640-689	Diseases of the skeleton and the pericardium	7	8													
B49	720-749	Diseases of the skin and subcutaneous tissue	1	1													
B50	750-759	Congenital malformations	1	1													
B51	760-762	Birth injuries	10	4	6												
B52	763-768	Infections of the newborn	7	4	3												
B53	769-776	Other diseases peculiar to early infancy and infancy unqualified	3	2	1												
B54	780-785	Syphilis, gonorrhoea and ill-defined conditions	8	2	6												
B55	800-802	Accidents and violence	26	15	11												
B56	810-825	Motor vehicle accidents	10	5	5												
B57	830-835	All other accidents except falls	5	6	11												
B58	840-845	Falls	6	2	4												
B59	850-855	Suicide	3	3													
B60	860-865	Homicide	3	3													
B61	870-879	Police intervention, execution and operations of war	1	1													
B62	880-885	Police intervention, execution and operations of war	1	1													
B63	890-905	ALL CAUSES	921	522	249	80	20	21	7	2	2	29	103	404			

July 1, 1954, Estimated Population, 37,000.

Total Resident Deaths, 921.

Rate per 1,000 Population, 10.8.



TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF CUMBERLAND COUNTY FOR 1954  
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	001-138	Infective and parasitic diseases	20	7	3	8	2	1	2	1	2	1	2	2	2	7	5
B2	001-008	Tuberculosis of respiratory system	5	5	3	2	2	2	1	1	1	1	1	2	2	5	4
B3	010-019	Tuberculosis, other forms	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1
B4	030-029	Syphilis and its sequelae	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1
B5	040	Typhoid fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B6	043-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B7	051-051	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B8	055	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B9	057	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B10	057	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B11	058	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B12	060	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B13	084	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B14	100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B15	110-117	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B16	140-239	Residual (080-038, 041, 042, 044, 046, 052-054, 059-074, 081-085, 089-096, 120-138)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
B18	140-205	Malignant neoplasms	171	80	79	4	79	4	8	3	1	1	1	7	68	100	1
B19	210-239	Benign and unspecified neoplasms	106	80	78	3	78	3	6	3	1	1	1	7	67	99	1
B20-249	200-289	Allergic, endocrine system, metabolic and nutritional diseases	18	9	6	1	6	1	2	1	1	1	1	1	1	0	0
B20	200-259	Diseases of the blood and blood-forming organs	12	5	4	1	4	1	2	1	1	1	1	1	1	2	2
B21	200-203	Anemia	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B22	300-359	Diseases of the circulatory system	3	2	2	1	2	1	1	1	1	1	1	1	1	1	1
B23	340	Chronic rheumatic heart disease	7	3	3	2	3	2	1	1	1	1	1	1	1	1	1
B24	400-468	Arteriosclerotic and degenerative heart disease	425	200	178	20	178	20	12	2	2	2	2	10	120	202	2
B25	410-416	Other diseases of heart	6	3	3	1	3	1	1	1	1	1	1	1	1	1	1
B26	420-422	Diseases of the respiratory system	302	169	117	20	169	20	6	1	1	1	7	92	203	3	
B27	430-434	Diseases of the digestive system	13	7	5	3	7	3	1	1	1	1	1	1	1	1	1
B28	440-444	Diarrhea, enteritis, enterocolitis, colitis, etc.	63	24	24	1	24	1	3	1	1	1	1	1	1	1	1
B29	444-447	Residual (430-435, 436-438)	10	11	15	1	15	1	2	1	1	1	1	1	1	1	1
B30	470-527	Diseases of the respiratory system	35	14	14	1	14	1	2	1	1	1	1	1	1	1	1
B31	490-493	Pneumonia	20	6	9	4	9	4	1	1	1	1	1	1	1	1	1
B32	500-502	Bronchitis	4	3	3	1	3	1	1	1	1	1	1	1	1	1	1
B33	530-537	Diseases of the digestive system	6	4	4	1	4	1	1	1	1	1	1	1	1	1	1
B34	540, 541	Ulcer of stomach and duodenum	83	19	7	6	19	7	4	1	1	1	1	1	1	1	1
B35	550-559	Appendicitis	9	9	9	1	9	1	1	1	1	1	1	1	1	1	1
B36	560, 561, 570	Gastritis, duodenitis, enteritis and colitis, etc.	4	3	3	1	3	1	1	1	1	1	1	1	1	1	1
B37	571, 572	Diarrhea of newborn	10	2	2	1	2	1	4	1	1	1	1	1	1	1	1
B38	580-587	Diseases of the genito-urinary system	6	2	3	1	3	1	1	1	1	1	1	1	1	1	1
B39	590-594	Nephritis and nephrosis	22	13	8	1	8	1	1	1	1	1	1	1	1	1	1
B40	610	Cystitis	18	10	8	1	8	1	1	1	1	1	1	1	1	1	1
B41	610-680	Pregnancy, childbirth and the puerperium	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B42	700-716	Diseases of the skin and cellular tissue	5	5	5	1	5	1	2	1	1	1	1	1	1	1	1
B43	760-762	Certain diseases of bones and joints	13	15	12	1	12	1	3	1	1	1	1	1	1	1	1
B44	768-768	Infections of the newborn	5	2	2	1	2	1	1	1	1	1	1	1	1	1	1
B45	780-795	Other diseases peculiar to early infancy and infancy	18	7	8	1	8	1	1	1	1	1	1	1	1	1	1
B46	830-839	Struck by falling object and ill-defined conditions	23	10	10	1	10	1	1	1	1	1	1	1	1	1	1
B47	840-849	Accidents, poisonings and violence	25	30	28	2	28	2	5	5	5	5	5	5	5	5	5
B48A	850-859	Motor vehicle accidents	26	8	4	6	6	4	2	5	3	7	4	1	1	1	1
B48B	860-869	All other accidents except falls	10	5	5	1	5	1	2	2	2	2	2	2	2	2	2
B49	870-879	Falls	5	4	4	1	4	1	1	1	1	1	1	1	1	1	1
B50	880-884	Suicide	5	2	2	1	2	1	1	1	1	1	1	1	1	1	1
B51	885-889	Homicide	2	2	2	1	2	1	1	1	1	1	1	1	1	1	1
B52	890-899	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
ALL CAUSES			982	439	389	83	389	83	81	74	14	10	11	51	285	587	1

July 1, 1954, Estimated Population, 98,000.

Total Resident Deaths, 982.

Rate per 1,000 Population, 10.6.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF ESSEX COUNTY FOR 1954  
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
B1	001-138	Infective and parasitic diseases	165	100	30	32	0	0	0	1	5	48	61	43	.....	.....
B2	010-019	Respiratory system	98	45	18	20	0	0	0	1	9	20	30	27	.....	.....
B3	020-029	Tuberculosis, other	14	1	2	8	0	0	0	0	0	0	0	0	.....	.....
B4	030-039	Syphilis and its sequelae	15	1	4	6	0	0	0	0	0	2	12	5	.....	.....
B5	040-049	Typhoid fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B6	045-048	Cholera	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B7	050-061	Scarlet fever and streptococcal sore throat	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B8	065	Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B9	068	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B10	073	Bacterial meningitis	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B11	078	Nonbacterial meningitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B12	080	Haemorrhagic infections	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B13	084	Acute poliomyelitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B14	085	Smallpox	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B15	100-106	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B16	110-117	Typhus and other rickettsial diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B17	.....	Residual (650-039, 641, 642, 644, 649, 652-654)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B18	140-229	Neoplasms	21	0	5	5	0	0	0	0	0	0	0	0	.....	.....
B19	210-229	Malignant neoplasms	187	79	89	88	0	0	0	0	0	0	0	0	.....	.....
B20	230-239	Benign neoplasms	127	83	778	83	83	83	83	83	83	83	83	83	.....	.....
B21	240-289	Allergic, endocrine system, metabolic and nutritional diseases	40	16	18	1	5	5	5	5	5	5	5	5	.....	.....
B22	290	Diabetes mellitus	84	101	18	26	0	0	0	0	0	0	0	0	.....	.....
B23	290-299	Diabetes of the blood and blood-forming organs	231	01	143	18	19	19	19	19	19	19	19	19	.....	.....
B24	300-328	Anemias	10	5	10	1	3	3	3	3	3	3	3	3	.....	.....
B25	330-334	Mental, psychoneurotic and personality disorders	20	13	330	445	0	0	0	0	0	0	0	0	.....	.....
B26	340	Diseases of the nervous system and sense organs	528	330	445	50	75	75	75	75	75	75	75	75	.....	.....
B27	350-354	Noncommunicable infectious diseases	894	327	420	45	67	67	67	67	67	67	67	67	.....	.....
B28	360-369	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	63	28	27	4	5	5	5	5	5	5	5	5	.....	.....
B29	400-468	Diseases of the circulatory system	4804	2150	1701	202	221	221	221	221	221	221	221	221	.....	.....
B30	470-477	Cerebrovascular diseases	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B31	480-483	Arteriosclerosis and hypertension	347	174	4	7	0	0	0	0	0	0	0	0	.....	.....
B32	480-484	Other diseases of heart	173	35	170	10	10	10	10	10	10	10	10	10	.....	.....
B33	490-493	Arteriosclerosis and hypertension	66	20	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B34	490-494	Other diseases of heart	404	161	222	27	64	64	64	64	64	64	64	64	.....	.....
B35	500-551, 570	Hypertension with heart disease	20	21	24	7	4	4	4	4	4	4	4	4	.....	.....
B36	550-559	Residual (450-459, 460-468)	11	11	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B37	560-588	Diseases of the respiratory system	207	130	180	24	14	14	14	14	14	14	14	14	.....	.....
B38	590-599	Influenza	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

B31	490-493	Pneumonia	189	67	21	14	27	10	2	1	2	28	43	83	.....	.....
B32	500-502	Bronchitis	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B33	500-537	Residual (470-475, 510-527)	53	11	5	3	2	3	3	3	3	3	3	.....	.....	.....
B34	540-541	Diseases of the digestive system	463	236	84	83	16	4	0	0	0	0	0	0	.....	.....
B35	550-553	Ulcer of stomach and duodenum	91	68	12	9	2	1	0	0	0	0	0	0	.....	.....
B36	560-569	Appendicitis	20	0	0	0	0	0	0	0	0	0	0	0	.....	.....
B37	570-579	Intestinal obstruction and hernia	66	24	34	2	0	1	1	1	1	1	1	1	.....	.....
B38	580-588	Gastritis, duodenitis, enteritis and colitis, except curable in newborn	45	12	21	6	7	12	3	3	2	0	0	0	.....	.....
B39	590-599	Residual (530-539, 542, 544, 545, 575-578, 580, 585-587)	105	98	45	10	12	10	12	12	12	12	12	12	.....	.....
B40	600-609	Diseases of the genito-urinary system	76	24	48	5	4	2	0	0	0	0	0	0	.....	.....
B41	610-619	Genital diseases of males	118	52	35	19	12	1	1	1	1	1	1	1	.....	.....
B42	620-629	Residual (600-609, 611-617, 620-629, 630-637)	35	33	2	2	0	0	0	0	0	0	0	0	.....	.....
B43	630-639	Pregnancy, childbirth and the puerperium	13	19	4	0	0	0	0	0	0	0	0	0	.....	.....
B44	640-649	Diseases of the skin and cellular tissue	7	1	4	2	1	1	1	1	1	1	1	1	.....	.....
B45	650-659	Diseases of the bones and organs of movement	19	7	10	1	0	0	0	0	0	0	0	0	.....	.....
B46	660-669	Congenital anomalies	111	48	48	6	9	8	6	4	1	7	3	2	.....	.....
B47	670-679	Certain diseases of early infancy	103	103	60	57	352	352	352	352	352	352	352	352	.....	.....
B48	680-689	Birth injuries, postnatal asphyxia and atelectasis	135	127	4	4	4	4	4	4	4	4	4	4	.....	.....
B49	690-699	Infectious diseases of the newborn	22	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B50	700-709	Maternal diseases peculiar to early infancy and infancy	194	67	54	42	41	194	41	194	41	194	41	194	.....	.....
B51	710-719	Symptoms, senility and ill-defined conditions	518	3	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B52	720-729	Accidents, poisonings and violence	108	108	108	108	108	108	108	108	108	108	108	108	.....	.....
B53	730-739	Motor vehicle accidents	104	64	24	10	0	0	0	0	0	0	0	0	.....	.....
B54	740-749	All other accidents except falls	115	66	24	23	12	15	10	7	11	20	21	25	.....	.....
B55	750-759	Falls	177	71	89	10	7	2	2	2	2	2	2	2	.....	.....
B56	760-769	Suicide	76	54	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B57	770-779	Self-inflicted wounds	44	7	5	25	7	0	0	0	0	0	0	0	.....	.....
B58	780-789	Police intervention, execution and operations of war	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B59	790-799	Residual (700-709, 710-719, 720-729, 730-739, 740-749, 750-759, 760-769, 770-779, 780-789, 790-799)	0617	3871	088	020	541	71	44	78	680	3017	5207	.....	.....	.....

July 1, 1954, Estimated Population, 943,000.

Total Resident Deaths, 9,647.

Rate per 1,000 Population, 10.2.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF EAST ORANGE FOR 1954  
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	001-138	Infective and parasitic diseases	11	5	2	2	1	1	1	1	1	1	1	1	1	1	1
B1	001-008	Tuberculosis of respiratory system	1	5	2	2	1	1	1	1	1	1	1	1	1	1	1
B3	003-019	Tuberculosis, other forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B4	003-029	Typhoid fever	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B5	043	Cholera	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B9	043-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B9	043-048	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B8	065	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B10	087	Meningococcal infections	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B11	088	Membranous meningitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B12	089	Plague	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B13	084	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B14	085	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B15	100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B17	110-117	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B18	140-239	Neoplasms (C30-C37, 691, 917, 924, 048, 052-051, 053-074, 083-088, 080-086, 120-135)	201	84	103	8	6	8	6	1	2	1	11	79	108		
B19	240-239	Malignant neoplasms	10	82	102	8	4	4	4	2	2	1	9	75	108		
B20	260	Benign and unspecified neoplasms	191	2	193	2	2	2	2	4	4	2	4	4	4		
B21	280-289	Diseases of the blood and blood-forming organs	17	3	11	1	1	1	1	1	1	1	1	1	1	1	1
B22	300-326	Diabetes mellitus	15	4	12	1	1	1	1	1	1	1	1	1	1	1	1
B23	330-354	Diseases of the nervous system and sense organs	95	3	98	3	3	3	3	3	3	3	3	3	3	3	3
B23	340	Mental, psychoneurotic and personality disorders	92	28	120	2	2	2	2	2	2	2	2	2	2	2	2
B24	400-408	Residual (291-299)	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3
B24	400-408	Diseases of the circulatory system	4	183	187	14	26	14	26	1	1	14	101	835			
B25	410-418	Chronic rheumatic heart disease	6	5	11	5	5	5	5	5	5	5	5	5	5	5	5
B26	420-428	Ischemic and degenerative heart disease	301	157	458	12	10	12	10	1	1	1	1	1	1	1	1
B27	430-434	Other diseases with heart disease	4	12	16	1	1	1	1	1	1	1	1	1	1	1	1
B28	440-443	Hypertension without mention of heart	4	18	22	1	1	1	1	1	1	1	1	1	1	1	1
B29	444-447	Hypertension with mention of heart	23	11	34	1	1	1	1	1	1	1	1	1	1	1	1
B30	470-527	Residual (450-456, 460-468)	2	12	14	1	1	1	1	1	1	1	1	1	1	1	1
B30	430-468	Infractions	23	12	35	1	1	1	1	1	1	1	1	1	1	1	1

Rate per 1,000 Population, 11.4.

Total Resident Deaths, 938.

July 1, 1954, Estimated Population, 82,000.

R31	490-493	Pneumonia	16	8	24	1	1	1	1	1	1	1	1	1	1	1	1
R32	500-502	Ironocytitis	5	3	8	3	3	3	3	3	3	3	3	3	3	3	3
B33	530-537	Diseases of the digestive system	24	13	37	4	4	4	4	4	4	4	4	4	4	4	4
B34	540-541	Ulcer of stomach and duodenum	7	6	13	2	2	2	2	2	2	2	2	2	2	2	2
B35	550-553	Appendicitis	4	4	8	4	4	4	4	4	4	4	4	4	4	4	4
B36	560, 561, 570	Intestinal obstruction and hernia	4	4	8	4	4	4	4	4	4	4	4	4	4	4	4
B36	543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2
B37	581	Residual (538-539)	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2
B38	590-597	Diseases of the genito-urinary system	12	8	20	1	1	1	1	1	1	1	1	1	1	1	1
B39	600-604	Nephritis and nephrosis	10	4	14	4	4	4	4	4	4	4	4	4	4	4	4
B40	610	Residual (598-599)	2	4	6	2	2	2	2	2	2	2	2	2	2	2	2
B40	640-650	Pregnancy, childbirth and puerperia	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2
B41	660-718	Diseases of the skin and cellular tissue	2	2	4	2	2	2	2	2	2	2	2	2	2	2	2
B41	720-749	Diseases of the bones and organs of movement	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3
B42	750-776	Certain congenital malformations	9	7	16	1	1	1	1	1	1	1	1	1	1	1	1
B42	760-762	Birth injuries, postnatal asphyxia and atelectasis	28	10	38	4	4	4	4	4	4	4	4	4	4	4	4
B43	765-768	Infections of the newborn	12	6	18	3	3	3	3	3	3	3	3	3	3	3	3
B44	770-778	Other diseases peculiar to early infancy and immature children	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1
B45	780-795	Strabismic and unclassified amblyopic conditions	12	4	16	2	2	2	2	2	2	2	2	2	2	2	2
B46	800-809	Motor vehicle accidents and violence	3	2	5	4	4	4	4	4	4	4	4	4	4	4	4
B47	810-835	All other accidents except falls	40	16	56	4	4	4	4	4	4	4	4	4	4	4	4
B48	840-845	Falls	9	4	13	2	2	2	2	2	2	2	2	2	2	2	2
B48A	850-855	Motor vehicle accidents	8	4	12	4	4	4	4	4	4	4	4	4	4	4	4
B49	860-904	Other accidents except falls	14	5	19	5	5	5	5	5	5	5	5	5	5	5	5
B50	910-915	Suicide	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3
B50R	920-978	Homicide	8	3	11	3	3	3	3	3	3	3	3	3	3	3	3
B50B	980-999	Police intervention, execution and operations of war	3	3	6	3	3	3	3	3	3	3	3	3	3	3	3
001-999	ALL CAUSES		938	500	1,438	39	52	39	52	40	5	4	43	241	608		



TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF NEWARK FOR 1964  
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years						
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-138	Infective and parasitic diseases	114	43	18	26	29	8	4	1	5	33	40	21	..
B2	001-008	Tuberculosis of respiratory system	12	31	12	19	11	2	3	3	2	25	21	..	
B3	010-010	Tuberculosis, other forms	12	31	12	19	11	2	3	3	2	25	21	..	
B4	020-229	Typhoid and its sequelae	14	6	8	4	2	2	2	2	2	10	2	..	
B5	040-040	Typhoid fever	14	6	8	4	2	2	2	2	2	10	2	..	
B6	040-048	Cholera	1	1	1	1	1	1	1	1	1	1	1	..	
B7	045-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1	..	
B8	050-061	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	..	
B9	060-069	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	..	
B10	067	Meningococcal infections	3	1	1	1	1	1	1	1	1	1	1	..	
B11	068	Acute poliomyelitis	3	2	1	1	1	1	1	1	1	1	1	..	
B12	080	Measles	3	1	1	1	1	1	1	1	1	1	1	..	
B13	085	Mumps	1	1	1	1	1	1	1	1	1	1	1	..	
B14	100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	..	
B15	100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	..	
B16	110-117	Malaria	..	..	..	..	..	..	..	..	..	..	..	..	
B17	110-117	Malaria	..	..	..	..	..	..	..	..	..	..	..	..	
B18	140-230	Neoplasms	8	4	2	1	1	2	2	2	2	2	2	..	
B19	140-205	Malignant neoplasms	854	460	254	89	61	89	61	5	9	67	374	305	
B20	210-230	Benign and unspecified neoplasms	19	8	8	2	2	2	2	2	2	64	305	301	
B21	240-259	Allergic, endocrine system, metabolic and nutritional	104	40	86	12	20	4	4	1	10	48	101	4	
B22	260-269	Diabetes mellitus	138	34	79	7	18	7	18	2	7	12	2	..	
B23	260-269	Diseases of the blood and blood-forming organs	11	4	4	1	2	1	2	1	1	0	3	..	
B24	300-320	Psychoneurotic and personality disorders	448	160	182	47	85	11	6	6	4	16	237	4	
B25	330-339	Diseases of the nervous system and sense organs	491	164	105	30	46	4	5	6	2	157	257	10	
B26	330-334	Vascular lesions affecting central nervous system	9	1	1	1	1	1	1	1	1	1	1	..	
B27	340-349	Respiratory system	220	103	70	18	14	1	2	2	1	11	10	..	
B28	400-408	Diseases of the circulatory system	90	40	30	4	4	1	1	0	20	31	15	..	
B29	400-402	Chronic rheumatic heart disease	1744	903	609	189	91	61	63	10	11	11	1000	..	
B30	400-405	Other diseases of heart	235	81	98	28	32	2	2	10	11	11	143	..	
B31	420-424	Other diseases of heart	235	81	98	28	32	2	2	10	11	11	143	..	
B32	430-443	Hypertension without mention of heart	85	33	41	6	6	6	6	3	23	6	6	..	
B33	440-447	Myocardial infarction	144	68	43	19	14	17	10	1	15	43	83	..	
B34	450-455	Diseases of the respiratory system	111	51	33	16	11	11	16	8	14	27	46	..	
B35	460-463	Pneumonia	8	4	4	1	1	1	1	1	1	3	5	..	
B36	460-463	Pneumonia	8	4	4	1	1	1	1	1	1	3	5	..	
B37	470-477	Influenza	269	132	73	28	27	1	2	1	1	11	12	..	
B38	480-483	Diseases of the digestive system	50	34	9	5	2	1	3	1	5	38	110	84	
B39	480-487	Ulcer of stomach and duodenum	8	5	1	2	1	1	1	1	1	1	1	..	
B40	500-509	Intestinal infections and lesions	39	17	15	2	5	1	1	1	1	1	16	..	
B41	510-519	Gastroenteritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	29	8	8	5	3	1	1	1	1	1	1	..	
B42	520-529	Diarrhoea of newborn	101	59	22	10	11	5	11	1	2	1	4	..	
B43	530-539	Diseases of the genito-urinary system	125	10	15	4	4	8	1	1	1	4	15	..	
B44	540-549	Nephritis and nephrosis	160	25	17	10	12	1	1	1	1	20	36	..	
B45	550-559	Hyperplasia of prostate	22	20	9	2	4	1	1	1	1	14	27	..	
B46	560-569	Pregnancy, childbirth and the puerperium	119	7	0	2	4	6	1	1	0	1	1	..	
B47	600-609	Diseases of the skin and cellular tissue	11	4	6	1	1	2	2	1	2	1	5	..	
B48	700-709	Diseases of the bones and organs of movement	624	10	20	4	9	9	6	1	2	1	1	..	
B49	710-719	Congenital malformations	223	66	53	57	42	22	22	1	1	1	1	..	
B50	720-729	Birth injuries, postnatal asphyxia and asphyxia of the newborn	17	0	4	3	4	17	4	4	4	4	4	..	
B51	730-739	Other diseases peculiar to early infancy and immature unpurified	182	30	35	35	32	132	3	3	1	1	5	..	
B52	740-749	Accidents, poisonings and violence	8	4	1	3	3	1	1	1	1	1	1	..	
B53	750-759	Motor vehicle accidents	268	120	69	62	27	11	10	2	5	0	14	..	
B54	760-769	All other accidents except falls	43	20	7	9	3	3	3	2	6	7	13	..	
B55	770-779	Falls	75	31	12	21	11	10	9	4	4	19	11	..	
B56	780-789	Falls	91	40	37	7	7	1	1	1	1	8	17	..	
B57	790-799	Self-inflicted injuries	97	25	6	23	6	1	1	1	2	0	21	..	
B58	800-809	Homicide	40	6	6	2	2	1	1	1	1	5	8	..	
B59	810-819	Police intervention, execution and operations of war	2	2	2	2	2	2	2	2	2	2	2	..	
B60	820-829	ALL CAUSES	4931	2274	1671	534	442	328	44	18	49	418	1672	2304	

July 1, 1964, Estimated Population, 487,000.

Total Resident Deaths, 4,921.

Rate per 1,000 Population, 10.8.



TABLE 22. TABULATION OF DEATHS OF HUDSON COUNTY FOR 1934  
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	White		Nonwhite		Age Groups by Years					85+ Unknown	
				Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44		45-64
B11	001-188	Infective and parasitic diseases	120	60	27	10	6	1	3	4	2	21	51	38
B12	010-070	Tuberculosis of respiratory system	79	40	13	11	6	1	3	4	2	10	30	23
B13	020-029	Syphilis and its sequelae	11	6	2	2	1	1	1	1	1	1	4	6
B14	040	Typhoid fever	10	7	1	1	1	1	1	1	1	1	4	6
B15	043	Cholera	1	1	1	1	1	1	1	1	1	1	1	1
B16	048	Other diarrheal forms	1	1	1	1	1	1	1	1	1	1	1	1
B17	060, 061	Scarlat fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1
B18	065	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1
B19	066	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1
B20	067	Meningococcal infections	1	1	1	1	1	1	1	1	1	1	1	1
B21	068	Scarlet fever	2	1	1	1	1	1	1	1	1	1	1	1
B22	080	Acute poliomyelitis	2	1	1	1	1	1	1	1	1	1	1	1
B23	084	Smallpox	2	1	1	1	1	1	1	1	1	1	1	1
B24	085	Measles	2	1	1	1	1	1	1	1	1	1	1	1
B25	100-106	Typhus and other rickettsial diseases	2	1	1	1	1	1	1	1	1	1	1	1
B26	110-117	Headail (030-039, 041, 042, 043, 049, 052-054, 055-074, 081-083, 086-096, 100-108)	14	8	6	6	6	4	4	4	4	11	72	104
B27	140-239	Neoplasms	1333	768	540	11	11	10	2	2	8	1	5	4
B28	140-235	Malignant neoplasms	1307	789	540	11	11	10	2	2	8	1	5	4
B29	230	Benign neoplasms	26	14	19	2	2	1	1	1	1	6	11	9
B30	240-289	Alberic, endocrine system, metabolic and nutritional diseases	196	79	118	4	4	4	4	4	3	1	11	72
B31	290	Diabetes mellitus	106	49	118	4	4	4	4	4	3	1	11	72
B32	290-293	Headail (240-245, 240-254, 270-277, 280-289)	32	22	10	4	4	4	4	4	2	1	9	60
B33	290-300	Diseases of the blood and blood-forming organs	22	10	10	1	1	1	1	1	1	2	12	12
B34	300-329	Headail (231-299)	18	5	12	1	1	1	1	1	1	4	4	8
B35	330-335	Mental, psychoneurotic and personality disorders	23	15	8	1	1	1	1	1	1	1	2	1
B36	335-340	Diseases of the nervous system and sense organs	621	277	399	25	12	4	2	1	1	11	11	69
B37	400-408	Headail (341-345, 350-357, 360-369, 370-399, 400-409)	612	251	293	19	9	1	1	1	2	16	173	378
B38	410-412	Non-neoplasms of the circulatory system	327	131	194	65	2	1	1	1	1	15	10	12
B39	410-416	Communicable fevers, febrile diseases, and other diseases of heart	4	1	3	1	1	1	1	1	1	1	1	1
B40	420-422	Arteriosclerotic and degenerative heart disease	103	43	87	2	1	1	1	1	7	52	63	11
B41	430-434	Other diseases of heart	283	151	106	48	32	1	1	1	7	52	63	11
B42	440-442	Hypertension with heart disease	259	124	126	1	1	1	1	1	1	3	14	30
B43	440-445	Headail (450-454, without mention of heart)	138	64	14	8	1	1	1	1	1	3	18	175
B44	445-447	Headail (450-454, with mention of heart)	32	16	60	6	5	1	1	1	2	2	23	103
B45	470-527	Diseases of the respiratory system	219	131	70	6	6	32	13	8	2	16	87	80
B46	480-483	Influenza	4	2	2	1	1	1	1	1	1	1	1	1

July 1, 1934, Estimated Population, 673,000. Total Resident Deaths, 6,959. Rate per 1,000 Population, 10.2.

B81	490-493	Pneumonia	101	87	62	6	6	26	9	2	2	13	46	63
B82	500-502	Bronchitis	55	29	10	1	1	4	2	1	1	3	6	4
B83	530-537	Headail (470-475, 510-527)	39	20	10	1	1	4	2	1	1	3	18	18
B84	540-541	Diseases of the digestive system	370	234	116	6	2	14	16	1	1	4	153	131
B85	550-553	Appendicitis, stomach and duodenum	37	48	7	2	1	1	1	1	1	5	2	3
B86	600, 601, 670	Intestinal obstruction and hernia	16	8	2	1	1	3	1	1	1	1	2	3
B87	612, 671, 672	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	59	39	26	1	1	3	1	1	1	1	27	32
B87	681	Headail (680-684)	40	20	16	1	1	10	1	1	2	2	17	18
B88	600-637	Headail (638-687)	150	98	48	2	2	7	1	1	23	7	30	30
B88	600-694	Diseases of the genito-urinary system	54	30	22	1	1	1	1	1	1	12	46	68
B89	610	Nephritis and nephrosis	16	11	7	1	1	3	1	1	1	11	81	24
B90	620	Cystitis	10	15	2	1	1	1	1	1	1	1	1	1
B90	630	Gonorrhea	47	23	17	4	8	1	1	1	1	1	10	29
B40	640-689	Pregnancy, childbirth and puerperal diseases	3	2	4	1	1	1	1	1	1	1	1	1
B41	690-718	Diseases of the skin and cellular tissue	31	2	4	1	1	1	1	1	1	1	1	1
B41	720-749	Diseases of the bones and organs of movement	42	2	4	1	1	1	1	1	1	1	1	1
B42	750-759	Congenital malformations	76	40	33	1	1	1	1	1	1	1	1	1
B42	760-763	Diseases of early infancy	102	96	64	19	18	10	1	1	1	2	3	1
B43	763-768	Birth injuries, asphyxia and atelectasis	118	62	36	12	8	118	1	1	1	1	1	1
B44	769-776	Other diseases peculiar to early infancy and infants	19	8	8	2	1	10	1	1	1	1	1	1
B45	780-785	Stunted, emaciated and ill-nourished conditions	55	26	20	4	5	4	1	1	1	1	1	1
B45	785-789	Accidents and violence	18	12	4	1	1	1	1	1	1	1	1	1
B47	830-835	Motor vehicle accidents	248	67	11	2	4	6	16	23	6	16	51	75
B48	840-846	All other accidents except falls	58	37	18	3	2	2	8	14	10	13	11	7
B48A	850-856	Headail (850-856)	80	50	14	5	2	9	4	8	6	18	22	19
B48B	856-859	Headail (856-859)	69	46	22	1	1	1	1	1	1	1	10	21
B49	870-879	Falls	69	46	22	1	1	1	1	1	1	1	10	21
B49A	880-883	Headail (880-883)	4	3	3	1	1	1	1	1	1	1	1	1
B49B	883-884	Headail (883-884)	3	3	3	1	1	1	1	1	1	1	1	1
B49C	884-889	Headail (884-889)	3	3	3	1	1	1	1	1	1	1	1	1
B50B	901-909	Police intervention, execution and operations of war	3	3	3	1	1	1	1	1	1	1	1	1
B50C	910-919	Headail (910-919)	3	3	3	1	1	1	1	1	1	1	1	1
B50D	920-929	Headail (920-929)	3	3	3	1	1	1	1	1	1	1	1	1
B50E	930-939	Headail (930-939)	3	3	3	1	1	1	1	1	1	1	1	1
B50F	940-949	Headail (940-949)	3	3	3	1	1	1	1	1	1	1	1	1
B50G	950-959	Headail (950-959)	3	3	3	1	1	1	1	1	1	1	1	1
B50H	960-969	Headail (960-969)	3	3	3	1	1	1	1	1	1	1	1	1
B50I	970-979	Headail (970-979)	3	3	3	1	1	1	1	1	1	1	1	1
B50J	980-989	Headail (980-989)	3	3	3	1	1	1	1	1	1	1	1	1
B50K	990-999	Headail (990-999)	3	3	3	1	1	1	1	1	1	1	1	1
B50L	1000-1009	Headail (1000-1009)	3	3	3	1	1	1	1	1	1	1	1	1
B50M	1010-1019	Headail (1010-1019)	3	3	3	1	1	1	1	1	1	1	1	1
B50N	1020-1029	Headail (1020-1029)	3	3	3	1	1	1	1	1	1	1	1	1
B50O	1030-1039	Headail (1030-1039)	3	3	3	1	1	1	1	1	1	1	1	1
B50P	1040-1049	Headail (1040-1049)	3	3	3	1	1	1	1	1	1	1	1	1
B50Q	1050-1059	Headail (1050-1059)	3	3	3	1	1	1	1	1	1	1	1	1
B50R	1060-1069	Headail (1060-1069)	3	3	3	1	1	1	1	1	1	1	1	1
B50S	1070-1079	Headail (1070-1079)	3	3	3	1	1	1	1	1	1	1	1	1
B50T	1080-1089	Headail (1080-1089)	3	3	3	1	1	1	1	1	1	1	1	1
B50U	1090-1099	Headail (1090-1099)	3	3	3	1	1	1	1	1	1	1	1	1
B50V	1100-1109	Headail (1100-1109)	3	3	3	1	1	1	1	1	1	1	1	1
B50W	1110-1119	Headail (1110-1119)	3	3	3	1	1	1	1	1	1	1	1	1
B50X	1120-1129	Headail (1120-1129)	3	3	3	1	1	1	1	1	1	1	1	1
B50Y	1130-1139	Headail (1130-1139)	3	3										

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF BAYONNE FOR 1954  
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years									
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown		
B1	001-138	Infective and parasitic diseases	13	8	2	1	2	1	1	1	1	1	1	1	1	1	1	
B2	001-008	Tuberculosis of respiratory system	10	6	1	1	2	1	1	1	1	1	1	1	1	1	1	
B3	010-019	Tuberculosis, other forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B4	020-029	Syphilis and its sequelae	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B5	043	Cholera	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B6	045-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B7	050, 051	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B8	065	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B9	066	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B10	057	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B11	058	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B12	080	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B13	081	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B14	085	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B15	100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B16	110-117	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B17	118	Residual (930-939, 041, 042, 044, 049, 052-054, 055-057, 058-068, 088-096, 120-125)	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B18	140-239	Neoplasms	140	85	62	62	2	2	2	2	2	2	2	2	2	2	2	2
B19	210-239	Malignant neoplasms	140	83	62	62	1	1	1	1	1	1	1	1	1	1	1	1
B20	240-289	Benign and unspecified neoplasms	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1
B21	290-309	Allergic, endocrine system, metabolic and nutritional diseases	16	8	12	12	1	1	1	1	1	1	1	1	1	1	1	1
B22	300-329	Diabetes mellitus	16	8	12	12	1	1	1	1	1	1	1	1	1	1	1	1
B23	330-354	Diseases of the blood and blood-forming organs	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B24	360-369	Anemias	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B25	370-389	Mental (391-399)	3	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1
B26	390-399	Mental (391-399)	3	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1
B27	400-409	Diseases of the nervous and personality disorders	70	45	32	32	1	1	1	1	1	1	1	1	1	1	1	1
B28	410-419	Psychoses	40	29	29	29	1	1	1	1	1	1	1	1	1	1	1	1
B29	420-429	Vascular lesions affecting central nervous system	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B30	430-439	Nonmeningeococcal meningitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B31	440-449	Diseases of the respiratory system	382	212	180	180	7	3	3	3	3	3	3	3	3	3	3	3
B32	450-459	Rheumatic fever	10	5	5	5	1	1	1	1	1	1	1	1	1	1	1	1
B33	460-469	Chronic rheumatic heart disease	288	177	117	117	7	3	3	3	3	3	3	3	3	3	3	3
B34	470-479	Arteriosclerotic and degenerative heart disease	8	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B35	480-489	Coronary artery disease	49	26	22	22	1	1	1	1	1	1	1	1	1	1	1	1
B36	490-499	Hypertension without mention of heart disease	15	6	6	6	1	1	1	1	1	1	1	1	1	1	1	1
B37	500-509	Residual (450-456, 490-493)	21	15	6	6	2	2	2	2	2	2	2	2	2	2	2	2
B38	510-519	Diseases of the respiratory system	17	12	5	5	1	1	1	1	1	1	1	1	1	1	1	1
B39	520-529	Pneumonia	17	12	5	5	1	1	1	1	1	1	1	1	1	1	1	1
B40	530-539	Bronchitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B41	540-549	Residual (470-475, 510-527)	47	29	18	18	1	1	1	1	1	1	1	1	1	1	1	1
B42	550-559	Diseases of the digestive system	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B43	560-569	Diseases of the stomach and duodenum	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B44	570-579	Intestinal obstruction and hernia	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B45	580-589	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	7	4	3	3	1	1	1	1	1	1	1	1	1	1	1	1
B46	590-599	Residual (580-589, 642, 644, 645, 675-678, 680, 682-687)	23	17	8	8	1	1	1	1	1	1	1	1	1	1	1	1
B47	600-609	Diseases of the genito-urinary system	4	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1
B48	610-619	Nephritis and nephroses	14	8	2	2	1	1	1	1	1	1	1	1	1	1	1	1
B49	620-629	Diseases of the genito-urinary system	9	5	4	4	1	1	1	1	1	1	1	1	1	1	1	1
B50	630-639	Residual (600-609, 611-617, 630-637, 639-639)	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B51	640-649	Pregnancy, childbirth and the puerperium	10	6	5	5	1	1	1	1	1	1	1	1	1	1	1	1
B52	650-659	Diseases of the bones and organs of movement	10	6	5	5	1	1	1	1	1	1	1	1	1	1	1	1
B53	660-669	Diseases of the skin and cellular tissue	10	6	5	5	1	1	1	1	1	1	1	1	1	1	1	1
B54	670-679	Certain diseases of the eye	10	6	5	5	1	1	1	1	1	1	1	1	1	1	1	1
B55	680-689	Birth injuries, postnatal asphyxia and asphyxia of the newborn	14	10	7	7	2	2	2	2	2	2	2	2	2	2	2	2
B56	690-699	Other diseases peculiar to early infancy and immature childhood	4	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1
B57	700-709	Symptoms, penitence and ill-defined conditions	3	3	2	2	1	1	1	1	1	1	1	1	1	1	1	1
B58	710-719	Accidents, poisonings and violence	38	22	15	15	1	1	1	1	1	1	1	1	1	1	1	1
B59	720-729	Motor vehicle accidents	9	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1
B60	730-739	All other accidents except falls	9	9	9	9	1	1	1	1	1	1	1	1	1	1	1	1
B61	740-749	Falls	8	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B62	750-759	Suicide	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B63	760-769	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B64	770-779	Residual (700-709, 740-749, 750-759, 760-769, 770-779)	780	444	310	310	14	0	0	0	0	0	0	0	0	0	0	0
B65	780-789	ALL CAUSES	780	444	310	310	14	0	0	0	0	0	0	0	0	0	0	0
B66	790-799	Rate per 1,000 Population, 1954	11.1	6.7	4.7	4.7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
B67	800-809	Rate per 1,000 Population, 1953	11.1	6.7	4.7	4.7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3

July 1, 1954, Estimated Population, 81,000.

Total Resident Deaths, 780.

Rate per 1,000 Population, 9.7.





TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF JERSEY CITY FOR 1934  
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	001-138	Infective and parasitic diseases	67	14	12	6	1	2	1	2	1	13	23	22	..	..	..
B2	010-019	Tuberculosis, other forms	45	9	9	4	..	..	..	..	..	11	24	13	..	..	..
B3	020-029	Syphilis and its sequelae	33	2	2	..	..	..	..	..	..	..	..	..	..	..	..
B4	030-039	Scabies	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B5	040-049	Cholera	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B6	041-048	Dysentery, all forms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B7	050-051	Scarlet fever and streptococcal sore throat	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B8	060-069	Diphtheria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B9	070-079	Whooping cough	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B10	080-089	Measles	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B11	090-099	Scarlet fever and streptococcal infections	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B12	100-109	Acute poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B13	110-117	Smallpox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B14	120-129	Typhus and other rickettsial diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B15	130-137	Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B16	140-239	Head and neck diseases	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B17	240-249	Neoplasms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B18	250-259	Neoplasms of the digestive system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B19	260-269	Neoplasms of the respiratory system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B20	270-279	Neoplasms of the circulatory system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B21	280-289	Neoplasms of the genitourinary system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B22	290-299	Neoplasms of the nervous system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B23	300-309	Neoplasms of the endocrine and personality disorders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B24	310-319	Neoplasms of the blood and blood-forming organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B25	320-329	Neoplasms of the sense organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B26	330-339	Neoplasms of the nervous system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B27	340-349	Neoplasms of the endocrine and personality disorders	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B28	350-359	Neoplasms of the blood and blood-forming organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B29	360-369	Neoplasms of the sense organs	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B30	370-379	Neoplasms of the nervous system	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

B31	400-409	Pericarditis	78	31	5	16	5	1	1	6	15	34	..	..	..	..	..
B32	500-509	Myocarditis	8	6	2	..	..	..	..	..	..	..	..	..	..	..	..
B33	510-519	Endocarditis	92	2	..	..	..	..	..	..	..	..	..	..	..	..	..
B34	520-529	Diseases of the digestive system	174	101	55	14	11	..	..	..	..	..	..	..	..	..	..
B35	530-539	Ulcer of stomach and duodenum	23	18	4	..	..	..	..	..	..	..	..	..	..	..	..
B36	540-549	Appendicitis	4	2	..	..	..	..	..	..	..	..	..	..	..	..	..
B37	550-559	Enteritis, enterocolitis, and colitis, except gastritis, duodenitis, and colitis, except diarrhoea of newborn	37	18	16	..	..	..	..	..	..	..	..	..	..	..	..
B38	560-569	Diarrhoea of newborn	25	13	8	..	..	..	..	..	..	..	..	..	..	..	..
B39	570-579	Respiratory diseases	60	36	16	..	..	..	..	..	..	..	..	..	..	..	..
B40	580-589	Pharyngitis and tonsillitis	26	14	0	..	..	..	..	..	..	..	..	..	..	..	..
B41	590-599	Nephritis and nephrosis	31	16	11	..	..	..	..	..	..	..	..	..	..	..	..
B42	600-609	Hypernephroma	9	8	1	..	..	..	..	..	..	..	..	..	..	..	..
B43	610-619	Pyelitis and pyelonephritis	32	13	13	..	..	..	..	..	..	..	..	..	..	..	..
B44	620-629	Prostatitis	3	2	..	..	..	..	..	..	..	..	..	..	..	..	..
B45	630-639	Diseases of the genitourinary system	5	5	..	..	..	..	..	..	..	..	..	..	..	..	..
B46	640-649	Diseases of the skin and cellular tissue	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B47	650-659	Diseases of the bones and organs of movement	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B48	660-669	Congenital malformations	34	15	16	..	..	..	..	..	..	..	..	..	..	..	..
B49	670-679	Birth injuries, postnatal asphyxia and atelectasis	107	44	34	17	22	107	107	107	107	107	107	107	107	107	107
B50	680-689	Infections of the newborn	20	20	10	..	..	..	..	..	..	..	..	..	..	..	..
B51	690-699	Other diseases peculiar to early infancy and immature children	11	6	3	..	..	..	..	..	..	..	..	..	..	..	..
B52	700-709	Stomach, genitourinary and ill-defined conditions	30	10	11	..	..	..	..	..	..	..	..	..	..	..	..
B53	710-719	Accidents, violence	13	10	2	..	..	..	..	..	..	..	..	..	..	..	..
B54	720-729	Motor vehicle accidents	111	70	29	10	2	3	7	13	22	31	32	..	..	..	..
B55	730-739	All other accidents	24	11	6	..	..	..	..	..	..	..	..	..	..	..	..
B56	740-749	Falls	43	28	8	5	2	2	2	5	10	13	8	..	..	..	..
B57	750-759	Self-inflicted injuries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B58	760-769	Suicide	32	18	13	..	..	..	..	..	..	..	..	..	..	..	..
B59	770-779	Homicide	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..
B60	780-789	Police intervention, execution and operations of war	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
B61	790-799	ALL CAUSES	3508	1710	1330	142	117	176	23	18	31	281	1108	1721	..	..	..

July 1, 1934, Estimated Population, 311,000. Total Resident Deaths, 3,308. Rate per 1,000 Population, 10.6.

TABLE 23. TABULATION OF DEATHS OF RESIDENTS OF UNION CITY FOR 1954  
Classified by International Abridged List of Causes (9th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	001-138	Infective and parasitic diseases	8	8	8	8											
B2	139-156	Tuberculosis of respiratory system	2	2	2	2											
B3	010-013	Tuberculosis, other forms	2	2	2	2											
B4	020-029	Syphilis	1	1	1	1											
B5	040	Typhoid fever	1	1	1	1											
B6	048	Cholera															
B7	050-051	Dysentery, all forms															
B8	055	Diphtheria and streptococcal sore throat															
B9	065	Whooping cough															
B10	067	Neisseriaceae infections															
B11	080	Neisseriaceae infections															
B12	080	Scarlet fever and streptococcal sore throat															
B13	084	Scarlet fever and streptococcal sore throat															
B14	086	Scarlet fever and streptococcal sore throat															
B15	100-109	Smallpox															
B16	110-117	Measles															
B17	020-029	Residual (020-029)	21	6	15	6											
B18	140-239	Diseases of the blood and blood-forming organs	18	3	15	3											
B19	210-239	Residual (210-239)	3	3	3	3											
B20	240-289	Neoplasms	129	75	54	75											
B21	290-299	Malignant neoplasms	129	75	54	75											
B22	300-309	Benign neoplasms	3	2	1	2											
B23	310-334	Allergic, endocrine, metabolic and nutritional diseases	44	29	15	29											
B24	400-468	Diabetes mellitus	21	6	15	6											
B25	470-527	Diseases of the nervous system and personality disorders	18	3	15	3											
B26	530-538	Residual (294-298)	3	3	3	3											
B27	539-539	Dental, psychoneurotic and personality disorders	44	29	15	29											
B28	410-416	Diseases of the circulatory system	297	138	159	138											
B29	420-422	Coronary artery disease	248	137	111	137											
B30	430-434	Other diseases of heart disease	4	3	1	3											
B31	440-447	Hypertension with heart disease	29	11	18	11											
B32	440-447	Hypertension without mention of heart	4	3	1	3											
B33	440-447	Residual (430-434)	14	4	10	4											
B34	440-447	Diseases of the respiratory system	15	11	4	11											
B35	480-488	Influenza	2	1	1	1											

B36	590-593	Pneumonia	11	7	4	7											
B37	594-597	Residual (470-475, 510-527)	2	2	2	2											
B38	580-587	Diseases of the digestive system	31	24	7	24											
B39	540-541	Ulcer of stomach and duodenum	6	6	1	6											
B40	550-553	Appendicitis	1	1	1	1											
B41	560-571, 570	Gastrointestinal obstruction and hernia	3	1	2	1											
B42	572-572	Diarrhea of newborn, enteritis and colitis, except	1	1	2	1											
B43	581	Diarrhea of newborn, enteritis and colitis, except	14	12	2	12											
B44	590-599	Hepatitis (590-599, 542, 544, 545, 575-578, 580, 581)	6	4	2	4											
B45	600-604	Nephritis and nephrosis	1	2	3	2											
B46	605-608	Hyperplasia of prostate	1	1	1	1											
B47	609-609	Residual (600-609, 611-617, 620-629, 690-697)	3	2	1	2											
B48	610-616	Diseases of the skin and cellular integument	1	1	1	1											
B49	620-719	Diseases of the bones and organs of movement	1	1	1	1											
B50	720-749	Congenital malformations	6	8	2	8											
B51	750-759	Strain, sprain, laceration, fracture, dislocation, and other injuries of the nervous system	18	12	6	12											
B52	760-769	Strain, sprain, laceration, fracture, dislocation, and other injuries of the respiratory system	12	9	3	9											
B53	770-778	Other diseases peculiar to early infancy and infancy	2	2	2	2											
B54	780-788	Stomach, duodenum and ill-defined conditions	22	17	5	17											
B55	790-799	Acute alcoholism	6	6	1	6											
B56	800-804	Motor vehicle accidents	6	6	1	6											
B57	810-835	All other accidents except falls	6	6	1	6											
B58	840-849	Falls	6	5	1	5											
B59	850-854	Suicide	1	1	1	1											
B60	860-863	Homicide	1	1	1	1											
B61	870-870	Police intervention, execution and operations of war	1	1	1	1											
B62	880-900	All causes	693	346	258	346											

July 1, 1954, Estimated Population, 87,000.

Total Resident Deaths, 608.

Rate per 1,000 Population, 10.6.







TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF MIDDLESEX COUNTY FOR 1954  
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years						
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-003	Infective and parasitic diseases	64	31	16	4	2	4	4	5	1	2	10	18	14
B2	004-008	Tuberculous and respiratory system	25	16	8	3	2	2	1	1	1	1	10	8	
B3	010-019	Tuberculosis other	2	1	1	1	1	1	1	1	1	1	1	1	
B4	020-029	Syphilis and its sequelae	5	3	1	1	1	1	1	1	1	1	2	5	
B5	040	Typhoid fever	1	1	1	1	1	1	1	1	1	1	1	1	
B6	041-048	Dysentery	3	2	1	1	1	1	1	1	1	1	1	1	
B7	050, 051	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	
B8	055	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	
B9	059	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	
B10	060	Streptococcal infections	4	1	3	1	1	1	1	1	1	1	1	1	
B11	064	Pneumococcal infections	5	2	3	1	1	1	1	1	1	1	1	1	
B12	080	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	
B13	084	Measles	1	1	1	1	1	1	1	1	1	1	1	1	
B14	086	Mumps	1	1	1	1	1	1	1	1	1	1	1	1	
B15	100-106	Typhus and other febrile diseases	1	1	1	1	1	1	1	1	1	1	1	1	
B16	110-117	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 088-096, 120-133)	10	6	3	1	1	1	1	1	1	1	1	1	
B18	140-239	Neoplasms	417	295	153	6	3	6	2	1	1	1	48	167	233
B19	210-239	Benign neoplasms	490	355	194	6	3	6	1	1	1	1	4	167	233
B20	240-259	Malignant neoplasms	1	1	1	1	1	1	1	1	1	1	1	1	
B21	260-289	Allergic, endocrine system, metabolic and nutritional diseases	70	34	41	2	2	2	2	2	2	2	2	2	
B22	290	Diabetes mellitus	60	23	31	1	1	1	1	1	1	1	1	1	
B23	290-293	Residual (240-243, 250-254, 270-277, 280-289)	19	12	4	2	2	2	2	2	2	2	2	2	
B24	300-339	Anemias	10	7	4	1	1	1	1	1	1	1	1	1	
B25	340-349	Residual (291-299)	2	1	1	1	1	1	1	1	1	1	1	1	
B26	350-359	Mental, psychoneurotic and personality disorders	10	7	5	1	1	1	1	1	1	1	1	1	
B27	360-369	Diseases of the nervous system and sense organs	239	106	133	6	3	6	2	1	1	1	3	4	
B28	370-379	Vascular	217	97	111	7	3	7	2	1	1	1	6	14	
B29	380-389	Nonmenstruococcal meningitis	18	7	11	1	1	1	1	1	1	1	1	1	
B30	400-402	Residual (341-343, 350-357, 360-363, 370-379, 380-389)	1109	652	425	13	10	13	2	3	1	1	6	3	
B31	410-419	Diseases of the circulatory system	31	11	20	1	1	1	1	1	1	1	1	1	
B32	420-422	Arteriosclerotic heart disease	80	35	39	10	10	10	10	10	10	10	10	10	
B33	430-434	Other diseases of heart	167	47	56	3	3	3	3	3	3	3	3	3	
B34	440-447	Hypertension with heart disease	22	9	7	1	1	1	1	1	1	1	1	1	
B35	450-459	Residual (400-409, 410-419, 420-429)	44	23	19	2	2	2	2	2	2	2	2	2	
B36	470-527	Diseases of the respiratory system	75	42	35	2	2	2	2	2	2	2	2	2	
B37	480-483	Influenza	10	5	5	1	1	1	1	1	1	1	1	1	
B38	490-493	Pneumonia	68	29	29	2	2	2	2	2	2	2	2	2	
B39	500-502	Bronchitis	3	1	1	1	1	1	1	1	1	1	1	1	
B40	510-519	Residual (470-475, 510-527)	58	13	21	1	1	1	1	1	1	1	1	1	
B41	530-537	Diseases of the digestive system	18	10	8	1	1	1	1	1	1	1	1	1	
B42	540, 541	Ulcer of stomach and duodenum	8	2	1	1	1	1	1	1	1	1	1	1	
B43	550-553	Appendicitis	13	5	8	1	1	1	1	1	1	1	1	1	
B44	560, 570	Intestinal obstruction and hernia	7	3	4	1	1	1	1	1	1	1	1	1	
B45	571, 572	Gastric, enteric and colitis, except diarrhoea of newborn	38	27	9	2	2	2	2	2	2	2	2	2	
B46	580-583	Cirrhosis of liver	19	12	7	1	1	1	1	1	1	1	1	1	
B47	590-597	Residual (580-538, 542, 544, 545, 573-575, 580, 582-587)	32	30	17	1	1	1	1	1	1	1	1	1	
B48	600-604	Nephritis and nephrosis	10	10	10	1	1	1	1	1	1	1	1	1	
B49	610	Hypertails of prostate	9	6	2	2	2	2	2	2	2	2	2	2	
B50	620-629	Residual (600-609, 611-617, 620-626, 630-637)	6	6	6	1	1	1	1	1	1	1	1	1	
B51	630-639	Pregnancy, childbirth and the puerperium	3	3	3	1	1	1	1	1	1	1	1	1	
B52	720-749	Diseases of the bones and organs of movement	30	21	14	1	1	1	1	1	1	1	1	1	
B53	750-759	Congenital malformations	53	23	20	1	1	1	1	1	1	1	1	1	
B54	760-769	Certain diseases of early infancy	105	50	45	5	5	5	5	5	5	5	5	5	
B55	770-779	Birth injuries, postnatal asphyxia and atelectasis	47	25	20	1	1	1	1	1	1	1	1	1	
B56	780-782	Other diseases peculiar to early infancy and infancy	2	1	1	1	1	1	1	1	1	1	1	1	
B57	783-787	Other diseases peculiar to early infancy and infancy	56	24	25	3	3	3	3	3	3	3	3	3	
B58	790-795	Symptoms, senility and ill-defined conditions	8	5	2	1	1	1	1	1	1	1	1	1	
B59	800-809	Accidents, poisonings and violence	174	113	82	1	1	1	1	1	1	1	1	1	
B60	810-839	Motor vehicle accidents	52	32	14	3	3	3	3	3	3	3	3	3	
B61	840-849	All other accidents except falls	45	31	13	1	1	1	1	1	1	1	1	1	
B62	850-859	Falls	40	23	16	1	1	1	1	1	1	1	1	1	
B63	860-869	Scalds	31	20	9	1	1	1	1	1	1	1	1	1	
B64	870-879	Struck by or against objects	1	1	1	1	1	1	1	1	1	1	1	1	
B65	880-889	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	
B66	890-899	ALL CAUSES	2345	1435	1023	50	47	50	47	176	36	18	84	222	789

July 1, 1954, Estimated Population, 238,000

Total Resident Deaths, 2,546.

Rate per 1,000 Population, 9.0.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF MONMOUTH COUNTY FOR 1954  
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years								
			Total		White		Nonwhite		<1	1-4	5-14	15-24	25-44	45-64	65+, Unknown		
			Male	Female	Male	Female	Male	Female									
B1	001-138	Infective and parasitic diseases	47	23	11	8	5	5	1	1	1	1	12	14	16	1	
B2	001-008	Tuberculosis of respiratory system	24	14	0	2	2	2	1	1	1	1	15	10	10	1	
B3	010-010	Tuberculosis, other forms	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
B4	020-029	Typhoid and the sequelae	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B5	040	Cholera	1	0	0	0	0	0	0	0	0	0	1	2	3	0	
B6	045-048	Dysentery, all forms	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
B7	060-061	Scarlet fever and streptococcal sore throat	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
B8	065-068	Whooping cough	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
B9	080	Meningococcal infections	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
B10	088	Acute poliomyelitis	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
B11	090	Diphtheria	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
B12	098	Measles	3	2	0	0	0	0	0	0	0	0	0	0	0	0	
B13	100-108	Typhus and other rickettsial diseases	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
B14	085	Malaria	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
B15	110-117	Leishmaniasis (390-039, 641, 642, 644, 649, 682-684, 687, 691-693, 696-696, 720-739)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
B16	140-239	Neoplasms	472	210	200	17	16	17	16	1	1	1	80	174	201	1	
B17	140-200	Malignant neoplasms	468	210	200	17	16	17	16	1	1	1	80	174	201	1	
B18	210-239	Benign and unspecified neoplasms	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
B19	240-289	Alergic, endocrine system, metabolic and nutritional diseases	4	4	0	0	0	0	0	0	0	0	0	0	0	0	
B20	290	Diseases of the blood and blood-forming organs	46	15	25	4	4	4	4	1	1	1	10	20	29	1	
B21	290-293	Anemias	7	1	4	2	2	2	2	1	1	1	1	1	1	1	1
B22	300-323	Diseases of the nervous system and personality disorders	10	4	3	1	2	2	2	1	1	1	1	6	8	1	
B23	330-368	Mental (291-299)	5	4	0	0	0	0	0	0	0	0	0	0	0	0	
B24	370-388	Diseases of the circulatory system	13	10	2	1	1	1	1	1	1	1	1	3	2	1	
B25	390-394	Vascular lesions affecting central nervous system	300	113	138	14	15	12	12	1	1	1	8	50	231	1	
B26	400-403	Nonmeningeococcal meningitis	279	106	149	12	12	11	11	1	1	1	0	40	223	1	
B27	410-416	Rheumatic fever	21	7	6	1	2	2	2	2	2	2	0	7	9	1	
B28	420-422	Rheumatic heart disease	1203	674	528	46	43	43	43	1	1	1	26	324	684	1	
B29	430-433	Chronic rheumatic heart disease	9	1	0	0	0	0	0	0	0	0	0	0	0	0	
B30	440-443	Atherosclerotic and degenerative heart disease	1020	546	468	38	28	28	28	1	1	1	5	18	12	1	
B31	450-452	Coronary artery disease	15	9	6	1	1	1	1	1	1	1	1	1	1	1	
B32	460-463	Hypertension with mention of heart	125	67	52	6	10	6	6	1	1	1	1	1	1	1	
B33	470-477	Hypertension without mention of heart	19	12	6	1	1	1	1	1	1	1	1	1	1	1	
B34	480-483	Diseases of the respiratory system	76	40	40	7	8	8	8	1	1	1	1	1	1	1	
B35	490-527	Pneumonia	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
B36	530-534	Bronchitis	51	26	16	6	6	6	6	1	1	1	1	1	1	1	
B37	540-543	Residual (470-475, 510-527)	20	14	6	1	1	1	1	1	1	1	1	1	1	1	
B38	550-557	Diseases of the digestive system	196	63	35	1	7	7	7	3	3	3	2	12	47	41	
B39	560-561	Ulcers of stomach and duodenum	16	14	2	0	0	0	0	0	0	0	0	0	0	0	
B40	570-573	Appendicitis	14	8	7	1	1	1	1	1	1	1	1	1	1	1	
B41	580-591, 570	Intestinal obstruction and hernia	8	7	0	0	0	0	0	0	0	0	0	0	0	0	
B42	590-591, 570	Gastritis, duodenitis, enteritis and colitis, except chronic of newborn	9	5	3	0	0	0	0	0	0	0	0	0	0	0	
B43	600-603	Diseases of the genito-urinary system	38	20	10	10	2	2	2	2	2	2	2	2	2	2	
B44	610-613	Gonorrhea and syphilis	25	9	12	1	3	3	3	1	1	1	1	1	1	1	
B45	620-623	Diseases of the genito-urinary system	49	22	17	5	6	6	6	1	1	1	1	1	1	1	
B46	630-633	Residual (600-600, 611-617, 620-620, 630-637)	38	14	15	4	3	3	3	1	1	1	1	1	1	1	
B47	640-649	Pregnancy, childbirth and the puerperium	5	5	0	0	0	0	0	0	0	0	0	0	0	0	
B48	650-716	Diseases of the skin and cellular tissue	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
B49	720-729	Conjunctivitis	4	2	2	0	0	0	0	0	0	0	0	0	0	0	
B50	730-739	Diseases of the bones and organs of movement	24	12	12	0	0	0	0	0	0	0	0	0	0	0	
B51	740-742	Certain diseases of early infancy	50	22	14	3	3	3	3	1	1	1	1	1	1	1	
B52	750-752	Birth injuries, postnatal asphyxia and tetanosis	50	22	14	3	3	3	3	1	1	1	1	1	1	1	
B53	760-762	Infections of the newborn	3	2	1	1	1	1	1	1	1	1	1	1	1	1	
B54	770-776	Other diseases peculiar to early infancy and infancy	46	22	15	4	5	4	4	1	1	1	1	1	1	1	
B55	780-795	Symptoms, sequelae and ill-defined conditions	131	80	28	15	15	15	15	0	0	0	0	0	0	0	
B56	800-809	Accidents, poisonings and violence	47	35	7	3	2	2	2	2	2	2	2	2	2	2	
B57	810-815	Motor vehicle accidents	38	10	9	7	3	3	3	3	3	3	3	3	3	3	
B58	820-829	All other accidents except falls	9	25	12	8	1	1	1	1	1	1	1	1	1	1	
B59	830-839	Falls	22	12	8	1	1	1	1	1	1	1	1	1	1	1	
B60	840-849	Suicide	14	12	2	2	2	2	2	2	2	2	2	2	2	2	
B61	850-859	Police intervention, execution and operations of war	9	1	1	0	0	0	0	0	0	0	0	0	0	0	
B62	860-869	ALL CAUSES	2675	1322	1100	180	128	128	142	23	17	20	143	774	1616	1	

July 1, 1964, Estimated Population, 257,000.

Total Resident Deaths, 2,675.

Rate per 1,000 Population, 11.3.





TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF OCEAN COUNTY FOR 1954  
Classified by International Abridged List of Causes (4th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years									
			Total	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Unknown				
															<1	1-4	5-14	15-24
B1	001-155	Infective and parasitic diseases.....	10	4	6	1	1	1	1	1	1	1	1	1	1	1	1	
B2	001-008	Tuberculosis of respiratory system.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B3	003-019	Syphilis and its sequelae.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B4	003-029	Typhoid fever.....	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B5	040	Dysentery.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B6	045-048	Dysentery, all forms.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B7	050, 061	Scarlet fever and streptococcal sore throat.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B8	055	Diphtheria.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B9	056	Whooping cough.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B10	058	Measles.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B11	058	Measles, nonfatal.....	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
B12	080	Acute poliomyelitis.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B13	084	Smallpox.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B14	085	Measles.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B15	100-106	Typhus and other rickettsial diseases.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B16	110-117	Epidemic typhus.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B17	052-054, 052-055, 042, 044, 049, 052-054, 052-054, 051-053, 052-054, 120-125	Residual (050-059, 042, 044, 049, 052-054, 052-054, 051-053, 052-054, 120-125).....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B18	140-239	Neoplasms.....	136	67	67	2	2	2	2	2	2	2	2	2	2	2	2	2
B19	200-209	Benign neoplasms.....	136	67	67	2	2	2	2	2	2	2	2	2	2	2	2	2
B20	240-259	Malignant neoplasms.....	8	8	8	1	1	1	1	1	1	1	1	1	1	1	1	1
B20	260	Alleged, obscure system, metabolic and nutritional diseases.....	21	3	17	1	1	1	1	1	1	1	1	1	1	1	1	1
B21	200-209	Diabetes mellitus.....	17	3	14	1	1	1	1	1	1	1	1	1	1	1	1	1
B21	200-209	Residual (240-245, 270-271, 280-280).....	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B22	300-329	Diseases of the blood and blood-forming organs.....	100	4	96	1	1	1	1	1	1	1	1	1	1	1	1	1
B23	330-334	Anemias.....	100	4	96	1	1	1	1	1	1	1	1	1	1	1	1	1
B24	400-465	Mental, psychoneurotic and personality disorders.....	100	4	96	1	1	1	1	1	1	1	1	1	1	1	1	1
B25	420-422	Residual (201-209).....	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B26	430-442	Diseases of the nervous system and sense organs.....	100	4	96	1	1	1	1	1	1	1	1	1	1	1	1	1
B27	430-434	Neurodegenerative diseases.....	100	4	96	1	1	1	1	1	1	1	1	1	1	1	1	1
B28	444-447	Neuropathic diseases.....	100	4	96	1	1	1	1	1	1	1	1	1	1	1	1	1
B29	470-527	Diseases of the circulatory system.....	37	6	31	2	2	2	2	2	2	2	2	2	2	2	2	2
B30	480-485	Chronic rheumatic heart disease.....	213	162	51	4	4	4	4	4	4	4	4	4	4	4	4	4
B31	490-502	Arteriosclerosis and degenerative heart disease.....	37	2	35	1	1	1	1	1	1	1	1	1	1	1	1	1
B32	520-522	Other diseases of heart.....	207	177	30	4	4	4	4	4	4	4	4	4	4	4	4	4
B33	530-534	Hypertension with heart disease.....	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B34	540-544	Hypertension without mention of heart.....	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B35	545-572	Residual (490-495, 500-502).....	8	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1
B36	543, 571, 572	Diseases of the respiratory system.....	25	12	13	1	1	1	1	1	1	1	1	1	1	1	1	1
B37	581	Influenza.....	25	12	13	1	1	1	1	1	1	1	1	1	1	1	1	1
B38	590-597	Pneumonia.....	181	11	170	4	4	4	4	4	4	4	4	4	4	4	4	4
B39	600-604	Residual (470-475, 510-527).....	6	4	2	1	1	1	1	1	1	1	1	1	1	1	1	1
B40	610-680	Diseases of the genito-urinary system.....	17	12	5	1	1	1	1	1	1	1	1	1	1	1	1	1
B41	690-716	Diseases of the reproductive system.....	9	4	5	1	1	1	1	1	1	1	1	1	1	1	1	1
B42	700-726	Diseases of the skin and cellular tissue.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B43	730-738	Diseases of the eye.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B44	739-776	Congenital malformations.....	21	14	7	1	1	1	1	1	1	1	1	1	1	1	1	1
B45	780-785	Certain diseases of early infancy.....	6	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B46	790-795	Birth injuries, postnatal asphyxia and atelectasis.....	10	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1
B47	800-809	Infections of the newborn.....	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1
B48	810-815	Ophthalmia neonatorum to early infancy and limba-rity unqualified.....	10	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1
B49	820-824	Symptoms, senility and ill-defined conditions.....	10	6	4	1	1	1	1	1	1	1	1	1	1	1	1	1
B50	830-834	Accidents, poisonings and violence.....	51	35	16	4	4	4	4	4	4	4	4	4	4	4	4	4
B51	840-844	Motor vehicle accidents.....	23	18	5	2	2	2	2	2	2	2	2	2	2	2	2	2
B52	850-855	All other accidents except falls.....	13	8	5	1	1	1	1	1	1	1	1	1	1	1	1	1
B53	860-864	Falls.....	8	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1
B54	870-874	Drowning.....	4	4	4	1	1	1	1	1	1	1	1	1	1	1	1	1
B55	880-884	Homicide.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B56	890-894	Suicide.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B57	900-904	Police intervention, execution and operations of war.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B58	910-914	All other causes.....	707	434	273	13	12	13	13	13	13	13	13	13	13	13	13	13
B59	920-924	Residual (480-485, 490-502, 510-527, 530-534, 540-544, 545, 575-578, 580-587, 590-597, 600-604, 610-680, 690-716, 720-726, 730-738, 740-744, 750-754, 760-764, 770-774, 780-785, 790-795, 800-809, 810-815, 820-824, 830-834, 840-844, 850-855, 860-864, 870-874, 880-884, 890-894, 900-904, 910-914, 920-924).....	434	273	161	6	6	6	6	6	6	6	6	6	6	6	6	6

July 1, 1954, Estimated Population, 56,000.

Total Resident Deaths, 797.

Rate per 1,000 Population, 13.5.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF PASSAIC COUNTY FOR 1954  
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	White		Nonwhite		Age Groups by Years							
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-135	Infective and parasitic diseases	48	30	12	5	1	2	1	1	7	19	18	...
B2	001-008	Tuberculosis of respiratory system	28	16	7	3	1	3	1	5	5	12	9	...
B3	010-019	Tuberculosis, other forms	5	3	2	1	...	...	...	...	...	2	3	...
B4	020-029	Syphilis and its sequelae	6	4	1	...	...	...	...	...	...	2	4	...
B5	048	Typhoid fever	...	...	...	...	...	...	...	...	...	...	...	...
B6	045-049	Cholera	...	...	...	...	...	...	...	...	...	...	...	...
B7	050-051	Dysentery, all forms	...	...	...	...	...	...	...	...	...	...	...	...
B8	050-051	Scarlet fever and streptococcal sore throat	...	...	...	...	...	...	...	...	...	...	...	...
B9	056	Diphtheria	1	1	...	...	...	...	...	...	...	...	...	...
B10	057	Whooping cough	1	...	...	...	...	...	...	...	...	...	...	...
B11	058	Meningococcal infections	...	...	...	...	...	...	...	...	...	...	...	...
B12	080	Plague	...	...	...	...	...	...	...	...	...	...	...	...
B13	081	Acute poliomyelitis	1	...	...	...	...	...	...	...	...	...	...	...
B14	084	Smallpox	1	...	...	...	...	...	...	...	...	...	...	...
B15	100-108	Meningitis	1	...	...	...	...	...	...	...	...	...	...	...
B16	110-117	Typhus and other rickettsial diseases	...	...	...	...	...	...	...	...	...	...	...	...
B17	...	Malaria	...	...	...	...	...	...	...	...	...	...	...	...
B18	140-239	Residual (390-399, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-086, 120-138)	7	5	1	...	...	...	...	...	...	...	...	...
B19	140-203	Neoplasms	714	382	306	11	1	3	1	1	63	8	2	...
B20	210-239	Malignant neoplasms	702	377	300	11	2	3	2	4	60	251	387	...
B21	240-289	Benign and unspecified neoplasms	12	5	6	...	...	...	...	...	...	...	...	...
B22	260	Allergic, endocrine system, metabolic and nutritional diseases	120	46	70	1	1	1	...	...	...	...	...	...
B23	290-299	Diabetes mellitus	102	37	61	1	1	1	...	...	...	...	...	...
B24	300-329	Diseases of the blood and blood-forming organs	18	9	9	...	...	...	...	...	...	...	...	...
B25	330-334	Residual (294-299)	9	4	4	...	...	...	...	...	...	...	...	...
B26	340	Residual (294-299)	2	...	...	...	...	...	...	...	...	...	...	...
B27	400-465	Mental, psychoneurotic and personality disorders	12	7	3	...	...	...	...	...	...	...	...	...
B28	400-402	Diseases of the nervous system and sense organs	390	168	200	2	3	2	1	3	6	2	...	...
B29	420-422	Noncongenital lesions affecting central nervous system	344	150	186	1	1	1	...	...	...	...	...	...
B30	430-434	Noncongenital meningitis	3	1	1	...	...	...	...	...	...	...	...	...
B31	440-443	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	33	17	13	1	1	1	...	...	...	...	...	...
B32	444-447	Diseases of the circulatory system	1599	867	687	20	25	1	1	65	425	1107	...	...
B33	470-527	Rheumatic fever	4	2	1	...	...	...	...	...	...	...	...	...
B34	480-483	Chronic rheumatic heart disease	50	19	27	...	...	...	...	...	...	...	...	...
B35	...	Arteriosclerotic and degenerative heart disease	1225	723	470	13	13	...	...	...	...	...	...	...
B36	...	Other diseases of heart	27	15	12	...	...	...	...	...	...	...	...	...
B37	...	Hypertension with heart disease	188	66	118	3	6	...	...	...	...	...	...	...
B38	...	Hypertension without mention of heart	23	15	11	...	...	...	...	...	...	...	...	...
B39	...	Residual (450-466, 480-488)	76	27	47	...	...	...	...	...	...	...	...	...
B40	...	Diseases of the respiratory system	122	64	48	4	4	6	1	7	23	74	...	...
B41	...	Influenza	2	1	1	...	...	...	...	...	...	...	...	...
B42	...	Pneumonia	90	45	38	4	...	...	...	...	...	...	...	...
B43	...	Bronchitis	7	5	1	...	...	...	...	...	...	...	...	...
B44	...	Residual (470-475, 510-527)	23	13	8	...	...	...	...	...	...	...	...	...
B45	...	Diseases of the digestive system	150	91	54	3	...	...	...	...	...	...	...	...
B46	...	Ulcer of stomach and duodenum	30	19	10	...	...	...	...	...	...	...	...	...
B47	...	Appendicitis	1	1	...	...	...	...	...	...	...	...	...	...
B48	...	Intestinal obstruction and hernia	19	13	4	...	...	...	...	...	...	...	...	...
B49	...	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	12	6	6	...	...	...	...	...	...	...	...	...
B50	...	Cirrhosis of liver	61	41	20	...	...	...	...	...	...	...	...	...
B51	...	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	27	11	14	...	...	...	...	...	...	...	...	...
B52	...	Diseases of the genito-urinary system	73	51	20	...	...	...	...	...	...	...	...	...
B53	...	Nephritis and nephrosis	37	20	15	...	...	...	...	...	...	...	...	...
B54	...	Hyperplasia of prostate	19	19	...	...	...	...	...	...	...	...	...	...
B55	...	Residual (600-609, 611-617, 620-626, 630-637)	17	12	5	...	...	...	...	...	...	...	...	...
B56	...	Pregnancy, childbirth and the puerperium	3	...	...	...	...	...	...	...	...	...	...	...
B57	...	Diseases of the skin and cellular tissue	11	3	2	...	...	...	...	...	...	...	...	...
B58	...	Diseases of the bones and organs of movement	25	22	2	...	...	...	...	...	...	...	...	...
B59	...	Congenital malformations	122	62	43	...	...	...	...	...	...	...	...	...
B60	...	Birth injuries, postnatal asphyxia and atelectasis	66	39	15	...	...	...	...	...	...	...	...	...
B61	...	Infections of the newborn	6	3	3	...	...	...	...	...	...	...	...	...
B62	...	Other diseases peculiar to early infancy and immature unqualified	53	23	25	...	...	...	...	...	...	...	...	...
B63	...	Symptoms, senility and ill-defined conditions	6	3	3	...	...	...	...	...	...	...	...	...
B64	...	Accidents, poisonings and violence	174	107	61	...	...	...	...	...	...	...	...	...
B65	...	Motor vehicle accidents	40	25	9	...	...	...	...	...	...	...	...	...
B66	...	All other accidents except falls	46	30	13	...	...	...	...	...	...	...	...	...
B67	...	Falls	44	20	23	...	...	...	...	...	...	...	...	...
B68	...	Suicide	37	31	4	...	...	...	...	...	...	...	...	...
B69	...	Homicide	7	1	2	...	...	...	...	...	...	...	...	...
B70	...	Police intervention, execution and operations of war	...	...	...	...	...	...	...	...	...	...	...	...
B71	...	ALL CAUSES	3597	1911	1534	70	82	198	29	21	28	228	999	2085

Rate per 1,000 Population, 10.2.

Total Resident Deaths, 3,597.

July 1, 1954, Estimated Population, 352,000.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF GLEETON FOR 1954  
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years							
			Total	Male	Female	Male	Female	1+	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
																Male
B1	001-138	Infective and parasitic diseases	115	62	53	1	1	1	1	1	7	50	50	1	1	1
B2	001-008	Tuberculosis of respiratory system	113	62	51	1	1	1	1	1	7	50	50	1	1	1
B3	010-019	Syphilis and its sequelae	2	2	2	1	1	1	1	1	1	1	1	1	1	1
B4	020-029	Cholera and typhoid fever	17	9	8	1	1	1	1	1	1	1	1	1	1	1
B5	043	Dysentery, all forms	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B6	045-048	Scarlet fever and streptococcal sore throat	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B7	050, 061	Diphtheria	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B8	056	Whooping cough	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B9	057	Measles	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B10	057	Plague	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B11	063	Acute poliomyelitis	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B12	080	Smallpox	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B13	085	Scarlet fever	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B14	085	Scarlet fever	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B15	100-108	Typhus and other rickettsial diseases	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B16	110-117	Malaria	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B17	140-239	Residual (030-039, 041, 042, 044, 046, 052-054, 059-074, 081-083, 088-094, 120-133)	115	62	53	1	1	1	1	7	50	50	1	1	1	1
B18	140-208	Malignant neoplasms	113	62	51	1	1	1	1	1	1	1	1	1	1	1
B19	210-239	Benign and unspecified neoplasms	2	2	2	1	1	1	1	1	1	1	1	1	1	1
B20	240-250	Allergic, endocrine system, metabolic and nutritional diseases	17	9	8	1	1	1	1	1	1	1	1	1	1	1
B21	290-299	Residual (240-249, 250-254, 270-277, 290-299)	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B22	300-329	Anemia	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B23	330-334	Diseases of the blood and blood-forming organs	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B24	400-468	Diseases of monocytic and personality disorders	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B25	470-477	Diseases of the nervous system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B26	480-483	Noncommunicable methicisms	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B27	490-493	Vascular lesions affecting sense and sense organs	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B28	500-509	Diseases of the eye	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B29	510-519	Diseases of the ear, nose and throat	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B30	520-529	Diseases of the mouth and jaws	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B31	530-539	Diseases of the respiratory system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B32	540-549	Diseases of the circulatory system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B33	550-559	Diseases of the digestive system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B34	560-569	Diseases of the genitourinary system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B35	570-579	Diseases of the skin and subcutaneous tissue	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B36	580-589	Diseases of the bones and cartilage	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B37	590-599	Diseases of the muscles, ligaments and tendons	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B38	600-609	Diseases of the nervous system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B39	610-619	Diseases of the sense organs	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B40	620-629	Diseases of the circulatory system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B41	630-639	Diseases of the respiratory system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B42	640-649	Diseases of the digestive system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B43	650-659	Diseases of the genitourinary system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B44	660-669	Diseases of the skin and subcutaneous tissue	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B45	670-679	Diseases of the muscles, ligaments and tendons	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B46	680-689	Diseases of the nervous system	16	8	8	1	1	1	1	1	1	1	1	1	1	1
B47	690-699	Diseases of the sense organs	16	8	8	1	1	1	1	1	1	1	1	1	1	1
BE48A	850-859	Accidents, poisonings and violence	22	17	5	1	1	1	1	1	1	1	1	1	1	1
BE48B	860-869	Motor vehicle accidents	6	6	6	1	1	1	1	1	1	1	1	1	1	1
BE48C	870-879	Other accidents except falls	6	6	6	1	1	1	1	1	1	1	1	1	1	1
BE48D	880-889	Falls	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48E	890-899	Fire	6	6	6	1	1	1	1	1	1	1	1	1	1	1
BE48F	900-909	Floods	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48G	910-919	Police intervention, execution and operations of war	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48H	920-929	Police intervention, execution and operations of war	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48I	930-939	Police intervention, execution and operations of war	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48J	940-949	Police intervention, execution and operations of war	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48K	950-959	Police intervention, execution and operations of war	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48L	960-969	Police intervention, execution and operations of war	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48M	970-979	Police intervention, execution and operations of war	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48N	980-989	Police intervention, execution and operations of war	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48O	990-999	Police intervention, execution and operations of war	2	2	2	1	1	1	1	1	1	1	1	1	1	1
BE48P	001-009	ALL CAUSES	531	306	224	81	4	8	5	28	174	286	1	1	1	1

July 1, 1954, Estimated Population, 60,000. Total Resident Deaths, 831. Rate per 1,000 Population, 7.7



TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF PATTERSON FOR 1954  
 Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years						
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
B1	001-138	Infective and parasitic diseases	29	17	7	4	1	1	1	1	1	2	11	14	..
B2	001-139	Tuberculosis of respiratory system	19	11	5	3	1	1	1	1	1	2	9	8	..
B3	001-140	Tuberculosis, other forms	1	1	..	..	..	..	..	..	..	..	..	..	..
B4	020-029	Scabies, its sequelae	4	4	..	..	..	..	..	..	..	..	..	..	..
B5	040	Cholera	..	..	..	..	..	..	..	..	..	..	..	..	..
B6	045-046	Dysentery, all forms	..	..	..	..	..	..	..	..	..	..	..	..	..
B7	045-048	Scarlet fever and streptococcal sore throat	..	..	..	..	..	..	..	..	..	..	..	..	..
B8	060, 051	Whooping cough	1	..	..	..	..	..	..	..	..	..	..	..	..
B9	067	Meningococcal infections	..	..	..	..	..	..	..	..	..	..	..	..	..
B10	057	Acute poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..
B11	083	Measles	..	..	..	..	..	..	..	..	..	..	..	..	..
B12	080	Mumps	..	..	..	..	..	..	..	..	..	..	..	..	..
B13	085	Typhus and other rickettsial diseases	..	..	..	..	..	..	..	..	..	..	..	..	..
B14	085	Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..
B15	100-108	Residual (590-639, 641, 642, 644, 649, 652-654, 656-659, 661-683, 686-696, 120-198)	4	2	1	1	1	1	1	1	1	1	1	1	1
B16	110-117	Neoplasm	389	178	185	7	10	7	10	2	27	117	183	92	..
B17	140-305	Malignant neoplasms	322	173	183	7	9	7	9	1	24	113	181	85	..
B18	210-239	Benign and unspecified neoplasms	6	5	2	..	..	..	..	..	..	..	..	..	..
B19	240-280	Allergic, endocrine system, metabolic and nutritional diseases	65	23	39	1	2	1	2	1	1	1	1	4	..
B20	280	Diabetes mellitus	69	10	88	1	2	1	2	1	1	1	1	2	..
B21	290-299	Diseases of the blood and blood-forming organs	4	4	..	..	..	..	..	..	..	..	..	..	..
B22	290-293	Leukemias (290-292)	..	..	..	..	..	..	..	..	..	..	..	..	..
B23	300-320	Menstrual, psychomotoric and sensibility disorders	7	4	1	1	1	1	1	1	1	1	1	1	..
B24	320-326	Diseases of the nervous system and of the special sense organs	150	82	78	4	6	2	4	1	1	4	45	117	..
B25	330-334	Vascular lesions affecting central nervous system	119	74	4	2	4	2	4	1	2	4	41	110	..
B26	340	Nonmenstruococcal meningitis	16	8	6	1	2	1	2	1	1	1	1	1	..
B27	400-485	Diseases of the eye	764	408	395	13	13	13	13	1	28	186	560	7	..
B28	400-402	Rheumatic fever	22	1	19	..	..	..	..	..	..	..	..	..	..
B29	400-404	Chronic Rheumatic heart disease	570	388	234	7	7	7	7	1	7	12	3	..	..
B30	430-432	Cardiogenic and degenerative heart disease	15	9	6	..	..	..	..	..	..	..	..	..	..
B31	430-433	Coronary heart disease	11	28	87	8	2	2	2	1	1	1	1	1	..
B32	440-443	Hypertension with and without cerebral effects	44	41	6	6	6	6	6	1	1	1	1	1	..
B33	444-447	Hypertension without mention of heart	91	44	47	13	13	13	13	2	2	2	2	2	..
B34	450-527	Residual (410-456, 460-468)	69	29	25	4	4	4	4	1	1	1	1	1	..
B35	460-465	Diseases of the respiratory system	1	1	..	..	..	..	..	..	..	..	..	..	..
B36	465	Indiana	..	..	..	..	..	..	..	..	..	..	..	..	..
B37	480-485	Pneumonia	48	23	20	4	1	1	1	1	1	1	1	1	..
B38	480-482	Residual (470-475, 510-527)	10	6	4	..	..	..	..	..	..	..	..	..	..
B39	580-587	Diseases of the digestive system	70	42	28	3	2	2	2	4	1	1	1	1	..
B40	540, 541	Ulcer of stomach and duodenum	17	10	6	1	1	1	1	1	1	1	1	1	..
B41	550-553	Appendicitis	1	1	..	..	..	..	..	..	..	..	..	..	..
B42	560, 571, 572	Intestinal obstruction and hernia	10	6	2	1	1	1	1	1	1	1	1	1	..
B43	574, 575	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	4	3	1	..	..	..	..	..	..	..	..	..	..
B44	581	Cirrhosis of liver	28	18	8	..	..	..	..	..	..	..	..	..	..
B45	580-585	Residual (580-589, 542, 544, 545, 573-578, 580, 581)	12	4	6	1	1	1	1	1	1	1	1	1	..
B46	590-597	Diseases of the genito-urinary system	20	18	7	..	..	..	..	..	..	..	..	..	..
B47	590-594	Nephritis and nephrosis	17	9	7	..	..	..	..	..	..	..	..	..	..
B48	610	Hydronephrosis of prostate (595-599, 650-657)	3	5	..	..	..	..	..	..	..	..	..	..	..
B49	610-680	Residual (600-609, 610-609, 650-657)	4	4	..	..	..	..	..	..	..	..	..	..	..
B50	700-710	Residual (690-699, 700-699)	1	1	..	..	..	..	..	..	..	..	..	..	..
B51	720-749	Diseases of the skin and cellular tissue	2	2	..	..	..	..	..	..	..	..	..	..	..
B52	750-759	Diseases of the bones and organs of movement	21	20	6	..	..	..	..	..	..	..	..	..	..
B53	760-769	Congenital malformations	55	21	20	6	6	6	6	2	2	2	2	2	..
B54	780-792	Birth injuries, postnatal asphyxia and stulticalia	23	8	6	2	2	2	2	1	1	1	1	1	..
B55	793-798	Infections of the newborn	2	2	..	..	..	..	..	..	..	..	..	..	..
B56	799-778	Other diseases peculiar to early infancy and immature infancy	30	13	12	2	3	3	3	30	1	1	1	1	..
B57	800-809	Fractures, dislocations and ill-defined conditions	2	2	..	..	..	..	..	..	..	..	..	..	..
B58	810-815	Accidents, poisonings and violence	81	48	24	8	8	8	8	6	4	6	8	14	..
B59	820-822	Motor vehicle accidents	10	11	23	3	2	2	2	1	1	1	1	1	..
B60	830-835	All other accidents except falls	27	15	9	1	2	2	2	4	3	3	3	3	..
B61	840-850	Falls	24	11	12	1	1	1	1	1	1	1	1	1	..
B62	850-854	Suicide	7	6	..	..	..	..	..	..	..	..	..	..	..
B63	855-859	Homicide	4	..	..	..	..	..	..	..	..	..	..	..	..
B64	860-863	Police intervention, execution and operations of war	..	..	..	..	..	..	..	..	..	..	..	..	..
B65	864-909	ALL CAUSES	1692	873	712	63	54	54	54	88	12	8	14	62	454
B66	001-999	ALL CAUSES	1692	873	712	63	54	54	54	88	12	8	14	62	454

July 1, 1954, Estimated Population, 144,000.

Total Resident Deaths, 1,692.

Rate per 1,000 Population, 11.8.











TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF ELIZABETH FOR 1954  
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Nonwhite		Age Groups by Years							
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
																Male
B1	001-138	Infective and parasitic diseases	17	8	9	4	2	1	1	6	8	2				
B2	001-008	Tuberculosis of respiratory system	13	6	7	4	1	1	4	8	1					
B3	010-019	Tuberculosis other forms	1													
B4	020-029	Syphilis and its sequelae	1													
B5	040	Typhoid fever														
B6	043-048	Cholera														
B7	045-048	Dysentery, all forms														
B8	050-051	Scarlet fever and streptococcal sore throat														
B9	055	Diphtheria														
B10	057	Whooping cough														
B11	058	Meningococcal infections														
B12	080	Flague														
B13	084	Acute poliomyelitis	1	1												
B14	085	Measles														
B15	100-108	Typhus and other rickettsial diseases														
B16	110-117	Malaria														
B17		Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-086, 120-138)	2	2												
B18	140-230	Neoplasms	225	122	103	5	4	4	1	15	115	94				
B19	210-230	Malignant neoplasms	220	120	100	5	4	4	1	15	111	98				
B20	240-259	Benign and unspecified neoplasms	5	2	3											
B21	260	Allergic, endocrine system, metabolic and nutritional diseases	31	7	24											
B22	290-299	Diabetes mellitus	24	4	20											
B23	290-293	Diseases of the blood and blood-forming organs	7	3	4											
B24	300-326	Anemias	3	3												
B25	330-336	Mental, psychoneurotic and personality disorders	3	3												
B26	340	Diseases of the nervous system and sense organs	127	56	71	6	4	1	5	41	77	6				
B27		Vascular lesions affecting central nervous system	130	53	77	5	4	1	5	41	77	6				
B28		Nonmeningococcal meningitis	7	3	4											
B29		Residual (341-345, 350-357, 360-369, 370-380, 390-398)	525	281	244	17	8	1	1	37	150	338				
B30	400-468	Diseases of the circulatory system	1	1												
B31	400-402	Rheumatic fever	1	1												
B32	410-416	Chronic rheumatic heart disease	30	12	18											
B33	420-422	Arteriosclerotic and degenerative heart disease	386	220	166	13	3	1	9	15	6					
B34	430-434	Other diseases of heart	12	8	4											
B35	440-443	Hypertension with heart disease	51	22	29	2	2		2	16	35					
B36	444-447	Hypertension without mention of heart	7	3	4											
B37	470-527	Residual (430-456, 460-468)	38	15	23	1	1		2	7	29					
B38	480-483	Diseases of the respiratory system	32	20	12	3	6	7	3	6	11	11				
B39		Influenza	1	1												

B31	490-493	Pneumonia	20	12	8	2	2	3	4	3	2	4	1			
B32	500-502	Bronchitis	4	2	2	1	1	2	1	1	2	4	1			
B33	530-537	Residual (470-475, 510-527)	7	5	2			2	1	1	2	2	2			
B34	540, 541	Diseases of the digestive system	52	30	22	1	1	2	1	4	29	16				
B35	550-553	Ulcer of stomach and duodenum	8	6	2			1	1	1	5	3				
B36	560, 561, 570	Appendicitis	2	1	1			1	1	1	3	2				
B37	543, 571, 572	Intestinal obstruction and hernia	5	3	2			4	1	1	3	2				
B38		Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	5	1	4			2	1	2	2	2				
B39	581	Cirrhosis of liver	17	13	4			4	1	2	11	4				
B40	590-637	Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)	15	6	9	8	1	1	1	8	5	5				
B41	640-659	Diseases of the genito-urinary system	18	13	5			2	1	4	12	3				
B42	630-716	Nephritis and nephrosis	8	5	3			2	1	3	8	5				
B43	720-749	Hyperplasia of prostate	5	5				1	1	1	3	1				
B44	750-759	Residual (600-609, 611-617, 620-626, 660-667)	2	2				3	1	1	1	1				
B45	760-762	Pregnancy, childbirth and the puerperium	1	1				1	1	1	1	1				
B46	763-768	Diseases of the skin and cellular tissue	1	1				1	1	1	1	1				
B47	769-776	Diseases of the bones and organs of movement	6	3	3			2	2	1	1	1				
B48	780-795	Congenital malformations	37	10	27	7	1	5	8	37	15	1				
B49	800-999	Diseases of early infancy	14	4	10	1	1	1	1	14	8	1				
B50A	890-904	Birth injuries, postnatal asphyxia and atelectasis	2	2				2	2	4	8	7				
B50B	905-983	Infectious of the newborn	21	6	15	5	3	8	2	3	3	2				
B50C	984-999	Other diseases peculiar to early infancy and lunacy	1	1				1	1	1	1	1				
B51		Strangles, septicity and ill-defined conditions	1	1				3	2	3	3	2				
B52		Accidents, poisonings and violence	68	45	23	5	1	1	1	16	16	32				
B53		Motor vehicle accidents	16	11	5	1	1	1	2	4	8	7				
B54		All other accidents except falls	10	9	1			1	1	3	3	2				
B55		Falls	24	15	9			1	1	8	8	10				
B56		Suicide	14	10	4			1	1	2	7	4				
B57		Homicide	4	3	1			1	1	2	1	1				
B58		Police intervention, execution and operations of war	...	...	...	...	...	...	...	...	...	...				
B59		ALL CAUSES	1149	602	462	50	35	51	14	2	4	91	386	601		

July 1, 1954, Estimated Population, 118,000. Total Resident Deaths, 1,149. Rate per 1,000 Population, 9.7.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF WARREN COUNTY FOR 1954  
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	White		Nonwhite		Age Groups by Years										
				Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown				
															Male	Female		
B1	001-138	Infective and parasitic diseases	8	2	6													
B2	001-008	Tuberculosis of respiratory system	4	1	3													
B3	010-019	Tuberculosis other forms	1	1	0													
B4	020-029	Syphilis and its sequelae	1	1	0													
B5	040	Typhoid fever	1	1	0													
B6	045-048	Cholera																
B7	050-051	Dysentery, all forms																
B8	050-051	Scarlet fever and streptococcal sore throat																
B9	055	Diphtheria																
B10	057	Whooping cough																
B11	058	Measles																
B12	080	Meningococcal infections																
B13	084	Acute poliomyelitis	1	1	0													
B14	085	Smallpox																
B15	100-108	Meningitis																
B16	110-117	Diseases of the genito-urinary system																
B17		Residual (630-039, 041, 042, 044, 049, 052-054, 639-074, 081-083, 086-096, 120-138)	1		1													
B18	140-239	Malaria	100	48	52													
B19	210-239	Neoplasms	100	48	52													
B20	240-289	Malignant neoplasms																
B21		Residual (294-299)																
B22	300-326	Residual (240-243, 250-254, 270-277, 280-289)	2		2													
B23	330-334	Diseases of the nervous system and sense organs	60	26	34													
B24	400-468	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	52	22	30													
B25	400-402	Nonmeningococcal meningitis	7	3	4													
B26	410-416	Diseases of the circulatory system	323	179	144													
B27	420-422	Rheumatic fever	1	1	0													
B28	430-434	Chronic rheumatic heart disease	9	6	3													
B29	440-445	Arteriosclerotic and degenerative heart disease	258	149	107													
B30	444-447	Other diseases of heart	33	17	16													
B31	470-527	Hypertension with heart disease	4	4	0													
B32	480-483	Hypertension without mention of heart	17	7	10													
B33		Residual (450-456, 460-468)	21	18	3													
B34		Diseases of the respiratory system																
B35		Influenza																

B31	490-493	Pneumonia	18	10	8													
B32	500-502	Bronchitis	1	1	0													
B33	530-587	Residual (470-473, 510-527)	2	2	0													
B34	540-541	Diseases of the digestive system	25	16	9													
B35	550-553	Ulcer of stomach and duodenum	7	7	0													
B36	560, 561, 570	Appendicitis	3	2	1													
B37	583, 571, 572	Intestinal obstruction and hernia	2	2	0													
B38		Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	1	1	0													
B39		Cirrhosis of liver	7	4	3													
B40	590-637	Residual (580-589, 542, 544, 545, 573-578, 580, 582-587)	5	3	2													
B41	600-609	Diseases of the genito-urinary system	11	5	6													
B42	610-617	Nephritis and nephrosis	8	2	6													
B43	620-626	Hyperplasia of prostate	2	2	0													
B44	630-637	Residual (600-609, 611-617, 620-626, 630-637)	1	1	0													
B45	640-689	Pregnancy, childbirth and the puerperium																
B46	690-716	Diseases of the skin and cellular tissue	4	1	3													
B47	720-749	Diseases of the bones and organs of movement	1	1	0													
B48	750-759	Congenital malformations	14	8	6													
B49	760-776	Certain diseases of early infancy	5	5	0													
B50	780-782	Birth injuries, postnatal asphyxia and atelectasis	1	1	0													
B51	790-798	Infections of the newborn	5	1	4													
B52	769-776	Other diseases peculiar to early infancy and immaturity unqualified	9	7	2													
B53	780-785	Symptoms, senility and ill-defined conditions	2	2	0													
B54	800-899	Accidents, poisonings and violence	83	26	57													
B55	900-902	Motor vehicle accidents	8	7	1													
B56	910-965	All other accidents except falls	9	7	2													
B57	970-979	Falls	11	8	3													
B58	980-984	Suicide	5	4	1													
B59	980-983	Homicide																
B60	984-989	Police intervention, execution and operations of war																
B61	001-999	ALL CAUSES	616	331	282													

July 1, 1954, Estimated Population, 57,000.

Total Resident Deaths, 616.

Rate per 1,000 Population, 10.8.





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