

SEVENTY-NINTH ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1956



STATE OF NEW JERSEY

DEPARTMENT OF HEALTH,

TRENTON, N. J., July 1, 1956

*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, 1956.

Respectfully submitted,

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

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

---

MARCUS W. NEWCOMB, M. D., *Chairman* ..... Browns Mills  
 NELSON S. BUTERA, P. E., *Vice-Chairman* ..... Morristown  
 ERMA T. DILKES, *Secretary*..... Sewell  
 JOHN J. CANE, D. D. S. .... Phillipsburg  
 FREDERICK P. LEE, M. D. .... Paterson  
 HARRY N. LENDALL, C. E. .... New Brunswick  
 HARRY J. ROBINSON, M. D. .... Union  
 KATHLEEN SLETTELAND ..... Ridgewood

---

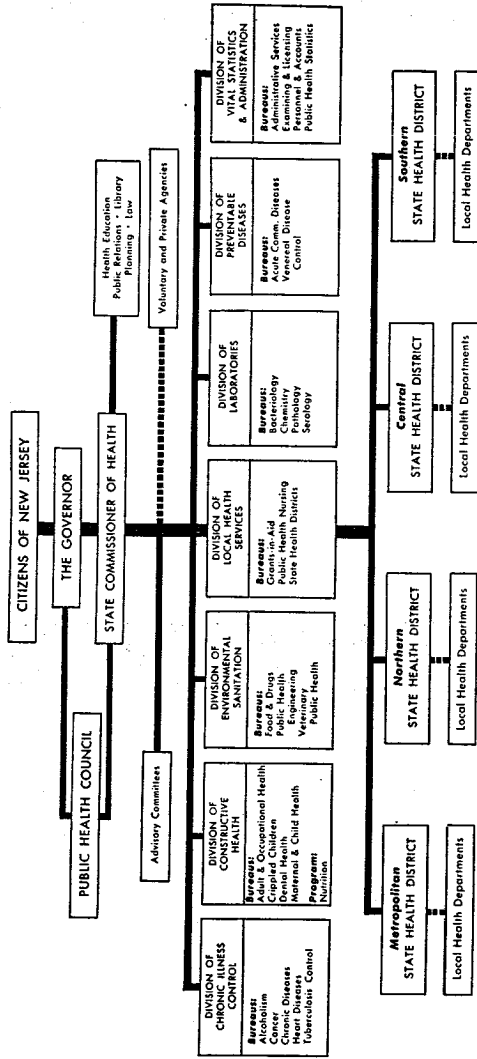
DANIEL BERGSMA, M. D., M. P. H., *State Commissioner of Health*

Table of Contents

---

SEVENTY-NINTH ANNUAL REPORT OF THE STATE DEPARTMENT  
OF HEALTH OF THE STATE OF NEW JERSEY, 1956

	PAGE
Report of the Commissioner of Health .....	7
Report of the Division of Chronic Illness Control .....	33
Report of the Division of Constructive Health .....	67
Report of the Division of Environmental Sanitation .....	133
Report of the Division of Laboratories .....	155
Report of the Division of Local Health Services .....	173
Report of the Division of Preventable Diseases .....	245
Report of the Division of Vital Statistics and Administration .....	277



The New Jersey Air Pollution Control Commission, an agency of the Department organized in 1955, is not shown on the chart.

## Report of the State Commissioner of Health

July 1, 1955—June 30, 1956

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

The year covered in this report is noteworthy as the year in which public confidence in Salk vaccine, as an immunizing agent against the paralytic effects of poliomyelitis, was restored and as a year in which there was widespread immunization of children with Salk vaccine in public clinics and by private physicians.

It is necessary to recall events prior to July 1, 1955, to get perspective. In 1954, field trials of the Salk vaccine were held in selected areas of the country under the auspices of the National Foundation for Infantile Paralysis with the help of State departments of health and local boards of health. Five New Jersey counties—Bergen, Cape May, Monmouth, Morris, and Warren—participated in these field trials.

The 1954 experience was evaluated under the direction of Dr. Thomas Francis, Jr., Director of the Poliomyelitis Vaccine Evaluation Center at the University of Michigan. On April 12, 1955, he announced that on the basis of the 1954 field experience, three inoculations of Salk Poliomyelitis Vaccine were 70-90 per cent effective in preventing the paralytic effects of poliomyelitis.

Salk vaccine was licensed as a biological product for shipment in interstate commerce by the National Institutes of Health. Production had been begun by six pharmaceutical laboratories, which had anticipated a favorable evaluation. The National Foundation for Infantile Paralysis had gambled that the vaccine would be found effective and it had committed itself to purchase enough vaccine to offer it to first, second, third, and fourth grade children in the 1954 field trial test areas and to first and second grade children generally. In New Jersey, efforts to carry out the program of the Foundation 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 had been inoculated with the product of one manufacturer were stricken with polio. Since the incidence was greater than would normally be expected by chance, the United States Public Health Service ordered the

entire product of that manufacturer recalled. A small amount of this vaccine had come into New Jersey through private channels and that which had not already been used was recalled. In subsequent investigation by the U. S. Public Health Service, live virus was found in a limited number of batches of vaccine produced by this company. Shortly after recall of this product from the market, the Public Health Service requested a postponement of the entire vaccination program. It introduced more stringent production and testing requirements.

By this time, public confidence in Salk vaccine had been well shaken. The uncertainty of New Jersey parents was aggravated when the manufacturer of the vaccine which had been originally supplied to New Jersey recalled the entire shipment for further testing. Subsequently, an adequately tested vaccine was made available under the Foundation program to New Jersey children in first and second grades.

If all municipalities participated in the program, there were a total of 268,000 New Jersey children eligible to be vaccinated under the Foundation program. Health officials and other officials in several municipalities indicated they would not participate. The State Department of Health took the position that those parents who previously had accepted the offer and who still wanted their children to have the vaccine offered by the Foundation had a right to have it. A strongly worded telegram from the State Commissioner of Health prompted several wavering and uncertain municipalities to participate. The vaccine was consequently offered to thousands of additional children. Despite strong and frequent recommendations for participation by officials of the State Department of Health, only twenty-six per cent of the children eligible under the Foundation program received first inoculations and only a little more than a third of those received second inoculations. There were 71,033 children who had first inoculations and 25,038 who also had second inoculations.

With the offering of two inoculations, the National Foundation for Infantile Paralysis concluded its offer of vaccine. Then began the effort to have children inoculated privately or with the use of governmentally purchased vaccine in public poliomyelitis vaccination clinics.

The New Jersey Legislature appropriated \$570,000 for the purchase of vaccine to inoculate children under twenty years of age who could not obtain vaccine because of inability to pay the cost thereof. This amount would have provided enough vaccine to take care of the complete protection (three inoculations) of 13.9 per cent of those eligible under the law.

The Federal Government also appropriated money for the purchase of vaccine of which New Jersey's share was \$536,000, enough to provide complete protection (three inoculations) for 13.1 per cent of those eligible under the law in New Jersey. The Federal and State Governments thus appropriated

funds to provide vaccine to 27 per cent of those eligible under the law. This left 73 per cent to secure this protection from their own resources.

Despite its restricted financial help, the Federal legislation also authorized the use of Federal funds to purchase vaccine for public polio clinics with the proviso that in such clinics there should be no test of ability to pay.

The Department of Health initially adopted the policy of buying for public use 25 per cent of the vaccine allocated to New Jersey. This was consistent with the fact that public moneys available to the Department would enable it to provide complete protection to only 27 per cent of those eligible under the law.

As millions of children throughout the country continued to receive vaccine inoculations with no further untoward incidents but with increasing evidence of the protective value, public confidence was slowly restored.

There was an unanticipated delay, however, in the production of vaccine in amounts sufficient to permit a majority of children to receive the recommended three inoculations before the 1956 polio season. This required re-appraisal of the program in terms of providing one or two inoculations to the greatest possible number. A sudden spurt in the number of municipalities which elected to set up public polio clinics created a great demand for vaccine purchased from tax funds. In an effort to meet this demand, the Department began purchase of 60 per cent of each allocation of vaccine to New Jersey. The other 40 per cent was available for purchase by physicians and pharmacies directly from the manufacturer.

A New Jersey Advisory Committee on Poliomyelitis Vaccine was appointed. In addition to the State Commissioner of Health and the Assistant Commissioner, Dr. Carl E. Weigele, it included Dr. Samuel Blaugrund, of Trenton, chairman of the Public Health Committee of the Medical Society of New Jersey; Dr. William F. Matthews, of Montclair, president of the New Jersey Fellows of the American Academy of Pediatrics; John J. Debus, of Trenton, Executive Secretary of the New Jersey Pharmaceutical Association; Charles T. Foulk, II, Health Officer of Englewood and president of the New Jersey Health Officers Association; Mrs. Isaac C. Dilkes, of Sewell, Health Chairman of the New Jersey Congress of Parents and Teachers; Mrs. James Lynch, of New Brunswick, Director of the National Council of Catholic Women of the Province of Newark; and C. R. Meyers, of Hillside, president of the New Jersey Wholesale Drug Company.

In May, 1955 the eligible age limits for the Salk vaccine were established at 5 to 9 inclusive. In October, 1955, they were extended to include all children under 15 and pregnant women. That is where they remained at the conclusion of the fiscal year covered in this report.

By the end of the fiscal year ending June 30, 1956, 418 of New Jersey's 567 municipalities had received from the State Department of Health Salk vaccine for first inoculations in public poliomyelitis clinics and 304 of them had also received vaccine for second inoculations in the clinics.

After public confidence in the Salk vaccine had been restored, the vaccine was in short supply for approximately a year, until about the end of June, 1956. There was a good deal of agitation. Some labor groups and some others thought that all available vaccine should be purchased by the State Department of Health and used exclusively in public poliomyelitis clinics. The Medical Society of New Jersey took the position that it was opposed in principle to any special clinics for the administration of Salk vaccine. Several municipalities experienced difficulty in getting local physicians to serve public clinics. On December 2, 1955, Governor Robert B. Meyner held a public hearing in an effort to achieve a better understanding of the problems of production and distribution and to permit all parties to air their views.

In addition to determining the eligible age groups, the State Department of Health arranged for distribution of publicly purchased vaccine in the 65 biological distributing stations of the Department. There is at least one such station accessible to a physician in any part of New Jersey. At these stations, the physician may get vaccine without cost provided he signs a statement that he will not charge the patient for the vaccine.

The Department also set up criteria by which municipalities may be reimbursed from Federal funds for actual administrative expenses incurred in conducting public poliomyelitis clinics.

#### FLOOD RELIEF ACTIVITIES

Departmental personnel devoted time to a major activity which we hope will not be repeated, the disastrous floods of August 19-20, 1955.

Because of power failure in the State House and uncertainty as to when it would be restored, the Director of Laboratories made arrangements to have essential equipment and key laboratory personnel transferred to the laboratory of the State Hospital at Trenton. The purpose was to maintain uninterrupted laboratory service to the extent possible. Shortly after the service was set up at the State Hospital, power was restored to the State House and it became possible to resume operations in the regular Division quarters.

Hundreds of samples of water were analyzed by the Division of Laboratories subsequent to the flood.

State public health activities in the Phillipsburg area were co-ordinated by the Director of the Division of Environmental Sanitation. Personnel of the Northern District, which embraces Sussex, Warren, and Hunterdon counties on the Delaware, participated in the over-all effort in that area. State Health

Department personnel provided assistance in organizing clinics for administering inoculations for typhoid fever; in giving directions for sterilizing wells and springs; in advising householders on cleaning operations and on the disposal of contaminated foods and beverages; a letter was sent to all local boards of health in the Northern District concerning clean-up operations; a local radio station in the area carried spot announcements of helpful health information; and action was taken with reference to the embargoing and ultimate disposition of submerged foods and intoxicating beverages in the hands of the wholesaler and retailer.

In the Central State Health District, all water plants along the Delaware were inspected at least once. Helpful information and assistance were given to local boards of health and to other local personnel with reference to the taking of water samples, the setting up of inoculation centers, inspection of food and beverages and embargoing and subsequent disposition of them.

The Metropolitan and Southern State Health Districts were less seriously affected directly and made sanitarians and engineering personnel available to the Northern and Central Districts during the emergency.

#### Controlling Chronic Illness

Encouraging and aiding local agencies, usually community hospitals, to initiate or improve services to chronically ill persons is a principal function of the Division of Chronic Illness Control. Assistance of the State Department of Health has been given in the form of lending expensive, specialized equipment or as a grant-in-aid to permit employment of specialized technical or professional personnel. During the year, 25 different agencies received grants-in-aid in a total amount of \$135,000. It was possible to terminate four of these contracts at the end of the year because the agency assumed full financial responsibility for the service. The Department's "pump-priming" had accomplished its purpose. Contracts with the other 21 agencies were renegotiated and eight others were initiated in a total amount exceeding \$200,000. \$49,000 of that amount is Federal money. We are glad to give other agencies of government credit for their help to us. More than fifty hospitals in New Jersey are now using equipment which was purchased by the State Department of Health. This equipment strengthens their services to patients in chronic illness control. The reader who wants more detailed information is invited to review the charts in the detailed report of the Division of Chronic Illness Control.

The seventh Governor's Conference dealing with some aspect of chronic illness control, in this instance on the subject of nutrition, was held on April 11, 1956.

## TRAINING NURSES' AIDES

Nurses' aides have been valuable in overcoming some of the consequences of the shortage of nurses in hospitals. To standardize the training of nurses' aides, the Division of Chronic Illness Control provided funds for a full-time instructor to carry on a training program outlined by national and State nursing organizations and administered through the New Jersey Hospital Association. The program was carried on for two years and was completed on June 30, 1956. During the two-year period, 47 workshops were held. There were 180 hospitals and institutions which sent 409 nurse instructors for training in what and how to teach classes of aides in their own hospitals. Participating institutions included 76 general hospitals, 14 hospitals for nervous and mental patients, five hospitals for the tuberculous, 21 special hospitals, and 64 nursing homes. Follow-up visits, 283 in number, were made by the instructor to the institutions which participated. A high percentage either established training courses for aides or revised existing courses. It is estimated that the training of 2,500 aides already has been affected favorably by this two-year project. The New Jersey Hospital Association officials believe the program can be continued without a full-time paid instructor. Most of the institutions now have instructors who attended the workshops.

## RESTORATIVE THERAPY

A rehabilitative unit at Essex County Hospital, Belleville, had been functioning for fourteen months by the end of the fiscal year covered in this report. It was started with financial support from the State Department of Health. During this period of time, 89 bedridden persons were selected for special restorative therapy from persons on public assistance admitted to the hospital. The average age was 72. An active course of rehabilitation (restorative therapy) was instituted for each. It involves the team participation of physicians, nurses, social workers, physical therapists, and others. Of the 89 patients, 38 improved sufficiently so that they could go home and ten others were able to be transferred to boarding homes. It has been estimated that it costs from \$80 to \$100 per month more to maintain a person in a hospital than it does in his own home. Even in a boarding home, an elderly needy person probably would be eligible for old age assistance, fifty per cent of which comes from Federal funds. If these savings per individual, to the county and State, are multiplied by the number of persons who benefit from restorative therapy and by their life expectancy, the benefits to the taxpayer of a program of this type become significant. When this activity is expanded as it should be, the savings will be enormous.

**Medical and Health Services  
in Civil Defense and Disaster Control**

The State Commissioner of Health has responsibility for planning for medical and health services in State civil defense and disaster control and for putting such services into operation in event of emergency.

There was emphasis during the year on county and local organization, responsibility, and inventory of resources for civil defense and disaster needs. More than 100,000 blood specimens for blood grouping tests and Rh typing tests were performed in our State laboratory. Results were reported to physicians, with a copy going to the patient.

A New Jersey Blood Bank Commission was organized and is to function as an arm of The Medical Society of New Jersey. Its purposes are to integrate existing blood banks and to promote uniform methods of blood collection and pertinent technological procedures.

The New Jersey State Nurses' Association has completed a Basic Manual for Nurses in relation to civil defense and disaster control and is working on a Teachers' Handbook and an Advanced Manual for Nurses.

There were other extensive efforts directed toward education and training. There was a conference for officers of fire fighting companies on the hazards of fire fighting in installations using radioactive materials. Another conference was held with representatives of the New Jersey Section of the American Water Works Association to consider techniques for background monitoring of watershed areas as a baseline for subsequent estimation of radioactive contamination of potable water supplies by radioisotope users, or by fallout in case of enemy action.

Approximately 300 key individuals received intensive training in instrument calibration and maintenance, county radchem organization, and responsibilities and operation, with supervised field work in the monitoring of personnel, food, and areas.

An operational manual for county radchem services was prepared and distributed.

The Basic Course for Nurses was given at Camden and Newark for professional and licensed practical nurses.

**Constructive Health**

**AIR POLLUTION CONTROL**

The New Jersey Air Pollution Control Commission promulgated, effective May 1, 1956, an air pollution control code. In its first phase, the code deals with the control of open burning. Industries and municipalities likely to engage in open burning were advised of the provisions of the code.

Personnel of the Air Sanitation Program have been among the instructors in two courses in Principles of Air Pollution Control given at Rutgers University and a third was planned to begin in the fall of 1956. Many of the technical men in the industries throughout the State have been students in the course. As a result of their taking courses given by some of our personnel, there is understanding among the industries of our objectives and methods when we discuss air pollution control with them.

#### ADULT AND OCCUPATIONAL HEALTH

A principal development during the year was the execution of an Agreement of Cooperation between the State Department of Health and the State Department of Labor and Industry which defines the role of each in matters of occupational health. The line of demarcation had never been clearly drawn in the past, there was some over-lapping of effort, and occasional disagreement as to who had responsibility in certain areas. These handicaps to effective programs have been eliminated by the agreement. In essence, all occupational health studies will be done by personnel of the Department of Health and all enforcement actions will be instituted by the Department of Labor and Industry.

#### CRIPPLED CHILDREN PROGRAM

There were about 18,000 crippled children (the number varies slightly from month to month) on the State Register during the year. Operation of the Crippled Children Program, as it relates to individual handicapped children in the community, has become increasingly a responsibility of the district State health offices.

The total unduplicated count of children receiving hospital, convalescent home, and clinic services paid for by the program was 1,229.

#### MATERNAL AND CHILD HEALTH

One of the significant developments during the year in this program was the offering of a consultant service in the care of premature infants, for the training of hospital nurses, to hospitals with obstetrics departments. In 1955, premature deaths represented 68 per cent of all infant deaths occurring within the first 24 hours of life. The consultant's visits average two weeks in duration and are followed up by one-day visits after an interval of six months. Requests for the consultant's services were so great that she was booked up far in advance. In the consultant's visits, all areas of hospital and clinic service having some bearing on prematurity are considered.

One hundred New Jersey physicians registered for a course in preventive pediatrics given at Seton Hall University. The course was planned by the

program coordinator of Maternal and Child Health and representatives of the Medical Society of New Jersey and Seton Hall University.

The Boarding Home for Children Code (1956) was promulgated by the Department and may be adopted by local boards of health in whole or in part, by reference, without advertising the whole text.

#### Environmental Sanitation

Twenty-one new sewage treatment plants, three new industrial waste treatment plants, and additions and alterations to two existing sewage treatment plants were completed and placed in operation during the year. Two hundred and sixteen stream pollution control projects were reviewed and approved by the Department during the year. The total construction cost exceeded \$18,000,000.

Projects to assure more adequate water supplies were approved which had a total construction cost in excess of \$4,000,000. These included forty-six new supply sources and ten projects for improvements.

An experience of our Bureau of Engineering is illustrative of the difficulty of securing and holding qualified public health personnel. As a result of securing additional funds, four new public health engineers were employed at the beginning of the fiscal year. One resigned because of poor health. A second was claimed by the armed forces. A third resigned for a more lucrative position in private industry. The fourth stayed with us.

Four new sanitary landfills started operation during the year. At the end of the fiscal year, there were 23 landfills in operation. They handled refuse disposal for more than twenty per cent of the population of the State.

Through its four district offices, the Department inspected and gave certificates of approval to 184 camps. Nineteen bathing places received certificates of compliance indicating that they were operating in conformity with standards approved by the Department.

An Introductory Milk Sanitation Course, sponsored by the Department in cooperation with Rutgers University Extension Service, was given by personnel of the Department's Milk Program. This course is making a real contribution toward eliminating conflicting requirements of various milk inspectors and in promoting uniformity in interpretations of our State law. It is also stimulating interest in reciprocity programs. The Department is urging the acceptance of uniform testing standards and forms so that municipalities and the State Department of Health can accept each other's findings, with more concentration on a smaller number of places to be tested by each municipality. Under this program, the testing personnel of each municipality is not spread so thin, but the over-all testing is even more comprehensive and efficient than before.



Approximately 200 acres of shellfish harvesting grounds, in two sections of the Shrewsbury River in Monmouth County, were opened during the fiscal year after the sanitary quality of the area had been sufficiently improved.

A survey undertaken during the year through the Veterinary Public Health Program indicated that 80,000,000 pounds of meat were placed on the market annually after slaughter locally without adequate inspection for wholesomeness. Plans involving legislation were initiated to correct this great potential source of ill health. An increase in trichinosis cases during the year underscored the need for more adequate inspection of meat products.

### Laboratory Services

Federal officials who have reviewed our laboratory services have reported that New Jersey is *at the bottom of the list of State laboratories with respect to physical facilities*. This is certainly an unenviable position. It imposes a great strain on the staff to assure a calibre of service which is not only satisfactory but which is expected to be a standard for other public health laboratories in the State to emulate. The physical facilities of the entire Department are inadequate; those in the laboratory are perhaps the worst of all.

There has been again this year continuing demand for services in diagnostic virology and in support of the air sanitation program. We have been unable to develop such services adequately because of inadequate housing and utilities.

If some greater volume of routine laboratory analyses were absorbed by local laboratories which are competent to perform them, we could devote more time to professional education and evaluation services which would strengthen laboratory services all over the State.

### Local Health Services

Services of the Department of Health in most instances are made available to local boards of health, county boards of freeholders, and voluntary and private health agencies through four district offices. The Central District serves Burlington, Mercer, Middlesex, Monmouth, and Ocean counties. The Metropolitan District serves Bergen, Essex, Hudson, Passaic, and Union counties. The Northern District serves Hunterdon, Morris, Somerset, Sussex, and Warren counties. The Southern District serves Atlantic, Camden, Cape May, Cumberland, Gloucester, and Salem counties. The respective offices are in Trenton, Newark, Dover, and Haddonfield.

The year was marked by the retirement of William H. MacDonald, Director of the Division, and Wallace T. Eakins, Chief of the Bureau of Grants-in-Aid, both of whom were employed by the Department for almost forty-four years. Mr. MacDonald was succeeded as Director by Jesse B. Aronson, M. D., M. P. H., who had been District State Health Officer in the Central District

for several years. It was possible to discontinue the Bureau of Grants-in-Aid by having its functions absorbed in other activities of the Department.

During the year, the Public Health Nursing Program developed a Family Health Record. Municipalities are being encouraged to use this as a step toward comprehensive nursing and health service to families.

Public Health Nurse Consultant Positions were established relating to Crippled Children, Obstetrics, Pediatrics, Heart Disease, Tuberculosis, and General Health.

There has been an encouraging assumption, on the part of municipalities, of financial responsibility for public health nursing. As of June 30, 1956, of the 215 public health nurses supervised by the State Department of Health, only 18 are paid partially or wholly from State funds.

The need for additional training of public health nurses is pointed up by the fact that of 996 public health nurses in New Jersey, as of January 1, 1956, only 239 are fully qualified according to national standards.

The reader can learn for himself the variety and volume of services provided by the district health offices by reading the detailed report of the Division of Local Health Services which is to be found elsewhere in this volume.

### Preventable Diseases

The most outstanding advance in communicable disease control during the year was the progress in immunizing a segment of the population against the paralytic effects of poliomyelitis through use of the Salk vaccine. The greatest problem was the unavailability of the vaccine during the period covered in this report.

There were no reported cases in 1955 of anthrax, botulism, cholera, dengue, diarrhea of newborn, glanders, leptospirosis, plague, Q fever, human rabies, smallpox, or yellow fever.

There were 9,710 cases of venereal diseases reported to the Department in 1955. Venereal diseases were exceeded only by measles among the notifiable diseases.

Case-finding surveys (blood tests) were continued among groups presumed to have high incidence. The reactive rate confirmed the presumption and led to identification and treatment of many persons with syphilis.

### Vital Statistics and Administration

The sixty-six distributing stations which make biological products accessible to physicians for needy patients added Salk vaccine to those products this year. The distributing stations—usually local boards of health or voluntary

hospitals—perform this service without remuneration and deserve great credit for it.

More persons were examined, for licensure of one kind or another, through our Bureau of Examination and Licensing than ever before.

For the first time, courses were set up jointly by the Department and the Department of Education to provide additional training to licensed teachers of beauty culture and beauty shop owners.

As of June 30, 1956, there were 549 budgeted positions in the Department. There were 435 employees with permanent civil service status and 52 with temporary civil service status.

During 1955, the Vital Statistics Registration Program processed 213,596 original reports of vital events, 1,300 delayed reports of births, and 9,000 corrections to records.

There was heavy demand for reports of births on the part of school authorities to permit them to plan for increased facilities. There was also heavy demand for population estimates by municipality, county, and State.

#### Summary

My preface to the annual report each year is intended only to point up the more significant developments of the year in public health, problems and needs, and to touch upon some of the many activities performed by personnel of the Department. This is done essentially for the reader who may not have time to read the entire volume. This is necessarily selective, because of space limitations, and in some respects unfair to employees whose activities may not be mentioned. Our numbers are small but our activities affect the life of every person in New Jersey.

I commend to the interested reader a careful reading of the material in this volume.

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

#### ANNUAL MEETING PUBLIC HEALTH COUNCIL

The annual meeting of the Public Health Council was held on July 11, 1955. The following officers were elected for the fiscal year 1955-56: Marcus W. Newcomb, M. D., Chairman; Mr. Nelson S. Butera, Vice-Chairman; Mrs. Erma T. Dilkes, Secretary.

The membership of the Public Health Council is as follows:

<i>Name</i>	<i>Address</i>	<i>Expiration of Term</i>
Nelson S. Butera .....	Morristown .....	June 30, 1956
Harry J. Robinson .....	Union .....	June 30, 1957
Frederick P. Lee .....	Paterson .....	June 30, 1957
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 .....	June 30, 1961

## ANNUAL CONFERENCE OF STATE AND LOCAL HEALTH OFFICIALS

The 45th Annual Conference of State and Local Health Officials of New Jersey was held at the War Memorial Building, Trenton, N. J., on April 5 and 6, 1956. The program follows:

## FILM SHOWINGS

45th Annual Conference of State and Local Health Officers

Stage of Main Auditorium—War Memorial Building

THURSDAY, APRIL 5, 1956

9:45 A.M.—“A Long Time to Grow”—Part I

Produced and available from New York University Film Library, 26 Washington Place, New York, N. Y. Cost \$120.00

1:15 P.M.—“Swimming Pool Sanitation”—Filmstrip

Produced by United Work Films, Inc., 1445 Park Ave., New York. Cost \$9.10. Available on loan from: U. S. Public Health Service, CDC, Chamblee, Georgia

“Enter Hope”—Filmstrip

Produced by and available from: New Jersey State Department of Health

“Heart Disease—Its Major Causes”

Produced and available from Encyclopedia Britannica Films, 1150 Wilmette Ave., Wilmette, Ill. Cost \$50.00

FRIDAY, APRIL 6, 1956

9:45 A.M.—“Community Health in Action”

Produced and available from Sam Orleans & Associates, Inc., 211 W. Cumberland Ave., Knoxville 15, Tenn. Cost \$170.00

1:15 P.M.—“Home Care”

Produced by Benjamin Rosenthal Foundation of New York. Available from Health and Welfare Materials Center, 10 E. 44th St., New York, N. Y. Cost \$50.00

THURSDAY, APRIL 5, 1957

9:45 A.M.—Film Showing

Stage of Main Auditorium

10:00 A.M.—10:30 A.M.—Registration open

## BALLROOM

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

A Welcome to the 45th Annual Conference—Honorable Robert B. Meyner, Governor of New Jersey

Progress Report, Polio Vaccination Program—Richard J. Russo, Supervisor, Poliomyelitis Vaccine Program, New Jersey State Department of Health

Realty Improvement Sewerage and Facilities Act and Regulations—Robert S. Shaw and Ernest R. Segesser, Assistant Director and Senior Public Health Engineer, Division of Environmental Sanitation

Public Health Laboratory Services of the New Jersey State Department of Health—Dr. Elmer L. Shaffer, Director, Division of Laboratories

Registration open at close of morning session

1:15 P.M.—2:00 P.M.—Registration opens

1:15 P.M.—Film Showing

Stage of Main Auditorium

2:00 P.M.—*Presiding*—Charles T. Foulk, II, President, New Jersey Health Officers Association

Public Health and Housing—A Case History—Dr. Jesse B. Aronson, Director, Division of Local Health Services

Public Health and Housing—New Jersey State Department of Health Program—Alfred H. Fletcher, Director, Division of Environmental Sanitation

Recurring Problems in Registration and Reporting—F. Merton Saybolt, Chief, Bureau of Public Health Statistics, Division of Vital Statistics and Administration

Findings of the Chronic Illness Survey of Hunterdon County—Dr. Pauline R. Goger, Assistant, Internal Medicine, Hunterdon Medical Center and Dr. Marguerite F. Hall, Director, Division of Vital Statistics and Administration

## DEPARTMENT OF HEALTH

## VETERANS ROOM

2:00 P.M.—Open Question and Answer Session on Public Health Legislation

*Consultants*

E. Powers Mincher, Assistant to the State Commissioner of Health

Charles A. Kientz, Jr., Health Officer, North Arlington

4:00 P. M.—Adjournment

FRIDAY, APRIL 6, 1957

9:45 A.M.—Film Showing

Stage of Main Auditorium

10:00 A.M.-10:30 A.M.—Registration open

## BALLROOM

10:30 A.M.—*Presiding*—Dr. Jesse B. Aronson, Director, Division of Local Health Services

## PUBLIC HEALTH IN THE NEW JERSEY OF TOMORROW

The New Jersey of Tomorrow—Dr. Joseph E. McLean, Commissioner, State Department of Conservation and Economic Development

Public Health Services for Tomorrow's People—Dr. Roscoe P. Kandle, Deputy Commissioner of Health, City of New York

More Hands for Tomorrow's Health—Dr. Norvin C. Kiefer, Chief Medical Director, The Equitable Life Assurance Society of the United States

Registration open at close of morning session

1:15 P. M.—2:00 P. M.—Registration open

1:15 P. M.—Film Showing

Stage of Main Auditorium

## BALLROOM

2:00 P. M.—*Presiding*—John J. Hanson, Health Officer, New Brunswick

Five-Minute Progress Reports in Chronic Illness Control

*Moderator*—Dr. Marian R. Stanford, Director, Division of Chronic Illness Control

Diabetes Detection Drive Results—Dr. Arthur Krosnick, Coordinator, Diabetes Control Program

Tuberculosis Control—Dr. William J. Dougherty, District State Health Officer, Central District

Homemaker Service—Leonora B. Rubinow, State Consultant, Medical Social Rehabilitation

Comprehensive Rehabilitation—Miss Rubinow

Out-Patient Services for Alcoholics—William J. Harris, Coordinator, Alcoholism Control Program

New Developments in Heart Disease Control—Dr. Benjamin K. Silverman, Coordinator, Heart Disease Control Program

New Jersey Boarding Home Code for Children—Dr. Renee Zindwer, Chief, Bureau of Maternal and Child Health

What is a Public Health Nuisance and How May a Local Board of Health Secure Abatement?—E. Powers Mincher, Assistant to the State Commissioner of Health

## VETERANS ROOM

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

*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

45TH 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 ..... *Formerly Director*  
Division of Local Health Services  
Retired March 2, 1956

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 1956 Legislature:

S-14, Chap. 135 (Farley). Creates a State Mosquito Control Commission of seven members, six of whom shall be appointed by the Governor with the advice and consent of the Senate and the seventh member shall be the Director of the N. J. Experiment Station.

S-40, Chap. 170 (Ridolfi). Permits municipal reporting officers to certify the number of cases of mental deficiencies to their municipalities directly, instead of through the State Health Department; amends Revised Statutes 26:5-8 and repeals Revised Statutes 26:5-7.

S-45, Chap. 171 (Ridolfi). Creates the position of Veterinary Meat Inspector to be licensed by the State Department of Health; amends P. L. 1947, Chap. 177.

S-304, Chap. 60 (McCay). Appropriates \$3,000,000 to the Department of Conservation and Economic Development for the acquisition of the Round Valley Reservoir site to be supplied with waters from the Delaware River.

S-375, Chap. 188 (Farley). Appropriates \$75,000 to the State Agricultural Experiment Station for work in connection with mosquito control and extermination.

S-384, Chap. 227 (Farley). Places the powers, duties, etc., of the Board of Beauty Culture Control under the Division of Professional Boards.

S-385, Chap. 194 (McCay, Dumont, Ridolfi). Broadens the authority of the Water-front Commission; requires adoption of similar legislation by New York State.

SCR-10, Filed with Secretary of State (Jones). Creates a 12-member joint Legislative committee, 2 Senate, 2 General Assembly, 8 at large, to study flood control and the statutes relative thereto; requires a report to the present or next Legislature.

SCR-16, Filed with Secretary of State (Stout, Forbes, Harper). Creates a 6-member bipartisan commission, 3 each from the Senate and General Assembly, to study the problem of the provision of additional office space for the several State Departments; requires report to the 1957 Legislature.

SJR-1, Chap. JR-1 (Ridolfi). Designates the month of April as Cancer Control Month; provides for a proclamation by the Governor.

SJR-3, Chap. JR-3 (Hannold). Designates the week of March 4 to March 10 as "Save Your Vision Week."

SJR-11, Chap. JR-16 (Stout). Creates an Atomic Energy Study Commission consisting of 15 members; 5 to be appointed by the Governor, 5 Senators to be appointed by the Senate President and 5 Assemblymen to be appointed by the General Assembly Speaker.

A-142, Chap. 23 (Dwyer). Extends the time for the Interstate Sanitation Commission to submit its report on air pollution to February 1, 1957.

A-159, Chap. 233 (Maebert). Provides that school nurses, school nurse supervisors, head school nurse, chief school nurses and school nurse coordinators or persons performing any school nursing service in the public schools shall be appointed by the board of education having charge of the schools concerned; excludes those presently operating under a contract.

A-268, Chap. 44 (Field). Permits the State Board of Child Welfare to pay for and consent to tests and treatment of certain children where the parent or guardian is not available.

A-321, Chap. 213 (Musto). Permits counties to establish facilities for the treatment of alcoholics, and to permit commitments in certain cases by a Superior or County Court judge or a municipal magistrate.

A-412, Chap. 178 (Vervae). Permits the State to enter into a compact with any other State to improve procedures for transfer of the mentally ill among the several States and give greater recognition to the welfare, treatment and recovery of the patient than to place of legal residence.

A-472, Chap. 161 (Vervae). Provides for the licensing and regulation of private mental hospitals and to add to the membership of the hospital licensing board.

A-508, Chap. 104 (Haines). Authorizes the State Division of Animal Industry to test all cattle for brucellosis and to require slaughter of infected cattle under certain conditions.

A-509, Chap. 105 (Haines). Permits importation of registered bulls into New Jersey under conditions of testing and quarantine for brucellosis.

A-521, Chap. 214 (Perfette). Authorizes county freeholder boards to maintain facilities for treatment of narcotic addicts and alcoholics.

A-544, Chap. 210 (Cundari). Authorizes public bodies to aid and cooperate in redevelopment projects to eliminate and prevent slum areas.

A-545, Chap. 211 (Cundari). Broadens the powers of housing authorities with respect to slums.

A-546, Chap. 212 (Cundari). Broadens the powers of redevelopment agencies with respect to slums.

A-566, Chap. 113 (Ozzard). Permits sewerage authorities to acquire "public or private rights in water"; prescribes the procedure in condemnation proceedings brought by sewerage authorities.

A-578, Chap. 196 (Glenn, Haines). Increases the license fees for sale of milk.

A-609, Chap. 199 (Crane). Authorizes adjoining municipalities and counties divided by non-navigable streams to agree upon and fix by resolution a permanent boundary line notwithstanding changes in the central line of the stream.

ACR-40, Filed with Secretary of State (Kurtz, Newton). Memorializes Congress to enact legislation to carry out specified recommendations contained in the report of the Interdepartmental Committee on Narcotics to the President, dated February 1, 1956, as an aid to the State's program for the control of narcotic drugs.

ACR-42, Filed with Secretary of State (Vervae). Creates a 14-member bipartisan Commission on Mental Health, 3 each from the Senate and General Assembly, the Commissioner of Institutions and Agencies, Commissioner of Health, and 6 specially qualified members from designated organizations, to study problems relating to the mentally ill and defective, and to make recommendations thereon to the 1957 Legislature.

AJR-1, Chap. JR-4 (Maebert, Franklin). Creates a commission to study public medical care; appropriates \$5,000.

AJR-15, Chap. JR-5 (Dwyer). Declares May as "Cerebral Palsy Month."

AJR-20, Chap. JR-9 (Fitz Maurice). Declares June as Arthritis and Rheumatism Month.

The following bills of interest to health officials were introduced in the 1956 Legislature, but *did not become laws*:

S-6 (Hand). Authorizes and directs the Commissioner of Conservation and Economic Development, in the name of the State, to acquire such part of Round Valley, Hunterdon County, as is appropriate and useful for the future establishment of a Water Supply System; authorizes use of eminent domain power; permits use of area for recreational and other State uses; requires reimbursement to municipalities by State for tax losses, and for cost to counties or municipalities of road relocation; appropriates \$3,000,000 out of Veterans Loan Guaranty and Insurance Fund, or so much thereof as may be needed, to purposes of this act.

S-15 (Farley). Authorizes the State Mosquito Control Commission to enter upon and survey any lands within the State relative to the presence of mosquito breeding areas, to take reasonable measures to prevent the breeding of mosquitoes on any privately owned land, and to abate such public nuisances if the owner does not do so within 10, instead of 60, days after a notice describing the nuisance and suggesting a manner to accomplish same.

S-16 (Farley). Requires the county freeholders to appoint, as nearly as practicable, persons having special training in engineering, biology and health work as members of the county mosquito extermination commission; authorizes the director of the State Experiment Station to make such appointments when the freeholders have not done so within 60 days after the effective date; increases specified maximum amounts which may be raised for the use of the county mosquito commissions.

S-17 (Farley). Appropriates \$75,000 to the Agricultural Experiment Station for research, surveys, inspections and aid to the counties for the construction of ditches, dikes, pumps, gates and fills relative to mosquito control and extermination.

S-57 (Dumont). Excludes from the regulations relative to the sale of drugs and medicines (R. S. 45:14-29) the manufacture or sale of nonpoisonous packaged drugs and medicines which are advertised, promoted, offered for sale, or sold by the manufacturer or primary distributor directly to the general public under a trademark and labeled relative to contents, manufacture and use; not applicable to drugs professionally advertised or promoted primarily to licensed practitioners, narcotic drugs, or drugs subject to federal regulations requiring prescriptions.

S-90 (Lance, Shershin). Prohibits the denial of poliomyelitis vaccination to a child for any reason whatsoever.

S-98 (Waddington). Authorizes and directs the Commissioner of Conservation and Economic Development to acquire such part of the area known as Round Valley, Hunterdon County, which in the judgment of the commissioner is appropriate and useful for the establishment of a water supply system, with additional use as a recreational reservation; provides for payments for loss of municipal taxes and for the relocating of municipal and county roads; appropriates \$3,000,000 from the amounts in Veterans Loan Guaranty and Insurance Fund in excess of loans outstanding.

S-112 (Ridolfi). Eliminates the prohibition against the issuance of a marriage license when either of the contracting parties is an epileptic.

S-172 (Fox). Authorizes and directs the Commissioner of Conservation and Economic Development, in the name of the State, to acquire such part of Round Valley, Hunterdon County, as is appropriate and useful for the future establishment of a Water Supply System; authorizes use of eminent domain power; permits use of area for

recreational and other State uses; requires reimbursement to municipalities by State for tax losses, and for cost to counties or municipalities of road relocation, appropriates \$3,000,000 out of Veterans Loan Guaranty and Insurance Fund, or so much thereof as may be needed, to purposes of this act.

S-263 (Harper). Permits county freeholder boards to provide, and expend sums, for a program for the elimination of poison ivy, ragweed and other pollen-bearing weeds.

S-302 (Waddington, Sharp, McCay). Directs the Commissioner of Conservation and Economic Development to conduct continuing comprehensive hydrologic studies of all important ground-water resources; authorizes a 10-year study; appropriates \$50,000.

S-321 (Dumont). Permits the Water Policy and Supply Council to require the attendance of any public water supply system owner or operator at hearings on applications for the diversion of water for any new or additional water supply, or from any new or additional source or sources, and to determine and order that such applicant increase its facilities and construct new works or add to its existing works.

S-329 (McCay). Designated the "municipalities utilities authorities law," authorizes counties and municipalities to establish public authorities to acquire, finance and operate water supply and sewerage disposal systems, to issue bonds therefor, and to collect charges for such services.

SJR-5 (Ridolfi). Designates the month of May, 1956, as "Cerebral Palsy Month" in New Jersey.

SR-4 (Murray). Creates a 3-member bipartisan Senate committee to study the need for low cost public housing designed for the State's aged citizens, the grouping of residents therein according to age brackets, the advisability of providing recreational facilities and the desirability of such persons paying their own way.

A-3 (Maebert). Requires licensing of practical nurses on and after September 1, 1958; permits present practical nurses to seek waivers up to September 1, 1957.

A-5 (Maebert). Designated the Physical Therapists Practice Act, authorizes the State Board of Medical Examiners to register physical therapists; specifies qualifications for applicants and registration fees; prohibits the unlawful use of the designation of registered physical therapist and the practicing of physical therapy without a license; prescribes penalties.

A-9 (Beadleston, Thomas). Authorizes and directs the Commissioner of Conservation and Economic Development, in the name of the State, to acquire such part of Round Valley, Hunterdon County, as is appropriate and useful for the future establishment of a Water Supply System; authorizes use of eminent domain power; permits use of area for recreational and other State uses; requires reimbursement to municipalities by State for tax losses, and for the cost to counties or municipalities of road relocation; appropriates \$3,000,000 out of Veterans Loan Guaranty and Insurance Fund, or so much thereof as may be needed, to purposes of this act.

A-31 (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-49 (Franklin). Authorizes any township, upon petition of 50 voters of a proposed district, to create a special service district for mosquito control, the development, maintenance and operation of lakefront or bathing beaches, and aquatic weed control, to be under the supervision of three elected commissioners. (*Vetoed.*)

A-58 (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 landowner of permission for such entry under penalty of between \$10 and \$100.

A-76 (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-136 (Maebert). Specifies qualifications for admission to the examination for a license to practice medicine and surgery; operative for 1 year from date of passage. (*Vetoed.*)

A-153 (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-222 (Mosch, Cundari). Requires municipalities include as deductions in their annual debt statement, municipal bonds and other obligations for the financing of water supply projects in excess of \$3,000,000.

A-252 (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-260 (Hyland). Requires railroad companies to equip all diesel locomotives with exhaust fans for the ventilation of the cabs of such locomotives; prescribes \$100 fine payable  $\frac{1}{2}$  to the State, and  $\frac{1}{2}$  to any resident of the State commencing an action for same; effective 6 months after approval.

A-287 (Haines). Permits 5 or more owners of lots adjacent to the same stream, which is subject to overflows and usually in a wet condition, to apply to the Department of Conservation and Economic Development for authority to organize a stream clearance drainage district having specified powers, duties and functions, to re-establish and maintain the natural flow of such stream, alleviate flooding, maintain stream clearance and land drainage for such lots, and to assess the costs of same against such lots according to the benefits derived. (*Vetoed.*)

A-296 (Franklin). Authorizes a sewerage district to contract with private property owners within 1 mile of such district for the use of its sewerage disposal system, subject to the consent of the municipalities wherein such lands are located; requires such owners to pay for any connections to such system and an annual service charge for its use, not less than that paid by similar users within the district; requires such connections become the property of, and be maintained by, the district.

A-337 (Kurtz). Prohibits as disorderly conduct the being under the influence of a narcotic drug not prescribed or administered by a person duly authorized by law to treat sick and injured persons.

A-375 (Krawczyk). Prohibits as a misdemeanor the violation of the provisions relative to specified public health nuisances resulting from polluted water and sewerage (P. L. 1945, c. 192); repeals the provisions prescribing fines for such violations.

A-414 (Maebert). Requires physicians, dentists and pharmacists prescribing or compounding a prescription to be administered to a child under age 4, to include in such prescription the name and age of such child, in addition to the dosage and directions for use; prescribes penalties from \$100 to \$200 for the first offense and of at least \$200 for subsequent offenses; effective 30 days after enactment.

A-436 (Maebert). Excepts persons licensed by the State Board of Medical Examiners to practice medicine and surgery in all its branches, and bio-analytical laboratories conducted by such persons from the provisions requiring the licensing and registration of bio-analytical laboratories (P. L. 1953, c. 420).

A-440 (Goff). Requires the containers for cream, as well as milk, have tags, caps or labels marked with the date same was produced or pasteurized.

A-456 (Barkalow). Prohibits the maintenance of a borough pound outside the territorial limits of the county; permits the maintenance of same in an adjoining municipality outside the county where the borough is on the county border line.

A-480 (Sherman). Provides for the approval of any school, institution or college legally incorporated and chartered to teach chiropractic only and which has been continuously so engaged since July 14, 1953, and is otherwise qualified, irrespective of whether it was organized solely as a nonprofit or similar corporation.

A-498 (Hyland). Requires the State Registrar to search, and supply a certified transcript of, any data contained in New Jersey State Census records for any applicant; prescribes \$1.50 fee; effective December 31, 1956.

A-504 (Smith). Extends the application of specified qualifications for a license to practice medicine and surgery until December 31, 1959, instead of until December 31, 1957.

A-524 (Sherman). Permits chiropodists to treat bone resections, fractures and dislocations.

A-525 (Sherman). Permits boards of education to employ licensed chiropodists.

A-535 (Cundari). Requires the beauty culture control board, Department of Health, have an executive secretary, instead of an employed secretary, to be appointed by the Governor for a 5-year term commencing July 1, 1956, to be bonded in the sum of \$5,000, to record the proceedings of the board, and to supervise the office and field personnel; increases the annual salary of the members of the board from \$2,500 to \$2,800, and eliminates additional \$1,000 for chairman; requires the members of the board to take an oath of office. (*Vetoed.*)

A-547 (Thomas). Eliminates the requirement that applicants for examination to practice medicine and surgery have studied either French, German, Italian or Spanish while in a professional school or college.

A-552 (McIver). Extends the Passaic Valley Sewerage District to include such parts of Essex County as drain into Newark Bay and appurtenant waters; authorizes the commissioners to lease the intercepting sewer for the disposal of sewage originating within the district, subject to the objections of contracting agencies representing over 25 per cent of its allotted capacity. (*Vetoed.*)

A-560 (Mintz). Permits the leader of an Ethical Society or Ethical Cultural Society affiliated with the American Ethical Union, to solemnize marriages.

ACR-1 (Mintz). Creates a 6-member bipartisan legislative commission, 3 members each from the Senate and General Assembly, to study the possibility of providing medical and surgical services and hospital care for citizens of this State in accident and illness cases not suffered as a result of employment.

ACR-11 (Musto, Macdonald). Creates a 6-member bipartisan Legislative committee, 3 Senate, 3 General Assembly, to study the problem of the State's older citizens, discrimination in their employment, their nonemployment after reaching an arbitrary age limit, and the promotion of their health and general well-being; requires report to the Legislature and the Governor.

ACR-39 (Brady). Memorializes Congress to adopt legislation to provide for a poultry inspection service in the food and drug administration.



**Division of Chronic Illness Control**  
**State Department of Health**

---

MARIAN R. STANFORD, M. D., *Director*

---

*Director of Medical Research* ..... WILLIAM J. DOUGHERTY, M. D., M. P. H.  
*(Part of the year. Later a District State Health Officer)*

*Programs:*

Alcoholism Control ..... WILLIAM J. HARRIS  
*(Program Coordinator)*

Cancer Control ..... STELLA BOOTH, M. D.  
*(Program Coordinator)*

Chronic Diseases ..... ARTHUR KROSNICK, M. D. *(Part-time)*  
*(Program Coordinator)*

Heart Disease Control ..... BENJAMIN K. SILVERMAN, M. D.  
MARVIN R. BLUMENTHAL, M. D.  
*(Program Coordinators), (Part-time)*

Tuberculosis Control ..... WILLIAM A. HOPPER  
*(Administrative Secretary)*

*Consultant in Medical-Social Rehabilitation*.... LEONORA B. RUBINOW

*Public Health Nurse Consultants*

*(Assigned from Bureau of Public Health Nursing, Division of Local*

*Health Services* ..... JANE COOK, R. N.  
ELIZABETH HARRIS, R. N.

## Division of Chronic Illness Control

"Full application of what is already known about prevention and treatment would so reduce the burden of chronic disease as to mark an epoch in the economic, social, and medical history of the nation." This recent statement of the Surgeon General of the Public Health Service is a reminder of the favorable position of New Jersey in that groundwork has been laid for "full application" of today's scientific knowledge about chronic illness through the Chronic Illness Law (Chapter 102, P. L. 1952).

Closing the gap between scientific knowledge about chronic illness and its general application for the benefit of all the people of the State is the goal of the Division of Chronic Illness Control, functioning under the Chronic Illness Law and, also, through grants of money which were initiated earlier by the Public Health Service against certain of the chronic diseases—cancer, tuberculosis, heart disease.

The activities of the past year, which are outlined briefly in this report, are based on the philosophy that success in chronic illness control can be achieved most quickly and economically by: (1) coordination of efforts of all disciplines; (2) improving the existing health facilities, in most instances around the community hospital; and (3) shifts in emphasis or redirection of programs of existing official and voluntary health, social, and welfare organizations.

Chronic diseases develop as a result of the total life experience, from the moment of conception onward. As a corollary, the primary prevention of chronic disease involves all agencies concerned with the health and well-being of the individual from the prenatal period through his entire life.

Also, the individual must understand and be willing to cooperate. Most of the services which are now being developed for the prevention and control of chronic diseases cannot be provided en masse for the people, as in the case of many of the great public health achievements of the past, such as the provision of safe water supplies and sewage disposal systems. The newer measures of prevention and control can only be accomplished with the active cooperation and participation of the individual.

During the past year, secondary prevention and rehabilitation have properly received great emphasis in the program of the Division because of the availability of techniques for early diagnosis of chronic diseases and for the restoration of those who have been disabled by these chronic conditions.

Finally, chronic illness control programs are intended to enhance the role of the practicing physician. Medical education is beginning to emphasize the necessity for physicians to give long-term support and guidance not only to

the patient with a chronic disease but also to his family. In addition to the traditional responsibilities for treating specific diseases, insight into subtle family relationships and how they can be strengthened to aid the patient is a most important task of the physician in dealing with chronic illness. Communities are developing a variety of services to assist the physicians. To further develop and correlate such services is a function of the Division of Chronic Illness Control.

Every effort is being made to gain support among professional groups, organizations of citizens and individuals, for the important new concept in chronic disease that "something can be done and is being done about it." We need no longer consider the chronic diseases as inevitable concomitants of age. During the past year, emphasis has been placed on stimulating community action to meet problems of long-term illness.

#### ASSISTANCE TO LOCAL AGENCIES

Encouraging local agencies, usually community hospitals, to initiate or improve chronic illness services, is a primary function of the Division. "Pump-priming" has been, for the most part, in the form of a loan of scientific equipment or a grant-in-aid for specialized technical and professional personnel. During the year, 25 different agencies received grants-in-aid (Table I) in a total amount of \$135,000. Four of these contracts were discontinued at the end of the year because of assumption of the program by the agency. Contracts with the other 21 agencies were re-negotiated and 8 others initiated (Table II) in a total amount of over \$200,000, of which \$49,000 is Federal funds.

In addition to the equipment which has been purchased during the year (Table III), more than fifty different hospitals throughout the State are continuing to use equipment purchased and loaned in the past six years.

Other hospitals and agencies in the State need similar assistance of equipment and grants-in-aid if we are to make widespread application quickly of today's knowledge of chronic illness control.

#### PROFESSIONAL COURSES

Seminars on chronic diseases, consisting of ten two-hour sessions, were conducted again this year at St. Michael's Hospital, Newark, and West Jersey Hospital, Camden, in cooperation with the Division. In addition, the three courses in cardiology, which have been held at St. Michael's Hospital for several years, were repeated.

Plans are being formulated for courses in cardiology at the new cardiac surgical center which is being developed at West Jersey Hospital, Camden, which will be convenient for the doctors of the southern part of the State.

The seminars are accredited by the Academy of General Practice.

#### GOVERNOR'S CONFERENCE

The seventh Governor's Conference on chronic illness control was held on the subject of nutrition, April 11, 1956, with more than 500 persons in attendance. A committee of the Nutrition Council of New Jersey actively cooperated in developing the program and in preparing invitation lists. The Nutrition Council is composed of members of many State and local agencies and the close working relationship with this group undoubtedly contributed greatly to the success of the Conference. The complete proceedings of the Conference will be published in the September, 1956, issue of *Public Health News*.

TABLE I

#### GRANT-IN-AID CONTRACTS 1955-56

(Name of Agency and Program Promoted)

##### ELIZABETH GENERAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

##### ENGLEWOOD HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

##### ESSEX COUNTY BOARD OF FREEHOLDERS:

Comprehensive rehabilitation program at Essex County Hospital, Belleville.

##### ESSEX COUNTY SERVICE FOR THE CHRONICALLY ILL:

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.

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:

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.

## NEWCOMB HOSPITAL, VINELAND:

Rural cardiology service.

## NEW JERSEY 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:

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

## B. S. POLLAK HOSPITAL FOR CHEST DISEASES, JERSEY CITY:

Mobile chest X-ray screening and diagnostic service.  
Cytology teaching center.  
Pulmonary neoplasm study program.

## PRESBYTERIAN HOSPITAL, NEWARK:

Cytology teaching center.  
Screening tests for cancer.  
Isotope laboratory.

## ST. FRANCIS HOSPITAL, TRENTON:

Diagnostic and consultation service for convulsive disorders.

## ST. MARY'S HOSPITAL, PASSAIC:

Routine chest X-ray screening 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 II

## GRANT-IN-AID CONTRACTS

NEGOTIATED AS OF JUNE 30, 1956 FOR THE FISCAL YEAR 1956-57

*(Name of Agency and Program Promoted)*

## ATLANTIC CITY HOSPITAL:

Diagnostic and consultation service for convulsive disorders.  
Evaluation and correction of hearing and speech defects.

## BERGEN COUNTY BOARD OF FREEHOLDERS:

Homemaker program of Homemaker Service of Bergen County.

## BERGEN PINES COUNTY HOSPITAL, PARAMUS:

Rehabilitation service for alcoholics.

## CAMDEN COUNTY BOARD OF FREEHOLDERS:

Comprehensive rehabilitation program at Camden County General Hospital.

## ELIZABETH GENERAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## ENGLEWOOD HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## ESSEX COUNTY BOARD OF FREEHOLDERS:

Comprehensive rehabilitation program at Essex County Hospital, Belleville.

## FITKIN MEMORIAL HOSPITAL, NEPTUNE:

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

## HOMEMAKER SERVICE OF MIDDLESEX COUNTY:

Homemaker program.

## HUNTERDON MEDICAL CENTER, FLEMINGTON:

Routine chest X-ray of in-patients, out-patients and hospital personnel.  
Screening tests for diabetes.  
Evaluation and correction of hearing and speech defects.  
Diagnostic and consultation service for convulsive disorders.  
Medical social services.  
Screening tests for cancer.  
Evaluation of vectorcardiograms.  
Cytology teaching center.

## MCKINLEY MEMORIAL HOSPITAL, TRENTON:

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

## MIDDLESEX COUNTY BOARD OF FREEHOLDERS:

Rehabilitation service for alcoholics (county program includes the county and three general hospitals).

## 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.

## NEWCOMB HOSPITAL, VINELAND:

Rural cardiology service.

## OVERLOOK HOSPITAL, SUMMIT:

Rehabilitation service for alcoholics.

## PASSAIC GENERAL HOSPITAL:

Rehabilitation service for alcoholics.

## PATERSON GENERAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## PERTH AMBOY GENERAL HOSPITAL:

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

## B. S. POLLAK HOSPITAL FOR CHEST DISEASES, JERSEY CITY:

Mobile chest X-ray screening and diagnostic service.  
 Cytology teaching center.  
 Pulmonary neoplasm study program.

## PRESBYTERIAN HOSPITAL, NEWARK:

Cytology teaching center.  
 Screening tests for cancer.  
 Isotope laboratory.

## ST. FRANCIS HOSPITAL, TRENTON:

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:

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

## SALEM COUNTY MEMORIAL HOSPITAL:

Diagnostic and consultation service for convulsive disorders.

## SOMERSET HOSPITAL, SOMERVILLE:

Rehabilitation program.

## UNION COUNTY BOARD OF FREEHOLDERS:

Homemaker program of Homemaker Service Incorporated.

## 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 PLACED—JULY 1, 1955-JUNE 30, 1956

(Name of Agency and Purpose of Equipment)

## ATLANTIC CITY HOSPITAL:

Diagnostic and consultation service for convulsive disorders.  
 \*Evaluation and correction of hearing and speech defects.

## BARNERT MEMORIAL HOSPITAL, PATERSON:

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

## BERGEN PINES COUNTY HOSPITAL, PARAMUS:

Diagnostic service for cardiac and pulmonary pathology.

## CAMDEN COUNTY GENERAL HOSPITAL, BLACKWOOD:

Comprehensive rehabilitation program.

## HACKENSACK HOSPITAL:

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

## HUNTERDON MEDICAL CENTER, FLEMINGTON:

Cancer Registry.

## MERCER HOSPITAL, TRENTON:

Cancer Registry.

## NEWCOMB HOSPITAL, VINELAND:

Cardiac evaluation.

## PATERSON GENERAL HOSPITAL:

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

## PERTH AMBOY GENERAL HOSPITAL:

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

## PRESBYTERIAN HOSPITAL, NEWARK:

Isotope laboratory.

Diagnostic and consultation service for convulsive disorders.

## PRINCETON HOSPITAL:

Diagnostic service for cardiac and pulmonary pathology.

## ST. BARNABAS HOSPITAL, NEWARK:

Isotope laboratory.

## ST. MARY'S HOSPITAL, PASSAIC:

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

## ST. MICHAEL'S HOSPITAL, NEWARK:

Cardiac catheterization.

## SOMERSET HOSPITAL, SOMERVILLE:

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

## WEST JERSEY HOSPITAL, CAMDEN:

Isotope laboratory.

Cardiac catheterization.

\*Equipment on order but not yet received.

## OTHER STATE AND NATIONAL MEETINGS

The Division also arranged, for the State Old Age Study Commission, a Public Hearing on Health Aspects of Aging. This all-day session was held on December 14, 1955 at the Essex House, Newark, with attendance of about 400 persons. All papers were published in the February, 1956, issue of *Public Health News* and will be useful to the Commission in formulating its recommendations to the Governor.

The appointment of a Commission to study the problems of aging in this State parallels similar action in other States and is part of a nation-wide interest caused by the aging of our population. A national conference on aging was attended by the Director of the Division at the University of Michigan and another in Washington, D. C., under the sponsorship of the Council of State Governments.

Another meeting attended by the Director indicated national trends in line with some of the goals toward which the Division has been striving. The National Health Forum which met in New York, March 21 and 22, 1956, concluded that "common denominator action in chronic illness is today's need.

All community agencies including health officers and community councils, should cooperate in a united program in areas such as: Home care, information and referral services for the chronically ill, rehabilitation possibilities within nursing homes and other community institutions."

## MEDICAL-SOCIAL PROGRAM

Medical-social work services are now established as an integral part of the State Health Department's program. For more than a year, a State Consultant and consultants in each of the four State Health Districts have been functioning. There has been a growing number of requests for their services, cutting across many different areas of public health. Their interpretation has contributed to a better understanding of the complicated needs of sick people and of the ways in which the social worker can be of help in the hospital clinical setting. Consultation has been given to local health and welfare agencies and groundwork laid for closer relationship in the future.

Through grants-in-aid from the Division, four general hospitals have employed medical society workers to provide improved services to the chronically ill.

## HOMEMAKER SERVICE

There was increased activity of the State Consultant Committee on Homemaker Service during the year. Membership was increased to thirty women, representing all parts of the State, and monthly meetings were held. Subcommittees developed educational materials and revised the manual to provide tools for those working to develop new services. Interest in organizing new services has been aroused in several communities but final action has not been taken. However, progress can be reported in the form of expansion of three of the existing seven services. The service in Hackensack was discontinued and an organization incorporated to provide countywide coverage with headquarters at the Social Service Federation in Englewood. Plans were developed also for increasing the area serviced by Homemaker Service Incorporated in Union County with headquarters in Cranford. Homemaker Service Incorporated in the New Brunswick area is also planning to provide countywide coverage.

The need for homemaker service in families with chronic illness is obvious. One of the services has submitted the following observation about the value of the agency to the homemaker herself: "Almost without exception, the result of the Homemaker Service on the homemaker herself has been an improvement of morale and an increased self-confidence in her position as a useful member of society." Of the twenty-seven homemakers of the staff of this particular

service, six are in their fifties, nine in their sixties, and two in their seventies. Of the remaining ten, none is under 35 years of age.

The sixteen-hour Extension Course for Homemakers, developed and subsidized by the Division and administered by Rutgers, the State University of New Jersey, has demonstrated its value in improving and standardizing homemaker services. During the year, nine courses were given with an attendance of 138 women. This makes a total of 262 women who have completed the course since its inception in 1954. Outlines of the course, believed to be the only one in the country under university auspices, have been requested by many other States.

#### NURSING AIDE TRAINING

In the shortage of nurses which has plagued hospitals in the last few years, nurses aides have been invaluable. To standardize the training of aides, this Division provided funds for a full-time instructor to carry on the training program as outlined by national and State nursing organizations and administered through the New Jersey Hospital Association. The program, which has been carried on for two years, was completed June 30, 1956. During this two-year period, 47 workshops have been held to which 180 hospitals and institutions have sent 409 nurse instructors for training in what and how to teach classes of aides in their own hospitals. The participating institutions consisted of 76 general hospitals, 14 nervous and mental hospitals, 5 tuberculosis hospitals, 21 special hospitals, and 64 nursing homes.

A total of 283 follow-up visits were made by the instructor to the institutions which had participated. She reports that a high percentage have either established training courses for their aides or have revised an existing training program. It is estimated that the training of 2,500 aides has been influenced by the workshops.

At the suggestion of the Hospital Association, financial assistance was discontinued on the basis that instructors from a majority of the hospitals and many of the nursing homes and other institutions have now attended workshops. It was felt that, through the New Jersey League for Nursing, ways can be found to continue the program without a full-time paid instructor.

#### REHABILITATION

The Essex County Hospital-Belleville has received substantial assistance from this Division in the form of equipment and grant-in-aid to develop a demonstration program in comprehensive rehabilitation. The grant-in-aid, with a matching appropriation from the Essex County Board of Freeholders, provided salaries to add three new disciplines (social work, physical therapy, and occupational therapy) to the services previously provided by the hospital.

The hospital reports 89 admissions to this demonstration program in comprehensive rehabilitation. These 89 patients were selected from those admitted to the hospital as public assistance cases, most of them well along in years (average age 72). Through the active program of rehabilitation in which physicians, nurses, social workers, physical therapists, and others work together to give hope and a maximum degree of restoration, 74 of these 89 patients have been discharged from the hospital. Of the 74, 38 returned to their own homes, 14 to nursing homes, 10 to boarding homes, 3 were committed to a mental hospital, and 9 died. Visitors to this demonstration program are amazed to see the busy, hopeful patients who were previously considered as probably bed patients for the remainder of their lives.

Equipment has been purchased and personnel is being recruited for a similar program in comprehensive rehabilitation at the Camden County General Hospital. Grant-in-aid for a social worker, physical therapist, and an occupational therapist will be provided by the Division to augment the hospital's staff so that this may be developed as a demonstration center for the southern part of the State. Some assistance has been given also to Somerset Hospital, Somerville, in the development of rehabilitation facilities in this general hospital.

#### STATE EMPLOYEES HEALTH PROGRAM

For the second year, a health program for State employees was carried on with the State Personnel Council. Chest X-ray examinations and diabetes tests were again provided and an educational program for early detection of breast cancer was carried on.

In the diabetes testing program, Dreypaks were returned by 2,624 employees, 35 of which gave presumptive positive results. Further examination of the 35 persons indicated that there were 12 diabetics in the group, 7 of whom were previously unknown.

There were 4,800 persons who took advantage of the chest X-ray program. Of these, presumptive positive findings were reported as follows: tuberculosis—145, cardiac—72, cancer—9, other—58. Five newly reported cases have resulted from this survey.

The response was disappointing in that there was no increase over last year in the number of persons who participated in the chest X-ray program, and a decrease in the number who submitted specimens for diabetes detection. More effective ways of securing employee interest and participation must be developed among the more than 20,000 State employees if full value of screening tests is to be realized.

## HEARING AND SPEECH PROGRAM

Through grants-in-aid and with equipment supplied by this Division, the Newark Eye and Ear Infirmary has greatly expanded its services to children and adults with defects of speech or hearing or both. Physicians throughout the State may refer cases for testing. The following table shows the growth of this service since it was inaugurated in 1953:

NEWARK EYE AND EAR INFIRMARY

Year	Number of Patients	Number of Visits
1953	374	1024
1954	616	3226
1955	708	4254
1956 (6 months)	443	2100

The assistance of this Division has made it possible for the Newark Eye and Ear Infirmary to undertake a survey to measure the extent of hearing and speech defects in the parochial schools of Newark. Hearing tests have already been given to 6,000 children of the elementary and secondary schools. Six per cent of the children failed the tests. This fall (1956), 9,000 other children will be tested and when this is completed, a survey of speech defects will be undertaken.

The Hearing and Speech Program was developed by the Division of Chronic Illness Control in cooperation with the Medical Society of New Jersey in order to demonstrate the importance of an adequate otolaryngological examination and medical social evaluation of patients having speech defects. Very few clinics throughout the country provide this type of comprehensive speech and hearing service which we are endeavoring to develop.

Another Hearing and Speech Center was instituted during the past year at Hunterdon Medical Center. Others will be started this year in Trenton and Atlantic City.

## CHEST X-RAY SCREENING IN HOSPITALS

A chest X-ray as a routine admission policy in hospitals is an effective way of reaching a large proportion of the population with this screening procedure. For several years, the Department has stimulated general hospitals to undertake this procedure by lending X-ray equipment to them for the purpose. At present, such equipment is on loan to 19 general hospitals throughout the State.

Ten hospitals, which received additional assistance in the form of a grant-in-aid from the Division to carry on chest X-ray screening programs this year, report that 14 per cent of 18,000 persons X-rayed had presumptive posi-

tive findings. The presumptive positive readings were divided as follows: 10 per cent suspected tuberculosis, 40 per cent suspected heart disease, and 50 per cent other chest abnormalities. The suspicious findings were reported to the individual's physician for further investigation and treatment if needed.

The finding of even a few cases of disease, previously unsuspected, is a dramatic way of interesting physicians and hospital administrators in the possibilities for earlier diagnosis through other screening techniques also.

## EPILEPSY

The electroencephalograph (EEG), an instrument which records brain waves, is useful to physicians in arriving at a diagnosis in many cases with obscure symptomatology. One hospital reports that in the last three months patients were referred for EEG readings with the following presumptive diagnoses: neurofibromatosis, cancer, schizophrenic reaction, chronic brain syndrome with senile brain disease, aneurysm of arch of aorta, disease of central nervous system cause unknown, cord tumor suspect, coma cause unknown, alcoholism, migraine, encephalitis, acute brain syndrome essential vascular hypertension, tri-facial neuralgia, headache, Meniers syndrome.

A total of more than 1,800 examinations was reported by ten hospitals during the year which are using EEG instruments on loan from this Department. To have these ten instruments throughout the State has augmented the medical services available for the estimated 50,000 persons in New Jersey suffering from convulsive disorders. Since it is estimated that 80 per cent of seizures can be controlled with new drugs, case-finding is increasingly important.

## ALCOHOLISM CONTROL

In December of 1955, the Yale Center of Alcohol Studies released the latest statistics on the incidence of alcoholism in the United States. Included in the report was the incidence of alcoholism by States. The researchers, Mark Keller and Vera Efron, using the Jellinek Estimation Formula, found there were 4,589,000 alcoholics in this country and a rate of 4,390 alcoholics per hundred thousand adult population (age 20 years and over). According to Keller and Efron, New Jersey has 205,000 alcoholics and ranks seventh in order of States with a rate of 5,590. This is 1,200 above the national rate.

Because of the magnitude of the problem in New Jersey, the Legislature passed enabling legislation in 1948, to establish a program of alcoholism control in the Department of Health.

The objectives of the program are to secure general acceptance of the concept that alcoholism is a disease, and the alcoholic a sick person; to stimulate and help develop adequate services in the community for treating the alcoholic;



and the prevention of alcoholism through education of the general public and particularly our youth.

*Out-patient Service.* During the past year, a new out-patient clinic was opened in Overlook Hospital, Summit, and the clinic at the Passaic General Hospital was extended from part-time to full-time. This brings the total to five full-time clinics (out-patient) for the exclusive treatment of alcoholics in New Jersey. These five clinics offered help to 508 individuals who made more than 3,500 visits during the year.

Grant-in-aid contracts were signed with two other hospitals, Bergen Pines in Paramus and Roosevelt in Metuchen. Because of the scarcity of qualified psychiatric social workers, we were unable to open the new clinics during the year. All possible resources for trained workers are being utilized with the expectation of opening the new services in the near future.

In addition to the out-patient clinic services, new group therapy sessions were started in one county and one city tuberculosis hospital, i. e., Camden County Tuberculosis Hospital, Blackwood, and Donnelly Memorial Hospital, Trenton. There are now five tuberculosis hospitals and one county workhouse where such a service has been organized. A total of 360 persons with an alcoholism problem received help through this service.

The clinic at McKinley Memorial Hospital, Trenton, functioning for five and one-half years, is the oldest of the five out-patient services. During the past year, the caseload increased to the point where a second social worker was necessary. To meet this need temporarily, the hospital has employed a social work student for the summer. This is an indication of the acceptance and integration of this service in the hospital in a relatively short period of time. This also indicates that it takes several years for the community to change its attitudes about alcoholism and make use of the services available for help.

*Cooperation With Other Agencies.* In order to have a successful program for the rehabilitation of the alcoholic, many agencies must make a concerted effort to work together. In May, 1955, the Neuropsychiatric Institute, under the State Department of Institutions and Agencies, opened a 54-bed in-patient unit for the treatment of male, voluntary-admission alcoholics. During the past year, the out-patient clinics and the institute have worked closely to offer a complete treatment program for alcoholics in New Jersey. The clinic personnel have long needed a place to refer patients who require hospitalization, and the institute finds a valuable resource for follow-up of patients discharged from the unit.

During the past year, negotiations have been under way with the New Jersey Rehabilitation Commission for services to the alcoholic. Through this Commission, vocational rehabilitation is available, something that has been

needed for patients in both in-patient and out-patient facilities. Before embarking on a Statewide program, a pilot project has been set up with the McKinley Hospital Clinic, the in-patient unit at the institute, and the Rehabilitation Commission. The pilot study will be limited to patients in the Mercer County area until a sound inter-agency relationship is established.

*Education.* It is important for the public to be well informed about alcoholism if their attitudes toward the problem are to be constructive. During the past year, there were 41 talks on alcoholism before a wide range of professional and lay groups including medical societies, nurses associations, social work groups, service clubs, women's clubs, parent-teacher associations, health officers, union groups, New Jersey Probation Association, and the newly established county safety coordinators. There were 270 film showings to more than 11,000 individuals, many of them students. A new film entitled "What About Alcoholism?" was purchased. The film is geared to the adolescent and is designed to provoke discussion following its presentation. The Department of Health, along with several other State programs on alcoholism, is financing the production of a film on alcohol for the teenager entitled "Kid Brother." The film will soon be available and will provide another much-needed educational opportunity.

The quarterly publication, "Alcoholism—A Treatment Digest for Physicians" is now in its sixth year and continues to grow in circulation. In addition to providing scientific material on alcoholism for all physicians in New Jersey, and many in other States who have requested to be placed on the mailing list, it lists developments in New Jersey and treatment facilities available to alcoholics. We are also proud of the fact that the "Digest" has circulation to fifteen foreign countries.

*Training of Personnel.* Last March, a Physicians' Institute on Alcoholism was held in Washington, D. C. The institute was sponsored by the National States Conference on Alcoholism and made possible through a grant from the National Institute of Mental Health. Three physicians from New Jersey—two from the out-patient clinics and one from the Neuropsychiatric Institute—attended this meeting of three days' duration.

Three persons from New Jersey—a teacher of Trenton State Teachers College, the Consultant in Medical-Social Rehabilitation for the Northern State Health District, and the Consultant in Community Health Organization, from the Metropolitan State Health District—attended the 13th Annual Session of the Yale Summer School of Alcohol Studies at Yale University. This is a one-month course which covers the many aspects of the alcohol problem.

*Conferences.* Because it is important to begin teaching about alcohol and its many problems early in the life of an individual, last year, in cooperation with

the State Department of Education, New Jersey held its first Statewide Alcohol Education Conference. The conference was planned for secondary school teachers in public and private schools in order to bring to them first-hand information on alcoholism so that help is available in presenting this very controversial subject to students. The conference was attended by 70 teachers, from all over the State, who met in small groups to discuss the many problems and develop recommendations for a more effective presentation of the material on alcoholism in the schools. The proceedings of the conference are being prepared and will be distributed to all schools.

A presentation was made, by the Coordinator of the Alcoholism Program, on the grant-in-aid program in New Jersey for alcoholism control services in general hospitals, at the meeting of the National States Conference on Alcoholism. This Department is a member of this conference, which is particularly helpful to program administrators.

The problem of alcoholism does not develop in a short period of time. Neither can the alcoholic be rehabilitated in a few short weeks or months. For some, it is a life-time job, but some others are able to achieve it much sooner. A program on alcoholism control as young as ours cannot expect to find any quick solution to the alcoholic's problems, or to the attitudes which have developed in the minds of the public. However, we do feel that we have made strides. The progress we have made is encouraging and helps to point out the need for concentrated and cooperative efforts of the entire community.

#### CANCER CONTROL

Assistance in the development of specialized cancer centers in appropriate general hospitals of the State has been a major activity of the year. Specialized cancer services are essential because of the increasing complexity both of diagnosis and treatment, with nuclear medicine playing an important part. To apply properly this new and complex knowledge requires a team of workers (physician, surgeon, pathologist, physiologist, and physicist) who are specially trained in cancer, a variety of supportive services, and costly equipment. Assistance to hospital centers has been in the form of a loan of equipment, grant-in-aid for skilled personnel, and funds for training.

*Cytological Examinations for the Early Detection of Cancer.* Another major activity has been the promotion of cytology programs for early diagnosis of cancer. Assistance has been given to Presbyterian Hospital, Newark, and Hunterdon Medical Center in the establishment of cytology teaching centers for the training of technicians. Both hospitals will be ready to accept applications by early fall. These teaching programs have the approval of the State Society of Clinical Pathologists.

A lung cytology center is being developed and a pulmonary study has been started at the B. S. Pollak Hospital for Chest Diseases, Jersey City. Emphasis is on the use and refinement of cytological techniques for diagnostic purposes. The reliability of exfoliative cytology in the early diagnosis of lung cancer is being investigated and its possibilities as a mass screening device evaluated. Pollak Hospital is well located for such a study because the Jersey City area has the highest mortality rate for lung cancer in the country.

Cytological examinations of vaginal smears were included as a part of the multiphasic screening program of presumably well persons at Hunterdon Medical Center. Among 1,040 women screened, six cases of cancer and six suspected cases were found. Other tests for early detection of cancer are being evaluated also.

*Isotope Laboratories.* The use of isotopes for diagnostic purposes is still in the experimental stage, but as more and more isotopes come into general use this procedure will be more important. Assistance has been given to three hospitals in the establishment of isotope laboratories, St. Barnabas and Presbyterian Hospitals in Newark, and West Jersey Hospital in Camden. A full-time physicist has been provided through grant-in-aid to Presbyterian Hospital. The hospital has developed the first biological physics department in the State that is directly part of a hospital. The hospital laboratory will now serve as a training center for isotope technicians. Assistance has been given also to Beth Israel Hospital, Newark, in training a physicist as consultant in nuclear medicine.

At Presbyterian Hospital, Newark, where the physicist has been on full-time duty since May 1, 1956, she is in control of the isotope laboratory and the planning for X-ray therapy. The physicist also is in charge of the monitoring program. Twenty-five members of the staff working with ionizing radiation are monitored to make sure that they are not receiving more than the permissible weekly exposure level. Patients are monitored to measure the activity of the fissionable material used.

Reports indicate a growing use of the isotope laboratories in which this Division has placed costly equipment on loan. Although in operation only a few months, West Jersey Hospital reports that 75 patients have received diagnostic or treatment services, and Presbyterian Hospital reports 36 patients.

*Educational Programs.* A course in oral cancer was made available again this year to dentists, in cooperation with the Dental Health Program. Twenty dentists attended this one-week course at New York University.

A fellowship was granted to one physician for full-time study in the field of cancer surgery.

An honorarium for a lecturer was provided for the Cancer Symposium of the New Jersey Cancer Society.

The pamphlet, "Self-Examination of the Female Breast," was made available to physicians for women patients and the film of the same name was shown to women employees of the State and other groups.

A physician and technician from Pollak Hospital, Jersey City, received a six-week training course in Papanicolaou techniques at Cornell Medical School in preparation for the lung cytology program initiated at the Pollak Hospital.

As mentioned previously, training has been provided for a physicist from Beth Israel Hospital, Newark.

*Cancer Registries.* The need for cancer registries for collection of uniform data is increasingly necessary if scientific work in cancer control is to be accomplished. To this end, registers were placed on loan in two hospitals during the year—Hunterdon Medical Center, Flemington, and Mercer Hospital, Trenton. Fifty new cases have already been recorded on the Hunterdon register; in six months, 152 new cases and 116 re-admissions have been recorded at Mercer Hospital.

*A Pilot Study.* The Draghi tampon for early detection of cervical cancer has been used experimentally. Two practicing physicians have cooperated in a study to determine the practicality of using self-collected specimens. Three hundred and thirty of their private patients have participated in this study and have submitted 1,144 specimens for cytological examination. The results indicate that this tampon can be used on a mass screening basis and that women, if properly instructed, can collect satisfactory specimens.

*Follow-up Studies.* Follow-up questionnaires were sent to physicians for the American Cancer Society's study of the relationship of lung cancer and smoking. Seventy cases were followed during the year to secure information about the definitive diagnosis and how it was reached. This was the fourth and final year of this national study.

Follow-up by questionnaire to the physician was instituted for persons found to have suspected tumor in community chest X-ray surveys. Forty patients from the 1955 surveys have been investigated to date. The 72 persons with suspected tumor from the 1956 surveys will also be followed up for information as to final diagnosis and methods used.

#### DIABETES CONTROL

The major objectives of the Diabetes Control Program can be outlined as follows:

1. Diabetes Case-Finding
2. Education
  - a. Patient
  - b. Public
  - c. Professional
3. Services to Diabetic Patients
4. Research

In previous years, emphasis in the program has been on screening large population groups by testing urine samples during Diabetes Detection Week. A major trend in the past year has been the development of screening programs on a year-round basis and increased utilization of blood screening techniques. There has been greater interest on the part of local departments of health in diabetes screening, and increased participation of public health personnel in diagnostic follow-up.

Eighty-eight cases of diabetes, 53 of them previously unknown, were found as a result of the Diabetes Detection Drive in November, 1955. There is educational value, also, in such a program; 19,000 persons showed their awareness of the value of periodic tests for diabetes by participating in this Statewide testing program.

As part of the Statewide diabetes detection effort, a definite interest and cooperative spirit have developed among various voluntary, public health, and professional organizations. This was demonstrated practically by the performance of laboratory tests by members of the New Jersey Hospital Association. In 1954, a total of 11,553 tests were performed; 60.7 per cent were done by volunteer hospital laboratories and 39.3 per cent by the State Department of Health Laboratory. In 1955, however, 19,002 Dreyfaks were tested, including 71.9 per cent by the members of the New Jersey Hospital Association, and 28.1 per cent by the State Laboratory.

A major shift in program-planning has been taking place in the realm of education. It is well known that the patient is largely responsible for his day-to-day care and that the physician acts as medical supervisor. The patient must be well oriented in all aspects of diabetes so that he can properly take the responsibility for daily self-management. The rudiments of insulin administration, diet, and urine testing are basic; but the diabetic and his family should be offered further instruction within the limits of their ability to learn. A study to evaluate present Statewide diabetes patient-education in hospital clinics was

inaugurated in the past year as a basis on which to plan future adjustments in program planning.

Orientation of medical and para-medical personnel has been inaugurated in the past and will be continued by means of journal articles, meetings, lectures, and institutes.

The team approach to diabetic care has been utilized in order to emphasize the need for all professional disciplines to provide necessary services to diabetic patients. The physician in an office or hospital out-patient clinic is the main supervisor of medical therapy, but he should have the benefit of assistance by trained nurses, nutritionists, social workers, and others in order to provide total care to the diabetic patient and his family.

Research projects in the Diabetes Control Program have been instituted in the realm of public health investigation and statistical evaluation. A study relative to the relationship of visual loss and diabetes was instituted during the past year as such a research project.

In summary, the trends in the Diabetes Control Program have been toward further application of newer techniques in diabetes detection, further implementation of newer educational techniques for the diabetic patient and professional personnel, and inauguration of specific public health and statistical research projects.

#### HEART DISEASE CONTROL PROGRAM

During the last fiscal year, the activities of the Heart Disease Control Program continued to expand, both from the point of view of geographical distribution and in the types of activities. The basic philosophy of stimulating and assisting new facilities and projects at the local level was maintained.

Facilities for major cardiac diagnostic study, including cardiac catheterization, now exist at the following hospitals: St. Michael's Hospital, Newark; West Jersey Hospital, Camden; Bergen Pines County Hospital, Paramus; Monmouth Memorial Hospital, Long Branch; Passaic General Hospital, Passaic; and the Hospital Center, Orange.

All these have been assisted to a greater or lesser extent by this Program during the past year. West Jersey, Bergen Pines, and Passaic General Hospitals inaugurated their facilities during the year. West Jersey Hospital is to be a major diagnostic center for the southern part of the State, much as St. Michael's Hospital pioneered in the northern part of the State.

In addition, the State's first "rural diagnostic facility" was inaugurated at the Newcomb Hospital in Vineland. Here, equipment has been placed on a long-term basis to aid in the development of the cardiac clinic; trained personnel has been obtained for assistance in the clinic; and the services of an

outstanding cardiologist have been obtained for monthly consultation and teaching at the clinic. Plans are being formulated for further dissemination of this type of clinic in other "rural" areas.

Besides the major projects, local facilities have been strengthened by loan of equipment to Princeton Hospital, Princeton, and Mercer Hospital, Trenton.

In the field of physician education, which is a particularly active and unique facet of this Program's work, further diversification was also apparent during the year. The courses in cardiology and in cardiac resuscitation at St. Michael's Hospital were repeated and were again enthusiastically attended. Three hospitals (Princeton, West Jersey, and St. Michael's) took advantage of the opportunity to hear the series of tape recordings of heart sounds prepared for the Public Health Service by the medical faculty of Georgetown University Medical Center, Washington, D. C. The playing of these recordings stimulated considerable discussion in the field of cardiology at each of these hospitals.

Plans were formulated for the development of a visiting professorship arrangement at the new Seton Hall School of Medicine and Dentistry, Jersey City Medical Center. Under this plan, the School, with State assistance, will be able to obtain the services of outstanding cardiologists and cardio-physiologists for brief periods of consultation and teaching.

A symposium on pediatric cardiology was co-sponsored with the Pediatric Society of Central New Jersey at Princeton. An outstanding program, presented by leaders in the fields of congenital and rheumatic heart disease, was well attended and well received.

The Coordinator of the Program spoke to groups of physicians on several occasions regarding various aspects of public health work in heart disease control.

A project is being sponsored at the Hunterdon Medical Center, Flemington, which it is hoped will elucidate some of the basic mechanisms involved in the recording of an accurate vectorcardiogram.

The Program's cardiac case-finding service, conducted as a corollary project of the community chest X-ray survey, reached a new peak in volume and efficiency. A new case-finding rate of 11.4 per cent was achieved. This is based on the completed data of 1,093 cardiac referrals. An article reporting these results to the physicians of the State has been submitted to *The Journal of The Medical Society of New Jersey*.

## TUBERCULOSIS CONTROL

Tuberculosis remained a major cause of long-term illness and death in New Jersey. During this year, the following trends were observed: A leveling off in the decline in the death rate; relative stability in the rate of newly reported cases; a decrease in the average daily participation in mass X-ray screening, although the total number of persons X-rayed exceeded that of the previous year; and a continued emphasis upon routine hospital admission X-rays.

The death rate due to tuberculosis for the State as a whole in 1955 was 11.1 per 100,000 as compared to a death rate of 11.0 in 1954. A comparison of the death rates for the five-year period, 1951 through 1955, as indicated in Table IV, shows a reduction of almost 50 per cent.

The case rate per 100,000 population of newly reported active tuberculosis from 1952 to 1955 for the State as a whole is indicated in Table V. This rate has remained quite stable over the last four years. Only through an increased application of control measures and case-finding procedures can a further decline in deaths and new active cases of tuberculosis be anticipated.

Detailed morbidity and mortality data for counties and municipalities of the State for 1955 are presented in Tables VI, VII, VIII, and IX.

The mass chest X-ray screening program was continued with emphasis in high incidence areas in the State. Two hundred and sixty-four unit days of survey time were allocated to counties and selected municipalities. During the year, 115,255 persons were examined for an average daily participation of 437 persons. As a result of the screening program, 3,707 persons were referred for medical examinations due to the suspicion of tuberculosis. Table X indicates the trend of daily participation and referral rates for tuberculosis, cancer, cardiac, and other pulmonary abnormalities for State-sponsored surveys for the five-year period 1951-1955. Of interest is the fact that the rate of abnormal cardiac findings was equal to that of suspected tuberculosis found. Table XI shows by county the contribution of cases found by survey to the total cases reported. As shown in this Table, there was a range extending from no contribution of cases reported in three counties to a maximum contribution of 21.5 per cent in Morris County.

The evaluation study of survey follow-up conducted in the local follow-up agencies throughout the State in 1953 was repeated in 1955 in order to develop a qualitative analysis of follow-up effort at the local level. A comparison of the results on a District basis for a Southern, Central, and Northern State Health Districts for 1953, 54, and 55 is indicated in Table XII. This comparison indicates an increase in the efficiency of follow-up as measured by an increase in the percentage of cases for whom a final diagnosis was established.

Although a substantial increase is shown in the area of follow-up and diagnosis, concentrated effort is still required to bring about better reporting of cases of tuberculosis discovered as a result of the survey effort.

The Tuberculosis Control Program cooperated with the B. S. Pollak Hospital for Chest Diseases, Hudson County, in the establishment of a locally administered year-around mobile diagnostic and screening X-ray program. The Program contributed an X-ray machine, which was placed in a locally owned mobile bus, and provided consultative services, referral and other forms to the local sponsors.

The Tuberculosis Control Program also continued to provide personnel and equipment to locally administered clinics in many areas of the State (Table XIII).

During 1955, the Tuberculosis Control Program, in cooperation with representatives of the State Department of Education, undertook a study of present school health regulations regarding testing for tuberculosis with the objective of extending case-finding procedures to all grades. Plans under consideration include a demonstration tuberculin testing program in the schools of two counties to be conducted during 1956.

TABLE IV  
DEATH RATE PER 100,000 DUE TO TUBERCULOSIS  
STATE HEALTH DISTRICTS OF NEW JERSEY 1951-55

Year	Total	State Health Districts			
		Metropolitan	Central	Southern	Northern
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
1955	11.1	11.6	10.8	12.9	5.7

TABLE V  
CASE RATE PER 100,000 ACTIVE TUBERCULOSIS  
STATE HEALTH DISTRICTS OF NEW JERSEY 1952-55

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
1955	41.6	41.7	42.4	40.0	26.8

Prepared by Tuberculosis Control Program, Division of Chronic Illness Control.

TABLE VI. TUBERCULOSIS MORBIDITY AND MORTALITY NUMBERS, RATES AND CASE-DEATH RATIOS FOR NEW JERSEY COUNTIES AND MAJOR CITIES, 1955

PLACE	Deaths			Cases*			Cases per Death (Case-Death) Ratio
	Number	Rate†	S.E.‡	Number	Rate†	S.E.‡	
New Jersey .....	570	11.1	0.5	3685	71.3	1.2	6.4
Atlantic County .....	16	11.7	2.9	174	127.0	9.6	10.9
Atlantic City .....	14	22.6	6.0	97	156.5	15.9	6.9
Bergen County .....	48	8.3	1.2	518	89.2	3.9	10.8
Burlington County .....	11	7.5	2.3	64	43.8	5.5	5.8
Camden County .....	51	15.9	2.2	183	87.0	4.2	3.6
Camden City .....	31	23.7	4.3	119	90.8	8.3	3.8
Cape May County .....	2	5.4	3.8	17	45.9	11.1	8.5
Cumberland County .....	13	13.8	3.8	106	112.8	11.0	8.2
Essex County .....	116	12.2	1.1	651	68.3	2.7	5.6
East Orange .....	8	9.6	3.4	35	42.2	7.1	4.4
Irvington .....	5	8.1	3.6	22	35.5	7.6	4.4
Newark .....	82	17.7	2.0	494	109.9	4.8	6.0
Gloucester County .....	12	12.1	3.5	51	51.5	7.2	4.3
Hudson County .....	101	14.9	1.5	445	65.4	3.1	4.4
Bayonne .....	11	13.4	4.0	44	53.7	8.1	4.0
Hoboken .....	9	17.0	5.7	46	86.8	12.5	5.1
Jersey City .....	57	13.2	2.4	266	84.7	5.2	4.7
Union City .....	5	8.8	3.9	4	7.0	3.5	0.8
Hunterdon County .....	3	6.7	3.8	14	31.1	8.8	4.7
Mercer County .....	57	23.4	2.1	211	86.5	6.0	3.7
Trenton .....	37	27.8	4.6	142	108.9	9.0	3.8
Middlesex County .....	20	6.9	1.5	184	63.7	4.7	9.2
Monmouth County .....	14	5.8	1.6	101	42.1	4.2	7.2
Morris County .....	14	7.9	2.1	93	52.5	5.4	6.6
Ocean County .....	4	6.7	3.3	52	86.7	12.0	13.0
Passaic County .....	22	6.2	1.3	384	107.9	5.5	17.5
Clifton .....	2	2.9	2.0	59	84.3	11.0	29.5
Passaic .....	4	6.8	3.4	74	125.4	14.6	18.5
Paterson .....	15	10.3	2.7	157	108.3	8.6	10.5
Salem County .....	2	3.8	2.7	43	81.1	12.4	21.5
Somerset County .....	4	3.7	1.9	70	64.8	7.7	17.5
Sussex County .....	2	5.4	3.8	12	32.4	9.4	6.0
Union County .....	57	13.4	1.8	185	38.7	3.0	2.9
Elizabeth .....	21	17.6	3.9	62	52.1	6.6	....
Warren County .....	1	1.7	1.7	39	67.2	10.8	39.0
Institutions .....	0	..	..	59	**	..	....
Military Posts .....	0	..	..	29	**	..	....

\* Cases, regardless of activity, reported for first time in 1955.

† Rate per 100,000 estimated population.

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

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

Prepared by the Division of Vital Statistics and Administration, New Jersey State Department of Health, June 19, 1956.

TABLE VII. TUBERCULOSIS MORBIDITY BY SEX AND BY COLOR FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1955

PLACE	Sex			Color			
	Total	Male	Female	Total	White	Nonwhite	Unknown
Atlantic County .....	174	95	79	174	111	63	....
Atlantic City .....	97	49	48	97	52	45	....
Bergen County .....	518	307	211	518	496	19	3
Burlington County .....	64	38	26	64	48	16	....
Camden County .....	183	126	57	183	137	46	....
Camden City .....	119	90	29	119	80	39	....
Cape May County .....	17	11	6	17	14	3	....
Cumberland County .....	106	58	48	106	84	21	1
Essex County .....	651	419	232	651	325	326	....
East Orange .....	35	21	14	35	16	19	....
Irvington .....	22	13	9	22	22	....	....
Newark .....	494	323	171	494	215	279	....
Gloucester County .....	51	25	26	51	46	5	....
Hudson County .....	445	291	154	445	352	91	2
Bayonne .....	44	29	15	44	36	8	....
Hoboken .....	46	31	15	46	41	5	....
Jersey City .....	266	172	94	266	190	75	....
Union City .....	4	3	1	4	4	....	....
Hunterdon County .....	14	8	6	14	14	....	....
Mercer County .....	211	135	76	211	166	45	....
Trenton .....	142	93	49	142	111	31	....
Middlesex County .....	184	105	79	184	167	17	....
Monmouth County .....	101	53	48	101	68	32	1
Morris County .....	93	51	42	93	81	12	....
Ocean County .....	52	35	17	52	47	5	....
Passaic County .....	384	237	147	384	349	34	1
Clifton .....	59	39	20	59	59	....	....
Passaic .....	74	46	28	74	67	7	....
Paterson .....	157	102	55	157	130	27	....
Salem County .....	43	24	19	43	34	9	....
Somerset County .....	70	47	23	70	65	5	....
Sussex County .....	12	10	2	12	12	....	....
Union County .....	165	105	60	165	130	35	....
Elizabeth .....	62	44	18	62	52	10	....
Warren County .....	39	21	18	39	39	....	....
Institutions .....	59	46	13	59	45	14	....
Military Posts .....	29	27	2	29	24	5	....
Total .....	3665	2274	1391	3665	2854	803	8

Prepared by the Division of Vital Statistics and Administration, New Jersey State Department of Health, March 27, 1956.

TABLE VIII. TUBERCULOSIS MORBIDITY BY CLINICAL STATUS FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1955

PLACE	Clinical Status				
	Total	Active	Not Active	Undetermined	Not Stated
Atlantic County	174	66	107	1	.....
Atlantic City	97	40	56	1	.....
Bergen County	518	128	351	38	1
Burlington County	64	50	9	4	1
Camden County	183	147	33	2	1
Camden City	119	92	26	.....	1
Cape May County	17	10	5	1	1
Cumberland County	106	36	69	1	.....
Essex County	651	552	80	16	3
East Orange	35	26	7	1	1
Irvington	22	11	8	1	2
Newark	494	435	48	11	.....
Gloucester County	51	24	26	.....	1
Hudson County	445	313	114	14	4
Bayonne	44	29	9	4	2
Hoboken	46	36	7	2	1
Jersey City	266	193	70	3	.....
Union City	4	1	2	.....	1
Hunterdon County	14	12	2	.....	.....
Mercer County	211	139	50	.....	2
Trenton	142	101	39	.....	2
Middlesex County	184	114	60	9	1
Monmouth County	101	70	27	4	.....
Morris County	93	48	44	1	.....
Ocean County	52	23	28	1	.....
Passaic County	384	106	272	6	.....
Clifton	59	13	46	.....	.....
Passaic	74	21	52	1	.....
Paterson	157	56	99	2	.....
Salem County	43	14	26	2	1
Somerset County	70	30	40	.....	.....
Sussex County	12	9	3	.....	.....
165	140	24	1	.....	.....
Union County	62	54	8	.....	.....
Elizabeth	.....	.....	.....	.....	.....
Warren County	39	15	20	4	.....
Institutions	59	50	8	1	.....
Military Posts	29	23	5	1	.....
Total	3665	2139	1403	107	16

Prepared by the Division of Vital Statistics and Administration, New Jersey State Department of Health, March 22, 1956.

TABLE IX. TUBERCULOSIS MORBIDITY BY AGE GROUPS FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1955

PLACE	Age Group								
	All Ages	Under 1 Year	1-4	5-14	15-24	25-44	45-64	65+	Unknown
Atlantic County	174	.....	6	9	11	43	60	45	.....
Atlantic City	97	.....	.....	1	7	20	40	29	.....
Bergen County	518	.....	2	4	19	158	211	120	4
Burlington County	64	.....	.....	.....	5	25	24	10	.....
Camden County	183	.....	7	2	14	69	57	34	.....
Camden City	119	.....	7	1	9	43	43	16	.....
Cape May County	17	.....	.....	.....	1	5	6	5	.....
Cumberland County	106	.....	.....	2	8	28	43	24	1
Essex County	651	9	37	43	73	233	190	63	1
East Orange	35	1	2	4	4	9	11	4	.....
Irvington	22	.....	1	2	2	6	7	8	.....
Newark	494	7	29	37	59	184	185	40	.....
Gloucester County	51	.....	.....	2	7	18	19	4	1
Hudson County	445	5	11	16	49	156	163	45	.....
Bayonne	44	1	1	1	7	15	12	7	.....
Hoboken	46	.....	4	4	4	12	20	6	.....
Jersey City	266	3	8	9	20	102	92	23	.....
Union City	4	.....	.....	1	1	1	2	.....	.....
Hunterdon County	14	.....	.....	1	2	5	4	2	.....
Mercer County	211	1	4	.....	7	76	79	44	.....
Trenton	142	.....	2	.....	4	53	35	28	.....
Middlesex County	184	3	2	1	23	78	53	24	.....
Monmouth County	101	.....	4	2	8	34	36	17	.....
Morris County	93	.....	.....	2	3	21	49	18	.....
Ocean County	52	.....	1	.....	3	12	27	9	.....
Passaic County	384	.....	3	7	29	107	172	66	.....
Clifton	59	.....	1	4	4	24	19	11	.....
Passaic	74	.....	.....	1	6	14	38	15	.....
Paterson	157	.....	3	3	15	47	74	15	.....
Salem County	43	.....	.....	1	4	16	13	9	.....
Somerset County	70	.....	1	.....	9	22	32	6	.....
Sussex County	12	.....	.....	.....	2	4	5	1	.....
Union County	165	.....	7	3	13	75	51	16	.....
Elizabeth	62	.....	1	1	7	24	24	5	.....
Warren County	39	.....	.....	.....	2	16	12	9	.....
Institutions	59	.....	.....	2	10	23	15	9	.....
Military Posts	29	.....	.....	.....	16	9	4	.....	.....
Total	3665	18	85	97	318	1235	1325	580	7

Prepared by the Division of Vital Statistics and Administration, New Jersey State Department of Health, March 26, 1956.

TABLE X

TREND OF DAILY PARTICIPATION AND REFERRAL RATES FOR  
COMMUNITY AND INDUSTRIAL SURVEYS, NEW JERSEY 1951-55

Year	Total Readable Plates	Average Daily Partici- pation	Per cent Referral Rates				
			TB	Cardiac	Cancer	Pulmonary (Non-TB)	Other
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
1955	115,255	437	3.22	3.23	.21	.74	.22

Prepared by Tuberculosis Control Program, Division of Chronic Illness Control.

TABLE XI

COMPARISON OF CASES REPORTED AS RESULT OF STATE  
SPONSORED SURVEY TO TOTAL MORBIDITY. COUNTIES SURVEYED 1955

County	Total Cases Reported 1955	Total Cases Reported As Result of 1954-1955 Surveys	Per cent of Total
TOTAL	2,675	262	9.8
Atlantic .....	174	35	20.1
Burlington .....	64	6	9.4
Camden .....	183	17	9.3
Cape May .....	17	0	0
Cumberland .....	106	17	16.0
Essex .....	651	30	4.6
Gloucester .....	51	8	15.7
Hudson .....	445	13	2.9
Hunterdon .....	14	0	0
Mercer .....	211	32	15.1
Middlesex .....	184	21	11.4
Monmouth .....	101	21	20.8
Morris .....	93	20	21.5
Ocean .....	52	4	7.7
Salem .....	43	5	11.6
Somerset .....	70	14	20.0
Sussex .....	12	0	0
Union .....	165	11	6.7
Warren .....	39	8	20.5

Note: One (1) Additional case reported from Bergen County X-rayed out of county.

Prepared by Tuberculosis Control Program, Division of Chronic Illness Control.

TABLE XII

COMPARISON OF COMBINED RESULTS OF SURVEY FOLLOW-UP STUDIES  
FOR SOUTHERN, CENTRAL, AND NORTHERN STATE HEALTH DISTRICTS  
1953 - 1955

	1953	1954	1955
Number of Persons Surveyed .....	58,193	56,601	77,729
Number of Persons Referred Due to Suspicion of Pulmonary Abnormality .....	1,991	2,313	2,933
Per cent Pulmonary Referrals .....	3.4	4.1	3.8
Per cent of Referrals Receiving Follow-up .....	75.0	91.0	95.4
Per cent of Referrals for Whom Diagnosis Was Established .....	66.0	78.0	79.6
Number Newly Reported Cases of Tuberculosis...	147	144	233
Number of Newly Reported Cases of Active Tuberculosis .....	28	29	35
Per cent of Discovered Cases of Tuberculosis Unreported .....	51.0	56.0	46.6
Prevalence Rate per 1,000 Persons Surveyed Newly Reported Tuberculosis .....	2.50	2.54	3.00
Prevalence Rate per 1,000 Persons Surveyed Newly Reported Active Tuberculosis .....	.38	.5	.35

Prepared by Tuberculosis Control Program, Division of Chronic Illness Control.



TABLE XIII

## DISTRIBUTION OF EQUIPMENT AND SERVICES PROVIDED TO CLINICS

<i>Clinic</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 .....	*	..
<b>OCEAN COUNTY</b>		
Toms River .....	*	*
<b>PASSAIC COUNTY</b>		
Paterson .....	..	*

TABLE XIII—Continued

## DISTRIBUTION OF EQUIPMENT AND SERVICES PROVIDED TO CLINICS

<i>Clinic</i>	<i>Services</i>	<i>X-ray Equipment or Supplies</i>
<b>SALEM COUNTY</b>		
Elmer .....	*	..
Salem .....	*	*
<b>SUSSEX COUNTY</b>		
Newton .....	..	*
<b>WARREN COUNTY</b>		
Phillipsburg .....	*	*

## FUTURE TRENDS

Further development and expansion of the activities mentioned in this report are anticipated for the coming year. As the services which have been promoted on a demonstration basis come to the attention of hospitals and other local agencies, requests come for guidance and assistance in providing similar services elsewhere. Success of one program, too, often opens up other needs and other avenues for meeting needs.

The concern of the public about chronic illness, intensified by the increasing proportion of older people in the population, and the more hopeful attitude of the professions about the possibilities of modern methods of prevention, early detection, and rehabilitation, give hope for appropriations more adequate to the needs.

It seems probable that the trend will continue of planning less and less in terms of the control of specific chronic diseases and increasingly in terms of general health conservation; and that criteria for selecting programs of the future will be based not only on preventing illness and saving lives, but on the newer concept of promoting health and physical and mental well-being.

## Report of the Division of Constructive Health

---

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

---

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.
Bureau of Crippled Children 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

---

### INTRODUCTION

The concept of total or optimum health promotion, enhancement, and cultivation, the central theme of the Division of Constructive Health, continues to receive increasing emphasis each year in the fields of public health, medicine, and rehabilitation. The mental health movement, for example, is devoting greater attention to the importance of the primary prevention of mental illness, mental health education, and the emotional well-being of citizens as an eventual means of reducing the incidence of mental illness. Some authorities are suggesting that the future of public health may be in the nature of a social movement, concerning itself increasingly with the positive factors of physical-mental social-economic living within the cultural environment.

The manifold implications of constructive or positive health have persuaded the Director to continue his relationships with the many official agencies and voluntary organizations having interests related to public health. These interests include areas of mental health, mental retardation, rehabilitation of the handicapped, nutrition, public and child welfare, child and adult education, parent-child relations, and family living. Particular time and effort have been spent with the New Jersey Welfare Council, as Director of its Division of Health, setting up and supervising its committees of rehabilitation, mental retardation, rural health, and mental health.

Program-wise, the Director's greatest amount of time and effort has been expended once more as Coordinator of the Crippled Children Program, where, despite the handicaps of staff retirements and shortages during the year, further administrative changes and improvements were accomplished.

The outstanding development during the past year within the Division has been the very rapid growth of the programs within the Bureau of Adult and Occupational Health, particularly the program of Air Sanitation, because of the expansion of the activities of the Air Pollution Control Commission. A similar expansion is anticipated in the Radiological Health Program as the Governor's Advisory Committee on Radiation Protection formulates its laws and regulations. During the close of the fiscal year, agreements were reached between the Departments of Labor and Health which resulted in giving the Occupational Health Program complete responsibility for industrial health in New Jersey.

## Adult and Occupational Health

### INTRODUCTION

This has been a momentous year for all three Programs of the Bureau of Adult and Occupational Health. Each Program has achieved a maturity that has been outstanding and that has been recognized by our colleagues in other official agencies, in industry, in professional and technical associations, and by the citizens of our communities.

Many of these achievements are difficult to detail in the routine activities of each Program—they have a qualitative rather than a quantitative value. Some of these accomplishments merit emphasis here.

### THE AIR SANITATION PROGRAM

A full year's operation has been completed under the Air Pollution Control Act. The Program has rendered constant service to and has, at the same time, been served by the Air Pollution Control Commission. The Act, the Commission, and the organization of the Program have become the prototype for air pollution control planning and legislation by other States. It should be remembered that while the passage of the Air Pollution Control Act was instrumental in augmenting budget and staff, it was the soundness and integrity of the Program that made the Act possible.

The Air Sanitation Program was the impetus that led Rutgers University to offer a course in Principles of Air Pollution Control in the fall term of 1954-55. The course was repeated in 1955-56, and is to be given again in 1956-57. Program personnel teach approximately half the curriculum. There have been invaluable returns to the State in terms of goodwill and cooperation by industry since many of their technical men have been students in the course.

The student body of the first course became the nucleus of the Mid-Atlantic States Air Pollution Control Association. At the May, 1956, meeting of the National Air Pollution Control Association, the Mid-Atlantic States Section was commended for being the most outstanding regional association and for its three excellent technical conferences. The staff of the Air Sanitation Program has served as lecturers, moderators, on committees, and as exhibitors of field equipment for the respective technical conferences.

### THE ADULT AND OCCUPATIONAL HEALTH PROGRAM

Probably the outstanding achievement of the past year, for this Program, has been the Agreement of Cooperation between the State Department of Health and the Department of Labor and Industry signed by the commissioners of these departments, March 31, 1956 and filed with the Secretary of State.

In all States and in the Federal Government there has been, for decades, controversy as to whether industrial hygiene (occupational health) should be in a Department of Health or in a Department of Labor. The New Jersey agreement has been a tremendous step forward for all official health agencies. Numerous requests have been received for copies of the agreement and the request and reply forms by which information is channelled.

Through years of disagreement over legal rights and authority to perform certain occupational health functions and investigations, the staff of this Program has conducted itself with dignity and honesty. The unquestioned accuracy of its field and laboratory determinations and its unstinting direct and consultative service are, in a large measure, responsible for the present working agreement of cooperation.

### THE RADIOLOGICAL HEALTH PROGRAM

The youngest of our three Programs has achieved its successes far more rapidly than most public health activities have been able to do in the past. The dramatic and dynamic value of atomic energy, and the activities of the Atomic Energy Commission have given remarkable prominence to this Program; however, the pattern of accomplishment and the sound reputation of the Air Sanitation and Adult and Occupational Health programs have lent a strong and silent support.

The most noteworthy success was the gradual education and influence of the Governor's Advisory Committee on Radiation Protection. This Committee was diverted from its preoccupation with the minute details of a regulatory code to the broader aspects of all phases of the radiation problem in the State of New Jersey. The culmination of this endeavor has been a report to the Governor, by his Radiation Protection Committee, recommending legislation to give authority for radiation control to a single Department of State Government, and to establish a permanent Radiation Protection Commission in the Department so selected.

More specific details of each program's activities follow.

### AIR SANITATION

The Air Sanitation Program, operating for the first full fiscal year with responsibilities and duties as defined in the New Jersey Air Pollution Control Act (1954), has made a substantial stride toward definition of the problem in New Jersey and toward efficient and effective control.

### NEW JERSEY AIR POLLUTION CONTROL COMMISSION

The Air Pollution Control Commission created in the State Department of Health by the Act, in carrying out its responsibilities, met regularly during the

year. Among other things, the Commission promulgated Chapters I, II, and III of the New Jersey Air Pollution Control Code. In essence, the requirements set forth in these chapters are intended to reduce air pollution by prohibiting open burning in connection with refuse disposal and salvage operations and by prohibiting the disposal of refuse in such manner as to cause air pollution. The code became effective May 1, 1956.

The Commission also considered the destruction of solid waste materials by incineration as another facet of the air pollution problem. The Commission started compiling technical data upon which to base codes for the regulation of incinerators and similar forms of destructors. Information was also gathered for deliberation in promulgating regulations to control products of combustion from industrial and commercial fuel burning equipment and other sources of air contamination.

Concurrent with the attention being given to the development of codes, the Commission through an appointed technical committee, provided technical guidance to the Air Sanitation Program. Each technical committee of the Commission has outside technical consultants appointed to its membership who serve without pay. Every effort was made to keep the commission membership abreast of current studies and developments in the field of air pollution control through the work of its various committees.

A special committee was also organized to consider the agricultural aspects of air pollution. The assignment to this committee is to investigate and recommend action as necessary in matters involving the contribution of agriculture to air contamination and the effects of air pollution on agriculture.

Section II of the New Jersey Air Pollution Control Act provides that the Commission shall organize a county air pollution control association in each county in which it shall determine that the establishment of such an association is advisable to assist it in carrying out the purposes of the Act. After careful consideration, it was decided to establish the first associations in eight counties. The counties are: Bergen, Passaic, Hudson, Essex, Union, Middlesex, Mercer, and Camden. Professional and civic groups in each of these counties were contacted to submit nominations for possible appointment to county association membership. Names of nominees were received and appointments made. The eight county associations are now organized and functioning.

In summary, the progress of the Air Pollution Control Commission, since its organization in February, 1955, has been excellent. Its membership has demonstrated a sincere and enthusiastic desire to carry out the purposes of the Act and the actions taken to date leave no question of their qualifications to do so.

#### NEW JERSEY STATE DEPARTMENT OF HEALTH AIR SANITATION PROGRAM

The experiences of the past year, in integrating the new responsibilities assigned to the Department of Health by the New Jersey Air Pollution Control Act (1954) into the previously established Air Sanitation Program, have demonstrated that the objectives and activities of the Program are fundamentally sound and no immediate change is indicated.

*Obtaining Compliance of Codes, Rules or Regulations* became a responsibility of the Air Sanitation Program on May 1, 1956 when Chapters I, II, and III of the Air Pollution Control Code became effective. From May 1, to June 20, 1956, administrative procedures were in process of development, personnel were trained in enforcement procedures, and an educational campaign to familiarize the public with the requirements of the code was carried on by distribution of codes, direct mail, press releases, and talks to interested groups or organizations. The enforcement procedure is prescribed in detail in the Air Pollution Control Act (1954). While this procedure cannot be expected to bring about a dramatic cessation of open burning, a definite improvement should be apparent in about one year.

*Providing Technical Assistance to Local Boards of Health and Investigating Complaints* continued to comprise a major field activity of the program. In all, 102 complaints were investigated, requiring 31 detailed field studies of sources or neighborhoods affected. Recommendations for the reduction of air contamination were made in 17 instances, and ten abatement actions were taken by the industries or other persons involved.

*Technical Advisory Services* were given to 45 industrial organizations or municipal governments in matters relating to the control of air contamination. *Research Activity* has progressed slowly but satisfactorily.

On February 15, the Air Sanitation Program, in cooperation with selected boards of health, started a statewide air pollution survey (Smoke Index) at 38 test sites throughout the State. The techniques used are experimental and the sites were selected with the objective of obtaining data from areas in the State having a variety of rural, suburban, urban and industrial environments. One continuous calendar year of operation of this project will be necessary before data or procedure can be evaluated.

In cooperation with the Public Health Service, the Air Sanitation Program, functioning as part of a nationwide air sampling network, operated seven air testing stations in selected areas of the State. Test sites were located in Camden, Elizabeth, Jersey City, Paulsboro, Perth Amboy, Lakehurst, and Trenton. Twenty-four hour samples of particulate matter were taken by high volume air samplers one day per week at each test site. Sampling schedules were coordinated with sampling periods of similar air testing being carried on in Philadelphia, New York City, and the State of Pennsylvania.

In all, 320 twenty-four hour air samples were taken during the calendar year ending April 15, 1956. All samples were submitted to the Public Health Service, Robert A. Taft Engineering Center, Cincinnati, Ohio, for analysis and compilation of data.

Additional Statewide surveys for the purpose of determining chemical composition of atmospheric contamination have been planned. New spectrographic analytical equipment, improved air sampling devices, and additional instrument shop facilities were obtained or made ready for use. Field surveys will be undertaken in the near future. Additional research projects started during this year also include a detailed investigation of petroleum refinery practice, the development of procedures for compiling emission data, and the improvement of pinpoint sampling techniques devised during previous years.

*Educational Activity* continued to be an important phase in this relatively new public health program of air pollution control. Program personnel assisted in the organization of six courses or technical conferences, 26 lectures or talks were given, 11 conferences or courses were attended, and two out-of-State visits were made to observe air pollution control procedures of other agencies.

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

With further development of technical services within the Air Sanitation Program, and to the extent that a statute can lay the groundwork and provide the means for a cleanup of the atmosphere in this State, a definite start has been made toward air pollution control and a progressive improvement should hereafter become evident.

#### ADULT AND OCCUPATIONAL HEALTH

It is reliably estimated that in New Jersey in the fiscal year 1955-1956, more than two and one-quarter million persons constituted the labor force working at more than 19,000 occupations. It is believed that seventy-five per cent of these jobs involve machinery or the use of dangerous substances. Thus, occupational ailments are common occurrences in our everyday lives. The number of job-created hazards is inestimable.

Non-occupational illnesses are even more important as causes of absence or loss of manpower. The tremendous interest in maintaining and improving worker health has given great impetus to the need for program services. Both requests for service and self-initiated surveys and studies have been augmented and accelerated.

#### PROVIDE RELEVANT INFORMATION

Continued wide demand for the Program's Occupational Health Bulletins advanced the health education program. New monthly issues were prepared

and mailed and the mailing list of 2,700 was revised. Additional requests to be placed on the Program's mailing list were received from 143 persons in the United States, three persons in Canada, one from Ceylon, two from China, four from Cuba, three from Brazil, four from England, two from France, one from Israel, one from Germany, three from Mexico, and four from Peru.

Industrial field orientation trips were planned and completed for nine physicians who attended a postgraduate course in Occupational Dermatitis at the New York University, Skin and Cancer Hospital.

Program personnel participated in a Poison Prevention Committee composed of members of this Department.

Two hundred and twenty-two communications were received from persons throughout the world requesting advice or assistance with various occupational health problems. Approximately seventy-five per cent of these requests were from persons residing in New Jersey.

Visitors from other States and foreign countries spent considerable time with program personnel to gain occupational health orientation or information.

Seven lectures were delivered by program personnel on various occupational health subjects. Thirty-six professional meetings were attended to educate and train staff members, one staff physician completed a course in radiological health at New York University, and one staff industrial hygienist completed an air sanitation course at Rutgers University.

#### PROMOTE HEALTH OF ADULTS

At the request of management or labor, 156 complete surveys and studies were conducted within industries in New Jersey. This figure is about double the number completed within the last fiscal year. Employees in the establishments visited totaled 99,917 and of this number, 20,369 were directly affected by the services given. The physician, nurse, engineer and toxicologist team-approach prevailed in the following detailed conditions:

Introductory visits .....	77
Occupational health surveys .....	60
Technical studies of hazards .....	58
Noise and vibration studies .....	19
Consultations only (advisory) .....	11
Follow-up on recommendations .....	20
All other .....	2

Atmospheric contaminants determined in the field totaled 165 and 292 physical conditions were recorded. Occupational health laboratory analyses comprised 217 samples; 286 samples were completed as clinical diagnostic analyses.

A cooperative agreement in the field of occupational health was consummated between the New Jersey State Department of Health and the Depart-

ment of Labor and Industry. In essence, all occupational health surveys and studies will be completed by personnel of this Program and all enforcement actions by personnel of the Department of Labor and Industry. As a result of this agreement, it is anticipated that the work-load of the Program will be increased still further.

The Program cooperated closely with other programs of this Department and other State Departments.

1. Atmospheric carbon-monoxide studies were conducted to ascertain health conditions associated with the use of a gasoline powered floor scrubber at the State Hospital in Ancora.
2. Industrial statistics and field surveys were contributed to an anthrax study initiated by the Public Health Service and assisted by the Veterinary Public Health Program, Division of Environmental Sanitation.
3. Physical examinations and analyses for lead in blood and urine samples were performed on painters employed at the State Neuropsychiatric Institute at Skillman. A periodic recheck will be continued by the laboratory.
4. Environmental studies were completed in an industrial plant using sand, to assist the medical staff of the New Jersey Sanatorium for Chest Diseases, Glen Gardner, in diagnosing a suspected case of silicosis.
5. Studies were conducted for the Health and Fire Departments of Trenton to determine the source and locate a gasoline leak to prevent possible explosions in the City of Trenton.
6. The State Police were assisted in locating a source of oil entering basements of homes.
7. As a result of previous studies, conferred with officials of engineering firms and the State Division of Motor Vehicles relative to ventilation systems to be installed in two new motor vehicle inspection stations reported to cost \$1,200,000 each. It is reported that a fund of \$354,000 has been requested to change and improve ventilation in existing inspection stations, also, as a result of studies conducted by personnel of this Program.
8. Studies were conducted and recommendations made for mitigating solvent vapors in the offices of the Governor.
9. Ventilation, illumination, and noise studies were conducted for the Division of Vital Statistics and Administration of this Department.
10. Dust and ventilation studies were conducted and a medical program planned for the State Highway Department.

#### RADIOLOGICAL HEALTH

Fiscal 1956 was the fourth 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

Many requests for service and consultation were received during the past year. In order to provide expert technical knowledge, a radiation physicist was employed, assuming his duties in September, 1955.

During the remainder of the year, the Program was run on a dual basis. The radiation physicist handled the problems of technical consultation, and measurement; while the Program Coordinator, having had training and experience in public health administration, integrated the Program activities into the basic organizational framework of the State Department of Health.

#### PROVIDING INFORMATION

One of the important functions of the Program is to provide a reliable source of information on all matters of radiological health for those individuals, institutions, and industries in the State who utilize or are considering the utilization of sources of ionizing radiation. This, in turn, imposes a responsibility on Program personnel to keep themselves informed of developments in this changing field. In furtherance of this objective, program personnel attended eight meetings and seminars concerned with radiological health, sponsored by such organizations as the Atomic Energy Commission, the American Standards Association, the Joint Congressional Committee on Atomic Energy, the American Public Health Association, and the Public Health Service.

An Access Permit, enabling the Program to obtain access to restricted and certain categories of secret data, was obtained from the Atomic Energy Commission in order that classified information of interest will also be available to cleared personnel.

In addition, Program personnel attended all meetings of the Regional Coordinating Conference on Radiological Health, and of the Governor's Advisory Committee on Radiation Protection. In regard to the latter Committee, Program personnel served on several of the group's subcommittees, and took over the revision and editing of the Radiation Protection Code being developed by the Committee.

During the year, seven papers were presented to professional groups, and one talk was given to a Kiwanis group. One of the papers—presented at the annual meeting of the American Public Health Association—was later pub-

lished. Publication resulted in a large number of requests for reprints and for further information about our Program.

A course on "Radiation Hazards in Firefighting" was planned in cooperation with the University Extension Division of Rutgers University and the Atomic Energy Commission. This course is to be given in the fall of 1956.

Several conferences were held with representatives of the American Machine and Foundry Company at which the radiation problems, construction safeguards, and waste disposal aspects of their proposed nuclear reactor were discussed. This reactor, to be built in Plainsboro, is of high power level for its type. The requirements of the State Department of Health with regard to allowable radiation levels and effluent concentrations were explained. The company representatives furnished satisfactory explanations of the protective measures to be employed in meeting these requirements.

#### LOCATE AND EVALUATE SOURCES

##### *List of Radiation Sources*

An attempt was made to categorize the use of sources of ionizing radiation throughout the State. Although complete information was not available, there were, as of April 1, 1956, 140 users of AEC isotopes, 350 non-medical users of X-ray machines, and approximately 7,000 clinical X-ray machines. In addition, there is an unknown number of industrial and medical radium sources concerning which current information has been requested. The information on clinical and professional X-ray machines is subject to error, being based on the total number of professional personnel and an educated guess as to the proportion who own X-ray machines. It is hoped that these figures can be made more definite in the future through some registration procedure.

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

During the year, final follow-up checks of all shoe-fitting fluoroscopes were completed. Of the 450 known installations, approximately 150 were removed from use. The rest have been brought into compliance with the Regulations Concerning Fluoroscopic Shoe-Fitting Machines.

##### *Survey of Veterinary X-ray Machines*

A study was made of exposures to veterinarians and their assistants resulting from routine use of X-rays in diagnosis and therapy in the course of their practice. A letter was sent to the approximately 350 veterinarians in the State, describing the study which we wished to make and inviting their participation. Sixty-one favorable replies were received. There is some question as to how representative this sample may be, since those who replied may be the ones who approach the subject of radiation exposure with greater caution than the

general veterinary population. The results of this survey revealed, on the whole, that exposures were well below the permissible level. However, it also pointed up an almost complete lack of standardization in use of equipment, and a vast ignorance on the part of the operators as to proper equipment settings for best picture quality. The use of cones and filters on X-ray machines was notable for its absence.

##### *Field Visits Conducted*

A total of 114 field visits were made during the year. These may be summarized as follows:

Medical, X-ray .....	12
Medical, X-ray (contractor) .....	1
Medical, Isotope .....	1
University, Isotope .....	1
Radiation Laboratory .....	2
Industrial, X-ray .....	7
Industrial, Gauging .....	4
Industrial, Isotope .....	7
Shoe-fitting Fluoroscopes .....	25
Veterinary Survey .....	54

While it would be desirable to visit a much larger number of radiation users, this has proved to be impossible due to manpower limitations.

##### *Air Sampling*

Beginning in mid-April, a high volume sampler has been operating on the roof of the State House Annex, under an agreement between the State Department of Health and the Public Health Service, as one station of a countrywide radiation fallout monitoring network. Samples were collected for 24-hour periods, 7 days a week. Initial checks of airborne activity are made in Trenton and the samples are then forwarded to Washington for detailed radioanalysis. Results of the detailed checks are returned to the Program. Gummed paper fallout sheets are also exposed for 24-hour periods, 7 days a week, and are forwarded to the New York Operations Office of the AEC for analysis of settled dust.

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

During the past year, this objective was met by a service contract with a commercial film badge supplier. The usefulness of the film badge as a means of surveying under actual working conditions, and in the absence of Program personnel, was amply demonstrated. In addition, the use of the film badge as an educational tool was brought out in the veterinary survey. It is felt that, in



this respect, it should prove a very valuable aid in "selling" radiological health to the professions as a whole.

#### PROSPECTUS

It has become increasingly apparent in recent months that the needs of a complete radiological health program can no longer be best served by Chapter VI, of the State Sanitary Code, on *Radiation*. A more definite pattern of administrative regulation, which can only be accomplished by the enactment of a definitive law and the adoption of specific regulations, now appears to be necessary for the following reasons:

1. The utilization of radiation sources in New Jersey is becoming more extensive and more varied.
2. With the adoption by Congress of the Atomic Energy Act of 1954, stimulating the peacetime use of radioactive materials, the need is clear for State legislation to discourage Federal preemption and to codify the State's responsibilities in this relatively new area.
3. Recent reports on the study of possible biological effects of ionizing radiation indicate a need for increased vigilance in radiation protection.
4. The application of our Radiological Health Program involving industries and various agencies has shown two obvious and immediate needs:
  - a. Legislative enactment placing full radiological health responsibility in one State Department, eliminating the existing ineffective and confusing division of responsibility.
  - b. Definite technical standards of radiation protection which can serve as a guide to all radiation users.

### 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 Commission. Financial assistance is given toward their hospitalization and convalescent care, their appliances and prosthetic devices. Case-finding and follow-up home nursing services are provided on an allotment basis through grant-in-aid contracts with private community nursing agencies and through existing community public health nursing services. Medical consultative, diagnostic, and follow-up clinic services are provided for those with cerebral palsy. Psychological services are rendered on a direct or consultative basis to approved private clinics, treatment centers, hospitals, convalescent centers, and to public and specialized schools or classes for the handicapped.

#### CRIPPLED CHILDREN 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 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 PLANNING AND DESIGN

The Program Coordinator plans and designs all program projects and activities, and makes all arrangements pertaining thereto with Federal, State, Departmental, and voluntary agencies or groups, preparing the necessary program changes or additions for approval by the Crippled Children Commission and the Department. With staff assistance, he reviews, refines, and redesigns all administrative and program operational procedures, and supervises all program accounts and statistics. He maintains liaison with pertinent official and voluntary agencies, hospitals, clinics, treatment centers, professional and specialized groups in order to interpret the program and to obtain maximum public cooperation and understanding of its objectives.

#### PROGRAM ADMINISTRATION

The Program Coordinator prepares the agenda for the monthly meetings of the Crippled Children Commission, attends its meetings, and reports on all program activities, advising the Department accordingly of its recommendations and actions.

A primary function of the Program staff has been the individual case-processing procedures fully described in the 1953 fiscal year report. The Executive Director of the Crippled Children Commission retired on March 31, 1956. These financial case-processing procedures, formerly her responsibility, have been taken over by the Program Coordinator and his Secretarial Assistant. Much time and effort are spent on the evaluation of the individual medical and

social-economic status reports and the elaborate arrangements for hospitalization, bed-day, and appliance underwriting for those children who are medically indigent. Consequently, administrative procedures are constantly being revised which will permit more efficient use of staff time, with fewer manhours spent on correspondence and paper work. In preparation and ready for official approval and adoption are new sets of fiscal forms for bed-day and appliance underwriting, which will eliminate approximately 12 currently used forms and form letters and approximately 47 copies of same.

During the year, program accounting procedures have been drastically revised to permit full knowledge at all times of available balances, expenditures, and commitment authorizations. With the adoption of the proposed fiscal record forms, these new accounting procedures will realize even more pronounced efficiencies. Staff additions have also made it possible to supervise this important activity adequately, and to interpret fiscal procedures and policies to official and voluntary underwriting agencies.

At the end of the fiscal year, the orthopedic medical consultant to the Program and the Commission retired. His duties have been taken over by the Program Coordinator. These duties consist of a review of all birth reports of visible congenital defects, the approval of diagnoses for registration and services under the Program, and the approval of all requests for hospital or convalescent care, and appliance underwriting. Through these approval powers, the Program Coordinator is now able to control not only the rate of commitment expenditures, but to supervise the services of hospitals, convalescent homes, and clinics by analysis of requests for underwriting. He can take necessary steps to interpret program policies, improve services, and particularly to prevent abuses in appliance charges, and unnecessarily prolonged hospitalization.

#### PROGRAM OPERATION

The operation of the Crippled Children Program has increasingly become a responsibility of the State Health District staffs. The Program Coordinator maintains over-all Program operational supervision, while the Districts, under the integrating leadership of the Division of Local Health Services, conduct the program operational management as it pertains to individual handicapped children in the community.

Home nursing services for registered handicapped children are now the entire responsibility of Districts, except for the consultation services provided by the Public Health Nurse Consultant for Crippled Children, who is assigned to the central program staff. With the advice and consent of the Districts, nursing visit allotments under contract with private nursing agencies are determined by the Program Coordinator, but services under these allotments are

supervised by the Districts with the assistance of the Program Coordinator and Public Health Nurse Consultant as required.

While fiscal case-processing procedures have been retained in the Program's central office, Districts assist in individual case arrangements for hospital, convalescent home, clinic and appliance care, and with the often complicated medical-social aspects of these children and their families. The arrangement for and the conduct of the cerebral palsy, diagnostic and follow-up clinics, and two treatment centers are now responsibilities of the Districts, with the assistance of the Coordinator, Program Psychologist, and Public Health Nurse Consultant.

Complete fiscal case records are maintained at the central Program office, but service records are either maintained in the District office or in the offices of contract nursing agencies.

#### STATE REGISTER OF CRIPPLED CHILDREN

In accordance with the definition of a crippled child and with diagnostic categories approved by the Crippled Children Commission, the Program maintains a register of crippled children. The Program Coordinator supplies the Public Health Statistics Program with posted and coded crippled children register forms and program services accounts. Machine prepared lists, tabulations, and counts are prepared for the Program, together with reports and analyses useful for Program administration and operation.

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 Program 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 Program 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.

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

A list of over-age cases to Program 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, color, by age group for each diagnostic code supplied to the Program.

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.

Card count, by reason of disposition, for individuals removed from register during previous calendar year.

Alphabetic list of individuals removed from the register during the calendar year, exclusive of those removed because of "over-age."

Annual report prepared on Children's Bureau form of physician and hospital services given to registered children throughout the fiscal year.

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

TABLE 1

## CRIPPLED CHILDREN ON STATE REGISTER

On Register as of January 1, 1955 .....	17,944
Placed on Register during Calendar Year .....	2,366
<b>Total Entered on Register .....</b>	<b>20,310</b>
Removed from Register for Specified Reasons .....	1,927
Reached age of 21 .....	708
Dead .....	158
Cured .....	539
Residence established in another State .....	174
Ineligible for service .....	61
Registration in error .....	24
Cannot locate .....	247
Other reasons .....	16
<b>On Register at End of Year December 31, 1955 .....</b>	<b>18,383</b>

## PHYSICIAN SERVICES

Except for the physicians conducting the State diagnostic and follow-up cerebral palsy clinics, the Program does not compensate for physician services. Handicapped children in need of specialized surgical care are referred to panels of approved specialists in orthopedics, neurosurgery, plastic surgery, and cardiac surgery. These physicians examine, operate, or prescribe for those children without charge in their respective approved hospitals and clinics. Hospital and clinic reports are made a part of the case records in the Program, District, or responsible community nursing offices.

## HOSPITALIZATION AND APPLIANCES

Table 2 indicates that 367 children received hospitalization for a total of 17,275 bed days, and that 101 children received convalescent home care for a total of 13,455 bed days. Total Federal and State expenditure for hospitalization and convalescent home care was \$119,218.00, with counties contributing a total of \$100,447.29. In addition, \$44,311.09 was contributed by parents and voluntary agencies, particularly local Polio Foundation Chapters and Elks Lodges.

There were 1,003 artificial limbs, braces, and appliances purchased by the Program with a Federal-State total of \$27,495.00 and \$22,785.59 from counties. Payments from parents and private voluntary agencies totaled \$9,261.84.

TABLE 2

CASE NUMBER AND PAYMENT OF HOSPITAL, CONVALESCENT HOME, AND APPLIANCE SERVICES FOR FISCAL YEAR 1956	
<i>Hospital, Convalescent Care</i> —Total Number of Children.....	468
Total Bed Days .....	30,730
<i>In-Patient</i>	
Number of children receiving specialized services.....	367
Number of bed days .....	17,275
<i>Convalescent Home</i>	
Number of children receiving specialized services .....	101
Number of bed days .....	13,455
<i>Payment of Bed Days (Hospital and Convalescent Home) Total .....</i>	<i>\$263,976.38</i>
State and Federal Funds .....	\$119,218.00
County Boards of Chosen Freeholders .....	100,447.29
Total payments from tax sources .....	\$219,665.29
<i>Private Contributions</i>	
Local chapters of Polio Foundations .....	\$31,341.43
Parents .....	10,770.89
Elks Lodges .....	332.00
Insurance .....	1,589.77
Others .....	277.00
Total Contributions .....	\$44,311.09
<i>Appliances</i> —Total Number Purchased .....	1,003
Total Payments .....	\$59,542.43
State and Federal Funds .....	\$27,495.00
County Boards of Chosen Freeholders .....	22,785.59
Total payments from tax sources .....	\$50,280.59
<i>Private Contributions</i>	
Parents .....	\$3,320.13
Local Chapters of Polio Foundations .....	3,213.50
Elks Lodges .....	2,638.61
Insurance .....	89.60
Total payments from private sources .....	\$9,261.84

## PROGRAM 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.

Three cardiac clinics have been approved by the Program, through which children with rheumatic fever may be admitted to their respective hospitals for medical care under program underwriting. These are St. Michael's Hospital, Newark; Hunterdon Medical Center, Flemington; and McKinley Hospital, Trenton. The program also assumes financial responsibility for convalescent care at approved convalescent homes for children who have been discharged from these hospitals or clinics.

Children with congenital heart disease have been referred to St. Michael's Hospital, Newark, for evaluation for possible heart surgery, and the Program has paid special pre-operative evaluation fees for such cases, in addition to bed day purchase.

The Program has continued financial support for evaluation and research studies done on 46 referred post-operative cleft palate cases at the Reconstructive Surgery Center in St. Barnabas Hospital, Newark.

## PROFESSIONAL SERVICES TO HANDICAPPED CHILDREN

The total unduplicated count of children receiving hospital, convalescent home, and clinic services paid for by the Program was 1,229. An analysis of these children relative to county distribution, race, age, new and old cases, and diagnosis by sex and age are given in the four sections of Table 3.

TABLE 3

CALENDAR YEAR 1955

## SECTION I—CHILDREN WHO RECEIVED CLINIC, HOSPITAL, AND CONVALESCENT SERVICES, AND THE NUMBER OF SERVICES.

Services	Number Children	Number Visits or Days
Clinic .....	809	1,235 Visits
Hospital .....	369	14,492 Days
Convalescent .....	102	15,342 Days
* Duplicated Count of Children and Services	1,280	31,069 Visits
Unduplicated Count of Children .....	1,229	

\* Due to two or more services per child.

## SECTION II—COUNTY RESIDENCE OF CHILDREN RECEIVING CLINIC, HOSPITAL AND CONVALESCENT SERVICES.

Total Number of Children .....		1,229	
County	Number of Children	County	Number of Children
Atlantic .....	15	Middlesex .....	46
Bergen .....	51	Monmouth .....	93
Burlington .....	27	Morris .....	42
Camden .....	57	Ocean .....	20
Cape May .....	5	Passaic .....	42
Cumberland .....	8	Salem .....	17
Essex .....	444	Somerset .....	45
Gloucester .....	25	Sussex .....	31
Hudson .....	114	Union .....	41
Hunterdon .....	20	Warren .....	20
Mercer .....	66		

## SECTION III—DISTRIBUTION OF CHILDREN (NEW AND OLD CASES) RECEIVING CLINIC, HOSPITAL, AND CONVALESCENT SERVICES BY NUMBER, RACE, AND AGE.

Race	Number Children	Age in Years				
		Under 1	1-4	5-14	15-20	Unknown
TOTAL .....	1,229	25	270	730	204	..
White .....	1,034	22	226	619	167	..
Other .....	195	3	44	111	37	..
Unknown .....	..	..	..	..	..	..
Number who received physicians' services for the first time .....	469	25	152	236	56	..
Number who had received physicians' services in previous years .....	760	..	118	494	148	..

## SECTION IV—DISTRIBUTION OF CHILDREN RECEIVING CLINIC, HOSPITAL, AND CONVALESCENT SERVICES BY DIAGNOSIS GROUP, SEX AND AGE.

Report Group Code No.	Diagnosis Group	Total	Sex		Age in Years					Unknown
			Male	Female	Under 1	1-4	5-14	15-20		
	Total .....	1,229	672	557	25	270	730	204	...	
0120	Tuberculosis bones and joints, active or unspecified .....	...	...	...	...	...	...	...	...	
0130	Late effects of tuberculosis of bones and joints .....	6	3	3	...	1	5	...	...	
0199	Other tuberculosis, except respiratory ...	...	...	...	...	...	...	...	...	
0809	Poliomyelitis, acute ..	5	4	1	...	3	1	1	...	
0818	Late effects of acute poliomyelitis .....	126	74	52	1	34	71	20	...	
2840	Late effects of rickets	1	...	1	...	...	1	...	...	
3510	Cerebral palsy .....	474	275	199	...	128	292	54	...	
3590	Other diseases of the nervous system and sense organs, except eye, ear, and mental disorders .....	2	1	1	...	...	2	...	...	
3899	Other diseases of the eye, except congenital or diabetic cataract .....	1	...	1	...	...	1	...	...	
3999	Other diseases and conditions of the ear and mastoid process	4	3	1	...	...	4	...	...	
4090	Rheumatic fever, acute	103	53	50	...	...	67	36	...	
4100	Chronic rheumatic heart disease .....	62	32	30	...	2	38	22	...	
4300	Other diseases of the heart, except congenital malformations .....	89	48	41	...	3	64	22	...	
7200	Arthritis and rheumatism, except rheumatic fever .....	5	2	3	...	...	4	1	...	

## SECTION IV—DISTRIBUTION OF CHILDREN RECEIVING CLINIC, HOSPITAL, AND CONVALESCENT SERVICES BY DIAGNOSIS GROUP, SEX AND AGE—(Continued).

Report Group Code No.	Diagnosis Group	Total	Sex		Age in Years					Unknown
			Male	Female	Under 1	1-4	5-14	15-20		
7309	Osteomyelitis and periostitis, except tuberculous .....	6	2	4	...	2	2	2	...	
7459	Curvature of spine, except congenital or late effect of poliomyelitis or tuberculosis .....	11	1	10	...	1	5	5	...	
7499	Other diseases of the bones and organs of movement, except congenital malformations .....	33	21	12	...	5	21	7	...	
7510	Spina bifida and meningocele .....	17	12	5	1	8	7	1	...	
7530	Congenital malformations of the circulatory system .....	37	18	19	1	7	19	10	...	
7540	Cleft palate and harelip .....	115	60	55	16	36	59	4	...	
7571	Congenital dislocation of hip .....	7	1	6	...	6	1	...	...	
7584	Clubfoot, congenital or unspecified .....	13	6	7	...	1	7	5	...	
7585	Flatfoot, congenital ..	1	1	...	...	1	...	...	...	
7599	Other congenital malformations .....	68	32	36	5	21	35	7	...	
7619	Other injuries at birth, except cerebral palsy and epilepsy..	6	4	2	...	...	6	...	...	
9400	Burns .....	14	7	7	...	3	7	4	...	
9880	Other morbid conditions due to accidents, poisonings, and violence .....	14	9	5	...	...	7	7	...	
9991	Other diagnosed diseases, injuries, or handicapping conditions, except provisional or deferred diagnoses .....	9	3	6	...	3	5	1	...	

## NURSING SERVICES

Crippled Children home nursing services are provided by local private nursing agencies holding contracts with the Department, and by local public health nurses under supervision of State employed public health nurse supervisors, and by private and official agencies having cooperative arrangements with the Program. In a few areas, where local services are not available, District public health nurse supervisors have had to continue to give direct home nursing services. However, one major area (Jersey City) formerly serviced by a crippled children public health nurse supervisor, is now prepared to provide its own direct nursing services for crippled children with the assistance of a grant-in-aid contract with the Department. This will be the first such contract with a local health department.

Three types of grant-in-aid contracts have been in effect. Those nursing agencies having approved supervisors and nursing directors qualified for the "consultation" type of contract are permitted to initiate home visits, maintain their own reports and records of such visits, and be reimbursed by the Program under specific contract allotment. Such agencies received consultation services by specialized public health nurse supervisors, or by the public health nurse consultant. The second form of contract was known as the "combined type," wherein the agency provides nursing supervision of its own through a supervisor who also acts as a director. These agencies are permitted to initiate home visits under contract allotments but must submit individual home visit reports to the District offices, and are obliged to receive supervision through the District. The third type of agency entitled "supervisory type," are required to obtain separate permission and instructions from the District office for each individual nursing visit, and to submit individual reports on each visit made.

During the year, several nursing agencies became qualified for the combined type of contract, thus diminishing the administrative responsibilities of the District office supervisory staff. The task of further decentralizing case records from the District offices to the qualified consultation type of nursing agencies has been completed. Only those case records remain in District offices where direct nursing supervision is provided.

Considerable progress was made in helping nursing agencies to appreciate the fact that the Crippled Children Program acts essentially as a contributing agency, and that the community is basically responsible for services to its crippled children even though contract allotments are insufficient to cover needs of the program. The Program, however, does have the responsibility to furnish consultative services, and guides and instructions for the selectivity and priority of nursing care to crippled children.

During the fiscal year 1956, 41 contract nursing agencies made a total of 9,807 nursing visits to crippled children, receiving reimbursement of \$24,518 at the rate of \$2.50 per visit.

In the Metropolitan District, generalized public health nursing services for crippled children have been about one-half completed, and were accelerated by the resignation of one of the former specialized public health nurse supervisors for crippled children. With the help of Program funds, several District public health nurse supervisors have received special training in orthopedic nursing and rehabilitation at the New York Institute for Rehabilitation in order to prepare themselves to assume responsibility for crippled children nursing supervision.

The Program was particularly handicapped during the year for lack of nursing consultation services, because its public health nurse consultant for crippled children was transferred to the Central District to become its Chief Public Health Nurse. The position remained vacant from October 1, 1955 to June 30, 1956.

## PSYCHOLOGICAL SERVICES

The psychological work done during the year can be divided into seven areas: Examination of children; conferences; counseling; work with the Educational Advisory Board of United Cerebral Palsy; lectures; research; and writing.

## PSYCHOLOGICAL EXAMINATIONS

During the fiscal year 1955-56, 474 psychological evaluations were done by both the psychologist and the assistant psychologist. There were various kinds of conferences during the year. Most dealt with the problems of individual children, their education, or the procedures that would be most appropriate at clinics, treatment centers, special schools, special classes, and in schools where there were only isolated cases. These conferences, as a rule, were held with administrators, educators, physicians, nurses, and therapists. There were conferences also with unit administrators dealing with the problems for occupations for young people with cerebral palsy who are not acceptable for employment in private industry. In addition to these, there were conferences with psychologists who were interested in learning the special problems or techniques in the field of cerebral palsy.

## COUNSELING

Counseling services were continued. Some of these services were planned primarily for their local value and were attended by parents of children who are being treated in various centers. There was an additional series of counsel-

ing services which were designed primarily for the instruction of people who attended. Some of these people wanted to develop counseling in their own community. Such demonstration work was done at Camp Easter Seal at Somerset, Pa., and at the College of Physicians and Surgeons in New York. In this connection, there were conferences, such as ones held at Penn State University and at Columbia University, for the refinement of technique, the development of counselors, and extension of services.

#### COOPERATION WITH UNITED CEREBRAL PALSY

Program Psychologist continued his service on the Educational Advisory Board of United Cerebral Palsy Association, Inc. The work on this board during the past year has involved some writing, and the development of special educational facilities in various parts of the country. This work was carried on through special grants for lecture series and for workshops.

#### LECTURES

Lectures have been delivered to both parents and to professional people. In some cases, these lectures were arranged for by local, State, regional associations of parents, teachers, therapists, physicians, and psychologists. As a rule, these lectures dealt with the psychological aspect of cerebral palsy, its special problems in education, discipline, and personality development. There was a considerable interest in research work as it is being carried on throughout the country.

#### RESEARCH

An increasing amount of time was devoted to two major experimental projects. One of these has been carried on in cooperation with the Department of Special Education at Syracuse University. The problem under investigation is "The Perceptual Difficulty of Children with Cerebral Palsy." The results should be published this fall. The other major experimental effort is an extension of the first; it is centered in the Walter D. Matheny School. The subject of this investigation is "The Effect of Three-dimensional Projection on Perceptual Problems and Its Application to Education."

#### WRITING

The psychologist was designated by the United Cerebral Palsy Association as chairman of a group to review and revise the Realistic Education series. When the work is completed, it is expected to appear as a monograph. The psychologist was also designated as chairman to write an article designed to have value for parents whose children have cerebral palsy. This also is to be published in monograph form.

#### ON-GOING PROGRAM ACTIVITIES AND PROJECTS

##### CEREBRAL PALSY

Detailed descriptions of the Cerebral Palsy Program activity may be found in the annual report of 1953.

The State cerebral palsy diagnostic and follow-up medical clinics, open to all children referred by physicians, are staffed by four physicians who have received specialized training under Dr. Winthrop M. Phelps, State Cerebral Palsy Consultant. These physicians refer cases when appropriate for Dr. Phelps' personal attention at consultation clinics held in the several Districts for two days on alternate months. Consultation clinics are also available for referral from approved private cerebral palsy treatment centers and other private physicians.

During the fiscal year, 809 children have received cerebral palsy clinic services for a total of 1,235 clinic visits.

Private agencies, such as the County United Cerebral Palsy affiliates 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 two remaining State treatment centers.

Upon the termination of direct control and responsibility of the State Cerebral Palsy Treatment Center at Long Branch, a grant-in-aid contract has been in effect during the year with United Cerebral Palsy of Monmouth and Ocean County for \$4,500, representing 1,125 treatment visits at the rate of \$4.00 per visit. This permitted the private agency to take over payment for the salary of a qualified physical therapist previously employed by the Department.

During the year, *Standards for the Conduct of Approved Cerebral Palsy Treatment Centers* were completed by a special advisory committee representing private agencies and Program staff. These standards were approved by the Crippled Children Commission and the Department and have been distributed to all approved private cerebral palsy diagnostic and treatment centers, and will be used as a basis for approval of additional agencies seeking cooperation and the services of the Program.

The Program Coordinator has continued his 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 been serving as a member of the State Medical Advisory Committee for United Cerebral Palsy. He has also continued to give 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 AND RHEUMATIC HEART DISEASE

At the termination of the demonstration project for rheumatic fever and rheumatic heart disease in Essex County on June 30, 1955, a limited Statewide rheumatic fever program was initiated, consisting of hospitalization and convalescent home bed day purchase for children with rheumatic fever or rheumatic heart disease. Any child referred to one of the hospital cardiac clinics under the supervision of the Division of Chronic Illness Control, who had been diagnosed at such a clinic as being in need of hospitalization or convalescent care, was eligible for admission to the hospital upon recommendation of the clinic director and the Coordinator of the Crippled Children Program. The three hospital clinics so approved and supervised were St. Michael's Hospital, Newark; Hunterdon Medical Center, Flemington; and McKinley Hospital, Trenton. Because of limited funds, nursing follow-up services were not included under grant-in-aid contracts.

Perhaps because of the widespread use of antibiotics for streptococcal infections, and an extensive program of rheumatic fever prophylaxis, the expected demand for hospital and convalescent home services did not materialize. Hence, planning was initiated during the latter part of the fiscal year to extend the rheumatic fever services to other hospitals in the State, through the initiation of a panel of approved pediatric cardiologists, who would be responsible for requesting admission of children with acute rheumatic fever or rheumatic heart disease into their respective hospitals, and who will be responsible for their care. Post-hospitalization follow-up nursing care will also be included for reimbursement under new nursing grant-in-aid contracts.

## CONGENITAL HEART DISEASE

With the establishment of the Heart Surgery Center at St. Michael's Hospital, equipped with complete facilities for evaluation and surgery, children with congenital heart disease were referred to the Center upon physician recommendation or upon referral from any of the other heart clinics approved by the Department. Upon admission to St. Michael's Hospital for the purpose of evaluation for possible cardiac surgery, the hospital, with the approval of the Program Coordinator, received the regular hospitalization bed day purchase rate together with a special pre-operative work-up fee for each child studied, irrespective of whether cardiac surgery was actually performed. Eleven such children were studied during the year.

In the meantime, other hospitals in the State are preparing themselves to perform comprehensive evaluation studies and cardiac surgery. Plans are now being completed to extend the services of the Program to these hospitals also, in order to get Statewide coverage.

## 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. The Program Coordinator met regularly, as consultant, with the New Jersey Association for Reconstructive Surgery. He also gave lectures at the Center for students in speech classes under the auspices of the Newark State Teachers College, and participated in other educational activities and meetings at the Center.

Partially as a result of Program and Commission assistance during the past several years, the Center is now in receipt of substantial funds from private foundations, which will permit them to establish extensive laboratories and to acquire trained personnel to conduct tissue culture research and special studies in the etiology and prevention of cleft palate and lip. Evaluation studies supported by the Program are also yielding important improvements in the operative treatment and post-operative care of these cases. Forty-six such comprehensive evaluations were paid for by the Program during the year.

## NEW PROGRAM ACTIVITIES AND PROJECTS

## PEDIATRIC NEUROSURGICAL PROJECT

New developments in the field of pediatric neurosurgery indicate that many congenital neurological defects and conditions in infancy are amenable to corrective surgery provided prompt diagnosis is made and comprehensive evaluations are performed. Thirty per cent of children with ideopathic mental retardation have treatable conditions which may be prevented, provided early referral and surgical intervention were possible. New techniques and materials used in the operating upon non-communicating and communicating types of hydrocephalus give increasing assurance of lowered mortality and prevention of mental retardation. Brain tumors, subdural hematomas, and meningoceles are likewise amenable to early and drastic surgery.

Accordingly, a two-phased pediatric neurosurgical project was planned by the Program, the first phase of which was completed during the fiscal year. Phase one included the giving of a course on the Neurologic Conditions of Infancy, by Dr. Eugene B. Spitz of the Children's Hospital, Philadelphia. This



course, endorsed by the New Jersey Chapter of the American Academy of Pediatrics and the Medical Society of New Jersey and supported by the Program, was attended by more than fifty pediatricians, and consisted of five lecture seminars.

Phase two consists of establishing a Pediatric Neurosurgical Center at the Babies Hospital, Newark, with a special unit of six beds, a trained professional and nursing staff, out-patient services, and specialized diagnostic equipment. In addition to the usual hospitalization bed-day purchase, the Program will pay a special pre-operative evaluation fee for a specific number of cases referred to the Center. Follow-up nursing services will be provided through usual contract nursing agencies.

#### HEARING AID PROJECT

Adequate Statewide facilities for children with speech and hearing defects are currently one of New Jersey's unmet public health needs. Recently, the Barkhorn Memorial Speech and Hearing Center in Newark, with the endorsement of the Medical Society of New Jersey, and with grant-in-aid assistance from the State Department of Health, Division of Chronic Illness Control, has organized a diagnostic and treatment center offering qualified and complete services to children and adults with speech and hearing problems. A similar center has been started at Hunterdon Medical Center in Flemington. Other centers are expected to be established in Trenton and Camden in the future.

During the year, the Program arranged to assist those children who have been registered with the Commission for other physical handicaps, and who were referred to the Center at Newark for study and evaluation towards the purchase of hearing aids as prescribed by the Center. Negotiations are under way with Children's Bureau in Washington, to permit use of Federal funds to assist other medically indigent children with hearing impairment towards similar purchase of hearing aids, provided that no clinic fees are paid by these children.

#### CYSTIC FIBROSIS PROJECT

A draft of a proposed project in behalf of children suffering from cystic fibrosis has been drawn up, and the Children's Bureau has been petitioned for the necessary special funds. A six-phase program sponsored by the Crippled Children Program has been proposed. The demonstration will seek to show that if children with cystic fibrosis are diagnosed early in life and promptly referred to a qualified center for evaluation and treatment, and that if these cases can be carefully followed up and can receive the necessary but expensive drug therapy, the mortality from this disease can be markedly reduced, and some recovery can even be expected in adolescent or adult life.

The Project will include the following: Hospital bed-day purchase, payment for drugs and antibiotics (an especially heavy cost), follow-up nursing services, physician training through courses, the establishment of a cystic fibrosis unit in some hospital, and the promotion of research.

#### Dental Health Program

Every effort has been made to present a concise description of the activities, relationships, and statistical recordings of this Program in the attempt to demonstrate more and better dentistry for children in the State of New Jersey. It is hoped that this report may convey to those interested persons an adequate conception of the scope of the work, the accomplishments, the limitations, and the plans for the future. The long range objective of the Program is to continue the promotion of activities leading to the prevention and control of diseases of the teeth and their investing tissues and maintain the health of the oral cavity.

During the fiscal year, the Dental Health Program again functioned under the same budgetary allotment as the previous year. Therefore, to initiate new programs and allow for expansion of present existing programs, it has been necessary for counties and local communities to assume a greater share of financial responsibilities to carry on their own individual dental programs. Much effort has been expended to emphasize the fact that (1) Public Health Dentistry is primarily the community's responsibility and (2) that the State Dental Health Program acts in a supporting role; that is, the local program belongs primarily to the community and the State Dental Health Program renders financial aid, supervision, evaluation, etc. The source of funds for the operation of the State Dental Health Program for the past ten years appears in Table 1.

The emphasis upon community responsibility for the Dental Treatment Program has resulted in a gradual increase in the local financial support of these programs. At the present time, 46 per cent of the total cost of the Program operating in 19 counties is now being borne from local sources.

The Dental Health Program emphasizes 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 be promoted effectively by helping classroom teachers in the elementary grades incorporate such education in their daily curricula.

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

1. Education
2. Research and evaluation
3. Prevention
4. Dental care for children

### 1. EDUCATION

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

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

Educational concepts today emphasize the importance of utilizing community resources for broadening and enriching the school program. Many agencies, organizations, and individuals can make valuable contributions to education. Each has a responsibility for doing what it can for the improvement of the community and its educational program.

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 giving leadership and consultation to the community health program.

Children who have sound knowledge of the principles of dental health can assume more responsibility for their own dental health. They tend to develop good oral hygiene habits and seek regular dental care. Dental health throughout life is determined, in part, by the effectiveness of dental health lessons learned during childhood.

Each school and community functions differently, and no pattern can be established that will fit all. Suggestions here expressed are intended as guides which may be found helpful in initiating or expanding dental health education programs in schools.

This past year, one course in oral cancer was provided for twenty additional New Jersey dentists, at New York University, by the New Jersey State Department of Health, Bureau of Dental Health.

Seventeen oral cancer courses have been given between January, 1950 and May 4, 1956 for 317 dentists, at New York University, the University of Pennsylvania, Temple University, Columbia University, and affiliated hospitals.

The Department's expenditure of funds for these postgraduate oral cancer courses to date totals \$50,550.00. The dental profession has been grateful for this opportunity, as they are aware that no other State has provided such an active or extensive Oral Cancer Control Program.

Another professional education program provided by the Dental Health Program this year was the course in "Dentistry for Handicapped Children." This postgraduate course was arranged to help those practitioners of dentistry who desired a better understanding of the dental problems and treatment of children who suffer from cerebral palsy, mental retardation, muscular dystrophy, multiple sclerosis, and other handicapping conditions. The course consisted of lectures, demonstrations, technical operating room procedures, and informal discussion groups. This past year three such courses were provided thirty-six dentists in New Jersey (12 men in each class). The total number of courses provided to date are four, for forty-eight dentists, at a total expenditure of \$5,940.00. Many requests have been received by practicing dentists for more of these courses.

In addition, the Program Coordinator conducted a course in "Public Health Dentistry" for the Senior Dental Hygienists at Fairleigh Dickinson College.

The Program Coordinator also prepared outlines and provided materials for members of the dental profession to deliver addresses on radio and television primarily on the subject of "Fluoridation of Water Supplies," and, on other occasions, "General Dental Health."

During this year, the Program Coordinator has been investigating "Periodontal Diseases" in order to learn what is being done throughout the nation, with the thought in mind of establishing a Periodontal Project in conjunction with the State Dental Health Program. In this new field, it was learned that very little has been accomplished to date.

It appears that the need for an educational program is the first requisite. Contacts have been made with the deans of both newly established dental colleges in New Jersey to ascertain if such a course could be provided in either of these institutions. It is hoped that in the near future the first course in "Periodontia" can be provided for our three dental supervisors and the seven dentists operating on the mobile dental clinics.

(b) *Lay or public education*—through cooperation with local officials and voluntary agencies and the four State Health Districts, in the dissemination of authoritative dental information; and through community interest in local treatment programs. In the field of public health education, county and local dental health committees have made marked contributions. By means of posters, leaflets, and movies 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 four dental health supervisors coordinated the promotion of dental health education programs in their areas, and provided information for teachers and nurses to carry on dental health education programs in their classrooms.

The Department of Health's Dental Program is concerned with dental health problems on a communitywide basis. Present-day concepts of dental public health emphasize the importance of utilizing all available local resources, facilities, and methods to solve these problems. This involves concerted action on the part of all interested community groups to attain maximum benefits and to avoid overlapping areas of responsibility. In consequence, the work of the Program during this past year has been concerned with the need for modernizing its existing dental health programs, while at the same time assuming the leadership in organizing the collaboration of those agencies contributing to the combined dental health effort.

## 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 Program Coordinator 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 shortly. Increasing evidence indicates that a communal water supply containing one part to 1.4 parts of fluoride to one million parts of water will result in a 60-65 per cent reduction of the dental caries rate.

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

- (a) DMF rates and age groups.
- (b) Percentage of children requiring dental treatment.
- (c) Average number of defective teeth per child.
- (d) Number of lost permanent teeth per 100 children.

(Table 1)

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

- (a) Individual records and periodic reports as recommended by the State Department of Health and the 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.  
(Table 2)
- (c) Consistent decrease in the extraction of permanent teeth.  
(Table 2)
- (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) Topical Applications, Table 2 shows the number of 2 per cent sodium fluoride applications provided by dental operators this past year on children receiving care under the Dental Health Program. The use of this procedure is a necessary part of a "Completion" in the Dental Health Program and its use is being encouraged in the private dental offices.

(b) Fluoridation of Public Water Supplies. The State Department of Health has recommended that all communities in the State, which could fluoridate their water supply under adequate control measures, do so. The Program Coordinator spent a considerable portion of his time working with local communities in the promotion of this activity. This called for active cooperation with the Division of Environmental Sanitation, with district, county, and city health officers, and with interested lay groups and individuals.

The Dental Health Program has emphasized its readiness to assist any citizen, groups, or communities with all problems concerning fluoridation, whether involving single questions or the initiation of fluoridation programs within the State.

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 Program Coordinator has met with State and local dental societies, city councils, parent-teacher associations, civic clubs, and other interested groups in

many communities throughout the State of New Jersey. Literature secured from the United States Public Health Service, the American Dental Association, and the New Jersey State Dental Society, has been very widely distributed.

In New Jersey, the progress toward fluoridation of all community water supplies has advanced, though at a slow pace. Much interest is presently being shown in this public health measure. The Program Coordinator feels more rapid progress will be made in the next few years. New exhibits have been prepared and literature and films secured which will provide the public with factual information, and gradually will disperse the doubts and fears presently existing in the minds of some of our citizens. Fluoridation is here to stay and the question is no longer "Will we fluoridate?" but "When will we fluoridate?" To procrastinate means to deprive our children of better dental health.

At present, 37 communities have fluoridated their public water supplies. Lakehurst Naval Air Station is also using fluoridated water. The total population served (1950 census) for the 37 communities is 230,689. This does not include the naval air station, whose statistics are classified. In addition to the above, New Jersey is fortunate in having ten communities in southern New Jersey which have water supplies containing the optimum concentrations of fluorine.

(c) Nutrition—Through cooperation of the State Nutrition Program, the State Nutrition Council, and other allied organizations, much effort has been directed toward reducing the consumption of carbonated beverages and refined carbohydrates.

#### 4. DENTAL CARE ACTIVITIES FOR CHILDREN

This 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 countywide basis, and is approved by the County Dental Health Committee and the local dental society.

In the fiscal year 1956, 7,144 children received dental care through programs sponsored, in part, by the Department (Table 2). 12,740 operating hours were used by 89 dentists.

Emphasis is placed upon providing all necessary fillings and extractions, prophylaxes, and sodium fluoride applications in children of younger age. These children receive incremental dental care at least once a year, if possible. Since most 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 1955-56 came from 203 school districts in nineteen counties. (There were no State programs in Mercer and Hudson counties.)

Treatments were provided by dentists in three basic types of installations: Mobile units, clinics, and private offices. These dentists are compensated on an hourly basis (\$6.00 in mobile units and clinics, and \$8.00 in private offices). The total number of hours they are to work in the State Program is determined at the beginning of each fiscal year. All 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 dental aide, under civil service, assists in administering the local dental programs. The demand for these dental services is very great, far exceeding the existing facilities. It is only the limitation of funds which prevents the expansion of many of these existing activities and initiation of new programs.

There are many local programs which are not State sponsored. Some receive advice, supervision, and assistance with educational materials from the Dental Bureau.

Table 1 shows clearly the trend toward local participation. It is manifestly impossible and unnecessary for the Program's limited personnel to meet the total dental care demand for the State's entire elementary and secondary school population. A logical solution is based upon maximum exploitation of the community's total dental care facilities, particularly those contributed by its private practitioner resources. Care for those able to pay for dental services would thereby be provided in the offices of private practitioners, whereas those unable to pay for these services become the concern of publicly supported clinics, with the assistance of the State Dental Health Program's sponsored clinics.

Public clinics can make their most effective dental care contribution for underprivileged children through an "incremental" care program. This means treating the accumulated defects in the youngest age group, and meeting their recurring needs thereafter on an "incremental" or annual crop basis. The program continues subsequently with the inclusion each year of additional series of children in the starting age group for complete initial care, the groups previously admitted continuing to receive such annual maintenance care as required. Dental care provided on this basis necessitates less service time than in an unorganized program and therefore makes for more effective utilization of available dental personnel.

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

- 1—Program Coordinator of the Dental Health Program (Senior 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
- 89—Participating Dentists

## CONCLUSION

Throughout this report, the need for judicious mobilization of available resources and facilities has been stressed. There is a very real necessity for the community to have a thorough understanding of its dental health problem in order to achieve the most beneficial results from such investments as are made on a personal or community level. This objective is being actively pursued by virtue of the relationships between the State Programs and various community agencies concerned.

TABLE I  
DENTAL TREATMENT PROGRAM AND BUDGET  
July 1, 1945 to June 30, 1956

Year	Number of Dentists	School Districts	Number of Children Treated	Percentage of Completed Cases	Number Extractions of Permanent Teeth Per 100 Children Treated	Number of Operations Per 100 Children Treated	Budget Contributions—						
							Federal	State	Local	Total	%	Amount	%
1945-46	86	171	5,732	68	19	669	18	\$64,707	61	\$22,800	21	\$103,876	100
1946-47	100	188	7,713	63	17	637	17	101,017	65	30,000	20	154,256	100
1947-48	100	170	6,782	69	12	711	17	74,090	52	34,150	28	110,605	100
1948-49	107	181	8,340	67	12	837	16	71,039	53	41,877	30	135,634	100
1949-50	110	189	7,860	70	14	735	16	70,379	60	64,887	42	159,199	100
1951-52	107	179	7,890	69	15	738	9	76,389	49	61,933	42	134,893	100
1952-53	93	172	6,170	64	14	667	6	52,040	48	76,165	46	124,803	100
1953-54	102	189	6,422	62	10	687	6	84,245	47	68,371	42	157,273	100
1954-55	89	203	7,144	59	22	715	13	82,463	47	83,260	40	169,895	100
1955-56	89	203	7,144	59	22	715	5	92,192	40	83,260	40	169,000	100

Types of Program

1944-55 Clinics, Private Offices, two Trailers and four Mobile Clinics.  
1955-56 Clinics, Private Offices, three Trailers and four Mobile Clinics.

\* This includes Federal Funds to the amount of \$12,898 during the year 1944-45, for the purchase of a new Dental Mobile Unit (Trailer Type) for use in Cumberland County.



New Jersey, and the New Jersey Hospital Association. The last named organization was particularly helpful in publicizing and supporting the Program.

The consultant's services were offered initially to the 42 New Jersey hospitals with 1,000 or more births in the preceding year. The response to the announcement exceeded expectations. More than one-half of the hospitals contacted responded immediately with requests for the service. The consultant visits (averaging two weeks duration) were planned according to the order in which the requests were received. A summary conference, attended by the Program Coordinator in most instances, with administrative, nursing, pediatric, and obstetrical staff, was held at the end of each visit, in order to discuss findings and recommendations. They were confirmed by letter to the hospital. One-day follow-up visits by the consultant are planned following a six months interval. All areas of hospital and clinic services having some bearing upon prematurity are considered. This approach of training nurses in care of premature infants has certain definite advantages:

- a. All nurses working in the premature nursery of a given hospital are reached.
- b. Administrative, medical, and auxiliary personnel participate in the program.
- c. Teaching can be geared to the specific hospital situation and needs.
- d. Hospitals need not release scarce nursing personnel for training purposes.

Between January, 1956, when the schedule was started, and June 30, 1956, nine requests were filled and thirteen additional hospitals were scheduled for the consultant's visit.

#### 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 Maternal and Child Health Program and are made available to the Program 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 three 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 focus their attention continually on the problem, several tables of selected comparative hospital statistics (1954 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.

*Evaluation:* An evaluation questionnaire was sent to the administrators of the 87 hospitals having a maternity unit, for the purpose of determining the degree of interest in this service and to what extent the materials were utilized in staff discussions. Fifty-two hospital administrators returned the completed questionnaire and reported as follows:

Expressed interest in receiving statistics:		
48	.....	Yes
3	.....	No
1	.....	Did not check
Interest expressed:		
High	.....	32
Moderate	.....	19
Not checked	.....	1
Discussion of statistics with:		
Obstetrical staff	.....	47
Pediatric staff	.....	15
Nursing staff	.....	24
Record librarian	.....	20

#### HOSPITAL EQUIPMENT

Three additional Isolette Incubators and Hoke Flowmeters were purchased for placement in hospitals with demonstrated needs, on loan and on a demonstration basis. A total of 6 Incubators, 6 Flowmeters, and 3 Beckman Oxygen Analyzers have now been loaned out by the Program. This, too, is part of the effort to assist hospitals to improve their care of premature infants.

#### MATERNITY HOMES

All maternity homes are subject to annual licensing by the Department of Institutions and Agencies. Certain minimum standards, set up by that Department, must be met prior to issuance of license. Six such maternity homes were licensed in 1955, as there had been in 1954. The numbers of births occurring in these places were 742 in 1955 as compared to 792 in 1954.

## COURSE IN PREVENTIVE PEDIATRICS FOR PRACTICING PHYSICIANS

A course in preventive pediatrics for physicians was held in conjunction with Seton Hall University Medical and Dental School. This course, consisting of 18 sessions, was carefully planned jointly by the Program Coordinator, representatives of the Medical Society of New Jersey and of Seton Hall University. All speakers held teaching positions in a University Medical School. The subjects were as follows:

- Growth and Development (Physical)
- Mental Health and Behavior Problems
- Infant Feeding and Child Nutrition
- Communicable Diseases of Childhood and Immunization Procedures
- Childhood Accidents
- Prematurity and Newborn
- Dentistry in Childhood
- Rheumatic Fever and Congenital Heart Diseases
- Prenatal Pediatrics
- Hemolytic Disease of Newborn
- Tuberculosis in Childhood
- Neurosurgical Conditions in Childhood
- Virus Diseases
- Upper Respiratory Tract Infections and Uses of Antibiotics
- Fluid Balance
- Acute Surgical Conditions in Childhood
- Health Maintenance

The Maternal and Child Health Program also gave financial assistance. One hundred New Jersey physicians registered for the course.

Since this undertaking has proven so successful, a 20-session course entitled "Recent Advances in Obstetrics" has been planned with the active cooperation of the Maternal Welfare Committee for 1956-57. The co-sponsoring groups will again be the State Department of Health, Seton Hall University Medical and Dental School, and the Medical Society of New Jersey. The New Jersey Chapter of the Academy of General Practice will publicize the course and give credit to those of their members who attend. Nationally known lecturers have been secured.

## IN-SERVICE TRAINING

Arrangements were made for four Public Health Nurse Supervisors to attend the course at the Maternity Center in New York on "Preparation for Childbirth," a training program for teaching expectant parents.

The Public Health Nutritionist for the Metropolitan State Health District attended the 12th Public Health Nutrition Institute at Syracuse University. Funds were provided by the Maternal and Child Health Program.

The Public Health Nurse Consultant in Pediatrics attended the theoretical portion of one of the Institutes on the Care of Premature Infants at New York Hospital.

## HEALTH EDUCATION

## 1. Pamphlets and Films

Printed health education materials on maternal and child health and sex education were purchased and made available for distribution to and by public health nurses and, to some extent, placed on the general distribution list. Thirty-nine films on child growth and development, mostly dealing with emotional health aspects, have been placed with the State Museum; in addition, three films geared exclusively to professional personnel are retained for selected use in the Department.

## 2. Health Education Materials prepared by the Maternal and Child Health Program

- a. The two pamphlets "Food for Expectant Mothers" and "A Message to Parents about the New Baby" have been widely distributed.
- b. The guide book to the "New Jersey Child Safety Project" was printed and has been in considerable demand from within and without New Jersey and the United States. It was the subject of discussion in the "Credit Lines" of the *Journal of the American Public Health Association*.

An exhibit of the report on the New Jersey Child Safety Project was displayed at the Third Conference of the International Union for Health Education of the Public, Rome, Italy, April 28 - May 5, 1956.

It was one of the group of American exhibits which was awarded a silver cup.

- c. A bibliography on the newborn, full-term and premature, was prepared, primarily for use in the premature teaching program. However, this material has come to the attention of interested personnel outside New Jersey and many requests for this material have been received and complied with.

## 3. Professional Educational Materials

Books and reprints and professional journals were obtained for the Program Library. Additional selected library materials and reprints were made available to the four State Health Districts.



## BOARDING HOME FOR CHILDREN CODE (1956)

This code has been approved by the Public Health Council and promulgated by the Department for adoption by reference, by local boards of health, in accordance with R. S. 26:3-69.1 to 69.6.

## ACCIDENT PREVENTION

The problem of childhood accidents must be viewed with great concern. Accidents, as a group, are the leading cause of mortality in children beyond the age of one. No statistical data are available for New Jersey on the number of children who are permanently crippled by non-fatal accidents, nor on the number of children whose accidental injuries cause them to be temporarily disabled for long periods of time. It can be assumed, however, that these figures are very high. Because of this problem, it is mandatory that accident prevention projects, programs, and activities be encouraged and initiated.

- a. The Department received during the year a National Safety Council Home Safety Award for the New Jersey Child Safety Project.
- b. As a direct outcome of the New Jersey Child Safety Project, a child safety program was initiated and carried out in Mercer County. Stimulated by the Statewide project, a group representing several organizations, under the chairmanship of the president of the Mercer County Council of Parent-Teacher Associations, formed a "Steering Committee for Child Safety Week" with the purpose of coordinating the efforts of all organizations concerned, or possibly concerned, with the problem of childhood accidents. Eventually, because it was thought better organization-wise and budget-wise, this group affiliated with the Mercer County Safety Council as one of its standing committees with the name of "The Junior Safety Week Committee of the Mercer County Safety Council." The following local organizations participated in the committee work:

The Woman's Auxiliary to the Medical Society  
 The Trenton Region Parochial Parent-Teacher Association  
 The Mercer County Council of Parent-Teacher Associations  
 The Greater Trenton Chamber of Commerce  
 The Women's Home Safety Committee of the Safety Council  
 The School and College Division of the Safety Council  
 Trenton Chapter, American Red Cross, and Red Cross Safety Services  
 The Mercer County Medical Society  
 The George Washington Council of Boy Scouts  
 The Trenton Council of Girl Scouts  
 The Trenton Public Schools' Health and Physical Education Department  
 The Penn-Jersey Chapter of the American Society of Safety Engineers  
 The Mercer County Pharmaceutical Association  
 The Trenton Junior Chamber of Commerce

In addition, local governmental agencies participated in the planning. The Maternal and Child Health Program Coordinator was very active in assisting the original organization in its formation and planning. Later, the Program, as well as the Central State Health District, continued to participate in an advisory capacity. Junior Safety Week took place April 30 through May 6, 1956. Some of the activities sponsored by the various groups included:

Accident Reports—Congress P.-T.A.'s and Parochial P.-T.A.'s  
 Accident Reports—Physicians and Hospitals  
 Teen-Age Safety Conference—Junior Red Cross  
 Dramatization and Spot Announcements—All radio stations  
 Safe Toy Display—Women's Home Safety Division  
 Summer Play Safety—Mr. Camitta of the Community House  
 Safety Patrol Honor—Police Departments  
 National School Safety Honor Roll—P.-T.A.'s  
 Bicycle Inspection and Taping—Police, cooperation of P.-T.A.'s  
 Farm Safety Program—Extension Service, Mercer County Agricultural Agent  
 Drug Store Poster Display—Pharmacists' Association  
 Store Window Exhibits—Chamber of Commerce  
 Speakers' Bureau—Medical Society Auxiliary

During the week, two accident report forms were distributed, for educational purposes and to gather information on non-fatal accidents. One form was distributed to members of the parochial and public parent-teacher associations. The other form was distributed to hospitals and physicians in Mercer County. The Maternal and Child Health Program and the District State Health Officer of the Central State Health District assisted in preparation of the questionnaire forms. The Program assumed responsibility for having the questionnaire, directed to the parent-teacher association membership, printed. Two hundred reports were returned from hospitals and private physicians in the county. These reports were tabulated in the Central State Health District. For the purpose of Junior Safety Week, only accidents occurring in persons up to the age of 21 years were reported.

Of the 200 reported cases, the age group for which the largest number of accidents was reported (70 accidents) was the age group 0-4 years, followed by the age group 5-9 years (with 52 accidents). Forty-six of these accidents occurred in the home. In these home accidents, the areas in which 50 per cent of all accidents occurred were porch and yard. The area responsible for the next highest accident occurrence was the kitchen, where 13 per cent of all accidents occurred. The greatest number of accidents occurred during play (47.5 per cent). Abrasions and lacerations were the most frequently sustained injuries (56.5 per cent). Four per cent of all these persons injured during the week had to be hospitalized, 85 per cent remained ambulatory.

A highlight of the activities during Junior Safety Week was a Teen-Age Safety Conference, conducted by the Junior Red Cross, in which 350 high

school students participated. Numerous store windows exhibited a safe toy display prepared by several organizations. Considerable newspaper and radio publicity was given to the Program. The conclusion drawn by the Junior Safety Week Committee was that Junior Safety Week was a beginning and that efforts must be sustained to develop year round child safety activities.

c. There are currently three hospitals in the State which have "Poison Control Centers." Their main function is treatment of referred cases. Information to physicians is given on a limited basis. The centers are located in the following hospitals:

Mountainside Hospital—Dr. Harold R. Mancusi-Ungaro in charge,  
Montclair, N. J.

Babies Hospital—Coit Memorial—Dr. W. H. Fost in charge, Newark,  
N. J.

Atlantic City Hospital—Dr. Samuel C. Southard and Dr. Albert J.  
Battaglia, co-chairman, Atlantic City, N. J.

At a meeting of the New Jersey Chapter of the American Academy of Pediatrics, it was agreed that the Poison Control Centers located in hospitals would send a report on their individual cases to the office of the Maternal and Child Health Program so that informational data could be accumulated. To date, reports have come in regularly from Mountainside Hospital. The Program is now beginning to receive reports from Babies Hospital, and also from the recently established center in the Atlantic City Hospital.

#### FIELD ACTIVITIES ON LOCAL LEVEL

The operation and administration of Department sponsored maternal and child health activities on the local level is the responsibility of the four State Health Districts.

There were 216 local public health nurses under District supervision (as of June 30, 1956) as compared to 239 in the preceding year (as of June 30, 1955).

These nurses reported 28,753 visits to 11,625 expectant mothers averaging  $2\frac{1}{2}$  visits per case. They reported having attended 22,499 post-partum cases in 39,302 nursing home visits, averaging about  $1\frac{3}{4}$  visits per case. These figures indicate, as in the preceding years, that the nurses attended about twice as many post-partum as prenatal cases and that only very few contacts are made with the prenatal patients carried on the case load. There were 371 less prenatal cases and 80 fewer post-partum cases reported on the case load of the State supervised nurses, than in the preceding year, and 1,302 less antepartal and 3,102 less post-partum visits reported.

No figures are available to determine the extent of services rendered by public health nurses who are not supervised by the State Health Districts.

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 must 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 having rendered services to 26,798 infants in 127,901 home or nursing conference visits, averaging about 5 visits per infant. They reported 18,929 preschool children under their care and 121,529 home or conference visits to these children, averaging 6 visits per preschool child. There were 186 more infants and 353 less preschool children under their care than in the preceding year.

A total of 249,430 infant and preschool home or nursing conference visits were reported for the year 1955 as compared to 285,818 visits in 1954.

The generalization of public health nursing services, resulting in increased activities in other program areas, combined with the fluctuation in and the decrease of 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 the basis of priority and needs.

There were 4,460 infants and 4,034 preschool age children attending the State supervised medical child health conferences. The average number of visits made to the child health conferences by infants and preschool children was 3. The nurses who participated in school health services supervised 132,503 school children. They made 27,613 home visits to these children and assisted physicians in 79,503 annual physical examinations. They reported having done 121,460 class room inspections, 200,040 other examinations and inspections.

#### MIDWIVES

There were 109 licensed midwives who registered to practice in the State in 1955, three less than in the preceding year. Twenty-nine of the 109 licensed and registered midwives were active. These active midwives delivered a total of 98 babies or .08 per cent of the births occurring in New Jersey. Of the midwives who were active in 1955, 1 delivered 15 babies, 15 delivered two to eight babies, and 13 delivered one baby each.

## MISCELLANEOUS PROGRAM ACTIVITY COORDINATION

The Program Coordinator, upon invitation from the National Safety Council, presented a paper entitled "Health Practices, How Do We Make Them Effective?—Through Parent Education" at the 43rd Annual National Safety Congress. She lectured on maternal and child health subjects to a group of nurses upon request of the State Chapter of the Red Cross and also to nurses in training at Rutgers University. She chaired a radio program on childhood accidents, sponsored by the Mercer County Medical Society, spoke on the "New Jersey Boarding Home for Children Code (1956)" at the annual meeting of State and Local Health Officials, contributed a paper on unwed mothers to a meeting on the subject, sponsored by the Children's Home Society of New Jersey. She actively participated in American Public Health Association activities as a member of the Sub-committee on Accident Prevention, and chairman of its Study Group on Childhood Accidents, and as a member of the advisory group, chaired by Dr. Paul Lemkau, currently engaged in preparing a Guide for Public Health Workers on Services for Emotionally Disturbed Children. The Program Coordinator participated in the Second National Conference on Home Accident Prevention, working with the Committee on Research.

The close working relationship of the Program with the Maternal Welfare Committee of the Medical Society of New Jersey and with the New Jersey Chapter of the American Academy of Pediatrics continues. Joint exhibits were presented at the annual meeting of the Medical Society of New Jersey entitled:

1. Twenty-five Years of Maternal Welfare Work in New Jersey
2. Accident Prevention and Poison Control

Program Coordinator continued to work with the special interdepartmental subcommittee of the Departments of Health and Education, which encourages training institutes in school health for nurses. The Program, through its coordinator, has also been represented at the New Jersey Welfare Council's Committee on Child Welfare.

Liaison is maintained with the Bureaus of Child Welfare, Hospital Construction, and Licensing, and Community Services, of the Department of Institutions and Agencies, and has recently been established with the Bureau of Mental Hygiene of that Department. The Program also has contact with the New Jersey Commission for the Blind and the New Jersey Safety Council.

Consultation services and assistance have been given on numerous occasions to the four State Health Districts in regard to their maternal and child health activities. Much more of this service is needed but due to shortage of personnel has to be curtailed.

A greatly needed prenatal clinic has been established at Salem County Hospital. To make this possible, nursing services were needed. The Department, with the help of the Southern State Health District, assisted in providing nursing supervision and services of public health nurses on a rotating basis. This project is experimental and will be carefully evaluated.

## ANALYSIS OF VITAL STATISTICS

In order to avoid duplication, this portion of the annual report does not include the majority of statistical tables and discussions which are of utmost concern to the Maternal and Child Health Program, and represent the statistical basis for program activities. The reader is referred to that portion of the annual report which deals with the activities of the Bureau of Public Health Statistics. Particular reference should be made to the introduction and the following tables:

Table 1	Table 5a
Chart 1	Table 5b
Table 1a	Table 6
Table 1b	Table 6a
Table 2	Table 13f
Table 3	Table 18
Table 4	Table 18a
Table 5	Table 19

The statistical tables presented here were also assembled by the Bureau of Public Health Statistics but do not appear in that Bureau's portion of the report.

TABLE 1  
 INFANT AND MATERNAL MORTALITY (NO. AND RATES)  
 BY COUNTY OF RESIDENCE  
 NEW JERSEY, 1955

	Live Births		Infant Deaths		Maternal Deaths	
	No.	Rate <sup>a</sup>	No.	Rate <sup>a</sup>	No.	Rate <sup>a</sup>
New Jersey .....	120,969	2,954	24.4	64	0.5	
Atlantic County .....	2,908	73	25.1	..	..	
Bergen County .....	14,868	298	20.0	7	0.5	
Burlington County .....	3,894	82	21.1	..	..	
Camden County .....	8,090	196	24.2	3	0.4	
Cape May County .....	878	24	27.3	..	..	
Cumberland County .....	2,326	75	32.2	1	0.4	
Essex County .....	19,453	535	27.5	12	0.6	
Gloucester County .....	2,626	72	27.4	1	0.4	
Hudson County .....	13,354	353	26.4	11	0.8	
Hunterdon County .....	986	19	19.3	..	..	
Mercer County .....	5,562	139	25.0	3	0.5	
Middlesex County .....	8,592	201	23.4	7	0.8	
Monmouth County .....	6,368	165	25.9	1	0.2	
Morris County .....	4,802	114	23.7	2	0.4	
Ocean County .....	1,751	42	24.0	..	..	
Passaic County .....	7,978	184	23.1	5	0.6	
Salem County .....	1,318	32	24.3	1	0.8	
Somerset County .....	2,654	53	20.0	2	0.8	
Sussex County .....	939	25	26.6	..	..	
Union County .....	9,857	224	22.7	8	0.8	
Warren County .....	1,280	34	26.6	..	..	
State Institutions .....	19	3	b	..	..	
Military Establishments .....	466	11	b	..	..	
State Health Districts:						
Metropolitan .....	65,510	1,594	24.3	43	0.7	
Northern .....	10,661	245	23.0	4	0.4	
Central .....	26,167	629	24.0	11	0.4	
Southern .....	18,146	472	26.0	6	0.3	

- 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: 1955

AGE GROUPS	Total	WEIGHT GROUPS						Weight not Stated
		5 lbs. 9 oss. and over.	4 lbs. 7 oss. to 5 lbs. 8 oss.	3 lbs. 5 oss. to 4 lbs. 6 oss.	2 lbs. 3 oss. to 3 lbs. 4 oss.	1001-1500 Grams	under 1001 Grams	
All Ages .....	116,956	107,828	5,788	1,526	722	591	501	
10-14 .....	97	79	14	1	1	2	..	
15-19 .....	7,654	6,810	520	152	68	59	36	
20-24 .....	32,484	29,949	1,651	412	197	157	118	
25-29 .....	37,242	34,644	1,633	423	209	173	158	
30-34 .....	25,314	23,427	1,165	336	155	125	106	
35-39 .....	11,613	10,610	627	167	72	68	69	
40-44 .....	2,438	2,205	162	33	18	7	13	
45-49 .....	112	102	5	2	2	..	1	
50-54 .....	2	2	..	..	..	..	..	

TABLE 3  
DEATHS DUE TO CERTAIN DISEASES OF EARLY INFANCY BY  
SPECIFIC CAUSE AND AGE GROUP, NEW JERSEY: 1955

Cause of Death Showing International List (6th Revision) Numbers	Total Infant Deaths	Less Than		1 Week		28 Days	
		1 Day	1 Day	1 Day	1 Week	1 Week	28 Days
		<1 Week	1 Day	But <1 Week	But <28 Days	But <28 Days	Over
Total, Certain Diseases of early infancy (760-776)	1,878	663	1,030	140	45	27	
Total, without immaturity indicated (760-773 with 0-4 and 774-776)	526	207	234	58	18	5	
Birth injuries (760, 761)	1,352	456	796	82	18	3	
Without immaturity indicated	302	78	207	12	5	2	
With immaturity indicated	1,050	378	689	70	13	1	
Postnatal asphyxia and atelectasis (762)	548	40	118	7	3	15	
Without immaturity indicated	186	233	282	18	11	4	
With immaturity indicated	362	83	85	7	11	1	
Pneumonia of newborn (763)	127	150	197	11	56	4	
Without immaturity indicated	68	51	27	33	1	1	
With immaturity indicated	59	24	8	23	1	1	
Diarrhea of newborn (764)	15	3	11	7	1	1	
Without immaturity indicated	10	3	1	7	1	1	
With immaturity indicated	5	1	1	4	1	1	
Other infections of the newborn (766-769)	18	10	3	4	4	1	
Without immaturity indicated	9	5	2	2	2	1	
With immaturity indicated	9	5	1	2	2	2	
Hemolytic disease of the newborn (770)	78	33	41	2	2	2	
Without immaturity indicated	73	31	39	1	1	2	
With immaturity indicated	5	2	2	1	1	1	
Hemorrhagic disease of the newborn (771)	31	8	8	2	2	1	
Without immaturity indicated	17	4	4	1	1	1	
With immaturity indicated	14	4	4	1	1	1	
Nutritional maladjustment (772)	8	8	8	2	2	7	
Without immaturity indicated	7	7	7	1	1	6	
With immaturity indicated	1	1	1	1	1	1	
Ill-defined diseases of early infancy (773)	127	53	58	11	6	3	
Without immaturity indicated	21	8	8	9	3	2	
With immaturity indicated	106	45	50	2	3	1	
Immaturity unqualified (774-776)	624	182	411	23	2	8	

DEATHS DUE TO CERTAIN DISEASES OF EARLY INFANCY BY  
SPECIFIC CAUSE AND AGE GROUP, NEW JERSEY: 1955

Of the 2,954 deaths which occurred in New Jersey in 1955 to residents under one year of age, 1,878 were due to causes classifiable as "Deaths Due to Certain Diseases of Early Infancy," Major Group XV of the "International Statistical Classification of Diseases, Injuries and Causes of Death."<sup>1</sup> This classification included 63.6 per cent of all resident infant deaths reported in that year, almost four times as many as the next most important Major Group, "Congenital Malformations," which was reported as responsible for 16.4 per cent or 483 infant deaths.

Relative to the tabulation of deaths in Major Group XV by specific cause (with and without immaturity indicated by the certifying physician) and by age group, for 1955, comparison of these statistics with those for 1954 may help to clarify the nature of the problem of infant deaths in New Jersey.

In 1955, the number of infant deaths from all causes per 1,000 live births for New Jersey residents was higher than for 1954. The 1955 rate was 24.4. For the previous year, it had been 23.6. This was the first time since 1944 that the infant death rate had shown an increase over the previous year. During the period from 1944 to 1954, there had been an almost constant decline.

Deaths due to "Certain Diseases of Early Infancy" (Major Group XV) also showed increases for 1955 over 1954, both in the infant death rate per 1,000 live births and in the proportion of total infant deaths which were reported as due to this group of causes. In 1955, the rate per 1,000 live births for deaths chargeable to this classification was 15.5 as compared with 14.8 for 1954. In 1954, 1,748, out of a total of 2,789 infant deaths, had been due to this group of causes, as compared with the above mentioned 1,878 out of 2,954 for 1955. These represent 62.7 and 63.6 per cent, respectively, of total infant deaths for the stated years. Deaths from Major Group XV causes, therefore, accounted for 130 out of the total increase of 165 infant deaths in 1955 over 1954. This represents 82 per cent of the increase, which is disproportionately large when compared with the percentage of infant deaths charged to this group. Stated in yet another manner, deaths due to "Certain Diseases of Early Infancy" increased 7.4 per cent in 1955 over the preceding year, while the over-all infant death total increased 5.9 per cent.

Consideration of the breakdown by age group of the 1955 deaths charged to this classification, as compared with those for 1954, reveals one important

<sup>1</sup> In the table "Resident Infant Deaths by Cause and Age Group: New Jersey: 1955," released by the Division of Vital Statistics and Administration, June 30, 1956, deaths due to this group of causes were presented under two subdivisions "Certain diseases of early infancy" (760-769) and "Other diseases peculiar to early infancy" (770-776).

aspect of the problem underlying the rise in infant deaths. The very early neonatal deaths were entirely responsible. The age groupings "Less than one day," and "One day but under one week" were the only two showing increases. Although more than 10 per cent of all deaths due to Major Group XV causes for both 1954 and 1955 were for infants over 7 days, there was no increase at all in the actual number of deaths in these age groups. Indeed, there was one less death in the "One week but less than 28 days" group in 1955 than there was in 1954.

The greatest increase was noted in deaths for infants "Under one day" old. This age group included approximately 54 per cent of infant deaths due to these cause classifications in 1954 and 55 per cent in 1955. However, it contributed 62 per cent (80 out of 130) of the increase in deaths in Major Group XV between the two years. The "One day to one week" group included 35 per cent of the deaths in both years and contributed 39 per cent of the increase.

Comparison of the distribution of the 1955 infant deaths due to "Certain Diseases of Early Infancy" by detailed cause with comparable 1954 figures reveals evidence that the higher death rate was produced by increases in the numbers of deaths due to several specific causes rather than by a general increase for all causes.

The three causes most responsible for the reversal of trend were as follows:

1. *Immaturity.* In 1955, "immaturity unqualified" was listed by certifying physicians as the cause of 624 infant deaths. This figure is higher by 52 than the number for 1954 and represents a 9.1 per cent increase which may be compared with the 7.4 per cent increase for the Major Group as a whole. This is discouraging in view of the fact that intensive studies in many clinical centers throughout the country have proven that more specific causes of death can be ascertained in many instances by careful pathological examinations. Consideration should be given to increasing efforts toward careful pathological examinations of all neonatal deaths by hospital administrators and medical staffs. Obtaining permission for autopsies may require considerable effort, and special experience and skill in neonatal pathological examinations should be acquired by the responsible pathologists.

However, the entire importance of immaturity as a factor in the increase in New Jersey's infant death rate is not revealed in the counts of deaths certified as due to "immaturity unqualified." An additional, considerably larger number of infant deaths had immaturity listed as a contributing cause. A particular advantage in using Major Group XV for an analysis of the problems of infant mortality is the provision in this section of the coding system of a method for noting whether or not the certifying physician indicated immaturity as a contributing factor on the death certificate. Thus the basic data were available for the preparation of sub-totals "without immaturity indicated"

and "with immaturity indicated" for the cause totals as well as the grand total in the accompanying table.

Comparison of these statistics for 1955 with equivalent data for 1954 discloses an increase in infant deaths with immaturity indicated as a contributing cause which was almost as great, proportionately, as the increase in deaths due to "immaturity unqualified." There were 8.6 per cent more infant deaths certified as due to diseases with "immaturity indicated" in 1955 than in 1954. In 1955, 728 deaths were charged with immaturity indicated as a contributory cause as compared with 670 for 1954.

The two groups, immaturity unqualified and other diseases with immaturity as a contributing cause, are considered together in the accompanying table under the sub-total heading, "Total with immaturity indicated." For 1955, there were 1,352 infant deaths in this group; in 1954 there were 1,242. This represents an 8.9 per cent increase from 1954 to 1955, for infant deaths for which immaturity was indicated by the certifying physician as opposed to a 4.0 per cent increase for the same period, for infant deaths without immaturity indicated. There was, moreover, no increase in the incidence of prematurity defined on the basis of birth weight in 1955 over 1954.

Since 99 per cent of all births in New Jersey occur in hospitals, the approach to this problem of deaths in immature infants must be a critical evaluation, by all concerned, of the hospital facilities, equipment, policies, procedures, and personnel available for the care of these infants, followed by action to make necessary improvements in order to reduce the number of deaths to the irreducible minimum.

2. *Pneumonia of the newborn.* The number of infant deaths due to this cause increased from 76 in 1954 to 127 in 1955. This increase of 67.1 per cent was the largest relative increase for any cause group. "Pneumonia of the newborn" is a particularly important cause of death for infants in the "One week to 28 days" age group, accounting for 56 of the 140 deaths in this age group in 1955. However, high relative increases also occurred in the number of deaths due to this cause for infants in the "Less than one day" and "One day but less than one week" age groups.

3. *Birth injuries.* The number of deaths due to this cause increased 11.4 per cent from 271 in 1954 to 302 in 1955. There was no definite age pattern. One hundred sixty-seven (167) or 55 per cent of the babies dying from birth injuries in 1955 had immaturity reported on their death certificates. Since premature infants are particularly vulnerable to birth injuries, the approach to this problem includes not only concerted efforts to provide optimal obstetrical skill but also the application of all known methods which possibly may reduce the incidence of prematurity, such as early, continuous, and skilled prenatal care, good nutrition for the pregnant woman, and early hospitalization for

complication of pregnancy, as well as the vision of optimal facilities, medical and nursing care, in our newborn nurseries.

Other cause groups showing increases were: Hemorrhagic disease, hemolytic disease of the newborn, other infectious diseases of the newborn, and ill-defined causes.

Notwithstanding the general increase in infant deaths due to "Certain diseases of early infancy," the numbers of deaths due to several cause sub-groups showed decreases. Asphyxia or atelectasis was given as the cause of 548 deaths in 1955 as compared with 572 in 1954. Deaths from diarrhea of the newborn dropped from 18 to 15 while those from nutritional maladjustment dropped from 14 to 8.

Study of this very important group of infant deaths has, therefore, produced indications of two important facets of the problem underlying the reversal, in 1955, of the downward trend in the infant death rate in New Jersey. Early neonatal deaths, always a very significant component of New Jersey's infant death total, contributed heavily to the increase. Also, several causes could be identified as responsible for the rise. Of these, "immaturity unqualified and other diseases with immaturity" was probably the most outstanding.

TABLE 4  
DEATHS DUE TO ACCIDENTS BY CAUSE OF ACCIDENT, NUMBER, AND RANK, SELECTED AGE GROUPS:  
NEW JERSEY RESIDENTS, 1955

Rank	1-4 Years		5-14 Years		15-24 Years	
	Number	Rank	Number	Rank	Number	Rank
	All accidental deaths (E800-E962)	93	All accidental deaths	136	All accidental deaths	203
1	Accidents caused by fire and explosion of combustible material (E916)	23	Motor vehicle accidents (E810-E835)	45	Motor vehicle accidents (E810-E835)	109
2	Motor vehicle accidents (E810-E835)	20	Accidental drowning and submissions (E929)	26	Accidental drownings and submissions (E929)	32
3	Accidental drownings and submissions (E929)	20	Accidents caused by fire and explosion of combustible material (E916)	16	Water and aircraft accidents (E850-E866)	11
4	Accidental falls (E900-E904)	9	Cataclysm (E934)	11	Accidental falls (E900-E904)	9
5	Accidental poisonings (E870-E895)	6	Railway accidents (E800-E802)	6	Accidents caused by fire and explosion of combustible material (E916)	8
	All others	15	All others	32	All others	34

Accidents as a group are the leading cause of childhood deaths beyond the age of one. Even so, the number of deaths illustrates only a fraction of the accident problem, which involves a vast number of injuries causing prolonged disability and permanent crippling.

However, no accident morbidity statistics are available for New Jersey.

Of the 399 deaths in the age group 1-4 years, 93 or about 26 per cent were due to accidents in 1955. This represents an age and cause specific death rate of 23.5 per 100,000 as compared to a rate of 23.6 in 1954.

136 or about 37 per cent of the 368 deaths in children ages 5-14 years in 1955 were accidental. The age and cause specific death rate of 19.3 per 100,000 is an increase over the rate of 17.3 in 1954.

In the age group 15-24 years, the 203 deaths due to accidents represented 39 per cent of the 523 deaths in that group. The age and cause specific death rate of 29.5 per 100,000 shows a slight decrease over the 1954 rate, which was 29.7.

There is a variation of the accident pattern in the various age groups. While burns are the leading accidental death cause in the group 1-4 years, their relative importance decreases rapidly in age groups 5-14 years and 15-24 years. Deaths due to drowning also decline percentage-wise with increasing age. In contrast, motor vehicle accidents increase with increasing age levels under discussion here.

Falls and poisoning are important in the 1-4 age group. No deaths due to accidental poisoning occurred beyond that age level. No deaths were caused by falls in the 5-14 age group and comparatively few in the 15-24 age group.

These varying patterns can be readily explained by the varying activities of the three age groups.

Prevention depends on education of parents, children, and the public, and on specific protection. Much prevention can be done if current knowledge would be applied constantly, and by all. However, additional epidemiological research and information are needed in the field of accident causation and prevention.

### Nutrition Program

Although malnutrition itself is not considered a major public health problem today, it is recognized as an important factor contributing to the extent and severity of other health problems. Demands for nutrition services have continued to increase as other programs have developed. A fourth nutritionist was added to the State Nutrition Program and assigned to the staff of the Metropolitan State Health District Office in September 1955. There is still a need for an additional nutritionist to fill a vacancy in the Northern State Health District.

The Program Coordinator and district nutrition personnel have continued their efforts to develop a well integrated nutrition program by consulting with and assisting other health department staff to include nutrition in in-service training programs and other program activities on both the state and district level. Nutrition consultation to other agencies, both official and voluntary, has continued to be an important contribution of the Nutrition Program. The following are some of the specific activities and programs to which the Nutrition Program has contributed during 1955-1956:

#### *Division of Constructive Health:*

Orientation and inservice training for the Public Health Nutritionist in the Metropolitan State Health District were planned and supervised by the Program Coordinator.

#### *Inservice Training of Nutrition Personnel*

Because nutrition is a rapidly growing science in which a great amount of research is going on, there is a need for continuous inservice training of nutrition personnel. The Program Coordinator, in cooperation with the District State Health Officers and other program coordinators, has provided the following opportunities for inservice training for the program personnel during the year:

#### *1. U. S. Public Health Service Diabetes Training Course, Boston, Mass.*

In September, 1955, the Program Coordinator attended the United States Public Health Service five-day Training Course as a member of the State Team consisting of a physician, nurse, and medical-social worker.

#### *2. Refresher Course in Nutrition.*

In January, 1956, the three district nutritionists attended a nutrition refresher course in Newark which was jointly sponsored by the New Jersey Dietetic Association and the New Jersey Home Economics Association. This course was presented by Dr. Clara Mae Taylor, Teachers College, Columbia University.

#### *3. Civil Defense Training Course.*

The Program Coordinator and the District Nutritionist of the Metropolitan State Health District both attended the five-day course on "The Effects of Radiological, Biological, and Chemical Warfare on Foods and Drugs." This course was presented by the Federal Food and Drug Administration and was held at the School of Pharmacy, Rutgers University, Newark.

#### *4. Home Economics Workshop, New York City.*

The Program Coordinator represented the New Jersey State Nutrition Program at the Pre-convention Workshop of the Social Welfare and Public



Health Committee of the American Home Economics Association in New York City in June. The topics under discussion were "Budgets" and "In-service Training."

#### 5. Crippled Children.

The Nutrition Program Coordinator with the Crippled Children Program Coordinator and the Public Health Nurse Consultant in Crippled Children attended the three-day Regional Conference of State Program Directors in New York City.

Generalized undernutrition can still be found in children in New Jersey, and rickets and other dietary deficiency disease cases are still reported to our State Crippled Children Program. Children served in this Program have not only the nutritional needs of normal growth, but often have difficult and special problems because of their handicap and the medical, surgical, and rehabilitative factors in its correction. We need to know more about the nutritional requirements of some of these children. Through a Nutrition Research Project at the Walter D. Matheny School for Cerebral Palsy in Peapack, New Jersey, we hope to get some valuable information for this program. The project is being developed in cooperation with Dr. J. M. Babcock of Rutgers University and the Nutrition Department of Douglass College. The Nutrition Program and Crippled Children Program Coordinators are both members of the Planning Committee. This past year, the Program Coordinator was asked to assist the director of the school in recruiting for a research dietitian. Mrs. Doris Ruby, well qualified research dietitian, is now employed full time by the school.

#### 6. Maternal and Child Health.

We concur with the Chief of the Nutrition Section, Division of Health Services, Children's Bureau, when she made this statement at the annual meeting of the State and Territorial Nutrition Directors this year: "If an infant is to get the food he needs for optimal growth under conditions that make for good physical and emotional development, parent education in nutrition must go on as long as women have babies."

The Program Coordinator and District Nutritionists have contributed to the Maternal and Child Health Program by continuing their:

- a. Participation in institutes, workshops, and staff conferences to assist other personnel in applying current knowledge of nutrition in their field work.
- b. Advising and helping in the selection and accumulation of visual aids and other educational material for the public health nurses' use in the guidance of the families they serve.
- c. Assisting the State and county health chairmen of the New Jersey Congress of Parents and Teachers with nutrition program planning for teenagers.

#### *Division of Chronic Illness Control.*

##### *Institutes for Nursing Home Operators*

As a follow-up of the Institute on "Nutrition in the Care of the Long-term Patient" held at the Veterans' Administration Hospital in East Orange in June, 1955, a similar institute was held at Glassboro State Teachers College in October. This, like the June institute, was a cooperative project of the Division of Chronic Illness Control and the State Department of Institutions and Agencies. The Division Director, the State Consultant in Medical-Social Rehabilitation, Chronic Illness Control, and the Program Coordinator of the Nutrition Program represented the Department on the Planning Committee. Nursing home operators from the Central and Southern State Health Districts were invited. Two additional institutes were requested in the Central State Health District by nursing home operators. The District Public Health Nutritionist and other members of the District staff assisted in the planning of these institutes. Numerous requests for nutrition consultation have come as a direct result of these institutes.

##### *Governor's Conference on Nutrition*

In April, the Department, through the Division of Chronic Illness Control, sponsored a Governor's Conference on Nutrition in cooperation with the New Jersey Nutrition Council, which is composed of representatives of many professional and lay groups interested in nutrition education. The Program Coordinator was a member of the planning committee. More than 500 attended the conference, representing more than 60 official and non-official organizations. The morning session was devoted to "Nutrition for Optimum Health" and the afternoon session was a symposium on "Nutrition and Community Responsibility." The complete report of the conference was published in the September, 1956, issue of the *Public Health News*. Emphasis was given by all speakers to the need for starting nutrition education early in life with added emphasis on the importance of nutrition during the pre-adolescent and adolescent periods. A follow-up institute is currently being planned by the New Jersey Nutrition Council for the Spring of 1957 on Nutrition Problems of Adolescents.

##### *Weight Control Project*

The Program Coordinator was able to interest the Nutrition Department of Douglass College for Women in taking over the weight control project in which she participated last year for Hunterdon County as a follow-up on overweight patients in conjunction with the Hunterdon County Chronic Disease Survey. This project is now being used as a field training experience in "Group Classes for Adults" for senior nutrition majors at the college. Two students are selected as group leaders and they conduct the classes under the supervision

of the medical staff of the Hunterdon County Medical Center and Dr. Edna Sostman, Professor of Nutrition, and Miss Hillman, Professor of Group Dynamics at Douglass College for Women. A ten-week group class was conducted at the Medical Center this past year, and additional classes are being planned for the coming year.

#### *Heart Program*

With the emphasis on heart programs in public health, many physicians are prescribing low sodium diets. This has led to an influx of low sodium foods on the market. The mislabelling of low sodium bread sold to one of the large hospitals in the State was called to the attention of the Program Coordinator of the Nutrition Program. The Program Coordinator of the Food and Drug Program was alerted. A survey of hospital dietary departments, conducted through each of the state health districts, revealed a great deal of misunderstanding concerning the labelling of low sodium foods. A statement concerning the regulations for proper labelling of low sodium foods was prepared by the Program Coordinator of the Food and Drug Program and was made available to the hospitals through this program. Additional information on low sodium diets was prepared by the Program Coordinator for distribution to professionals throughout the state. Increased interest in cholesterol has also called for the preparation of professional information on cholesterol in foods.

#### *Diabetes Control Program*

As a member of the diabetes control team, the Program Coordinator has attended staff conferences both on state and district level to discuss the nutritional aspects of the proposed diabetes clinics' patient education programs.

#### *New Jersey Consultation Service for Convulsive Disorders*

The Program Coordinator attended a number of the Convulsive Disorder Clinics conducted by Dr. Yahr and was asked by him to prepare information on etogenic diets for professional use.

Plans are under way to use the District Consultant Public Health Nutritionist in the Central State Health District as a member of the team for one of the clinics in her district. This will be on a demonstration basis to show how nutrition services can be integrated in this project.

#### *Division of Local Health Services:*

##### *Camp Program*

In the Southern and Central State Health Districts, the nutritionists visited camps in their area with the district sanitarians. Camps that were visited again

showed a marked improvement in their food service. Two booklets "Buying Food for Your Camp" and "Camp Chow" were made available by the Program Coordinator for distribution to all camps visited.

#### *Division of Environmental Sanitation:*

##### *Food and Drug Program*

As the result of the outbreak of trichinosis in two of the districts, a number of requests were received by the Nutrition Program for information on the proper cooking temperatures for pork. In reviewing reference literature from various authorities, it was found very few of them agreed. This was called to the attention of the Food and Drug Program and also to the attention of the Research Division of the National Live Stock and Meat Board, Chicago, Illinois.

##### *Civil Defense*

The Program Coordinator of the Nutrition Program has continued as consultant to the Civil Defense Committee of the New Jersey Dietetic Association responsible for the special civil defense diet manual for emergency.

#### *Services to Other Agencies:*

The first draft of the handbook on nutrition for use of teachers in secondary schools prepared by the Program Coordinator and personnel of the State Department of Education has been completed.

Nutrition Program personnel have participated in programs sponsored by the Department of Institutions and Agencies for Home Life Assistance clients in the Northern and Central State Health Districts.

##### *Student Field Training*

A student from Teachers College, Columbia University, New York, who was completing her graduate work in public health nutrition, did field work with the Nutrition Program in April.

##### *Consultation Service to Hospitals*

Through the District State Health Offices, the Nutrition Program has offered consultation services to hospitals in three of the districts. At the present time, there is an acute shortage of dietitians in this State.

Because of this shortage, many hospitals are employing girls who do not meet the requirements of the American Dietetic Association. Membership in the American Dietetic Association is often used in lieu of a certificate or license

and provides evidence of high standard qualifications. The Nutrition Program maintains a file of qualified persons seeking positions in this field, and also a list of vacancies referred to the Program's attention. The New Jersey Dietetic Association, aware of the shortage of qualified personnel in this field, has proposed a "Share-the-Dietitian Plan." By this plan, two or more small hospitals would share the services of the dietitian. She would spend two or three days a week in each hospital, fulfilling all of the job requirements of a small hospital and placing considerable responsibility, in her absence, on the food service supervisor.

Although the Nutrition Program has been integrated into many health services, there is still much to be accomplished. There is a need for a well qualified nutritionist on the staff of each District State Health Office. At present, one district has none. There is a need for continuous research in nutrition in relation to chronic disease control, and nutrition education programs should be intensified for all professional personnel so that physicians and other professional persons may apply nutrition knowledge made available.

GENERAL AND TUBERCULOSIS HOSPITALS HAVING QUALIFIED DIETITIAN,  
BY COUNTY, FOR THREE STATE HEALTH DISTRICTS

	Total Hospitals	ADA Dietitians
<i>Metropolitan State Health District</i>		
Bergen County .....	6	4
Essex County .....	19	8
Hudson County .....	12	5
Passaic County .....	7	5
Union County .....	7	4
Totals .....	51	26
<i>Central State Health District</i>		
Burlington County .....	4	1
Mercer County .....	6	4
Middlesex County .....	5	1
Monmouth County .....	5	0
Ocean County .....	3	0
Totals .....	23	6
<i>Southern State Health District</i>		
Atlantic County .....	1	1
Camden County .....	5	3
Cape May County .....	2	0
Cumberland County .....	3	1
Gloucester County .....	2	0
Salem County .....	2	1
Totals .....	15	6

## Division of Environmental Sanitation

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

ROBERT S. SHAW, B. S. E., M.P.H., *Assistant Director*

Bureau of Public Health Engineering .....	ROBERT S. SHAW <i>Assistant Director</i>
Potable Water .....	ANTHONY T. LEAHEY <i>Program Coordinator</i>
Stream Pollution .....	LEROY FORMAN <i>Program Coordinator</i>
Bathing .....	ERNEST R. SEGESSER <i>Program Coordinator</i>
Housing .....	ALFRED H. FLETCHER <i>Program Coordinator</i>
Camps .....	ALFRED H. FLETCHER <i>Program Coordinator</i>
Insect and Rodent .....	JOHN ZEMLANSKY <i>Program Coordinator</i>
Solid Wastes .....	JOHN ZEMLANSKY <i>Program Coordinator</i>
Weeds .....	JOHN ZEMLANSKY <i>Program Coordinator</i>
Bureau of Food and Drugs .....	MILTON RUTH <i>Chief</i>
Food .....	FRANK TIMKO <i>Program Coordinator</i>
Milk .....	HOWARD ABBOTT <i>Program Coordinator</i>
Shellfish .....	FRANCIS A. TIMKO <i>Program Coordinator</i>
Drug, Device and Cosmetic .....	HOWARD C. SAYRE <i>Program Coordinator</i>
Bureau of Veterinary Public Health .....	OSCAR SUSSMAN, D. V. M., M. P. H. <i>Chief</i>
Veterinary Public Health .....	OSCAR SUSSMAN <i>Program Coordinator</i>

## Division of Environmental Sanitation

### INTRODUCTION

The broad objectives of the Division of Environmental Sanitation are: To influence the planning, construction, maintenance, and operation of the physical elements that are important to healthful living; to prevent the transmission of animal diseases to humans; and to develop and encourage programs to promote healthful environmental conditions. More specifically, this includes activities to improve and properly maintain water supplies, liquid and solid waste disposal systems, bathing places, food and drug supplies; activities to determine the mode of transmission and practical method of control of animal diseases transmissible to man such as encephalitis, psittacosis, trichinosis, brucellosis, and rabies; and programs to deal with the other environmental health problems such as housing, ragweed and poison ivy, insects, and rodents.

To carry out these activities, the Division is organized into three Bureaus, namely; Engineering, Food and Drugs, and Veterinary Public Health. The activities are 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		
Insect and Rodent		

### FLOOD EMERGENCY

The Division of Environmental Sanitation was involved in a flood emergency which began on Friday, August 19, 1955.

Phone calls and advice from civil defense offices indicated that the Delaware River, particularly at Trenton, and north to New York State line, and the Raritan River at Somerville were already flooding and the water was still rising.

Dams of two ponds at Branchville in Sussex County had broken and released enough water to wash out a small section of the town, including the water lines serving this area. The Phillipsburg sewerage system and the infiltration galleries were being threatened and a sewage pumping station was flooded. Sewage was backing up in the low areas of Somerville because their

pumps were of insufficient capacity to cope with the flow. The new water treatment plant at Trenton was not yet threatened but some of the pumps had been lifted so as to be prepared to pump again quickly if the plant were flooded. The Trenton sewage treatment plant had been abandoned and sewage was being by-passed to the river.

Engineers were dispatched to Phillipsburg, Somerville, and Branchville to assist in any way possible and to probe for further information regarding threats of damage or actual damage to other public water and sewage plants and the location of areas where homes and food establishments were being flooded to take action where indicated.

From this beginning, the flood problem expanded. By 2:00 a. m., Saturday, the 20th, two telegrams were sent out by the State Commissioner of Health ordering the boiling of the water supplies of Phillipsburg and Frenchtown on the basis of the reports received from our engineers on Friday, the 19th.

By this time, Branchville had issued an order to citizens to boil their water. Telephone service was out at Phillipsburg; their infiltration galleries were contaminated with muddy river water which had been pumped for several hours into their elevated reservoir for flow to the homes in Phillipsburg; the sewage treatment plant at Phillipsburg was inoperative because of the flooded pumping station; people were being evacuated from Stockton; Lambertville was being flooded; and Bordentown officials issued an order to their citizens to boil their water.

From then on, more inspectors and engineers became involved and more cities and towns were visited to obtain information as to the flood damage. Very little information came to us about conditions except as our engineers and inspectors visited these places and saw for themselves.

Inspections of flooded water and sewage plants continued on Saturday, August 20th and advice was given to other city officials regarding flooded homes, private water and sewage facilities, and flooded foodstuffs. A general release was sent out by Dr. Bergsma through the State Civil Defense office to all flooded areas in the State suggesting that all persons returning to flooded homes:

- “(1) Boil the water from private wells before use.
- “(2) Obtain approval from the public utility supplying gas or electricity before turning on again.
- “(3) Avoid the use of contaminated foods. Sterilize contaminated containers of sealed foods before use and if possible, cook foods and eat while warm. Keep hands and utensils scrupulously clean.
- “(4) Do not try to pump out overflowing or filled cesspools or septic tanks. Instead, put feces and urine in covered container, sterilize if convenient, and bury when ground conditions permit.”

By Monday, August 22nd, twenty-nine municipalities had been visited, some several times or for long periods. Other municipal officials were interrogated or given advice by phone. In some cases, detailed sanitary surveys were made; typhoid vaccine was supplied upon request; a chlorinator had been provided to Phillipsburg; many contaminated foods had been embargoed; boil water orders had been issued on contaminated public water systems, and advice to boil water was given to the owners of private wells in flooded areas; hyperchlorination of contaminated public water systems had been ordered and chlorination was advised for all private wells in flooded areas; and, evacuees were advised, on return to their homes, as to the use and disposal of foods in flooded areas, the cleansing of utensils and hands, the use of cesspools and septic tanks, the disposal of feces and urine, and the cleansing before eating of garden vegetables, etc., which were contaminated by floodwaters.

From here on, the work leveled off to three broad fronts: (1) The return of flooded public water and sewage systems to service; (2) the inspection of flooded homes and private water and sewage systems to give local officials guidance and help in restoring people to their homes, and, water and sewage systems to safe operation; and (3) the embargoing of flooded food supplies for classification so as to release safe supplies for use and to dispose of contaminated supplies.

Roughly and in summary it can be said that:

1. Within a few days after the flood, inspections were made of twenty-five public water supplies and twelve sewage treatment plants.

It was determined after analyzing all of the reports and the lengthy data obtained in follow-up work that three municipalities; namely, Phillipsburg, Lambertville, and Trenton, sustained significant damage to their sewage treatment plants. Operation of the sewage treatment plant was interrupted for approximately forty-eight hours at Trenton. At Lambertville where the new sewage treatment plant had not been completed or placed in operation, the floodwaters did not damage the plant too badly but added to the work of completing the plant, probably postponing the date of initial operation at the plant a few weeks. At Phillipsburg, the two sewer system pumping stations as well as most of the sewage treatment plant were knocked out of operation entirely. Emergency chlorination of by-passed raw sewage at the pumping stations was employed until full operation was restored.

In the public water supply field, it was determined that the only substantial damage of note was at Phillipsburg, Branchville, and Frenchtown. Orders requiring boiling of water in two of these municipalities were issued by this Department. At Branchville, Bordentown, and

Beverly, orders of warning were issued locally calling for the boiling of water upon recommendations from representatives of this Department. The recommendations were based upon a visit in one case and reports in the other two cases alleging that there might have been substantial flooding of parts of the City of Bordentown's water supply and the Delaware River Water Company supply at Beverly. These last two reports were proven to have been ill founded.

At Branchville and Frenchtown, the only damage was the shut-out of small sections of water lines affecting a few houses in each community. In the instance of Frenchtown, service was restored within a few hours with an emergency connection. The rate of chlorination was increased. At Branchville, service was restored within a week or ten days also with an increase in the rate of chlorination.

At Phillipsburg, the water pumping station was inoperative for approximately twenty-four hours. An unknown amount of floodwater was pumped into the storage reservoir. Upon resumption of operation of the pumping station, emergency chlorinating equipment was installed in order to supply an excessive chlorine discharge. Within seventy-two hours after the flood, emergency chlorinating equipment was installed at the reservoir so as to treat water entering the distribution system. Normal operation of the supply was resumed within approximately one week.

All public water supplies, including Camden and north to the New York State line, were sampled and all of the flooded supplies were shown to be safe on the first samples.

2. Twenty-six communities in six counties, where there was flooding of homes, with private water and sewage systems, were visited in company with health or other municipal officials to demonstrate and advise them as to the proper methods to use in rehabilitating homes. In this phase of the flood, it was found that there were 1,133 private sewage disposal systems flooded and 731 wells. One hundred and five houses were washed away. It is estimated that more than 1,000 persons were evacuated from their homes during the height of the flood.
3. The embargo of flooded foodstuffs was the most difficult, time consuming, and painstaking phase of the work although it was not a major problem during the early part of the emergency because flooded places were not doing business. As the waters receded, it was necessary to

go in and embargo all flooded foods so that none would be moved until decisions and plans for proper disposition could be worked out. All work on this phase of the problem was completed October 5, 1955, with the disposition of flooded foodstuffs from 85 food establishments.

Records of this office disclose that approximately 40,000 packages ranging from an ounce to a gallon of foods, drugs, and cosmetics were destroyed; approximately 59,000 bottles of spirits and wines totaling almost 10,000 gallons; and at least 25,000 gallons of malt beverages were also destroyed.

Several small lots of food in hermetically sealed cans were cleaned and sterilized, held for approximately 30 days, examined by representatives of this Department for fitness, and were then released for use. In addition, it is known that quantities of all types of foods, drugs, and cosmetics were swept away by floodwaters; many lots of perishable commodities were voluntarily destroyed by owners to prevent public health nuisance prior to contact by State or local authorities; and large quantities of these items were destroyed under the supervision of local authorities for which no figures are available.

In order to dispose properly of the stocks of food that were embargoed, inventories were secured and copies of Certificates of Destruction were issued to operators covering items destroyed. In the case of beer and distilled spirits, embargoes were maintained until a uniform policy was established with the cooperation of the Division of Alcoholic Beverage Control, the Division of Taxation, and the United States Alcoholic and Tobacco Tax Unit laws and regulations.

Close liaison was maintained with the State Civil Defense throughout the emergency. Representatives of the Department rendered decisions on several local requests for work to be done by the Army to clean up after the flood.

#### COURSE IN SANITATION

The Division cooperated with the Department of Institutions and Agencies in developing plans for a course in environmental sanitation for sanitarians and other key personnel responsible for sanitation at the various State institutions.

The course was given in the Gerry Building at the Neuro-Psychiatric Institute, Skillman, New Jersey. Instruction and field work in the following subjects were given during the months of April, May, and June, 1956:

Elementary bacteriology  
 Epidemiology and communicable disease control.  
 Water supplies  
 Sewage disposal  
 Plumbing  
 Garbage and refuse disposal  
 Hospital and cottage safety  
 Industrial Hygiene  
 Ragweed and poison ivy.

The course began on April 24th and was given (on scheduled days) for one, two, or three full days of each week, depending on the convenience of the Public Health Service instructors. Other subjects, covering insect and rodent control, milk, food, restaurant, and bakery sanitation, will be covered during September, October, and November of 1956. An examination will be given and those satisfactorily completing the course will be given a Certificate by the United States Public Health Service through its Northeast Field Training Station in Mt. Vernon, New York.

#### ONE DAY INSTITUTE

The Division cooperated with the Metropolitan District Office and the East Orange Health Department in the development of a most successful one day seminar on hot water and dishwashing equipment. About a hundred local health officials attended. Several persons in this Division participated and the State Health Department purchased and distributed copies of the Dishwashing Standards prepared by the National Sanitation Foundation to all who attended.

#### HOUSING

Considerable time has been spent in drafting a proposal for a grant-in-aid from the Federal Housing and Home Finance Agency for a project to demonstrate an integrated State housing program for New Jersey. Two meetings of the Interdepartmental Committee on Housing have been held. Several discussions have been held with Federal officials in preparing the preliminary drafts of the proposal for the project. Final approval of such a project will make it possible for our Interdepartmental Committee to function in a most effective manner.

## Engineering

### GENERAL

This fiscal year opened on a note of high optimism for engineering programs. Additional funds had been appropriated by the Legislature for the employment of engineering personnel. Four new engineers were employed at the outset of the fiscal year. Unfortunately, one of these was obliged to terminate his services within a few weeks because of ill health. A second was claimed by the armed forces. A third resigned for a more remunerative position in a consulting engineering firm. Only one of the four remained for the full fiscal year. Two of our more experienced engineers were transferred to district offices to direct all environmental sanitation work in their respective districts. In addition, one of the most promising of the younger engineers who had been with the Department approximately five years, resigned to take a position in private industry. These personnel transfers, together with serious illness of one of the older staff members, have made it necessary to put off a considerable amount of planned engineering work.

It was possible to accomplish more in field work investigations under the Stream Pollution Control program than in recent years, due first to the employment of the new personnel, even though some of it was temporary, and to the fact that there was a drop in office work in the review of engineering proposals for sewage and industrial waste treatment works. It was not possible to resume the routine inspection of sewage treatment plants.

### STREAM POLLUTION

Twenty-one new sewage treatment plants, three new industrial waste treatment plants and additions and alterations to two existing sewage treatment plants were completed and placed in operation.

Plans, specifications, and other engineering data were examined, approved, and permits issued for the construction and operation of two hundred and sixteen stream pollution control projects having an estimated cost of construction of \$18,079,185.

Twenty-eight permits were issued to establish or locate factories or workshops on potable watersheds.

Fourteen "Orders of Necessity" were issued to permit municipalities to exceed their bonded indebtedness in order to construct necessary sewerage improvements.

Sixteen formal orders to abate pollution of the waters of this State were issued, ten against municipalities and six against industries.

Eight judgments were obtained by the Attorney General's office against municipalities and industry to enforce compliance with the terms of orders

issued. In all instances, satisfactory stipulations and timetables were promulgated.

The trend toward the so-called "package" sewage treatment plants for the smaller installations continues.

Many conferences were held with industrial management, real estate representatives, engineers, chemists, and attorneys relating to proposed sites for new industries, quality requirements for waste disposal, discussion of waste treatment methods, progress in pilot studies and general policies and practices of the Department.

A revision was made of the Department's rules and regulations for the preparation and submission of designs for sewer systems, sewage and industrial waste treatment works and water supplies and water treatment works with the cooperation of many consulting engineers submitting plans, etc., to the Department for approval.

In the Delaware River valley, floods and record high water seriously damaged the recently completed Phillipsburg activated sludge sewage treatment plant and slightly damaged the about completed new Lambertville activated sludge plant. It required approximately two and a half months to restore the Phillipsburg plant to complete operating condition. The start of operation of the Lambertville plant was postponed several weeks. Formal action was taken by the City of Trenton, City of Burlington, and Township of Florence, to expand their primary sewage treatment plants to include secondary treatment.

In the Hackensack River valley, the last of the municipalities in the area served by the Bergen County Sewer Authority agreed by resolution to join the Stage II project. Service contracts were drafted by the Bergen County Sewer Authority for all municipalities involved in the trunk sewer project.

Construction was commenced on the new North Arlington-Lyndhurst Joint Meeting sewage treatment plant.

Detailed plans and specifications were being prepared for sewers to serve unsewered areas and a new sewage treatment plant for North Bergen Township.

The two new sewage treatment plants to serve Jersey City were seventy-five per cent and ninety per cent completed respectively at the end of the fiscal year.

In the Raritan River valley, construction contracts were awarded and construction started on the Middlesex County Sewerage Authority trunk sewer and sewage treatment plant. Construction work started on the first contract October 25, 1955. The work under the several contracts is well ahead of schedule.

Consulting engineers submitted a comprehensive report upon industrial waste treatment for the American Cyanamid Company Organic Chemicals

Division. Ground was made available at the site of the waste treatment plant to the Somerset-Raritan Valley Sewerage Authority for the installation of a primary treatment plant and acceptance of the primary effluent for secondary treatment in the proposed American Cyanamid industrial waste plant if the Sewerage Authority wished to avail itself of the facilities.

The Johns-Manville Company started construction of a plant to treat their inorganic wastes in June. At the end of the fiscal year, consideration of treating Johns-Manville organic wastes with the Borough of Manville sewage was pending.

#### WATER

Plans for ten projects, alterations, improvements and additions to water works, totaling \$1,463,800, were approved. Forty-six new sources of supply and appurtenances were also approved, the estimated cost of which was \$2,613,865. The grand total cost of these combined water projects was \$4,087,665.

There were twenty-three original physical (cross) connection permits issued pursuant to Chapter 308, P. L. 1942.

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

The Borough of Peapack-Gladstone instituted fluoridation of its public water supply. This raises the number of fluoridated water supplies to eight and increases the number of persons in this State being served artificially fluoridated water by approximately 2,300.

The annual chemical and physical analyses survey of public water supplies was virtually completed, only a few of the small summer supplies being outstanding at the close of the fiscal year.

New rules and regulations relating in part to the design of water supplies and water treatment works were adopted on March 1, 1956, and copies were made available to numerous consulting engineers engaged in the waterworks field.

Conferences were held with other bureaus in the Department, as well as with other agencies, concerning matters of mutual interest relating to public water supplies.

#### BATHING

Over 2,000 copies of the new Swimming Pool Code of New Jersey (1955) were distributed to local boards of health, municipal governing bodies, engineers, pool operators and others interested in pool design and operation. Approximately fifteen municipalities have already adopted the code or are using it as a guide. Many more communities and individuals have indicated an interest in utilizing this recently published code.



The Northern and Metropolitan Districts granted a total of nineteen certificates of compliance to bathing lake places meeting department sanitation safety and bathing water quality standards. It is anticipated that this activity will soon be undertaken by the remaining two district offices.

The determination of the suitability of New Jersey surf and other tidal waters for bathing purposes continued. The activity of this Division was primarily limited to the inspection and sampling of sewage treatment plants discharging effluents into these waters.

#### SOLID WASTES

During the fiscal year 1955-56, four new sanitary landfill operations were begun. This brings the total of sanitary landfills to twenty-three serving more than 20 per cent of the population of the State.

Six new sites for sanitary landfills were inspected and found suitable for the disposal of solid waste.

A notice served under N. J. S. A. 26:1A-26 and R. S. 58:10-1 resulted in the elimination of an open dump on the Passaic Valley Water Commission Watershed.

A pre-trial hearing (State vs. Spiegel) resulted in the abatement of an open dump nuisance under R. S. 58:10-1 in Readington Township.

Seven meetings with municipal agencies and citizens were attended to promote proper storage, collection, and disposal of solid waste.

Two surveys of open dumps on the Passaic Valley Water Commission Watershed were made in cooperation with representatives of the Commission and the Northern and Metropolitan Districts.

Two ordinances were adopted to control open dumping in Kingwood Township and Jackson Township.

Interrogatories were answered in the matter of (State vs. Spiegel) as well as on the action relating to the Secaucus Stock Farmers Association.

#### INSECTS, RODENTS, AND WEEDS

An insect, rodent, and weed survey was conducted at Glen Gardner. Recommendations for control were made.

Insect and rodent control problems were discussed at several meetings, including a lecture at the Boy Scout camp at the Schiff Reservation for Camp Wardens.

Weed control meetings concerning roadside herbicide spraying in Warren and Sussex counties were attended.

Eighteen pollen collection stations in New Jersey were supervised. Results are made available to all interested individuals, newspapers, and civic groups.

#### CAMP PROGRAM

A total of 184 camps received State Department of Health certificates of approval. These certificates were issued to those camps inspected and found satisfactory by the four district offices.

The activities of this Bureau were limited to the compilation and distribution of data comprising the findings of district personnel.

#### Food and Drugs

##### GENERAL

Licenses, permits or certificates required by laws or regulations for operation of certain types of food or drug establishments are issued to different types of food and drug establishments. Other statutory duties include prevention of the manufacture and sale of adulterated or misbranded foods, drugs, devices and cosmetics, regulating the labelling and sale of caustic acids and alkalies, preventing the illegal harvesting of shellfish and regulating sanitation in food establishments. The following tabulation shows the licenses, permits, and certificates issued and revenue derived:

<i>Establishment</i>	<i>Licenses</i>	<i>Permits</i>	<i>Certificates</i>	<i>Revenue</i>
Milk Plant .....	...	567	...	\$14,175.00
Goat Milk Plant .....	...	27	...	253.40
Refrigerated Warehouse and/or Locker Plant .....	100	...	...	4,550.00
Ice Cream Factory .....	1,261	...	...	11,295.00
Narcotic Drug Plant .....	77	...	...	1,105.00
Creamery and/or Cheese Factory .....	46	...	...	No fee
Egg-Breaking Plant .....	16	...	...	No fee
Non-Alcoholic Beverage Bottling Plant .....	195	...	...	No fee
Shellfish Interstate Shipping Plant .....	...	...	256	No fee
Shellfish Intrastate Shipping Plant .....	...	...	70	No fee
	<u>1,695</u>	<u>594</u>	<u>326</u>	<u>\$31,378.40</u>

During the year, \$6,461.49 in penalties and court costs were collected by the Attorney General for violation of Food and Drug Laws.

#### COURSE IN MILK SANITATION AT RUTGERS

An introductory milk sanitation course, sponsored by the Department in cooperation with Rutgers University Extension Service, was given by personnel of the Milk Program. This course is making a real contribution toward eliminating conflicting requirements of various milk inspectors and in promoting uniformity in interpretations of our State law. It is also stimulating an interest in reciprocity programs.

## DRUGS

During the year, 43 inspections and 16 investigations were conducted of drug manufacturing plants or warehouses holding narcotic licenses from this Department. The Department continued the policy of joint inspections with the Federal Bureau of Narcotics in order to standardize security and other requirements in narcotic manufacturing plants and distributors warehouses.

Seven drug manufacturers were inspected during the year in connection with sanitation and general labelling requirements. One plant discontinued operations for several weeks while insanitary conditions were corrected to the satisfaction of the Department. One so-called vitamin preparation was voluntarily recalled when objection was taken by this Department to the labelling.

The Department continued to cooperate with New Jersey manufacturers of drugs by issuing certificates of inspection, which many foreign countries require before products may be exported to those countries. After inspection of the plant and review of the labels had shown satisfactory compliance, 113 such certificates were issued.

Three hundred and seventy-six samples of drugs were collected for analysis and label review. Vendors were warned by letters of violations noted and subsequently resampled. Three prosecutions were recommended, and fifty-dollar penalties were collected from each after resampling revealed the violation had not been corrected.

Two firms found to be engaged in the wholesale handling of exempt narcotic drugs without a license from this Department were cited to the Attorney General for disposition.

The Department has cooperated with local boards of health, the State Police, the Board of Pharmacy, and the United States Food and Drug Administration by joint inspections or investigations and exchange of information.

## SHELLFISH

The harvesting, handling, and sale of shellfish (clams, mussels, and oysters) are regulated by the Department under authority contained in Chapter 14 of Title 24 of the Revised Statutes and regulations adopted pursuant thereto.

Regulatory procedure includes patrolling of shellfish waters condemned in accordance with R. S. 24:14-2, collection of water samples from approved and condemned areas for bacteriological analyses, collection of shucked and shell stock samples for bacteriological analyses, and sanitary inspection of establishments handling shellfish wholesale.

Pursuant to the program of reviewing the sanitary quality of the shellfish waters, two sections of the Shrewsbury River in Monmouth County were reopened to the shellfish industry for the harvesting of shellfish. Approximately 200 acres of shellfish grounds were made available by the above action.

Continued patrol activities in condemned shellfish areas by personnel of the Department resulted in the apprehension of 18 persons engaged in the removal of shellfish from condemned areas. In keeping with existing policy, registered letters of warning were issued to each of the individuals found to be first offenders. The case of one person apprehended twice during the year was referred to the Attorney General for prosecution for violation of R. S. 24:14-9, and one penalty of \$50.00 was collected by the Attorney General during the year for a similar violation.

The following tabulations illustrate the number of inspections of shellfish establishments performed and the number of shellfish and water samples collected for bacteriological analyses during the year:

<i>Number of Inspections</i>	
Shellfish shipping plants .....	602
Shellfish shucking plants .....	102
Total .....	704

<i>Number of Samples Collected</i>	
Shellfish waters .....	3,788
Special waters (potable) .....	142
Shell oysters .....	141
Shucked oysters .....	614
Shell hard clams .....	319
Shell soft clams .....	41
Mussels .....	1
Frozen shellfish products .....	37
Total .....	5,083

## MILK

The August 1955 flood in the Delaware Valley affected several milk plants and ice cream factories, especially in the Phillipsburg area, which supplied milk and milk products to New Jersey consumers. The restoration of those plants and cleaning and sanitizing of equipment was supervised by representatives of the Department before permission was given to those plants to resume delivery and sale of milk and milk products in New Jersey.

In cooperation with the Public Health Service, inspections of milk plants, ice cream factories, and depots were made for listing on the Interstate Milk Shippers list and for approval to supply Interstate Carriers and United States Coast Guard establishments. Thirty-three such inspections were made.

The Public Health Service recertified one milk sanitarian. One District sanitarian and one local board of health inspector were certified by this Department as approved milk raters.

Local boards of health having reciprocal agreements with the State submitted 212 reports of inspection of in-state milk plants and supplies, and 342 reports of inspection of out-of-state milk plants and supplies.

A special program for checking all of the plants selling milk in New Jersey to determine compliance with the dating requirements resulted in 69 convictions and payment of penalties for violation of that requirement. In addition, penalties were recovered for operating a milk plant without a permit (1), selling ice cream deficient in butterfat (5), receiving milk from unapproved sources (3), and misbranding milk (1). The amount of penalties collected for the above violations was \$5,950.

The following tabulation shows the number of inspections made by Departmental personnel of various establishments handling milk, cream, milk products, and ice cream:

	<i>In-State</i>	<i>Out-of-State</i>
Ice cream factories .....	1,004	49
Milk plants and creameries .....	617	108
Dairy farms .....	2,080	2,597
Goat dairies .....	19	8

#### FOOD PROGRAM

Administration of the Food Program involves licensing of egg-breaking plants, non-alcoholic beverage bottling and bottled water plants and refrigerated warehouses and locker plants, enforcement of sanitary requirements in such establishments and unlicensed food plants, and collection of samples of foods for analyses for chemical and bacteriological adulteration and compliance with established standards of quality and identity. The program also calls for review of food labels to determine compliance with statutory requirements to prevent fraud and deception of the consumer.

During the past year, the Department continued its effort to halt the sale of ground meats preserved with sodium sulphite or sodium bisulphite which is prohibited by Revised Statute 24:5-14. Meats containing such chemicals are usually of inferior quality, are colored a bright red, and appear to be of greater value than they really are. A total of 509 samples of ground beef, sausage, steaks and other cuts of meat was collected for analyses of which 27 were found to be adulterated in the above manner. Eight cases were referred to the Attorney General for prosecution and \$256.85 in penalties and court costs were collected from violators during the year. All of the above samples of beef were also analyzed to detect substitution of horseflesh but no cases of substitution were detected. Samples of horseradish, special dietary foods and beverages,

non-alcoholic beverages, cider, and other foods were collected for bacteriological and chemical analyses and label review.

At the onset of the August, 1955 flood in the Delaware Valley, it was determined that few regulatory officials were familiar with the steps necessary to control the disposition of flood damaged food to prevent the spread of disease through food channels. The following set of instructions was promulgated and distributed to District and local health personnel, police, and civil defense workers and other interested individuals and agencies:

#### EMERGENCY CONTROL OF FOOD, DRUGS AND COSMETICS IN DISASTER AREAS

##### *General Instructions*

1. All food, drugs and cosmetics and devices in establishments affected by polluted water, smoke, chemicals or other contaminating substance should be promptly placed under written embargo until such time as their disposition can be supervised.
2. Complete instructions should be issued to local health authorities regarding our policy and procedures to be used during the disaster.
3. All affected perishable articles should be ordered destroyed immediately by incineration or burial unless an approved salvage plan is available.
4. All articles which have lost their identity should be destroyed.
5. Inventory lists should be made of all embargoed and destroyed materials as soon as practicable under supervision of a health department representative. If quantities of affected articles are such that inventory cannot be taken immediately, a blanket embargo should be placed on the contents of the room, building or other place affected.
6. Complete instructions should be issued to establishment operator with special emphasis on maintaining embargoes until articles are released by health department personnel.
7. All affected food, drugs and cosmetics in containers other than hermetically sealed cans are to be destroyed either by incineration, denaturing and burial or rendering for industrial use. Containers sealed by rubber gaskets, crimping or other similar means which do not permit proper sterilization or decontamination should be destroyed.

##### *Sterilization of Hermetically Sealed Containers*

8. Food, drugs, devices and cosmetics in hermetically sealed containers may be salvaged if:
  - a. They are thoroughly washed in a solution of soap or detergent and clean water.

- b. Sterilized by immersion in a solution of chlorine of at least 200 parts per million (ppm) strength for at least five minutes or by the use of equivalent solution of quaternary ammonium compound, iodine compound or other chemical that produces the same result.

(For detailed instructions read that part of the package label dealing with sanitizing or sterilizing eating utensils or food and dairy equipment.)

- c. Rinse in clean water, air dry or hand dry promptly and store under embargo in a dry clean place for thirty days.
- d. Upon expiration of thirty day holding period, reconditioned goods should be examined by health department personnel and may be released if found in satisfactory condition.

#### *Frozen and Refrigerated Foods and Drugs*

9. Frozen or refrigerated food and drugs should be handled in accordance with instructions in paragraphs 1 to 7 except for those foods not subject to contamination but stored in places where power failures have occurred:
- a. Foods in cold storage rooms where temperatures have risen above 50°F. for extended periods of time should be destroyed. (Loss of power for less than twenty-four (24) hours duration usually will not affect the foods if doors are not opened too frequently.)
- b. Frozen foods that have partially or wholly defrosted should be cooked immediately or destroyed and should not be refrozen. (Loss of power for less than forty-eight (48) hours duration usually will not affect the foods if doors are not opened too frequently.)

#### *Malt, Fermented or Distilled Alcoholic Beverages*

10. Hermetically sealed cans of beer and soda can be salvaged in accordance with paragraph 8.
11. Whiskies, wines, liqueurs, etc., can only be salvaged for redistillation to commercial grade alcohol. (See paragraph 1, 4, 5 and 6.)
12. No contaminated containers of alcoholic beverages are to be destroyed without permission of State Department of Health. (Hasty destruction may result in inability to recover taxes or replacement of stock.)

#### *Drugs and Cosmetics*

13. See paragraphs 1 to 9a., inclusive.

#### *Utensils, Equipment and Work Surfaces*

14. See paragraphs 8a. and b. (Food and drug establishments should not resume operations until inspection is made by State or local health departments and permission granted.)

#### *Floors, Sidewalls and Ceilings*

15. Remove mud and debris, flush with clean water, sprinkle with high test hypochlorite, ventilate thoroughly, allow time to dry, sweep or wipe clean and scrub thoroughly.

#### *Miscellaneous*

Affected establishments using private water supplies should contact local boards of health regarding instructions prior to use of water.

Personnel of the Program also participated in an Institute on Diswashing sponsored by the Department and the East Orange Health Department in April, 1956.

The following tabulation lists the number and types of food establishments other than milk, ice cream and shellfish plants inspected by representatives of the Department:

Egg-Breaking Plants .....	44
Refrigerated Warehouses and Locker Plants .....	111
Non-Alcoholic Beverages and Bottled Water Plants ....	211
* Other Food Establishments .....	499

\* Includes: bakeries, eating places, confectionery plants, canneries, frozen food plants, etc.

Assistance was rendered to other State departments and agencies in solving food problems and agents of the Department continued to co-operate with Federal, State, and local agencies by making special investigations and placing embargoes on adulterated and misbranded foods. In cases where embargoes were placed at the request of Federal agencies, the embargoes were continued on the merchandise until seizure was effected by the United States Marshal.

#### **Veterinary Public Health**

##### **ENCEPHALITIS**

The encephalomyelitis field research project was continued with Dr. Daniel Cohen, on loan to this Department by the United States Public Health Service, as a field coordinator. The project, as previously instituted, consists of a co-operative arrangement among this Department, Rutgers University, the New Jersey Fish and Game Commission, and the United States Public Health

Service. The absence of a viral reference laboratory in the New Jersey State Department of Health made it necessary to use the reference viral laboratory of the United States Public Health Service at Montgomery, Alabama. Preliminary observations indicate confirmation of the isolation of Western and Eastern Equine Encephalomyelitis virus in wild birds in New Jersey.

#### PSITTACOSIS

Ten cases of psittacosis in humans were reported in 1955. Twelve establishments handling these birds were quarantined and antibiotic therapy instituted to clear up the infection. Efforts were made to educate the public as to the nature of the disease and as to precautions to be taken to prevent infection. Physicians were informed as to the presence of this virus in pet birds and turkeys in the State and the possibility of contact cases.

A paper entitled "Psittacosis in Northern New Jersey, Human and Bird Transmitted," was published in the *American Journal of Medicine*, January, 1956.

One violator of the regulation governing the interstate movement of psittacine birds into New Jersey was apprehended and fined.

#### TRICHINOSIS

Reported cases of trichinosis increased during the year. In February, 1956 alone, 24 cases were under investigation. These cases resulted from the improper preparation of pork products. The industry and public were renotified of the need for proper handling and cooking of pork products to prevent this disease.

#### POULTRY INSPECTION

Legislation was introduced into the Congress of the United States to require inspection of all poultry crossing a State line. If poultry inspection is approved on a Federal basis, the State Department of Health will be able to improve both red meat and poultry slaughtering practices and inspection within the State of New Jersey. The Senior Public Health Veterinarian of this Department acted as a technical consultant to a subcommittee of the Senate Committee on Labor and Public Welfare on the Compulsory Poultry Inspection Bill Hearings. As of July 1, 1956, no action was taken by Congress to effect passage of the legislation.

#### ANTHRAX

Anthrax was reported during July, 1955, from ten premises, all dairy cattle farms. Milk of suspicious animals was withheld where necessary. Other outbreaks occurred in August, 1955 and February, 1956.

#### LEPTOSPIROSIS

Investigations of leptospirosis were continued. Positive samples were received from three dairy herds and a number of canine specimens. It appears that this disease is increasing in New Jersey.

#### FUNGUS INFECTION

Fungus infections in cats involving several humans were brought to our attention through the cooperation of practicing veterinarians and physicians and investigated.

#### SALMONELLA

An epidemiological investigation was conducted at a general hospital regarding a possible outbreak of salmonella infection. The staff of the hospital were offered suggestions to improve food handling techniques.

#### TOXOPLASMOSIS

Veterinarians in this Department are cooperating in a study of toxoplasmosis in animals and humans, involving garbage-fed hogs in New Jersey, with Dr. David Weinman of Yale University School of Medicine. Employees of slaughterhouses who have come in contact with known infected swine are being checked to determine whether the disease is being spread to the human population. The results of the study, to date, indicated that hogs fed raw garbage are infected with toxoplasmosis in New Jersey.

#### RABIES

A clinically diagnosed case of rabies in a dog occurred in Tabernacle Township, Burlington County, on March 9, 1956. An immediate large scale pick-up of strays was instituted in the area. No other cases occurred.

There has been an increase in revenue received in the Rabies Control Trust Fund from \$86,856.00 in 1953-54 to \$92,000.00 in 1955-56.

The following table shows the revenue received, dogs licensed, and dogs vaccinated for the past three years.

	Revenue received	No. dogs Licensed	No. dogs Vaccinated
1953-54 .....	\$86,856.25	347,425	36,400
1954-55 .....	90,578.75	362,315	44,800
1955-56 .....	92,112.75	368,451	65,100

There was an increase in expenditures for rabies vaccine from \$15,000 in 1954-55 to \$26,000 in 1955-56. It is estimated that by continued judicious application of the vaccine where needed, following technical professional eval-

uation of disease occurrence on our borders, there should be no substantial increase in expenditures for vaccine during the year 1956-57. Justification for vaccine expenditure is found in the following table:

Year	<i>Rabies in</i>			
	<i>Rabies in Pennsylvania</i>	<i>New York State Exclusive of New York City</i>	<i>Rabies in New Jersey</i>	<i>Rabies in Delaware</i>
1943 .....	826	189	42	....
1944 .....	902	314	68	....
1945 .....	843	663	51	....
1946 .....	502	1,175	276	1
1947 .....	293	696	94	....
1948 .....	147	568	112	1
1949 .....	31	515	67	....
1950 .....	102	1,022	5	....
1951 .....	241	539	....	....
1952 .....	300	337	1	7
1953 .....	27	437	....	2
1954 .....	38	472	....	....
1955 .....	167	517	....	26
1956 .....	83	181	1	34

The table covers the incidence of rabies in the State of New Jersey and in the three surrounding States, commencing with 1943 and continuing to 1955. It should be noted that in the State of New Jersey, the present type of program was actually initiated in the year 1946 and the refinements which have been carried through to the present were initiated in the year 1948-49. In this period, the New Jersey incidence of rabies has progressively decreased.

#### MEAT INSPECTION

A survey was concluded which indicated that 80,000,000 pounds of meat were locally sold in New Jersey without adequate supervision and inspection for wholesomeness at time of slaughter. Action is being initiated to provide the necessary supervision to correct this situation.

#### BRUCELLOSIS

It is anticipated that the deadline of April 1, 1958, as set by this Department relative to the sale of milk or dairy products from cattle free of brucellosis, will be met.

#### PERSONNEL

Dr. J. S. McDaniel and Mr. Albert T. Stretch retired as of March 31, 1956. The Senior Public Health Veterinarian was honored by being elected Vice-President of the American Veterinary Medical Association for the year 1956-57.

## Division of Laboratories

ELMER L. SHAFFER, PH. D., *Director*

Bureau of Bacteriology .....	JOHN H. SPOONER, JR., <i>Chief</i> <i>Program Coordinator</i>
Bureau of Chemistry .....	JOHN J. NELSON, <i>Chief</i> <i>Program Coordinator</i>
Bureau of Pathology .....	E. O. GILBERT, D. V. M., <i>Principal Histologist</i> <i>Program Coordinator</i>
Bureau of Serology .....	ELEANOR E. THOMAS, <i>Principal Serologist</i> <i>Program Coordinator</i>
Bureau of Virology .....	J. NORMAN WELSH, <i>Principal Bacteriologist</i> <i>Program Coordinator</i>

## Division of Laboratories

### INTRODUCTION

The annual report of 1954-1955 began and ended with statements regarding the immediate need for modern laboratory facilities in order to fulfill the growing demands for public health laboratory services. At the risk of being repetitive, it must again be the lead theme in the present report. During this fiscal year, several of our programs were reviewed by officials of the United States Public Health Service. The reviewers made the observations, in their final reports, of our deficiencies in space, utilities, and location. According to their judgment, New Jersey is "at the bottom of the list" of State Laboratories in respect to physical facilities. This is an unenviable position in which to be and in which to operate such important services that are so vital to the health of our citizens. It is hoped that before this report goes to press, final steps will have been taken to insure our laboratories being given facilities commensurate with the importance of their programs.

The year has been characterized by continuing demand for services particularly in diagnostic virology and in support of the air sanitation program. These particular activities must be given adequate housing and utilities if they are expected to develop completely useful services. In other programs, the service demands have reached an apparent plateau on a volumetric basis. However, careful review of these programs shows that where such levels have remained stationary statistically, there have been changes indicating a higher level of scientific attainment. It still remains our philosophy to reduce our "routine" operations as far as feasible and engage in more advanced services on a consultation-reference basis. Our professional education activities and our evaluation-assistance of approved laboratories have strengthened these to the point that they could assume much of the local responsibility for laboratory services. Indeed, such a plan has been put into operation on an experimental basis in East Orange with the cooperation of the Health Officer. Industrial health departments and practicing physicians in that city have been circularized calling their attention to the good laboratory services available locally. It is too early to determine if this effort has been successful in diverting routine laboratory tests, ordinarily reaching the State Laboratory, to the local laboratories of that city. This effort will be pursued in other municipalities where adequate laboratory facilities exist. It will be a matter of education to direct physicians, health officers, and others to obtain needed laboratory services on the local level. The State Laboratories will always be available for reference

purposes when required. More and more, such reference specimens are reaching us from local laboratories, indicating a respect for the quality of our work.

We have maintained a continuing interest in our professional education activities, both for our own personnel and for laboratorians in hospitals, institutions, and private laboratories throughout the State. These activities will be enumerated in the individual program reports. In March, 1956, we aided in the organization and support of the annual seminar and demonstrations of the New Jersey Society of Medical Technologists (ASCP). This was held at Rutgers University, and despite blizzard conditions, about 250 persons attended. This annual affair was initiated in 1952 at our suggestion and has developed with our aid into an eminently successful affair.

Reviews of our bacteriological and serological programs during the year were made by representatives of the Public Health Service. Their reports indicate that these programs were performing tests according to standard procedures and we were especially commended for our activities in professional education and the development of our refresher courses.

The creation of a new position of bacteriologist will enable us to do a more effective job in our evaluation-assistance of approved laboratories in bacteriology of communicable diseases. This position was recently filled and the employee is undergoing refresher training in our methodologies before starting his field operations.

Despite the decline in communicable diseases generally, more specimens for enteric pathogens and tuberculosis are being received. Enteric diseases, chiefly of the salmonella type, are still encountered frequently enough to give us pause as to the effectiveness of control measures. A wide gamut of salmonella species were isolated during the year. Local ordinances requiring food handlers to be subjected to medical examinations, including serological tests, may give a false sense of security to the public. More emphasis should be placed on education of food handlers in the proper methods of food handling.

Salary increases announced effective beginning in the next fiscal year (1956-57) will be at such levels as to attract well-trained graduates in the sciences. With these salary increases, plus other benefits of State employment, we are in a position to compete with private industry for the type of personnel we seek. From the long range point of view, this is an encouraging factor in the progressive development of our services.

The Division offices are under constant pressure to complete and mail out each day's reports. We have had very few complaints about premarital blood test reports not being received by physicians "on time." However, this has been accomplished by a devoted group of clerk-typists working through each day at top speed. There is need for additional personnel and space to maintain efficient operation of this important activity.

The August, 1955 river flood in Trenton temporarily put our laboratories out of operation due to power failure. Emergency measures were developed to continue services over the weekend when the flood occurred. Electric power was restored by the time the work week started. However, the experience served to focus our attention on the necessity of developing emergency laboratory facilities in the event of a public disaster.

## Bacteriology Program

### HIGHLIGHTS

Revisions, corrections, and suggestions for approval continued throughout the fiscal year in the Bacteriology Program.

In March, Dr. Shaffer, Mr. Welsh, Principal Bacteriologist, Miss Jedynak, and the Program Coordinator gave papers and illustrated lectures on the work of the Division and Bureau before the Theobald Smith Society of New Jersey at Rutgers. This society is the New Jersey branch of the National Society of American Bacteriologists.

No formal refresher courses were conducted in the Bacteriology Program during the year. Instead, those wishing to review our techniques were invited to the laboratory and given first hand instruction in the techniques in which they were interested. This was done in enteric bacteriology, tuberculosis culture, general bacteriology, and the bacteriology of milk and water.

April 16-18, 1956, the Bacteriology Program in communicable diseases was reviewed by E. J. Tiffany, M. D., Officer in Charge, Laboratory Consultation Services, Communicable Disease Center. Dr. Tiffany stated that our records showed "we processed one specimen for every 11.7 persons in the State at a per capita cost of approximately seven cents." Dr. Tiffany summarized his review as follows: "The technical procedures in force in this laboratory appear in general to conform to good practice and to be reasonably successful. The greatest single obstacle to improvement and prosecution of the good program in force is the present antiquated quarters." In summary: "This laboratory provides comprehensive public health laboratory service of high quality, to the people of New Jersey, and has a statesman-like concept of its responsibility to assist other laboratories in the State to improve the quality of laboratory diagnostic microbiology at the local level."

In August and September, 1955, the Delaware River flood greatly increased the number of potable water and stream samples usually received in the laboratory during those months of the year. Personnel worked overtime daily and on Saturdays and Sundays to complete bacteriological water analysis results.

In March, 1956, the first dog positive for rabies by microscopic examination was found in the central laboratory since September, 1952. The microscopic



results were confirmed by a series of animal inoculations. The dog was one from Burlington County in the area of Tabernacle. Follow-up examinations on dogs and wild animals from this area failed to uncover any additional positives.

During the fiscal year, Mr. J. N. Welsh, Principal Bacteriologist, was assigned to virology work for the Division from July 1, 1955 to January 1, 1956. He left again in June, 1956 for re-assignment to this study. During February, 1956, he spent two weeks at the Virus Research Laboratory of the Public Health Service at Montgomery, Alabama.

In April, the Director of Laboratories, Dr. Shaffer, in conference with the Director of Local Health Services, declared all mailing water sample containers as invalid for use after having been issued from this laboratory for one year. Henceforth, the Bacteriology Program will not analyze water samples bacteriologically that are submitted in outdated containers.

## TRENDS

An increase is anticipated in enteric bacteriology as more emphasis is placed on species determination of the Salmonella, Shigella, and E. coli cultures in infant diarrhea cases.

Tuberculosis culture work may be expected to increase slightly and then reach a stable level based on population vs. increase or decrease of cases.

Water specimen examinations will increase as a follow-up of the stream pollution survey to be conducted by Public Health Engineering Program.

Milk samples, especially in the category of direct microscopic samples, should increase as the districts are activated to this procedure.

COMPARISON CHART 1953-1956

	Specimens Examinations			
	1953-1954	1954-1955	1955-1956	1956-1957
Total .....	63,158	65,541	62,852	93,168
Central Laboratory—				
Communicable diseases .....	46,071	46,666	42,926	60,383
Waters .....	7,006	8,038	8,343	13,503
Milks .....	3,173	4,223	6,596	9,308
Branch Laboratories—				
Shellfish & Shellfish waters .	6,908	6,614	4,987	9,974

Numerical Summary: Total specimens refer to the number of specimens received in various categories; the total examinations are given to better show the volume of work involved; for instance, all tuberculosis specimens are subjected to a microscopic spread examination and also culture; these figures are added as separate examinations. All animal brains for rabies are examined microscopically for rabies, but all those that have been exposed to persons

receive mice inoculations intracerebrally; these are counted as separate examinations. Thus, it is evident that while the total number of specimens has been stabilized in the last three years, more tests are being made on specimens received.

The total bacteriological, parasitological, and agglutination specimens and specimen examinations during the fiscal year in the Bacteriology Program were as follows:

Total Specimens	Total Examinations
62,852	93,168

*M. tuberculosis* identification: Stained spreads of sputa and other secretions and excretions:

Total	Positive	Negative	Unsatisfactory
16,993	772 (5%)	15,664	524

	Total Specimens	Total Examinations
Tuberculosis .....	16,993	30,697
Sputum spreads .....	15,677	15,677
Body fluids .....	1,283	1,283
Cultures .....	..	12,869
Animal inoculations .....	..	546
Sensitivity tests .....	33	33
Neutral red tests .....	..	289

## Cultures

Total	Positive	Negative	Unsatisfactory
12,869	1,098 (9.4%)	11,715	56

## Guinea Pig Inoculations (Body fluids and catheterized urine specimens)

Total	Positive	Negative	Unsatisfactory
409	27	371	11

## Indirect (Virulence)

Total	Positive	Negative	Unsatisfactory
137	105	25	7

Guinea Pig Total .....

546

## Enteric Diseases

Total Specimens	Total Examinations
10,421	10,202

## ENTERIC BACTERIOLOGY (FECES AND URINE)—8851

This work includes the more complete identification of the Salmonellae and Shigellae into their respective species as follows: (Also includes cultures submitted for identification).

*Salmonellae*

S. typhi .....	16	S. heidelberg .....	5	S. paratyphi B .....	2
S. barielly .....	3	S. infantis .....	3	S. reading .....	1
S. chester .....	1	S. montevideo .....	2	S. san diego .....	8
S. cholera suis .....	1	S. muenchen .....	2	S. schwarzengrund ..	1
S. derby .....	2	S. newport .....	2	S. thompson .....	1
S. enteritidis .....	4	S. oranienburg .....	2	S. typhimurium .....	19

*Shigellae*

S. flexneri—3 .....	1
S. flexneri—4a .....	1
S. flexneri—6 .....	4
S. sonnei .....	10

## BLOOD AGGLUTINATIONS

Blood agglutination tests are performed for typhoid O and H antigens, paratyphoid A and B, undulant fever, tularemia, and Weil-Felix reactions for typhus and Rocky Mountain Spotted fever.

Total Specimens	Total Examinations
3,529	5,616

## DIPHTHERIA AND ORGANISMS OF NOSE AND THROAT

Total Specimens	Total Examinations
6,414	6,978

There were 4,495 specimens for diphtheria, of which 23 were positive and 437 negative; 4 were virulent and 12 non-virulent.

## GONORRHEA SPREADS

Total Specimens	Total Examinations
4,895	5,416
<i>Total</i>	<i>Positive</i>
4,895	591
	<i>Negative</i>
	4,232
	<i>Unsatisfactory</i>
	71

## RABIES

Animal brains for rabies continue to play an important role in the Bacteriology Program. Note under "Highlights" the report of a positive laboratory finding from Burlington County in March, 1956.

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 record of a bite or intimate human or animal contact." This has been routine procedure in the Bacteriology Program for years. Every local, private or hospital laboratory making this type of examination, should follow the requirements of the Sanitary Code, or, if unable to do so, submit suitable brain portions carefully refrigerated to the Division of Laboratories with all information and data with request for animal inoculation.

Animal brain examinations in the Bacteriology Program for various species of animals include: dogs, 116; cats, 35; bats, 34; squirrels, 30; foxes, 16; rabbits, 9; raccoons, 3; mice, 3; hamsters, 3; skunks, 3; guinea pigs, 2; rodents, 2; and deer, mole, opossum, chipmunk, monkey, and shrew, 1 each.

Total Specimens	Positive	Negative	Unsatisfactory	Total Examinations
262	1	253	8	1062

Swiss mice, 18 days old, are inoculated on all suspected or unsatisfactory animal brains where the animal has bitten or had intimate contact with humans. There were approximately 800 such inoculations made on 197 of the above specimens.

## MISCELLANEOUS EXAMINATIONS

Total Specimens	Total Examinations
412	412

## BACTERIOLOGICAL EXAMINATION OF WATER, TRADE WASTES, SEWAGE AND MILK PRODUCTS

	Total Specimens	Total Examinations
All waters, milks, and shellfish ...	19,926	32,785
All waters .....	12,183	21,183
All milks .....	6,596	9,308
All shellfish .....	1,147	2,294
<i>Total water and dairy products</i> ....	14,939	22,811

Number and percentage of Milk Products found below standard:

	<i>Satisfactory</i>	<i>Below Standard</i>	<i>Percentage</i>
Milks .....	2,159	316	14 %
Creams .....	351	58	14 %
Direct microscopics .....	3,404	193	5.6%

#### LABORATORY INSPECTION AND APPROVAL

Certain statutes in the New Jersey Laws and in Regulations of the State Sanitary Code require that laboratories, in order to perform certain examinations, shall be laboratories approved by the State Department of Health.

During the fiscal year, three new laboratories were approved. With the New Jersey State Department of Health Laboratory, these approved laboratories consist of ten municipal or county laboratories, sixty hospital laboratories, and forty-eight private laboratories. These laboratories are visited by representatives of the Division of Laboratories at periodic intervals. (See also Serology Program for this activity.) Check bacteriological specimens are submitted to the approved laboratories at the time of the visit. Results and suggestions are made to the individual laboratory.

Mailing cases for the collection and transmission of specimens by mail were supplied to physicians, District State Health Offices, and local health departments as follows:

Diphtheria mailing containers .....	9,184
T. B. mailing containers .....	26,667
G. C. mailing containers .....	8,203
Feces and urine mailing containers .....	8,718
Syphilis mailing containers .....	272,209
<b>Total .....</b>	<b>324,981</b>

1,440,500 c.c. of various kinds of media were supplied during the year.

#### Chemistry Program

A casual study of the statistics presented below may yield a misleading estimate of program service. The number of specimens received and the number of determinations made cannot give the complete picture of activity. Some determinations may take several days for completion, others may be completed in a few minutes; some are extremely complicated, others are simple.

TABLE I  
SUMMARIZED STATISTICS 1955-56

<i>Character of Samples</i>	<i>Number of Samples</i>	<i>Number of Determinations</i>
Milk and Dairy Products .....	3,702	8,681
Other Foods .....	717	1,477
Drugs .....	366	765
Water and Sewerage .....	2,788	16,940
Atmospheric and Industrial .....	316	578
* Dreyppaks .....	5,347	5,347
** Miscellaneous .....	271	761
<b>Totals .....</b>	<b>13,507</b>	<b>34,549</b>

\* Urine-sugar determinations for diabetes screening.

\*\* Includes other urinalyses, experimentals, methods development, referee samples, etc.

Milk, dairy products, and other foods show increase in the number of samples received this year as compared to the previous year, as do also the samples received in the industrial and air sanitation laboratories. Our participation in the diabetic detection program showed a considerable increase in the number of samples submitted.

The following chart is presented to summarize changes in the types of samples processed by the Chemistry Program in 1955-56 as compared to those of 1954-55.

TABLE II—COMPARISON CHART (1955-56)

<i>Character of Samples</i>	<i>Per cent change of numbers of samples processed during 1955-56</i>
Milk and Dairy Products .....	+ 1.6
Other Foods .....	+ 20.1
Drugs .....	- 17.0
Water and Sewerage .....	- 8.0
Atmospheric and Industrial .....	+ 17.9
Dreyppaks .....	+ 17.7
Miscellaneous .....	- 26.8
<b>Total .....</b>	<b>+ 4.7%</b>

The increasing over-all work load of the Chemistry Program, as cited last year, continued to rise in 1955-56 as shown in the following summary:

<i>Fiscal Year</i>	<i>Total number of samples</i>	<i>Total number of determinations</i>
1952-53	5,821	24,239
1953-54	9,499	33,067
1954-55	12,901	35,450
1955-56	13,507	34,549*

\* It should be noted that while there was an increase of almost 5 per cent in the total number of samples processed this year as against last, there was actually a decrease of about 2.5 per cent in the total number of determinations performed. This decrease was offset, however, by the increased complexity of methods in certain areas (e. g. vitamin assays on flours and breadstuffs and total sodium determinations on low sodium dietetic foods).

In addition to the 316 samples (578 determinations) processed for the three programs of the Bureau of Adult and Occupational Health, Chemistry Program personnel participated, directly or indirectly, in 494 field tests, 7 field surveys, and 5 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 including the preparation and standardization of the appropriate reagents.

#### TRAINING ACTIVITIES OF CHEMISTRY PERSONNEL

Miss Baldwin and Mrs. Leventhal, Assistant Chemists, continued their undergraduate courses at Trenton Junior College with the ultimate goal of achieving degrees in chemistry.

Mr. Casselman, Senior Chemist, completed two weeks of instruction in air pollution sampling at the Environmental Health Center (U. S. P. H. S.) in Cincinnati and also a one-semester course in air pollution control at Rutgers University.

Mr. Ventura, Senior Chemist, successfully completed a course in advanced organic chemistry at Rutgers University.

Mr. Weller, Senior Chemist, presented lectures in a course entitled "Air Pollution Control" at Rutgers University and also assisted faculty members of that institution in the development of a new laboratory course for the training of personnel in methods of analysis in air sanitation.

#### FUTURE PROJECTS—TRENDS

Research and method development will become increasingly more important in the field of air sanitation. The fullest use of recently acquired instruments (Beckman DK-2 Recording Spectrophotometer, Beckman IR-2

Infra-red Absorption Spectrograph, and Hilger Emission Spectrograph) will play an important part in the success of this challenging task.

Accelerated activities being planned in the areas of stream pollution control and diabetes screening can be expected to result in much larger work loads in those fields. Additional personnel will be required by the Chemistry Program to provide the necessary analytical services therein involved.

The lack of adequate space and facilities continues to be the major problem of these laboratories.

#### Pathology Program

This program began to show a levelling off of activity last year which has continued into the present year. The services requested of this program by pathologists shows utilization of more specialized activities; for examples, there has been a 40 per cent increase in requests for special types of staining of tissue slides; photography has suffered a 30 per cent decline, largely due to the handicap of insufficient electrical current to operate our equipment properly.

The Consultation Board of Pathologists, operating without fee, continues to do an effective job as indicated by a continuing demand for services. We are indeed fortunate to have the cooperation of these physicians in maintaining this worthwhile facility.

The 5th annual slide seminar of the New Jersey Society of Clinical Pathologists was held on December 10, 1955, at the Presbyterian Hospital, Newark. The Bureau of Pathology supplied all members and guests with microscopic slides of 12 diagnostic problem cases. Dr. Arthur Purdy Stout, of the Cancer Research Institute of the College of Physicians and Surgeons (Columbia University), was the moderator. Dr. Stout has a world-wide reputation as a teacher and diagnostician in cancer. Consequently, he attracted the largest audience yet to attend these seminars, about 125 physicians and pathologists. Guests from New York, Pennsylvania, Delaware, and Virginia attended. This annual event is receiving national notice and recognition for its contributions to the understanding of cancer problems. The Bureau of Pathology regularly plays a major part in organizing this seminar, in furnishing the material for study, recording the results, and publishing the proceedings. This year, the published proceedings were improved by the addition of half-tone prints of the microscopic slides of each case discussed. The combination of visual demonstration and descriptive comment constitutes an excellent means of teaching.

Program personnel assisted in setting up three scientific exhibits at the annual meeting of the Medical Society of New Jersey. These all related to studies in malignant diseases and were given awards of merit. The photo-

graphic facilities of the program are frequently used by other programs of the Department.

The Program in Pathology represents a unique operation in a State health department. Few States can boast of such organized service in assisting those whose responsibility it is to study and diagnose malignant disease.

Administratively, this program suffers somewhat by its being housed at a distance from the other Division programs. It is hoped that these difficulties will disappear when new laboratory facilities are available to us.

#### HISTOLOGY

Number of contributions to tumor registry .....	345
Number of consultation cases .....	102
Number of slides prepared .....	7,874
Number of slides stained .....	6,451
Number of specimens processed .....	545
Number of slides stained with special stains .....	1,302

#### FIELD TRIPS

Number of field trips made .....	37
Number of institutions visited .....	42

#### PHOTOGRAPHY

Number of Kodachromes (micro) .....	1,248
Number of Kodachromes (gross) .....	161
B & W photographs for other agencies .....	75

#### Serology

This program handles, numerically, the largest number of specimens received by the Division for analysis (264,617). Consequently, the largest number of our personnel are engaged in this program. Attempts have been made (and are continuing) to disengage ourselves from the large numbers of specimens reaching us for routine tests for syphilis. It is too early to say whether these efforts have succeeded. With 118 laboratories in this State approved for syphilis serology, it does not seem that local facilities for performing these tests are lacking. It has been a long-time habit or practice for physicians to use the State Laboratory for these tests. We must make them more conscious of their responsibility and opportunity of supporting and strengthening local laboratories by submitting the routine type of specimens to them rather than to the State Laboratory.

There were 124 specimens received for the TPI (*Treponema pallida* immobilization) test as a confirmatory test for syphilis. These tests were performed at the Venereal Disease Research Laboratories, Chamblee, Georgia.

Certain criteria for the acceptance of specimens for this test were established and followed.

There is a trend to the use of antigens made of the specific organisms of syphilis (*Treponema pallida*). We have procured some of this antigen (TPCF), which is quite expensive, through the courtesy of one of the commercial manufacturers. This will be used in the coming year for evaluation study along with the results of the TPI tests.

Since many of the virus diagnostic tests are complement-fixation in nature, this work has been assigned to the Serology Program pending the development of an approved Program in Virology. This activity has placed an additional burden on program personnel which was not heretofore their responsibility.

The handling of all specimens and the recording of data and laboratory results in the polio surveillance program have been a responsibility of the Program Coordinator in Serology.

The Serology Program received a total of 264,616 specimens. The year 1954-55 showed an increase of premarital, prenatal, industrial, and survey specimens, although the total number of specimens for the year was relatively the same as last year. Assuming that a great percentage of the remaining specimens are those sent in by private physicians for diagnostic purposes, the indication is that the private laboratories are performing more of the routine tests and are using the State Laboratory as a reference unit for the reactive and troublesome cases.

On January 1, 1956, the procedure initiated for the premarital-prenatal group in February, 1955, became the standard procedure for all specimens. The qualitative Venereal Disease Research Laboratory test is now performed routinely on all specimens with a quantitative Venereal Disease Research Laboratory test and a two-tube Kolmer test carried out on all reactors. This change of procedure in the middle of the year makes it difficult to confirm the belief that there is an increase of specimens requiring multiple testing, since the use of cardiolipin-lecithin antigens has reduced the number of low, non-specific reactors.

The Serology Program discontinued the preparation and free distribution of Mazzini antigen as of January, 1956, since the Mazzini test employing the lipoidal antigen is no longer considered a standard test for syphilis, having been replaced by a cardiolipin-lecithin antigen. Commercial antigens are now adequately standardized and the cost of the components makes it prohibitive for the State to engage in the free distribution of antigens for serologic procedures. At the same time, the new terminology for reporting serologic tests for syphilis was adopted; namely, *Reactive*, *Weakly Reactive* and *Nonreactive*.

The Serology Program sponsored a conference on problems in serology, which was held October 26, 1955, with Miss Genevieve Stout of the Venereal Disease Research Laboratory acting as Moderator. More than 100 were in

attendance at the conference. In addition, we rendered assistance to six laboratories by having their personnel receive training at our laboratory, and one laboratory was visited to help them. The results of our efforts in this direction were visible in this year's Evaluation Program. For the 118 laboratories participating, the average level of sensitivity and specificity was elevated 70 per cent. However, the satisfactory performance of serologic tests can be assured only by our constant vigilance to seek new approaches for stressing absolute adherence to standard procedures. On a higher level, New Jersey was one of 62 participants in the Federal Evaluation. The basis of the study was reproducibility of results of paired specimens. For the Venereal Disease Research Laboratory test, New Jersey and the control laboratory had perfect reproducibility; for the Kolmer test we again had a better showing than the laboratory of Dr. Kolmer.

A new procedure was begun in the Rh blood grouping program on June 18, 1956, with greater emphasis placed upon detecting the Du's, variants of the D factor. The saline tube method was replaced by the slide test for confirmation of all Rh negatives. The Coombs test is now performed on all possible Du positives.

The Complement Fixation tests for virus diseases are still increasing, with more requests being made for the encephalitides. The Serology Program had the responsibility of sending out the polio containers and clinical data sheets and the preliminary preparation of those specimens as they were received. We also tested special, chosen specimens to investigate and evaluate the Penn. Seroflocculation Test for cancer.

Specimens received .....	264,617
Tests performed .....	304,294
Rh and blood grouping .....	109,945
Total protein .....	668
Heterophile (1136 specimens) .....	1,773
Colloidal Gold .....	276
Cold Agglutinins .....	58
Virus (724 specimens) .....	1,039
Avian and bovine specimens .....	801
Antisterptolysin .....	101

#### FOR POLIO SURVEILLANCE ACTIVITY

<i>Sent out</i>	<i>Received</i>	
1,096 stool containers	175 stool specimens	
407 tubes	128 blood specimens	
300 clinical data sheets		
Cancer (seroflocculation tests) .....		429

#### COMPARISON CHART

	1955		1956	
	<i>Number of Specimens</i>	<i>Per cent Reactivity</i>	<i>Number of Specimens</i>	<i>Per cent Reactivity</i>
Prenatal .....	64,282	2.5%	66,286	1.1%
Premarital .....	43,972	2.8%	45,653	1.4%
Industry .....	51,292	3.9%	57,751	2.6%
Surveys .....	8,000	9.1%	10,000	8.5%

#### SUMMARY

The four Programs of the Division have been carried out in strict conformity with the approved written programs. Each year, it becomes more evident that the written programs have greatly aided our personnel in determining responsibilities and how they are to be met. Study is now being made by the Program Coordinators to determine the extent to which changes and revisions in their individual programs are to be proposed during the next fiscal year.

The large volume of routine examinations handled by the four programs, under unsatisfactory conditions explained in this report, does not completely satisfy our scientific instincts. While we may have attained a measure of success in adequately meeting all calls for service, we feel that we have an obligation to make needed contributions in the field of research. As a matter of fact, the statute (R. S. Title 26-1947, c. 26:1A-37) under which the Department of Health was reorganized reads as follows:

- (g) Establish and maintain adequate serological, bacteriological and chemical laboratories with such expert assistance and such facilities as are necessary for routine examinations and analyses, and for *original investigations and research in matters affecting public health.*

There is, thus, a clear statutory obligation to engage in research. While we are making some small beginnings in such scientific investigation, no adequate activity in research can be undertaken until proper facilities are at our disposal. It is hoped that when the next annual report is written, we shall be able to face our future with the assurance of a better place in which to carry out our activities in a way to yield the maximum, effective results.

## Division of Local Health Services

---

JESSE B. ARONSON, M. D., M. P. H., *Director*

RALPH T. FISHER, B. S., M. P. H., *Assistant Director*

---

Bureau of Public Health Nursing .....GLADYS J. WILSON, R. N., M. P. H.,  
*Chief*

### STATE HEALTH DISTRICTS

Central .....WILLIAM J. DOUGHERTY, 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 is the connecting link between the State Department of Health and municipal and county governments, local voluntary health agencies, local professional and civil groups, and individual citizens. It brings the services of the Department to these people in all parts of the State. Conversely, it brings to the coordinators of the various Departmental Programs the problems and needs of the people and local agencies, thus giving the Program Coordinators a realistic basis for Program planning and evaluation.

These functions of the Division are performed by the staffs of the four State Health District offices and the Bureau of Public Health Nursing. The Districts are responsible for State Health Department activities in the following counties:

<i>Central</i>	<i>Metropolitan</i>	<i>Northern</i>	<i>Southern</i>
Burlington	Bergen	Hunterdon	Atlantic
Mercer	Essex	Morris	Camden
Middlesex	Hudson	Somerset	Cape May
Monmouth	Passaic	Sussex	Cumberland
Ocean	Union	Warren	Gloucester
			Salem

The office of the Director of the Division of Local Health Services is responsible for coordinating the policies, procedures and activities of the four Districts and the Bureau of Public Health Nursing, for liaison on administrative matters between their staffs and the several Departmental Program Coordinators.

Specifically, the functions of the Division are:

1. To promote a coordinated program of optimum local health services.
2. To guide and advise local health departments in all phases of organization and program.
3. To maintain a competent staff of professionally trained workers to whom local communities can direct requests for guidance and consultation.
4. To implement the Programs of the State Department of Health by consultative and advisory service.
5. To expedite available resource assistance of the State Health Department to local boards of health as needed in local programs.



6. To channel information on pertinent public health problems, and to gather facts and data needed in program planning.
7. To participate in specific pilot projects in certain phases or areas of local health programs for demonstration or research.
8. To cooperate in community and State health programs with all agencies interested in welfare, education, safety, and public health.
9. To assist in conducting evaluations of the local and State health programs.

In March, 1956, Mr. William H. MacDonald, Director of the Division, retired after forty-four years on the staff of the Department. At the same time, Mr. Wallace T. Eakins, Chief of the Bureau of Grants-in-Aid, retired also after an equal period of service on the staff of the Department. These men have played an intimate part in the development of public health in New Jersey and we are indebted to them for many of our present-day achievements. With the simultaneous loss of the services of these two long-time stalwarts of public health in New Jersey, the Bureau of Grants-in-Aid was disbanded, its functions being assumed by the State Health Districts, the office of the Director, and the Division of Vital Statistics and Administration.

Local public health services in New Jersey are carried on by 570 municipal boards of health, 21 county boards of chosen freeholders, 569 boards of education, voluntary health organizations such as visiting nurse associations, county tuberculosis leagues, county heart associations, county cancer societies, county chapters of the National Foundation for Infantile Paralysis, Elks lodges, hospitals, and many others. Working through these agencies, with the assistance of professional and citizen groups, the State Health Districts seek to improve the quality and extend the scope of public health services throughout the State to meet the needs of the people.

The activities of the Division and the State Health District offices are spread throughout this report of the Department, for much of the work reported upon by the various Divisions 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 recapitulation of parts of the reports of the other Divisions. We have, therefore, left the definitive reporting of many of these activities to the responsible Division while indicating the special participation by the State Health District office staffs in certain programs.

### Bureau of Public Health Nursing

During the past year, the Bureau of Public Health Nursing has concentrated on stimulating the improvement of the quality and performance of local public health nursing services.

Formulation of suitable policies and procedures have had considerable emphasis. These serve as administrative tools and suggested guides for local

agencies requesting consultation. An essential tool that has been developed is the Family Health Record which will assist public health nurses in working toward a more comprehensive program of qualitative nursing service to individuals and families. A companion statistical record to assist in the appraisal of nursing services and to indicate time expenditure has been developed and is expected to receive Departmental approval for use in the near future. A referral form to be used for exchange of information between agencies and thereby improve continuity of patient care has also been prepared for Departmental approval. The nursing manual, written especially for Departmental nursing personnel, is being revised and nearing completion. This is a combined administrative and technical manual and will assist District personnel in aiding in the implementation of various health programs on the local level. Simultaneously, supplementary guide sheets are being developed for specific nursing follow-up procedures in the home; to date, procedures for convulsive disorders and diabetes have been approved.

Another essential administrative tool is a set of written guides regarding medical orders and nursing procedures. Comments and recommendations were made concerning material submitted by one of the State Health District Offices working with local agencies. This material is to be used as a guide in consultation with the local agencies and county medical societies.

Recommendations were made regarding the purchase of teaching aids and reference materials for use by nursing staff in the Districts. Other materials obtained by the Bureau were distributed to the Districts and to local and other State agencies.

Consultation was given the Department of Civil Service concerning Public Health Nurse Consultant positions. Criteria for functions and qualifications, including education, were prepared and submitted to the Department of Civil Service through proper channels. Recent examinations have been held and nurses are being certified for Public Health Nurse Consultant positions in programs relating to Crippled Children, Obstetrics, Pediatrics, Heart Disease, Tuberculosis, and General Health. This brings to a total of seven the number of Public Health Nurse Consultants to be administratively responsible to the Bureau of Public Health Nursing and assigned to the special programs, in addition to one already functioning under permanent status.

Information and guidance were given, upon request, to young women interested in nursing, to nurses interested in public health, and to public health nurses from within the State and from other States who were interested in State Health Department activities and opportunities.

For guidance in planning orientation and inservice programs for supervisors and staff nurses, materials have been prepared and submitted for Departmental approval. This material represents another administrative tool to help standardize and correlate training programs for public health nurses.

Inservice training programs show a definite increase in emphasis and activity in the public health nursing aspects of chronic illness control. During the past year, 12 hours of inservice training for approximately 50 nurses from official and voluntary agencies, focused on this field, with particular reference to heart disease and tuberculosis control. Planning conferences have been held in all State Health Districts for an active inservice training program for the coming year. Early priority will be given to nursing follow-up procedures in diabetes and epilepsy referrals because of current activity in these programs.

In cooperation with the Maternal and Child Health Program, on-the-job inservice training has been given in premature infant care to personnel of nine hospitals, from January to July of this year. In another area of the Maternal and Child Health Program, considerable teaching has been given in relation to nursing services in Child Health Conferences and to nursing supervision of midwives. This has been accomplished by field trips and individual and group conferences.

A marked increase is noted in the number of requests made to the Bureau for assistance in planning with other official and voluntary agencies, especially on the local level, for educational programs in the areas of chronic illness, maternal and child health and general nursing. Consultation services were also rendered in response to individual agency requests for specific problems.

Staff education, planned at District level according to local needs, encompassed a wide range of topics relating to public health nursing implications in programs of safety and accident prevention, prevention of blindness, crippled children, mental health, hearing and speech, maternal and child health, chronic illness, communicable diseases, and use of community resources. In addition, institutes originating in local agencies and State organizations have been attended. These included programs on polio, heart disease, tuberculosis, general communicable diseases, special aspects of chronic illness control, and meetings of general nursing interest.

Formal education opportunities were arranged for thirteen Department nurses to attend: the Rehabilitation Seminar at New York University-Bellevue Medical Center, Maternity Center, New York, and ten-day workshops at the University of Pennsylvania in Cancer, Cardiovascular Diseases, and Tuberculosis. One representative of the Nursing Program attended the five-day International Symposium on the Treponematoses. The Chief Public Health Nurse attended two national workshops related to civil defense.

Services of the Bureau are rendered, as indicated above, through consultations upon requests made to and within the Department. Often the nature of these services is such that accomplishment cannot be measured in numbers related to achievement. Approximately 220 consultations were rendered to national, state, and local agencies as compared to 140 last year. Of this number, 52 consultations involved other State agencies, both voluntary and official,

universities, national agencies, miscellaneous groups, and related projects. The Bureau participated in national surveys conducted by the National League for Nursing, American Nurses Association, and the Public Health Service.

Members of the Bureau staff served on several special Statewide committees and projects during the year which aided in coordination with other agencies functioning on the State level. These included institutes on school nursing, and the New Jersey Nursing Aid In-service Training Project. The Chief Public Health Nurse also served as an elected member of the Board of the New Jersey League for Nursing.

Additional local communities continue to assume full financial responsibility for public health nursing. As of June 30, 1956, of the 215 public health staff nurses supervised by the State Health Department, only 18 are paid partially or wholly from State funds, while 197 are paid entirely from local funds. As of June 30, 1955, 210 nurses were supervised by the State Health Department; 26 of these were paid partially or wholly from State funds and 184 were paid entirely from local funds. Eighteen public health nurse supervisors are wholly State paid. It is expected that over a period of years, the functions of these State employees will be transferred to locally employed personnel.

Assistance of the Bureau has been given to State Health Districts in consultation pertaining to expansion and integration of local public health nursing services. Plans are active in many communities. Reorganization of local nursing programs to include generalization of services with bedside nursing, and termination of direct services to tuberculosis patients by several tuberculosis and health associations have increased requests for consultation services. From many of these requests evolved the imminent need for standing orders, medical and nursing advisory committees, qualified personnel, supervision and inservice education, while attention focused upon the great need for county-wide nursing services. Approximately six counties in New Jersey are thinking along these lines, and some have had surveys and meetings to discuss consolidation of nursing services.

Current trends in medicine and public health statistics indicate the need for a change in public health nursing programs. Nursing content in maternal and child health services and in disease prevention and control has shifted emphasis from acute to long-term conditions for all age groups. This requires a careful look into present practice and indicates a need for providing consultation services to local agencies. The multiple functions of the nurse in health teaching, prevention and control of disease, and care and rehabilitation of the sick involve a synthesis of skills and wide range of knowledge.

In many areas of the State, nurses are working in public health programs without qualified nursing supervision. Some are poorly qualified and lack supporting personnel and facilities which help to attain a family health service of quality.

As of January 1, 1956, out of a total of 996 public health nurses in New Jersey, only 239 are qualified according to national standards. This situation stresses the need for consultation services by way of individual or group guidance or instruction for specific needs. Well-planned educational training programs for these nurses must be provided to present nursing content required by current trends in disease prevention and control and maternal and child health services.

State consultation services should provide professional leadership and interpretation of the public health aspects of specific, approved Departmental programs and include recommendations for desirable organization for public health nursing based on community needs.

Efforts are directed toward raising the qualitative level of existing services, extending the scope of services, or where feasible, developing with local agencies a completely generalized public health nursing service including care of the sick in their homes.

Lack of personnel in the Bureau definitely hampers activities of the Public Health Nursing Program. There is need for more frequent visitation of the Districts by the Chief Public Health Nurse and need for more interpretation throughout the Department and to outside agencies regarding public health nursing services and the role of the State Health Department. Further integration of nursing in other Programs and continued assistance with coordination of Departmental activities remain an imminent need.

The problems and needs stemming from lack of comprehensive nursing services for all New Jersey citizens remain a challenge. With continued support, efforts in this direction will undoubtedly accomplish the goals yet unfulfilled.

## Central State Health District

### INTRODUCTION

Recognition of the need for the development of effective local health services grows slowly; not as the result of a major effort directed toward total health services, but rather as an almost personal effort on the part of convinced and dedicated local citizens who have a particular interest in a specific health service. The task of the State Health District staff is to recognize the early sparks of interest and to patiently foster their growth to a point at which action may be achieved and more effective services be initiated.

This developmental activity has been reflected in trends observed in the Central State Health District during the fiscal year 1955-56. The Burlington County Public Health Nursing Association, within a year, has grown from an embryonic state to the point where it is ready to render direct nursing services. Medical-social services, which were unavailable in general hospitals

of the District a year ago, are now being provided in three hospitals by qualified medical-social workers. In Burlington County, eleven communities joined together in the formation of a community dog control program. In cooperation with the Monmouth County Planning Board, exploratory sanitary surveys of the Swimming River, Shark River, and Manasquan River were undertaken as part of a study to determine supplemental water supplies for municipalities within the county. Enforcement of Chapter 212, P. L. 1954, directed toward the control of air pollution problems, has led to increased use of sanitary landfills and elimination of many burning dumps, and the alleviation of air pollution problems which formerly were of concern to many municipalities. Widespread result of this activity is to be expected in the coming year.

The sanitary survey of housing conditions conducted in Monmouth County more than a year ago stimulated the interest of the Monmouth County Grand Jury, who in turn indicated in a Presentment the need for municipalities to properly discharge their obligations in matters of health and housing. A committee of township officials, working with the Department and the prosecutor's office, have deliberated upon ways and means by which more effective health services may be made available. Although progress is slow, a formula is being sought which would provide basic health services, with reasonable expectancy of achievement.

On the administrative level, a trend is developing whereby relationships between the Department and agencies with whom it works are more clearly defined in contracts and agreements covering specific aspects of public health services. Program definition at the operating level is an apparent need both for Departmental personnel and the agencies with whom they work.

### COMMUNITY HEALTH PROJECTS

The outstanding community health project in the District during the past year has been the growth and development of the Burlington County Public Health Nursing Association. Participating in the development of this agency are representatives of three local visiting nurse associations, the Board of Chosen Freeholders, the Burlington County Tuberculosis League, and other interested citizens. A nursing director of the agency was employed in mid-September, 1955, on a basis of grant-in-aid support provided to the Board of Freeholders by the Department. The nurse director assumed executive direction of the agency, and in cooperation with its board, medical advisory committee, and other committees, proceeded to formulate policies relative to nursing activities, financial support, and community relationships. The District Chief Public Health Nurse participated in all of this activity, rendering consultation and assistance when required. Concurrently with the formulation of

policy, the nurse director began to expand the services of the countywide nursing agency in the municipalities of the county. Through this approach, a growing public awareness has been developed. Within the year, discussions with the County Tuberculosis League resulted in the decision by the Board of Directors of this organization to relinquish direct nursing services rendered by the League, transferring them to the Public Health Nursing Association. The details of this transfer were agreed upon, and financial support in the form of a grant was provided by the Tuberculosis League to assist carrying on the services. The staff nurse employed by the Board of Freeholders for tuberculosis nursing services, formerly assigned to the Tuberculosis League, was assigned to the nursing staff of the Association to render services in the generalized program. The staff nurse of the New Jersey State Health Department who served with the Tuberculosis League will continue to work with the Burlington County Public Health Nursing Association. Contracts for school nursing services formerly held by the Tuberculosis League are to be carried on by the Nursing Association. The need for nursing supervision was considered an essential element in nursing services. Discussions were held with the Association and the Board of Freeholders to determine means by which the Department might assist in providing nursing supervision. It begins to appear that grant-in-aid assistance for these services will be accepted during the coming year. At the close of the year, consideration was being given to administrative consolidation of crippled children nursing services in the county. These services, presently rendered by the three visiting nurse associations of the county, may be combined under the Public Health Nursing Association for administrative and supervisory purposes. This will provide one central agency in the county to conduct all crippled children nursing services. Initial development of these services has been considered but not yet approved by the Board of Freeholders and other interested agencies.

The growth of progress of the Burlington County Public Health Nursing Association indicates the potential available in our counties for adequate local health services, once the initiative is seized by the interested local individual group or organization.

The City of Trenton has, for a number of years, been one of the major tuberculosis risk areas in this State. A study revealed that the tuberculosis problem is concentrated in specific areas of the city. In these areas, it was estimated that there were between 30,000 and 45,000 adults. Early in the past year, a plan calling for community organization sufficient to reach approximately 85 per cent of persons from 16 years of age was proposed for a target area tuberculosis survey. The District staff fostered a program of stimulating interest and guiding the organization of basic committees which were required in carrying out this plan. Initial activity resulted in obtaining support of the Commissioner of Public Affairs of the City of Trenton and the Director of the

Tuberculosis Hospital. The preliminary meeting called by the Commissioner included representatives from the Trenton Health Department, Mercer County Medical Society, the Office of Civil Defense, Mercer County Tuberculosis and Health League, the Trenton Council of Churches, the Mercer County Council of Parents and Teachers, the Junior Chamber of Commerce, the Chamber of Commerce, and the State Department of Health. Through successive steps, the City Health Committee of Greater Trenton was developed and incorporated. A board of trustees was elected and executive officers chosen. Through the action of this committee, hundreds of citizens were stimulated to participate in the campaign against tuberculosis. Spearheaded by the Junior Chamber of Commerce, each home and each block of the six major tuberculosis areas in the city were visited by a volunteer health worker.

An appeal for control of tuberculosis was made to all adults in the household, particularly to those 45 years of age and over. All persons were urged to participate in the survey by presenting themselves for the chest X-ray. In all, 15,900 X-rays were taken. This consisted of approximately 50 per cent of the estimated X-rayable population in the area. Approximately 6 per cent of all persons X-rayed were found to have abnormalities of the chest, lungs, and heart that required further medical examination and study. A vast follow-up task was created which will require considerable time to complete. However, within a short time, five new active cases of tuberculosis have been confirmed and identified. This survey, while falling short of its planned objective, can be considered one of the most successful in that it provided widespread community organization, involved hundreds of persons in its execution, resulted in establishing numbers of persons found to need medical examination and study, and resulted in early discovery of a number of tuberculosis cases. Above all, a committee remains which is available to consider at greater lengths the health needs of the City of Trenton.

In the late summer of 1955, the Mercer County Fluoridation Committee carried out a campaign to petition the Commissioners of the City of Trenton to enact an ordinance requiring fluoridation of the city water supply. This committee was, and is, comprised of more than forty organizations. Among them are the Mercer County Dental Association, the Mercer County Council of Parent-Teacher Associations, and the Congress of Industrial Organizations. The petition failed to elicit direct action for fluoridation of the Trenton water supply, with the result that the question of an ordinance placing the matter of fluoridation on a referendum came to a head in the early spring. In this endeavor, the committee was successful so that the question of fluoridation of the city water supply is entered on the ballot for referendum vote in November, 1956. In the early spring, a public education campaign was devised for purposes of obtaining widespread public understanding of the safety and benefits of fluoridation of the water supply. In this undertaking, there is severe op-

position, based upon fear and misinterpretation, skillfully played upon by a well-organized minority. The challenge to successful community organization and health education is apparent.

Junior Safety Week was conceived as an activity in the District as the result of the New Jersey Child Safety Project conducted by the parent-teacher associations in 1954. A Steering Committee was organized which later became the Coordinating Council for the Safety of Children and Youth of Mercer County. Organizations participating in this Council included:

- The Woman's Auxiliary to the Medical Society
- The Trenton Region Parochial Parent-Teacher Association
- The Mercer County Council of Parent-Teacher Associations
- The Greater Trenton Chamber of Commerce
- The Women's Home Safety Committee of the Safety Council
- The School and College Division of the Safety Council
- Trenton Chapter, American Red Cross, and Red Cross Safety Services
- The Mercer County Medical Society
- The George Washington Council of Boy Scouts
- The Trenton Council of Girl Scouts
- The Trenton Public Schools' Health and Physical Education Department
- The Penn-Jersey Chapter of the American Society of Safety Engineers
- The Mercer County Pharmaceutical Association
- The Trenton Junior Chamber of Commerce

The Coordinating Council, working with the Mercer County Safety Council, realized that it was engaged in activities which were essentially those of a committee of the Safety Council. The Coordinating Council, by agreeing to act as such a committee, surrendered its identity to a common cause. This commendable and unselfish action speaks highly for the understanding and purpose of its members.

The Junior Safety Week Program included excellent press and radio coverage of a public education type. A program of student participation was well attended and received in the junior high schools.

An accident survey among youth, conducted cooperatively by the schools, parent-teacher associations, hospitals, and medical society members, was effective in achieving participation on many fronts. All the hospitals in Mercer County reported accidents occurring among youth during the period of Junior Safety Week. Physicians reported a number of accidents as well. The survey conducted in the District Office revealed more than 200 reports from physicians and hospitals; 60 per cent of accidents reported were among boys and an equal percentage of children under ten years of age; nearly one-half of all accidents occurred at home. Most accidents reported were not severe; only

eight required hospitalization. Sixteen of the accidents were in association with motor vehicles, the majority occurring while the injured persons were riding in automobiles. There were no accidents reported in which a child was struck by a car. The survey conducted by the parent-teacher association resulted in a report of 540 accidents. The findings of their study paralleled those reported from hospitals and physicians.

Upon completion of the program and evaluation of its results, representatives of all participating organizations voted to incorporate this program in their plans for the coming year and to make it a permanent project. It appears also that a project of this type is required in all areas of the District.

Since the development and demonstration of Salk poliomyelitis vaccine, there have been recurrent emotional crises. Fear of the crippling effects of poliomyelitis led people to turn with hope to the vaccine. Its demonstrated effectiveness was soon challenged by an episode of illness directly attributable to defective vaccine. In this defective vaccine, the virus had not been inactivated because of factors associated with formalin inactivation which were not completely known. Once the safety of the vaccine was re-established and safeguards to new production introduced, the vaccination program developed slowly, partly due to limited supplies, and partly due to a reluctance of the profession to join with local health officials in a broad immunization program.

Two areas in this District were critical, i.e., Monmouth and Mercer Counties. The Department, by policy, maintained a position of neutrality on local clinics, but was obliged to assure that vaccine allocated to communities was properly used in accordance with State and Federal regulations.

A vigorous campaign by two local boards of health and the C. I. O. in Mercer County developed an extreme and favorable public reaction which led to approval of immunization clinics in the county by the county medical society. Thousands of children were immunized with great dispatch once general acceptance had been obtained.

In Monmouth County, although a clinic program had been operating for some time, participation was limited. It was estimated in May that the bulk of children in the area had not been immunized. A broad discussion of the problem with the Monmouth County Health Officers Association, representatives of the Monmouth County Medical Society, and the Chairman of the Monmouth County Chapter of the National Foundation for Infantile Paralysis, resulted in a survey which revealed the need for immunization and the public attitude toward that need. Shortly thereafter, a broader clinic program resulted.

Closely following upon the vaccination program, with which practically all local boards of health became involved, came the inauguration of the Poliomyelitis Surveillance Program. This program was developed to study all cases of newly reported poliomyelitis. It required early and effective cooperation of

all local boards of health. Letters and instructions were sent to all boards of health and, to supplement them, a series of county meetings was arranged whereby the program could be presented directly to representatives of the local boards of health. These meetings provided an opportunity for the presentation and discussion of questions relative to the program. In all, approximately 25 per cent of the local boards of health in the District were represented at these meetings. The manifest interest and participation revealed in this effort lead to the opinion that such a meeting of local health officials is a device worthy of further follow-up.

In summary, the Poliomyelitis Vaccination and Surveillance Programs have created an understanding of a public health problem and action to meet that problem on the part of the majority of boards of health in this District. It has been one of the most stimulating and effective programs observed. While the success of the program in preventing paralytic poliomyelitis cannot be absolutely assured, a trend in this direction appears when the present major reduction in newly reported acute cases is considered.

As a result of a survey of housing conditions in Millstone Township, Monmouth County, the Grand Jury in that county took cognizance of the matter and conducted its own investigation in seven municipalities. The material gathered in the original survey was presented to the Grand Jury, who after their inspections and deliberations, prepared a Presentment to the governing bodies of the seven municipalities. The Prosecutor of Monmouth County, in carrying out his responsibilities, organized a committee of municipal officials to study the problems of health and housing. This committee met on a number of occasions to consider the legal means by which health services could be provided in their municipalities. It reviewed copies of all codes that a municipality may adopt by reference. Two municipalities, Atlantic Township and Upper Freehold Township, did not participate in the discussions of the committee. No reason has been given for Atlantic Township's absence. Upper Freehold Township, however, has employed a licensed health officer on a retainer basis. Two other municipalities were reluctant to indicate a course of action, either contemplated or desired. Individual meetings were held in these townships with the governing bodies to discuss the possibility of obtaining broader health services. Later in May, the prosecutor met with the committee to consider the progress made by the committee.

At that time, Millstone, Manalapan, and Howell Townships were agreed to unite in a common health service on the basis of participation by five municipalities. The plan, however, was rejected by Freehold and Marlboro Townships. Manalapan and Millstone Townships have retained licensed sanitary inspectors to serve their health needs.

Over a period of several years, a working relationship has been fostered with the Board of Chosen Freeholders of Ocean County to a point where

initial and exploratory consultations have been held relative to broader health services in that county. The Ocean County Medical Society has also developed an interest in this matter. Several local citizens have become concerned. In this area, where growth is occurring, where a major recreational industry flourishes in the summer, there is only one community which is adequately covered by trained and licensed health personnel. The remaining thirty-odd municipalities have only that coverage provided by conscientious, but untrained, local boards of health and their secretaries. Limited consultation is provided by the Department. Discussions with the Freeholders have led to the recommendation that there be an advisory committee of citizens appointed to consider the problem of broader health services, and to recommend to the board the means by which the communities of the county may provide more adequately for this service. A staff study of the health problem and resources of Ocean County has been started in preparation for work with the advisory committee.

The Department has been working with the Commissioners and Health Officer of Edison Township, on its public health nursing services. A grant-in-aid is provided this township for employment of a public health staff nurse. Supervision of the nursing staff is provided by the Public Health Nurse Supervisor assigned from this District. In the course of the past year, a detailed guide for personnel and policies was developed and provided for Edison Township. The development of standing orders for nurses employed by the township is well advanced. The orders now require consideration and approval by the Middlesex County Medical Society before they may be implemented by the township. The elements of public health nursing services to be rendered by Edison Township have been defined in a grant-in-aid contract. In this contract, the duties of the Department and the responsibilities of the township are presented in relation to one another.

As a final project, an initial draft of a school health program has been prepared as a guide for the nurses rendering health services in private schools. Refinement of this draft will require further attention during the coming year. These efforts undertaken in behalf of Edison Township may be extended to provide a guide to services and activities on the part of other municipalities.

Approximately a year ago, consultations were held relative to nursing services in Middlesex County. This activity was not developed vigorously. However, there is a constant pressure of interest manifested, and specific stimuli have been applied to foster an adequate local study of the problem. In view of the fact that this county is growing rapidly, many of its municipalities are in a transition stage from a rural to an urban situation. There is need for further local study for nursing services. An additional staff study has been initiated to determine not only the extent of services presently provided in the community, but also the distribution of services, case load, and

the circumstances in which they are provided. This material, it is anticipated, will provide direction to future consultations to be held in agencies in this county.

#### EMERGENCY SUPPLEMENTAL SERVICES

Late in August, 1955, major flood conditions existed throughout the entire Delaware River Valley. The staff of the Central State Health District was called upon to supervise environmental sanitation activities. These activities involved control of water supplies, sewage treatment plants, food control, and other related activities. There were no serious problems involved in water supplies or sewage treatment plants. Serious conditions, however, were found in relation to food products and beverages. In cooperation with the Food and Drug Program, many thousands of dollars of food products and beverages were condemned. The principal areas involved in this activity were the cities of Trenton, Burlington, and Ewing Township. Health officials of these municipalities cooperated wholeheartedly in these activities.

#### ENVIRONMENTAL SANITATION

A generalized Environmental Sanitation Program was carried out under the supervision of the District Chief Public Health Engineer. The District Office, in cooperation with local health officers and local boards of health, conducted many varied inspections and investigations and provided numerous recommendations for action by local governing bodies and the Public Health Engineering Program of the Department. The following is the list of the total inspections and investigations carried out during the year:

Preparation and sale of milk and milk products .....	1,007
Poultry industry .....	81
Preparation, storage and sale of food .....	174
Shellfish .....	37
Camps .....	35
Housing .....	4
Dumps .....	19
Water supplies .....	117
Cross connections .....	16
Sewage disposal .....	85
Stream pollution .....	45
Real estate developments .....	13
Samples—milk, water and other .....	1,186
Total .....	<u>2,819</u>

Extensive surveys were made by staff members in cooperation with the Public Health Engineering Program. These included the sewage treatment plants in Freehold, Keansburg, and Atlantic Highlands. Notices were issued to the respective governing bodies requiring improvement in the operation of these plants. A survey was conducted in Evesham Township in the Marlton Section to determine the cause and means of prevention of insufficient individual sewage disposal facilities. The survey resulted in a request that the Evesham Township Sewerage Authority require that facilities be provided for the treatment of sewage from Marlton and Marlton Hills.

During the month of June, 1956, a survey was made of all sewage treatment plants along the North Jersey coast in this District extending from Perth Amboy to Beach Haven, and including plants discharging to Toms River and the Metedeconk River. As a part of this survey, the Bathing Beach Committee cooperated with this District in the collection of 340 bathing water samples from Raritan Bay, North Jersey Coast, Barnegat Bay, and tributary streams.

Many surveys were made of proposed realty subdivisions, particularly in Monmouth and Ocean counties. With the opening of the Garden State Parkway, many developments are now under construction, particularly in Ocean County, which may in the future present a problem, since panels pertaining to quite a few of them were not submitted to this District for review.

The entire staff, in conjunction with activities in the other Districts, engaged in two separate investigations of all milk plants in the District for the purpose of detecting violations respecting predating of milk. All violations found were reported to the Bureau of Food and Drugs and, as indicated, legal action was initiated.

Members of the engineering staff cooperated with Rutgers University in the presentation of lectures to nurses at the university on the various aspects of environmental sanitation. Also, a tour was conducted of the new Trenton Water Plant and the Ewing-Lawrence Sewage Treatment Plant for students of Columbia University taking courses in public health.

The District Engineer cooperated with the consulting engineers retained by the Department of Institutions and Agencies in planning improvements to the sewage and water systems at the Johnstone Training Center (formerly the Bordentown Manual Training School). Several surveys were made with a representative from the Bureau of Public Health Engineering.

Practically all water supplies in the District were routinely inspected at least once during the year.

Special investigations made of the Crosswicks Water Company and the Lumberton Water Company resulted in the permanent installation of disinfection equipment.

## MEDICAL AND NURSING SERVICES

The Venereal Disease Control Program in the District continued to operate as in previous years. The venereal disease investigators assisted local public clinics, private physicians, and military establishments with services of contact interviewing and suspect investigating. In many instances, the information received on a suspect is very inadequate. This year, more persistent follow-up was given to these cases. The results show that more persons were investigated and brought to examination in 1955, although the percentage rate of successful close-outs dropped slightly. In 1955, 2,383 suspects were investigated with 1966 or 82.5 per cent brought to examination, while in 1954, 2,219 investigations resulted in 1,889 or 85.1 per cent successful close-outs.

The District rates for reported syphilis (105.0 per 100,000) and gonorrhea (76.5 per 100,000) were again second highest in the State and exceeded the State rate for reported syphilis (95.4 per 100,000). These high rates, coupled with the knowledge that a large number of reported infectious cases are not interviewed, show that special case-finding techniques and interviewing—investigating services must be intensified.

Serologic surveys were again employed as a special case-finding technique among migrant workers. The District operated clinics for migrant farm workers at Freehold and Prospect Plains during July and August, 1955. At these clinics, 831 persons were blood-tested and 208 or 25.0 per cent showed a reactive result for syphilis. In addition, 47 persons were brought to treatment for gonorrhea. Migrant workers at Monmouth Race Track were tested in June, 1956. Here 150 persons were blood-tested and 18, or 12.0 per cent were reactive for syphilis. Because of the high rates of venereal disease in these selective groups, this special case-finding project will continue.

During the current year, blood-testing projects were conducted among migrant workers in the resort areas of Lakewood, Sea Girt, and Spring Lake. In these areas, 419 persons were tested and 15, or 3.5 per cent, were reactive for syphilis. Since this group shows a relatively low incidence of venereal disease, no greater emphasis shall be put forth to survey them in the current year.

The Venereal Disease Education Program in the District was divided into three categories: Patient education, prevention and control education, and professional education.

Patient education is an integral part of the interviewing and investigating procedure. During the contact interview or investigation, the individual is privately instructed as to the signs or symptoms, mode of transmission, ill-effects, and ease of treatment of the venereal diseases.

Education for the prevention and control of the venereal diseases was performed among public groups and individuals institutionalized for short periods

of time. Because reports show that venereal disease rates among young people are rising, a majority of the education of public groups involved high school students. In Asbury Park, Freehold, and Stelton, thirty-six sessions were held to show the film "The Invader" and to discuss the venereal diseases. The total attendance exceeded 2,000 teen-age boys and girls.

At the State Home for Girls in Trenton, more than 250 teen-age girls witnessed the motion picture "16 60 26" and participated in an open discussion. About 75 adult males attended a film showing of "Very Dangerous" at the Middlesex County Workhouse.

Nursing groups were those who received professional education in the venereal diseases. These programs consisted of six hours of lectures and film showings. Each session was conducted by a physician, a nurse, or a health program representative. The purpose was to acquaint them with the latest methods of diagnosis and treatment, morbidity trends, control techniques, and educational programs. A total of 67 student nurses attended these lectures at St. Peter's and Middlesex General Hospitals in New Brunswick and at McKinley Hospital in Trenton. A two-hour in-service training session was held for 13 public health nurses in Middlesex County.

Arrangements were made with the Division of Chronic Illness Control and District Office to carry on an evaluation of the admission chest X-ray screening programs conducted by hospitals in the District. Consultations were held with the various hospitals in an effort to increase the number of X-rays taken to the maximum capacity of the available facilities.

Inquiries were made as to follow-up services provided for patients found to have abnormalities in the screening X-ray examination. An improvement of the follow-up system is required. Efforts to this end will be made in the coming year.

The reporting of typhoid fever by hospitals has been given limited study. The initial observations of this study indicate that, by and large, a reported diagnosis of typhoid fever is based upon clinical manifestations and a response to antibiotic therapy. Bacteriological proof of the diagnosis is rarely obtained. Serological proof of the diagnosis varies in adequacy.

An attempt has been made with several hospitals to obtain a coordination of activity of the attending physician and the pathologist in order that more definite confirming laboratory data may be obtained. From a practical point of view, antibiotic therapy will generally result in three negative stools prior to release from the hospital. However, there is a very strong possibility that stool cultures may be found positive long after the patient has been discharged. These positive cultures may be missed, thus permitting a typhoid carrier to remain undetected. Activity will need to be directed toward alerting public health officials to the need for close supervision of cases subsequent to their discharge from the hospital.



## PUBLIC HEALTH NURSING

The major accomplishment in public health nursing during the past year has been the services related to the Burlington County Public Health Nursing Association. The nursing program has consulted with this agency and has assisted in the growth and expansion to a point where the agency is ready to render direct nursing services on a county basis.

Consultation services have been quite extensive in all counties and have mainly been concerned with steps toward development of county nursing services, development of generalized nursing programs, including bedside care, and crippled children services.

Staff education has been mainly devoted to orientation in Departmental programs and included use of films, lectures, and discussions. These programs included venereal disease, communicable diseases, maternal and child health, aspects of chronic illness, medical-social rehabilitation, and nutrition.

An imperative need for improved nursing services is a manual of procedures for each program concerned with nursing. This might well be the basis for the District Nursing Program.

In relation to the supervision of local health department nurses, there are two needs to be met. One is the need for the signed agreement with local health departments for supervisory services. Such an agreement will give better understanding of nursing services and improve public relations, and also serve as an educational tool. The other need to be met is to define the type of nursing service that shall be provided by local health department nurses. Private visiting nurse associations are given crippled children contracts and in most instances are better equipped to give bedside care.

## NUTRITION

Nutrition activities continue to be integrated into the programs of the District. This is accomplished through staff activities, such as the joint presentation of medical, nursing, nutritional, and social aspects of a chronic disease condition in various institutes, staff conferences, and planned in-service training programs. Integration may also be demonstrated by the joint visits of sanitarian and nutritionist to summer camps for children and adults.

Services of the nutritionist as a consultant continue to be offered to local groups. In Mercer and Middlesex Counties, such services are offered through public health nursing supervisors. In Monmouth, Ocean, and parts of Burlington Counties, introduction is through attendance at meetings and clinics, and personal contacts. This fiscal year, the nutritionist has acted as a consultant to local agencies, as a speaker for meetings, as a group discussion leader, and has ordered and distributed various nutritional materials.

During the past year, the nutritionist has made her services available to official and private nursing agencies in all five Central District counties. These have been effectively used in Burlington, Mercer, and Middlesex Counties and to a lesser degree in Ocean.

Public health nurses are using the services of the nutritionist in staff conferences and group discussion periods. In Burlington County, a series of informal monthly group meetings was used to supply nutrition information and to stimulate its use by local nurses. The informal sessions were felt to be a better means of inducing individual nurses to take part in the discussions, and to share their nutrition-teaching experiences for the benefit of the group. Continued group discussions are anticipated in Burlington County.

Local groups, other than nursing agencies in the five counties, have also made extensive use of services provided by the Nutrition Program. Consultations, speaking engagements, films, illustrative materials, and nutrition publications have all been requested. Persons and groups making such requests have been: Parent-teacher groups, county heart and tuberculosis associations, clubs, teachers and school principals, Young Women's Christian Association and Young Men's Christian Association, hospitals, professional associations, and organized clinics.

Continued consultations have been afforded to dietary staff members of general and tuberculosis hospitals in the District. At the present time, only six of twenty-three such hospitals have at least one well-qualified dietitian on their staffs. This emphasizes the importance of bringing current and accurate nutrition information and practices to hospitals through consultation.

A shared-dietitian plan, sponsored by the New Jersey Dietetic Association and the New Jersey Hospital Association, is being suggested to the administrators of small hospitals and those not employing a dietitian.

Two half-day institutes, requested by representatives of homes for the aged, were presented in Moorestown to give assistance to homes located in the southern Burlington County area. Interest in nutrition in the care of the long-term patient had been stimulated by an earlier institute sponsored by the State Department of Health. Additional and more specific information was requested. The nutritionist and other Central District staff members assisted in planning and presenting a nutrition and general purchasing institute during the year.

Occasional requests from private citizens are handled by correspondence, or through the public health nurse where available.

Interest in nutrition was stimulated in local and citizen groups by the Governor's Conference on Nutrition this year. Central District counties were well represented by agencies and private citizens.

## MEDICAL-SOCIAL REHABILITATION

The District Consultant, Medical-Social Rehabilitation, participating in the over-all program of the District, has continued to give major emphasis in the area to chronic illness control and rehabilitation. As might be expected, her activities have varied from county to county, depending on the particular needs and interests of individual communities.

During the year, regular consultation has been provided in the establishment of a social service department at McKinley Hospital in Trenton, through a grant-in-aid from the Division of Chronic Illness Control. The development of this department has been watched with interest since it was the first in the District with a social worker assigned solely to the provision of casework services to patients and operating independently of the financial, admitting, and credit departments. The consistent flow of referrals and the social worker's participation in a number of community health and welfare planning activities, as well as in the hospital's staff education activities, indicate that the service is successfully being integrated into the hospital's patient-care program. As the second year of the social worker's employment begins, the hospital has assumed a portion of the salary and is providing the entire cost of secretarial service. During the past year, two other hospitals, one in Mercer County, and one in Middlesex County, have employed trained social workers. Consultation is offered to these, as well as to the untrained workers in other hospitals in the District, and exploration continues with other hospital administrators regarding the feasibility of establishing social service departments.

Exploratory conferences, with the District State Health Officer and representatives from the Division of Chronic Illness Control, have been held with a number of local hospital personnel, with a view to eventual development of comprehensive rehabilitation services and speech and hearing centers. As a background for this type of activity, the consultant has attended a five-day institute on Principles of Rehabilitation at the University of Pennsylvania Rehabilitation Center, and has visited other centers and clinics.

The development of Homemaker Services has moved slowly. Middlesex County continues to be the only county in the District with such a service in operation. This agency has recently moved to more centrally located offices in the Middlesex General Hospital and a grant-in-aid from the Division of Chronic Illness Control has provided a paid executive. It is expected both of these developments will lead toward the more complete geographic coverage of the county. The District Consultant has devoted a considerable amount of time to the promotion and development of interest in a Homemaker's Service in Mercer County, and the Trenton Council of Social Agencies has included this project in its official agenda for the coming year. It is the consensus of opinion among the interested agencies in Mercer County that the Homemaker's Service should not be launched until financing and paid personnel are assured.

Consultation with other agencies regarding the medical-social aspects of chronic illness control and rehabilitation, and participation in other agencies' staff education projects has continued on both formal and informal basis. The number of requests for this type of service has shown an increase over the preceding year. With other members of the Health Department staff, the District Consultant has participated in formal institutes conducted by the Middlesex County Tuberculosis League and the Middlesex County Heart Association, and in staff meeting programs of such agencies as the State Board of Child Welfare, Central District, and District IV of the State Nurses Association. At the invitation of the Burlington County Public Health Nursing Association, a series of informal case discussions was held with a group of public health nurses. Typical of the variety of individual requests for consultation from other agencies has been that from the Monmouth County Organization for Social Services regarding a rehabilitation program for tuberculous patients in Monmouth County. The executive secretary of the Central Jersey Chapter, Multiple Sclerosis Society, has made use of the District Consultant in carrying out a patient survey and in planning a program of services to multiple sclerosis patients.

Individual conferences have been held with some public health nurses and their supervisors regarding particular local and individual social problems encountered in the course of day to day public health nursing activity. This type of request for consultation on local and individual problems is invaluable to the Consultant, as a means of keeping informed about local resources and gaps in services for the chronically ill. It is thought the consultation could be more mutually effective and productive if channels of referral were clarified.

The small gains of the past year, the beginnings of interest in homemakers' services, sheltered workshops, casework services, rehabilitation centers, and other new services for the chronically ill, as well as better coordination of existing services, are a source of gratification to the District Consultant. The large areas of, as yet, untouched and unmet needs continue to be a stimulus to greater effort and more effective community planning.

## PUBLIC HEALTH VETERINARIAN SERVICES

Principal efforts of the Public Health Veterinarian have been directed toward control of rabies, investigation of epidemics, and inspection of animals and slaughterhouses.

The Rabies Control Program is directed toward the fostering of approved dog control practices and the continued immunization of the canine population. In promoting dog control, ample opportunities were presented to encourage local boards of health to pool their resources. A community dog control unit

was organized with eleven communities participating. The Public Health Veterinarian and Rabies Control Warden attended meetings in these communities and presented the basic facts concerning the need for and the methods by which the program could be organized. Spot checks in Burlington County subsequent to the organization of the program indicate that fewer persons are being bitten by dogs, quarantine procedures are improved, property damage is reduced, and the number of dogs which are poorly cared for is diminished. Nuisances due to dogs are reduced.

The community dog control unit and the efforts directed towards its development were fortuitous in March when it was discovered that a dog had died of rabies in the Township of Tabernacle. Within 24 hours all the townships surrounding Tabernacle were quarantined, notices were published in all public places, and procedures for limiting the movement of dogs were instituted. The rapidity of action was made possible due to early orientation in the need for and methods of dog control activity. Within a week's time, immunization clinics had been organized in six towns and the program completed within two weeks. Nearly 60 per cent of the estimated dog population was vaccinated. In this area, a cooperative project for trapping and examining wildlife for the presence of rabies was undertaken and carried out by the Department of Conservation and Economic Development and the Department of Health.

In addition to the Burlington County Dog Control Unit, there are three other operating units in the District. They have expanded their activities in the past year. The unit in Neptune is an example of expanded activity. Here 21 new communities have undertaken services within the year. The vaccination program of the District has been carried on more intensively. There were 18,700 dogs vaccinated in the past year as compared to approximately 16,000 in the preceding year.

Investigation of epidemics was concerned primarily with the diseases psittacosis and trichinosis. Six aviaries were found in the course of the year to be infected with psittacosis virus. The local boards of health in whose jurisdiction these aviaries were located were alerted to their responsibilities in the control of this disease. Spot checks of dealers in areas of this District were made for the purpose of determining adherence to existing regulations and control procedures. No cases of human psittacosis were reported.

An interesting investigation was conducted into an outbreak of trichinosis which involved a total of 16 persons who had partaken of a cold, smoked, Hungarian-style sausage. The material was found to be infected with trichina spiralis. Primarily, public health significance of this epidemic and its investigation is the need for improved supervision of meat processing and adoption of legislation requiring cooking of garbage fed to hogs.

Research studies were directed to the determining of leptospiral and fungus infections in dogs. This work was carried on in conjunction with the

Public Health Veterinary Program of the Department and the Communicable Disease Control Center of Chamblee, Georgia.

Routine inspections of slaughterhouses were carried out by the Public Health Veterinarian. It is felt that this activity is limited and is insufficient to maintain adequate sanitary meat inspection standards. There is need for a Statewide meat inspection program, and sanitary requirements for slaughterhouses. These needs have been recommended for consideration by the Public Health Veterinary Program. Meat inspections conducted in slaughterhouses operating in this District are as follows:

<i>Number of Slaughterhouses in District</i>	<i>Number of Post-Mortem and Ante-Mortem</i>	<i>Number of Post-Mortem Only</i>	<i>Number of with no Meat Inspection Required</i>
30	9	7	14

A limited survey was made of poultry slaughterhouses to determine sanitary conditions existing in these establishments. Plants inspected were located in Monmouth County and the cities of New Brunswick, Trenton, Bordentown, and Burlington. Sanitation was generally poor. Deficiencies included a lack of hot water, toilet, and cleansing facilities, poorly maintained buildings, and inadequate cleansing equipment. Inspection of animals is required to eliminate obviously sick birds and carcasses which reveal obvious, macroscopic lesions. Need for adequate inspection can be met by the development of regulations at State level, and supervision of poultry slaughterhouses by local health officials in cooperation with Department representatives.

#### Metropolitan State Health District

In the District, embracing the five highly urbanized counties of Bergen, Essex, Hudson, Passaic, and Union, reside 60 per cent (three million) of New Jersey's population in 9 per cent of the State's land area. Major public health problems are those encountered in similar metropolitan areas of high population density which, in the main, stem from three important factors: (1) deterioration and crowding in older cities; (2) industrial concentration; and (3) rapid suburbanization and increasing population of the metropolitan fringe.

Problems associated with the first factor include substandard housing, slum clearance, and relatively high incidence of tuberculosis and venereal disease; with the second, air pollution and occupational hazards; with the third, inadequacies in health services and failure to meet the increasing demand of a growing and changing population. Failure of local government to provide adequate health services may be attributed, in part, to complacency and an insufficient awareness of changing and increasing needs and, again in part, to

the competitive struggle between boards of education, fire, police, and other arms of municipal government to procure available tax moneys. In a majority of the 141 municipalities in these five counties, boards of health do not receive a fair share of the total budget.

Public health services locally provided have long been largely devoted to sanitation, child health, communicable diseases, and vital statistics registration with relatively little attention to the newer programs. Boards of education, by better salary and vacation inducements, have competitive advantage over boards of health in employment of the limited number of available trained public health nurses.

Passage of Chapter 199, P. L. 1954 and adoption of Standards for Construction of Sewerage Facilities for Realty Improvements have been of material assistance in prevention of sewage problems in unsewered areas undergoing extensive housing expansion.

The trends of District effort in promotion of local health improvement have been in the direction of promotion of chronic illness services, intensified cooperation with voluntary agencies, generalization of nursing, greater selectivity by priority in public health nurse visiting, local provision of nursing supervision, improvement in quality of child health conferences, refinement and simplification in administration of crippled children services, increased participation in diabetes case-finding, focus of chest X-ray surveys to high incidence areas, fluoridation of public water supplies, increasing inspection responsibility by local sanitarians, and development of an adequate training program for local health personnel.

Several changes in District staff occurred during the year. A well-qualified Public Health Nutritionist assumed her duties in a much needed new position on October 1, 1955. The District Health Officer, Clyde R. Newell, responsible for the District branch office, Hackensack, retired after 25 years' service to the Department. Two public health nurse supervisors were lost to the District early in 1956, a general supervisor by retirement and an orthopedic supervisor by transfer to another State agency. Two additional venereal disease investigators were assigned in May and June, 1956. There were five clerical resignations and four replacements with one clerk vacancy at the end of the fiscal year. At no time during the year, as in previous years, was there a full complement of clerical staff. As of June 30, 1956, the staff consisted of 24 professional and 7 clerical personnel.

The District State Health Officer and his staff are concerned in two closely related areas, District functions as prescribed by the several Departmental programs, and promotional development of effective local health services as outlined in the District Plan.

#### PROGRAM ACTIVITIES

District responsibilities within departmental programs, a not inconsiderable task, have been diligently executed to the extent possible in light of existing manpower and with due consideration to relative priorities. Activities are hereinafter briefly summarized.

##### *Alcoholism Control*

Development of treatment facilities for alcoholics highlighted activities in this District. The third State-assisted study clinic in the District was opened in July, 1955, at Overlook Hospital, Summit. A grant-in-aid contract was signed in September to establish a fourth out-patient facility at Bergen Pines Hospital, Paramus. In November, 1955, the Mount Carmel Guild of Paterson, which had had a supervised residential workshop for alcoholics since January, 1955, added an in-patient treatment center to its program (no residence restrictions).

The Essex County Board of Chosen Freeholders has appropriated funds for the construction of a separate 100-bed unit for court-referred alcoholics, on the grounds of the Essex County Penitentiary. The Essex County Committee on the Rehabilitation of Alcoholics will hold in abeyance the development of a "half-way house" residence for selected alcoholics, until the scope of the Freeholder project is known and under way.

Educational efforts on alcoholism included a nurses' institute under auspices of the Essex County Service for the Chronically Ill and the Department; a symposium at the Academy of Medicine of New Jersey, under co-sponsorship of the New Jersey Medical Society and the Essex County Service for the Chronically Ill; and three informational meetings for District staff.

##### *Cancer Control*

Where District effort has been directed toward local public health nurses and agencies in acceptance of a total family service and where effort has been made in developing common denominator services in the community, including the widely accepted Homemaker Services, the needs of cancer patients as well as those other chronic illnesses have been stressed.

##### *Chronic Disease Control*

A second center for the diagnosis of a categorical disease, multiple sclerosis, was established in the District this year. The first, a muscular dystrophy clinic, was opened last year. A third categorical agency, Arthritic and Rheumatism Foundation, which also has expressed interest in having a diagnostic

center, has offered hospitals and physicians of in-patients the consultation services of a specialist in arthritis and rheumatism. The District Consultant, Medical-Social Rehabilitation gave effective consultation to the Multiple Sclerosis Society of New Jersey and was instrumental in securing employment of a qualified medical social worker on the clinic staff.

#### *Diabetes Control*

Greater interest and participation by local health officers in diabetes detection were evident in 1955. Prior to the Christmas holiday, 6,275 citizens of the metropolitan area expressed interest in personal health following Diabetes Detection Week in mid-November by return of a Dreypak for testing. Of this number, 2,549 were returned by way of 13 participating local health officers and 3,726 were mailed directly to the Metropolitan State Health District office. Approximately 1,143 were received from Essex, 834 from Hudson, 731 from Passaic, and 3,567 from Union Counties. This response does not include the return of several thousand Dreypaks distributed to employees in industry. Also not included are returns from Bergen County and some returns from Passaic County where year-round case-finding projects are jointly sponsored by the County Tuberculosis and Health Association and other health agencies.

Public health nursing follow-up requested by the Program Coordinator for the 1955 Diabetes Detection Drive, requiring nurse visits to 14 positive reactors has been carried out through the cooperation of local health departments. Responsibility for follow-up in upper Passaic County for industrial surveys conducted by the Paterson Health Department has been undertaken by local, State-supervised nurses.

#### *Epilepsy Control*

A monthly demonstration clinic for the treatment of convulsive disorders, which has been in operation at Englewood Hospital for the past two years through coordinated effort by the State Department of Health, State Department of Institutions and Agencies, and the New Jersey Society for Crippled Children and Adults, has fulfilled the objectives outlined for this project. In addition to providing training for physicians and other professional personnel, a regular community clinic has been established as part of the out-patient services of that hospital. In conformity with the philosophy underlying the Epilepsy Project, the monthly demonstration clinic has been concluded at Englewood Hospital and will be initiated at Paterson General Hospital this coming year. Two special demonstration clinic sessions for professional personnel were held during the year, one in Passaic County and the other in Union County.

#### *Heart Disease Control*

Noteworthy progress in advancement of the program has occurred in Passaic County. In cooperation with the County Heart Association, all, except one, of the general hospitals have established rheumatic fever prophylactic clinics; identical forms are used; penicillin is provided by the Association; public health nursing follow-up of high quality and uniform pattern is rendered by the various official agency nurses within the county. One hundred and twenty-six nurses and members of allied disciplines participated in the Second Annual Passaic County Heart Institute which considered the "Emotional Aspects of Rheumatic Fever" held in April. The major presentation was given by a nationally known New York pediatric cardiologist. Establishment of a "Work Classification Unit for Cardiac Patients" in a local hospital has been agreed upon by the Passaic County Heart Association. This has recently led to an invitation to other agencies to share in deliberations in consideration of ultimate expansion of the unit toward a total rehabilitation service in the county.

District and program personnel by invitation participated in discussion and planning of these several worthwhile endeavors as well as in deliberations of the recently organized Bergen County Heart Association. Establishment of the Bergen County Association during the past year completed organization of county affiliates of the American Heart Association in this District. Prior to this time, the voluntary heart program in Bergen County was carried on under the direction of the Tuberculosis and Health Association. All of the established cardiac services have been turned over to the new Association.

#### *Tuberculosis Control*

Mobile X-ray service for tuberculous persons has been provided in Hudson County by the Berthold S. Pollak Hospital for Chest Diseases, with assistance given by the State Department of Health. Chest clinics without X-ray services have been maintained in Bayonne, Hoboken, Kearny, and Union City. Patients attending those clinics were required hitherto to go to the Pollak Hospital in Jersey City for X-ray examination. The travel was a deterrent to many who consequently discontinued medical management. This is an experiment in bringing essential services to persons who cannot or will not go to a specific geographic place where such services are offered. Since a person with tuberculosis who is not under medical management can spread the infection to many others, it is considered worthwhile in this instance to bring the service to them in order to effect more consistent medical management and a probable reduction in the number of carriers.

The mobile unit placed in service in September, 1955, is providing case-finding screening X-rays approximately two days each week throughout the

year with particular emphasis in high-incidence areas. This service had previously been available on a limited basis from State-sponsored units.

Case-finding facilities in the District are the combined resources of county tuberculosis leagues, county sanatoria, boards of health, boards of education, and the Division of Chronic Illness Control, State Department of Health. Surveys conducted in the past fiscal or calendar year are summarized in the table which follows:

CASE-FINDING CHEST X-RAY SURVEYS, METROPOLITAN DISTRICT 1955-56

County	Number of X-rays
<i>Bergen</i>	
TB Association Mobile Unit .....	78,635
(includes 31,556 high school students and staff)	
<i>Passaic</i>	
County Mobile Unit .....	58,643
<i>Hudson</i>	
County Mobile Unit .....	22,237
TB League—Industrial Surveys .....	10,927
<i>Essex</i>	
TB League Mobile Unit .....	14,177
Boards of Education—County Sanatorium Unit .....	18,964
(School children, mostly positive tuberculin reactors)	
<i>State Department of Health Units</i>	
City of Newark .....	42,167
Other Municipalities .....	8,258
<i>Union</i>	
TB League Unit .....	3,693
State Department of Health Units .....	11,326
District Total, all Units .....	269,027
<i>State Department of Health Units—Essex and Union</i>	
Community Surveys .....	43,919
Industrial Surveys .....	17,832
Total .....	61,751

Note: State, Hudson, and Union County items represent fiscal year 1955-56; all others, calendar year 1955.

Case registers are successfully in operation for the second year in Bergen and Passaic Counties. The principles of a register have been accepted by the Health Officer of Newark and the Director of the Union County John E. Runnells Hospital but are not yet operative. The Hudson County Tuberculosis and Health League has offered a grant-in-aid to the Berthold S. Pollak Hospital toward establishment of a case register for the county.

The District Chief Public Health Nurse spoke on "The Tuberculous Patient in the Home" at the Hudson County League's Second Annual Institute for Nurses. District staff participated in planning for rehabilitation workshop sponsored by the Tuberculosis and Health Association of Bergen and Passaic Counties.

*Air Sanitation*

Aerial pollution is a problem of great magnitude in this densely populated industrial District. The receipt of complaints is followed by a joint inspection with local authorities and, when indicated, problems are referred to the Program Coordinator. Increasing consciousness of aerial pollution on the part of the public may require more District activity in this field. Adoption of the New Jersey Air Pollution Control Code has increased participation by this District office.

Eight dump operators were invited to the District office for an explanatory conference conducted by a representative of the Bureau of Adult and Occupational Health. The legal requirements of the New Jersey Air Pollution Control Code, Chapter 212, P. L. 1954 were explained; and the attempt was made to obtain compliance and adoption of satisfactory methods of dump control to prevent aerial contamination.

*Crippled Children*

The Jersey City Health Department has accepted responsibility, effective July, 1956, for provision of nursing service to crippled children residing in that city. This effort will approximate 400 nursing visits in the first year and is in accord with Departmental philosophy of local provision of direct services. Except for five North Hudson communities now under consideration, transition of crippled children nursing to local auspices has been completed in the Metropolitan District.

A meeting with representatives of contract nursing agencies, prior to negotiation of new contracts, pointed up a need for current cost studies and comparable adjustment of fees for service. The acceptance of a crippled children contract at the present scale has adversely affected adequate reimbursement for other nursing services.

More than 150 health, education, and welfare workers, primarily hospital, school, and health department nurses, attended an all-day orthopedic institute in May under the auspices of the Passaic County Elks Crippled Children Services Committee and the Passaic County Medical Society with cooperation and participation of District and Program personnel.

A comprehensive study of Crippled Children Program procedures has made possible a substantial simplification in District clerical responsibilities. Super-

visory responsibility has been temporarily assigned to a single orthopedic supervisor pending complete generalization of public health nursing supervision in the District. As part of the preparation of the staff, three public health nurse supervisors attended a three-week seminar on physical rehabilitation in New York City.

#### Dental Health

The City of Newark, by majority but not unanimous vote of City Council, instituted distribution of fluoride tablets through the Bureau of Health despite advice to the contrary by the City Health Officer, the Essex County Dental Society, and this Department. Tablets legally required to be dispensed upon a physician's prescription have been requested by an insignificant number of citizens in the several months they have been available.

South Orange (Essex) and Waldwick (Bergen) defeated resolutions for fluoridation of public water supplies in November, 1955, elections. The governing body of Glen Ridge (Essex) unanimously endorsed water fluoridation and urged neighboring municipalities sharing in use of water from the Wanaque System to take similar action. Renewed effort toward fluoridation in the Village of Ridgewood (Bergen) has resulted from a comprehensive study of engineering data and operational costs. A long-range educational program has been undertaken by a citizen's committee, including representation from Glen Rock, Midland Park, and Wyckoff, also users of Ridgewood water.

A county conference on dental health education, sponsored by the Bergen County Dental Society and Fairleigh Dickinson College was held in May. Emphasis was placed upon school and community cooperation in building effective dental health programs. A similar conference has been planned in Essex County. Schools of dentistry at Fairleigh Dickinson College (Bergen County) and Seton Hall University (Jersey City) will open their doors in September, 1956.

SUMMARY—DENTAL HEALTH PROJECTS, METROPOLITAN DISTRICT—1955-56

County	No. of Project	Number of Children		State Funds	Expenditures	
		In Project	Treatment Completed		Local Funds	Total
Bergen .....	7	420	317	\$5,423	\$4,657	\$10,080
Essex .....	1	249	196	1,800	7,784	9,584
Passaic .....	2	100	61	900	1,416	2,316
Union .....	2	52	42	648	975	1,623
District .....	12	821	616	\$8,771	\$14,832	\$23,603

#### Maternal and Child Health

In the fourth and final year of the Maternal and Child Health Conferences of Oranges and Maplewood area, the major theme was "Mental Health of Childhood and Adolescence." These conferences have been highly beneficial in improving the quality of nursing services and the relationships between official and voluntary agencies. Continuation of the conferences in another essential program of public health nursing is contemplated.

Marked improvement in child health services in Kearny was made possible by critical analysis of baby keep-well station services through cooperative effort with local health officials. Two Bergen County baby stations were closed by reason of discontinuance of local nursing service.

Practice of midwifery has shown a declining trend, 14 active midwives accounting for 36 deliveries as compared to 17 midwives and 49 deliveries in the preceding year.

Child safety as a role of the public health nurse has received continuing emphasis. District staff gave assistance to the East Orange Health Department in the development of a series of educational meetings on nursing responsibility in a safety program.

One public health nurse supervisor attended a three-week course at Maternity Center Association, New York City, to learn the principles and techniques applied to conduct of parents' classes.

#### Nutrition

A highly qualified Public Health Nutritionist augmented the District professional staff in October, 1955. Orientation, in addition to that provided by the Program Consultant, included visits to official and voluntary health and related agencies and observation of direct service activities in the field, such as child health conferences, clinics for handicapped children and public health nursing home visits. Visits to hospitals, related institutions, county home agents, Red Cross chapters, local health departments and voluntary health agencies provided twofold opportunity to determine nutritional needs and resources as well as to create an awareness of nutritional problems and of assistance in their solution available from the Department's Nutrition Program. Membership and active participation in the Home Economics Association and the New Jersey School Food Service Association have been helpful.

Accomplishments thus far attained are considerable. The Nutritionist learned that 51 hospitals in the District employ only 26 qualified dietitians, which indicates need for additional training and employment, sharing of resource people, and adoption of a sound nutritional program by many institutions. In-service training has been provided to local public health nurses

through group instruction and discussion; also by participation in institutes for nurses and demonstrations to mothers' groups in child health conferences. Consultation has been effectively given to schools and school nurses as to nutritional improvement in school lunch programs; to hospitals as to programs, techniques, and personnel; and to many agencies stimulating initiation of nutritional improvement activities. The Nutritionist has recently concluded a series of promotional visits to directors of 18 of the 26 summer camps within the District.

The Nutritionist attended a Civil Defense course on "The Effects of Radiological, Biological, and Chemical Warfare on Food and Drugs" and an Institute on "Community Nutrition" at Syracuse University.

#### *Environmental Sanitation*

Increasing reliance now being placed upon local sanitarians for inspection and related services which they are qualified to perform is expected to permit an increase of District sanitation staff effort in program development and in other program assignments. This gradual shift of certain functions to local auspices will reduce duplication of inspections, place greater responsibility locally for direct service, enhance prestige of local officials, and should lead to improvement in quality of local performance. Although many municipalities employ well-trained inspectors, they are numerically insufficient to meet the total needs of the 141 municipalities within the District. Others employed could be strengthened by additional in-service training. District staff sense an opportunity or obligation, with assistance from program personnel, to promote, plan, and, to some degree, provide training and refresher courses. Ways and means are under consideration.

#### SANITARY INSPECTION—METROPOLITAN DISTRICT, 1955-56

<i>Item</i>	<i>Number of Inspections</i>
Dairy farms .....	33
Ice cream factories .....	697
Milk plants and creameries .....	114
Non-alcoholic bottling plants .....	117
Cold storage warehouses .....	26
Egg-breaking establishments .....	33
Food-handling establishments .....	292
Public water supplies .....	38
Sewage treatment plants .....	33
Industrial waste plants .....	38
Stream pollution surveys .....	7
Vessel watering stations .....	69
Camps .....	35
Bathing lakes; swimming pools .....	25
Physical or cross connections .....	12
Air pollution .....	10
Realty subdivisions .....	24
Dumps .....	12
Flood water surveys .....	2

#### COLLECTION OF SAMPLES FOR ANALYSIS—METROPOLITAN DISTRICT, 1955-56

<i>Milk</i>	<i>Ice Cream</i>	<i>Other Foods</i>	<i>Drugs</i>	<i>Water</i>	<i>Sewage</i>	<i>Industrial Wastes</i>
973	291	153	90	556	47	28



### *Drug, Device, and Cosmetic*

District activity was limited to collection of ninety samples. Following analysis, ten drug stores were formally notified to distribute only such articles as conformed to the requirements of law.

### *Food Control*

Routine inspections were made of 154 establishments requiring State license. Several emergent events received diligent attention and appropriate action by District sanitarians. In November, four loaded, refrigerated freight cars toppled off a harbor carrier into the Hudson River. The cars contained approximately 75,000 lbs. of cod fish and salmon, 66,000 lbs. of cold pack strawberries and cherries, and 7,500 gallons of frozen strawberries. The entire cargo was embargoed pending examination which indicated possible contamination and subsequently appropriately disposed of under Departmental supervision. Flood waters destroyed or damaged considerable amounts of food and alcoholic liquors stored in basements of retail establishments. Sanitarians cooperated with Federal and local authorities in imposing 12 embargoes and appropriate disposition. Assistance was provided to municipal inspectors on three or more occasions of extensive fires in large supermarkets where condemnation of large quantities of meats and other foods was necessary.

Considerable attention was given to sanitation of wholesale bakeries. Interstate shipment of bakery products brought inquiry from out-of-State agencies to inquire as to sanitary conditions under which the products were prepared. Inspection revealed some substandard conditions. In most instances, management was prompt to take remedial measures. However, in the case of two bakeries and in another instance a non-alcoholic beverage plant, correction was not attained until management had been brought to a conference.

A continuing problem requiring constant vigilance is the business of breaking out eggs into 30-lb. tins, freezing, and subsequently selling to bakeries. Use of inferior eggs and manner of operation are not generally conducive to a sanitary, wholesome product. There are ten State-licensed establishments in the District. On one occasion, 36,000 lbs. were placed under embargo.

### *Milk Control*

The routine inspections of all licensed milk and milk product establishments assigned to the District have been completed. Samples from a proportionate number of plants were collected each week and transported to the Departmental laboratory for analyses. Reinspections were made when the analyses indicated unsatisfactory conditions prevailed. Pasteurized milk and milk products produced in the District are generally of excellent quality. Although one municipality has withdrawn from the reciprocal milk inspection program

in the District, the program continues with cooperation from the remaining municipalities. This District office has responsibility for 58 plants. The District contains 490 State-licensed ice cream manufacturing establishments, many more than can be inspected by District staff with the frequency recommended in the program. Gradual transfer of much of this work to qualified personnel of local boards of health is in process. A two-day sample collection survey of 76 milk plants in the District for predated milk uncovered 36 violations. Violators paid the imposed fine without contesting the issue.

District sanitarians have continued to devote several weeks per year in out-of-state milk plant and dairy farm inspection.

### *Shellfish*

Shellfish certificates were issued to 17 establishments in the District limited to shipments within the State and 9 to interstate shippers. All received routine inspections and 27 samples were collected for analysis.

### *Public Bathing Places*

Bathing lakes in the northern section of the State become more popular each year as highway congestion on shore routes increases. Rural locations lacking local inspection services necessitate District inspection. Uniformity in requirements and inspection procedure has been coordinated with Northern State Health District.

Originally, 18 bathing lakes participated in this voluntary program, of which only 10 made application and 6 were found satisfactory and certified in the current year.

### *Potable Water*

Individual private wells are few in the District where 95 per cent of residents are served by public water supplies. Surface and underground sources and existing facilities are reaching capacity limits and may shortly not be sufficient for an increasing population. Demand upon underground sources was increased by 17 new wells in the current year. Each of the 56 public supplies received at least one inspection with representative sampling and analysis during the year augmented by quarterly samples through cooperation of municipal health officers and sanitarians.

Persistent consumer complaints of unattractive characteristics of potable water supplied by one purveyor led to a voluntary conference in which representatives of the purveyors, of the Public Utility Commission, of the Water Policy Commission, and of this Department agreed to a plan for weekly analysis from prescribed sampling stations under supervision of this District office as a method of control and indication for preventive action.

*Stream Pollution*

Stream pollution is one of the serious problems confronting the District in view of the increase and concentration of both population and industry. Due to scope of the work and cost involved, the correction of stream pollution is of necessity a long-range program. There has been considerable effort towards that objective. In Wayne Township, Passaic County, four realty residential subdivision developers were persuaded to abandon plans for individual sewage disposal systems and to combine their resources to provide sanitary sewers and a modern sewage treatment plant. These facilities, valued at \$5,000,000, are nearing completion and will be turned over to the municipality without cost. Although the plant is not yet in operation, plans are already in preparation for the construction of additions to serve another section of the community.

A sanitary survey disclosed extensive public health nuisances due to the improper operation of individual sewage disposal facilities in the Township of Berkeley Heights. Following the issuance of an Order for Abatement, the municipality obtained an Order of Necessity for the construction of a comprehensive sanitary sewerage system and sewage treatment plant at a cost of \$600,000. Plans and pertinent data for both projects have been approved by this Department.

Five new sewage treatment plants and one industrial waste treatment plant were placed in operation in other municipalities. "As built" inspections were performed and indicated that the plants had been constructed in accordance with the plans and specifications as approved.

The 1955 autumn hurricanes caused no extensive damage. Three District representatives were assigned to assist personnel of the Northern District for flood control work.

Consultative conferences pertaining to this program were held upon request with the following: Joint session of the Wyckoff Board of Health and Planning Board; the Cedar Grove Township Committee; the Federal Housing Authority.

Each of the 80 sewage treatment plants was inspected and recommendations for corrections and improvements were made.

*Housing*

Considerable progress in slum clearance and redevelopment in the City of Newark during the last fiscal year and activities in five other cities are reported as follows:

NEWARK—One project containing 1,556 units has been completed and tenanted; one site completely cleared, and one other partially cleared,

each of which, when completed, will contain 1,200 units. One other site is in process of being acquired for which 1,206 units are planned.

JERSEY CITY—One large project is under construction, two are in process of loan and grant, and two others in preliminary planning.

BAYONNE—Activity has been at a standstill for the past year following dissolution of the redevelopment agency under the Bayonne Housing Authority and pending establishment of a new control agency.

HOBOKEN—No construction. One project is in the planning and consultation stage and two other projects are under consideration.

PATERSON—No construction. One project is in the final planning stage.

ELIZABETH—No construction. One project of 250 units is being planned.

The District sanitarian responded to a request by a board of health in Union County for a consultation in reference to insufficient and insanitary housing conditions provided to 40 Puerto Rican pin boys at a large bowling alley. A speedy solution of the problem was accomplished by installation of automatic pin-setting machines.

*Solid Waste Disposal*

The improper operation of dumps has been the cause of an increasing number of complaints. One practical reason is the lack of low-cost earth fill.

Improvement in disposal from 19 municipalities in three metropolitan counties has resulted from establishment of a sanitary landfill operation in Morris County, Northern District. Benefits will affect one Bergen, three Passaic, and 15 Essex County municipalities, including portions of Newark as well as several Morris County communities.

The failure of a municipality in Bergen County to correct deplorable conditions existing at a local dump and the insistence of the public for intervention brought about Departmental action resulting in the issuance of a notice upon the local board of health to abate the nuisance.

A notice was served upon a Passaic County municipality for improper operation of an open dump. Immediate corrective measures were instituted and a sanitary landfill procedure has been in progress for half a year.

*Camp*

Routine inspections were conducted at 26 camps that operate on a seasonal basis. Twenty Certificates of Compliance were issued. Most municipalities concerned lack trained local health personnel to follow through on the program and encourage compliance with minimum sanitary regulations.

*Veterinary Public Health*

Psittacosis has been a significant problem over the past two years, requiring drastic control measures. However, a marked decrease in incidence of the infection in psittacine birds and the report of only one human case in the first half of 1956 may be indicative of effective action. Investigation revealed a tremendous illicit importation of birds, especially parakeets, and widespread failure of dealers to maintain required records. Aviaries and pet shops were carefully scrutinized, quarantine established whenever indicated, and requirements of the State Sanitary Code rigidly enforced. Excellent cooperation and support were forthcoming from many municipal health officials. In a few instances, court action was resorted to; but cooperation of most dealers was obtained, mass blood testing of flocks accomplished, and mass treatment of birds instituted when indicated. In recent months, most quarantines have been lifted and sale of birds is proceeding in accordance with regulations.

Ten infected aviaries, having an approximate population of 5,350 parakeets, were identified and placed under quarantine in 1955, a lesser number of birds than found in the preceding year. In the first half of 1956, only one or two small aviaries have been found to be infected, whereas several large establishments tested were found free of infection. A few pet shops were uncovered which were not keeping required records. Advertisement for sale of parrots, cockatiels, and love birds led to investigation of one pet shop, bringing to light three shipments of birds from California without benefit of required health certificates. Half of the birds died shortly after arrival and the remainder were returned to the shipper rather than undergo quarantine. A suspected case of human psittacosis led to investigation and quarantine of another aviary which had imported parakeets from Illinois without health certificates. The quarantine was ultimately lifted after blood testing indicated freedom from infection.

Dr. Warren Rednor, District Public Health Veterinarian, presented a paper at the January quarterly meeting of the New York Metropolitan Area Health Officers Conference on "Problems in Control of Psittacosis in New Jersey" and moderated a panel discussion. The subject was timely as many New Jersey residents make out-of-state purchases of cheap birds, including many sickly culls.

Epidemiological investigations revealed that five human cases of psittacosis occurring in the fall of 1955 were contacts of two recently purchased parakeets which died soon thereafter. The only case reported thus far in 1956 had previously purchased a parakeet in New York. Three cases of trichinosis were traced to the ingestion of raw or partially cooked pork. Skin scrapings from a pet cat disclosed the presence of *Microsporum lanosum* and the source of infection of a case of ringworm in the family.

Approximately 28,500 dogs received rabies vaccine at municipal clinics in 77 of the 141 municipalities within the District in the year ending June 30,

1956, as compared with 26,000 inoculations in 67 municipalities for the preceding year. The increase reflects intensive effort by rabies control staff directed in large part to Bergen and Passaic County towns where no natural barrier exists to prevent entrance of rabies from the endemic areas of contiguous New York counties.

A concerted effort was made to stimulate municipalities to initiate a thorough house-to-house canvass in search for unlicensed dogs. Many municipalities fail to make an annual dog census as required by the statutes. A recent census in one highly urbanized municipality revealed a ratio of five unlicensed to every licensed dog. Several municipalities, endeavoring to operate a good rabies control program but without adequate pound facilities, constructed new pounds or renovated existing quarters following encouragement from District staff. Two municipalities, upon District recommendation, employed dog wardens who then were given training by the District dog warden. Routine inspections were made of 166 kennels and 64 shelters and pounds.

Inspection was made of 19 red meat abattoirs to determine eligibility for renewal of license. Extensive improvements have recently been completed in several establishments. It is believed that all licensed abattoirs in the District, under either Federal or State inspection, now have physical equipment necessary to conduct business in a sanitary manner.

Information was relayed to the District office in May from Westchester County (New York) Health Department that a refrigerated truck was headed for New Jersey carrying 3,700 pounds of meat recovered from a truck which had caught fire. From the license number, the truck was located in Bergen County; and contents, somewhat worn from wear, were embargoed and held for surveillance of food inspectors of the United States Department of Agriculture. District staff, early in 1956, assisted Newark inspectors in investigation of a pet shop and exposure of sale of horsemeat without labeling required by State law. Extending the investigation, a Federally inspected abattoir, source of the meat, was found to be negligent in stamping and labeling the meat as horsemeat. The City of Newark brought litigation with subsequent fines to both violators. The pet store was also discovered to be importing psittacine birds without proper health certificates and required record keeping. Some of the birds were found to be infected and quarantine was established. Another dealer was found to be incompletely labeling horsemeat and 1,500 pounds were placed under embargo. Sanitation of more than 250 poultry abattoirs, each with weekly production up to 10,000 pounds, poses a problem of considerable magnitude and points up need for specific regulation. A similar need exists for numerous meat processing plants, many operating on a small scale, sometimes in a private home, limited to a single product and unnoticed by health authorities. Preliminary inspection of a new plant, entering into production of roast stuffed chickens, led to disclosure of insanitary conditions in a bakery of

national reputation processing dried poultry stuffing, bread crumbs, and toast. This action resulted in installation of new equipment, adoption of good sanitary practices, and production of a wholesome product.

#### *Public Health Nursing*

The supervisory staff is responsible for professional guidance of 84 staff nurses employed by 55 boards of health and supervision of the Crippled Children Program in 13 contract nursing agencies. Large turnover of personnel constitutes a real problem in training, program accomplishment, and continuity of patient services. Two Bergen County towns, Park Ridge and Woodcliff Lake, terminated board of health nursing services with employment of the two nurses by the boards of education. An additional nurse was added to the staff in Belleville and Rahway, and in several other municipalities resignations and replacements have occurred. Orientation provided to 27 newly employed local nurses is indicative of the year's turnover (over 30 per cent). In towns where supervision is given, supervisors, frequently meeting with local officials, have been thus afforded valuable opportunity to interpret principles, policies, and programs of the Department.

District staff have availed themselves of every opportunity to add impetus to the trend toward total family service. Increasing emphasis has been placed upon services to the chronically ill with District participation in six institutes for nurses dealing with these several services. District personnel in related disciplines of health education, medical social work, and nutrition have given group instruction to local nurses at supervisory conferences. The District Chief Public Health Nurse fulfilled a request to speak on "The Tuberculosis Patient in the Home" at the Second Annual Institute on Tuberculosis for Nurses of the Hudson County Tuberculosis and Health League.

A series of consultations resulted in the establishment of a generalized program of public health nursing including bedside nursing in Wayne Township, Passaic County, scheduled to begin July 1, 1956. In-service training will be given through cooperation of the Paterson Health Department and supervision will continue from the District staff. The District Chief Public Health Nurse was invited to participate with representatives of official and voluntary health agencies in the Oranges and Maplewood in an exploration of public health nursing organizational pattern. The meeting was sponsored by the Council of Social Agencies in view of monetary assistance by the Community Chest to local nursing programs. As an outgrowth, the Department has been requested by the Anti-tuberculosis League of the Oranges and Maplewood to make a survey of its nursing activities. Deliberations by a citizen's committee of the Irvington Community Planning Council and the local health officer, concerned with expansion of public health nursing services, was begun in October, 1955. Consultation was provided by this District office. Thus far, no success-

ful action has been achieved. Considerable orientation to tuberculosis nursing has been given to State-supervised nurses in Union and Passaic Counties this past year in anticipation of probable conclusion of Tuberculosis League nursing demonstrations.

#### *Acute Communicable Disease Control*

Poliomyelitis received major emphasis especially in the latter half of 1955 when District staff were concerned with interpretation of the vaccine project, stimulation for local action, distribution of vaccine, and providing replies and assurances to an inquiring and skeptical public.

In the 5 metropolitan counties, 40,589 children (29.7 per cent of eligibles) had received first inoculations prior to July. In the summer and fall months, 29,671 received second inoculations (73.1 per cent of these receiving first doses); also in Bergen County, booster doses were given to 5,381 of the 8,707 participants of the 1954 Vaccine Field Trials.

In 1955, there were reported in the District 441 cases of poliomyelitis (67.1 per cent of State total) of which 213 were reported as paralytic and 228 as nonparalytic. There were 264 cases in the District, occurring in children under 15 years of age, of which 130 were diagnosed as paralytic and 134 as nonparalytic. Poliomyelitis surveillance data were collected for those cases under 15 years. In 1956, District staff with program personnel visited hospitals to interpret surveillance procedures to be used in the oncoming polio season and arranged for pick-up of required laboratory specimens.

There were 32 registered typhoid carriers in the District as of June 30, 1956. In the year just closed, 4 new carriers were declared and two removed from the list, one by death and one by transfer to an adjoining State. Epidemiological investigation of typhoid fever cases has largely depended upon local health officials with some guidance from the District State Health Officer. Heavy demands by many programs upon existing staff have made impossible attainment of all desired goals of accomplishment.

A food-poisoning outbreak occurred in Linden in late June. Out of 118 persons at a private party served by a caterer, 44 cases of sudden severe gastroenteritis were reported with incubation period averaging 3 to 6 hours. Investigation by the health officer supported by the District Public Health Veterinarian revealed the vector to have been "canned ham." Bacteriological examination of the ham disclosed extremely high contamination with hemolytic *Staphylococcus aureus*.

The District State Health Officer and 3 staff members had opportunity, each for one day, to attend the communicable disease control portion of the Public Health Service courses for sanitarians, recently presented by the Department of Institutions and Agencies. All were most favorably impressed with

quality of both content and presentation and have recommended a repetition of the course in the metropolitan area for instruction of District and local health personnel.

#### *Venereal Disease Control*

Intensive case-finding activities in recent years are believed to have materially reduced the reservoir of undiscovered and untreated syphilis now estimated to be slightly over 25,000 persons in the District. These 5 metropolitan counties yielded over 56 per cent of venereal disease cases reported in the State in 1955. The syphilis rate for the District was 86.8 per 100,000—slightly lower than 95.4 for the State as a whole. However, the Essex County rate of 164.6 was second highest among the 21 counties. Both Elizabeth and Paterson showed a marked rise in syphilis incidence, probably not because of more disease but in testimony to effective epidemiological activity promoted by their health officers. In a similar manner, the syphilis rate in Newark rose from 131.2 in 1953 to 295.4 in 1954 and maintained a similar high rate of 278.4 in 1955 as a result of the continuing intensive campaign to find cases and bring them to treatment through joint efforts of the health department and the medical profession. Essex County physicians have been most helpful in follow-up of private cases. Rates for reported incidence of gonorrhoea have followed a similar pattern.

A two-week selective blood-testing survey in Paterson was conducted in September, 1955. Of the 4,693 persons volunteering for test, an over-all reactor rate of 9.6 per cent was found. Special night clinics were established by the health officer to accommodate those unable to attend day sessions. A four-day selective survey in Elizabeth in June, 1956, produced 3.8 per cent reactors out of 720 persons participating.

The Essex County Trades Council has given unqualified endorsement to a proposed industrial syphilis case-finding survey program under the joint sponsorship of the Newark Bureau of Health and this Department. The Council represents approximately 80,000 union members in the area.

Twenty-six public health nurses of Paterson, Passaic, and Clifton have completed a series of instructive sessions in the diagnosis, treatment, case-finding, and public health aspects of venereal diseases. During the year, a public health nurse of the Elizabeth Department of Health and a representative from the Bayonne Naval Supply Depot attended a two-week course in Venereal Disease Interviewing and Investigation at the Fulton County Health Department Training School, Atlanta, Georgia.

It is worthy of mention that in August, 1955, a teen-age female gonorrhoea patient at the Orange Memorial Hospital Clinic named a total of 12 contacts. Eight of the 12 were brought to examination and 7, found positive for gonorrhoea, named another 18 contacts.

#### ADOPTION OF PUBLIC HEALTH AND SANITATION CODES BY REFERENCE—CUMULATIVE NUMBER OF ADOPTIONS BY MUNICIPALITIES, JANUARY 1, 1956—METROPOLITAN DISTRICT

Code	District	Bergen	Essex	Hudson	Passaic	Union
Retail Food Establishment, 1952 .....	23	10	2	2	2	7
Individual Sewage Disposal System, 1953 ...	15	8	1	0	3	3
Plumbing, 1953 .....	24	11	4	1	4	4
Public Health Nuisance, 1953 .....	23	13	2	0	4	4
Smoke Control, 1953 ....	11	6	0	0	2	3
Weed Control, 1953 .....	18	10	0	1	2	5
Swimming Pool, 1955 ...	7	2	1	0	1	3
Total .....	121	6	10	4	18	29

#### CITIZEN PARTICIPATION

##### *Health Councils and Committees*

*Bergen:* A Committee on Gerontology recently organized by the County Council of Social Agencies has joined with the Program Extension Committee of the County Tuberculosis and Health Association initiating a countywide meeting to arouse interest, determine needs, and develop a suitable program of service to the aged. The Council has also been instrumental in promotion of agency and community support in establishing a family counseling service in the Ridgewood area.

*Essex:* Executive directors of voluntary agencies have effected an informal organization with periodic meetings to coordinate countywide health planning heretofore requiring individual contact with each of the five Councils of Social Agencies in the county. During the year, this group planned and the agencies participated in the Essex County Health Fair. The organization considered, with representatives of the National Health Council, the efficacy of a County Health Council.

*Hudson:* The Health and Hospital Division of the County Council of Social Agencies, relatively inactive over the past two years through lack of a full-time executive, has again expressed interest in promotion of health services.

*Passaic:* The County Health and Welfare Association (professional personnel of voluntary and official agencies), after abandonment of a proposal for organization of a Council of Social Agencies because of unmet chest quotas, is exploring other means for health planning and promotion. Reactivation of the Passaic County Health Council is under consideration.

*Union:* The Linden League of Women Voters has continued a study of local health services and on April 20th submitted a resolution to the City Council

recommending formation of a "local lay health council." The League suggested the following areas in which such a council could work: health education, mental health, air pollution control, sanitation, chronic disease control, and provision of adequate hospital facilities.

#### *Community Health Projects*

The spring meeting of the Metropolitan Area Health Officers Conference, held in Newark, devoted attention to "Public Health Nursing Services in Chronic Illness and Rehabilitation." The program, which reflected the thinking of public health nursing leaders in the Metropolitan area, was planned and presented by a committee of official, voluntary, and combination nursing agencies in New Jersey, New York, and Connecticut.

More than 30 official and voluntary health agencies exhibited materials pertaining to their services at the Essex County Health Fair held May 21 through 26 at Public Service auditorium, Newark. The Fair, sponsored by the Essex County Medical Society, Essex County Chronic Illness Service, and the Newark Junior Chamber of Commerce, was aimed at interpretation of local health services to the public. In addition, the cooperative efforts of various organizations in planning for this project served to strengthen interagency understanding. Approximately 1,800 people visited the Fair.

District staff again participated in the school health exhibits project sponsored by the Essex County Tuberculosis Association. In cooperation with the New Jersey Safety Council, a series of posters on accident prevention was organized into a table top display which was used in eight elementary schools in Newark. Pertinent printed materials for teachers and students were also exhibited.

Staff effort was also directed toward preparation of a series of eight two-hour lectures on topics of public health importance, for presentation at the West Side Adult School, Newark. Plans for the program were initiated at the request of the Adult School administrator and involved participation of the Newark Council of Social Agencies and other health agencies. Despite painstaking effort in selection of topics of local interest, registration was so small as to indicate a general lack of citizen interest in health and make presentation inadvisable.

Departmental health literature and film catalogues were provided to the libraries at Jersey City and Newark State Teachers Colleges and at Fairleigh Dickinson University as well as to the health chairman of each county parent-teacher association. Several hundred requests from individuals and organizations for health information and printed materials were processed by District staff during the year.

#### *Community Evaluation Surveys*

A community survey of health needs in Irvington resulted in the recommendation that public health nursing service be extended to uncovered programs by the health department. No definite accomplishment can be reported thus far. An evaluation of nursing resources has been undertaken by the Council of Social Agencies of the Oranges and Maplewood in view of monetary assistance by the Community Chest to local agencies. Upon request for consultation, the District Chief Public Health Nurse informed the committee as to modern trends in public health nursing. As an outgrowth, the Department has been requested by the Anti-Tuberculosis League of the Oranges and Maplewood to survey its nursing activities.

A study of existing facilities and needs for out-patient psychiatric treatment in Eastern Union County was completed by a committee of the Health Division of the Eastern Union County Social Planning Committee. The committee recommended increasing facilities through extension of the program of a functioning agency resulting in utilization of existing housing secretarial personnel, and an established location. It was also recommended that professional staff be obtained on a part-time basis from another existing agency in an adjacent area and that funds for the program be a combination of official and voluntary agency moneys.

#### *Development of Community Resources*

District staff have responded to opportunities for consultation and promotion as well as demonstration and training as means to encourage communities to assume responsibilities for direct health services. Appropriate staff members frequently attended local board of health meetings, upon invitation, to interpret local needs, accepted methods, budgetary planning, qualifications, and economic utilization of locally employed personnel as well as local responsibilities in departmental programs and how they can be met. Similar response has been given to invitations from voluntary health organizations to share in planning for service programs.

Consultation efforts resulting in action include improvement in Kearny child health conferences, a generalized nursing program in Wayne, a multiple sclerosis center at Presbyterian Hospital (Newark) with employment of a medical-social worker, initiation of a year-round selective X-ray screening project in Hudson County, additional homemaker services for Bergen County, improvement in diabetes screening with health officer participation, foreseeable conclusion of tuberculosis nursing demonstrations in Passaic and Union Counties, and a reduction in sewage disposal problems in realty subdivisions. These requests for consultation have served the dual role of providing op-

portunity for interpretation of State program principles and responsibilities and acquainting District staff with local needs and problems.

Six public health nursing positions were made possible to five local boards of health through grants-in-aid totaling \$7,635.20. Two were first year grants, three were second year grants, and one was for a third year. Of these, three will have responsibility for the total salary assumed by the local health department at the termination of the present contract.

Nineteen contracts with local nursing associations, totaling \$16,330 for 6,534 nursing visits to children in the Crippled Children Program, are currently in effect. When the contract with Jersey City becomes effective at the start of the coming fiscal year, the only communities in the District not having local nursing responsibility for crippled children will be five north Hudson communities where it is under consideration.

As part of the Chronic Illness Control Program, there are at present twenty hospitals in this District which have initiated or expanded diagnostic or rehabilitative facilities as a result of grants-in-aid for specialized staff or through the loan of technical equipment. These facilities include: multiphasic screening in seven hospitals; cardiac diagnostic and rehabilitative services in ten; three alcoholic study clinics with recruitment of staff going on for a fourth; electroencephalograph equipment or technical staff for the diagnosis and control of epilepsy in five hospitals; one comprehensive rehabilitation unit; one speech and hearing center; a cancer screening program in one hospital, with two others emphasizing the refining of diagnostic techniques for early detection of cancer; and one clinotron for diabetes detection.

The District has sponsored or cooperated with six institutes on alcoholism, heart, rehabilitation, tuberculosis, and orthopedic care; given three conference series on tuberculosis, safety, and mental health of childhood and adolescence; given talks on "The Tuberculous Patient in the Home," "Modern Trends in Public Health Nursing," "Interviewing in a Safety Program," and "Control of Psittacosis"; assisted in planning a half-day session of Metropolitan Area Health Officers Conference on "Public Health Nursing Service in Chronic Illness and Rehabilitation" and demonstrated nutrition practice to mothers' groups in child health conferences.

District staff in-service training included three informational meetings on alcoholism, a meeting with Diabetes Control Program personnel to explore methods of patient education in diabetes control, attendance at an Epidemiology Institute at Princeton, a three-week course at the Maternity Center Association on principles and techniques for conducting parents' classes, a civil defense course on "Effects of Radiological, Biological, and Chemical Warfare on Food and Drugs," an institute on "Community Nutrition" at Syracuse University, a three-week Seminar on physical rehabilitation in New York City, and the Yale Summer School on Alcoholism.

Several fires in large food markets destroyed tons of food; the sinking of a freight car carrier caused cases of fish and canned goods to be damaged by salt water; and flood waters caused damage and destruction of food and alcoholic liquors in retail establishments, resulting in twelve embargoes.

## Northern State Health District

### INTRODUCTION

The Northern State Health District encompasses the five counties of Hunterdon, Morris, Somerset, Sussex and Warren. At the close of the fiscal year, this staff consisted of twenty-nine persons, including: District State Health Officer; District Chief Public Health Nurse; District Chief Public Health Veterinarian; District Consultants on Community Organization and Medical Social Service; Public Health Physician; Public Health Engineer; Senior Sanitarian; Sanitarian, Assistant Sanitarian; Investigator, Rabies Control; four Public Health Nurse Supervisors; eight Public Health Nurses; and six office personnel.

Within the framework of available personnel, the present unit continued to function as a team in rendering service and integrating Departmental programs with the local core of public health activity. As large areas of the Northern District are presently in a state of flux because of suburbanization, former city residents are expecting their local boards of health to supply the same health service available in the larger municipalities.

The curtailment of direct services in both sanitation and nursing has broken many bridges of communication between the State and local community and has disrupted well established dependency relationships. However, local communities are slowly proving their ability to accept their responsibilities, and the inherent desire for better health services is being fostered.

In order to carry out its functions in spite of lack of staff and trained local personnel, training programs for local persons and shortage of printed materials, this office has emphasized:

1. The promotion of better local health services.
2. Assistance to local health authorities in analyzing health needs, formulating plans, and developing program content.
3. Promotion of cooperative programs between local health departments and other official and voluntary agencies.
4. Consultative and advisory services in special health activities.
5. Coordination and integration of activities of staff personnel.

## DEVELOPMENT OF COOPERATIVE WORKING RELATIONSHIPS

In line with established policy and priority, the entire District staff made every effort to integrate and coordinate its activities and utilize available man hours in line with written program for the purpose of developing cooperative working relationships, specifically with local groups. The following is a summary of the highlights, trends and accomplishments of the District staff in developing these relationships through the administration of Departmental program objectives.

*Alcoholism*

The Morris County Community Chest and Council, cooperating with the county medical society, is promoting interest in the development of an alcoholism out-patient clinic in a voluntary hospital.

District staff have worked with the Morris County Mental Health Association in an effort to secure its assistance in the establishment of an out-patient alcoholism clinic. Radio programs are now being planned for the fall in order to stimulate community interest in this program.

*Chronic Illness*

The Morris County Homemaker Program graduated three classes of homemakers during the past year and is recruiting a fourth class. The use of this new service has been promoted by the District staff.

A preplanning conference to stimulate community support and interest for the homemaker program was held in Somerset County under the auspices of the Somerset Hospital. Literature was mailed to community leaders in preparation for a further meeting in the fall.

The Director of the Division of Adult Education requested staff personnel to interpret the type of homemaker course sponsored by the Division of Chronic Illness and Rutgers University Extension at the Northern District meeting of the New Jersey Adult Education Association.

The District also sponsored an exhibit at the Annual Spring Conference of the New Jersey Association for Adult Education and the State Department of Education at the College of St. Elizabeth.

The New Jersey Chapter of the National Society for Crippled Children and Adults was given assistance by District personnel regarding rehabilitation needs and the advisability of establishing a sheltered workshop in Sussex County.

As a result of assistance rendered in the development of a medical-social service at Somerset Hospital, interest has been promoted in a combination

chronic illness facility and rehabilitation center. District staff assisted the hospital in developing its plans for a rehabilitation unit, recruiting of personnel, and provision of training. It is anticipated that grant-in-aid assistance will be given by the Department and that the unit will open in the fall.

The Rehabilitation Unit at Essex County Hospital-Belleville, has been used in many ways to demonstrate rehabilitation techniques. Both Somerset and Sussex County community leaders as well as freeholders have visited this facility to observe its functioning.

The District nursing staff as well as State supervised public health nurses attended an institute entitled "Rehabilitation Aspects of Nursing" held at the Kessler Institute, West Orange, N. J.

The Health Committee of the Warren County Welfare Council has taken responsibility for surveying the resources in the county to determine the need for rehabilitation services and to promote community interest in such services.

District staff worked cooperatively with the Warren County Welfare Council to stimulate support and to provide guidance and assistance in their activities relating to survey, medical-social and rehabilitation services. (These are related elsewhere in this report.)

An Advisory Committee was established by the health committee of the Morris County Community Chest and Council and with assistance from District staff carried on various promotional activities to develop interest in medical social service activities. These included the address by a prominent leader in medical social work at a luncheon meeting of representatives from health and local agencies in the county as well as participation in a series of four radio broadcasts on "Medical-Social Worker in a Voluntary Hospital" over the local radio station.

Somerset Hospital requested assistance in the establishment of a medical social service department. Further activities in this regard are related under "Chronic Illness."

At the request of the Phillipsburg Regional Health Council, District staff addressed a group of interested citizens on medical-social service in a voluntary hospital. At the same time, assistance was given by staff to the Warren County Hospital administrator in evaluating his need for medical-social services and requesting grant-in-aid assistance therefor.

Through the cooperation of the New Jersey Chapter of the Arthritis and Rheumatism Foundation, a conference was held for the District public health nurses to provide information and orient them to the program.

District and local nursing staff cooperated with the State Commission for the Blind during Glaucoma Detection Week by referring patients to special hospital clinics. In all, 284 patients were examined at the clinics in the five days.



*Diabetes*

Plans for the 1955 Diabetes Detection Drive were made early in the summer. A survey questionnaire was sent to all full-time health officers as well as some executive officers of local boards of health in order to estimate participation in the 1955 drive and to anticipate local needs for the program.

An analysis of the return data revealed that only ten local boards of health in the District were in a position to participate in the drive. County meetings were held to promote community interest and support. District staff worked with county medical societies, parent-teacher associations, local health officers, and public health nurse supervisors to assure the widest possible distribution of the Dreyfaks allocated to the District. The health officers participated in selecting special groups for screening such as municipal employees, volunteer firemen, department store employees, and industrial groups. Ninety-eight posters were distributed locally. Ten hospital laboratories in the District volunteered assistance in the project. At the close of the drive, a total of 1205 Dreyfaks was returned to this District. Approximately 16 per cent of the total distributed was used.

The District nursing staff followed up suspected cases of diabetes referred to the District by the program.

*Epilepsy*

Monthly Convulsive Disorder Consultation Clinics were held in the District. During the year, three clinics were rotated. These clinics were utilized for in-service training for public health nurse supervisors and State supervised nurses.

District staff participated in three meetings of the North Jersey Epileptic Committee, composed of professional and lay representatives from the five counties in the District. To meet the expressed need for a more definite organizational pattern and to set up future objectives, a special committee was appointed and recommendations were made.

A survey of nurses and nursing agencies in the 134 municipalities in the District was completed for the nursing follow-up of epilepsy patients.

*Heart*

An institute on heart disease control, sponsored by the New Jersey Heart Association, the five county heart associations, and the Northern State Health District, was held in October at Far Hills Inn. Staff personnel assisted in the planning and organization of this institute. Good attendance of professional personnel (approximately 210) was noted from every one of the counties. The major portion of planning was carried by the Morris County Heart Association.

The Morris County Heart Association formed a rehabilitation committee to explore the needs of cardiac patients during the summer, 1955. This committee, with the approval of the county medical society, made a survey of the physicians in the county to determine the number, type, and needs of cardiovascular patients. The results of the survey revealed the greatest needs to be cardiac surgery, interpretation to industry regarding restraining of the cardiac patient, physiotherapy for the hemoplegic, and dietary instruction. This committee will continue to coordinate its efforts with anticipated community programs related to the rehabilitation of chronically ill and disabled patients.

*Tuberculosis*

The District participated for the third year in the Statewide survey of the follow-up of suspected tuberculin patients found through the mass X-ray program. Although the number of calendar days assigned to the Northern District for mass chest X-ray was reduced from 28 to 18, there was approximately a 20 per cent increase in the daily number of films taken over the 1955 survey. Out of 8,774 films taken, 869 referrals of possible suspects were made to physicians. These referrals included pulmonary, cardiac, and other defects.

District staff accompanied the program coordinator on field visits to the five county tuberculosis agencies for the purpose of evaluating the follow-up of suspected cases found in the survey.

Two tuberculosis institutes were held during the month of November, co-sponsored by the Northern State Health District, the Morris County Tuberculosis Association, and local official agencies in Morris County. Staff personnel assisted in the planning and organization of this institute as well as publicity, exhibits, and other visual aids. The theme of the institute "New Look at Today's Tuberculosis Problem Through Community Cooperation" was carried out in the planning as well as in presentation. This was the first instance of multidiscipline cooperation in the over-all planning for the control of tuberculosis in Morris County.

To supplement these institutes, arrangements were made for the public health nurses of Hunterdon and Warren Counties to visit Glen Gardner Sanatorium. A tour of the institution was made following the lectures by two staff physicians.

The Warren County nurses devoted a staff conference to discussion of tuberculosis control. The executive secretary of the Warren County Tuberculosis Association presented and discussed the county program. Constructive procedures were initiated regarding referrals and follow-up as well as the routine chest X-raying of prenatal clinic patients.

District personnel, in cooperation with the Hunterdon County Superintendent of Schools and the Hunterdon County Public Health Associations,

were successful in having policies regarding Patch testing and X-ray examinations of school personnel sent to all schools in the county from the office of the county superintendent.

#### *Crippled Children Program*

The Hunterdon Medical Center agreed in August to meet specifications of the Crippled Children Program. The hospital was then placed on the approved list for admission of crippled children cases, a result of two years of effort on the part of the public health nurse supervisor of the Program.

District staff met with Muscular Dystrophy Association at the Crippled Children Camp Merry Heart to plan program as well as plan for admission of muscular dystrophy cases to the camp.

District staff assisted in the establishment of a crippled children clinic at Chilton Memorial Hospital which was set up to function on a demonstration basis beginning in October, 1955, for six months. Through the cooperation of the Pompton Elks, the Morristown Visiting Nurse Association provided nursing supervision for the clinic. The need for such a facility in this particular area was evident for some time. Conferences were then held with the hospital and administration and the orthopedic surgeon for the purpose of assisting the hospital to meet the standards in order to be placed on the list of hospitals approved by the Crippled Children Program.

District staff met with the Warren County Board of Freeholders to discuss the current method of investigating crippled children cases and the delays encountered in securing approval of freeholder petitions. It was anticipated that further conferences in this county would assist in ironing out some of the problems encountered.

A meeting of the Somerville Elks Rehabilitation Committee was held with both District and program personnel for the purpose of discussing the need for expanding the medical supervision of patients attending the Cerebral Palsy Treatment Center at Somerville.

Morris and Somerset County agencies, nursing agencies and community agencies, and boards of education requested and received assistance from staff personnel in planning for compliance with the conditions of the Beadleston Law. Activities included reviewing statistical delineation of the problems to be considered, cerebral palsy case records to determine medical, nursing, and psychological needs as provided by the law, evaluating work done by the community, and assessing agencies' responsibility and capability.

It is anticipated that the procedure established in these two counties will be used as guide lines in assisting the other counties to comply with the Beadleston Law.

Student nurses from All Souls' Hospital were oriented by District staff to the Crippled Children Program as part of their field experience with the Morristown Visiting Nurse Association.

A total of 536 cases was admitted to public health nursing service, 52 of these being admitted or readmitted through direct service given by the public health nurse supervisor. A total of 930 visits was made during the year; of these, 574 were authorized nursing visits made by contract agencies and 356 were made by nurses employed by official and non-official agencies who do not hold contracts. This is exclusive of visits made by local public health nurses in Warren and Sussex counties. During this past year, 1,552 cases were reviewed through supervisory nursing visits made with nurses, case conferences, and supervisory visits made to non-contract holding agencies. Seven cerebral palsy clinics were organized and held.

#### *Dental Health*

Three 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 State supervised nurses participated in the treatment program in public and parochial schools. Nursing supervision in the Dental Health Program is given by the public health nurse supervisors to State supervised nurses working in schools.

At the request of the Program, a survey was made of the public and parochial schools in the District to ascertain how many schools discontinued or curtailed the sale of candy. Four schools discontinued sales: Hunterdon 1, Somerset 1, Warren 2.

The Sussex County Board of Freeholders requested assistance in planning for a dental mobile unit. The Board of Freeholders felt that the Program could be more effectively administered if the trailer service were initiated.

#### *Maternal and Child Health*

During the year, considerable progress was made in improving the standards of selected State supervised child health conferences in the District.

The Program Coordinator visited a child health conference and had two conferences with attending physicians. As a result, immunizations were reinstated in one child health station and will be started in another.

The public health nurse consultant (Maternal and Child Health) visited five child health conferences accompanied by the District staff. Following the sessions, conferences were held with the physician and local nurse, at which time constructive suggestions were made.

As of June 30, 1956, there were nine State supervised child health conferences in the District. Eight of these physicians are paid by the State and one locally.

During the fiscal year, one child health conference was closed, due to poor attendance, and one new station was opened. One station, temporarily closed because of the resignation of the nurse, has been reopened. Another new station will be opened in the fall of 1956, through the active participation of the local parent-teacher association for the past year. This local agency has been promoting the establishment of the station through the local board of health and this District.

#### *Nutrition*

Education materials regarding nutrition were distributed to the public health nurse supervisors and State supervised public health nurses. The material was used by the nurses in teaching nutrition in child health conferences and in home visits.

#### *Drug, Food, Milk and Shellfish*

Activities under these programs are routinely carried on. These activities consume the major portion of our sanitarians' field time. Inspections during this past year have revealed that the dairy plant owners and farm producers in this area are aware of their responsibilities and, as a consequence, very few violations are found.

#### *Bathing*

Under the provisions of the Bathing Program, certificates of compliance were issued to eight bathing places. Those lake operators who are voluntarily participating in this program find it to their advantage to meet the requirements of this Department for certification.

#### *Potable Water*

Routine and special inspections of public water and sewage facilities were carried out during the year. With the exception of a few minor operational and maintenance problems, the facilities are being maintained and operated satisfactorily. With the increase of building in this District, the problem of securing additional sources of water has become very important. During this fiscal year, thirteen new wells were drilled, and these were approved by the Department.

#### *Stream Pollution*

Public awareness of water and sewage problems in two municipalities of the District has resulted in the formation of a special committee in one municipality to study the advisability of creating either a public water supply or public sewage system. In the other municipality, the planning board and governing body have made definite plans for the establishment of a sewage commission to regulate the location, building, and operation of one or more sewage treatment plants to serve the municipality. This trend among municipalities to keep at a minimum the number of small sewage treatment plants and at the same time receive the greatest benefit from the facilities built is a forward step in community planning.

Together with the Passaic Valley Water Commission, the Department and District efforts to eliminate the pollution of Crooked Brook continue. Joint action by the boards of health of Boonton and Montville Township has aided this phase of the stream pollution program.

#### *Housing*

The Housing Program of the Department, especially as it relates to the evaluation of housing, has become more and more important. Several municipalities have adopted housing codes while others have set up study committees to advise them as to the need and to make recommendations to be included in any regulations to be adopted. In this effort, the District has given encouragement, advice, and guidance.

#### *Solid Waste Disposal*

With the passing of the Air Pollution Act, Chapter 212, P. L. 1954, and especially after the promulgation of the first three chapters of the New Jersey Air Pollution Control Code, there has been an increased demand upon District personnel to help local municipalities find a satisfactory solution to their solid waste disposal problems. This District has played a major role in promoting the use of sanitary landfills in such instances. It has become evident that many of our municipalities cannot solve their solid waste disposal problems alone. Consequently, they are joining with the other municipalities in order to have the most efficient project at the lowest cost to their inhabitants.

#### *Camp*

Eighty-seven long-term camps and thirteen day camps were inspected and approved for the 1955 season. In addition, two weekend camps and three nudist camps were inspected for their sanitary facilities and water supply but were not approved by the Department due to the nature of their operation.

*Veterinary Public Health*

District personnel assisted in the administration and offered consultation services relative to 98 rabies inoculation clinics wherein 8,676 dogs were given antirabies vaccine.

Approximately 65 specimens, including blood, soil, feed, water, skin scrapings, and others, were submitted through the State Laboratory for diagnosis in conjunction with epidemiological investigations.

Under the supervision of personnel from the District, 300 parakeets positive for psittacosis, as determined by laboratory analysis, were treated with antibiotics and subsequently found negative.

Bi-annual inspections and surveys were completed on all red meat abattoirs licensed in the District. Similar action was initiated with poultry-eviscerating plants.

*Poliomyelitis*

A considerable amount of time was spent by District staff on the Poliomyelitis Surveillance project in cooperation with the Public Health Service. Activities included interpretation to hospitals admitting polio cases as well as two concerned voluntary agencies, and interpretation to official agencies, personnel and families, and collection of blood and stool specimens. Surveillance forms, clinical and data sheets were completed and blood and stool specimens were collected on 15 cases. This project started with the first reported case of poliomyelitis in the District in 1955 and was carried on during the polio season.

The National Foundation for Infantile Paralysis Salk Vaccine Program began in May, 1955, and continued through November. The final tabulations on county participation are as follows:

County	No.	No. Receiving			% Receiving
	Eligible for Inoculations*	1 Inoc.	2 Inoc.	Boosters** or 1 Booster	2 Inoculations or 1 Booster
Hunterdon .....	1,965	822	734	1	37 %
Morris .....	16,328	6,708	5,901	1,817	47
Somerset .....	4,896	914	819	..	17
Sussex .....	1,810	434	419	5	23
Warren .....	4,636	2,378	1,965	472	52.5
Total District Participation ..	29,635	11,256	9,838	2,295	41

\* As reported by school superintendents 2/1/55.

\*\* Administered to children who completed series in 1954 Field Trial.

District staff assisted local health personnel in planning and organizing the clinics as well as participating at the time of the clinic when so requested.

*1956 Polio Vaccine Program*—Public polio vaccine clinics for children up to 15 years of age and pregnant women began in January, 1956, and continued through the end of this fiscal year. District personnel spent a great deal of time assisting local boards of health in planning for and participating in vaccine clinics. By the end of June, practically all of the municipalities in the five counties had conducted first inoculation clinics; Somerset and Warren had completed second inoculation clinics; and a large number of municipalities in Morris and Sussex Counties had completed second inoculations.

During the period from January through June, the public health nursing staff participated in 50 local public vaccination clinics. The State Program Chairman of the National Foundation for Infantile Paralysis met with staff personnel to discuss community problems as well as promotion of Salk vaccine programs.

*Other*—The Northern District Public Health and Sanitary Association and this District office co-sponsored an Institute on Poliomyelitis in September. Part of the day's program was broadcast over radio station WMTR. Radio scripts for the participants on the program were prepared and visual aids were secured by this office. The professional attendance at this meeting was worthy of the content of the program. Without exception, the speakers presented pertinent, timely, and informative material in a way that demonstrated not only their interest in the subject but their concern for the problems engendered by poliomyelitis.

In the spring of the year, conferences were held with the Morris County Chairman of the National Foundation for Infantile Paralysis for the purpose of outlining two radio broadcasts on the Salk vaccine. Basic content of the broadcasts were planned with the Supervisor of the Polio Vaccine Program. The broadcasts were made on May 11th and June 8th, over radio station WMTR with the Program Supervisor participating.

*Veneral Disease*

Continued progress was made in developing this program in the District. Working relationships with the six full-time health officers and the five clinics in the District have been strengthened.

Emphasis was placed on improving contact interviewing, improving the reporting of diagnosed cases, and teaching new nurses the Venereal Disease Control Program.

Thirty-six of the forty State supervised nurses include venereal disease nursing in their programs. The four nurses who do not do venereal disease nursing are in two districts where the local health officers do the work themselves. A venereal disease investigator assigned to the District part-time gives direct service in areas not covered by full-time health officers or public health nurses.

The public health nurse supervisors made 114 direct nursing visits to suspects, contacts, and diagnosed cases. These visits are in addition to those made by local nurses.

A serological survey was made on migrant laborers in Hunterdon County in May. Serological tests were completed on 46 persons, all of whom were non-reactive.

A team from the U. S. Public Health Service interviewed management and personnel at Clinton and Annandale Reformatories to ascertain venereal disease factors contributing to juvenile delinquency.

#### *Other*

*Civil Defense*—A Junior Woman's Club in Morris County requested assistance from this office in promoting local participation in civil defense. With the cooperation of the established Civil Defense Organization, local and county, staff personnel assisted with literature and other materials as well as exhibits.

Staff personnel participated in a panel discussion on civil defense sponsored by the Business and Professional Women's Club in Phillipsburg.

A preliminary conference was held in the spring in Madison for the purpose of planning a County Civil Defense Training Center. Basic needs, equipment, advisory, representative, and teaching personnel, and course content and policies were discussed. It is anticipated that representatives from Drew University, St. Elizabeth's College, the Regional High Schools, the County Medical Society, the County Civil Defense Organization, and the State Department of Health as well as local health officers will be organized to serve as an advisory committee.

*Mental Health*—A meeting of the Hunterdon County Mental Health Committee was held at the Medical Center with representation from the Commonwealth Fund. Plans for an educational program and an annual evaluation of the mental health program of the hospital were discussed.

The Northern New Jersey Mental Hygiene Clinic at Greystone Park, Morris County, sponsored a workshop relating to normal, emotional development. Staff personnel participated in the program.

Through the efforts of the Warren County Welfare Council and all of the concerned agencies in the county, the Warren County Guidance Center opened in October. A much-needed facility was thereby provided to the area. Following the opening of the center, a teachers' workshop on mental health in the county was attended by District nursing staff. The psychiatric social worker employed by the center discussed the referral system policies, procedures, and type of cases to be referred.

#### CITIZEN PARTICIPATION

The following health activities are limited to highlights and accomplishments relating to health councils, citizen and community health projects as well as evaluation surveys.

#### *Hunterdon County*

The promotional work done last year in assisting with the development of countywide combined public health nursing services culminated in specific action taken this fiscal year. In July, a new Citizens Advisory Committee on Nursing was organized with members appointed by the Board of Trustees of the Hunterdon Medical Center. Later in the fall, the Hunterdon County Community Services Committee was formally organized to coordinate health and welfare services in the county and to act as a clearing house for information on existing resources. At the same time, the Hunterdon County Public Health Association, with assistance from staff personnel, was studying county public health nursing services, programming, budget, and administration.

At the board meeting of the Hunterdon County Public Health Association held March 3, 1956, a motion was passed "that the Board go on record as willing to assume the responsibility for promoting a public health nursing program including bedside nursing care." Following this meeting, the Hunterdon County Public Health Association organized a committee composed of board members and key citizens to actively sponsor this project. An organizational meeting of this committee was held in June.

Also, in June, State Department of Health representatives met with the Hunterdon County Public Health Association to interpret Departmental policy regarding assistance to local agencies to enable them to assume administrative and supervisory responsibilities in the Public Health Nursing Program on a countywide basis. This conference brought to light some feasible and practical methods by which this might be accomplished.

#### *Somerset County*

A preliminary exploratory conference was held with representatives of Somerset County to discuss the possibility of promoting county responsibility for health programs and assisting the county in assuming such responsibility. It was felt that sufficient funds were now being spent on health activities in the county but that the coordination of these activities would be both economically and administratively feasible. In order to find out how much moneys are now being spent on health activities in the county, budget figures obtained from both official and voluntary agencies were compiled.

In the latter part of June, a Somerset County meeting was called for the purpose of planning recreational facilities, housing and construction, public health, etc., on a county level. Committees of interested persons were formed to study the individual problems and to initiate appropriate action. It is anticipated that the county committee on public health as well as the other committees will be activated in the fall.

#### *Sussex County*

Preliminary conferences were held to promote a countywide nursing service in Sussex County. A meeting with a member of the Sussex County Board of Freeholders followed to discuss the possibility of reactivating the Advisory Board to the Public Health and School Nurses Association, said board being made up of representatives of the various allied professions in the county. However, it was evident that the problem of nursing and nursing supervision in the county had been studied by the Board of Freeholders for some time but action had been hindered because of lack of funds. Consideration had been given to the coordination of the total available nursing service in the county through the employment of county nursing personnel. Furthermore, office space, equipment, and transportation for such personnel had also been considered. District staff personnel outlined the possibility of grant-in-aid funds as well as program objectives.

#### *Warren County*

Early in October, this office was requested to assist the Health Committee of the Warren County Welfare Council in reviewing a proposed evaluation survey schedule. The schedule itself was a revision by the New Jersey Welfare Council of the Evaluation Schedule. The form was made up of two parts: (1) survey of resources, and (2) self-administered survey of family health. At an annual meeting in October, the Health Committee was empowered by the County Welfare Council to conduct such a survey to the extent of the capability of the county group. This committee had two objectives: (1) to obtain a record of the health of the county residents and their needs; and (2) to appraise the present facilities of the community and to explore the possibility of dealing with any unmet needs that the survey may reveal. Thus Warren County became a pilot project to test the techniques in form, use, and evaluation of the new schedule, and to do this on a voluntary basis with evaluation and summary being done by local residents.

Representatives of the committee met with District personnel throughout the ensuing months to provide assistance and guidance in the survey and in plans for evaluating materials and the effective tabulation of the data.

The committee also had been negotiating for financial assistance in the completion of the survey, and by the end of the fiscal year, a grant of \$500 was assured through the College of Agriculture of Rutgers University.

Concurrent with survey activities, the Warren County Health Committee was interested in promoting community interest to the end that medical-social service would be made available at the Warren Hospital and rehabilitation facilities would be established in the county. Preliminary conferences started early in December with hospital personnel. However, it was decided to proceed very slowly in order that the needs of such services would be demonstrated through the survey activities.

In March, the Health Committee of the Warren County Welfare Council was asked to participate in a joint session of the Health Officers and Health Education Sections of the American Public Health Association Convention in Atlantic City in November, 1956. District personnel as well as the State Consultant, Community Health Organization, were asked for assistance by the committee in outlining pertinent data relating to the survey, county organizational techniques and procedures in completing the survey and its evaluation in preparation for the panel discussion in Atlantic City.

#### *Health Councils and Health Committees*

At the request of the Phillipsburg Regional Health Council, District staff, in cooperation with Rutgers University, gave a course in Basic Community Sanitation at Phillipsburg. There were eighteen in attendance at the course. The course was well received and provided basic information which served to enhance the activities of the Council.

The District Consultant, Community Health Organization, assisted in the organization of a School Health Council in Sussex County as well as in its programming and study activities for the year.

The Health Committee of the Morris County Community Chest and Council has been studying the establishment of medical-social services in a voluntary hospital as well as the development of an out-patient alcoholism clinic. This committee also reactivated its eye-health service last November in cooperation with the County Medical Society, the County Superintendent of Schools, and the New Jersey State Commission for the Blind.

A conference was held with representatives of Rutgers University to discuss the possibility of setting up a demonstration course relating to developing of group work skills. It is anticipated that this pilot project will be carried on under the sponsorship of the health committee of the Morris County Community Chest and Council.

## SPECIFIC ACTIVITIES FOR THE DEVELOPMENT OF LOCAL RESOURCES

In order to assist communities to take over responsibility for personnel, program, and the establishment of local resources, District staff met every request for consultation with local health agencies and citizens groups and promoted such local health activities as would assist in developing resources. In order to assist in the initial expansion and improvement of available resources, grant-in-aid demonstrations were utilized. To supplement the above activities, emergency services were carried on when indicated.

During the year, 38 local township committees, borough councils, and boards of education increased their share of the salaries of partly State-paid nurses. The complete salaries of three local nurses were taken over by their communities on July 1, 1956. To accomplish this result, 60 letters were sent to local official agencies in November, 1955, with a request to appropriate the full share of the local nurses' salaries. District nursing staff personnel followed up the letters by attending local board meetings and by having conferences with key officials.

Two new boards of health created under the provisions of Chapter 349, P. L. 1953 (Wantage and Randolph townships), requested the services of this office in describing and implementing the work and duties of a local board of health.

In January, District staff scheduled individual consultation sessions with the full-time licensed health officers in the District. This afforded an opportunity for discussions of problems in nursing, engineering, and program planning. These individualized conferences will continue on a routine basis.

During the fiscal year, five nursing contracts were in force. One of these was a new contract and the other four were renewals.

The Somerville Board of Health renewed its request for grant-in-aid sanitary inspector and the request was approved as of December 1, 1955. However, the board of health was forced to cancel its request because the governing body could not see its way clear to appropriate funds to cover the entire contract period.

The Madison Board of Health requested assistance in studying the possibility of employing a health educator and the practicality of requesting a grant-in-aid therefor.

Warren County Hospital requested grant-in-aid assistance in acquiring a medical-social worker as well as an electroencephalograph machine. District staff personnel interpreted utilization of such services as well as Departmental policies. These contracts were not negotiated due to lack of funds.

District staff assisted in procuring a grant-in-aid for a physical therapist at the Somerset County Hospital.

The Northern Health District, in cooperation with local official and non-official agencies, sponsored four institutes relating to tuberculosis, heart disease, and poliomyelitis. Average attendance at each of these institutes was 200.

Nursing staff promotional work (including negotiating grant-in-aid contracts, securing local increases toward partly State-paid nurses' salaries, assisting local boards in securing nurse replacements and developing and interpreting the generalized nursing program, including typhoid and poliomyelitis vaccine clinics) involved consultation, participation and attendance at the following meetings and conferences:

Local evening board meetings .....	34
Consultation with local officials .....	114
Consultation with local health officers .....	287
Consultation with physicians .....	88
Consultation with hospital personnel .....	207
Consultation with non-official agencies and nurses .....	45
Consultation with official nurses (not supervised by District Office) .....	48
Consultation with lay groups and individuals .....	171
Total .....	994

The District Chief Public Health Nurse, District Consultant, Medical-Social Rehabilitation, and the Program Coordinator of the Tuberculosis Program made seven visits to five county tuberculosis associations.

The Program Coordinator, Maternal and Child Health Program, and a public health nurse supervisor visited a child health conference. The Program Coordinator held conferences with two health conference physicians.

Nursing staff visited five child health conferences. The Public Health Nurse Consultant, Maternal and Child Health, accompanied the public health nurse supervisor on two visits to midwives.

District personnel, including the District Chief Public Health Nurse and the public health nurse supervisors, were accompanied on twelve field visits to freeholders, hospitals, and local official and non-official agencies by one or more of the District staff such as: District State Health Officer, District Consultant, Community Health Organization, and District Consultant, Medical-Social Rehabilitation.

Public health nursing staff held twenty-three staff conferences with nurses, seven of these including in-service training. The subjects covered included chronic illness, crippled children, mental health, and heart disease. Eighteen class hours were used. Subjects covered in the organized Departmental training were chronic illness, crippled children, maternal and child health, venereal disease, and nursing records. A total of twenty-two class hours was used.

A total of 135 conferences, consultations, inspections, and surveys was conducted with local health officials and agencies in the District for the purpose of improving methods and facilities for a more effective Rabies Control Program.

#### *Emergency and Supplemental Services*

*Flood*—This office was alerted on August 19, 1955, of the emergency conditions resulting from the flooding of the Delaware River valley. Sanitation staff personnel were immediately deployed to the most seriously affected areas, primarily Hunterdon, Sussex, and Warren Counties. An emergency office was set up in Phillipsburg and maintained until August 28th in order to provide an on-the-spot facility for coordination of effort as well as to channel requests and information.

Upon the insistent demand of the community, typhoid vaccine was provided. District staff personnel assisted in organizing and setting up seventeen regional clinics. In all, 12,210 first, 11,197 second, and 9,790 third inoculations were given. The following materials were prepared by this office and used in the flood area: Directions for sterilizing well or spring, causes of pollution of wells and suggestions for elimination, directions for estimating capacity of wells and amount of HTH to use to sanitize, advice to householders on cleansing operations, advice to householders on contaminated food or beverage, and a sanitary survey check list. Letters were sent to all local boards of health in the flood area regarding clean-up operations. Spot announcements were prepared and broadcast over Radio Station WEST regarding household cleansing operations and contaminated foods or beverages.

The Director of the Division of Environmental Sanitation was assigned to coordinate the disaster operation on August 20th in conjunction with the District Principal Public Health Engineer and the Chief of the Bureau of Food and Drug. Additional personnel from other districts were secured to help in the sanitation phase of the work.

*Other*—District staff was asked to assist the Borough of Netcong throughout the water supply emergency in June. A break in the water main had drained the reservoir and had placed the borough on an emergency status. The quality of the water provided throughout the emergency was supervised by staff personnel.

District personnel assisted in stray dog control and quarantine upon notification of the existence of canine rabies in the Southern District of the State.

Supplemental services by public health nursing staff included a total of 205 direct service visits related to venereal disease, crippled children, maternal and child health, and chronic illness. Also, nursing staff participated in a total of 58 clinics related to polio vaccine, typhoid, cerebral palsy, and maternal and child health.

#### SUMMARY

The cross-integration of programs of all social agencies related to health and safety in the Northern District continues to be outstanding. This emphasized the need for scope in leadership provided and maintained by the official agency, not only in the implementation of Departmental programs but also, through this implementation, to assist in the development of local resources in the light of community interest and awareness. Community planning and provision for health services have gone beyond the limits of only the professions concerned with the delivery of health services. Each of the counties in the District presents different aspects of planning and action, demonstrating at the same time constructive community attitudes and understanding of practicable solutions to problems now existing. The value of the public relations activities of the District has increased in importance and has become an indispensable adjunct in the development of local resources, particularly where long-established community programs may have limited cooperative participation.

District staff participated in writing and reviewing Departmental and District plans. These included the first three sections and respective work schedules of the Northern District Plan and also the provision of materials for the Sanitation Manual.

The District State Health Officer assisted in teaching the Basic Sanitation section of the Rutgers course at New Brunswick last fall. District staff assisted in teaching the Introductory Sanitation course given at Newark in cooperation with Rutgers University. All students expressed their appreciation for the opportunity afforded to discuss pertinent problems and to be given a brief resume of the total field of public health.

All of the District activities were geared to the ultimate goal of assisting in the development of local health services whether through direct, planned promotional activity, guidance in routine work, or assistance in the expansion and growth of local programs. Training opportunities as well as other efforts toward this end have been recounted elsewhere in this report.

Through planned participation with many official and voluntary groups, there has been a focus on chronic illness program objectives and an emphasis on the nursing and medical-social aspects of these programs. As a result, there is an increased awareness of the problems involved and some demonstrable practical resolutions.

A consistent effort has been made to broaden the activities of all staff personnel, particularly sanitation staff and local health department personnel. Whenever possible, local boards of health were encouraged and assisted in assuming responsibility for problems within their jurisdictions. Most in-



stances of direct service were used as demonstrations so that future problems of similar nature could be solved satisfactorily by the responsible agency.

Consolidation of services to provide quality as well as adequacy in local health programs, though admittedly slow in taking root, is being provided with a firm foundation built on education, motivation, and enhancement of values accruing from the slow dissolution of established resistances.

### Southern State Health District

The year was marked by a continuation of a rapid growth of small communities, particularly in counties along the Delaware River. There has also been a gradual increase in the number of new industries.

There was an acceleration of the trend toward the development of full-time school nursing services, at the expense of total community coverage. At the same time, the number of State employed public health nurses has been decreased. Camden County was added to Atlantic County as an area having no State-paid field nurses.

A Principal Public Health Engineer was transferred to the District to serve in place of the District Chief Public Health Engineer, whose position had been vacant since March, 1955. One of the field sanitarians retired in April and has not yet been replaced. The District clerical pool has been below its normal strength ever since the spring of 1955. Recruitment of permanent typists and stenographers of high quality presents a continuing difficulty. Because of this problem, the efficiency of the District operations has been less than it might have been.

The development and improvement of official local health services are impeded by certain organizational factors and by a lack of trained personnel. Of the District's 129 municipalities, 116 have a population of less than 10,000. Only 25 of the 129 municipalities have the service of a licensed health officer or, in the case of the municipalities having a population of less than 10,000, a sanitary inspector of the first class. The District's largest municipality, Camden, is without the services of a health officer. The smallness of many communities means that there is an inadequate budget to support a local health program; in many instances, the population to be served would make impractical the provision of adequate public health services limited to the municipality.

There are four regional public health commissions in the District, so that theoretically there is an administrative set-up which would permit the development of more adequate health services in the cooperating communities. In practice, however, regional public health commissions in Atlantic and Cape May Counties are limited to the partial support, on the basis of an extremely low per capita assessment, of clinic services in the field of tuberculosis, venereal disease, or cancer control. To date, no progress has been made toward an ex-

pansion in terms of the type of service rendered. In the case of the regional health commission in Camden County (covering three communities with a total population of over 30,000), a limited program is carried out, personnel being limited to a health officer and a clerk, but there is local interest in an expansion of services.

In spite of the difficulties indicated above, a number of specialized programs were carried out under the auspices of, or in cooperation with, local boards of health. These included the organization of diabetes detection campaigns during the annual Diabetes Week in November; participation in mass X-ray screening surveys for the detection of chest pathology; the organization of dog vaccination clinics for protection against rabies; and the organization of public clinics for the administration of poliomyelitis vaccine. Some of the larger communities having organized health departments made a much better record in the distribution of Dreyfaks. It is planned to encourage this type of activity next year.

The occurrence of a case of rabies in a dog in Burlington County near the Camden County border resulted in a tremendous upsurge of interest in dog vaccination clinics, with the result that the District's record for dogs vaccinated during the year was better than ever before.

The increasing availability of Salk poliomyelitis vaccine for public clinics was followed by the holding of clinics in dozens of municipalities throughout the District; these clinics were planned and staffed by local personnel, sometimes with the aid of State supervised nurses, and were under the auspices of local boards of health or boards of education.

District office personnel participated actively in several health councils. The District State Health Officer was a member of the Executive Board of the Camden County Council of Community Services and also served in its Health Division. The District Consultant in Community Health Organization served on the Council's Legislative Committee. He also continued his activity in support of the Executive Committee of the Salem County Council for Local Public Health Services. This council's major achievement during the year consisted of establishing, with some aid by the State Department of Health, a county dental clinic for medically indigent school children. The council was successful in obtaining financial backing from the County Board of Freeholders.

The District Consultant for Community Health Organization was an active member of several committees in the Council for Local Public Health Services of New Jersey.

District personnel have been of assistance in the field of mental retardation. The District Consultant for Medical-Social Rehabilitation gave consultation to the Tri-County Unit of the New Jersey Association for Retarded Children when they asked for help in connection with their nursery school and sheltered workshop. The District Nutrition Consultant continued consultation services

to the Training Center for mentally retarded children sponsored by the Collingswood Board of Education.

The development of local health resources through grant-in-aid demonstrations continued successfully. In March, 1956, the psychiatric social worker employed at West Jersey Hospital in Camden under a grant-in-aid contract was named Director of the Social Service Department; the salary increase involved was made by the hospital. This service had begun with the activities of the social worker being restricted to the study clinic for alcoholism. Plans were made for the employment of a second qualified medical-social worker.

Negotiations were undertaken toward the end of the fiscal year for new grant-in-aid contracts to cover the employment of public health nurses in some communities previously serviced by State employed nurses or without service for some time. The implementation of the Crippled Children Program was aided through grant-in-aid contracts with seven visiting nurse associations; four of these are in Camden County.

As during the previous year, the State-supervised nurses in each county participated in staff education projects conducted by the District Chief Public Health Nurse, the District Consultant in Medical Social Rehabilitation, and the District Consultant in Public Health Nutrition. These sessions, usually centered around case conferences, were geared to the solution of practical problems rather than the presentation of theory. One objective of these meetings was to stimulate the use of local community resources, and for this purpose representatives of other agencies were invited to attend.

District environmental sanitation personnel furnished emergency services immediately following the hurricane in August, 1955. This involved the inspection of water supplies, checking sewage treatment plants for possible damage, and the inspection of warehouses, food establishments, and bottled beverages for damage and contamination. Most of these activities were carried out in the northern part of the State, as very little damage occurred in the Southern District.

New sewage treatment plants were placed in operation in Camden, and in Merchantville-Pennsauken. A plant in Bridgeton was greatly enlarged and modernized. The Atlantic County Board of Chosen Freeholders approved a bond issue to cover construction of a new sewage treatment plant to serve the county buildings at Mays Landing. In addition, many smaller installations were put into operation to service realty subdivisions.

As a result of construction of new wells and improvements in distribution systems, there were fewer complaints this year concerning water shortage or inadequate pressure.

Thirteen cases of trichinosis were diagnosed following the ingestion of a smoked pork product in Vineland. Local meat inspection services in Vineland were improved and an education program instituted.

Because the City of Camden is one of four areas in the State having the greatest need for increased control of tuberculosis, a special mass chest X-ray survey was carried out there. Efforts were concentrated in those wards of the city which statistics indicated would be the best sources for case-finding. During April and May, almost 16,000 individuals over 16 years of age had chest X-rays, with the result that several hundred persons were referred to physicians for further study. In addition to cardiac abnormalities and possible neoplasms, a number of previously undiagnosed cases of tuberculosis was discovered.

Progress was made in decentralization of the Crippled Children Program by the transfer of case records to the public health nurse supervisor for Salem County. Similar moves were planned for other areas. Some of the clinic case load of the cerebral palsy treatment center administered by the District was reduced, following the transfer of all cerebral palsied children in Atlantic County to the United Cerebral Palsy organization in that area, which also services children from Cape May County.

Following consultation with Departmental personnel, arrangements were made to set up a prenatal clinic at the Salem County Memorial Hospital to be staffed with public health nurses from communities in the area. These nurses will be supervised, on a demonstration basis, by the public health nurse supervisor for Salem County.

Because of the fact that a number of communities are not covered with public health nursing service, it was necessary for state public health nurse supervisors to give direct service in a number of instances, involving such programs as Crippled Children, Venereal Disease Control, and Diabetes Detection.

There are now no field public health nurses employed by the Department in either Atlantic or Camden County. These two counties account for more than sixty per cent of the District's population. Although this represents progress, several nurses have resigned or withdrawn from community work to accept full-time positions as school nurses. Salary scales and certain personnel policies are such that school nursing sometimes appears more attractive than a generalized public health nursing position. Although State subsidized public health nursing services have been carried out in a number of communities for many years, a great deal remains to be done in getting local officials to appreciate the benefits to be derived from a generalized public health nursing program.

Many improvements have been made since the District office was established in February, 1951, but great strides will have to be taken before the major public health problems of the area are met.

**Division of Preventable Diseases**

---

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

---

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

The most outstanding advance in communicable disease control in New Jersey during fiscal year 1955-1956 was the significant progress made toward immunizing the most susceptible segment of the population against poliomyelitis. The greatest problem in the vaccination program was the lack of vaccine in adequate amounts to accommodate all who would have liked to have had it. The evaluation of the 1954 field trials found that three doses of the vaccine were 80 to 90 per cent effective in preventing the paralytic effects of poliomyelitis.

### COMMUNICABLE DISEASE CONTROL PROGRAM

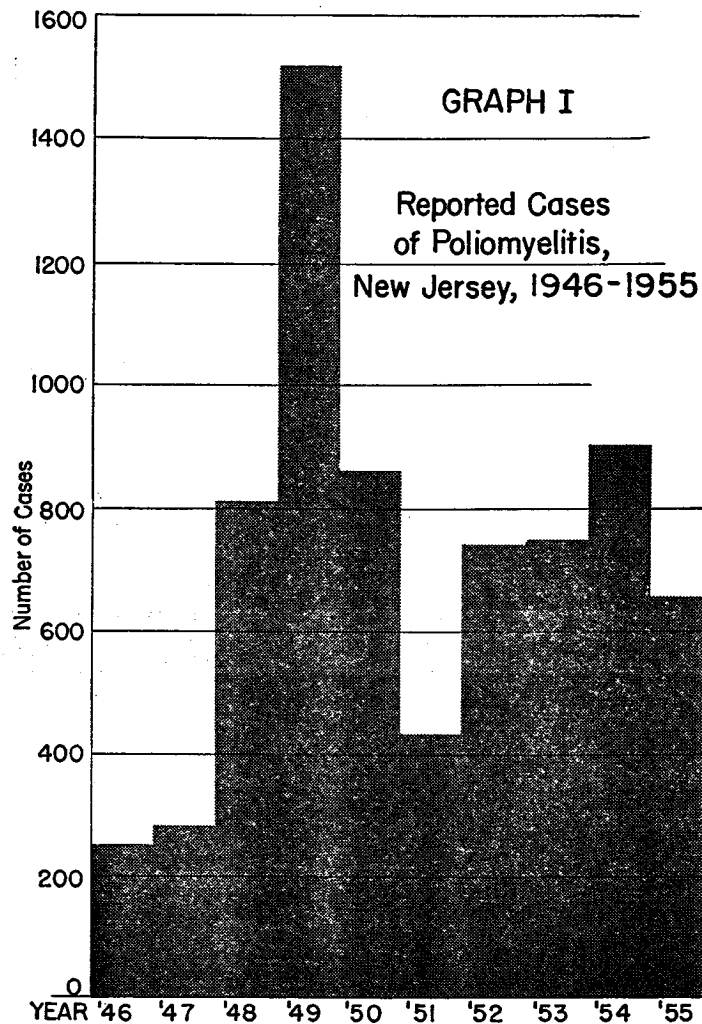
#### *Morbidity, Mortality, and Trends of Notifiable Diseases*

The reported cases of all notifiable diseases (exclusive of cerebral palsy, tuberculosis, and venereal diseases) numbered 60,354 in 1955 as compared with 36,192 for the preceding year. The increase of 24,162 cases in 1955 is attributable essentially to the marked rise in reporting of measles in that year. There were 52,665 cases of this disease reported in 1955 as compared with 26,534 in 1954. In 1955, measles represented 87.3 per cent of the total of diseases reported.

There were no reported cases in 1955 of anthrax, botulism, cholera, dengue, diarrhea of newborn, glanders, leptospirosis, plague, Q fever, human rabies, smallpox, and yellow fever.

In 1955, the Public Health Statistics Program ceased tabulating cases of measles, pertussis, streptococcal sore throat and scarlet fever, influenza, and pneumonia by age groups or by municipality. Counts were made by county. On an experimental basis, a selected number of reporting officers was asked to report daily counts of measles rather than send individual case reports for this disease.

In 1955, there were 1,499 deaths from reportable diseases (exclusive of cerebral palsy, epilepsy, mental deficiency, tuberculosis, and venereal diseases) as compared with 1,267 in 1954. Omitting the 1,371 deaths from pneumonia and influenza, in 1955 there were only 128 deaths due to the remaining notifiable diseases. This compares with 131 deaths from similar causes in 1954. No deaths were recorded in 1955 from anthrax, botulism, brucellosis, cholera, dengue, food poisoning, glanders, leprosy, leptospirosis, malaria, ophthalmia neonatorum, plague, Q fever, rabies, salmonellosis, smallpox, trachoma, trichinosis, tularemia, typhus fever, or yellow fever.



The number of cases of poliomyelitis reported in 1955 was 662—27.1 per cent lower than the 908 cases reported in 1954. (Graph I) Nationwide, there was a decline of about 25 per cent in reported cases as compared with 1954. Of the 662 cases of poliomyelitis reported in New Jersey, 282, or 42.6 per cent, were paralytic and 380, or 57.4 per cent, were non-paralytic. In 1954, there were almost twice as many paralytic cases (550) as there were in 1955. For the United States as a whole, approximately 36 per cent of the 29,270 reported cases were paralytic in 1955.

The incidence of poliomyelitis per 100,000 estimated population was 12.9 in 1955 compared with 17.9 in 1954 and 15.1 in 1953. Counties reporting the largest numbers of cases in 1955 were Essex with 143 cases, Bergen with 122, Passaic with 73, Monmouth with 62, and Union with 62. The Metropolitan District accounted for 441 cases, or 66.6 per cent, of the State total. Figures for Bergen County showed a disproportionate number of cases and deaths by population, with 122 cases and 14 deaths in 1955, as against 90 cases and 6 deaths in 1954.

The peak incidence of poliomyelitis in 1955 for the State was reached in August and September. There were 215 cases reported in August and 219 cases in September, making a total of 434 cases. The 1951-1955 five year medians for these months were 215 and 219, respectively. However, the reported cases of poliomyelitis for July and October, 1955, departed considerably from the 1951-1955 medians for those months. There were 48 cases reported in July as compared with the 1951-1955 five year median of 78, and 92 cases reported in October, as compared with the 1951-1955 median of 123. The 1951-1955 five year median of reported cases of poliomyelitis for the calendar year was 751 cases.

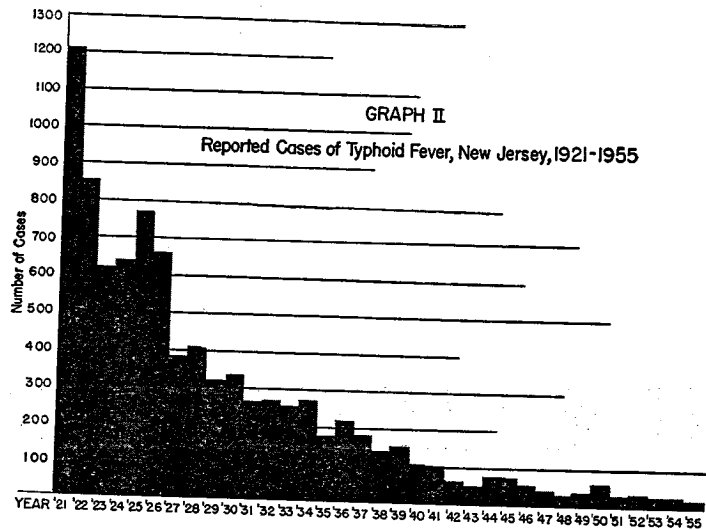
There were 288 reported cases of poliomyelitis in the age group 5-14 in 1955, representing 43.5 per cent of the total of reported cases. In 1954, the 416 cases reported in this age group represented 45.8 per cent of the total.

There were 37 deaths from poliomyelitis in 1955. This figure is the same as for 1954 and is less than in any year since 1947 when only 10 deaths from this disease were recorded.

Typhoid fever continues its satisfactory downward trend. The reporting of 27 cases in 1955 with a rate of 0.5 per 100,000 estimated population represents an all time low. There were 31 cases reported in 1954. For the United States as a whole, typhoid fever incidence declined nearly 25 per cent in 1955 as compared with the previous year. There were 2,283 cases reported in 1954 and 1,726 in 1955. There were two deaths from typhoid fever in New Jersey in 1955, representing a 7.4 per cent case fatality rate. No deaths were reported in 1952 and 1953, and one death was reported in 1954. The generally declining incidence of typhoid fever in the last 35 years in New Jersey (Graph II)

illustrates how illness and death have largely been prevented through application of control measures. Typhoid vaccine was released in increased quantities to areas in the Delaware Valley suffering from floods during August, 1955. There were 77 typhoid carriers listed in the State Health Department files at the end of fiscal year 1956.

Diphtheria continued its downward trend in 1955. The total of 6 cases reported in this year was approximately 1/5 of the 5 year median of 32 for the years 1951-1955. The incidence rate for 1955 was 0.1 per 100,000 estimated



population as compared with 0.3 in 1954 when 15 cases were reported. One death was recorded from this disease in 1955, giving a 16.7 per cent case fatality rate.

There have been no cases of smallpox reported in New Jersey since 1947. No cases were reported in either 1954 or 1955 in continental United States. The Public Health Service noted that 1954 was the first year in which not a single case of smallpox was reported.

For the last several years, recorded deaths from diarrhea of the newborn in New Jersey have exceeded reported cases. Comparative figures for cases and deaths due to diarrhea of the newborn follow for the years 1950-1955:

Year	Cases	Deaths
1950	1	15
1951	3	12
1952	9	12
1953	2	14
1954	9	18
1955	0	15

No deaths had been recorded from psittacosis in New Jersey since 1951 when there was one death. In 1955, a death was reported in which psittacosis was regarded as a contributing cause. The patient was a veterinarian who had contact with infective material in a laboratory. There were 10 cases of psittacosis reported in 1955. Unfortunately, no immunizing agents have been developed that can be used against psittacosis in either bird or man. Its control involves cooperation of owners, producers, and distributors in treating or destroying diseased birds, as well as education of the public.

Thirteen cases of ophthalmia neonatorum were reported in 1955 as against a median of 5 for the 5 year period 1951-1955. Ten of these 13 cases were reported during the four month period, September through December. These cases were in non-white infants born in a large city hospital. Epidemiologic study led to suggestions to the health officer in whose jurisdiction the hospital is located for improved practices in that hospital.

#### Salk Vaccine

A State law (Chapter 69, P. L. 1955) was enacted which appropriated \$570,000 for the purchase of Salk vaccine, the use of which was restricted to those children who would otherwise be unable to afford it. These funds were adequate for three doses to only 13.9 per cent of New Jersey children under 20 years and pregnant women.

By Federal law (Federal Poliomyelitis Vaccination Assistance Act 1955, Public Law 377) New Jersey received \$536,988 for purchase of vaccine and \$107,398 to defray part of the cost of public clinics. The former sum was adequate to provide three doses of vaccine to only 13.1 per cent of eligibles. Thus, total funds available could purchase vaccine for only 27 per cent of eligible children and pregnant women. This left 73 per cent to secure this protection from their own resources. As a result, the Department of Health initially adopted the policy of buying for public use 25 per cent of the vaccine allocated to New Jersey. The other 75 per cent was available for purchase by physicians and pharmacies directly from the manufacturer.

Under the State law, the Department was given the duty to write regulations to achieve the equitable distribution and use of poliomyelitis vaccine.

On August 26, 1955, the regulation became effective which permitted the use of vaccine only for children in the age group 5-9 years. On October 13, 1955, because of the increase in supplies of Salk vaccine, this regulation was amended so that the vaccine could be used for the inoculation of all children below the age of 15 and pregnant women. This regulation was current at the end of fiscal year 1956.

In most instances, parents sought the services of family physicians to have their children inoculated against poliomyelitis. The vaccine was obtained through sources regularly used by physicians to purchase their biologicals and other supplies. In addition, vaccine purchased by the State was made available through the 65 regular biologics stations. Physicians obtained vaccine at the stations after certifying that no charge would be made for the vaccine.

Four hundred and fifteen municipalities conducted public clinics for the administration of vaccine which was received from the Federal Government through the State Department of Health. These municipalities were eligible to receive a subsidy of fifteen cents for each inoculation. This was for the purpose of offsetting administrative costs, such as salaries, travel, rent, printing, and supplies such as needles and syringes. The municipalities were required to comply with Federal statute which provided that there be no means test and that inoculations be limited to persons in the eligible age brackets.

During the year, as public confidence in the vaccine increased, there was a spurt in the number of municipalities which elected to set up public poliomyelitis clinics, creating a great demand for vaccine purchased from tax funds. In an effort to meet this demand, the Department began purchase of 60 per cent of each allocation of vaccine to New Jersey. The other 40 per cent was available for purchase by physicians and pharmacies directly from the manufacturer. These proportions applied at the end of fiscal year 1956.

At year's end, 800,000 cubic centimeters of vaccine purchased with public funds had been made available to public clinics. New Jersey physicians had also had 800,000 cubic centimeters made available to them, most of it by direct purchase from the producers.

It was generally agreed that the ideal dosage called for three injections of vaccine. It was held that the second dose should follow the first after the lapse of at least 14 days, and the third not less than 7 months after the second. This time table was possible only for those individuals who received second injections not later than November, 1955. Most eligible persons in New Jersey did not receive first inoculations before November, 1955. Good evidence became available that the lapse of time between the first and second injections could be lengthened without loss of protection. Thus, it was recommended that as many children as possible be given their first injection as soon as feasible, with second injections to be given in May or June, 1956. The

second injection given in this manner, shortly before the poliomyelitis season, gave maximum protection.

Seventy-one thousand and thirty-three New Jersey children in the first and second grades of school received the first inoculation of Salk vaccine provided by the National Foundation for Infantile Paralysis during the late spring and summer of 1955. Twenty-five thousand six hundred and fifty-nine children received second inoculations. Three thousand four hundred and fourteen children who had been inoculated in the 1954 test areas received booster doses in 1955.

At the end of the year, it was strongly urged that vaccine be used as promptly as it became available, even during the summer months of rising incidence of poliomyelitis. The total preventive effect of the vaccine was considered to be much greater than any slight hazard of provocation.

#### *Surveillance of Poliomyelitis Cases*

Because of the reports that clinical cases of poliomyelitis occurred subsequent to administration of poliomyelitis vaccine, the Public Health Service in May, 1955, established the Poliomyelitis Surveillance Unit with headquarters at the Communicable Disease Center in Atlanta, Georgia. The Unit serves as a clearing house for a nationwide study to determine the effectiveness of poliomyelitis vaccine. New Jersey, together with all the other State and territorial health departments, more than 40 virus laboratories, the National Office of Vital Statistics, the National Foundation for Infantile Paralysis, and others, participated in the study during fiscal year 1956. The Surveillance Unit receives reports from all States and territories on all cases of poliomyelitis occurring within 30 days of inoculation with poliomyelitis vaccine, as well as information on all cases of poliomyelitis reported.

Federal funds were available during fiscal year 1956 to assist the Department in conducting surveillance studies. With these funds, the Department employed a well qualified supervisor, a field representative, and two clerical assistants. A surveillance form for gathering information for this project was developed. Surveillance of poliomyelitis cases began in January, 1956.

In order to accomplish complete surveillance, staff members explained the surveillance program at 33 meetings in which there were 265 participants. These key individuals were local health officers, reporting officers, secretaries to local boards of health, physicians, nurses, hospital administrators, and district State health officers. The importance of securing certain epidemiologic data and of collecting and examining blood and stool specimens to establish a definitive diagnosis of poliomyelitis was pointed out. The laboratory diagnosis of poliomyelitis assumed increasing importance in evaluating the efficacy of vaccine. Errors in differential diagnosis lead to errors in reporting which lead to erroneously discrediting the vaccine.

Data already available from the Public Health Service Communicable Disease Center show that among vaccinated children, most of whom had only one injection, the attack rate was 6.3 per 100,000. Among the unvaccinated, the attack rate was 29.2 per 100,000. Thus, the Public Health Service study showed a reduction of 78 per cent in the rate of paralytic poliomyelitis among vaccinated children.

#### *Gamma Globulin*

Gamma globulin, obtained from the American Red Cross and the National Foundation for Infantile Paralysis, continued to be available during fiscal year 1956 for administration to contacts of cases of measles, German measles, infectious hepatitis, and poliomyelitis. The rules for its distribution were the same as applied in the previous year.

#### *Education and Information*

A Talking Mirror at the New Jersey State Fair, held in Trenton from September 25 to October 2, answered questions most frequently asked about the Salk poliomyelitis vaccine. The Talking Mirror was featured as a part of the exhibit of the State Department of Health in the State Building. Prevention of paralytic poliomyelitis by use of the Salk vaccine was one of the principal messages in the State Health Department's 1955 exhibit. Exhibit materials devoted to the Salk vaccine showed how it is manufactured; how the live virus is killed with formaldehyde; and how the vaccine is subjected to extensive safety and potency tests before it is released for use. The exhibit also contrasted the use of gamma globulin and poliomyelitis vaccine as preventives of poliomyelitis.

A paper, "Progress Report, Poliomyelitis Vaccination Program," was presented by the Supervisor of the Poliomyelitis Program at the Annual Meeting of State and Local Health Officials on April 5, 1956. This paper appeared subsequently in the June issue of *Public Health News*.

An extensive education and information program using all available media was designed to promote the full utilization of available Salk vaccine for eligible children and pregnant women. In addition, there was a detailed exchange of information concerning the conduct of the poliomyelitis surveillance program, among State and local health department personnel and hospital personnel.

The staff of the Division again participated 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.

There were 359 showings of communicable disease films to 16,938 viewers during fiscal year 1956.

#### *Programs*

Considerable time was given by the staff of the Division to writing a description of program problems and proposed solutions and to revision of the written programs to keep them current.

#### *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 medical services needed to authorize the payments of benefits on selected claims continued to be provided by the personnel of the Division of Preventable Diseases.

#### *Personnel*

The staff of the Communicable Disease Control Program, as of June 30, 1956, consisted of the following personnel:

##### *Administrative*

Program Coordinator  
Supervisor of Poliomyelitis Vaccine Program

##### *Field*

Field Representative

##### *Clerical*

1 Principal Clerk Stenographer  
1 Senior Clerk Stenographer  
1 Clerk Typist

The Supervisor of the Poliomyelitis Vaccine Program, field representative, senior clerk stenographer, and clerk typist were employed this year to assist specifically with the poliomyelitis vaccine program.



TABLE I  
 REPORTED CASES OF NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE  
 (Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases)  
 New Jersey, 1965

COUNTIES	Amebiasis	Diphtheria	Encephalitis, Infectious	Epilepsy	Food Poisonings & Food Infections	Hepatitis, Infectious	Influenza	Leptosy	Malaria	Measles	Meningococcal Meningitis	Mental Deficiency	Ophthalmia Neonatorum	Pneumonia
Atlantic .....	0	1	0	0	0	4	0	0	0	NO	0	0	0	0
Bergen .....	1	0	0	0	0	32	0	0	0	11,684	0	0	0	14
Burlington .....	0	0	3	1	0	6	4	0	2	680	0	0	0	0
Camden .....	0	2	1	0	0	17	7	0	0	641	0	0	0	137
Cape May .....	0	0	0	0	0	1	0	0	0	246	0	0	0	0
Cumberland .....	0	1	1	0	0	8	3	0	0	60	2	1	0	22
Essex .....	1	0	5	83	0	71	33	0	1	17,805	22	1	10	727
Hudson .....	0	0	1	0	0	3	1	0	0	81	4	0	0	27
Hunterdon .....	0	0	1	0	0	37	1	0	2	2,433	5	0	0	70
Monmouth .....	0	0	0	0	0	0	0	0	0	70	0	0	0	11
Mercer .....	0	3	2	0	0	7	0	0	0	837	3	0	1	94
Middlesex .....	0	0	2	0	0	11	1	0	1	569	5	0	0	156
Morris .....	3	1	7	7	2	11	4	1	0	708	2	0	2	17
Ocean .....	0	0	0	0	0	3	0	0	0	2,385	1	0	0	12
Passaic .....	0	0	0	0	0	0	0	0	0	184	3	0	0	80
Paterson .....	0	0	4	0	0	73	64	0	1	7,800	0	0	0	23
Rocky Mountain .....	0	0	3	0	0	30	2	0	0	219	4	0	0	0
Somerset .....	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sussex .....	0	1	1	0	0	17	1	0	0	239	0	0	0	43
Union .....	0	0	3	1	0	32	3	0	0	6,185	2	0	0	71
Warren .....	0	0	0	0	0	11	0	0	0	6,180	1	0	0	9
State Institutions .....	248	0	0	0	0	10	4	0	0	63	2	0	0	58
Military Posts .....	0	0	1	10	0	47	0	1	1	53	17	4	0	1,383
State Total .....	253	0	44	104	2	483	123	3	4	52,065	101	5	13	3,062

TABLE I—Continued  
 REPORTED CASES OF NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE  
 (Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases)  
 New Jersey, 1965

COUNTIES	Polymyositis	Rocky Mountain Spotted Fever	Salmonellosis	Scarlet Fever & Streptococcal Sore Throat	Shigellosis	Tetanus	Trenchoma	Trichinosis	Typhoid Fever	Typhus Fever	Undulant Fever	Whooping Cough
Atlantic .....	1	0	2	12	0	0	0	0	0	0	0	5
Bergen .....	122	0	0	12	1	0	0	0	0	0	0	461
Burlington .....	1	0	0	1	0	0	0	0	0	0	0	11
Camden .....	12	0	1	57	3	0	0	0	0	0	0	10
Cape May .....	3	0	1	0	0	0	0	0	0	0	0	8
Cumberland .....	3	0	0	0	1	1	0	0	0	0	0	12
Essex .....	143	5	0	47	3	0	2	0	0	1	0	381
Gloucester .....	3	0	4	300	0	0	0	0	0	0	0	10
Hudson .....	41	0	3	39	0	0	0	0	0	0	0	10
Hunterdon .....	2	0	0	10	0	0	0	0	1	0	0	110
Mercer .....	24	0	2	35	0	1	0	0	0	0	0	31
Middlesex .....	24	0	3	72	0	1	0	0	0	0	0	27
Monmouth .....	62	0	4	44	4	0	0	0	1	0	0	50
Morris .....	34	1	0	34	0	1	0	0	0	0	0	36
Ocean .....	23	0	1	13	1	0	0	0	1	0	0	0
Passaic .....	73	0	0	79	0	1	0	1	1	0	0	124
Salem .....	1	0	0	16	0	0	0	0	0	0	0	5
Shelton .....	1	0	0	30	0	0	0	0	0	0	0	5
Sussex .....	13	0	2	30	0	0	0	0	1	0	0	3
Union .....	62	2	1	128	0	0	0	0	2	0	0	100
Warren .....	2	0	0	31	0	0	0	0	0	0	0	1
State Institutions .....	0	0	0	93	6	0	0	0	0	0	0	0
Military Posts .....	0	0	1	33	6	0	0	0	0	0	0	0
State Total .....	602	10	10	1,646	26	6	1	3	2	27	1	1,214

Note: No reported cases of Anthrax, Botulism, Cholera, Dengue, Diarrhea of Newborn, Glanders, Leptospirosis, Fungus, Q Fever, Rabies (human), Smallpox and Yellow Fever.

TABLE II  
RECORDED DEATHS FROM REPORTABLE DISEASES BY COUNTIES  
(Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases)  
New Jersey, 1966

Disease and International List (6th Rev.) Numbers

COUNTIES	Anthraxis (046)	Diphtheria (055)	Epilepsy (353)	Infectious Encephalitis (052-063)	Infectious Hepatitis (092)	Influenza (487-483)	Mumps (083)	Menstrual Menorrhagia (087.0)	Mental Deficiency (325)
Atlantic .....	0	1	4	1	1	0	0	0	0
Bergen .....	1	1	4	1	1	0	0	1	0
Burlington .....	0	0	4	1	1	0	0	1	0
Camden .....	0	0	4	1	1	0	0	1	0
Cape May .....	0	0	7	1	1	0	0	1	0
Cumberland .....	0	0	2	2	0	0	0	0	2
Gloucester .....	0	0	12	0	0	0	0	0	0
Hudson .....	2	0	10	1	0	0	0	0	0
Hunterdon .....	0	0	0	0	0	0	0	0	0
Mercer .....	0	0	2	0	0	0	0	0	0
Middlesex .....	0	0	6	0	0	0	0	0	0
Monmouth .....	0	1	6	0	1	0	0	0	1
Morris .....	0	1	1	0	1	0	0	0	0
Ocean .....	1	0	1	0	1	0	0	0	1
Passaic .....	1	0	0	1	1	0	0	0	1
Salem .....	0	0	0	0	1	0	0	0	0
Shelton .....	0	0	0	1	1	0	0	0	0
Sussex .....	0	0	1	1	1	0	0	0	0
Union .....	0	2	0	0	0	0	0	0	0
Warren .....	0	1	0	0	0	1	0	0	0
State Institutions .....	0	0	0	0	0	0	0	0	0
Military Posts .....	0	0	0	0	0	0	0	0	0
State total .....	4	15	83	18	18	32	8	17	11

TABLE II—Continued  
RECORDED DEATHS FROM REPORTABLE DISEASES BY COUNTIES  
(Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases)  
New Jersey, 1966

Disease and International List (6th Rev.) Numbers

COUNTIES	Pertussis (026)	Pneumonia (490-493)	Polioviruses* (050-081)	Petritosis (096.2)	Rocky Mountain Spotted Fever (104.1)	Shigellosis (045)	Streptococcal Sore Throat (051)	Tetanus (061)	Typhoid Fever (040)
Atlantic .....	0	41	0	0	0	0	0	0	0
Bergen .....	0	16	16	0	0	0	0	0	0
Burlington .....	0	30	0	0	0	0	0	0	0
Camden .....	0	85	0	0	0	0	0	0	0
Cape May .....	0	19	0	0	1	0	0	0	0
Cumberland .....	0	23	1	1	0	0	0	0	0
Essex .....	0	215	8	0	0	0	0	0	0
Gloucester .....	0	20	0	0	0	0	0	0	0
Hudson .....	0	201	2	0	0	0	0	0	0
Hunterdon .....	0	18	0	0	0	0	0	0	0
Mercer .....	1	78	3	0	0	0	0	0	0
Middlesex .....	2	63	0	0	0	1	0	0	0
Monmouth .....	0	27	0	0	0	0	1	0	0
Morris .....	0	27	0	0	0	0	0	0	0
Ocean .....	0	21	0	0	0	0	0	0	0
Passaic .....	0	18	1	0	0	0	0	0	0
Salem .....	0	22	0	0	0	0	0	0	0
Somerset .....	0	11	1	0	0	0	0	0	0
Sussex .....	0	18	0	0	0	0	0	0	0
Union .....	0	90	3	0	0	0	0	0	0
Warren .....	0	20	0	0	0	0	0	0	0
State Institutions .....	0	4	0	0	0	0	0	0	0
Military Posts .....	0	1	0	0	0	0	0	0	0
State total .....	3	1,538	37	1	1	1	1	1	2

\* Includes late effects.

Note: No recorded deaths from Anthrax, Botulism, Brucellosis, Cholera, Dengue, Food Poisoning, Glanders, Leptospirosis, Malaria, Opisthorchiasis, Neonatorum, Plague, Q fever, Rabies, Salmonellosis, Smallpox, Trachoma, Trichinosis, Tularemia, Typhus Fever, or Yellow Fever.

TABLE III  
CASES OF ACUTE POLIOMYELITIS BY MONTH BY COUNTY: 1955

AREA	Total	NUMBER OF CASES											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Atlantic County	5	1	0	0	0	1	0	1	1	0	1	0	0
Bergen County	122	0	0	1	0	3	0	10	39	37	17	9	0
Burlington County	1	0	0	0	0	0	0	0	1	0	0	0	0
Camden County	12	2	0	0	0	0	0	1	4	5	0	0	0
Cape May County	3	1	0	0	0	0	1	0	0	0	1	0	0
Cumberland County	3	0	0	0	0	0	0	0	1	2	0	0	0
Essex County	143	1	0	0	3	1	4	9	43	44	29	4	0
Gloucester County	3	0	0	0	0	0	0	1	2	0	0	0	0
Hudson County	41	0	0	2	2	2	3	1	12	13	2	3	1
Hunterdon County	2	1	0	0	0	0	1	0	0	0	0	0	0
Mercer County	24	0	0	0	0	1	1	1	4	6	9	2	0
Middlesex County	24	0	0	0	0	0	1	4	7	7	3	1	1
Monmouth County	62	0	0	0	1	1	2	8	19	19	5	5	2
Morris County	24	0	0	0	0	0	1	3	14	9	6	1	0
Ocean County	18	0	0	0	0	0	0	0	8	4	6	0	0
Passaic County	73	0	0	0	0	0	2	2	23	35	7	2	2
Salem County	1	0	0	0	0	0	0	0	1	0	0	0	0
Somerset County	19	0	1	1	0	0	0	3	8	2	4	0	0
Sussex County	3	0	0	0	0	0	0	0	2	1	0	0	0
Union County	62	1	0	0	0	1	1	6	22	27	2	2	0
Warren County	2	0	0	0	0	0	0	0	1	1	0	0	0
*State Institutions	0	0	0	0	0	0	0	0	0	0	0	0	0
*Military Establishments	5	1	0	0	0	0	0	2	2	0	0	0	0
State Total	662	8	1	4	6	9	18	48	215	219	92	30	12

\* Not included in totals of counties where located.

TABLE IV  
REPORTED CASES OF POLIOMYELITIS BY COUNTY AND PARALYTIC STATUS:  
New Jersey, January 1, 1955—December 31, 1955

Area	Total	Paralytic Status	
		Paralytic	Non-Paralytic
New Jersey	662	282	380
Atlantic County	5	1	4
Bergen County	122	60	62
Burlington County	1	..	1
Camden County	12	6	6
Cape May County	3	1	2
Cumberland County	3	2	1
Essex County	143	86	57
Gloucester County	3	..	3
Hudson County	41	19	22
Hunterdon County	2	..	2
Mercer County	24	14	10
Middlesex County	24	11	13
Monmouth County	62	7	55
Morris County	34	15	19
Ocean County	18	1	17
Passaic County	73	20	53
Salem County	1	1	..
Somerset County	19	5	14
Sussex County	3	1	2
Union County	62	28	34
Warren County	2	..	2
State Institutions	..	..	..
Military Establishments	5	4	1

TABLE V  
POLIOMYELITIS CASES BY MONTH WITH MEDIANS FOR FIVE-YEAR PERIODS:  
(1951-1955) AND (1950-1954), NEW JERSEY

Month	1951-1955		1950-1954					Median 1950-1954
	Median 1951-1955	1955	1954	1953	1952	1951	1950	
January	6	8	5	6	0	9	6	6
February	1	1	3	1	2	1	5	2
March	1	4	1	0	2	1	2	1
April	3	6	3	2	1	6	2	2
May	6	9	3	9	1	6	6	6
June	13	18	16	13	8	11	34	13
July	78	48	78	117	79	43	81	79
August	215	215	186	239	248	143	175	186
September	219	219	226	212	236	140	175	228
October	123	92	221	123	125	59	172	123
November	30	30	116	25	35	19	79	38
December	12	12	50	18	11	10	24	18
Total	751	682	908	756	751	448	866	756

TABLE VI  
CASES AND DEATHS FROM POLIOMYELITIS: 1955  
BY SEX AND AGE GROUPS

AGE GROUP	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Under 1 year	9	0	7	0	2	0
1 to 4 years	102	1	85	0	17	1
5 to 14 years	288	13	186	6	102	7
15 to 24 years	101	3	56	0	45	3
25 to 44 years	156	18	73	14	83	4
45 to 64 years	3	0	3	1	0	0
65 years and over	0	0	0	0	0	0
Unknown	0	0	0	0	0	0
All ages	662	37	390	21	272	16

TABLE VII  
CASES AND DEATHS, WITH RATES AND PER CENT FATALITY: 1955  
FOR SELECTED REPORTABLE DISEASES

DISEASES	CASES		DEATHS		Per Cent Fatality
	No.	Rate*	No.	Rate*	
Diphtheria	6	0.1	1	0.1	16.7
Influenza	125	2.4	33	0.6	28.4
Measles	52,955	1024.4	8	0.2	<0.1
Meningococcal meningitis	101	2.0	17	0.3	16.8
Pneumonia	3,002	58.4	1,338	26.0	44.6
Poliomyelitis	682	12.9	37†	0.7	8.6
Rocky mountain spotted fever	10	0.2	1	<0.1	10.0
Streptococcal sore throat (includes scarlet fever)	1,546	30.1	1	<0.1	0.1
Typhoid fever	27	0.5	2	<0.1	7.4
Whooping cough	1,214	23.8	3	0.1	0.2

\* Expressed per 100,000 estimated population.

† Includes deaths from late effects.

Note: <0.1 means less than 0.1.

### Veneral Disease Control Program

#### *Morbidity, Mortality, and Trends*

The venereal diseases, exceeded only by measles, ranked second among the notifiable diseases for 1955 with the reporting of 9,710 cases. Except for 1954, when 10,125 cases were reported, this figure still represents the largest number of reported cases of venereal disease in any year since 1949. There were 4,905 cases of syphilis and 4,747 cases of gonorrhea reported during 1955 (Table I).

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 1.8 in 1955 when syphilis was listed as the cause of death for 94 persons, 55 of whom were white and 39 non-white. The death rate for whites was 1.1 per 100,000 population and for non-whites 11.3 per 100,000 population.

There has been a gradual decline in first admissions to mental hospitals due to syphilis in New Jersey. During the five-year period, fiscal 1930-1934, 9.8 per cent of first admissions to State and county mental hospitals were due to syphilis. During the five-year period, fiscal 1951-1955, the percentage in State mental hospitals was 1.4 per cent.

The consistent downward trend in reported cases of primary and secondary syphilis since 1946 was reversed in 1954 and the upward trend continued in 1955. The 227 cases reported during 1955 represent an increase of 10.2 per cent over the 206 cases reported the year before. For the United States as a whole, infectious syphilis continues downward. Basic maintenance control will have been achieved in this State when the number of cases of primary, secondary, and early latent syphilis reported annually reaches one per 5,000 population. In 1955, there were 1.3 such cases reported per 5,000 population.

There was a total of 4,854 cases of syphilis in civilians reported during 1955, of which private physicians reported 2,206, or 45.4 per cent, and clinics, institutions, and hospitals reported 2,648, or 54.6 per cent. The difference in proportion of cases of gonorrhea reported by public facilities and by physicians in private practice is much larger. Exclusive of military cases, 4,150 cases of gonorrhea were reported to the State Department of Health. Of these, physicians reported only 1,244, or 30.0 per cent, while public clinics, institutions, and hospitals reported 2,906, or 70.0 per cent.

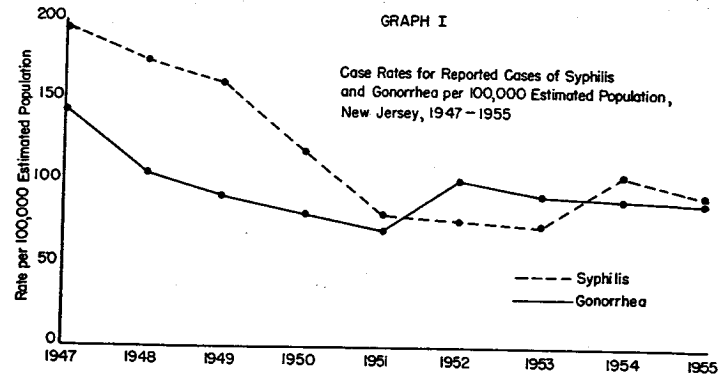
Indications from various parts of the country are that venereal disease rates among young people are rising. In New Jersey, 1,808, or 44.3 per cent, of the 4,077 cases of gonorrhea among resident civilians in 1955 were in the age group 10-24. Three factors operate to minimize this estimate of incidence:

1. Under reporting of treated infections—there is a reluctance to report teen-age infections.
2. Treatment without diagnosis—an unknown but sizeable number of cases is treated without final diagnosis or by non-medical sources.
3. The undiscovered—an additional large group of cases escapes attention altogether because of fear of discovery and ignorance of the threat of the disease to health.

TABLE I  
REPORTED CASES\* OF SYPHILIS, BY STAGE, AND OTHER VENEREAL DISEASES  
BY REPORTING AGENCY, NEW JERSEY, 1947-55

Disease	1947			1948			1949			1950			1951			1952			1953			1954			1955							
	Private Doctor	Clinics Other†	Military Total	Private Doctor	Clinics Other†	Military Total	Private Doctor	Clinics Other†	Military Total	Private Doctor	Clinics Other†	Military Total	Private Doctor	Clinics Other†	Military Total	Private Doctor	Clinics Other†	Military Total	Private Doctor	Clinics Other†	Military Total	Private Doctor	Clinics Other†	Military Total								
Syphilis	2,208	2,648	51	4,895	2,817	2,408	49	5,834	1,874	2,168	41	3,783	33	1,124	1,000	52	2,005	96	72	15	183	482	600	33	1,124	1,000	52	2,005	96	72	15	183
Primary and Secondary	1,474	1,875	2	3,351	1,847	1,759	4	3,707	962	1,021	3	2,007	1,474	1,875	2	3,351	1,847	1,759	4	3,707	962	1,021	33	1,124	1,000	52	2,005	96	72	15	183	
Early Latent	94	81	1	176	112	12	0	190	35	69	0	10	1,474	1,875	2	3,351	1,847	1,759	4	3,707	962	1,021	33	1,124	1,000	52	2,005	96	72	15	183	
Late and Late Latent	1,247	2,240	0	4,747	1,084	2,077	942	4,708	883	2,097	1,071	4,728	94	81	1	176	112	12	0	27	5	14	0	10	1,474	1,875	2	3,351	1,847	1,759	4	3,707
Congenital	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Not Stated	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gonorrhea	1,247	2,240	0	4,747	1,084	2,077	942	4,708	883	2,097	1,071	4,728	94	81	1	176	112	12	0	27	5	14	0	10	1,474	1,875	2	3,351	1,847	1,759	4	3,707
Chancroid	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Granuloma Inguinale	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lymphogranuloma Venereum	2	12	1	15	2	10	2	13	3	17	5	23	2	12	1	15	2	10	2	13	3	17	5	23	2	12	1	15	2	10	2	13

\* 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 reported gonorrhea incidence rates by year since 1947 were 145.4, 107.2, 93.0, 81.4, 72.7, 102.3, 94.9, 92.7, and 92.3. The reported syphilis incidence rates for the same years were 197.0, 176.6, 162.9, 120.8, 82.0, 79.1, 75.6, 105.2, and 95.4 (Graph I). The syphilis and gonorrhea case rates for continental United States for fiscal year 1955 were 75.6 and 149.2, respectively. The relatively small decline in syphilis and gonorrhea attack rates in New Jersey tends to obscure the fact that problem areas still remain. Since the attack rates represent an average of high and low rates for local areas, they do not reflect actual high case rates for specific areas within the State. Tables II and III have been prepared to indicate the control status by district, by county, and by major cities.

As might be anticipated, the rural Northern District had the lowest venereal disease rates of the four districts, with rates substantially below those of the State as a whole (Table II).

The Metropolitan District, which has about 58 per cent of the State's population, yielded over 56 per cent of the venereal disease in 1955. The syphilis rate of 86.8 per 100,000 population was less than the rate of 95.4 for the State as a whole but areas of high incidence within the district remained (Table II). Essex County, containing East Orange and Newark, both with high rates, was the county with the second highest syphilis rate (164.6 per 100,000) in the State. Both Elizabeth and Paterson showed a marked rise in syphilis incidence over the two previous years. This may be attributed to more intense epidemiological activity. In 1954, the syphilis rate in Newark rose from the 1953 rate of 131.2 to 295.4 per 100,000 population. That rise was due greatly to an extensive serologic survey which was conducted in that year. It is noteworthy that in 1955 the reported incidence continued on essentially the same

high level, 278.4 per 100,000 population, confirming again the fact that survey activities raise the index of suspicion of individual citizens and the medical profession.

The gonorrhea rate in the Metropolitan District was only slightly above that of the State as a whole in 1955 but the rate in Essex County was about four times that of the State (Table II). This ratio has been increasing gradually for the last three years. Rising gonorrhea rates were also noted in the City of Paterson, reflecting emphasis on epidemiologic activities. For 1953, 1954, and 1955, the gonorrhea rates in this city were 105.6, 185.4, and 235.2, respectively.

In the Central District, two of the five counties, Mercer and Monmouth, had syphilis rates which exceeded the State rate (Table II). There are active case-finding programs in each of these counties. The City of Trenton had the third highest syphilis case rate (178.9 per 100,000) and the fourth highest gonorrhea rate (197.7 per 100,000) of the major cities in the State (Table III).

The syphilis case rate in three of the six counties in the Southern District exceeded the over-all rate for the State (Table II). Cumberland County had the highest reported syphilis rate (245.7 per 100,000) of all counties, yet it has no year around public facilities for the diagnosis and treatment of the venereal diseases. The syphilis rate in this county is adversely affected by the annual influx of migrant farm laborers, a known high prevalence group, many of whom remain in the area to become permanent residents. Atlantic City showed the second highest syphilis and gonorrhea rates (251.6 and 254.8 per 100,000 respectively) of all major cities in the State.

TABLE II  
SYPHILIS AND GONORRHEA CASES AND RATES\* BY DISTRICT AND  
COUNTY OF RESIDENCE, NEW JERSEY, 1955

AREA	Syphilis		Gonorrhea	
	Number	Rate	Number	Rate
Total—All Cases .....	4,905	95.4	4,747	92.3
Northern District .....	119	28.0	36	8.5
Hunterdon County .....	19	42.2	2	4.4
Morris County .....	52	23.4	15	8.5
Somerset County .....	21	18.4	12	11.1
Sussex County .....	9	24.3	2	5.4
Warren County .....	48	31.0	5	8.6
Metropolitan District .....	2,601	86.8	2,854	95.3
Bergen County .....	162	27.9	30	5.2
Essex County .....	1,569	164.6	2,033	213.3
Hudson County .....	384	56.5	217	31.9
Passaic County .....	208	58.4	372	104.5
Union County .....	278	63.3	202	47.4
Central District .....	1,028	103.0	749	75.8
Burlington County .....	67	45.9	26	17.8
Mercer County .....	327	184.0	298	122.1
Middlesex County .....	205	70.9	214	74.0
Monmouth County .....	379	137.9	196	81.7
Ocean County .....	50	83.3	15	25.0
Southern District .....	881	118.9	418	56.4
Atlantic County .....	206	151.8	169	123.4
Camden County .....	294	81.6	93	28.0
Cape May County .....	19	51.4	17	43.9
Cumberland County .....	231	245.7	96	102.1
Gloucester County .....	72	72.7	14	14.1
Salem County .....	57	107.5	29	54.7
Institutions .....	88	†	29	†
Military Posts .....	52	†	600	†
Non-Residents .....	126	†	70	†
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, 1955

AREA	Syphilis		Gonorrhea	
	Number	Rate	Number	Rate
New Jersey .....	14,905	95.4	14,747	92.3
Northern District .....	119	28.0	36	8.5
Metropolitan District .....	2,601	86.8	2,854	95.3
Bayonne .....	24	29.3	3	3.7
Clifton .....	16	22.9	3	4.3
East Orange .....	80	108.4	51	61.4
Elizabeth .....	131	110.1	117	98.3
Hoboken .....	37	62.8	5	9.4
Irvington .....	10	16.1	1	1.6
Jersey City .....	235	84.4	195	63.1
Newark .....	1,286	278.4	1,888	408.7
Passaic .....	27	45.3	14	23.7
Paterson .....	148	102.1	341	235.2
Union City .....	15	26.3	1	1.8
Central District .....	1,028	105.0	749	76.5
Trenton .....	295	178.9	268	197.7
Southern District .....	881	118.9	418	56.4
Atlantic City .....	176	251.6	158	254.8
Camden .....	288	151.7	80	61.1

\* Rates expressed per 100,000 estimated population.  
† Includes institutional, military and non-resident cases.

TABLE IV  
RESULTS OF INVESTIGATION OF ALL VENEREAL DISEASE SUSPECTS REPORTED  
NEW JERSEY, 1955

Type of Suspect	Total Number of Referrals	Brought to Treatment					Infections Identified					Not Infected—Not Examined								
		F & S	F. I. S.	O. S.	G.O.	O.Y.D.	Returned to Rx—Syphilis	Returned to Rx—G.C.	Under Rx Time of Invest.	Prev. Rx. Adeq.	No Prev. Rx.	Epl. Rx.	Not Inf.	Inoperative	Unable to Locate	Out of Jurisdiction	Inadvisable Inform.	Other	No Reply	
Contacts	3,784	11	23	20	411	5	23	6	72	75	...	768	1,004	74	875	99	151	23	63	11
Of Military	419	2	3	1	85	...	...	4	1	...	...	97	54	10	113	9	73	6	11	...
Syphilis	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Primary and Secondary	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Early Latent	8	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Syphilis	893	3	3	1	84	...	2	4	...	...	97	44	10	107	9	68	5	1	10	...
Gonorrhea	8,386	9	29	28	376	5	23	4	68	75	...	671	1,010	64	702	50	75	18	32	...
Of Civilians	219	7	5	6	8	...	1	...	...	...	...	6	101	3	46	5	5	3	10	...
Primary and Secondary	412	1	11	10	6	...	17	...	16	30	...	2	220	3	57	21	2	3	10	...
Early Latent	2,451	1	1	1	383	...	5	4	34	14	...	637	402	42	637	54	69	10	63	...
Gonorrhea Syphilis	62	...	...	...	...	...	...	...	...	...	...	4	38	1	7	4	1	...	...	...
Other Venereal Diseases	7,023	50	278	708	58	...	972	1	548	2,005	14	64	1,081	81	383	296	11	860	200	...
Fwitive Test and Other Suspects	897	2	29	38	...	...	79	...	51	151	1	5	111	8	52	30	17	14	6	...
Pre-employment	20	1	16	18	...	...	68	...	27	62	...	1	6	10	1	1	1	1	0	...
Prenatal	20	1	16	18	...	...	68	...	27	62	...	1	6	10	1	1	1	1	0	...
Private Physicians' Lab. Report	8,723	39	147	469	13	...	646	...	458	980	10	28	361	26	107	122	4	241	100	...
Selectee	38	1	2	2	1	...	1	...	4	10	...	...	9	1	2	3	...	...	...	...
Separate	47	1	5	11	1	...	1	...	3	10	...	...	3	5	3	4	...	...	...	...
Miscellaneous	1,570	5	4	13	98	...	169	...	10	62	...	7	124	27	260	0	...	...	...	...
All Contacts and Suspects	10,897	61	301	737	469	6	995	7	680	2,141	14	832	2,145	153	1,208	305	162	523	293	...

### Epidemiologic Activities

Case-finding continued to receive major emphasis in the Venereal Disease Control Program during 1955. The number of venereal disease suspects requiring investigation that were forwarded to, or that originated in, local health departments during 1955 was almost the same as the previous year when there were 10,877. During 1955, there were 10,807 referrals of which 8,228, or 76.1 per cent, were brought to examination (Table IV). Of those examined, 3,409, or 41.4 per cent, required treatment. The 10,807 referrals do not include 973 made by the Venereal Disease Control Program to other States or countries, nor does it include approximately 900 contacts of military personnel who were referred directly by military installations in New Jersey to other State departments of health.

Per cent of referred suspects brought to examination is one of the better indices of investigative efficiency and is most useful when applied separately to the two categories of suspects, sex contacts, and other suspects. The lowest percentage of suspects brought to examination was among sex contacts of military personnel. Only 199, or 47.5 per cent, of 419 such contacts were brought to examination, while 2,289, or 68.0 per cent, of the 3,365 sex contacts of civilians were brought to examination. Of the 3,784 sexual contacts of civilians and military personnel, then, 2,488, or 65.8 per cent, were examined. This experience is consistent with that of the rest of the country. It is difficult to obtain good contact information from military patients because military personnel, in many instances, meet their sex contacts just once and often do not know their names or other identifying data. Furthermore, they are often unfamiliar with the community in which the exposure takes place and, consequently, are unable to give adequate information as to place of encounter, place of exposure, etc.

Duplicate reports of reactive laboratory results are made available to the Venereal Disease Control Program by a number of laboratories, including the State Department of Health laboratory. This procedure accounts for the major portion of referrals of suspects other than sex contacts. Field personnel were successful in the follow-up of 5,840, or 83.1 per cent, of 7,023 such referrals.

To illustrate the impact of epidemiologic activity on morbidity, 5,351 infections were identified by follow-up procedures during 1955. This does not include many probable infections among the 832 patients who were treated on epidemiologic grounds.

The problem of not interviewing many patients with venereal disease for sex contacts continues to exist. During 1955, much emphasis was placed on this problem with some progress being made. There were 701 more contacts referred to, or originating in, local health departments during 1955 than in 1954.

This indicates that field personnel interviewed more infected patients and obtained a higher number of contacts per interview in 1955. Data comparing the percentages of infectious syphilis and gonorrhea cases interviewed and contact indices for New Jersey and the nation as a whole are given in the following table:

Area	Primary and Secondary Syphilis		Early Latent Syphilis		Gonorrhea	
	Per Cent of Cases Interviewed	Contacts Obtained Per Case Reported	Per Cent of Cases Interviewed	Contacts Obtained Per Case Reported	Per Cent of Cases Interviewed	Contacts Obtained Per Case Reported
New Jersey .....	73.3	1.97	29.0	.71	76.3	1.06
Continental United States .....	92.4	2.78	63.3	1.28	97.8	1.11

The above indices relative to New Jersey are considerably higher than comparable indices for 1954. Clearly, however, they are considerably lower than indices for the nation as a whole.

#### SPECIAL CASE-FINDING PROJECTS

During fiscal year 1956, it was possible through the assistance of the Public Health Service to continue the assignment of special personnel trained in venereal disease control to areas of greatest need. A second project grant from the Public Health Service provided funds for additional case-finding activities.

A number of selective serologic surveys was conducted in urban and rural communities throughout the State during fiscal year 1956. A total of 14,863 persons were tested during these surveys with 1,800, or 12.1 per cent, being reactive for syphilis. The relatively high reactive rates, the number of individuals in need of treatment, and the number of cases of venereal disease reported for the first time as a result of survey activities continue to demonstrate that selective surveys in areas of relatively high prevalence are still an important case-finding measure.

RESULTS OF SEROLOGIC SURVEYS FOR SYPHILIS, BY SEX AND COLOR  
NEW JERSEY, JULY 1, 1955—JUNE 30, 1956

Race	Total Tested	Number of Reactors	Per Cent Reactors	Sex	
				Male	Female
All Races .....	14,863	1,800	12.1	9,337	5,526
White .....	4,165	162	3.9	2,394	1,771
Negro .....	5,414	1,592	16.9	5,747	3,667
Other .....	1,284	46	3.6	1,196	88

#### VENEREAL DISEASE AMONG MIGRANT WORKERS

As in previous years, examination of agricultural migrant workers during fiscal year 1956 continued to confirm the fact that a very high rate of venereal disease still exists in this labor group.

During the summer of 1955, a total of 3,235 migrants employed in agriculture received blood tests, compared with 3,288 in 1954, and 3,401 in 1953. Four permanent clinics were utilized in areas of heavy migrant concentration

and the mobile clinic operated during the peak season. Physical examinations were ordered on all persons with complaints, clinical evidence of disease, positive laboratory findings, or exposure to infectious venereal disease. Routine inspection of the mouth and genitalia was done on all males undergoing serologic screening.

Of the 3,235 persons tested serologically in 1955, 706, or 21.5 per cent, were reactive for syphilis. In 1954, the proportion reactive for syphilis was 22.8 per cent and in 1953 it was 25.2 per cent. These percentages indicate that a slight but continuous decline in reactive rates has occurred during the past several years. As in the past, persons tested were predominantly young male adults. Of the total persons tested, 43.4 per cent were males under 35 years of age. Of the 706 suspects who required epidemiologic follow-up, 670, or 94.9 per cent, were brought to examination.

There were approximately the same number of people treated for syphilis in 1955 as in 1954; i. e., 239 in 1955 and 232 in 1954. Many individuals with reactive blood test results were not treated because they were judged either to have had adequate treatment previously or not to be infected with syphilis. There was a definite increase in the number of people treated for gonorrhea during 1955. In 1954, 118 agricultural migrants were treated for this disease, while in 1955 there were 190.

In addition to the 3,235 agricultural laborers examined during the 1955 migrant season, 1,754 workers at the race tracks and in the oyster industry were examined. Serologic surveys were conducted at the Garden State, Atlantic City, and Monmouth Park Race Tracks, which operated intermittently from May to October. One thousand and sixty-three employees, including grooms, stable boys, exercise boys, jockeys, and concession employees, were tested. Of those tested, 100 had reactive blood test results giving a reactivity rate of 9.4 per cent. This rate was considerably lower than the 15.4 per cent for the 1,172 persons tested during 1954. Field personnel were successful in bringing 86 per cent of those with reactive blood test results to examination. Of the reactors, 26 were brought or returned to treatment and were previously unknown to the Department. As in the agricultural migrant group, more than half of the suspects were declared previously adequately treated or not infected with syphilis.

During October and November, 1955, seasonal workers in the oyster shucking areas of Cumberland County were examined. The survey was conducted with the cooperation of the Commercial Township Board of Health and the Port Norris Oystermen's Sanitary Association. Of the 692 individuals tested, 191 had reactive blood test results, giving an over-all reactivity rate of 27.6 per cent. Again this rate was somewhat lower than the 31.7 per cent for the 243 persons tested during 1954. Field personnel brought 186, or 97.4 per cent, of all suspects to examination. Of those with reactive serologic tests, 32



were treated for syphilis, including one child with congenital syphilis. Almost three-fourths of the reactors had received adequate treatment for their infections prior to this survey. In addition to those individuals receiving treatment for syphilis, 7 persons were treated for gonorrhea.

#### *Education and Information*

The entire technical staff of the Program attended the First International Symposium on Venereal Diseases and the Treponematoses sponsored by the Public Health Service and the World Health Organization held at the Statler Hotel, Washington, D. C., from May 28 through June 1, 1956.

Public health workers, practicing physicians, nurses, members of voluntary agencies, and workers in allied fields with an interest in venereal disease control were invited. Public health representatives from 60 different countries attended the five-day conference.

The program included presentation of original papers, panel discussions, and general discussions of a wide variety of topics. The coordinator of New Jersey's Venereal Disease Control Program presented a paper titled, "Blood Testing Among Migrant Laborers in New Jersey."

A number of publications emanating from the Venereal Disease Control Program appeared during fiscal year 1956. The October, 1955, issue of the Public Health Service Journal, *Public Health Reports*, carried an article titled, "Venereal Disease in Migrant Workers, New Jersey, 1954," written by staff members of the Venereal Disease Control Program. A paper on the same subject was presented at the Venereal Disease Control Seminar for the New England and Middle Atlantic States held in Atlantic City during the spring of 1955, and was published subsequently in the November, 1955, issue of the Department's journal, *Public Health News*. A report on "Health Work with Agricultural Migrants, 1955," and an article, "19,963 Given Serologic Tests in Newark Case-Finding Effort," appeared in the January, 1956, issue of *Public Health News*.

The Coordinator of the Venereal Disease Control Program participated in a round-table discussion at St. Francis Hospital in October. The one-day conference was sponsored by the State Department of Health, Division of Laboratories, and dealt with problems in the performance of serologic tests for syphilis.

Two one-day in-service training programs were conducted during the year for all Public Health Service personnel assigned to the Program. The agenda included talks relative to State and local public health administration, serodiagnosis of syphilis, current venereal disease control activities on the national and regional levels, venereal disease educational activities, morbidity reporting, functions of the Public Health Statistics Program, and the Migrant Labor Program.

Personnel from the Venereal Disease Control Program and the Metropolitan State Health District office participated in an in-service training course for public health nurses working in the Paterson, Passaic, and Clifton areas. The course included lectures, tape recordings, and films relative to the diagnosis and treatment of venereal diseases, to interviewing, field investigations, records, and other venereal disease control activities on the State, district, and local levels.

The Coordinator of the Program participated in the June meeting of the Interdepartmental Committee (Health Education) relative to venereal disease problems among teenagers.

The Program Coordinator attended a three-day course on epidemiology and communicable disease control at the Neuropsychiatric Institute in Princeton.

The Education and Training Branch of the Division of International Health, Public Health Service, arranged with the Venereal Disease Control Program for two foreign physicians to study New Jersey's control procedures. The Directors of the Venereal Disease Control Programs in Peru and Korea, respectively, spent two days each in New Jersey discussing the Program and observing its operation in the field. Particular interest was expressed by both in the Venereal Disease Control Program among migrants.

Two new films were acquired by the Venereal Disease Control Program during the year and became available for loan to interested groups. The titles of the films are, "The Diagnosis of Syphilis by the General Practitioner" and "The Invader." The former film is for the information of practicing physicians, venereal disease clinicians, medical students, nurses, nursing students, and technicians. It reviews the techniques of examination and diagnosis of syphilis, emphasizing the fact that effective treatment can be given only if the patient is properly diagnosed. A notice as to the availability of this movie appeared in the February, 1956, issue of *The Journal of the Medical Society of New Jersey*. The motion picture "The Invader" is a documentary movie which presents the recorded history of syphilis. The film is for the information of senior high school and college students. In contrast to most of the films in its field, "The Invader" is designed purely for education and prevention, rather than for case-finding purposes.

During fiscal year 1956, there were 139 showings of venereal disease films to 6,234 viewers and 30,000 venereal disease leaflets and pamphlets were distributed.

Some 14,000 copies of the leaflet titled "Reversal of Reactive Serologic Tests for Syphilis (STS) Following Successful Treatment," were distributed to physicians throughout the State. This leaflet was prepared by the staff of the Venereal Disease Control Program with the objective of answering the questions most frequently raised by physicians in connection with this subject.

It was inserted with each serology report sent to physicians by the Trenton and Camden State Laboratories and by the Newark and Paterson City Laboratories.

Announcements describing changes in serologic procedures and in reporting terminology were distributed among physicians, public health nurses, clinic personnel, and personnel of local boards of health.

Three venereal disease investigators employed by the Program during the year completed a two weeks' course at the Venereal Disease Training School at Atlanta, Georgia.

#### *Drug Distribution*

The Venereal Disease Control Program distributes drugs for the treatment of venereal disease without charge to physicians, clinics, and hospitals. Drugs distributed during fiscal year 1956 were as follows:

1,900 vials of procaine penicillin in oil with 2 per cent aluminum monostearate (PAM)

1,670 vials of benzathine penicillin G (bicillin)

170 bottles of aureomycin

As of June 30, 1956, bicillin was being used exclusively for the treatment of both syphilis and gonorrhoea.

#### PERSONNEL

The staff of the Venereal Disease Control Program, as of June 30, 1956, consisted of the following personnel:

##### *Administrative*

Program Coordinator

Health Program Representative

##### *Field*

1 Health Program Representative (Central office and field)

2 Health Program Representatives (District and field)

3 Public Health Advisers (District and field)

5 Venereal Disease Investigators (Field)

##### *Clerical*

1 Senior Clerk

1 Clerk-Stenographer

1 Clerk-Typist

2 Clerks (1 temporary)

The Health Program Representative indicated in the administrative category above is Mr. John Hove of the Public Health Service, who began his assignment in New Jersey in September, 1955. Formerly assigned to the Bureau of Communicable Diseases, Missouri Division of Health, he replaced Mr. William J. Page, also of the Public Health Service, who had been with New Jersey's Venereal Disease Control Program for four years. Mr. Page was transferred to the Regional Public Health Service office in Chicago.

Among the several major problems of the Venereal Disease Control Program are the frequent reassignments of Federal personnel and the fact that all or any part of this staff may be withdrawn at any time. Because it was believed feasible and desirable for the Department to begin to recruit and train a small staff of State personnel, in order to assume a part of the personnel costs involved and to stabilize the program against frequent transfers, two positions of field representative were requested in the State budget.

## Division of Vital Statistics and Administration

---

MARGUERITE F. HALL, PH. D., *Director*

WILLIAM R. PEEBLES, B. A., *Assistant Director, Administration*

---

Bureau of Administrative Services .....	JOHN B. VAN ELLIS <i>Chief and Program Coordinator</i>
Distributor of Biologics .....	LYLE G. COOK <i>Program Coordinator</i>
Bureau of Examination and Licensing .....	KENNETH J. CARHART <i>Chief and Program Coordinator</i>
Board of Barber Examiners .....	FRANK MARCHESE <i>Secretary-Treasurer of Board and Program Coordinator</i>
Board of Beauty Culture Control .....	RAYMOND V. SANTORO <i>Confidential Secretary of Board and Program Coordinator</i>
Bureau of Personnel and Accounts .....	WILLIAM R. PEEBLES, B. A. <i>Assistant Director, Adm.</i>
Personnel .....	WILLIAM R. MONYER <i>Program Coordinator</i>
Fiscal .....	MARY F. BOURBON <i>Program Coordinator</i>
Bureau of Public Health Statistics .....	F. MERTON SAYBOLT, B. S., M. S. P. H. <i>Chief, State Registrar, and Program Coordinator</i>
Public Health Statistics .....	ANNA P. HALKOVICH, B. A., M. B. A. <i>Program Coordinator</i>

## Division of Vital Statistics and Administration

---

The Division of Vital Statistics and Administration continues to operate principally as a service unit to the Department. Ten program coordinators with the Director are responsible: (1) as participating personnel in those Departmental programs having assigned activities to the Division and (2) as administering personnel of programs emanating within the Division itself. The ten Vital Statistics and Administration 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

During this fiscal year, emphasis continued on the refinement of the Evaluation Section of each of the division programs, specifically in the utilization of budgets. Further refinement of organization and designation of forms, form letters, and information documents was extended. Groundwork has been laid for the simplification in revision of programs to be submitted to the Federal Government for the coming biennium.

Morbidity activities have consistently been improving. Local health units deserve commendation for their understanding of the polio vaccine problems and policies; for their leadership and participation in public and baby keep-well clinics; and for their assistance in the distribution of polio vaccine to physicians via the biologics distribution stations. The pilot follow-up study of the Department's Tuberculosis Rotary cases, not heard from for 10 years, is proving effective in making the entire tuberculosis morbidity situation more realistic and up-to-date.

Territory assignments based on work load and home base of worker and motivated by improvement of inspection activities have been in operation in the Programs for both the Board of Barber Examiners and the Board of Beauty Culture Control. Evaluation of this activity is planned at the completion of a one-year trial.

Strengthening of the Personnel Program by the addition of one professional position shows progress in the recognition of the value of personnel services to the Department. Further gains should be possible by the additional assignment of one or more qualified and highly skilled professional workers in this area.

Reclassification of the Chief of the Bureau of Personnel and Accounts to Assistant Director, Administration, is in alignment with the duties performed by this Bureau in relation to the Office of the Commissioner as well as to the entire Department.

Statistical services to the Department, specifically to the Programs in the Division of Chronic Illness Control and to the Air Sanitation Program, have been increased by the addition of two senior statisticians to the professional staff of the Public Health Statistics Program. Further strengthening of statistical services specifically allocated to research or special studies in the Department merits consideration. To date, nearly all statistical time has had to be spent on the routine services to which the Public Health Statistics Program has been committed by other Departmental Programs.

#### **Bureau of Administrative Services**

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 and now includes the additional function of distributing Salk polio vaccine to physicians, clinics, and baby keep-well stations.

Personnel at the end of the fiscal year for all activities totaled eighteen. The staff was increased by two persons in order to administer properly the distribution of Salk polio vaccine.

In addition to the usual services rendered by this Program, considerable time was given to coordinating various Departmental office moving projects. Several moves were planned and supervised for Trenton offices, and office layouts were made for two State Health District offices.

The Program also rendered assistance to the Office of the Commissioner with respect to the proposed new Health Department building and involved considerable research, planning, and preliminary space layout work.

Graphic art services and general assistance in this field were rendered to other Departments of the State including the Office of the Governor, the Department of Civil Service, and the Treasury Department.

#### *Health Education Services*

Additional health education exhibits were completed during the year and the use of these and other existing exhibits increased considerably. Over thirty-five exhibit installations were made for various meetings, conferences, etc., throughout the State.

Several new educational films for lay groups were purchased during the year. Lay film bookings were made for the Department by the New Jersey State Museum. Attendance reports received from the Museum indicated that these films were seen by a minimum of 161,000 persons.

While some Programs of the Department have an adequate selection of educational films, there are still many Programs which have not provided an adequate selection of films. It was necessary to withdraw from circulation several films which were no longer usable because of constant use.

A considerable increase was noted in the creation and production of health education printed materials.

Requests for mass mailings using the addressograph system continued to increase. Additional mailing lists for Departmental use were established.

#### *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.

Storage facilities in the warehouse remain inadequate. There are still several Programs in the Department for which warehouse services cannot be rendered. In addition, there are several instances where the Programs presently being serviced cannot be provided with additional services, as their Programs increase, because of the lack of storage facilities.

#### *Distribution of Biologics*

Beginning September 29, 1955, Salk polio vaccine was distributed by this Program working in cooperation with the Division of Preventable Diseases. During the period from September to March, the Distribution of Biologics Program coordinated the requests and made all distribution of Salk vaccine for clinic, baby keep-well station, and distributing station use. During March, 1956, the Department's Polio Vaccine Program assumed responsibility for clinic and baby keep-well station requests. A total of 1,018,387 cc of polio vaccine was received for distribution.

The distribution of polio vaccine required considerable planning and designing of appropriate record and inventory forms. Considerable activity in supervising the distributing stations was necessary, particularly in the initial phases of the polio vaccine project.

Other biologicals distributed during the fiscal year were as follows:

Diphtheria Toxoid, alum precipitated—1,160 pkgs.
Small Pox Vaccine—25,500 pkgs.
Pertussis-Diphtheria-Tetanus (fluid)—8,000 pkgs.
Pertussis-Diphtheria-Tetanus (alum refined)—16,300 pkgs.
Typhoid and Paratyphoid Vaccine (5 cc)—525 pkgs.
Typhoid and Paratyphoid Vaccine (20 cc)—5,500 pkgs.
Rabies Vaccine (human)—200 pkgs.
Gamma Globulin (2 cc)—6,037 pkgs.
Gamma Globulin (10 cc)—9,877 pkgs.

These materials, which were furnished by the State without direct cost, were made available to physicians through 66 distributing stations. The fine work that the distributing stations performed for the Department without remuneration and the cooperation of their personnel are most commendable.

In addition, penicillin, aureomycin, and other drugs were distributed for the Venereal Disease Control Program as was canine rabies vaccine for the Rabies Control Program.

### Bureau of Examination and Licensing

Mainly, the functions of this Bureau, by the nature of its title, are the conducting of examinations and the issuing of licenses. All activities have shown increases during the year.

The programs of this Bureau are rightfully classified as service in nature because through them the greatest number of the population is contacted. More efficient service is always our objective. However, the effectiveness of a service program is not easily measured as it may be in other programs, such as a Tuberculosis Program which shows results by number of cases referred and number of cases followed up from year to year, thereby partially determining status of tuberculosis for the State.

The number of applicants for examinations has increased steadily since 1954 and indications are it will continue. The end of this fiscal year indicated that more people had been examined for licenses than ever before. A total of 2,368 candidates was examined for licenses. Through the examinations and renewal of licenses stipulated by statutes, the Bureau collected \$232,386.50 in revenue for the State.

Studies have been continuing in endeavoring to provide additional services to our District offices by supplying information relative to sewage and water plants. Additional studies are also being continued in types of examinations provided.

Through the cooperation of the State Department of Education, arrangements for courses to be given licensed teachers of beauty culture and shop owners have been consummated which will provide, for the first time in New Jersey, courses of this nature. Courses sponsored by the Department through Rutgers University, College of Engineering, for prospective sewage and water plant operators were expanded during this year due to enrollment prompted by the increased building of these utilities.

While the increase in activities has been noted, the staff increase has been relatively minor. There are still objectives to accomplish, such as better overall inspection service, not in quantity but in quality, with greater emphasis on sanitation which is possible by in-service training of inspectorial staff.

### Board of Barber Examiners

#### STATEMENT OF APPROPRIATIONS AND EXPENDITURES

FISCAL YEAR ENDED JUNE 30, 1956

#### Net Appropriations

Salaries .....	\$45,610.00
Stationery and Office Supplies .....	454.40
Printing .....	1,050.00
Traveling Expenses .....	7,000.00
Subscriptions and Membership Dues .....	25.00
Household or Office Expenses .....	5.00
Replacement, Office Equipment .....	178.50
Current Repairs—Office Furniture, Machines and Equipment ..	22.10
Insurance .....	18.00
Miscellaneous Expenses .....	50.00
Employees' Retirement System .....	2,540.86
Postage .....	750.00
Telephone and Telegrams .....	425.00
Rent .....	2,863.00

Total Appropriations ..... \$60,991.86

#### Expenditures

Salaries .....	\$45,606.24
Stationery and Office Supplies .....	443.33
Printing .....	969.18
Traveling Expenses .....	6,994.36
Subscriptions and Membership Dues .....	25.00
Household or Office Expenses .....	4.00
Replacement, Office Equipment .....	177.06
Current Repairs—Office Furniture, Machines and Equipment ..	21.80
Insurance .....	18.00
Miscellaneous Expenses .....	50.00
Employees' Retirement System .....	2,540.86

Postage .....	750.00
Telephone and Telegrams .....	425.00
Rent .....	2,863.00
<b>Total Expenditures .....</b>	<b>\$60,887.83</b>
Unexpended Balance of Appropriations .....	\$104.03

## STATEMENT OF REVENUE

FISCAL YEAR ENDED JUNE 30, 1956

## License Revenues

8,099 Renewal Fees @ \$5.00 .....	\$40,495.00
11 Renewal Fees @ \$3.00 .....	33.00
296 Restoration Fees @ \$10.00 .....	2,960.00
1 Restoration Fee @ \$10.00 (Prior Years) .....	10.00
424 Certificates Issued by Examination @ \$5.00 .....	2,120.00
259 Apprentice Certificates @ \$3.00 .....	777.00
512 Examination Fees @ \$15.00 .....	7,680.00
4,214 Shop License Renewals @ \$5.00 .....	21,070.00
105 Shop License Renewals @ \$10.00 .....	1,050.00
* 286 Shop Licenses @ \$25.00 .....	7,150.00
129 Barber Shop Removals @ \$5.00 .....	645.00
<b>Total License Revenues .....</b>	<b>\$83,990.00</b>

\* 286 Shop Licenses @ \$25.00 represents:

159 New Shops  
127 New Owners

286 Total of New Shop Licenses Issued

GENERAL SUMMARY OF WHAT HAS BEEN ACCOMPLISHED BY  
THE BOARD OF BARBER EXAMINERS

Number of shops inspected .....	8,819
Special Investigations .....	2,110
Shops found with sanitary violations .....	578
Reinspections .....	578
Hearings held .....	15
Shop licenses suspended as a result of a hearing .....	5
Court Cases .....	3
Convictions .....	3
Barbers found working with expired certificate .....	32
Barbers found working without a certificate .....	83
Shops found operating with expired license .....	51
Shops operating without a license .....	53
Complaints received from public .....	32
Shops reported out of business .....	108
Barbers reported deceased .....	97
Number of applicants scheduled for examination .....	577

Barbers examined .....	500
Barbers passed examinations .....	434
Applicants failed to appear for an examination .....	77
Barbers failed to pass examinations .....	66
Forfeited Fees .....	19
Incoming Mail .....	15,920
Outgoing Mail .....	31,110

## Board of Beauty Culture Control

## SUMMARY REPORT

The new master card system for shop licenses was completed in May of 1956 and has proven very effective in reducing the amount of time in making look-ups.

During this period, we have shown an increase in beauty shop, operator, and manager-operator licenses and have had a continued increase in applications for examinations.

The program initiated last year for the educational program for teachers training course and shop owners on public relations, office management, and merchandising will begin next month at the Rutgers University branches. The breakdown is as follows:

## SHOP OWNERS

Newark .....	83 applicants
New Brunswick .....	43 applicants
Camden .....	53 applicants
Atlantic City .....	9 applicants

Teachers training course will be held at the Newark branch of Rutgers University.

Total shop applications .....	188
Total teachers applications .....	54

Total number of applicants registered for both courses to date is 242

## BOARD OF BEAUTY CULTURE CONTROL

## STATEMENT OF REVENUE

FISCAL YEAR ENDED JUNE 30, 1956

*Licenses*

1,209	Student Registration Permits @ \$2.00 .....	\$2,418.00
573	Senior Student Operator Permits @ \$2.00 .....	1,146.00
322	Temporary Permits @ \$15.00 .....	4,830.00
11	Demonstration Permits @ \$10.00 .....	110.00
359	Shop Initial Licenses @ \$25.00 .....	8,975.00
3,629	Shop Renewal Licenses @ \$6.00 .....	21,774.00
15	School Renewal Licenses @ \$50.00 .....	750.00
6,896	Operator Licenses @ \$4.00 .....	27,584.00
6,435	Manager-Operator Licenses @ \$7.00 .....	45,045.00
157	Teachers Licenses @ \$10.00 .....	1,570.00
48	Duplicate Licenses @ \$2.00 .....	96.00
1,484	Examination Fees @ \$10.00 .....	14,840.00
200	Restoration Fees @ \$20.00 .....	4,000.00
219	Manicurists Licenses @ \$4.00 .....	876.00
39	Demonstrator Licenses @ \$10.00 .....	390.00
164	Reciprocity Fees @ \$20.00 .....	3,280.00
	Penalties .....	1,254.50
565	Prior Years .....	2,260.00
	Excess Fees .....	13.00
22,325	Total Licenses Issued	
	Total Revenue .....	\$141,211.50

**Bureau of Personnel and Accounts**

The ever changing patterns of modern public health, together with the necessary expansion and extension of operating health programs, continued to demand corollary adjustments and realignments in the administrative operations of this Department. These adjustments and realignments made the limitations of existing physical facilities even more pronounced. The Bureau of Personnel and Accounts was assigned the task of considering and recommending the personnel, fiscal, and physical adjustments necessary to meet the problems and needs, as well as the job of maintaining existing Departmental personnel and fiscal policies and procedures.

During the fiscal year concerned, new space was leased in the Arnold Constable Building in Trenton in order to relieve some of the existing overcrowding and to allow for the better alignment of organizational units.

All of the units of the Division of Chronic Illness Control were removed to this building, as were all of the elements of the Division of Preventable Diseases. The units of the Division of Constructive Health, with the exception

of the Bureau of Adult and Occupational Health, were also housed in these new quarters. This series of moves allowed more room in the areas of the Office of the Commissioner and the Division of Environmental Sanitation. It also allowed for greater administrative facility in the operations of those units whose elements were grouped together for the first time since the reorganization of this Department.

Late in the fiscal year, plans were developed for the physical standardization of the District Health Offices. Arrangements for the removal of the Metropolitan District Offices from 1060 Broad Street, Newark, to the new Newark Center Building were nearing completion at the close of the fiscal year. During the new fiscal year, it is anticipated that the District State Health Offices currently located in Haddonfield and in Dover will be housed in new quarters. In addition, considerable time and effort continued to be spent on the problem of securing legislative approval for a new State Department of Health Building.

The Personnel Section of the Bureau was concerned with the constantly changing personnel needs in terms of numbers, professional groups, and position requirements. Many and successive adjustments were made to include the conduct of job analyses, the writing of specifications, and the development of the relationship of these needs to the fiscal possibilities of the Department.

The Personnel Office continued to improve its procedures and to develop its functions and was given one professional position to work in the area of personnel classification and training.

The orientation course and the refresher course in stenography, which were instituted in the fiscal year 1952-53, 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 course were continued.

The Accounting Section of the Bureau was concerned primarily with the proper accounting of all moneys 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 and to provide increased fiscal information to 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 occasions during the fiscal year ending June 30, 1956.

Cost studies of individual health programs continued to be made.

The system of property control, which was established late in the fiscal year ending June 30, 1954, continued in operation, and the physical inventory of all Departmental property and equipment in use by the Department or by cooperating agencies is nearly completed.



Project and fund control accounts were maintained, as was a budgetary working reserve account. The accounting of this Department was operated on an encumbrance basis.

As of June 30, 1956, there were 549 budgeted positions in the Department, of which 435 were filled by persons with permanent civil service status, 52 by persons with temporary civil service status. In addition, nearly 200 professional workers, such 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 1955-1956

Receipts

Received for Transfer to State Treasury:	
License and Permit Fees .....	\$350,647.32
Penalties .....	8,263.34
Certified Certificates .....	35,383.61
Examination Fees .....	7,185.00
Miscellaneous .....	11,547.89
<b>Net Total .....</b>	<b>\$413,027.16</b>
Received for Disbursement:	
State Appropriations and Transfers .....	\$3,153,272.59
United States Department of Health, Education and Welfare—Public Health Service .....	796,006.51
United States Department of Health, Children's Bureau .....	408,167.06
Crippled Children's Donations .....	1,305.00
<b>Net Total .....</b>	<b>\$4,358,751.16</b>

DEPARTMENTAL ALLOCATIONS

Division	Salaries		Other Allocations		Total State	Total Federal	Total	Final All Funds
	State	Federal	State	Federal				
Office of the Commissioner .....	\$77,100.00	\$11,000.00	\$25,045.68	\$2,428.78	\$102,200.68	\$13,488.78	\$115,689.46	000,635.69
Administrative activities and administration .....	227,233.15	113,900.74	140,752.53	12,008.07	473,166.98	129,609.71	602,776.75	316,985.37
Environmental sanitation .....	41,370.00	0	589,489.72	924.91	690,864.63	173,449.40	864,314.03	401,451.88
Preventable diseases .....	73,972.00	42,922.23	241,006.78	333,508.84	574,481.81	204,287.46	778,769.27	384,543.77
Chronic illness .....	220,445.00	76,180.16	60,842.40	13,007.16	360,474.62	229,268.07	589,742.69	600,138.25
Laboratories .....	37,008.35	37,401.33	168,774.34	1,687.74	243,661.76	59,874.59	303,536.35	169,141.67
Local health services .....	324,068.61	131,001.38	143,073.00	53,773.22	651,916.21	294,874.60	946,790.81	874,910.37
<b>Total allocations .....</b>	<b>\$1,043,858.00</b>	<b>\$490,530.30</b>	<b>\$1,597,719.80</b>	<b>\$713,914.27</b>	<b>\$3,154,557.30</b>	<b>\$1,294,173.57</b>	<b>\$4,448,730.87</b>	<b>\$1,958,751.16</b>
<b>DEPARTMENTAL EXPENDITURES</b>								
Office of the Commissioner .....	\$77,726.50	\$11,040.04	\$20,028.88	\$2,372.48	\$104,355.88	\$13,412.47	\$117,768.35	505,951.87
Administrative activities and administration .....	330,665.37	113,466.43	143,047.04	11,772.43	678,718.01	125,238.86	803,956.87	200,086.09
Environmental sanitation .....	41,370.00	0	589,489.72	924.91	690,864.63	173,449.40	864,314.03	401,451.88
Preventable diseases .....	39,240.00	8,204.00	74,429.25	105,284.61	122,673.85	33,271.51	155,945.36	440,941.02
Chronic illness .....	75,477.90	41,507.70	108,820.23	139,913.45	274,208.19	170,885.12	445,093.31	209,604.25
Laboratories .....	214,001.17	73,800.18	68,188.07	11,014.83	365,984.25	89,573.01	455,557.26	369,004.25
Local health services .....	468,701.12	165,285.92	203,732.47	148,381.93	985,991.48	201,037.78	1,187,029.26	586,086.23
<b>Total expenditures .....</b>	<b>\$1,990,164.20</b>	<b>\$482,681.06</b>	<b>\$870,017.73</b>	<b>\$330,803.80</b>	<b>\$2,470,081.03</b>	<b>\$1,088,084.80</b>	<b>\$3,558,165.83</b>	<b>\$3,012,700.70</b>
<b>Balance June 30, 1956 .....</b>	<b>\$47,883.80</b>	<b>\$7,078.21</b>	<b>\$127,801.80</b>	<b>\$102,810.17</b>	<b>\$275,405.00</b>	<b>\$170,488.71</b>	<b>\$445,893.71</b>	

### Report of the Program of Public Health Statistics Calendar Year, 1955

Each Department Program has definite need for basic statistical data in order to determine health needs and to plan, execute, and evaluate its services intelligently. The Public Health Statistics Program provides the basic data requested and engages in special public health projects which require statistical consultation and methods in order to yield new information for program utilization.

Statistical data and services are provided through three sections—IBM, Public Health Statistics, and Morbidity Collection. Involved in providing statistical services is the preparation of public health statistics. This requires the coding, punching, verifying, sorting, tabulating, and interpreting information from records of births, marriages, deaths, and morbidities.

During the year, resource materials were given to the Program Coordinators in accordance with the needs specified in their Programs. These statistical needs were included in the Public Health Statistics Program which was approved in January, 1955.

Technical assistance on special projects was given throughout the year to Departmental Programs and agencies working in behalf of public health.

Early in 1955, the Public Health Statistics Program completed the tabulations for the first three phases of the Hunterdon County Health Survey. The study was started in 1952 and was aimed at determining the health needs of a rural county.

Of interest, too, is the fact that a large number of requests, filled by the Public Health Statistics Program, was concerned with the number of births which occurred to residents in New Jersey communities. These data, primarily, were requested by school authorities in order to plan additional school facilities.

Next highest in number of requests were those for population estimates. The need for such information becomes greater as the interval of time between the census year and the current year increases. The fact that the New Jersey communities are growing at an unprecedented rate adds greatly to the need for better population estimates. The State and its civil divisions need to plan all types of facilities and services on the basis of current population figures. Population estimates, based on the natural rate of growth, provide conservative figures and may not reflect the actual situation.

*Population:* The population estimate for New Jersey as of July 1, 1955 was 5,141,000. 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, 1955 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, 1955 estimate of total population gave a figure of 344,000 as the estimated number of nonwhite persons. The estimate of the white population was 4,797,000 as of July 1, 1955.

*Births:* The 120,969 resident live births reported in 1955 represented a crude birth rate of 23.5 per 1,000 estimated population. This all-time high of live births reported in 1955 was double the number of births registered in each of the years 1933 through 1940. The year 1955 was the tenth consecutive 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 number of births present.

Of the 107,623 births in 1955 to white mothers, 1,320 or 1.2 per cent were reported as illegitimate. Of the 13,346 births to nonwhite mothers, 1,965 or 14.7 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 1955 were 1,126 or 52 per cent greater than the 1945 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 116,955 births occurring in New Jersey during 1955, there were 501 records having no entry for weight at birth. Therefore, only 116,454 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 .....	107,827	92.6
2001-2500 grams, incl. ....	5,788	5.0
1501-2000 grams, incl. ....	1,526	1.3
1001-1500 grams, incl. ....	722	0.6
1000 grams or less .....	591	0.5
Total with weight given .....	116,454	100.0

Of the 116,943 birth records on which the attendant was clearly identified, 115,855 births or 99 per cent occurred in hospitals; 910 or 0.8 per cent were attended by physicians outside of hospitals; and 99 or 0.1 per cent had mid-

wives 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 1,276 sets of twins born, but in 63 of these, only one was born alive. Mothers in New Jersey gave birth to 13 sets of triplets. In 7 instances, all three were born alive; in four cases, two were born alive; and in two cases, one was born alive.

*Marriages:* The crude marriage rate for 1955 was 7.8 per 1,000 estimated population. The total of 40,327 marriages reported was 583 higher or 1.5 per cent more than in 1954. For the first time in the last six-year period, the steady, downward trend in the number of marriages occurring in New Jersey has been broken in 1955. During the past decade, the 1946 total of 61,020 marriages was the highest and the 1954 total of 39,744 marriages was the lowest.

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 54,055 resident deaths from all causes was recorded for New Jersey in 1955. The crude death rate of 10.5 per 1,000 estimated population was higher than the 1954 rate of 10.1. The 1949 rate of 10.0 was the lowest in the State's experience.

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 53,139 deaths, 4,074 or 7.7 per cent were deaths of veterans. Of these deaths, 2,379 were World War I veterans; 1,123 were World War II veterans; and 79 were veterans of both wars. Spanish-American War veterans accounted for 162 deaths and an additional 9 persons who died were veterans of both the Spanish-American and First World Wars. United Nations Force accounted for 114 deaths and an additional 15 decedents were veterans of other wars. On the remaining 193 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 1955, there were 2,954 infant deaths for New Jersey. The resulting infant mortality rate of 24.4 per 1,000 live births was higher than the rate of 23.6 recorded for 1954. The white infant mortality rate

in 1955 was 21.6 and for nonwhite infants, the rate was 47.1. 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. 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 1955, there were 64 maternal deaths, representing a rate of 0.5 per 1,000 live births. There were 59 deaths and a rate of 0.5 due to this cause in 1954. The nonwhite maternal mortality rate of 1.0 in 1955 was less than that of 1.5 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 2,115 stillbirths reported for 1955 accounted for a rate of 17.5 per 1,000 live births. In 1954, there were 1,933 stillbirths with a rate of 16.3. The nonwhite rate for 1955 was 25.7 as compared with 24.8 in 1954. Race or color was not stated on 15 reports.

*Cancer:* The number of deaths from malignant neoplasms in 1955 was 9,806 and the rate was 190.7 per 100,000 estimated population. In the preceding year, there were 9,504 deaths with a rate of 187.4. The mortality from this cause, with few exceptions, has steadily increased since records were first kept in New Jersey.

*Tuberculosis:* A slight increase in the number of tuberculosis deaths and death rate was observed in 1955. There were 570 deaths due to all forms of tuberculosis, resulting in a rate of 11.1 per 100,000 estimated population, compared with 558 tuberculosis deaths and a rate of 11.0 in 1954. Tuberculosis of the respiratory system accounted for 519 fatalities and a rate of 10.1 in 1955 and 503 deaths with a rate of 9.9 in 1954.

There were 419 deaths of white persons from tuberculosis, all forms, and 151 deaths of nonwhite persons. Per 100,000 estimated population, the white rate was 9.3 in 1955 as against 9.0 in the preceding year; the nonwhite rate was 46.6 as compared to 38.5 for 1954.

Reference to Tables 14, 15, 17, 19, and 20 is recommended. Additional discussion of this disease may be found in the report of the Tuberculosis Control Program.

*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, reference should also be made to the reports of the Acute Communicable Diseases Program and the Venereal Disease Control Program.

## Report of the Program of Vital Statistics Registration Calendar Year, 1955

### HISTORICAL BACKGROUND

The State Registrar has custody of more than twelve million records of births, stillbirths, marriages and deaths which date back to 1848. In addition, approximately 175,000 delayed reports of births have been received, examined and filed. About 75,000 corrections to original records, covering the period from 1848 through 1952, have been placed temporarily in this same file.

The original records from 1848 through May 31, 1878, and the geographic and alphabetical indexes from June 1, 1878 through December 31, 1903, have been microfilmed and appear on 235 reels of film. The positive copies of the film are searched to identify records requested by applicants and certified copies are typed therefrom. The original records, with the exception of the indexes, have been transferred to the State Librarian for storage in the Switlik Building.

The records for the period 1848 to 1887 were collected originally by the Secretary of State and were 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 had been published since 1879, were prepared from records not in the custody of the Bureau.

By law the State Registrar has supervisory power over the more than 500 local registrars and must furnish the forms necessary for the registration of vital events. These forms are used or distributed by local registrars to physicians, clergymen, funeral directors, and hospital administrators.

### CURRENT ACCOMPLISHMENTS

Since 1954, the Vital Statistics Registration Program has been responsible for the searching and issuance of transcripts from entries in the 1905 and 1915 State Census Records which are on microfilm. This activity requires the service of one Recordak Reader and one full-time clerk. An average of 15 requests daily was received in 1955 for searches of one or both of the Census Records. This was a 50 per cent increase over the daily average for 1954.

During 1955, the Program received and processed 213,596 original reports of vital events, 1,300 delayed reports of birth, and 9,000 corrections to records.

Birth certificates under new names were prepared and filed for 1,776 individuals who had been adopted. The respective local registrars were sent copies of the new certificates and instructions for sealing their copies of the original certificates.

Approximately 81,000 premarital certificate forms were examined for acceptability and were detached from the marriage certificates forwarded by local registrars.

By law the State Department of Health must certify monthly the name of each veteran dying in New Jersey whose death certificate indicates that burial, cremation or removal was within New Jersey. In addition to the name, the place and date of burial, cremation or removal, and the war in which each veteran served must be supplied. In 1955, this required the typing of 3,983 certificates, all of which were subsequently sorted by county and forwarded to the respective county supervisors of veterans' interments. For this purpose, deaths which occurred as a result of "police action" on behalf of the United Nations Forces are not classified as veteran deaths.

Because of insufficient storage space in the vaults 1,473 volumes containing the death records of 1904 through 1930 were microfilmed. The original records were transferred to the State Librarian for storage. The 482 reels of positive microfilm images of these records are used for identifying and preparing certified copies of records. Since the Program had no facilities for making facsimile reproductions from microfilm images, all copies issued in 1955 had to be typed.

In addition, the original marriage records from June 1, 1878, through December 31, 1903, contained in 249 steel drawers, were microfilmed. The original records were transferred to the State Librarian for storage. The 176 reels containing the microfilmed images are used for searching and the preparation of certified copies. These copies also were prepared in 1955 by typing. Before these marriage records could be microfilmed it was necessary to unfold each record and transfer the code number on the back of the record to the front of each certificate. Extraneous papers, when found, were detached from the records and destroyed. Records which had been misfiled were filed properly. Three full-time temporary clerks have been engaged in this activity.

Twenty boxes and 136 volumes containing original stillbirth records have also been transferred to the State Librarian. These particular records will be microfilmed before destruction.

A daily average of 300 pieces of mail was opened and processed by the mail room force. This mail contained not only requests for searches and certified copies of original records, but also requests for assistance in filing delayed reports of births and corrections to records. One full-time clerk stenographer was required to answer such requests.

A total of 49,580 searches of the records was made by the search clerks during the year and certified copies or no record statements were prepared for approximately 90 per cent of the requests. The remaining 10 per cent were from agencies which required only a certification that the record was or was not on file.

Two additional Recordak Readers were purchased, making a total of four. One is used almost exclusively for the census searching; the other three are used full-time for handling applications for copies of vital records which have been microfilmed. Although necessary because of inadequate storage space in the vaults, the microfilm project has almost doubled the time required to search and prepare certified copies of records from microfilm images.

During the 1955 legislative session, there was one amendment passed which affected the statutes governing the Program. By special request, any applicant for a copy of the birth and/or marriage record of an individual whose name was legally changed may now receive a copy showing the new name only, with no reference made to the date and manner by which the new name was obtained.

#### FUTURE NEEDS

The continued increase in the number of vital events occurring and in the number of requests received for copies of the records taxed the equipment and personnel to the utmost.

Personnel turn-over was quite extensive during the year. Recruitment and retention of qualified personnel are difficult. The training of search clerks requires about six months. Many persons resign even before they have been trained.

Equipment capable of producing facsimile copies of microfilm images is necessary in order that the time required for the preparation of certified copies may be reduced.

The need for a field representative to visit and train local registrars grows more acute each day. Each new registrar should be visited and instructed in the nature of the duties required of him, but this has been impossible. In 1955, only two local registrars could be visited. These registrars had made requests for such help. Training programs for all local registrars should be held in order that registrars may become more efficient in giving services to the public. Until this position is established and a qualified person is available, no adequate training of registrars can be done.

In order that the searching for the birth records from 1904 through 1952 may be easier and more accurate, approximately 30,000 correction forms now stored in filing cabinets should be attached to the original records of the individuals.

The remaining 45,000 corrections apply to birth records from 1848 through 1903. Since the microfilming of these original records is included in the current microfilm project, some adequate and efficient method must be found whereby an original record may be so marked that the searcher will instantly know that a correction for that record is on file.

Indexes of marriage records under the name of the bride for the period 1904 through 1919 are also urgently needed. With the cooperation of the I. B. M. Section of the Public Health Statistics Program, this project is being handled on a spare-time basis.

A tabular summary of the volume of the major activities of the Program follows:

#### I. Certificates Received, Examined, Coded and Permanently Filed.

Certificate Type	Calendar Years		
	1953	1954	1955
Births .....	112,522	114,424	116,961
Stillbirths .....	2,046	1,914	2,047
Marriages .....	40,886	39,744	40,335
Remarriages .....	2,004	1,179	1,113
Deaths .....	52,794	50,359	53,140
Total .....	210,252	207,620	213,596

#### II. Searches Requested and Fees Received.

Item	Fiscal Years		
	1954	1955	1956
Searches made and/or certified copies issued for which fees were received .....	33,366	33,723	34,957
Searches made and/or certified copies issued for which no fees were received .....	11,801	13,745	14,623
Total searches .....	45,167	47,468	49,580
Fees received for searches and certified copies .	\$32,258.30	\$33,843.91	\$35,383.61

In addition there were 6,342 office or telephone calls by persons who filed corrections to records, or who were interested in other registration procedures.

#### TABLES AND CHARTS—1955

- Table 1. Population: Numbers and rates for births, marriages and deaths: 1921-1955. (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: 1955.
- Table 1b. Births, marriages, deaths, stillbirths, maternal deaths, infant deaths and neonatal deaths by counties and municipalities: 1955. (Births, deaths and stillbirths adjusted for residence.)
- Table 2. Resident deaths by age groups; number and percentage for past decade: 1946-1955.
- Table 3. Illegitimate births by color and age of mother: 1955.
- Table 4. Number of births, deaths under one year, deaths under one month, stillbirths and maternal deaths, with rates per 1,000 live births: 1921-1955. (Adjusted for residence.)
- Table 5. Total stillbirths by weight by age of mother: 1955.

- Table 5a. White stillbirths by weight by age of mother: 1955.
- Table 5b. Nonwhite stillbirths by weight by age of mother: 1955.
- Table 6. Maternal deaths by specific cause: 1955.
- Table 6a. Maternal deaths by cause, color and age groups: 1955.
- Table 7. Marriages by age of husband versus age of wife: 1955.
- Table 7a. Marriages by previous marital status: 1955.
- Table 12. Deaths from malignant neoplasms by site, sex, color and age groups; benign and unspecified neoplasms by sex, color and age groups: 1955.
- Table 12a1. Deaths from neoplasms by sex, color and age groups for each site group: 1955.
- Table 12a2. Deaths from malignant neoplasms; percentage distribution by age, site, sex and color: 1955.
- Table 12a3. Cancer death rates by age, sex and color per 100,000 estimated population: 1955.
- 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: 1955.
- Table 13a2. Deaths in New Jersey from nontransportation accidents by cause groups and month of death: 1955.
- Table 13a3. Deaths in New Jersey from suicide, homicide and other violence by cause groups and month of death: 1955.
- Table 13b. Motor vehicle deaths in New Jersey by primary cause of death, sex and age groups: 1955.
- Table 13c. Accidental deaths in New Jersey by immediate cause of death and type of accident: 1955.
- Table 13d. Accidental deaths in New Jersey by immediate cause of death and county of accident: 1955.
- Table 13e. Nontransport accidental deaths in New Jersey by primary cause of death and place of accident: 1955.
- Table 13f. Accidental deaths in New Jersey by immediate cause of death by age groups: 1955.
- Table 13g. Motor vehicle deaths in New Jersey by type of vehicle by age groups: 1955.
- Table 14. Causes of death (abridged list) as percentage of total deaths; with percentage by sex for each cause: 1955.
- Table 15. Death rates: Total, white and nonwhite by abridged list cause: 1955.
- Table 17. Deaths by abridged list cause by sex, color and age groups: 1955.
- Table 18. Infant deaths by cause and age groups: 1955.
- Table 18a. Infant deaths by age and immaturity: 1955.
- Table 19. Principal causes of death by age groups; numbers and percentages: 1955.
- Table 20. Deaths from each cause, detailed international list, by sex, color and age groups: 1955.
- 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: 1955.

TABLE 1  
POPULATION: NUMBERS AND RATES FOR BIRTHS, MARRIAGES  
AND DEATHS: 1921-1956

(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	Marriage Rate per 1,000 Population	Number of Deaths	Death Rate per 1,000 Population
1921	3,285,475	78,172	23.7	27,815	8.4	37,362	11.3
1922	3,371,859	74,479	22.0	27,114	8.0	40,086	11.8
1923	3,455,243	74,811	21.5	28,730	8.3	41,294	11.9
1924	3,544,627	76,590	21.5	27,601	7.7	40,531	11.4
1925	3,631,011	74,193	20.4	27,672	7.6	41,749	11.4
1926	3,717,395	72,386	19.4	28,424	7.6	44,396	11.9
1927	3,805,779	72,799	19.1	28,316	7.4	41,362	10.9
1928	3,891,163	70,678	18.0	29,139	7.4	44,535	11.4
1929	3,976,546	68,297	17.1	30,257	7.6	45,746	11.5
1930	4,044,390	68,292	16.9	28,499	7.0	43,190	10.7
1931	4,076,290	64,078	15.8	26,468	6.5	44,135	10.9
1932	4,085,100	61,215	15.0	25,849	6.3	42,826	10.5
1933	4,089,000	56,072	13.7	24,453	6.0	43,350	10.6
1934	4,091,800	54,841	13.4	28,991	7.1	43,547	10.6
1935	4,103,700	55,059	13.4	29,724	7.2	43,267	10.5
1936	4,115,000	54,145	13.2	32,771	8.0	44,659	10.9
1937	4,127,500	53,107	12.8	39,190	8.8	45,312	11.0
1938	4,139,400	56,602	13.7	31,006	7.5	44,045	10.6
1939	4,151,300	56,859	13.7	31,895	7.7	48,837	10.6
1940	4,163,100	59,328	14.3	41,059	9.9	45,206	10.9
1941	4,199,000	67,144	16.0	46,538	11.1	45,971	10.9
1942	4,226,426	89,512	19.1	39,498	11.9	46,270	10.9
1943	4,235,223	82,356	19.4	41,045	9.7	49,751	11.8
1944	4,167,840	75,652	18.2	36,054	8.7	47,340	11.4
1945	4,209,941	76,995	18.3	39,711	9.5	47,633	11.3
1946	4,204,261	95,644	22.1	41,929	14.2	46,261	10.7
1947	4,435,000	106,086	23.9	53,802	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	44,469	9.3	47,706	10.0
1950	4,832,000	97,754	20.2	46,291	9.6	48,887	10.1
1951	4,896,000	103,218	21.3	44,504	9.1	50,038	10.2
1952	4,949,000	110,215	22.3	41,125	8.3	51,430	10.4
1953	5,096,000	112,522	22.3	40,856	8.2	52,794	10.5
1954	5,071,000	118,252	23.3	39,744	7.8	51,203	10.1
1955	5,141,000	129,969	23.5	40,327	7.8	54,035	10.5

Note: For similar data for period 1879-1920, see Table 1 in any annual report prior to 1950.

CHART I.  
BIRTH AND DEATH RATES  
per 1,000 population  
(Based on Five-Year Averages of Events and Population)  
1880 - 1954

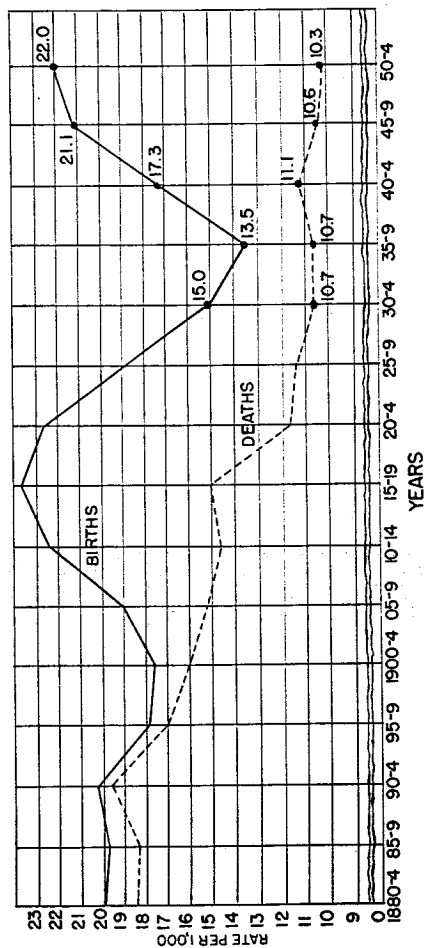


TABLE 1a. BIRTHS, MARRIAGES AND DEATHS: 1955

Month	Births	Marriages	Deaths
January	9,434	2,631	4,762
February	8,893	2,743	4,494
March	9,967	1,725	4,659
April	9,382	3,624	4,374
May	9,886	3,530	4,498
June	9,512	5,192	3,943
July	9,882	3,414	4,815
August	10,257	2,986	4,166
September	10,142	4,451	3,880
October	10,325	4,120	4,407
November	9,459	3,264	4,365
December	9,816	2,647	4,776
Total	116,955	40,327	53,139

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: 1955

(Births, deaths and stillbirths adjusted for residence. Neonatal deaths are those under 28 days of age.)

CIVIL DIVISION	ATLANTIC COUNTY					Infant Deaths by Age at Death	
	Births	Marriages	Deaths	Stillbirths	Maternal Deaths	Total	Under 28 Days
Absecon City	109	19	37	3	...	1	1
Atlantic City	1035	539	981	30	...	35	21
Brigantine City	75	19	16	...	...	2	2
Buena Borough	47	36	27	...	...	2	1
Buena Vista Township	48	14	25	2	...	...	...
Corbin City	6	1	1	...	...	4	4
Egg Harbor City	122	67	53	1	...	1	1
Egg Harbor Township	64	22	41	3	...	1	1
Estell Manor City	11	2	6	...	...	...	...
Folsom Borough	5	1	5	...	...	...	...
Galloway Township	47	19	46	1	...	2	1
Hamilton Township	149	21	62	4	...	5	3
Hammonton Town	204	77	97	3	...	7	4
Linwood City	93	26	24	...	...	...	...
Longport Borough	15	5	16	...	...	1	...
Margate City	135	39	60	1	...	2	1
Mullies Township	33	8	30	...	...	3	3
Northfield City	33	21	40	1	...	...	...
Piessantville City	343	141	161	7	...	4	4
Fort Republic City	8	4	9	...	...	1	1
Somers Point City	76	43	50	...	...	1	1
Ventnor City	149	107	97	2	...	1	1
Weymouth Township	21	1	9	...	...	1	1
Total	2908	1226	1902	58	...	73	49

**BERGEN COUNTY**

Infant Deaths by  
Age at Death

CIVIL DIVISION	Births	Marriages	Deaths	Still- Maternal		Under	
				births	Deaths	Total	28 Days
Alendale Borough	63	17	29	..	..	2	2
Alpine Borough	4	17	4	..	..	1	1
Bergenfield Borough	500	119	192	..	4	16	14
Bogota Borough	119	75	65	7	..	2	2
Carlstadt Borough	112	17	63	..	..	1	1
Cliffside Park Borough	311	90	172	6	..	9	4
Chatham Borough	124	20	32	..	..	3	3
Cresskill Borough	140	21	35	6	1	2	2
Demarest Borough	73	14	26	2	..	1	1
Dumont Borough	330	63	115	5	..	5	4
East Paterson Borough	417	52	81	8	..	4	3
East Rutherford Borough	124	61	81	2	..	3	2
Edgewater Borough	102	79	59	1	..	6	6
Emerson Borough	123	10	32	..	..	3	3
Englewood City	506	305	256	4	..	8	7
Englewood Cliffs Borough	29	9	11	1	..	1	1
Fair Lawn Borough	709	120	176	14	..	11	8
Fairview Borough	196	130	84	2	..	7	4
Fort Lee Borough	450	178	136	7	1	9	9
Franklin Lakes Borough	56	8	10	4	..	1	..
Garfield City	598	201	240	4	1	10	5
Glen Rock Borough	236	61	97	3	..	8	5
Hackensack City	705	327	352	13	3	12	8
Harrington Park Borough	50	7	19	..	..	1	1
Hastbrook Heights Borough	229	83	76	8	9	..	..
Haworth Borough	47	8	22	..	..	..	..
Hillsdale Borough	134	25	54	3	..	..	..
Hoboken Borough	82	27	28	..	..	..	..
Leonia Borough	163	45	73	..	..	..	..
Little Ferry Borough	106	45	49	1	..	5	3
Lodi Borough	571	104	133	7	..	13	11
Lyndhurst Township	422	128	179	5	..	6	5
Mahwah Township	107	20	52	1	..	4	1
Maywood Borough	238	45	81	3	..	3	3
Midland Park Borough	141	49	52	3	..	1	1
Montvale Borough	51	8	16	..	..	1	..
Moontchie Borough	73	11	14	1	..	1	1
New Milford Borough	649	32	106	13	3	13	8
North Arlington Borough	401	103	109	3	..	3	2
Northvale Borough	43	13	9	1	..	..	..
Norwood Borough	45	15	17	1	..	1	1
Oakland Borough	114	10	26	1	..	4	3
Old Tappan Borough	3	31	10	1	..	1	..
Oradell Borough	65	13	42	2	..	1	..
Palisades Interstate Park	..	..	..	..	..	..	..
Palisades Park Borough	226	61	86	5	..	4	3
Paramus Borough	649	46	107	9	..	16	13
Park Ridge Borough	85	30	44	2	..	3	3
Ramsey Borough	164	48	54	5	..	2	2
Ridgefield Borough	209	48	67	5	..	5	4
Ridgefield Park Township	246	88	147	6	..	6	4
Ridgewood Village	369	192	218	9	1	2	5
River Edge Borough	249	41	75	4	..	9	5
River Vale Township	100	2	28	1	..	..	..
Rochelle Park Township	108	27	33	1	..	2	1
Rockleigh Borough	8	1	..	..	..	..	..
Rutherford Borough	401	131	205	6	..	9	6
Saddle Brook Township	262	23	50	3	..	3	2
Saddle River Borough	21	13	12	..	..	..	..
South Hackensack Township	20	1	15	..	..	2	..
Tenneck Township	616	227	344	5	..	12	8
Tenafly Borough	174	57	102	1	..	5	4
Teterboro Borough	..	..	1	..	..	..	..
Upper Saddle River Borough	38	9	13	..	..	1	1
Wallick Borough	246	15	50	5	..	11	7
Wallington Borough	184	61	84	2	..	4	3
Washington Township	59	..	13	1	..	1	1
Westwood Borough	186	94	81	2	..	4	4
Woodcliff Lake Borough	1	1	27	..	..	1	1
Wood Ridge Borough	137	63	54	1	..	..	..
Wyckoff Township	179	34	64	2	..	1	1
<b>Total</b>	<b>14868</b>	<b>4182</b>	<b>5519</b>	<b>216</b>	<b>7</b>	<b>298</b>	<b>221</b>

**BURLINGTON COUNTY**

Infant Deaths by  
Age at Death

CIVIL DIVISION	Births	Marriages	Deaths	Still- Maternal		Under	
				births	Deaths	Total	28 Days
Bass River Township	11	4	7	..	..	..	..
Beventy City	127	32	88	3	..	4	3
Bordentown City	170	80	66	4	..	3	3
Bordentown Township	62	4	20	2	..	5	4
Burlington City	280	115	151	2	..	9	6
Burlington Township	122	20	42	2	..	4	3
Chesterfield Township	26	15	17	1	..	1	..
Cinnaminson Township	23	13	32	..	..	..	..
Delanco Township	89	7	39	1	..	2	2
Delran Township	36	4	22	1	..	..	..
Eastampton Township	16	..	11	1	..	..	..
Edgewater Park Township	10	16	7	..	..	..	..
Evesham Township	66	8	22	..	..	..	..
Feldsboro Borough	21	1	9	..	..	..	..
Florence Township	140	45	93	3	..	6	3
Hainesport Township	64	24	15	1	..	3	2
Lumberton Township	65	5	17	..	..	..	..
Mansfield Township	40	3	18	..	..	..	..
Maple Shade Township	308	73	85	7	..	5	5
Medford Lakes Borough	20	17	4	1	..	4	3
Medford Township	100	18	84	1	..	4	2
Moorestown Township	204	74	112	1	..	4	2
Mount Holly Township	441	71	111	9	..	8	7
Mount Laurel Township	74	3	35	..	..	2	1
New Hanover Township	97	1	3	..	..	1	..
North Hanover Township	27	20	12	..	..	2	..
Palmyra Borough	177	53	60	2	..	3	2
Pemberton Borough	114	22	22	1	..	6	5
Pemberton Township	298	58	53	7	..	1	1
Riverside Township	231	76	78	3	..	2	2
Riverton Borough	94	31	40	2	..	1	..
Shamong Township	12	3	10	..	..	1	..
Southampton Township	68	24	29	1	..	1	..
Springfield Township	39	3	30	..	..	1	..
Tabernacle Township	23	10	21	2	..	1	1
Washington Township	6	4	4	1	..	..	..
Westampton Township	16	2	8	..	..	..	..
Willingboro Township	14	4	8	..	..	1	1
Woodland Township	14	1	4	..	..	2	2
Wrightstown Borough	83	19	5	1	..	..	..
<b>Total</b>	<b>3894</b>	<b>985</b>	<b>1882</b>	<b>60</b>	<b>..</b>	<b>82</b>	<b>61</b>

**CAMDEN COUNTY**

Infant Deaths by  
Age at Death

CIVIL DIVISION	Births	Marriages	Deaths	Still- Maternal		Under	
				births	Deaths	Total	28 Days
Atlufon Borough	206	53	117	4	..	6	5
Anduson Park Borough	28	3	12	..	..	3	2
Barrington Borough	197	18	41	3	..	3	5
Bellmawr Borough	276	19	44	..	..	5	2
Berlin Borough	131	47	37	..	..	3	2
Berlin Township	66	6	21	2	..	2	2
Brooklawn Borough	49	7	19	1	..	2	..
Camden City	2892	1384	1294	44	2	87	62
Chestnutburh Borough	2	1	4	1	..	1	..
Clementon Borough	80	16	44	1	..	1	1
Collingswood Borough	418	138	195	4	..	4	4
Collingswood Township	178	25	79	3	..	3	3
Delaware Township	67	11	11	..	..	1	..
Gibbsboro Borough	46	6	21	..	..	1	..
Gloucester City	345	101	166	5	..	3	1
Gloucester Township	262	45	97	6	..	4	4
Goddard Borough	505	84	73	2	..	14	10
Haddon Heights Borough	189	54	82	9	..	4	4
Haddon Township	139	52	105	4	..	4	2
Hil Nella Borough	12	1	1	..	..	..	..
Laurel Springs Borough	69	10	20	..	..	..	..
Lawnside Borough	40	17	29	3	..	..	..
Lindenwold Borough	137	32	36	1	..	..	..



## CAMDEN COUNTY—Continued

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Magnolia Borough	76	25	29	2	...	3	3
Merchantville Borough	227	115	90	3	...	3	2
Mount Ephraim Borough	89	22	35	...	...	2	2
Oaklyn Borough	124	23	41	1	...	3	2
Pennsauken Township	333	104	214	10	...	16	15
Pine Hill Borough	63	40	29	...	...	...	...
Pine Valley Borough	1	...	...	...	...	...	...
Runnemede Borough	200	68	34	3	...	2	...
Somerdale Borough	107	18	25	...	...	4	2
Stratford Borough	85	12	22	...	...	...	...
Tavistock Borough	...	...	...	...	...	...	...
Voorhees Township	28	18	13	1	...	...	...
Waterford Township	97	32	35	1	1	4	2
Winslow Township	97	28	49	5	1	1	1
Wood Lyane Borough	61	20	34	1	...	5	4
Total	8000	2614	3274	121	3	196	143

## CAPE MAY COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Avlon Borough	10	2	6	...	...	...	...
Cape May City	64	34	38	1	...	1	1
Cape May Point Borough	1	1	7	...	...	...	...
Dennis Township	56	21	26	...	...	1	1
Lower Township	107	24	68	1	...	3	3
Middle Township	124	29	76	5	...	2	...
North Wildwood City	51	19	49	...	...	1	1
Ocean City	121	59	133	1	...	5	4
Sea Isle City	24	10	16	...	...	1	...
Stone Harbor Borough	11	9	17	...	...	...	...
Upper Township	47	17	41	2	...	3	3
West Cape May Borough	19	3	16	...	...	...	...
West Wildwood Borough	2	...	4	...	...	...	...
Wildwood City	124	103	115	3	...	4	3
Wildwood Crest Borough	62	5	27	1	...	...	...
Woodbine Borough	38	13	16	...	...	3	2
Total	878	340	677	14	...	24	18

## CUMBERLAND COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Bridgeton City	556	227	236	12	...	23	12
Commercial Township	106	14	56	5	...	4	1
Deerfield Township	64	17	31	2	...	3	3
Dover Township	45	14	25	...	...	...	...
Fairfield Township	97	23	31	...	...	5	4
Greenwich Township	33	7	12	1	...	...	...
Hopewell Township	56	6	27	1	...	3	3
Lawrence Township	73	32	33	3	1	2	1
Maurice River Township	51	21	41	1	...	4	2
Millville City	385	162	211	5	...	5	3
Shiloh Borough	12	4	5	...	...	...	...
Stow Creek Township	21	1	12	1	...	...	...
Upper Deerfield Township	123	28	42	3	...	5	3
Vineland City	605	200	319	9	...	17	10
Total	2826	736	1081	44	1	75	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	650	214	250	11	...	11	9
Bloomfield Town	1073	289	462	12	1	22	17
Caldwell Borough	107	75	66	2	...	1	1
Caldwell Township	38	3	19	1	...	...	...
Cedar Grove Township	225	23	57	4	...	6	6
East Orange City	1583	571	1069	13	...	39	31
Essex Falls Borough	56	15	21	...	...	...	...
Glen Ridge Borough	95	35	99	2	...	3	2
Irrington Town	1097	500	646	12	...	22	18
Livingston Township	434	38	94	8	...	6	8
Maplewood Township	307	149	276	5	...	4	4
Millburn Township	227	154	130	5	...	9	3
Montclair Town	761	373	534	13	1	20	15
Newark City	10035	4567	5047	242	7	333	243
North Caldwell Borough	48	1	14	...	...	1	1
Nutley Town	535	245	255	11	...	6	5
Orange City	806	402	410	15	...	21	20
Roseland Borough	43	16	28	1	...	3	3
South Orange Village	202	172	179	5	1	5	3
Verona Borough	206	62	93	3	...	1	...
West Caldwell Borough	124	5	45	3	...	4	3
West Orange Town	709	164	285	19	2	16	13
Total	19433	8073	10109	300	12	535	405

## GLOUCESTER COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Clayton Borough	106	43	34	1	...	1	1
Deptford Township	143	48	78	1	...	4	...
East Greenwich Township	56	8	24	1	...	1	...
Elk Township	29	6	21	...	...	3	2
Franklin Township	118	24	50	3	...	2	2
Glassboro Borough	223	77	63	4	...	3	2
Greenwich Township	82	19	28	...	...	1	1
Harrison Township	62	17	28	...	...	1	1
Logan Township	32	2	16	...	...	2	1
Mantua Township	144	29	63	3	...	3	2
Monroe Township	171	61	86	1	...	4	1
National Park Borough	68	24	22	...	...	1	1
Newfield Borough	58	22	10	...	...	2	1
Paulsboro Borough	226	93	93	3	...	9	8
Pitman Borough	152	50	97	1	...	6	5
South Harrison Township	13	3	4	...	...	...	...
Swedesboro Borough	100	33	49	3	...	2	2
Washington Township	37	11	23	...	...	2	2
Wenonah Borough	35	17	17	...	...	1	1
West Deptford Township	130	19	57	3	...	6	2
Westville Borough	122	42	49	1	...	2	2
Woodbury City	448	130	159	8	...	13	10
Woodbury Heights Borough	36	5	28	3	1	2	2
Woodwick Township	13	...	7	...	...	1	...
Total	2826	777	1109	36	1	72	51

HUDSON COUNTY

Infant Deaths by Age at Death

CIVIL DIVISION

Table for Hudson County Civil Division showing Births, Marriages, Deaths, Still-births, Maternal Deaths, Total, and Under 28 Days for various cities and towns like Bayonne City, East Newark Borough, etc.

HUNTERDON COUNTY

Infant Deaths by Age at Death

CIVIL DIVISION

Table for Hunterdon County Civil Division showing Births, Marriages, Deaths, Still-births, Maternal Deaths, Total, and Under 28 Days for various towns like Alexandria Township, Bethlehem Township, etc.

MERCER COUNTY

Infant Deaths by Age at Death

CIVIL DIVISION

Table for Mercer County Civil Division showing Births, Marriages, Deaths, Still-births, Maternal Deaths, Total, and Under 28 Days for various townships like East Windsor Township, Hamilton Township, etc.

MIDDLESEX COUNTY

Infant Deaths by Age at Death

CIVIL DIVISION

Table for Middlesex County Civil Division showing Births, Marriages, Deaths, Still-births, Maternal Deaths, Total, and Under 28 Days for various boroughs and townships like Carteret Borough, Cranbury Township, etc.

MONMOUTH COUNTY

Infant Deaths by Age at Death

CIVIL DIVISION

Table for Monmouth County Civil Division showing Births, Marriages, Deaths, Still-births, Maternal Deaths, Total, and Under 28 Days for various boroughs and townships like Allentown Borough, Asbury Park City, etc.

MONMOUTH COUNTY—Continued

Infant Deaths by Age at Death

CIVIL DIVISION	Births	Marriages	Deaths	Still-births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Ocean Township	168	33	67	5	...	1	1
Bariten Township	65	19	38	...	...	2	...
Red Bank Borough	318	197	198	6	...	14	12
Roosevelt Borough	7	1	5	...	...	...	...
Rumson Borough	100	37	53	2	...	3	2
Sea Bright Borough	33	8	14	...	...	...	...
Sea Girt Borough	19	9	24	...	...	...	...
Shrewsbury Borough	64	12	19	3	...	1	1
Shrewsbury Township	41	...	4	...	...	1	1
South Belmar Borough	19	...	23	...	...	1	1
Spring Lake Borough	39	45	43	...	...	1	1
Spring Lake Heights Borough	70	11	26	1	...	1	1
Union Beach Borough	82	18	51	4	...	3	2
Upper Freehold Township	51	4	19	...	...	2	1
Wall Township	206	27	163	2	...	5	3
West Long Branch Borough	92	28	31	...	...	...	...
Total	6368	1838	2930	96	1	165	124

MORRIS COUNTY

Infant Deaths by Age at Death

CIVIL DIVISION	Births	Marriages	Deaths	Still-births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Boonton Town	135	64	73	3	...	4	3
Boonton Township	45	5	19	1	...	1	1
Butler Borough	131	55	50	2	1	2	1
Chatham Borough	171	54	70	...	...	4	3
Chatham Township	193	2	33	2	...	1	1
Chester Borough	34	10	14	1	...	2	2
Chester Township	24	...	12	...	...	1	1
Denville Township	220	35	82	2	...	5	5
Dover Town	306	128	166	4	1	6	5
East Hanover Township	38	14	15	...	...	1	1
Florham Park Borough	115	12	25	1	...	3	4
Hanover Township	214	32	47	3	...	4	4
Harding Township	35	11	16	...	...	1	...
Jefferson Township	108	25	30	3	...	2	2
Kinnelon Borough	60	...	14	...	...	2	2
Lincoln Park Borough	93	14	38	...	...	5	5
Madison Borough	287	103	113	4	...	11	9
Mendham Borough	45	27	19	...	...	...	...
Mendham Township	31	3	13	...	...	...	...
Mine Hill Township	57	21	26	...	...	1	1
Montville Township	107	25	51	2	...	2	2
Morris Plains Borough	102	32	49	4	...	3	3
Morristown Town	120	167	206	14	...	15	13
Morris Township	544	...	75	...	...	...	...
Mountain Lakes Borough	48	21	27	...	...	...	...
Mount Arlington Borough	15	10	8	1	...	1	1
Mount Olive Township	75	7	27	3	...	1	1
Netcong Borough	30	55	28	...	...	2	2
Parshippany-Troy Hills Township	343	40	76	4	...	6	4
Pasale Township	70	17	20	3	...	...	...
Pequanock Township	218	30	65	5	...	4	3
Randolph Township	106	23	...	...	...	1	1
Riverdale Borough	61	2	22	...	...	1	1
Rockaway Borough	147	41	51	3	...	4	3
Rockaway Township	145	28	49	3	...	3	2
Roxbury Township	208	33	60	2	...	6	6
Victory Gardens	18	...	2	...	...	...	...
Washington Township	59	13	35	1	...	1	1
Wharton Borough	98	60	54	1	...	3	2
Total	4802	1243	1804	77	2	114	95

OCEAN COUNTY

Infant Deaths by Age at Death

CIVIL DIVISION	Births	Marriages	Deaths	Still-births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Barnegat Light Borough	7	2	7	...	...	...	...
Bay Head Borough	19	11	15	...	...	...	...
Beach Haven Borough	20	18	13	3	...	...	...
Beachwood Borough	47	4	17	...	...	2	2
Berkeley Township	32	13	25	1	...	1	1
Brick Township	149	29	77	1	...	7	7
Dover Township	327	50	132	6	...	...	...
Eagleswood Township	19	9	7	...	...	...	...
Hurley Cedars Borough	6	...	1	...	...	...	...
Lakelurst Borough	1	...	1	...	...	...	...
Island Beach Borough	26	1	10	1	...	...	...
Jackson Township	82	25	48	...	...	3	2
Lacey Township	24	10	19	1	...	...	...
Lakelurest Borough	115	8	17	1	...	5	5
Lakewood Township	290	133	160	7	...	6	4
Lavallette Borough	19	9	17	...	...	1	1
Little Egg Harbor Township	12	1	13	...	...	1	1
Long Beach Township	22	5	19	...	...	3	2
Manchester Township	23	17	12	...	...	1	...
Mantoloking Borough	3	1	2	...	...	...	...
Ocean Gate Borough	10	5	17	...	...	...	...
Ocean Township	11	5	10	...	...	1	1
Pine Beach Borough	14	9	2	...	...	...	...
Plumstead Township	127	12	38	1	...	7	5
Point Pleasant Borough	171	38	77	1	...	2	1
Point Pleasant Beach Borough	25	41	38	1	...	...	...
Seaside Heights Borough	22	5	10	...	...	...	...
Seaside Park Borough	13	8	17	1	...	...	...
Ship Bottom Borough	10	...	12	...	...	...	...
South Toms River Borough	11	3	7	1	...	...	...
Stafford Township	29	10	29	1	...	...	...
Surf City Borough	...	...	2	...	...	...	...
Tuckerton Borough	46	14	16	...	...	1	...
Union Township	10	6	17	1	...	...	...
Total	1751	517	901	31	...	42	32

PASSAIC COUNTY

Infant Deaths by Age at Death

CIVIL DIVISION	Births	Marriages	Deaths	Still-births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Bloomingsdale Borough	86	24	36	...	...	5	3
Clifton City	1767	340	565	23	1	22	16
Haledon Borough	2	92	38	68	...	6	6
Hawthorne Borough	318	110	144	6	...	4	4
Little Falls Township	224	37	69	5	...	5	3
North Haledon Borough	90	16	33	...	...	3	3
Passaic City	1015	619	640	18	...	28	22
Paterson City	2692	1183	1666	62	3	50	62
Pompton Lakes Borough	195	60	42	4	...	2	2
Prospect Park Borough	90	38	62	3	...	3	3
Ringwood Borough	45	13	20	1	...	3	2
Totowa Borough	170	29	73	2	...	4	3
Wanaque Borough	172	38	48	3	1	5	3
Wayne Township	470	92	117	5	...	10	6
West Milford Township	63	34	60	2	...	2	1
West Paterson Borough	137	33	43	3	...	2	1
Total	7978	2724	3691	139	5	184	149

## SALEM COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Still-Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Alloway Township	41	19	15	2	...	1	1
Elmer Borough	39	17	25	1	...	2	2
Elisabore Township	23	2	8	1	...	...	...
Lower Alloway Creek Township	27	8	18	...	...	...	...
Lower Penns Neck Township	210	49	51	5	...	5	5
Mannington Township	52	6	11	1	...	...	...
Oldmans Township	37	11	15	1	...	1	1
Penns Grove Borough	287	53	78	5	...	7	4
Pilesgrove Township	65	7	15	...	...	3	1
Pittsgrove Township	69	9	21	1	...	1	1
Quiton Township	49	15	20	1	...	3	3
Salem City	227	88	110	6	...	1	...
Upper Penns Neck Township	58	35	31	...	...	1	...
Upper Pittsgrove Township	51	11	20	4	...	1	...
Woodstown Borough	78	37	25	...	...	3	2
Total	1318	307	479	26	1	32	23

## SOMERSET COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Still-Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Bedminster Township	31	18	19	...	...	1	1
Bernards Township	95	42	37	...	...	3	2
Bernardsville Borough	86	35	40	...	1	2	2
Bound Brook Borough	278	98	91	9	...	7	6
Branchburg Township	58	3	25	...	...	4	3
Bridgewater Township	215	37	73	4	...	1	...
Far Hills Borough	15	8	8	2	...	...	...
Franklin Township	370	48	93	3	...	6	4
Green Brook Township	44	1	9	...	...	1	1
Hillsborough Township	115	16	37	...	...	...	...
Manville Borough	247	66	69	5	...	3	3
Millstone Borough	9	1	2	...	...	...	...
Montgomery Township	61	6	22	...	...	...	...
North Plainfield Borough	343	60	146	3	1	6	5
Peapack Gladstone Borough	29	9	28	1	...	6	5
Raritan Borough	113	75	58	1	...	5	5
Rocky Hill Borough	8	5	5	...	...	...	...
Somerville Borough	314	105	116	2	...	10	7
South Bound Brook Borough	17	20	27	...	...	4	2
Warren Township	96	6	37	2	...	...	...
Watchung Borough	47	16	16	...	...	...	...
Total	2854	706	958	32	2	53	41

## SUSSEX COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Still-Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Andover Borough	16	15	9	2	...	2	2
Andover Township	47	9	11	1	...	3	2
Branchville Borough	21	13	14	...	...	2	1
Bram Township	25	2	13	1	...	...	...
Frankford Township	55	4	20	...	...	2	1
Franklin Borough	63	31	42	1	...	2	1
Fredon Township	12	4	5	...	...	1	1
Green Township	15	7	6	...	...	1	1
Hamburg Borough	37	21	17	...	...	1	...
Hampton Township	15	12	5	1	...	...	...
Hardyston Township	31	3	15	2	...	...	...
Hopatcong Borough	29	11	13	...	...	...	...
Lafayette Township	29	17	12	...	...	...	...
Montague Township	12	1	13	...	...	1	1
Newton Town	139	69	70	6	...	6	5
Ogdensburg Borough	28	13	7	...	...	...	...
Sandyton Township	14	2	14	...	...	2	1
Sparta Township	119	26	46	3	...	1	...
Stanhope Borough	41	4	18	1	...	1	1
Stillwater Township	28	6	14	...	...	...	...
Sussex Borough	40	44	25	...	...	...	...
Vernon Township	41	9	21	...	...	...	...
Walpack Township	4	...	4	...	...	1	1
Wantage Township	78	2	22	1	...	...	...
Total	959	324	441	19	...	25	18

## UNION COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Still-Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Berkeley Heights Twp.	106	12	28	2	...	2	...
Clark Township	247	57	55	6	...	8	6
Cranford Township	503	120	187	7	...	14	12
Elizabeth City	2379	890	1179	44	1	59	43
Fanwood Borough	199	14	44	3	1	5	5
Garwood Borough	122	33	41	1	...	3	2
Hillside Township	521	106	184	6	...	4	4
Kenilworth Borough	172	34	48	8	...	5	4
Linden City	738	204	255	12	3	18	14
Mountainside Borough	62	7	26	2	1	6	5
New Providence Borough	203	14	39	...	...	3	2
Plainfield City	1182	361	493	18	...	28	20
Rahway City	591	152	248	10	...	20	19
Roselle Borough	532	136	184	8	...	9	8
Roselle Park Borough	212	53	111	8	...	2	1
Scotch Plains Township	311	78	98	6	...	5	4
Springfield Township	195	59	68	2	...	1	1
Summit City	465	188	209	5	1	12	12
Union Township	832	210	339	14	...	11	10
Westfield Town	493	188	216	9	1	7	4
Winfield Township	52	...	7	2	...	2	2
Total	9837	2911	4041	167	8	224	180

WARREN COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Still-births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Allamuchy Township	19	...	12	...	...	2	2
Alpha Borough	53	27	27	...	...	1	...
Belvidere Town	61	34	39	1	...	3	2
Blairstown Township	42	7	21	4	...	1	1
Franklin Township	55	7	19	1	...	1	1
Frelinghuysen Township	17	1	8	...	...	...	...
Greenwich Township	24	29	21	...	...	1	1
Hackettstown Town	118	29	58	1	...	1	1
Hardwick Township	9	2	2	...	...	...	...
Harmony Township	32	20	14	...	...	3	3
Hops Township	11	4	12	1	...	1	1
Independence Township	30	12	17	1	...	1	1
Knowlton Township	29	15	12	1	...	2	1
Liberty Township	7	2	3	...	...	...	...
Lopatcong Township	27	9	11	1	...	...	...
Mansfield Township	33	5	11	1	...	...	...
Oxford Township	34	16	16	1	...	...	...
Pahaquarry Township	1	...	1	...	...	...	...
Phillipsburg Town	466	164	243	4	...	10	8
Phosatcong Township	30	3	12	1	...	2	2
Washington Borough	116	59	95	6	...	4	3
Washington Township	34	4	15	...	...	1	...
White Township	32	5	17	...	...	...	...
<b>Total</b>	<b>1280</b>	<b>452</b>	<b>686</b>	<b>24</b>	<b>...</b>	<b>34</b>	<b>27</b>
STATE INSTITUTIONS	19	...	35	5	...	3	3
MILITARY POSTS	466	306	25	5	...	11	7

TABLE 2. RESIDENT DEATHS BY AGE GROUPS, NUMBER AND PERCENTAGE FOR PAST DECADE: 1946-1955

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.	%
1946	40,291	2,705	6.8	436	0.9	398	0.9	872	1.9	3,806	8.4	15,061	32.0	22,889	40.5	...	...
1947	40,710	2,789	6.9	428	0.9	317	0.7	708	1.5	3,056	8.2	15,662	32.0	24,270	40.5	...	...
1948	48,110	2,859	5.9	414	0.9	353	0.7	882	1.4	3,750	7.7	15,489	32.2	24,811	41.0	...	...
1949	47,700	2,921	6.1	414	0.9	353	0.7	882	1.4	3,750	7.7	15,489	32.2	24,811	41.0	...	...
1950	48,837	2,445	5.0	392	0.8	225	0.7	590	1.2	3,217	7.2	15,338	31.1	20,216	33.7	...	...
1951	60,088	2,410	4.0	392	0.7	221	0.7	558	1.1	3,589	7.2	15,730	31.4	27,022	33.9	...	...
1952	60,088	2,410	4.0	392	0.7	221	0.7	558	1.1	3,589	7.2	15,730	31.4	27,022	33.9	...	...
1953	62,709	2,651	4.2	429	0.8	311	0.6	607	1.1	3,635	7.1	15,907	31.1	27,838	34.2	...	...
1954	61,209	2,789	4.5	440	0.9	344	0.7	493	1.0	3,937	6.5	15,390	30.7	25,326	34.2	...	...
1955	54,065	2,954	5.5	390	0.7	368	0.7	493	1.0	3,418	6.3	15,742	28.7	20,853	37.1	...	...

TABLE 3. ILLEGITIMATE BIRTHS BY COLOR AND AGE OF MOTHER: 1955

Age of Mother	Total		Color			
	No.	%	White		Nonwhite	
	No.	%	No.	%	No.	%
All Ages .....	3,285	100.0	1,320	100.0	1,965	100.0
10-14 .....	84	2.6	20	1.5	64	3.3
15-19 .....	1,220	37.1	443	33.6	777	39.5
20-24 .....	1,092	33.3	433	32.8	659	33.5
25-29 .....	493	15.0	208	15.8	285	14.5
30-34 .....	241	7.3	116	8.8	125	6.4
35-39 .....	118	3.6	73	5.5	45	2.3
40-44 .....	34	1.0	24	1.8	10	0.5
45-49 .....	3	0.1	3	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 with age in the reluctance of females to give correct information, the data in the table may be studied to advantage.

Of the total illegitimate births, 70.4 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 1953 and 1954.

After age twenty-five, a greater percentage of illegitimate births occurred to white mothers. The percentage for white mothers was 32.1 as compared with 23.7 per cent for nonwhite mothers.

Although constituting approximately 6 per cent of New Jersey's population, the nonwhite races accounted for 59.8 per cent of the total illegitimate births.

In 1955, there were 120,969 resident births. Of these, 107,623 were white and 13,346 were nonwhite. One out of every hundred births to white mothers occurred out of wedlock, while 15 out of every hundred occurred to nonwhite mothers. These ratios were approximately the same in 1953 and 1954.

TABLE 4. NUMBER OF BIRTHS, DEATHS UNDER ONE YEAR, DEATHS UNDER ONE MONTH,\* STILLBIRTHS AND MATERNAL DEATHS WITH RATES PER 1,000 LIVE BIRTHS: 1921-1955 (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	73.4	2,830	36.2	3,242	41.7	484	6.9	484	6.9
1922	74,011	71.9	2,621	35.1	3,169	42.5	434	6.4	434	6.4
1923	76,540	70.0	2,739	35.8	3,177	41.5	460	6.0	460	6.0
1924	74,103	68.8	2,607	35.1	3,010	40.0	401	6.2	401	6.2
1925	72,799	67.3	2,387	33.1	2,976	42.7	426	6.4	426	6.4
1926	70,076	63.6	2,485	35.5	2,864	40.9	400	6.7	400	6.7
1927	68,297	61.1	2,233	32.7	2,747	40.5	367	6.3	367	6.3
1928	68,252	58.7	2,107	30.9	2,647	38.8	360	5.7	360	5.7
1929	63,715	56.6	1,894	29.4	2,548	38.2	353	5.9	353	5.9
1930	61,215	54.5	1,680	27.2	2,418	37.0	348	5.9	348	5.9
1931	56,072	50.8	1,533	27.3	2,273	37.0	289	6.1	289	6.1
1932	54,841	48.9	1,634	29.8	2,025	36.9	284	5.3	284	5.3
1933	55,069	46.1	1,660	28.8	1,905	34.6	249	4.5	249	4.5
1934	54,776	45.6	1,529	27.6	1,730	32.2	232	4.3	232	4.3
1935	55,197	45.3	1,439	26.1	1,704	31.1	163	3.0	163	3.0
1936	50,228	40.8	1,365	24.1	1,600	28.3	160	2.9	160	2.9
1937	56,869	38.3	1,412	24.0	1,533	26.0	172	2.9	172	2.9
1938	59,323	35.3	1,422	24.0	1,436	24.8	158	2.6	158	2.6
1939	58,444	33.4	1,321	22.6	1,406	24.8	153	2.5	153	2.5
1940	56,335	31.4	1,261	22.0	1,378	24.0	151	2.5	151	2.5
1941	52,816	28.8	1,262	23.0	1,278	24.0	151	2.8	151	2.8
1942	50,535	26.6	1,189	23.0	1,178	23.1	151	2.8	151	2.8
1943	48,662	24.7	1,056	21.8	1,144	23.1	110	1.8	110	1.8
1944	45,662	22.6	930	20.6	1,027	22.6	118	1.5	118	1.5
1945	43,995	21.0	831	19.1	927	21.1	109	1.3	109	1.3
1946	42,559	19.7	767	18.0	865	20.3	105	1.3	105	1.3
1947	40,086	17.6	659	16.4	750	18.6	72	0.8	72	0.8
1948	37,278	15.8	561	14.8	655	17.6	69	0.7	69	0.7
1949	34,414	14.1	476	13.8	572	16.6	60	0.7	60	0.7
1950	31,744	12.5	370	11.7	485	15.3	55	0.6	55	0.6
1951	29,215	11.3	307	10.5	403	13.8	45	0.5	45	0.5
1952	110,215	23.9	1,967	17.8	2,005	18.2	55	0.5	55	0.5
1953	112,532	23.6	2,043	18.2	2,046	18.2	56	0.5	56	0.5
1954	118,262	23.6	2,078	17.6	2,133	18.3	59	0.5	59	0.5
1955	120,969	24.4	2,211	18.3	2,168	17.9	64	0.5	64	0.5

\* Beginning with 1951, numbers and rates are based on neonatal deaths under 28 days of age.

TABLE 5. TOTAL STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1955

Weight	TOTAL	AGE GROUPS										Unknown			
		10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54					
5 lbs. 9 ozs. and over															
over															
2500 grams	644	...	32	126	171	164	113	30	4	...	4	...	4		
4 lbs. 7 ozs. to															
5 lbs. 8 ozs.															
2001-2500															
grams	210	...	11	49	59	46	32	11	2	...	2	...	...		
3 lbs. 5 ozs. to															
4 lbs. 6 ozs.															
1501-2000															
grams	167	...	14	37	44	28	29	14	1	...	1	...	...		
2 lbs. 3 ozs. to															
3 lbs. 4 ozs.															
1001-1500															
grams	212	1	20	49	54	48	36	4	...	...	...	...	...		
less than															
2 lbs. 3 ozs.															
less than															
1001 grams	<sup>a</sup> 375	2	21	95	114	81	47	10	...	...	...	...	...		
Unknown	<sup>b</sup> 507	1	28	99	132	128	77	25	2	...	2	...	...	<sup>c</sup> 5	
Total	<sup>c</sup> 2115	4	126	455	574	495	334	94	9	1	1	1	1	<sup>c</sup> 23	

<sup>a</sup> Includes 4 stillbirths of unknown color.

<sup>b</sup> Includes 11 stillbirths of unknown color.

<sup>c</sup> Includes 15 stillbirths of unknown color.

TABLE 5a. WHITE STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1955

Weight	TOTAL	AGE GROUPS										Unknown			
		10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54					
5 lbs. 9 ozs. and over															
over															
2500 grams	564	...	22	111	156	144	98	28	4	...	4	...	1		
4 lbs. 7 ozs. to															
5 lbs. 8 ozs.															
2001-2500															
grams	170	...	7	36	50	38	27	10	2	...	2	...	...		
3 lbs. 5 ozs. to															
4 lbs. 6 ozs.															
1501-2000															
grams	137	...	6	27	38	28	25	12	1	...	1	...	...		
2 lbs. 3 ozs. to															
3 lbs. 4 ozs.															
1001-1500															
grams	161	...	14	36	43	35	31	2	...	...	...	...	...		
less than															
2 lbs. 3 ozs.															
less than															
1001 grams	299	1	9	67	94	75	43	10	...	...	...	...	...		
Unknown	426	...	16	76	120	116	69	25	2	...	2	...	...		
Total	1757	1	74	353	501	436	293	87	9	1	1	1	1	2	

TABLE 5b. NONWHITE STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1955

Weight	TOTAL	AGE GROUPS									Unknown	
		10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49			
5 lbs. 9 ozs. and over												
2500 grams	80	...	10	15	15	20	15	2	...	3		
4 lbs. 7 ozs. to												
5 lbs. 8 ozs.	40	...	4	13	9	8	5	1	...	...		
2001-2500												
grams												
3 lbs. 5 ozs. to	30	...	8	10	6	...	4	2	...	...		
4 lbs. 6 ozs.												
1501-2000												
grams												
2 lbs. 3 ozs. to	51	1	6	13	11	13	5	2	...	...		
3 lbs. 4 ozs.												
1001-1500												
grams												
less than												
2 lbs. 3 ozs.												
less than												
1001 grams	72	1	12	28	20	6	4	...	...	1		
Unknown	70	1	12	23	12	12	8	...	...	2		
Total	343	3	52	102	73	59	41	7	...	...	6	

TABLE 6. MATERNAL DEATHS BY SPECIFIC CAUSE: 1955

Toxemias of pregnancy (642)	8
Ectopic pregnancy (645)	6
Other complications arising from pregnancy (648)	1
Total complications of pregnancy (640-649)	15
Abortion without mention of sepsis or toxemia (650)	2
Abortion with sepsis (651)	4
Total abortions (650-652)	6
Delivery without complication (660)	2
Total deliveries without complications (660)	2
Delivery complicated by placenta praevia or antepartum hemorrhage (670)	4
Delivery complicated by retained placenta (671)	1
Delivery complicated by other postpartum hemorrhage (672)	8
Delivery complicated by prolonged labor of other origin (675)	3
Delivery with other trauma (677)	3
Delivery with other complications of childbirth (678)	2
Total deliveries with specified complications (670-678)	21
Sepsis of childbirth and the puerperium (681)	2
Puerperal phlebitis and thrombosis (682)	1
Puerperal pulmonary embolism (684)	6
Puerperal eclampsia (685)	1
Other forms of puerperal toxemia (686)	2
Cerebral hemorrhage in the puerperium (687)	6
Other and unspecified complications of the puerperium (688)	2
Total complications of the puerperium (680-689)	20
Total Maternal Deaths	64



TABLE 6a. MATERNAL DEATHS BY CAUSE, COLOR AND AGE GROUPS: 1955

Cause* and Color	Age Groups			
	All Ages	15-24	25-44	45-64
Complications of pregnancy (640-649) .....	15	6	8	1
White .....	12	4	7	1
Nonwhite .....	3	2	1	..
Abortion (650-652) .....	6	..	6	..
White .....	1	..	1	..
Nonwhite .....	5	..	5	..
Delivery without complications (660) .....	2	1	1	..
White .....	2	1	1	..
Nonwhite .....	..	..	..	..
Delivery with specified complications (670-678) .....	21	2	19	..
White .....	19	2	17	..
Nonwhite .....	2	..	2	..
Complications of the puerperium (680-689) ..	20	5	15	..
White .....	16	4	12	..
Nonwhite .....	4	1	3	..
All causes (640-689) .....	64	14	49	1
White .....	50	11	38	1
Nonwhite .....	14	3	11	..

\* 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 reflect correctly the legal requirement for marriage in New Jersey.

Of the 40,327 married males, 4,245 or 10.5 per cent were less than 21 years of age and had to furnish parental consent. There were 2,243 or 5.6 per cent of the 40,327 females who, being under 18 years of age, had to receive consent.

Of the 4,245 males who were required to furnish parental consent, 173 or 4.1 per cent, being less than 18 years old, had to receive judicial approval of the parental consent. Of the 2,243 females under 18 years of age, 203 or 9.0 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.

From a study of Table 7a, one may make some interesting observations. In 29,840 marriages, or 74.3 per cent, both parties were single. Of those who had been married before, there was a fairly consistent pattern for both males and females in remarrying. In computing the following percentages, all unknown items were eliminated from the denominators. Of the 4,669 divorced males, 49.4 per cent married single women, 37.2 per cent married divorcees, and 13.4 per cent married widows. Of the 4,356 divorced females, 48.3 per cent married single males, 39.8 per cent married divorced males, and 11.9 per cent married widowers. Of the 2,431 widowers, 49.0 per cent married widows, 29.7 per cent married single females, and 21.3 per cent married divorcees. Of the 2,526 widows, 47.1 per cent married widowers, 28.1 per cent married single males, and 24.8 per cent married divorced males.

TABLE 7. MARRIAGES BY AGE GROUPS: 1945

WIFE'S AGE GROUP	HUSBAND'S AGE GROUP										Total									
	10-17		18-19		20		21-24		25-29			30-34		35-39	40-44	45-49	50-59	60-69	70 plus	
	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent		Judicial Consent	Parents' Consent							
10-15	40	71	31	51	10	23	10	10	10	10	10	10	10	10	10	10	10	10	10	208
16-17	83	0	3	7	189	23	189	189	189	189	189	189	189	189	189	189	189	189	189	7,040
18-19	55	1002	1035	8700	188	23	188	188	188	188	188	188	188	188	188	188	188	188	188	10,552
20-24	4	260	600	8240	5834	1074	5834	5834	5834	5834	5834	5834	5834	5834	5834	5834	5834	5834	5834	28,057
25-29	1	14	34	793	2597	1375	793	2597	2597	2597	2597	2597	2597	2597	2597	2597	2597	2597	2597	28,057
30-34	.....	.....	.....	300	568	924	300	568	924	924	924	924	924	924	924	924	924	924	924	13,148
35-39	.....	.....	.....	1	18	16	18	18	18	18	18	18	18	18	18	18	18	18	18	13,148
40-44	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10,422
45-49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12,255
50-59	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	14,111
60-69	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	529
70 plus	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	75
TOTAL	173	1003	2077	13716	10243	3971	2299	1053	12483	1672	990	276	40327							

TABLE 7a. MARRIAGES BY PREVIOUS MARITAL STATUS: 1955

Wife's Status	Husband's Status				
	Total	Single	Widowed	Divorced	Unknown
Single .....	33,225	29,840	722	2,308	355
Widowed .....	2,554	709	1,191	626	28
Divorced .....	4,397	2,103	518	1,735	41
Unknown .....	151	51	37	32	31
Total .....	40,327	32,703	2,468	4,701	455

TABLE 12. DEATHS FROM MALIGNANT NEOPLASMS BY SITE, SEX, COLOR AND AGE GROUPS; BENIGN AND UNSPECIFIED NEOPLASMS BY SEX, COLOR AND AGE GROUPS, 1965

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
<b>All Malignant</b>	140-205	9895	63	50	30	47	63	97	290	353	575	774	1177	1313	1569	1317	2128		
Total		5033	5	31	28	19	21	26	42	123	238	383	103	740	907	1440	1576		
White Male		4252	5	27	19	9	21	30	53	121	197	290	313	495	535	931	1040	1057	
White Female		271	1	1	1	1	2	1	1	2	2	3	3	3	4	5	11	519	
Nonwhite Male		247	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	
Nonwhite Female		247	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5	
<b>Lip</b>	140	9																	
Total		9																	
White Male		9																	
White Female																			
Nonwhite Male																			
Nonwhite Female																			
<b>Tongue</b>	141	77																	
Total		55																	
White Male		6																	
White Female		9																	
Nonwhite Male		1																	
Nonwhite Female		1																	
<b>Salivary Gland</b>	142	18																	
Total		9																	
White Male		9																	
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, 1965—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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
<b>Flavor of Mouth</b>	143	10																	
Total		9																	
White Male		1																	
White Female		1																	
Nonwhite Male																			
Nonwhite Female																			
<b>Other Parts of Mouth and Mouth Unspecified</b>	144	26																	
Total		22																	
White Male		3																	
White Female		1																	
Nonwhite Male																			
Nonwhite Female																			
<b>Oral Mesopharynx</b>	145	24																	
Total		22																	
White Male		1																	
White Female		1																	
Nonwhite Male																			
Nonwhite Female																			
<b>Nasopharynx</b>	146	15																	
Total		9																	
White Male		5																	
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: 1945—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	
		156	211	2	5	18	13	21	35	30	39	47	1	1	1	1	1	1	1	1
Liver, Secondary and Unspecified	Total	104	1	8	8	5	27	17	20	18	1	1	1	1	1	1	1	1	1	
	White Male	82	1	2	2	4	13	5	18	18	1	1	1	1	1	1	1	1	1	
	White Female	8	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	
	Nonwhite Female	7	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	
Pancreas	Total	490	7	17	15	98	51	62	72	68	118	1	1	1	1	1	1	1	1	
	White Male	233	1	6	8	17	22	30	32	27	33	4	4	4	4	4	4	4	4	4
	White Female	188	1	2	8	6	17	27	21	18	15	1	1	1	1	1	1	1	1	1
	Nonwhite Male	12	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Peritoneum	Total	31	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	White Male	17	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	White Female	13	1	1	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	1	1	
Unspecified Digestive Organs	Total	38	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	White Male	16	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	White Female	19	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Nonwhite Male	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	

TABLE 12. DEATHS FROM MALIGNANT NEOPLASMS BY SITE, SEX, COLOR AND AGE GROUPS; BENIGN AND UNSPECIFIED NEOPLASMS BY SEX, COLOR AND AGE GROUPS: 1945—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
		100	14	1	2	3	8	11	1	1	1	1	1	1	1	1	1	1	1
Nose, Nasal Cavities, Middle Ear and Accessory Sinuses	Total	100	1	2	3	8	11	1	1	1	1	1	1	1	1	1	1	1	1
	White Male	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	White Female	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Nonwhite Male	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Larynx	Total	97	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	White Male	84	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	White Female	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Nonwhite Male	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Trachea, Bronchus and Lung, Specified as Primary	Total	459	4	20	38	46	78	79	91	104	152	171	187	207	230	252	277	300	328
	White Male	359	2	11	17	21	32	32	47	50	58	67	70	80	88	96	107	118	128
	White Female	100	1	3	4	4	4	6	6	6	6	6	6	6	6	6	6	6	6
	Nonwhite Male	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lung and Bronchus, Unspecified as to Primary or Secondary	Total	789	1	14	10	35	68	143	141	164	133	103	108	117	125	132	140	148	155
	White Male	683	1	8	13	40	84	146	146	171	147	116	116	120	126	132	140	148	155
	White Female	108	1	6	1	3	8	16	16	16	16	16	16	16	16	16	16	16	16
	Nonwhite Male	98	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1





TABLE 12. DEATHS FROM MALIGNANT NEOPLASMS BY SITE, SEX, COLOR AND AGE GROUPS; BENIGN AND UNSPECIFIED NEOPLASMS BY SEX, COLOR AND AGE GROUPS; 1955—Continued

SITE, SEX AND COLOR	Last 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	
Eye	182	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Total	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
White Male	10	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
White Female	0																			
Nonwhite Male	0																			
Nonwhite Female	0																			
Brain and Other Parts of Nervous System	193	109	16	7	2	4	2	7	10	10	17	33	20	26	24	17	3	2	1	6
Total	109	16	7	2	4	2	7	10	10	17	33	20	26	24	17	3	2	1	6	
White Male	120	7	3	1	1	1	1	4	1	3	11	17	17	28	10	10	2	1	2	
White Female	73	7	4	1	1	1	1	3	6	7	11	11	11	7	8	7	1	1	2	
Nonwhite Male	0																			
Nonwhite Female	1	2	1							1		2								
Thyroid Gland	194	30	1	1	1	1	1	1	1	2	2	2	5	6	6	4	0	0	0	0
Total	30	1	1	1	1	1	1	1	1	2	2	2	5	6	6	4	0	0	0	
White Male	30																			
White Female	29									1	1	1	3	3	5	6	3	0	0	
Nonwhite Male	1																			
Nonwhite Female	1																			
Other Endocrine Glands	195	15	1	1	1	1	1	1	1	2	2	2	5	2	3	2	1	1	1	1
Total	15	1	1	1	1	1	1	1	1	2	2	2	5	2	3	2	1	1	1	1
White Male	10																			
White Female	5									2	2	2	5	1	3	2	1	1	1	1
Nonwhite Male	0																			
Nonwhite Female	0																			

TABLE 12. DEATHS FROM MALIGNANT NEOPLASMS BY SITE, SEX, COLOR AND AGE GROUPS; BENIGN AND UNSPECIFIED NEOPLASMS BY SEX, COLOR AND AGE GROUPS; 1955—Continued

SITE, SEX AND COLOR	Last 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
Bone, Including Jaw Bone	190	89	1	1	3	6	6	8	1	4	1	4	1	0	6	12	10	13	0
Total	89	1	1	3	6	6	8	1	4	1	4	1	0	6	12	10	13	0	
White Male	50	1	1	4	1	1	1	1	2	1	2	1	0	4	4	8	4	0	
White Female	29			2	1	5	2	1	1		1	0	4	4	4	5	3	0	
Nonwhite Male	2																		
Nonwhite Female	4											2	1			1			
Connective Tissue	197	30	1	2	2	1	1	1	2	1	2	1	2	2	4	4	6	6	
Total	30	1	2	2	1	1	1	2	1	2	1	2	2	4	4	6	6		
White Male	21			1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	
White Female	17			1	1	1	1	1	1	1	1	1	1	1	2	2	3	3	
Nonwhite Male	1																		
Nonwhite Female	1																		
Lymph Nodes, Secondary and Unspecified	198	14																	
Total	14																		
White Male	8																		
White Female	8																		
Nonwhite Male	0																		
Nonwhite Female	0																		
Other and Unspecified Sites	199	301		1	1	1	1	3	4	7	11	20	20	31	30	53	45	62	
Total	301		1	1	1	1	3	4	7	11	20	20	31	30	53	45	62		
White Male	158									5	5	11	10	10	50	23	51	51	
White Female	146									6	11	9	10	10	50	23	51	51	
Nonwhite Male	1									1	2	1	10	10	10	10	20	20	
Nonwhite Female	8									5	17	10	10	1	1	1	1	1	





TABLE 12a-1. DEATHS FROM NEOPLASMS BY SEX, COLOR AND AGE GROUPS FOR EACH SITE GROUP: 1955

AGE GROUPS	Malignant							Breast and Lymph and Blood (200-205)	Breast and Lymph and Blood (200-205)	Breast and Lymph and Blood (210-219)
	All Neoplasms (140-205)	Buccal Cavity and Pharynx (140-148)	Digestive Peritoneum (150-159)	Respiratory (160-165)	Breast and Genito-urinary (170-181)	Other and Unspecified (190-199)	Other and Unspecified (200-205)			
All Ages	9,971	231	3,906	1,393	2,673	828	775	165		
Under 1 yr.	15	0	4	...	2	2	2	5		
1-4	69	...	1	...	7	20	35	6		
5-14	50	...	...	...	4	15	30	6		
15-24	80	...	...	...	1	24	34	3		
25-44	774	23	171	67	15	102	128	32		
45-64	3,931	77	1,348	712	1,086	339	307	62		
65 plus	5,046	129	2,381	612	1,308	326	239	51		
Male	5,370	185	2,159	1,189	850	466	461	63		
Female	4,598	46	1,747	204	1,823	362	314	102		
White	9,425	216	3,715	1,326	2,502	797	729	140		
Nonwhite	546	15	191	67	171	31	46	25		

TABLE 12a-2. DEATHS FROM MALIGNANT NEOPLASMS: PERCENTAGE DISTRIBUTION BY AGE, SITE, SEX AND COLOR: 1955

AGE GROUPS	Total	Site Distribution by Age, Sex and Color							Breast and 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)	Other and Unspecified (190-199)	Breast and Lymph and Blood (200-205)		
All Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
Under 1 yr.	0.1	...	0.1	...	...	0.1	0.2	0.3	
1-4	0.9	...	<0.1	...	...	0.3	2.4	4.5	
5-14	0.5	...	...	...	...	0.1	1.8	3.9	
15-24	0.8	...	<0.1	...	...	0.1	2.9	4.4	
25-44	7.6	10.0	4.4	4.8	9.4	12.3	12.3	16.5	
45-64	39.5	33.3	34.5	51.1	40.6	41.0	41.0	39.6	
65 plus	50.9	53.8	61.0	43.9	48.9	39.4	39.4	30.8	
Male	54.2	80.1	55.3	85.4	31.8	56.3	56.3	59.5	
Female	45.8	19.9	44.7	14.6	68.2	43.7	43.7	40.5	
White	94.7	93.5	95.1	95.2	93.6	96.3	96.3	94.1	
Nonwhite	5.3	6.5	4.9	4.8	6.4	3.7	3.7	5.9	
Age, Sex and Color Distribution by Site									
All Ages	100.0	2.4	39.8	14.2	27.3	8.4	7.9		
Under 1 yr.	100.0	...	40.0	...	20.0	20.0	20.0		
1-4	100.0	...	1.6	...	11.1	31.7	55.6		
5-14	100.0	...	...	...	8.0	30.0	60.0		
15-24	100.0	2.6	1.3	2.0	19.5	31.2	44.1		
25-44	100.0	3.1	23.0	9.0	33.8	13.8	17.3		
45-64	100.0	2.0	34.8	18.4	28.1	8.8	7.9		
65 plus	100.0	2.6	47.7	12.2	26.2	6.5	4.8		
Male	100.0	3.5	40.6	22.4	16.0	8.8	8.7		
Female	100.0	1.0	38.9	4.5	40.5	8.1	7.0		
White	100.0	2.3	40.0	14.3	26.9	8.6	7.9		
Nonwhite	100.0	2.9	36.7	12.8	32.8	6.0	8.8		

TABLE 12a-3. MALIGNANT NEOPLASM DEATHS AND RATES SPECIFIC FOR AGE, SEX AND COLOR (PER 100,000 ESTIMATED POPULATION): 1955

Age Groups	Estimated Population(a)	Deaths		
		Number	Rate	S.E.(b)
All Ages .....	5,141,000	9,806	190.7	1.9
Under 5 yrs. ....	489,000	73	14.9	1.7
5-14 .....	704,000	50	7.1	1.0
15-24 .....	689,000	77	11.2	1.3
25-44 .....	1,671,000	742	44.4	1.6
45-64 .....	1,172,000	3,869	330.1	5.3
65 plus .....	416,000	4,995	1,200.7	17.0
Male .....	2,535,000	5,310	209.5	2.9
Female .....	2,606,000	4,496	172.5	2.6
White .....	4,797,000	9,285	193.6	2.0
Nonwhite .....	344,000	521	151.5	6.6

(a) Estimated population calculated as follows: total population is the excess of births over deaths from April 1, 1950 to July 1, 1955 added to the 1950 census count and rounded to the nearest thousand. Population breakdown by age groups, 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.

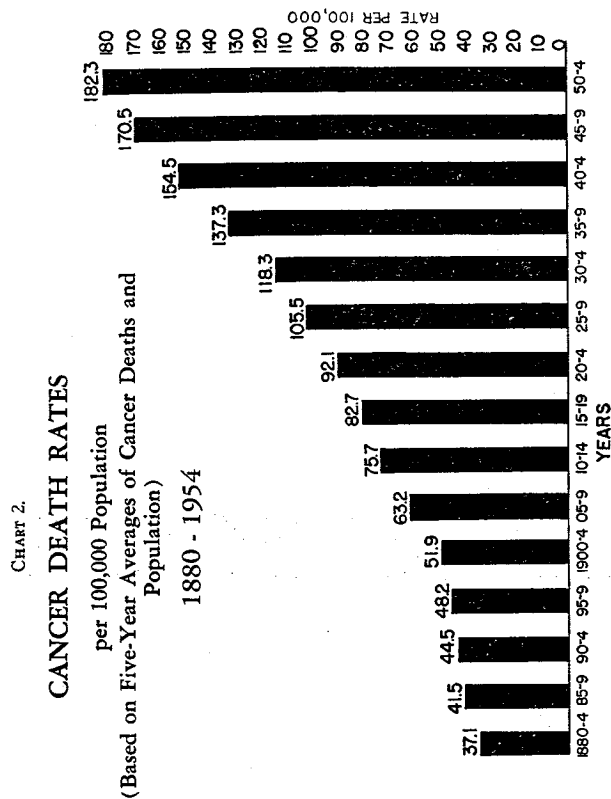


TABLE 13a-1. DEATHS IN NEW JERSEY FROM TRANSPORTATION ACCIDENTS BY CAUSE GROUPS AND MONTH OF DEATH: 1965  
International List (6th Revision) Numbers E800-866, E860

PRIMARY CAUSE	List No. E Code	MONTH OF DEATH												
		Total	January	February	March	April	May	June	July	August	September	October	November	December
Total		910	00	69	69	59	88	71	93	72	77	68	70	110
Railway accidents	800-869, 860	5	0	7	3	3	5	4	4	4	4	6	3	1
Motor vehicle accidents	800-861, 862	884	54	41	64	51	79	60	78	63	68	68	70	115
Water road vehicle accidents	840-845	3	..	..	..	..	..	..	..	..	..	..	..	..
Wrecking accidents	870-883	43	..	..	..	..	..	..	..	..	..	..	..	..
Aircraft accidents	890-898	7	..	..	..	..	..	..	..	..	..	..	..	..

TABLE 13a-2. DEATHS IN NEW JERSEY FROM NON-TRANSPORTATION ACCIDENTS BY CAUSE GROUPS AND MONTH OF DEATH: 1965  
International List (6th Revision) Numbers E870-969, E861-963

PRIMARY CAUSE	List No. E Code	MONTH OF DEATH												
		Total	January	February	March	April	May	June	July	August	September	October	November	December
Total		1319	108	114	92	97	101	90	168	135	60	85	111	120
Poisoning by solids and liquid substances	870-969	32	2	4	2	3	4	..	..	..	7	2	5	1
Poisoning by gases and vapors	870-988	42	4	6	4	4	2	3	..	..	4	4	2	6
Falls	880-885	627	48	50	45	52	53	43	69	56	53	61	52	68
Fire and explosion of combustible material	900-904	127	30	21	14	17	17	1	3	3	4	2	3	28
Wrecking	920-929	134	..	..	..	..	..	..	..	..	..	..	..	..
Drowning	930-939	151	0	3	5	0	10	22	45	28	8	8	5	9
Other causes	810-915, 817-924, 820-929, 948, 944-951, 951-952	200	14	21	17	15	10	23	42	37	14	12	22	24



TABLE 136. ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE OF DEATH AND TYPE OF ACCIDENT: 1955  
International List (6th Revision) Numbers E900-962

TYPES OF ACCIDENT	IMMEDIATE CAUSE										
	Total	Poisonous Gas and Smoke	Burns	Mechanical Suffocation	Drown- ing	Cutting or Piercing	Falls	Crushing, Fractures and Landlides	Electric Current	Foreign Bodies	Other Accidents
Total	2259	69	178	45	189	12	634	913	28	11	168
Home	839	52	140	39	14	..	481	67	6	11	83
Occupational motor vehicle	62	..	3	..	..	..	2	87	..	..	..
Public occupational motor vehicle	188	9	23	3	11	3	60	60	13	..	..
Public places non-occupational and non-motor vehicle	745	1	8	1	3	1	4	732	..	..	..
Non-motor vehicle	356	7	8	2	159	1	84	49	8	..	38
Not specified (motor vehicle)	43	..	1	..	2	..	5	7	..	..	28
Not specified (other)	1	..	..	..	..	..	1	..	..	..	..

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 137. ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE OF DEATH AND COUNTY OF ACCIDENT: 1955  
International List (6th Revision) Numbers E900-962

	IMMEDIATE CAUSE										
	Total	Poisonous Gas and Smoke	Burns	Mechanical Suffocation	Drown- ing	Cutting or Piercing	Falls	Crushing, Fractures and Landlides	Electric Current	Foreign Bodies	Other Accidents
Atlantic County	104	3	6	2	17	..	15	54	..	..	7
Bergen County	181	3	8	4	11	3	62	74	2	..	14
Burlington County	85	1	3	1	14	..	16	47	..	1	2
Camden County	127	3	14	..	9	..	33	54	3	..	6
Cumberland County	69	..	6	4	11	1	32	28	..	..	6
Essex County	352	4	31	9	7	..	170	77	6	..	29
Gloucester County	63	1	8	3	3	1	10	39	1	..	3
Hudson County	115	1	19	1	16	2	7	16	..	2	11
Hunterdon County	115	..	9	3	10	1	18	40	6	..	6
Mercer County	170	7	12	9	15	1	40	83	3	..	6
Middlesex County	137	6	17	6	16	2	20	62	2	..	8
Monmouth County	107	2	11	1	11	..	17	43	..	..	5
Ocean County	70	2	8	1	10	..	4	33	..	..	6
Passaic County	131	9	8	1	10	..	46	36	..	..	22
Salem County	28	2	3	2	..	..	4	17	..	..	..
Somerset County	31	..	4	1	6	1	12	11	1	..	2
Sussex County	113	6	6	2	..	..	40	53	..	..	7
Warren County	33	..	2	2	1	..	5	22	1	..	4
State Institutions	10	..	..	..	..	..	4	..	..	..	2
Other States	9	1	1	1	3	..	3	3	1	..	2
Unknown	11	..	..	..	..	..	1	1	..	..	8
Total	2259	69	178	45	189	12	634	913	28	11	168

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 18. RESIDENT INFANT DEATHS BY CAUSE AND AGE GROUPS: 1955

Cause of Death Showing International List (6th Revision) Numbers	Total Infant Deaths	Less than 1 Day	1 Day but less than 1 Week		1 Week but less than 28 Days		28 Days and Over
			< 1 Week	< 1 Week	< 28 Days	< 28 Days	
ALL CAUSES (001-037, 600-699) .....	2954	1161	810	249	743		
Infectious diseases (001-038) .....	55	1	...	...	17		
Diseases of other embryonic tissues (039-041) .....	10	...	...	...	30		
Diseases of the nervous system and sense organs (350-398) .....	27	1	7	4	269		
Diseases of the respiratory system (470-527) .....	272	...	3	...	269		
Diseases of the digestive system (530-587) .....	56	...	...	...	78		
Congenital anomalies (600-699) .....	483	313	116	5	178		
Certain diseases of early infancy (700-760) .....	1010	512	375	101	222		
Birth injuries (700, 701) .....	302	207	78	12	115		
Postnatal asphyxia and atelectasis (702) .....	548	233	233	18	15		
Pneumonia of the newborn (703) .....	127	30	1	11	1		
Other diseases of the newborn (704-709) .....	15	1	3	...	...		
Other infections of the newborn (704-709) .....	...	...	...	...	...		
Other diseases peculiar to early infancy (770-776) .....	13	3	10	...	...		
Idiopathic disease of the newborn (770) .....	838	518	288	30	23		
Other diseases of the newborn (771) .....	8	4	30	2	2		
Malnutrition (772) .....	31	...	...	...	...		
Ill-defined diseases of early infancy (773) .....	8	...	...	...	...		
Immaturity unqualified (774-776) .....	327	68	63	11	7		
Symptoms and ill-defined conditions (780-783) .....	614	411	162	23	8		
Abortion (800-802) .....	75	1	2	2	68		
Inhalation .....	...	...	...	...	...		
Accidental or suffocation (802), and other objects causing accidental mechanical suffocation in bed or cradle (802A) .....	22	...	...	...	1		
All other accidental causes (800-802, 802B, 802C, 802D) .....	21	7	...	4	28		
All other causes .....	60	...	...	...	19		

\* On the basis of studies made, it has been found that diagnoses in these categories are subject to error unless substantiated by careful autopsy.

## DISCUSSION OF TABLES 18 AND 18a.

In 1955, New Jersey acquired 120,969 live born babies. During the same year, the State lost by death 2,954 infants. This loss occurred at the rate of 24 infants for each 1,000 live births.

The accompanying table presents the 2,954 infant deaths by cause and by age groups. Causes have not been divided into those with and without public health significance, as in previous years. Instead, the major cause groupings of the International Statistical Classification of Diseases and Causes of Death (sixth revision) were followed. Detailed causes have been indicated for deaths due to Certain Diseases of Early Infancy (Major Group XV of the International Statistical Classification) and for certain accidental deaths. It will be noted that in the 1955 table individual items in Major Group XV have been grouped together rather than with related causes appearing in other Major Groups, as in previous years.

The individual cause to which the greatest number of deaths was charged was immaturity unqualified. There were 624 deaths or 21 per cent of all deaths under one year assigned to this cause. The greatest number of these deaths (411) occurred to infants less than one day old while 161 occurred to those who were one day old but less than one week old.

Postnatal asphyxia and atelectasis was the second most important single cause of death for New Jersey infants in 1955. It was responsible for 548 deaths or slightly more than 18 per cent of the 2,954 infant deaths which occurred during the year. More than one-half of the infants whose deaths were charged to this cause were under one day old and over 93 per cent were under one week old. Immaturity was indicated on 66 per cent or 362 of the 548 death certificates for babies whose deaths were due to postnatal asphyxia and atelectasis.

As a result of congenital malformations 483 infants died. This represents 16 per cent of all deaths under one year of age. Slightly less than one-half of these deaths occurred to infants less than one week old.

Considered together, the 272 infant deaths charged to diseases of the respiratory system and the 127 deaths due to pneumonia of the newborn represent another group of causes of particular concern. While pneumonia of the newborn took the lives of infants under 28 days primarily, diseases of the respiratory system took the lives of infants 28 days and older. Of the 127 deaths due to pneumonia of the newborn, 126 occurred to infants less than 28 days old. Of the 272 deaths due to diseases of the respiratory system, 269 were of infants 28 days and older.

More than 10 per cent of all infant deaths in 1955 were charged to birth injuries. There were 302 deaths due to this cause, with 207 of these occurring to babies less than one day old.

In 1955, accidents accounted for 75 infant deaths. Seventy-two per cent of these deaths were due to the following causes:

- a. Accidental mechanical suffocation in bed and cradle (32 deaths).
- b. Inhalation and ingestion of food or other object (22 deaths).

Of the 75 accidental deaths, 68 occurred to infants 28 days old and over.

If New Jersey's live born babies die, they experience death early in their brief existence. Of the 2,954 deaths which occurred in 1955 to infants under one year of age, 1,161 or slightly more than 39 per cent died when they were less than a day old. Approximately 75 per cent or 2,211 infants died when they were less than a week old. Death certificates for these 2,211 infants indicated immaturity in 1,334 cases.

Additional information is given in the following table. The importance of the note pertaining to the table should not be overlooked.

TABLE 18a.

## INFANT DEATHS BY AGE AND MATURITY: 1955

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 .....	1,161	39.3	796	58.9	365	22.8
< 1 week .....	1,971	66.7	1,252	92.6	719	44.9
< 28 days .....	2,211	74.8	1,334	98.7	877	54.7
< 1 year .....	2,954	100.0	1,352	100.0	1,602	100.0

Note: Certain Diseases of Early Infancy (International Statistical Classification, Major Group XV, Code Numbers 760-776) is the only group which gives an opportunity to determine immaturity on the basis of the physician's statements in the medical certification on the death certificate.

TABLE 19. PRINCIPAL CAUSES OF DEATH BY AGE GROUPS; NUMBERS AND RATES: 1955

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Population	
			1955	1954
			1955	1954
1	Diseases of the circulatory system (400-468) .....	25,306	492.2	462.6
2	Malignant neoplasms (140-205) .....	9,806	190.7	187.4
3	Vascular lesions (330-334) .....	5,022	97.7	96.6
4	All accidents (E800-E962) .....	2,150	41.8	41.3
5	Influenza, pneumonia and bronchitis (480-502) .....	1,470	28.6	24.4
6	Immaturity unqualified and diseases with immaturity (774-776, 760-774 with 0.5 or more) .....	1,332	26.3	24.5
7	Diabetes (260) .....	1,139	22.2	21.8
8	Cirrhosis of liver (561) .....	855	16.6	14.9
9	Congenital malformations (750-759) .....	604	11.7	12.5
10	Nephritis and nephrosis (590-594) .....	582	11.3	11.3
11	Tuberculosis (001-019) .....	570	11.1	11.0
	All other .....	5,199	101.1	101.4
	Total deaths .....	54,035	1051.3*	1060.7*

\* Rates usually expressed as deaths per 1,000 population. On this basis crude death rates for 1955 and 1954 are 10.5 and 10.1.

## UNDER 1 YEAR

Rank	Cause and Code Numbers	Number of Deaths	Rate per 1,000 Live Births	
			1955	1954
			1955	1954
1	Immaturity unqualified (774-776) .....	824	5.2	4.9
2	Postnatal asphyxia and atelectasis (762) .....	548	4.5	4.9
3	Congenital malformations (750-759) .....	483	4.0	4.2
4	Pneumonia and pneumonia of the newborn (490-498, 763) .....	361	3.0	2.1
5	Birth injuries (700-761) .....	302	2.5	2.3
6	Diseases of the digestive system including diarrhea of newborn (530-557, 764) .....	114	0.9	0.9
7	Hemolytic disease of the newborn (770) .....	78	0.6	0.6
8	All accidents (E800-E962) .....	75	0.6	0.6
	All other .....	369	3.1	3.1
	Total deaths .....	2,954	24.4	23.6

## 1-4 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Population	
			1955	1954
			1955	1954
1	All accidents (E800-E962) .....	93	23.5	23.6
2	Malignant neoplasms (140-205) .....	63	15.9	15.1
3	Influenza, pneumonia, and bronchitis (480-502) .....	60	15.2	13.7
4	Congenital malformations (750-759) .....	48	12.1	13.3
5	Gastritis, duodenitis, enteritis and colitis (543, 571, 572) .....	13	3.8	5.9
	All other .....	120	30.3	38.5
	Total deaths .....	399	100.5*	115.1*

\* Rates usually expressed as deaths per 1,000 population. On this basis, age specific death rates for 1955 and 1954 are 1.0 and 1.2.

TABLE 19. PRINCIPAL CAUSES OF DEATH BY AGE GROUPS;  
NUMBERS AND RATES: 1955—Continued

5-14 YEARS				
Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Population	
			1955	
			1955	1954
1	All accidents (E800-E962)	136	19.3	17.3
2	Malignant neoplasms (140-205)	50	7.1	8.3
3	Influenza, pneumonia, and bronchitis (480-502)	26	3.7	2.2
4	Congenital malformations (750-759)	20	2.8	2.2
5	Acute poliomyelitis (090)	11	1.6	1.0
6	Vascular lesions (330-334)	10	1.4	1.4
7	Diseases of the circulatory system (400-468)	10	1.4	3.0
	All other	105	14.9	14.1
	Total deaths	368	52.2*	49.5*

\* Rates usually expressed as deaths per 1,000 population. On this basis, age specific death rates for 1955 and 1954 are 0.5 and 0.5.

## 15-24 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Population	
			1955	
			1955	1954
1	All accidents (E800-E962)	203	29.5	29.7
2	Malignant neoplasms (140-205)	77	11.2	7.8
3	Diseases of the circulatory system (400-468)	36	5.2	5.6
4	Nephritis and nephrosis (590-594)	22	3.2	1.8
5	Influenza, pneumonia and bronchitis (480-502)	16	2.3	1.8
6	Suicide (970-979)	16	2.3	3.3
	All other	133	22.1	23.3
	Total deaths	523	75.8*	72.5*

\* Rates usually expressed as deaths per 1,000 population. On this basis, age specific death rates for 1955 and 1954 are 0.8 and 0.7.

## 25-44 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Population	
			1955	
			1955	1954
1	Diseases of the circulatory system (400-468)	925	55.4	57.6
2	Malignant neoplasms (140-205)	742	44.4	40.8
3	All accidents (E800-E962)	427	25.6	25.4
4	Vascular lesions (330-334)	161	9.6	7.0
5	Cirrhosis of liver (581)	158	9.4	7.3
6	Tuberculosis (001-019)	127	7.6	7.3
7	Suicide (970-979)	102	6.1	8.3
8	Nephritis and nephrosis (590-594)	81	4.8	5.7
9	Influenza, pneumonia and bronchitis (480-502)	81	4.8	5.0
10	Homicide (960-963)	60	3.6	3.9
	All other	554	33.1	34.0
	Total deaths	3,418	204.4*	202.3*

\* Rates usually expressed as deaths per 1,000 population. On this basis, age specific death rates for 1955 and 1954 are 2.0 and 2.0.

TABLE 19. PRINCIPAL CAUSES OF DEATH BY AGE GROUPS;  
NUMBERS AND RATES: 1955—Continued

45-64 YEARS				
Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Population	
			1955	
			1955	1954
1	Diseases of the circulatory system (400-468)	7,087	604.7	596.0
2	Malignant neoplasms (140-205)	3,574	330.5	323.0
3	Vascular lesions (330-334)	1,140	97.3	104.2
4	All accidents (E800-E962)	836	43.7	39.8
5	Cirrhosis of the liver (581)	430	36.7	34.9
6	Diabetes (260)	323	27.7	30.4
7	Influenza, pneumonia and bronchitis (480-502)	251	21.4	19.6
8	Tuberculosis (001-019)	246	21.6	19.7
9	Suicide (970-979)	206	17.6	18.4
10	Ulcer of stomach and duodenum (540-541)	183	15.6	15.0
11	Nephritis and nephrosis (590-594)	179	15.3	17.1
	All other	1,065	92.6	97.1
	Total deaths	15,542	1326.1*	1315.2*

\* Rates usually expressed as deaths per 1,000 population. On this basis, age specific death rates for 1955 and 1954 are 13.3 and 13.2.

## 65 YEARS AND OVER

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Population	
			1955	
			1955	1954
1	Diseases of the circulatory system (400-468)	17,238	4143.8	3784.9
2	Malignant neoplasms (140-205)	4,900	1190.5	1106.6
3	Vascular lesions (330-334)	3,655	885.8	862.0
4	Influenza, pneumonia, and bronchitis (480-502)	785	188.7	151.1
5	Diabetes (260)	767	184.4	169.1
6	All accidents (E800-E962)	650	163.5	175.9
7	Nephritis and nephrosis (590-594)	288	69.2	59.6
8	Cirrhosis of liver (581)	262	63.0	55.0
9	Intestinal obstruction and hernia (580, 581, 570)	199	47.8	44.0
10	Ulcer of stomach and duodenum (540-541)	187	45.0	47.4
11	Tuberculosis (001-019)	182	43.8	43.5
	All other	1,588	381.7	363.0
	Total deaths	30,881	7416.2*	6955.1*

\* Rates usually expressed as deaths per 1,000 population. On this basis, age specific death rates for 1955 and 1954 are 74.2 and 69.6.

Prepared by the Division of Vital Statistics and Administration, New Jersey State Department of Health, December 4, 1956.

















TABLE 20. DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST (6th REVISION), FOR THE STATE BY SEX, COLOR AND AGE GROUPS: 1958—Continued

CAUSE OF DEATH	Total		White		Nonwhite		Age Groups									
	Total	Male	Female	Male	Female	Male	Female	5-14		15-24		25-44		45-64	65+	Unknown
								Male	Female	Male	Female	Male	Female			
E888. Accidental poisoning by lead and its compounds	1	1														
E889. Accidental poisoning by arsenic and its compounds	1															
E887. Accidental poisoning by fluorides	1															
E888. Accidental poisoning by other and unspecified solid and liquid substances	5	2	1	2												
E800. Accidental poisoning by acetylene (acetylening) gas	22	15	7	1												
E802. Accidental poisoning by motor vehicle gas	2	2														
E801. Accidental poisoning by other carbon monoxide gas	7	5	2													
E803. Accidental poisoning by cyanide gas	2	2														
E805. Accidental poisoning by other specified gases and vapours	3	3														
E806. Accidental poisoning by unspecified gases and vapours	2	1	1													
E901. Fall from ladders	132	62	53	7	1	1										
E902. Other falls from one level to another	143	81	40	8	1	1										
E904. Unspecified falls	142	88	78	6	1	1										
E910. Blow from falling object	209	177	121	3	8											
E911. Accident caused by vehicle	14	14														
E912. Accident caused by machinery	21	17	4													
E914. Accident caused by electric current	25	20	1	2												
E915. Accident caused by explosion of pressure vessel	2	2														
E916. Accident caused by fire and explosion of combustible material	172	66	51	8	2											
E917. Accident caused by hot substance, corrosive liquid and steam	19	11	3	8												
E918. Accident caused by firearm	22	18	2	2												
E920. Foreign body entering eye and adnexa	22	16	6	6												
E921. Ingestion and ingestion of food causing obstruction or suffocation	20	10	6	1	21	2	1	1	1	1	1	1	1	1	1	1
E922. Suffocation and ingestion of other object causing obstruction or suffocation	4	2	1	1												
E923. Foreign body entering other orifice	7	4	3													
E924. Accidental mechanical suffocation in bed and cradle	83	10	6	6	32	1	1	1	2	3	1					
E925. Accidental mechanical suffocation in other and unspecified circum-	3	1	1	1												
E926. Lack of care of infants, children, aged persons, animals and insects	5	2	2													
E928. Other accidents caused by animals	134	91	26	22	1	8	30	36	32	21	20	12				
E929. High and low air-water and submersion	16	8	5	2	1	1										
E931. Excessive heat and imobilation	9	8	2	4												
E932. Excessive cold	1	1														
E933. Hunger, thirst and exposure	1	1														
E934. Choking	20	10	9	1												
E933. Lightning	1	1														
E896. Other and unspecified accidents	84	25	5	2	2	2	3	5	1	4	10	8				
E904. Generalised vaccinia following vaccination																
E905. Ocular vaccinia																
E942. Post-immunisation conjunctivitis																
E943. Post-immunisation furunculosis																
E944. Other complications of prophylactic inoculation	1	1														
E945. Complications of anaesthesia for nontherapeutic purpose																
E946. Complications due to nontherapeutic medical and surgical procedures																
E960. Therapeutic misadventure in surgical treatment	24	6	11	3	6	1										
E961. Therapeutic misadventure in infusion or transfusion																
E962. Therapeutic misadventure in local applications																
E963. Therapeutic misadventure in administration of drugs or biologicals																
E965. Other and unspecified therapeutic misadventures																
E966. Late complication of surgical operation																
E968. Late complication of amputation stump																
E969. Late complications of operation or of treatment																
E980. Late effect of motor vehicle accident																
E981. Late effect of other accidental injury	6	2	4													
E983. Late effect of other accidental injury	1	1														
E984. Late effect of injury purposely inflicted by another person (not in war)	1	1														
E985. Late effects of injuries due to war operations	1	1														
E916. Suicide and self-inflicted poisoning by antiseptic and septic substances	19	9	10													
E971. Suicide and self-inflicted poisoning by other solid and liquid substances	13	7	7													
E972. Suicide and self-inflicted poisoning by gases in domestic use	33	17	10	1	1											
E974. Suicide and self-inflicted poisoning by other gases	44	24	10	1	1											
E975. Suicide and self-inflicted injury by hanging and strangulation	149	117	30	1	1											
E976. Suicide and self-inflicted injury by firearms and firearms (including air guns and air pistols)	10	7	3	2	1											
E974. Suicide and self-inflicted injury by cutting and piercing instruments	18	10	11	3												
E977. Suicide and self-inflicted injury by jumping from high places	24	16	7	5												
E978. Suicide and self-inflicted injury by other and unspecified means	6	6	1	1												
E989. Nonaccidental poisoning by another person	1	1														
E981. Assault by cutting and piercing instruments	31	4	9	22	4											
E982. Assault by other means	29	10	17	10	8											
E984. Injury by intervention of police	39	10	10	1	3											
E986. Execution	2	1	1													
E986. Injury due to war operations by gas and chemicals	5	2														
E901. Injury due to war operations by gunshot																
E989. Injury due to war operations by grenade and hand mine																
E984. Injury due to war operations by marine mine, depth charge and torpedoes																
E906. Injury due to war operations by explosion of artillery shell																
E907. Injury due to war operations by explosion of undetermined origin	1	1														
E908. Injury due to war operations by other means																
E900. Injury due to war operations but occurring after cessation of hostilities																
Grand Total	54055	27671	22108	2363	1863	2044	300	395	523	3418	13542	30381				

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF ATLANTIC COUNTY FOR 1965  
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	691-738	Infective and parasitic diseases	346	137	157	12	12	0	2	2	4	17	11	11	11
B2	900-938	Protozoal diseases	15	7	5	0	0	0	0	0	1	1	1	0	0
B3	010-019	Tuberculosis, other forms	310	153	125	9	9	0	1	1	26	113	10	2	0
B4	020-029	Syphilis and its sequelae	363	151	121	18	13	13	1	1	10	115	107	1	0
B5	040	Eyebold fever	10	4	4	4	1	1	1	1	1	5	4	4	4
B6	050-059	Dysentery, all forms	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
B8	055	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1
B9	068	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
B10	087	Respiratory infections	4	1	1	1	1	1	1	1	1	1	1	1	1
B11	089	Respiratory infections	4	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
B13	084	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1
B14	085	Mumps	1	1	1	1	1	1	1	1	1	1	1	1	1
B15	100-108	Cyprus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	1	1
B16	110-117	Other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	1	1
B17		Residual (030-039, 041, 042, 044, 049, 052-053, 050-074, 081-083, 086-096, 120-133)	5	1	2	2	2	2	2	2	2	2	2	2	2
B18	140-239	Neoplasms	210	133	125	10	10	10	10	10	10	10	10	10	10
B19	240-249	Malignant neoplasms	363	151	121	18	13	13	1	1	10	115	107	1	0
B20	200	Diabetes mellitus	50	21	30	2	2	2	2	2	2	2	2	2	2
B21	200-209	Diseases of the blood and blood-forming organs	40	12	24	1	1	1	1	1	1	1	1	1	1
B22	200-203	Anemias	10	9	6	1	1	1	1	1	1	1	1	1	1
B23	200-203	Residual (204-209)	30	3	2	2	2	2	2	2	2	2	2	2	2
B24	800-920	Mental, psychoneurotic and personality disorders	219	84	86	14	14	14	14	14	14	14	14	14	14
B25	930-939	Diseases of the nervous system and sense organs	294	80	81	13	24	24	24	24	24	24	24	24	24
B26	930-934	Diseases of the eye	14	8	8	1	1	1	1	1	1	1	1	1	1
B27	430-434	Arteriosclerotic heart disease	54	42	33	8	7	7	7	7	7	7	7	7	7
B28	440-443	Other diseases of heart	21	10	5	3	3	3	3	3	3	3	3	3	3
B29	440-447	Hypertension with heart disease	110	32	51	11	10	10	10	10	10	10	10	10	10
B30	440-447	Hypertension without mention of heart	15	4	7	2	2	2	2	2	2	2	2	2	2
B31	470-527	Diseases of the respiratory system	58	10	23	12	12	12	12	12	12	12	12	12	12
B32	480-483	Influenza	1	1	1	1	1	1	1	1	1	1	1	1	1

B31	490-493	Pneumonia	47	19	18	10	8	7	7	6	2	11	26	26
B32	500-502	Bronchitis	6	3	4	1	1	1	1	1	1	3	11	11
B33	590-597	Diseases of the digestive system	85	42	27	11	5	5	5	5	7	36	38	
B34	550-553	Diseases of the stomach and duodenum	18	11	5	2	2	2	2	2	2	5	13	
B35	500, 501, 570	Intestinal obstruction and hernia	4	3	2	1	1	1	1	1	1	2	1	
B36	548, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	7	3	2	1	1	1	1	1	1	2	1	
B37	581	Residual (530-539, 642, 644, 645, 673-675, 680, 682-687)	35	17	10	8	8	8	8	8	8	8	8	
B38	590-599	Diseases of the genito-urinary system	14	7	8	1	1	1	1	1	1	4	8	
B39	590-594	Nephritis and nephrosis	18	9	6	1	1	1	1	1	2	6	10	
B40	610	Residual (595-599)	4	4	4	4	4	4	4	4	4	4	4	
B41	610-680	Pregnancy, childbirth and the puerperium	1	1	1	1	1	1	1	1	1	1	1	
B42	720-749	Diseases of the skin and cellular tissue	1	1	1	1	1	1	1	1	1	1	1	
B43	750-759	Diseases of the bones and organs of movement	13	6	5	2	2	2	2	2	2	2	2	
B44	760-762	Congenital malformations	18	14	6	4	4	4	4	4	4	4	4	
B45	763-768	Birth injuries, neonatal asphyxia and septicemia	2	1	1	1	1	1	1	1	1	1	1	
B46	769-778	Other diseases peculiar to early infancy and immaturity	2	1	1	1	1	1	1	1	1	1	1	
B47	780-795	Sturdy unqualified conditions	27	13	9	6	6	6	6	6	6	6	6	
B48	800-802	Accidents, poisonings and violence	85	42	27	10	5	5	5	5	5	10	33	
B49	810-835	Motor vehicle accidents	27	12	11	2	2	2	2	2	2	2	2	
B4A	830-865	All other accidents except falls	22	12	2	6	2	2	2	2	2	2	2	
B4B	870-879	Falls	10	10	8	1	1	1	1	1	1	2	12	
B4C	880-883	Suicide	4	2	1	1	1	1	1	1	1	1	1	
B4D	890-893	Homicide	4	2	1	1	1	1	1	1	1	1	1	
B4E	900-909	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	
B4F	910-919	ALL CAUSES	1992	881	713	177	151	151	151	78	12	10	84	928

July 1, 1935, Estimated Population, 137,000. Total Resident Deaths, 1,992. Rate per 1,000 Population, 13.9.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF ATLANTIC CITY FOR 1935  
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			85+
										15-24	25-44	45-64	
B1	001-138	Infective and parasitic diseases	23	6	1	10	6	1	1	2	14	4	
B2	001-008	Tuberculosis of respiratory system	13	5	1	5	2	1		1	1	1	
B3	001-019	Tuberculosis, other forms	1	1									
B4	040-029	Typhoid fever and its sequels	7	1		4	2			1	4	2	
B5	043	Cholera											
B6	043-048	Dysentery, all forms											
B7	050-051	Scarlet fever and streptococcal sore throat											
B8	055	Whooping cough											
B9	055	Whooping cough											
B10	057	Measles	1										
B11	088	Scarlet polymyositis											
B12	089	Scarlet polymyositis											
B13	085	Smallpox											
B14	085	Smallpox											
B15	100-108	Typhus and other rickettsial diseases											
B16	110-117	Malaria											
B17	050-039, 041, 042, 044, 046, 052-054, 056-074, 081-083, 086-090, 120-138)	Residual	1										
B18	140-230	Malignant neoplasms	145	63	54	13	11	1		10	55	77	1
B19	210-230	Benign and unspecified neoplasms	12	6	3	1	1	1		10	64	76	
B20	280	Allergic, endocrine system, metabolic and nutritional diseases	27	8	15	2	2	1		2	6	14	4
B21	290-293	Diseases of the blood and blood-forming organs	21	6	13	1	1			2	1	4	2
B22	300-326	Residual (291-299)	8	3	1	1				1	1	2	
B23	330-395	Diseases of the nervous system	110	43	40	6				2	25	58	
B24	400-468	Diseases of the circulatory system (340-357, 396-389, 370-389, 390-398)	111	39	43	9	20			6	23	53	
B25	410-416	Rheumatic fever	8	4	3		1				6	1	
B26	420-422	Chronic rheumatic heart disease	510	210	176	64	60			11	148	300	
B27	430-443	Arteriosclerotic and degenerative heart disease	13	6	8		2			1	1	2	
B28	440-444	Other diseases of heart disease	306	174	181	40	42			8	114	274	
B29	444-447	Hypertension without mention of heart disease	8	1	5	2				2	17	42	
B30	470-537	Residual (450-466, 460-468)	10	18	1	10				2	6	9	
B30	480-483	Diseases of the respiratory system	24	7	10	8	7			2	9	11	
B30	480-483	Influenza	30	7	8	8	4			1	9	11	
B31	490-493	Pneumonia	24	7	1	6				2	6	11	
B32	580-592	Residual (470-475, 510-527)	3	5	1	1				1	1	1	
B33	540-541	Diseases of the digestive system	45	20	11	0	6			4	22	16	
B34	550-567	Ulcer of stomach and duodenum	2	1	1					1	1	1	
B35	560-561	Hypertrophic pyloric stenosis	1										
B36	548, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	0	2	2								
B37	581	Cirrhosis of liver	24	11	5	8				3	15	0	
B38	590-637	Diseases of the genito-urinary system	15	7	1	1	2			1	1	3	
B39	600-604	Nephritis and nephrosis	13	7	1	2	2			1	1	3	
B40	610	Hypertrophic cystitis	9	4	2	1	2			1	1	4	
B40	640-680	Diseases of the skin and cellular tissue	2	1									
B41	730-749	Diseases of the bones and organs of movement	4	2	2								
B42	750-759	Congenital malformations	2	2									
B43	760-782	Birth injuries, postnatal asphyxia and miscellaneous infections of the newborn	18	7	6	5	2			18	2	2	
B44	769-776	Other diseases peculiar to early infancy and immature persons, including influenza and pneumonia	0	2	2								
B45	790-798	Accidental poisoning and violence	18	5	6	1	1			1	1	2	
B46	800-809	Motor vehicle accidents	4	1	2					1	1	2	
B47	830-835	All other accidents except falls	8	14	10	1	1			4	9	20	
BE48A	850-856	Falls	12	4	2	4	2			1	1	0	
BE48B	850-856	Falls	11	7	8					1	1	2	
BE49	870-879	Suicide	1	2	4					1	2	0	
BE50A	890-895	Homicide	3	1	1							4	
BE50B	896-909	Police intervention, execution and operations of war	1	1	1							3	
001-999	ALL CAUSES	Total Resident Deaths, 1935.	881	392	340	128	123	36	4	8	46	292	698

July 1, 1935, Estimated Population, 62,000.

Total Resident Deaths, 1931.

Rate per 1,000 Population, 15.3.



TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF BURLINGTON COUNTY FOR 1935  
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail 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		
															22	11
B1	001-138	Infective and parasitic diseases	22	10	8	8	1	1	1	1	1	1	1	1	1	1
B12	001-008	Tuberculosis of respiratory system	11	5	4	1	1	1	1	1	1	1	1	1	1	1
B13	001-009	Tuberculosis of other forms	6	2	2	2	2	2	2	2	2	2	2	2	2	2
B14	020-020	Spinal and listeriosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B15	043	Typhoid fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B16	043-043	Cholera	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B17	043-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B18	051-051	Dysentery, shigellosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B19	053	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B20	087	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B21	087	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B22	088	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B23	088	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B24	084	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B25	085	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B26	100-108	Typhus and other tick-borne diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B27	100-117	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B28	140-259	Neoplasms (200-009, 011, 042, 044, 049, 062-074, 081-088, 086-090, 120-138)	3	2	1	1	1	1	1	1	1	1	1	1	1	1
B29	140-205	Malignant neoplasms	150	72	67	8	7	6	6	6	6	6	6	6	6	6
B30	210-270	Benign and unspecified neoplasms	240	138	102	10	10	10	10	10	10	10	10	10	10	10
B31	240-280	Alberic, endocrine system, metabolic and nutritional diseases	9	2	0	2	2	2	2	2	2	2	2	2	2	2
B32	200	Diseases of the circulatory system	300	13	22	22	1	1	1	1	1	1	1	1	1	1
B33	200-200	Diseases of the blood and blood-forming organs	31	9	21	1	1	1	1	1	1	1	1	1	1	1
B34	200-203	Anemias	2	2	2	2	2	2	2	2	2	2	2	2	2	2
B35	300-326	Diseases of the neurologic and personality disorders	7	6	6	2	2	2	2	2	2	2	2	2	2	2
B36	330-336	Diseases of the eye and ear	143	67	87	8	7	6	6	6	6	6	6	6	6	6
B37	340	Nonmeningeal meningitis	6	6	6	6	6	6	6	6	6	6	6	6	6	6
B38	400-402	Chronic rheumatic heart disease	8	8	8	8	8	8	8	8	8	8	8	8	8	8
B39	420-422	Arteriosclerotic and degenerative heart disease	480	200	280	29	15	1	1	1	1	1	1	1	1	1
B40	430-434	Other diseases of heart	68	29	39	7	6	6	6	6	6	6	6	6	6	6
B41	444-447	Myocardial infarction with heart disease	39	11	28	1	1	1	1	1	1	1	1	1	1	1
B42	470-527	Diseases of the respiratory system	47	25	22	10	8	8	8	8	8	8	8	8	8	8
B43	480-488	Influenza	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B44	500-502	Pneumonia	20	21	13	2	2	2	2	2	2	2	2	2	2	2
B45	530-587	Diseases of the digestive system	2	2	2	2	2	2	2	2	2	2	2	2	2	2
B46	540-541	Ulcer of stomach and duodenum	44	25	19	1	1	1	1	1	1	1	1	1	1	1
B47	560-563	Appendicitis	6	3	3	3	3	3	3	3	3	3	3	3	3	3
B48	571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	13	5	8	2	2	2	2	2	2	2	2	2	2	2
B49	581	Cholelithiasis	13	8	5	1	1	1	1	1	1	1	1	1	1	1
B50	590-597	Diseases of the genito-urinary system	20	5	15	5	5	5	5	5	5	5	5	5	5	5
B51	590-594	Nephritis and nephrosis	10	16	10	1	1	1	1	1	1	1	1	1	1	1
B52	610	Hyperplasia of prostate	2	2	2	2	2	2	2	2	2	2	2	2	2	2
B53	610-680	Diseases of the kidney and bladder	5	4	1	1	1	1	1	1	1	1	1	1	1	1
B54	620-710	Diseases of the bones and organs of movement	2	2	2	2	2	2	2	2	2	2	2	2	2	2
B55	720-740	Congenital malformations	2	1	1	1	1	1	1	1	1	1	1	1	1	1
B56	750-770	Certain diseases of early infancy	63	31	32	4	4	4	4	4	4	4	4	4	4	4
B57	780-785	Other diseases of the respiratory system	24	12	12	2	2	2	2	2	2	2	2	2	2	2
B58	785-770	Other diseases peculiar to early infancy and immaturity unqualified	3	3	3	3	3	3	3	3	3	3	3	3	3	3
B59	790-795	Symptomatic and ill-defined conditions	20	10	10	6	6	6	6	6	6	6	6	6	6	6
B60	800-805	Motor vehicle accidents	87	3	1	1	1	1	1	1	1	1	1	1	1	1
B61	805-807	All other accidents except falls	15	7	8	1	1	1	1	1	1	1	1	1	1	1
B62	808-809	Falls	29	10	19	3	3	3	3	3	3	3	3	3	3	3
B63	810-815	Suicide	7	7	7	7	7	7	7	7	7	7	7	7	7	7
B64	815-819	Homicide	15	1	1	1	1	1	1	1	1	1	1	1	1	1
B65	820-829	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B66	901-999	ALL CAUSES	1392	704	688	73	47	82	14	14	15	105	352	800	1	1

July 1, 1935, Estimated Population, 149,000.

Total Resident Deaths, 1,392.

Rate per 1,000 Population, 9.5.







TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF CAPE MAY COUNTY FOR 1935  
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			65+	
											15-24	25-44	45-64		
B1	001-133	Infective and parasitic diseases	4	3	1	3	1	1	2	6	37	60	2	2	12
B12	014-019	Tuberculosis of respiratory system	2	1	1	1	1	1	2	1	4	30	08	1	1
B3	020-029	Tuberculosis, other forms	1	1	1	1	1	1	1	1	1	1	1	1	1
B4	040	Syphilis and its sequelae	1	1	1	1	1	1	1	1	1	1	1	1	1
B5	048	Cholera	1	1	1	1	1	1	1	1	1	1	1	1	1
B6	044-046	Dysentery, all forms	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
B8	068	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1
B9	067	Meningococcal infections	1	1	1	1	1	1	1	1	1	1	1	1	1
B10	087	Plague	1	1	1	1	1	1	1	1	1	1	1	1	1
B11	088	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	1	1	1
B12	089	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1
B13	088	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1
B14	088	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1
B15	100-103	Typhoid fever	1	1	1	1	1	1	1	1	1	1	1	1	1
B16	110-117	Malaria and other febrile diseases	1	1	1	1	1	1	1	1	1	1	1	1	1
B17	140-239	Residual (030-039, 041, 042, 044, 046, 062-064, 069-074, 081-083, 086-088, 120-123)	117	54	54	63	3	3	1	2	6	37	60	2	2
B18	140-205	Neoplasms	114	53	53	60	6	6	1	2	4	30	08	1	1
B19	210-239	Benign and unspecified neoplasms	13	1	1	2	1	1	1	1	1	1	1	1	1
B20	240	Alteric, endocrine system, metabolic and nutritional diseases	15	4	4	9	1	1	1	1	1	1	1	1	1
B21	290-299	Diabetes mellitus	12	5	5	7	2	2	1	1	1	1	1	1	1
B22	290-299	Hypertension	11	5	5	6	1	1	1	1	1	1	1	1	1
B23	340	Anemias	1	1	1	1	1	1	1	1	1	1	1	1	1
B24	400-468	Residual (234-239)	345	169	169	123	1	1	1	1	1	1	1	1	1
B25	410-416	Chronic rheumatic heart disease	3	2	2	3	1	1	1	1	1	1	1	1	1
B26	420-422	Arterio-sclerotic and degenerative heart disease	25	16	16	21	1	1	1	1	1	1	1	1	1
B27	430-434	Other diseases of heart	8	5	5	8	1	1	1	1	1	1	1	1	1
B28	440-442	Myocardial infarction	50	31	31	37	3	3	2	1	1	1	1	1	1
B29	444-447	Residual (450-468, 480-486)	3	2	2	3	1	1	1	1	1	1	1	1	1
B30	470-527	Infarction with heart disease	27	12	12	16	1	1	1	1	1	1	1	1	1
B31	480-483	Diseases of the respiratory system	50	14	14	22	2	2	1	1	1	1	1	1	1

B31	480-483	Pneumonia	19	9	9	11	1	1	1	1	1	1	1	1	1
B32	500-502	Bronchitis	2	1	1	1	1	1	1	1	1	1	1	1	1
B33	530-537	Diseases of the digestive system	25	16	16	17	2	2	1	1	1	1	1	1	1
B34	540, 541	Ulcer of stomach and duodenum	7	7	7	7	1	1	1	1	1	1	1	1	1
B35	560-563	Appendicitis	1	1	1	1	1	1	1	1	1	1	1	1	1
B36	590, 591, 570	Intestinal obstruction and hernia	4	4	4	4	1	1	1	1	1	1	1	1	1
B37	534, 571, 572	Enteritis and colitis, except diarrhea of newborn	2	2	2	2	1	1	1	1	1	1	1	1	1
B38	581	Cirrhosis of liver	10	6	6	7	2	2	1	1	1	1	1	1	1
B39	582-587	Residual (530-539, 642, 644, 645, 578-578, 580-582-587)	1	1	1	1	1	1	1	1	1	1	1	1	1
B40	610-659	Diseases of the genitourinary system	1	1	1	1	1	1	1	1	1	1	1	1	1
B41	660-664	Nephritis and nephrosis	1	1	1	1	1	1	1	1	1	1	1	1	1
B42	670-676	Hyperplasia of prostate	1	1	1	1	1	1	1	1	1	1	1	1	1
B43	700-709	Pregnancy, childbirth and the puerperium	3	1	1	1	1	1	1	1	1	1	1	1	1
B44	710-719	Diseases of the bones and organs of movement	3	1	1	1	1	1	1	1	1	1	1	1	1
B45	720-729	Congenital malformations	4	4	4	4	1	1	1	1	1	1	1	1	1
B46	730-739	Certain diseases of early infancy	15	4	4	6	3	2	1	1	1	1	1	1	1
B47	740-749	Birth injuries, postnatal asphyxia and atelectasis	4	2	2	1	1	1	1	1	1	1	1	1	1
B48	750-759	Other diseases of the newborn	1	1	1	1	1	1	1	1	1	1	1	1	1
B49	760-769	Other diseases of the newborn to early infancy and infancy	11	2	2	5	2	2	1	1	1	1	1	1	1
B50	770-779	Symptoms, senility and ill-defined conditions	8	4	4	3	3	3	3	3	3	3	3	3	3
B51	780-786	Accidents, poisonings and violence	24	14	14	6	4	4	1	1	1	1	1	1	1
B52	790-799	Motor vehicle accidents	10	6	6	3	3	3	1	1	1	1	1	1	1
B53	800-809	All other accidents except falls	9	6	6	2	1	1	1	1	1	1	1	1	1
B54	810-819	Falls	3	1	1	1	1	1	1	1	1	1	1	1	1
B55	820-829	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	1
B56	830-839	Homicide	1	1	1	1	1	1	1	1	1	1	1	1	1
B57	840-849	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	1
B58	850-859	ALL CAUSES	677	355	270	338	19	19	24	3	5	24	157	461	461

July 1, 1935, Estimated Population, 37,000.

Total Resident Deaths, 677.

Rate per 1,000 Population, 18.3.





















TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF JERSEY CITY FOR 1935 Classified by International Abridged List of Causes (8th Revision)

Table with columns for Abridged List No., Detail List No., CAUSE GROUPS, Total, White (Male/Female), Nonwhite (Male/Female), Age Groups by Years (<1, 1-4, 5-14, 15-24, 25-44, 45-64, 65+), and Unknown.

Table with columns for Abridged List No., Detail List No., CAUSE GROUPS, Total, White (Male/Female), Nonwhite (Male/Female), Age Groups by Years (<1, 1-4, 5-14, 15-24, 25-44, 45-64, 65+), and Unknown.

July 1, 1935, Estimated Population, 314,000. Total Resident Deaths, 3,393. Rate per 1,000 Population, 10.8.



TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF HUNTERDON COUNTY FOR 1955 Classified by International Abridged List of Causes (6th Revision)

Table with columns: Abridged List No., Detail List No., CAUSE GROUPS, Total, White (Male/Female), Nonwhite (Male/Female), Age Groups by Years (<1, 1-4, 5-14, 15-24, 25-44, 45-64, 65+ Unknown), and Rate per 1,000 Population.

July 1, 1955, Estimated Population, 45,000. Total Resident Deaths, 524. Rate per 1,000 Population, 11.6.









TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF MONMOUTH COUNTY FOR 1935  
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	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
			Male	Female	Male	Female									
B1	001-135	Infective and parasitic diseases	31	14	5	4							7	14	6
B1	001-008	Tuberculosis of respiratory system	12	6	3	3							4	3	5
B2	009-010	Diphtheria	1	1	1	1							1	1	1
B3	020-020	Syphilis and its sequelae	2	2	1	1							1	0	1
B4	040	Typhoid fever	6	6	1	1									
B5	048	Cholera													
B6	045-045	Dysentery, all forms													
B7	060-061	Scarlet fever and streptococcal sore throat													
B8	068	Diphtheria													
B9	066	Whooping cough													
B10	057	Meningococcal infections													
B11	088	Frigit													
B12	084	Erysipelas													
B13	081	Smallpox													
B14	085	Measles	1	1											
B15	100-106	Typhus and other rickettsial diseases													
B16	110-111	Residual (830-833, 841, 842, 844, 849, 852-854)	8	3	4	1	2	5	2	3	25	20	2	4	4
B18	10-239	Neoplasms	540	270	213	20	21	1	5	2	3	24	20	205	255
B19	140-239	Malignant neoplasms	533	274	228	20	21	1	5	2	3	24	20	203	253
B20	210-239	Benign neoplasms	7	2	6								1	2	2
B21	240-289	Allergic, endocrine system, metabolic and nutritional diseases	60	23	32	1	4	1					5	10	34
B22	290	Diabetes mellitus	52	10	20	1	3	1					4	15	32
B23	299-299	Diseases of the blood and blood-forming organs	8	4	3								1	4	2
B24	300-320	Anemia	16	8	5								2	3	7
B25	330-336	Residual (291-299)	6	4	3	1	1						2	2	5
B26	300-320	Mental, psychoneurotic and personality disorders	8	5	2								2	5	11
B27	330-336	Diseases of the nervous system and sense organs	271	144	144	6	12	1	2	1	3	8	53	203	
B28	330-336	Neuronal lesions affecting central nervous system	250	98	138	5	9	1	1	1	7	47	105		
B29	330-336	Residual (331-335, 330-337, 330-339, 370-389, 390-398)	21	8	14	1	2	1	1	1	1	1	6	11	6
B30	400-468	Diseases of the circulatory system	1431	724	605	64	1	1					40	342	1050
B31	400-402	Ischemic thrombotic heart disease	2	1	1								2	1	3
B32	400-402	Arteriosclerotic heart disease	30	12	15								6	13	8
B33	420-424	Other diseases of heart	110	57	53	2	2	1	1	2	2	2	27	20	89
B34	430-434	Other diseases of heart	30	15	15	3	2	1	1	1	1	1	2	6	13
B35	430-434	Residual (435-439)	20	10	10	2	1	1	1	1	1	1	2	5	8
B36	440-443	Hypertension with heart disease	160	77	71	11	10						6	95	123
B37	444-447	Hypertension without mention of heart	19	9	6	3	3						2	2	15
B38	470-527	Diseases of the respiratory system	35	48	29	3	7						2	17	33
B39	480-483	Influenza	1	1									1	1	5

B31	490-493	Pneumonia	57	24	19	2	6	12	1	1	1	1	1	3	7	34
B32	500-502	Residual (470-473, 510-527)	20	5	2	2	1	1	1	1	1	1	1	1	1	14
B33	530-537	Diseases of the digestive system	65	45	37	4	3	6	1	1	1	1	1	1	1	16
B34	530-537	Ulcers of stomach and duodenum	24	13	9	2	2	1	1	1	1	1	1	1	1	13
B35	550-553	Appendicitis	6	6												2
B36	600, 561, 570	Intestinal obstruction and hernia	6	6												2
B37	543, 571, 572	Dysentria, duodenitis, enteritis and colitis, except (Cholera, shigellosis, amebiasis)	10	5	3	2	1	3	1	1	1	1	1	2	4	4
B38	581	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	32	10	10									6	17	9
B39	600-637	Diseases of the genitourinary system	22	19	10									3	6	12
B40	600-637	Residual (600-609, 611-617, 620-626, 630-637)	11	12	1									1	2	11
B41	640-689	Pregnancy, childbirth and the puerperium	2	2	2									1	1	4
B42	690-718	Diseases of the bones and organs of movement	3	3	3									1	1	4
B43	720-740	Congenital malformations	31	17	10	2	3	2	2	5	6			1	1	1
B44	700-702	Certain diseases of early infancy and childhood	4	4	4									1	1	1
B45	700-702	Birth injuries, postnatal asphyxia and tetanus	9	4	4									1	1	1
B46	703-708	Infections of the newborn	49	27	12	2	6	40	1	1	1	1	1	2	2	2
B47	703-708	Other diseases peculiar to early infancy and immaturity	8	8	8									1	1	1
B48	709-718	Symptoms, senility and ill-defined conditions	15	8	7	20	14	8	5	11	12	3	7	13	12	13
B49	800-809	Accidents, poisonings and violence	48	32	27	7	7	7	8	7	4	8	12	8	12	8
B50	810-815	Motor vehicle accidents	54	29	10	8	7	7	8	7	4	8	12	8	12	8
B51	820-829	All other accidents except falls	21	9	9	2	1	1	1	1	1	1	1	1	1	1
B52	830-835	Falls	24	16	7	3	8							1	1	1
B53	836-839	Homicide	9	1	2									1	1	1
B54	840-849	Suicide	9	1	2									1	1	1
B55	850-859	Police intervention, execution and operations of war	1	1	1									1	1	1
B56	860-869	ALL CAUSES	2960	1457	1181	139	153	105	20	20	28	160	783	1782		

Rate per 1,000 Population, 1932.

Total Resident Deaths, 2,030.

July 1, 1935, Estimated Population, 240,000.



TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF OCEAN COUNTY FOR 1955  
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	25-64	65+	Unknown		
B1	001-138	Infective and parasitic diseases	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B2	001-139	Diseases of respiratory system	4	5	3	1	1	1	1	1	1	1	1	1	1	1	
B3	010-010	Tuberculosis	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B4	020-029	Syphilis and its sequelae	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B5	040	Typhoid fever	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B6	045	Cholera	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B7	045-048	Shigellosis	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B8	050-061	Other enteric and enterocolitiform diseases	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B9	065	Diphtheria	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B10	067	Whooping cough	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B11	068	Meningococcal infections	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B12	070	Plague	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B13	084	Scarlet fever	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B14	085	Measles	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B15	100-108	Typhus and other rickettsial diseases	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B16	110-117	Malaria	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
B17	030-074	Neoplasms (6th rev. 015, 042, 044, 049, 052-054, 056-074, 081-082, 086-086, 120-185)	102	2	2	0	4	4	1	1	1	1	1	1	1	1	1
B18	140-239	Malignant neoplasms	102	2	2	0	4	4	1	1	1	1	1	1	1	1	1
B19	240-255	Benign and unspecified neoplasms	188	0	0	0	0	0	1	1	1	1	1	1	1	1	1
B20	260-289	Alleged, endocrine system, metabolic and nutritional diseases	15	4	4	0	0	0	1	1	1	1	1	1	1	1	1
B21	290-299	Diabetes mellitus	22	7	7	14	14	1	1	1	1	1	1	1	1	1	1
B22	300-320	Diseases of the blood and blood-forming organs	15	4	4	0	0	0	1	1	1	1	1	1	1	1	1
B23	330-398	Mental, psychoneurotic and personality disorders	93	41	41	47	3	2	1	1	1	1	1	1	1	1	1
B24	400-402	Diseases of the nervous system and sense organs	94	40	40	45	3	2	1	1	1	1	1	1	1	1	1
B25	410-419	Neuronal lesions affecting central nervous system	94	40	40	45	3	2	1	1	1	1	1	1	1	1	1
B26	420-429	Residual (331-345, 350-357, 360-369, 370-389, 390-398)	430	240	240	172	13	5	1	1	1	1	1	1	1	1	1
B27	430-434	Diseases of the circulatory system	349	1	1	4	4	1	1	1	1	1	1	1	1	1	1
B28	440-443	Ischemic (heart) disease	349	1	1	4	4	1	1	1	1	1	1	1	1	1	1
B29	444-447	Other diseases of heart	41	19	19	2	2	1	1	1	1	1	1	1	1	1	1
B30	470-527	Hypertension without mention of heart	23	10	10	11	5	2	1	1	1	1	1	1	1	1	1
		Residual (430-465, 460-468)	31	21	21	8	1	1	1	1	1	1	1	1	1	1	1
		Influenza	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
B31	400-493	Pneumonia	21	14	14	5	1	1	1	1	1	1	1	1	1	1	1
B32	500-502	Bronchitis	10	7	7	10	10	1	1	1	1	1	1	1	1	1	1
B33	530-537	Diseases of the digestive system	24	13	13	6	6	1	1	1	1	1	1	1	1	1	1
B34	540-541	Ulcer of stomach and duodenum	6	6	6	0	0	0	1	1	1	1	1	1	1	1	1
B35	550-559	Intestinal obstruction and hernia	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B36	560-570	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	3	2	2	3	3	1	1	1	1	1	1	1	1	1	1
B37	581	Cirrhosis of liver	2	2	2	3	3	1	1	1	1	1	1	1	1	1	1
B38	590-597	Diseases of the genito-urinary system	7	2	2	5	8	2	1	1	1	1	1	1	1	1	1
B39	600-594	Nephritis and nephrosis	18	8	8	6	6	1	1	1	1	1	1	1	1	1	1
B40	610	Hyperplasia of prostate	10	3	3	2	2	1	1	1	1	1	1	1	1	1	1
B41	620-629	Residual (608-610, 611-617, 620-629, 630-637)	5	5	5	2	2	1	1	1	1	1	1	1	1	1	1
B42	700-710	Diseases of the bones and cellular tissue	1	1	1	0	0	0	1	1	1	1	1	1	1	1	1
B43	720-749	Congenital malformations	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1
B44	750-760	Certain malformations of bones and organs of movement	28	21	21	6	1	1	1	1	1	1	1	1	1	1	1
B45	770-782	Injury of the newborn	13	9	9	4	4	1	1	1	1	1	1	1	1	1	1
B46	790-798	Other diseases peculiar to early infancy and immature unqualified	5	4	4	5	5	1	1	1	1	1	1	1	1	1	1
B47	800-809	Symptoms, senility and ill-defined conditions	10	8	8	2	2	0	0	0	0	0	0	0	0	0	0
B48	810-819	Accidents (excluding motor vehicle accidents)	65	35	35	21	8	2	1	1	1	1	1	1	1	1	1
B49	820-829	All other accidents except falls	28	18	18	8	2	2	1	1	1	1	1	1	1	1	1
B50	830-839	Falls	10	0	0	7	5	1	1	1	1	1	1	1	1	1	1
B51	840-849	Fire	6	4	4	4	4	1	1	1	1	1	1	1	1	1	1
B52	850-859	Self-inflicted injuries	14	12	12	2	2	1	1	1	1	1	1	1	1	1	1
B53	860-869	Suicide	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B54	870-879	Homicide	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B55	880-889	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B56	890-899	ALL CAUSES	901	504	504	355	29	15	42	5	7	11	50	221	508	508	

July 1, 1955. Estimated Population, 90,000. Total Resident Deaths, 901. Rate per 1,000 Population, 15.0.



TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF GLIFTON FOR 1965 Classified by International Abridged List of Causes (6th Revision)

Table with columns: Abridged List No., Detail List No., Cause Groups, Total, White (Male, Female), Nonwhite (Male, Female), and Age Groups by Years (<1, 1-4, 5-14, 15-24, 25-44, 45-64, 65+). Rows include categories like Infective and parasitic diseases, Neoplasms, Circulatory diseases, etc.

Rate per 1,000 Population, 8.1.

Total Resident Deaths, 665.

July 1, 1965. Estimated Population, 70,000.

ALL CAUSES

Continuation of Table 22 with Abridged List No. B31-B50 and corresponding Cause Groups, Total, White, Nonwhite, and Age Groups data.





TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF PATERSON CITY FOR 1965  
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSAL GROUPS	Total		White		Nonwhite		Age Groups by Years					
			Total	Male	Female	Male	Female	<1	1-4	5-14			65+	
										15-24	25-44	45-64		Unknown
B1	001-138	Infective and parasitic diseases	21	13	4	8	1	5	1	1	1	1	1	1
B2	001-139	Diseases of respiratory system	11	7	4	2	1	1	1	1	1	1	1	1
B3	010-018	Tuberculosis	4	3	1	1	1	1	1	1	1	1	1	1
B4	020-029	Spallitis and its sequelae	4	4	0	0	0	0	0	0	0	0	0	0
B5	040	Typhoid fever	1	1	0	0	0	0	0	0	0	0	0	0
B6	048	Cholera	0	0	0	0	0	0	0	0	0	0	0	0
B7	060-071	Zydenery, all forms	0	0	0	0	0	0	0	0	0	0	0	0
B8	080-088	Dysentery, bacillary, shigellosis, amebic and streptococcal sore throat	0	0	0	0	0	0	0	0	0	0	0	0
B9	090-091	Whooping cough	0	0	0	0	0	0	0	0	0	0	0	0
B10	097	Meningococcal infections	2	2	0	0	0	0	0	0	0	0	0	0
B11	098	Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0
B12	099	Scarlet fever	0	0	0	0	0	0	0	0	0	0	0	0
B13	084	Smallpox	0	0	0	0	0	0	0	0	0	0	0	0
B14	085	Measles	0	0	0	0	0	0	0	0	0	0	0	0
B15	100-108	Typhus and other rickettsial diseases	0	0	0	0	0	0	0	0	0	0	0	0
B16	110-117	Malaria (000-000, 012, 044, 046, 062-054, 059-074, 081-083, 089-098, 130-135)	0	0	0	0	0	0	0	0	0	0	0	0
B17	140-239	Neoplasms	306	102	124	1	1	1	1	1	1	1	1	1
B18	140-205	Malignant neoplasms	205	130	126	6	6	6	6	6	6	6	6	6
B19	210-239	Benign and unspecified neoplasms	101	72	98	1	1	1	1	1	1	1	1	1
B20	240-289	Diseases of the endocrine system, metabolic and nutritional diseases	5	3	2	1	1	1	1	1	1	1	1	1
B21	300-320	Diabetes mellitus	7	37	32	1	1	1	1	1	1	1	1	1
B22	330-334	Diseases of the blood and blood-forming organs	5	1	4	2	2	2	2	2	2	2	2	2
B23	340	Leukemias (330-339)	3	3	0	0	0	0	0	0	0	0	0	0
B24	400-468	Mental, psychoneurotic and personality disorders	751	399	359	24	19	19	19	19	19	19	19	19
B25	410-416	Diseases of the nervous system and sense organs	22	8	11	1	1	1	1	1	1	1	1	1
B26	420-422	Chronic rheumatic heart disease	0	0	0	0	0	0	0	0	0	0	0	0
B27	430-432	Arteriosclerotic and degenerative heart disease	620	332	287	15	12	12	12	12	12	12	12	12
B28	440-443	Hypertension with heart disease	14	6	8	0	0	0	0	0	0	0	0	0
B29	444-447	Hypertension without mention of heart disease	14	3	11	0	0	0	0	0	0	0	0	0
B30	470-557	Residual (480-486, 490-498)	40	23	16	1	1	1	1	1	1	1	1	1
B30	480-488	Diseases of the respiratory system	59	28	25	8	8	8	8	8	8	8	8	8

B31	480-488	Pneumonia	47	22	20	3	2	2	2	2	2	2	2	2
B32	500-502	Bronchitis	6	6	4	0	0	0	0	0	0	0	0	0
B33	530-557	Residual (470-475, 510-527)	15	4	10	1	1	1	1	1	1	1	1	1
B34	560-563	Diseases of the digestive system	7	4	3	1	1	1	1	1	1	1	1	1
B35	570-571	Appendicitis	2	1	1	0	0	0	0	0	0	0	0	0
B36	580, 601, 670	Intestinal obstruction and hernia	7	6	1	1	1	1	1	1	1	1	1	1
B37	613, 671, 672	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	5	1	4	1	1	1	1	1	1	1	1	1
B37	681	Residual (630-639, 642, 644, 645, 673-676, 680, 682-687)	37	26	11	2	1	1	1	1	1	1	1	1
B38	690-697	Diseases of the genito-urinary system	32	3	6	0	0	0	0	0	0	0	0	0
B39	690-694	Nephritis and nephrosis	12	14	10	4	3	3	3	3	3	3	3	3
B40	610	Residual (600-609, 611-617, 629-630, 630-637)	16	5	5	5	5	5	5	5	5	5	5	5
B41	640-689	Pregnancy, childbirth and the puerperium	3	0	0	0	0	0	0	0	0	0	0	0
B42	700-716	Diseases of the skin and cellular tissue	0	0	0	0	0	0	0	0	0	0	0	0
B43	720-726	Diseases of internal organs of movement	16	3	12	1	1	1	1	1	1	1	1	1
B44	730-739	Congenital malformations	67	23	14	13	7	67	67	67	67	67	67	67
B45	740-772	Certain diseases of early infancy	19	9	3	3	3	3	3	3	3	3	3	3
B46	780-788	Birth injuries, postnatal asphyxia and atelectasis	2	0	0	0	0	0	0	0	0	0	0	0
B47	790-796	Infections of the newborn (except meningitis and tetanus)	30	14	10	2	2	2	2	2	2	2	2	2
B48	800-809	Intoxication due to drugs, infection and trauma	62	41	19	5	3	3	3	3	3	3	3	3
B49	810-815	Symptoms, senility and ill-defined conditions	10	7	2	2	2	2	2	2	2	2	2	2
B50	820-829	Accidents, poisonings and violence	20	14	2	4	4	4	4	4	4	4	4	4
B51	830-835	Motor vehicle accidents	20	14	2	4	4	4	4	4	4	4	4	4
B52	840-845	All other accidents except falls	0	0	0	0	0	0	0	0	0	0	0	0
B53	850-859	Falls	23	12	10	1	1	1	1	1	1	1	1	1
B54	860-864	Suicide	2	1	1	0	0	0	0	0	0	0	0	0
B55	870-879	Police intervention, execution and operations of war	0	0	0	0	0	0	0	0	0	0	0	0
B56	880-889	ALL CAUSES	1968	881	679	72	54	80	7	0	16	83	441	1022

July 1, 1965, Estimated Population, 146,000.

Total Resident Deaths, 1,668.

Rate per 1,000 Population, 11.5.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF SALLEM COUNTY FOR 1935  
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	601-138	Infective and parasitic diseases	6	2	2	1	1	1	1	1	1	1	1	1	1	3
B2	010-010	Diseases of the respiratory system	2	1	1	1	1	1	1	1	1	1	1	1	1	1
B3	030-029	Tuberculosis, other torus	3	1	1	1	1	1	1	1	1	1	1	1	1	2
B4	040-040	Syphilis and its sequelae	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B5	040-048	Typhoid fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B6	050-045	Dysentery	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B7	060-061	Cholera	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B8	060-062	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B9	065-065	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B10	067-067	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B11	068-068	Meningococcal infections	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B12	069-069	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B13	069-069	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B14	069-069	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B15	100-108	Measles and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B16	110-117	Malaria (030-039, 041-042, 044-049, 050-054, 059-074, 081-083, 085-096, 120-123)	68	35	28	8	2	2	2	2	2	2	2	2	2	2
B18	140-239	Neoplasms	68	35	28	8	2	2	2	2	2	2	2	2	2	2
B19	210-239	Malignant neoplasms	68	35	28	8	2	2	2	2	2	2	2	2	2	2
B20	240-239	Benign and unaged neoplasms	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B21	250-235	Diseases of the endocrine system, metabolic and nutritional diseases	12	8	8	8	1	1	1	1	1	1	1	1	1	1
B22	260-260	Diabetes mellitus	9	2	2	1	1	1	1	1	1	1	1	1	1	1
B23	300-326	Diseases of the blood and blood-forming organs	3	1	1	1	1	1	1	1	1	1	1	1	1	1
B24	400-402	Rheumatic fever	3	2	2	1	1	1	1	1	1	1	1	1	1	1
B25	410-413	Chronic rheumatic heart disease	5	3	3	3	1	1	1	1	1	1	1	1	1	1
B26	420-422	Chronic degenerative heart disease	10	8	6	4	1	1	1	1	1	1	1	1	1	1
B27	430-442	Other diseases of heart	22	7	12	8	1	1	1	1	1	1	1	1	1	1
B28	440-443	Hypertension with heart disease	2	1	1	1	1	1	1	1	1	1	1	1	1	1
B29	444-447	Hypertension without mention of heart	3	1	1	1	1	1	1	1	1	1	1	1	1	1
B30	470-527	Residual (430-460, 460-468)	9	8	8	0	1	1	1	1	1	1	1	1	1	1
B31	480-483	Influenza	2	1	1	1	1	1	1	1	1	1	1	1	1	1

July 1, 1935, Estimated Population, 53,000. Total Resident Deaths, 476. Rate per 1,000 Population, 9.0.

B31	490-493	Pneumonia	21	10	7	4	1	1	1	1	1	1	1	1	1	1
B32	500-502	Brucellosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B33	540-541	Residual (470-475, 610-627)	3	2	2	2	1	1	1	1	1	1	1	1	1	1
B34	580-587	Diseases of the digestive system	18	8	2	2	1	1	1	1	1	1	1	1	1	1
B35	590-593	Ulcer of stomach and duodenum	4	2	2	2	1	1	1	1	1	1	1	1	1	1
B36	590-593	Appendicitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B37	543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	5	1	2	2	1	1	1	1	1	1	1	1	1	1
B38	581	Diarrhea of liver	4	2	2	2	1	1	1	1	1	1	1	1	1	1
B39	590-594	Diseases of the genito-urinary system	4	2	2	2	1	1	1	1	1	1	1	1	1	1
B40	610-630	Nephritis and nephrosis	9	6	3	3	1	1	1	1	1	1	1	1	1	1
B41	700-749	Diseases of the skin and cellular tissue	2	2	2	2	1	1	1	1	1	1	1	1	1	1
B42	750-776	Diseases of the bones and organs of movement	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B43	780-788	Certain diseases of early infancy	2	1	1	1	1	1	1	1	1	1	1	1	1	1
B44	790-776	Other diseases peculiar to early infancy and immaturity unqualified	4	1	1	1	1	1	1	1	1	1	1	1	1	1
B45	790-795	Symptoms, senility and ill-defined conditions	10	4	6	1	1	1	1	1	1	1	1	1	1	1
B46	800-802	Motor vehicle accidents	3	13	2	2	1	1	1	1	1	1	1	1	1	1
B47	810-805	All other accidents except falls	13	9	2	2	2	2	2	2	2	2	2	2	2	2
B48	820-805	Falls	4	2	1	1	1	1	1	1	1	1	1	1	1	1
B49	830-833	Suicide	5	4	1	1	1	1	1	1	1	1	1	1	1	1
B50A	830-833	Homicide	4	1	1	1	1	1	1	1	1	1	1	1	1	1
B50B	830-833	Police intervention, execution and operations of war	4	1	1	1	1	1	1	1	1	1	1	1	1	1
B50C	830-833	All other causes	470	222	104	84	20	32	4	2	9	33	115	284	284	284











TABLE 23. TABULATION OF DEATHS OF RESIDENTS OF INSTITUTIONS FOR 1935  
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															
B2	001-139	Tuberculosis of respiratory system															
B3	010-019	Tuberculosis, other forms															
B4	040-029	Syphilis and its sequelae															
B5	043	Cholera															
B6	045-048	Dysentery, all forms															
B7	050, 061	Scarlet fever and streptococcal sore throat															
B8	055	Diphtheria															
B9	057	Whooping cough															
B10	057	Meningococcal infections															
B11	058	Acute poliomyelitis															
B12	060	Smallpox															
B13	061	Measles															
B14	061	Scarlet fever															
B15	100-108	Malaria															
B16	110-117	Residual (690-699, 041, 042, 044, 046, 052-054, 800-807, 951-953, 988-996, 120-168)	4	3	1												
B17	140-220	Residual (294-299)	1	1													
B18	140-205	Malignant neoplasms															
B19	210-239	Benign and unspecified neoplasms	4	3	1												
B20	240-289	Allergic, endocrine system, metabolic and nutritional diseases	1	1													
B21	290-209	Residual (240-245, 260-264, 270-277, 280-289)	1	1													
B22	300-309	Anemia															
B23	330-334	Diseases of the blood and blood-forming organs	3	2													
B24	400-468	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	17	12	6												
B25	410-416	Rheumatic fever	1	1													
B26	420-422	Chronic rheumatic heart disease	15	10													
B27	430-434	Arteriosclerotic and degenerative heart disease	1	1													
B28	440-443	Other diseases of heart	1	1													
B29	444-447	Hyper tension with heart disease	1	1													
B30	470-527	Residual (450-456, 460-468)	4	3													
B31	490-493	Influenza															
B32	500-502	Pneumonia	4	1													
B33	590-597	Residual (470-475, 510-527)															
B34	550-553	Diseases of the digestive system															
B35	560, 561, 570	Ulcer of stomach and duodenum															
B36	545, 571, 572	Appendicitis															
B37	681	Intestinal obstruction and hernia															
B38	690-697	Residual (680-689, 642, 644, 645, 573-578, 580, 582-597)															
B39	610	Diarrhea of newborn															
B40	640-680	Cirrhosis of liver															
B41	750-769	Residual (690-699, 611-617, 620-686, 630-637)															
B42	760-776	Nephritis and nephrosis															
B43	762-763	Hyperplasia of prostate															
B44	760-776	Pregnancy, childbirth and the puerperium															
B45	780-785	Diseases of the bones and organs of movement															
B46	790-795	Congenital malformations															
B47	830-839	Certain diseases of early infancy															
B48A	8340-8305	Other diseases peculiar to early infancy and immaturity															
B48B	8310-8305	Other diseases peculiar to early infancy and immaturity															
B49	850-859	Other diseases peculiar to early infancy and immaturity															
B50A	8350-8383	Symptoms, senility and ill-defined conditions															
B50B	8350-8383	Accidents and violence															
B50C	8350-8383	Motor vehicle accidents															
B51	8910-8905	All other accidents except falls															
B52	8910-8905	Falls															
B53	8970-8970	Suicide															
B54	8980-8983	Homicide															
B55	8984-8990	Police intervention, execution and operations of war															
B56	901-999	ALL CAUSES	35	22	12	1	3	1	1	1	1	1	1	1	17	14	





# INDEX

## A

	PAGE
Accidental deaths .....	346
Activities:	
Departmental .....	7
Activities of Divisions, Bureaus and Programs	
Divisions:	
Chronic Illness .....	33
Constructive Health .....	67
Environmental Sanitation .....	133
Laboratories .....	155
Local Health Services .....	173
Preventable Diseases .....	245
Vital Statistics and Administration .....	277
Bureaus and Programs:	
Acute Communicable Diseases .....	245
Administrative Services .....	280
Adult and Occupational Health .....	70, 74, 75
Air Pollution Control .....	70
Alcoholism Control .....	47
Bacteriology .....	159
Cancer Control .....	50
Chemistry .....	165
Chronic Diseases .....	33
Crippled Children .....	80
Dental Health .....	97
Diabetes Screening .....	53
Examination and Licensing .....	282
Food and Drugs .....	145
Heart Diseases .....	54
Maternal and Child Health .....	107
Medical-Social Workers .....	43
Nutrition Program .....	126
Pathology .....	167
Personnel and Accounts .....	286
Public Health Engineering .....	141
Public Health Nursing .....	176
Public Health Statistics .....	290
Radiological Health .....	71, 77

## PAGE

Serology .....	168
Shellfish .....	146
Tuberculosis .....	56
Veneral Disease Control .....	262
Veterinary Public Health .....	151
Vital Statistics Section .....	294
Acute Poliomyelitis .....	260
Administrative Services, Bureau of .....	280
Biologics .....	281
Warehouse .....	281
Adult and Occupational Health, Bureau of .....	14
Air Sanitation .....	13, 71, 79
Radiological Health .....	71
Air Pollution Control .....	13, 70, 73
Alcoholism .....	47
Alcoholism Control, Bureau of .....	47
Anthrax .....	152
Atmospheric Pollution .....	70

## B

Bacteriology, Bureau of .....	159
Barber Examiners, Board of .....	283
Bathing .....	143
Beauty Culture Control, Board of .....	285
Bills Introduced in Legislature .....	25
Biologicals, distribution of .....	281
Births .....	291, 299
By age groups of mother .....	119
By counties and municipalities .....	301
By months .....	301
Illegitimate .....	314
Infants .....	299
Numbers and Rates .....	299
Population .....	299
Rates, five-year average .....	300
Stillbirths .....	316
Boarding Home Code .....	112
Brucellosis .....	154

## C

Cancer:	
Death Rate .....	340
Death Rates—five-year average .....	341
Cancer Control, Bureau of .....	50
Charts and Tables, vital statistics .....	297
Central State Health District .....	180
Chemistry, Bureau of .....	165
Chest X-ray Surveys .....	56

## PAGE

Chronic Illness Control .....	11
Annual Report to the Governor .....	33
Division of .....	33
Governor's Conference .....	37
Rehabilitation:	
Medical Social .....	43
Programs in institutions .....	44
Homemaker Service .....	43
State Employees Health Program .....	45
Various Activities .....	44
Civil Defense .....	13
Commissioner of Health, Report of .....	7
Communicable Diseases, Acute .....	247
Constructive Health, Division of:	
Bureau of Adult and Occupational Health .....	70
Council, Public Health .....	19
Crippled Children Program .....	14, 80
Administration .....	81
Appliance Services .....	85
Cerebral Palsy .....	93
Congenital Heart Disease .....	94
Counseling .....	91
Cleft Palate .....	95
Financial Assistance .....	86
Hospitalization .....	85
Nursing Services .....	90
Pediatric Neurosurgical Project .....	95
Physician Services .....	84, 86
Professional Services .....	86
Psychological Services .....	91
Register .....	83
Rheumatic Fever .....	94
Tables .....	118

## D

Deaths .....	292, 299
Accidental .....	349
Age Groups .....	357
By months .....	301
Causes .....	350
Age groups .....	357
Age groups, sex, color .....	360
Age groups, number and rates .....	313, 357
By counties, cities, State Institutions and Military Posts .....	301
With percentages by sex .....	350
Cancer .....	293
Circulatory system .....	350
Cirrhosis of the liver .....	350

	PAGE
Counties and municipalities .....	376
Diabetes .....	350
Infants .....	292
Influenza, pneumonia, bronchitis .....	350
Malignant Neoplasma .....	324
Maternal .....	319
Motor Vehicle .....	342, 345
Neonatal .....	301
Non-Transportation Accidents .....	343
Poliomyelitis .....	248
Population—Numbers and Rates .....	299
Rates, Five-year average .....	300
Rates, white and non-white .....	351
Tabulation .....	378
Transportation Accidents .....	342
Tuberculosis .....	293
Dental Health, Bureau of .....	97
Dental Care Program .....	97
Dental Care Activities for Children .....	102
Educational Activities .....	98
Fluoridation of public water supplies .....	101
Prevention .....	101
Research and Evaluation .....	100
Treatment Program .....	102
Diabetes Control .....	53
Diarrhea, of the newborn:	
Reported cases and deaths by counties .....	360
Diphtheria .....	250
Diseases:	
Reported cases of notifiable diseases by county of residence .....	256
Recorded deaths from reportable diseases by counties .....	258
Districts, State Health .....	221
Dogs Licensed .....	153
Drugs .....	146
<b>E</b>	
Encephalitis, Infectious .....	151
Engineering, Bureau of Public Health .....	141
Environmental Sanitation:	
Division of .....	15, 133
In State Health Districts .....	135
Epilepsy .....	47
Examination and Licensing, Bureau of .....	282
Expenditures, Departmental .....	289

	PAGE
<b>F</b>	
Financial Statement .....	289
Flood Relief Activities .....	10, 135
Fluoridation of Public Water Supplies .....	101
Fluoroscopic Shoe-Fitting Machines .....	78
Food and Drugs .....	145
Food Program .....	151
Inspections of establishments .....	148
Milk Control Program .....	147
Revenue, licenses and permits .....	145
Shellfish Program .....	146
Food Poisoning:	
Reported cases by counties .....	256
<b>G</b>	
Gamma Globulin .....	254
Grants-in-Aid, Bureau of .....	39
Gonorrhea:	
Cases and rate .....	267
<b>H</b>	
Health Council .....	19
Health Education Services:	
Administrative Services .....	280
Health Officials Annual Conference .....	20
Health Program, State Employees .....	45
Heart Diseases .....	54
Hepatitis:	
Reported cases by counties .....	256
Hospitals .....	107
<b>I</b>	
Industrial Wastes .....	141
Infants .....	118
Births .....	118, 291
Deaths .....	118, 121, 292
Infant and Maternal deaths and rates .....	118
Influenza:	
Reported cases and deaths, by counties .....	256
Illegitimate Births .....	314
<b>K</b>	
Kolmer Tests .....	170

## L

	PAGE
Laboratories:	
Approved .....	164
Division of .....	16
Legislation:	
Enacted .....	25
Not enacted .....	27
Leptospirosis .....	299
Licenses and Permits:	
Food and Drugs .....	145
Maternity Homes .....	107
Revenue from .....	288
Local Health Services, Division of .....	16, 173

## M

Marriages .....	292, 299
By age groups .....	322
By counties and municipalities .....	301
By months .....	301
Number and rates .....	299
Population .....	299
Previous marital status .....	323
Maternal and Child Health:	
Bureau of .....	14
Accident Prevention .....	112
Field Activities .....	114
Hospital Reports .....	108
Premature Training Program .....	107
Maternal Deaths .....	293
Maternity Homes .....	109
Mazzini Tests .....	169
Measles:	
Reported cases and deaths with rates .....	261
Reported cases and deaths by counties .....	256
Meat Inspection .....	154
Medical and Health Services in Civil Defense and Disaster Control .....	13
Meningitis, Meningococcal:	
Reported cases and deaths with rates .....	261
Reported cases and deaths by counties .....	258
Midwives .....	115
Migrant Health .....	270
Milk:	
Bacteriological examination .....	147
Licenses and permits, revenue .....	145
Motor Vehicle fatalities .....	345

## N

	PAGE
Narcotic Drugs .....	145
Neoplasms:	
Deaths—Sex, color and age group .....	337
Nursing Service .....	12, 176
Nutrition Program .....	126

## O

Occupational Health .....	70
Ophthalmia Neonatorum:	
Reported cases by counties .....	256

## P

Pathology, Bureau of .....	167
Personnel and Accounts, Bureau of .....	286
Pneumonia:	
Reported cases by counties .....	256
Reported cases and deaths, with rates .....	261
Poliomyelitis:	
Reported cases by county and month .....	260
Reported cases by county and paralytic status .....	260
Reported cases and deaths by age groups and sex .....	261
Reported cases by month with medians for five-year periods .....	261
Potable Water .....	143
Population .....	299
Pre-Marital and Pre-Natal Blood Specimens .....	171
Preventable Diseases, Division of .....	17, 245
Psittacosis .....	152
Public Health Council .....	19
Public Health Engineering, Bureau of .....	141
Public Health Nursing:	
Bureau of .....	176
Public Health Statistics, Bureau of .....	290
Physician, Courses for .....	36

## R

Rabies .....	163
Radiological Health .....	80
Radiation Fallout Monitoring Network .....	79
Ragweed Control .....	144
Rehabilitation Treatment .....	194
Report of State Commissioner of Health .....	7
Reportable Diseases:	
Reported cases and deaths by county .....	256
Reported cases and deaths with rates .....	261

	PAGE
Rocky Mountain Spotted Fever:	
Reported cases by counties .....	257
Reported cases and deaths with rates .....	261
S	
Salk Poliomyelitis Vaccine Study .....	7, 251
Salmonellosis:	
Reported cases by counties .....	257
Sanitary Landfills .....	144
Scarlet Fever:	
Reported cases by counties .....	257
Reported cases and deaths with rates .....	261
Serology, Bureau of .....	168
Shellfish:	
Program .....	145
Illegal removal from polluted waters .....	147
Shigellosis:	
Reported deaths by counties .....	257
Smoke Control Code .....	70
Solid Waste Disposal .....	144
Specimens Examined in Laboratory .....	160
State and Local Health Officials, Annual Conference .....	20
State Health Districts:	
Central .....	180
Metropolitan .....	197
Northern .....	221
Southern .....	240
Statistical Tables and Charts .....	297
Statistics, Public Health .....	290
Stillbirths .....	293
Stream Pollution Control .....	141
Streptococcal Sore Throat:	
Reported cases by counties .....	257
Reported cases and deaths with rates .....	261
Suicide .....	344
Syphilis:	
Blood Tests .....	168
Cases and rates .....	267
Migrant workers .....	270
Serological tests .....	168

	PAGE
Tables:	
Communicable Diseases .....	247
Vital Statistics .....	277
Tetanus:	
Reported cases and deaths by counties .....	257
Therapy .....	12
Trachoma:	
Reported cases by counties .....	257
Trichinosis .....	257
Reported cases by counties .....	257
Tuberculosis .....	56
Death rates .....	57
Morbidity by clinical status .....	58
Reported cases and deaths by county and municipality .....	59
Reported cases by age groups, sex and color .....	59
Specimens examined .....	159
X-ray surveys .....	56
Tularemia .....	257
Typhoid Fever:	
Reported cases and deaths .....	261
Reported cases by counties .....	257
Reported cases and deaths with rates .....	261
U	
Undulant Fever:	
Reported cases by counties .....	257
V	
Venereal Disease Control:	
Bureau of .....	262
Case-finding .....	270
Cases and rates .....	264
Drugs .....	274
Education .....	272
Epidemiologic activities .....	269
In State Health Districts .....	265
Investigation of suspects .....	268
Migrant workers .....	270
Veterinary Public Health:	
Program .....	151
Survey of X-ray Machines .....	78
Vital Statistics:	
Certified copies .....	297
Revenue from searches .....	297

	PAGE
Vital Statistics and Administration, Division of .....	17, 277
Vital Statistics, Registration Section .....	294
Vital Statistics, Tables and Charts .....	297

## W

Warehouse .....	281
Waste Disposal .....	144
Weed Control .....	144

## Water:

Potable .....	143
---------------	-----

## Whooping Cough:

Reported cases by counties .....	257
Reported cases and deaths with rates .....	261

## X

## X-rays:

Chest .....	56
-------------	----