

EIGHTY-FIRST ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1958



STATE OF NEW JERSEY

DEPARTMENT OF HEALTH

TRENTON, N. J., July 1, 1958

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, 1958.

Respectfully submitted,

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

Department of Health of the State of New Jersey
 Public Health Council
 Fiscal Year 1957-1958

HARRY J. ROBINSON, M.D., *Chairman* Union
 KATHLEEN SLETTELAND, *Vice-Chairman* Ridgewood
 ERMA T. DILKES, *Secretary* Sewell
 C. BYRON BLAISDELL, M.D. Deal
 NELSON S. BUTERA, P.E. Morristown
 JOHN J. CANE, D.D.S. Phillipsburg
 HARRY N. LENDALL, C.E. New Brunswick
 ANTHONY P. MILLER, JR. Pleasantville

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

Table of Contents

EIGHTY-FIRST ANNUAL REPORT OF THE DEPARTMENT OF HEALTH
 OF THE STATE OF NEW JERSEY, 1958

	PAGE
Report of the State Commissioner of Health	7
Report of the Division of Chronic Illness Control	27
Report of the Division of Constructive Health	67
Report of the Division of Environmental Sanitation	117
Report of the Division of Laboratories	135
Report of the Division of Local Health Services	155
Report of the Division of Preventable Diseases	255
Report of the Division of Vital Statistics and Administration	287

Report of the State Commissioner of Health

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

The reports of the Divisions of this Department detail the activities of the Divisions and the Programs within the Divisions. (Because the Division of the Aging was just beginning to get organized as this fiscal year was drawing to a close, a report of its activities is not included.) My report gives emphasis to administrative or other special developments during the year.

Division of the Aging Established

Shortly before the year covered in this report began, on June 6, 1957, Governor Robert B. Meyner approved legislation calling for the creation in your State Department of Health of a Division of the Aging. The functions of the Division will be to foster the development of facilities and services in all areas of the State which will make the senior years for all of us more healthful, productive, and happy. It may also be concerned with the adjustment of pension systems and the modification of employment patterns to assure the greatest usefulness and equity to all of us as we grow older.

The legislation provides for the appointment of the Director of the Division by the Governor with the advice and consent of the Senate. On February 10, 1958, Governor Meyner appointed Mrs. Eone Harger, of Ridge-wood, to be Director of the Division of the Aging. She was confirmed by the Senate on April 17, 1958 and was sworn to begin a five-year term on April 23, 1958.

The legislation creating the Division of the Aging (Chapter 72, Public Laws of 1957) also calls for a Commission on the Aging and a Citizens Council on the Aging to guide the staff of the Division in the formulation of program and services. The Departments of Conservation and Economic Development, Education, Institutions and Agencies, Labor and Industry, and the Treasury are represented on the Commission on the Aging.

Virology Program Established

Because of control programs and antibiotics, bacterial infections are not so great a problem as they once were. As the bacterial infections have declined relatively in significance, viral infections have become more of a problem. The Asian influenza experience demonstrated anew how quickly a viral in-

fection can spread. We sought to develop a Virology Program and an epidemiologic detection service to discover the nature of outbreaks so that local health officers and practicing physicians can know quickly whether such a communicable disease exists in their areas, what its characteristics are, some indication of how prevalent it is, whether the prevalence is gaining or receding, and what can be done to control it.

On April 29, 1958, Acting Governor Richard Stout approved legislation (Chapter 24, P. L. 1958) directing your State Department of Health to establish and conduct a Virology Program to be financed for the remainder of the fiscal year from any moneys available to the Department.

Epidemic of Asian Influenza in New Jersey; Vaccine Priorities Recommended and Repealed

A type of influenza subsequently characterized as Asian influenza occurred in Hong Kong in April, 1957 and probably was present in China before that. It spread rapidly. Cases were reported in the United States early in June and in New Jersey in September.

A safe vaccine had been developed. One inoculation provided significant protection if administered at least 10 days in advance of exposure. It appeared probable that the demand would greatly exceed the supply. It was desirable to try to provide protection initially for those who served the sick, those whose continued services were essential for the welfare of the community, and those to whom exposure would have constituted the greatest risk.

Lacking the authority to impose legally binding priorities, I nevertheless recommended on September 18, 1957 that the following priorities be observed in the use of Asian influenza vaccine in New Jersey:

GROUP A

1. Staff and employees of hospitals.
2. Employees of agencies and professional individuals providing direct health, pharmaceutical and religious services to sick persons.
3. Personnel necessary for the operation of governmental services and public utility services essential for the health and safety of the population. These should be limited to law enforcement, fire protection, health protection, water supply, sewage disposal and power and light distribution services.
4. Seriously ill persons, the very old, pregnant women, and children under one year of age who in the judgment of their physicians are a special risk.

GROUP B

5. Essential personnel operating all other public utilities not covered under number 3.
6. All other persons.

It was recommended that only persons eligible under Group A should receive any Asian influenza vaccine until further notice. Initially, categories 2 and 3 were to be interpreted strictly.

By the end of October, enough vaccine had been received in New Jersey to have permitted one inoculation of every person in the designated priority groups. Accordingly, on October 29, 1957, the recommended priorities in the use of Asian influenza vaccine in New Jersey were revoked. The public was urged to use the vaccine for protection against Asian influenza.

The Asian strain of influenza was identified in outbreaks in 19 of New Jersey's 21 counties. As the number of reported cases increased in volume, arrangements were made with health officers, reporting officers of boards of health, and registrars in military installations to submit a daily collective case report rather than individual reports. County superintendents of schools reported weekly on the amount of absenteeism in the schools.

There were 7,827 cases of influenza officially reported to the Department in the calendar year 1957. However, other reports submitted to the Department and epidemiologic studies disclosed at least 32,000 cases of upper respiratory infections and influenza-like diseases during the year. Most of them occurred in October and November. Mortality from influenza and pneumonia reached a peak in October. Deaths from influenza and pneumonia in November and December were lower than in October but higher than in the corresponding months in recent years.

Raise Qualifications for Health Officer

On September 9, 1957, the Public Health Council of the Department revised the qualifications for health officer and for sanitary inspectors of the first and second class. These revised qualifications became effective November 26, 1957. In general, they now require as a minimum completion of a four-year college course with a bachelor's degree and satisfactory completion of three years of supervised full-time planned working experience in a health department approved by the State Department of Health for such experience.

The new qualifications were considered by the New Jersey Health Officers Association and approved by it prior to adoption by the Public Health Council. The raising of requirements for licensure follows the trend of most vocational groups.

On September 9, 1957, the Council also established the qualifications of a Veterinary Meat Inspector and a Meat Inspector. This anticipates the establishment of a requirement that all meats sold in New Jersey must be inspected for wholesomeness before being placed on sale.

Regulations Promulgated on Environmental Sanitation

When the State Sanitary Code was revised in 1953, it provided that after April 1, 1958 no milk can be sold in New Jersey unless it is certified to come from cows free from brucellosis. Rules and regulations to govern testing standards to be used in determining whether dairy animals are free from brucellosis were filed with the Secretary of State on July 9, 1957 to become effective April 1, 1958.

Regulations governing production and handling of farm bulk milk were filed with the Secretary of State on August 21, 1957 and became effective December 1, 1957.

Amended rules and regulations for the preparation and submission of designs for sewer systems, sewage and industrial waste treatment plants and water supplies and water treatment plants were filed with the Secretary of State on April 1, 1958 and became effective April 25, 1958.

In December, 1957, the Public Health Council of the Department sent a communication to the governing bodies of all municipalities in the State reminding them that Chapter VIII of the State Sanitary Code becomes effective July 1, 1958. This chapter declares dumps to be hazardous to human health and provides that after July 1, 1958 disposal of organic and combustible matter on lands in this State shall be by incineration or by the sanitary land-fill method.

Materials were prepared to advise municipalities how they can comply with Chapter VIII of the State Sanitary Code. Personnel of the Department spent a good deal of time fostering compliance with Chapter VIII. Chapter VIII and educational work done in connection with it have resulted in a very great increase in the number of municipalities which now use sanitary land-fills to dispose of garbage and refuse.

Another Model Code Approved

The "Maintenance of Swine Code of New Jersey (1957)" was approved on August 8, 1957. This is the tenth in a series of model codes approved by the Department which may be adopted by local boards of health by reference. Under legislation enacted in 1950 (Chapter 188, P. L. 1950), local boards of health may adopt a model code approved by the State Department of

Health, without advertising the complete text of the code, by referring to the title of the code in the ordinance which is enacted and having copies of the code available for inspection. From this legislation comes the phrase, "adoption by reference." Such codes are convenient tools for the local board of health which may want to regulate, from a public health point of view, activities in the community which have public health significance or which could be detrimental to the public health if improperly carried on.

The availability of such model codes is a service to the community. It eliminates the necessity of the board of health having to write its own code. They may be adopted with a minimum of cost because the complete text of the code need not be advertised. To the extent they are widely adopted, they provide for uniform public health regulations from community to community.

Farmers raising pigs in Secaucus were placed under court order to cease such operations by November 1, 1958. It seemed possible that some of them might relocate elsewhere in New Jersey. Making this code available to municipalities thereby provided them with the opportunity to be prepared and to prevent the kind of situation which led to court action in Secaucus.

Consideration was also given to the possibility of preparing and approving a code dealing with the raising of animals generally.

In September, advisory committees were appointed to prepare codes dealing with (a) storage, collection, and disposal of garbage and refuse and (b) regulating the design and maintenance of food vending machines.

Public Health Research

Responsibilities of the Department were greatly increased in recent years by the addition to it by legislative action of the Division of Chronic Illness Control, the Division of the Aging, the Virology Program, and the placement in it of the New Jersey Air Pollution Control Commission. Many of the activities carried out under these new assignments represent new approaches. It is essential that these approaches be evaluated in order to strengthen them where needed. Some problems exist for which no known answers exist. The problem of developing more effective and efficient ways to render health services is ever present.

Accordingly there was created early in the year covered in this report (July 12, 1957) the Public Health Research Project Design and Evaluation Committee. An experienced public health statistician was assigned to this work on a full-time basis. Some areas which need study are these: epidemiology of chronic diseases, including studies on earliest signs and symptoms of chronic illnesses and studies of methods to apply newest basic research data to prevent or ameliorate such conditions; the epidemiology of the aging

process and studies of psychological, social, and economic problems associated with aging, including the effects of pension laws on the well-being of elderly persons; reservoirs and epidemiology of certain diseases about which too little is known, such as eastern equine encephalomyelitis; ways to measure the hazards of air pollution and radiation; and more effective techniques for evaluation of public health programs.

One of the first studies undertaken under this project was one to compare the effectiveness of two types of administration of Asian influenza vaccine. With the cooperation of the Department of Institutions and Agencies, inmates of a correctional institution, who volunteered to participate, were used in this study. One group received one cubic centimeter of vaccine subcutaneously and another group received one-tenth of a cubic centimeter of vaccine intradermally. Results of this study suggested that the administration of the one cubic centimeter of vaccine provided more significant protection.

During the year covered in this report, there was initiated a study of the complete, real costs of homemaker service in Bergen County. This will be of value to existing and future homemaker services under which trained elderly women are placed as housekeepers in homes in which there is illness.

The Department has also carried on some studies through its veterinary public health personnel which have established that pheasants can be protected by inoculation against eastern equine encephalomyelitis. This finding is already of benefit to the public health by making it possible to reduce the numbers of this reservoir of eastern equine encephalomyelitis and it is of economic benefit to those who raise pheasants for sale. Related studies will continue to try to determine whether pheasants can be raised under circumstances which will develop a high degree of natural immunity to eastern equine encephalomyelitis.

In another study undertaken, the Department is seeking to learn whether there is any significant correlation between the amount of cancer in dogs in communities and the amount of cancer in humans. If it should be found that such a correlation exists, this fact could point the way to additional studies to determine what causes of cancer (possibly viruses) were common to both humans and dogs. The United States Public Health Service placed on loan to the Department a competent investigator who has been handling this assignment with the cooperation of both the Cancer Control Program and the Veterinary Public Health Program. A related question of importance and increasing concern is radiation of a child as a possible cause of leukemia later in life.

Study Initiated on Human Tolerance of Radioactive Materials

During the period covered in this report, the Department initiated a study which may help to influence recommendations and standards for determining how much radioactive material a human being can tolerate without jeopardy to his health or that of his offspring.

Tentative standards exist now as maximum permissible limits set by the Atomic Energy Commission, the United States Public Health Service, and the National Commission on Radiation Protection. These present limits are subject to question because of an inadequate long-time experience base on which to establish them.

When the original limits were set around 1940, judgment was made on a small number of selected cases for lack of more adequate information. The complete identification of and the concentrations of radioactive materials in the body were not definitely established. There was uncertainty about the relationship between the effects noticed and the identity of the specific causative radioactive material, e.g. whether they were due to radium or mesothorium or a mixture of both.

The study of the New Jersey State Department of Health is a basic research project to determine the chronic effects of radium ingestion on humans. The contract under which it is being carried out is the first ever granted to a State department of health by the Atomic Energy Commission. The persons to be studied were once employees of industrial concerns which used radium in their work. Most of them worked 35 to 40 years ago. Some painted watch hands and dial numbers with a paint which contained radium. In so doing, some of these persons repeatedly placed in their mouths brushes which were used in painting the dials. Others prepared the paint, conducted experiments with it, or worked in offices or laboratories under circumstances such that they had some contact with the material, a part of which they ingested. This kind of radioactive material continues to emit radiation. There were about 800 persons in all of these categories in the larger companies in New Jersey. There may be another 100 to 200 who were employed in some smaller industries in New Jersey or New York.

Whatever the method of exposure, these persons constitute the largest group in the United States, possibly in the world, who have been living, in some instances, for at least a generation since initial exposure and who, in some instances, have since had children and grandchildren. There are some smaller groups in other States in this country. There is no other which approaches this group in numbers.

If this group were not studied in this manner, there would soon be lost a significant amount of currently available information about the latent effects of radiation which is not available elsewhere in the world at this time to our knowledge.

The New Jersey State Department of Health has had a contract with the Atomic Energy Commission for about a year. The contract was awarded following conferences between staff of the Radiological Health Program of the Department and staff of the Health and Safety Laboratory of the New York Operations Office of the Atomic Energy Commission and the Division of Biology and Medicine of the Atomic Energy Commission in Washington.

There are three groups in the United States conducting research in this area under sponsorship and support of the Division of Biology and Medicine of the Atomic Energy Commission. These groups are: the New Jersey State Department of Health; the Argonne National Laboratory and the Argonne Cancer Research Hospital, Lemont and Chicago, Illinois; and the Massachusetts Institute of Technology, Cambridge, Massachusetts.

The Atomic Energy Commission, through the efforts of these groups, is primarily attempting to determine a relationship between the concentration of radium retained in the body for long periods of time and the effects of this body burden upon the individual.

When these studies are completed, we will have information about radium and its effects and, by mathematical calculations, the effects of other radioisotopes. It has been established that if we obtain knowledge of the biological effects of a given concentration of one radioactive material, we can estimate the relative hazards of other radioisotopes.

Some of the groups which might have use for this information include Federal governmental agencies such as the Atomic Energy Commission, the United States Public Health Service, and the National Bureau of Standards; groups such as the National Committee on Radiation Protection, the American Standards Association, and American Public Health Association; State agencies such as departments of health, departments of labor, and departments of agriculture. The United Nations, through its Scientific Committee on the Effects of Atomic Radiation, may make this information available to its member nations.

The New Jersey project is being carried out in a series of steps. These are:

1. Identification of and search for the present location of all of the former employees of the radium industry.
2. A personal interview and follow-up to obtain a family history and an occupational history.

3. Medical studies to obtain information about effects of the radiation upon the individual.
4. Radiation studies to obtain information about the identification of and concentration of radioactive materials retained in the individual.

Study of Health Facilities in Nicaragua

At the request of the President of Nicaragua and the International Cooperation Administration of the State Department of the United States Government, I was granted permission to use my vacation time and to go to Nicaragua for most of the month of February, 1958 to make a study of health problems in that country. I am grateful for this opportunity to make a contribution to the advancement of health in Nicaragua and to the general movement for international cooperation.

Inadequate Quarters Still an Administrative Headache

At the end of the fiscal year covered in this report, your State Department of Health continued to be housed in quarters that were physically inadequate, overcrowded, and geographically dispersed. Elements of the Department are scattered among seven buildings in downtown Trenton, some of them miles apart. People who have business with us, unless they know our many locations, are unavoidably shuttled from one building to another. The scarcity of parking in downtown Trenton aggravates the inconvenience to the public. The situation causes frustration, annoyance, the expenditure of additional time in finding the locations, and often the expenditure involved in parking fees at more than one location. The Department and the State Administration have presented repeatedly the case for integrated quarters for your State Department of Health. The Legislature has given strong support to public health programs in this State and to several new public health activities in recent years. It is sincerely hoped and respectfully urged that means will be found very soon to strengthen the over-all administration of your State Department of Health by having it housed in adequate and integrated quarters geared to the conduct of multidisciplinary and increasingly complex modern public health programs.

Acknowledgment

The fine work performed and the excellent cooperation of Departmental personnel are commended.

ANNUAL MEETING OF PUBLIC HEALTH COUNCIL

The Annual Meeting of the Public Health Council was held on July 8, 1957. The following officers were elected for the fiscal year 1957-1958: Harry J. Robinson, M.D., Chairman; Mrs. Kathleen Sletteland, Vice-Chairman; Mrs. Erma T. Dilkes, Secretary.

Mr. Anthony P. Miller, Jr., was appointed by the Governor on June 12, 1957, to succeed Marcus W. Newcomb, M.D., deceased, and confirmed by the Senate on June 17, 1957. C. Byron Blaisdell, M.D., was appointed by the Governor to succeed Frederick P. Lee, M.D., on April 1, 1957, and confirmed by the Senate on April 29, 1957. Harry J. Robinson, M.D., was appointed by the Governor on June 12, 1957, to succeed himself, and confirmed by the Senate on June 17, 1957.

The membership of the Public Health Council for the fiscal year 1957-1958 was as follows:

<i>Name</i>	<i>Address</i>	<i>Expiration of Term</i>
Anthony P. Miller, Jr.	Pleasantville	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
Nelson S. Butera	Morristown	June 30, 1963
C. Byron Blaisdell	Deal	June 30, 1964
Harry J. Robinson	Union	June 30, 1964
Kathleen Sletteland	Ridgewood	June 30, 1965*

* Nominated by the Governor on May 12, 1958 to succeed herself, confirmed by the Senate on May 26, 1958, and sworn on July 14, 1958.

ANNUAL CONFERENCE OF STATE AND LOCAL HEALTH OFFICIALS

The 47th Annual Conference of State and Local Health Officials of New Jersey was held at the War Memorial Building, Trenton, N. J., on April 17 and 18, 1958. The program follows:

THURSDAY, APRIL 17

9:45 A.M.—Film Showing—"Community Health in Action"
Stage of Main Auditorium

10:00-10:30 A.M.—Registration open

BALLROOM

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

A Welcome to the 47th Annual Conference
Honorable Robert B. Meyner, Governor of New Jersey

Establishing a Health Department—A Success Story from Bucks County
Dr. Richard I. Darnell, Chairman, Committee on Preventive Medicine,
Public Health and Public Health Legislation, Bucks County Medical
Society

A Community Public Health Nursing Program
Mrs. Marion Selbie, Director, Visiting Nurse Association of Plainfield
and North Plainfield

Labor's Stake in Public Health
Alfred W. Wagner, Director, CIO Community Services Committee,
Essex-West Hudson CIO Council
Registration open at close of morning session.

1:15-2:00 P.M.—Registration open

Film Showing—"Sanitary Storage and Collection of Refuse"
"Sanitary Landfills"
Stage of Main Auditorium

BALLROOM

2:00 P.M.—*Presiding*—T. Everett Ross, President, New Jersey Health Officers
Association

Minimum Standards of Performance for Recognized Public Health
Activities of Local Health Departments
A Progress Report of the Joint Advisory Committee for Local Public
Health Activities and Minimum Standards of Performance—Frank J.
Osborne, Chairman

Sanitation of Bathing Places

Ernest R. Segesser, Senior Public Health Engineer, Division of Environmental Sanitation

The Effects of Thawing on the Nutritive Value of Frozen Foods

Faith Fenton, Ph.D., Professor of Food and Nutrition, New York State College of Home Economics, Cornell University

Sanitary Landfills

John Zemlansky, Principal Sanitarian, Division of Environmental Sanitation

VETERANS ROOM—LOWER FLOOR

2:00 P.M.—*Presiding*—Madeline Goodheart, Registrar of Vital Statistics, Hackensack Administrative and Research Uses of Vital Records

F. Merton Saybolt, State Registrar and Chief, Bureau of Public Health Statistics

Epidemiological Uses of Vital Records

Dr. Adele C. Shepard, Coordinator, Communicable Disease Control Program

2:30 P.M.—Question and Answer Clinic on Registration and Reporting

Consultants: Madeline Goodheart, Registrar, Hackensack; Anna P. Halkovich, Principal Statistician; F. Merton Saybolt, State Registrar and Chief, Bureau of Public Health Statistics; John S. Young, Supervisor of Vital Statistics Records Section; Division of Vital Statistics and Administration

4:00 P.M.—Adjournment

Registration open

FRIDAY, APRIL 18

9:45 A.M.—Film Showing—"Sanitary Storage and Collection of Refuse"
"Sanitary Landfills"

Stage of Main Auditorium

10:00-10:30 A.M.—Registration open

BALLROOM

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

Tuberculosis Testing in Schools

Dr. Alan Stolow, Senior Public Health Physician, Tuberculosis Control Program

Public Health Aspects of Radiation

Dr. Richard H. Chamberlain, Professor of Radiology, University of Pennsylvania

Poultry and Red Meat Inspection—Why We Need It
Dr. Oscar Sussman, Chief, Bureau of Veterinary Public Health

Poultry and Red Meat Inspection—How To Get It
Oscar Acquino, Health Officer, Wayne Township; Chairman Food and Drug Committee, New Jersey Health Officers Association

Registration open at close of morning session

1:15-2:00 P.M.—Registration open

Film Showing—"Kid Brother" (Alcoholism)
Stage of Main Auditorium

Four Simultaneous Question and Answer Clinics

VETERANS ROOM—LOWER FLOOR

2:00 P.M.—Clinic on Registration and Reporting

Presiding—Frank M. Doughty, Health Officer and Registrar of Vital Statistics, Plainfield

Program and Clinic Same as 2:00 P.M. Thursday, April 17

BALLROOM

2:00 P.M.—Clinic on Public Health Legislation

Consultants: Charles A. Kientz, Jr., Health Officer, North Arlington; E. Powers Mincher, Chief, Legal Affairs and Hearing Master, Office of the Commissioner

LOWER FLOOR—ROOM 1

2:00 P.M.—Clinic on Realty Improvement Sewerage and Facilities Act

Consultants: Ernest R. Segesser, Senior Public Health Engineer, Division of Environmental Sanitation; John Morris, Principal Public Health Engineer, Northern State Health District; Clyde R. Newell, District Health Officer, Retired

LOWER FLOOR—ROOM 2

2:00 P.M.—Clinic on Health Education

Consultants: Ralph T. Fisher, Coordinator, State Health Education Program; Carl Wendel, Health Officer, Maplewood; Robert Mytinger, Secretary, Public Health Committee, Paper Cup and Container Institute, Member Society of Public Health Educators

4:00 P.M.—Adjournment

47TH ANNUAL CONFERENCE PLANNED BY ADVISORY COMMITTEE
ON STATE AND LOCAL HEALTH SERVICES

CHAIRMAN

JESSE B. ARONSON, M.D., M.P.H. *Director*
Division of Local Health Services

MEMBER EX OFFICIO

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

MEMBER EX OFFICIO

T. EVERETT ROSS *President*
New Jersey Health Officers Association

MRS. MARIAN F. CHEW *Executive Secretary*
Gloucester County Tuberculosis Association

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

MRS. MARION SELBIE *Director*
Visiting Nurse Association of Plainfield and North Plainfield

CARL WENDEL *Health Officer, Maplewood*

MISS J. MARGARET WARNER *Health Officer, Burlington*

*CARL E. WEIGELE, M.D., M.P.H. ... *Assistant State Commissioner of Health*

MRS. MARY OLIVE WILEY *Health Officer, Mahwah Township*

* Deceased

LEGISLATION

The following legislation of interest to health officials *was enacted* by the 1958 Legislature:

S-10, Chap. 33 (Dumont, Crane, Fox). Authorizes the Commissioner of Conservation and Economic Development to acquire within two years such portion of the area included in or adjacent to the Spruce Run Tributary of the south branch of the Raritan River in Hunterdon County; appropriates \$2,000,000.

S-40, Chap. 158 (Ridolfi, Crane). Removes the prohibition of issuing marriage licenses to epileptics.

S-44, Chap. 38 (Hannold). Authorizes municipalities to regulate the disposal of trash and garbage.

S-83, Chap. 11 (Jones). Provides that the Division of the Aged in the Department of Health shall be currently financed from any available funds in the Department of Health.

S-86, Chap. 24 (Fox, Crane). Authorizes the Health Department to use available funds to establish a program to control virus diseases and for the Division of the Aging.

S-89, Chap. 20 (Stout). Repeals law requiring the Department of Health to inspect bakeries and confectioneries.

S-106, Chap. 116 (Stout, Crane, Waddington). Creates a Commission on Radiation Protection in the Department of Health.

S-108, Chap. 140 (Dumont, Crane). Appropriates \$100,000 to the Division of Water Policy and Supply, to determine the practicability of the on-the-stream reservoir theory for obtaining ground water as a source of water supply.

S-114, Chap. 101 (Stout). Increases the salary of the Secretary-Treasurer of the Barber Examiners from \$5,500 to \$6,500 and the board members from \$5,000 to \$6,000.

S-174, Chap. 146 (Crane, Fox, Dumont). Appropriates \$10,000 to the New Jersey Water Research and Development Commission.

S-222, Chap. 170 (Harper). Makes anyone discharging excrement, waste, debris, refuse, chemicals or "any other matter or material" in the fresh waters of the State from any vessel afloat on such waters, which tends to pollute such waters or harm or destroy fish therein or wild life thereon, a disorderly person.

S-275, Chap. 148 (Crane). Creates a New Jersey Water Research and Development Commission and a Water Advisory Committee to said Commission.

SCR-5, Filed with Secretary of State (Dumont). Reconstitutes the commission originally created by SCR-5, 1955, to confer with New York and Pennsylvania authorities relative to joint action in the development of Delaware River Valley water supply and resources.

SCR-10, Filed with Secretary of State (Stout). Reconstitutes the commission created by SCR-16, 1956, to study the problem of provision of additional office space for State Departments.

SCR-15, Filed with Secretary of State (Sandman, Waddington). Memorializes Congress to take such action as may be necessary to prevent threatened pollution of the Delaware River near Rehoboth, Delaware, and Cape May County, by the dumping of sludge in the river by the City of Philadelphia.

SR-4, Filed with Secretary of State (Jones). Creates a three-member Senate committee to investigate the subject of the cost of garbage collection and disposal within the State and of any price setting conspiracies or graft, but not to include garbage collection disposal or collection in swine-raising activities.

A-268, Chap. 75 (Swick, Connery, Davis). Prohibits bovine animals originating in herds not free from Bangs Disease from entering the State.

A-310, Chap. 109 (Franklin, Haines, Musto). Regulates the manufacture and sale of artificially sweetened ice cream for diabetics.

A-421, Chap. 110 (Swick). Authorizes the suspension of medical or chiropractic licenses of persons habitually using drugs or guilty of the violation of any law relating to narcotic drugs.

A-491, Chap. 144 (Kurtz). Transfers \$5,000,000 from the Veteran's Loan Guarantee Fund to the General State Fund.

A-536, Chap. 135 (Kurtz). Permits sewage authorities to contract with each other.

A-539, Chap. 81 (Wilson). Permits adjustment of birth or marriage records to conform with records established in Federal naturalization proceedings.

ACR-2, Filed with Secretary of State (Franklin, Vervae). Reconstitutes the Commission on Mental Health created by ACR-42, 1956.

ACR-5, Filed with Secretary of State (Musto, Sabello, Hughes). Directs the "Division of the Aging" (S-153, 1957) to make a special study and investigation relative to the employment opportunities of persons over age 40 and any discrimination relative to same; requires a report to the Governor and the 1959 Legislature.

The following bills of interest to health officials were introduced in the 1958 Legislature, but *did not become laws*:

S-12 (Jones, Crane). Appropriates \$50,000 out of the General Treasury to the Joint Legislative Committee to Investigate the Subject of Garbage Collection and Disposal in the State.

S-13 (Jones). Designated the "county refuse disposal law," authorizes 1st and 2nd class counties to create refuse disposal authorities to acquire, construct and operate facilities for the treatment, purifications or disposal of garbage or other refuse, and to collect service charges for same; specifies the powers, duties and functions of such authorities, and provides for their financing by the counties and municipalities affected.

S-14 (Jones). Transfers the Division of the Aging (P. L. 1957, c. 72) from the Department of Health to the Department of State.

S-23 (Forbes). Increases the penalties for narcotic drug convictions as follows: sale, gift or administration to a person under age 18, imprisonment at hard labor for 20 years to life; illegal sale or manufacture, fine of \$2,000 and 10-20 years sentence for the first offense, \$5,000 and 20-30 years for second offense, and \$5,000 and 30 years to life for third and subsequent offenses; provides that no sentence shall be suspended.

S-55 (Dumont). Defines "patent or proprietary medicines," and "non-poisonous," within the scope of the law governing the practice of pharmacy (R. S. 45:14) so as to clarify the types of packaged medicines which may be sold by general merchants and those which require the supervision of a registered pharmacist.

S-64 (Crane, Stout, Waddington, Cowgill, Grossi). Creates a three-member "Commission for the Safe Sale of Drugs to the Public" to regulate the sale of drugs and medicines not required to be sold by a registered pharmacist; requires persons selling same have a limited vendor's license; excludes specified packaged drugs and medicines; requires the manufacturers and wholesalers of drugs and medicines have a distributor's license; prescribes penalties; operative 90 days after enactment.

S-69 (Jones). Appropriates \$975 to the Division of the State Library Archives and History for printing 1,000 copies of the February, 1957, publication entitled "New Jersey Old Age Study Commission—A Positive Policy Toward Aging."

S-111 (Dumont, Lynch). Requires railroad, express, and air carriers of passengers and freight having station or office facilities in the State to provide and maintain specified adequate sanitary facilities for the health and comfort of their employees.

S-167 (Cowgill). Creates a Division of Meat Inspection and Veterinary Public Health in the Department of Health to inspect and supervise the slaughter of animals, and to prescribe and enforce rules concerning slaughtering, processing, labeling and general sanitary meat handling procedures; appropriates \$350,000 for the 1958-59 fiscal year.

S-173 (Crane, Fox, Dumont). Creates a nine-member bipartisan New Jersey Water Research and Development Commission, three Senate, three Assembly, three members at large appointed by the Governor, to engage in a continuous study to determine available surface and ground water resources and supplies, and to formulate plans sufficient to satisfy anticipated needs for the next 100 years; creates a 15-member Water Advisory Committee chosen from the State at large to assist and advise the Commission; prescribes powers and duties of the created bodies.

S-183 (Jones). Appropriates \$50,000 out of the General Treasury to the purposes of the Senate Committee created by SR-4, 1958, to investigate the subject of garbage collection and disposal in the State.

S-193 (Harper). Prohibits the dumping of refuse in the fresh waters of the State from any vessel afloat as a disorderly person offense.

S-202 (Fox). Permits a cemetery in existence as of March 1, 1941, to enlarge by acquisition of another cemetery adjoining it and in the same municipality, provided no interments have been made, or plots sold, in the new burial ground, and provided total area does not exceed statutory limits.

- S-224 (Waddington, Hannold). Requires municipalities to honor claims for damages done by dogs, to be paid from the dog license fees in all taxing districts, whether or not they have ordinances against the running at large of dogs.
- S-255 (Dumont). Establishes standard requirements for manufacturing and selling of mozzarella, scamorza and ricotta cheese; prescribes penalty of up to \$100 for first offense and up to \$200 for the second and each subsequent offense.
- S-267 (Fox). Provides that any person who has been a State resident for five years immediately preceding the date of this act who shall, in addition to the requirements of R. S. 45-9-6 and 7, prove to the State Board of Medical Examiners that he holds a Doctor of Medicine degree from a professional school of Denmark, France, the Netherlands or Switzerland, and prove the completion of 32 months of lectures including medicine and surgery, and further prove completion of an acceptable one-year internship, shall be admitted to examination for a license to practice medicine and surgery; effective immediately, but inoperative on and after December 31, 1963.
- S-268 (Fox). Validates any marriage heretofore solemnized by any acting recorder, or by any acting magistrate of a municipal court, who was not at the time authorized to do so, if the marriage was otherwise valid.
- A-23 (Stepacoff, Salsburg). Creates a three-member "Commission for the Safe Sale of Drugs to the Public" to regulate the sale of drugs and medicines not required to be sold by a registered pharmacist; requires persons selling same have a limited vendor's license; excludes specified packaged drugs and medicines; requires the manufacturers and wholesalers of drugs and medicines have a distributor's license; prescribes penalties; operative 90 days after enactment.
- A-40 (Franklin, Hughes). Provides a method for the amendment of the original birth record of a child born out of the bonds of matrimony where the mother shall have married after the birth of said child; prohibits disclosure of any information regarding the illegitimacy of the child thereafter.
- A-183 (Hauser, Bivona). Permits the penalties specified relative to cruelty to animals be recovered in the name of any legally incorporated Humane Society, as well as the N. J. S. P. C. A.
- A-188 (Kesselhaut). Regulates the practice or profession of Electrology (superfluous hair removal); designates the State Board of Medical Examiners as the board to set up standards of education and practice, and to license those engaged in the profession.
- A-226 (Weber). Specifies regulations relative to the dredging for oysters, clams and crabs, and the tonging of oysters and clams in certain specifically described portions of Delaware Bay.
- A-250 (Kijewski, Musto, Salsburg). Requires any business place engaged in ophthalmic dispensing to have an Ophthalmic Dispensing Establishment License issued by the State Board of Examiners of Ophthalmic Dispensers and Ophthalmic Technicians; prescribes minimum equipment, standards, fees, and penalties ranging from \$50 to \$500.
- A-269 (Meloni). Requires railroad, express, and air carriers of passengers and freight having station or office facilities in the State to provide and maintain specified adequate sanitary facilities for the health and comfort of their employees.

- A-280 (Werner). Redefines categories of patent medicines, ingredients, and statements which are subject to regulation under the pharmacy act; effective July 1, 1958.
- A-281 (Ronco, LeWine). Permits any State licensed osteopath, who holds a Doctor of Medicine degree from an approved medical school after advanced training, and who shall have served an acceptable internship in an approved hospital, to be considered qualified for admission to examination for a license to practice medicine and surgery.
- A-289 (Wilson). Permits the use of the certification provided in the "Immigration and Nationality Act of 1952" regarding change of name, to be used to adjust birth or marriage records.
- A-294 (Brady). Designates a manufacturer or vendor of toys or furniture painted with lead paint, and intended for use of children under five, as a disorderly person.
- A-301 (Swick). Defines "patent or proprietary medicines," as those packaged drugs and medicines which are properly and adequately labeled and branded under Chapter 5 of Title 24 (Food and Drugs); defines "nonpoisonous" to mean those preparations which are not dangerous to health when used as stated on the label.
- A-313 (Musto, Hughes, Brown). 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-325 (Klepsch). Prohibits as a misdemeanor the re-use of cotton, wool or other material used previously as part of an article of furniture in the reupholstering of any furniture, effective October 1, 1958.
- A-327 (Smith). Requires all junk yards to be enclosed by a solid wall or fence of a height of not less than seven feet; violation of same to be considered a disorderly person; operative 90 days after enactment.
- A-356 (Laufer, Ronco, LeWine). Directs the State Department of Health to establish and conduct a virology program designed to identify and control virus diseases; provides that such program, and the Division of the Aging in the Health Department, shall be financed during the current fiscal year from any moneys available in the Department.
- A-359 (Brady, Kraut, Michnevich). Proposes several amendments to the Food and Drug Law affecting editorial changes, penalties for interference with law enforcement, artificial coloring of meats, labeling of horse flesh, food standards, definition of dietary beverages, collection of fines, egg breaking establishment license period, and general conformation to modern food and drug practices.
- A-368 (Kesselhaut). Authorizes the Passaic Valley Sewerage Commissioners to enter into an agreement with any municipality, which was a party to the original contract, for the use of the sewerage facilities at the pumping station for disposal of its sewage originating from within the district area but not heretofore discharged into the interceptor sewer; and for the discharge of sewage originating outside the district area, but within the area of the municipality.

DEPARTMENT OF HEALTH

A-383 (Kurtz, Hughes). Permits the expansion of existing facilities at the Menlo Park Diagnostic Center for the study, diagnosis and treatment of narcotic cases at a cost of \$1,250,000 whenever such fund is appropriated.

A-411 (Musto, Brown). Authorizes local health boards to compel owners of buildings occupied by one, as well as two, families, and who have agreed to supply heat, to provide that the temperature therein shall be kept above 68° until 11, instead of 10 P. M.; and to maintain such temperature from September 15 to May 15 in the case of buildings used for stores, offices, factories or business purposes.

A-425 (Davis, Wilson). Prohibits the dumping of refuse in the fresh or salt waters of the State under penalty of fines between \$50 and \$200; provides for a one-year revocation of any hunting or fishing license upon second violation.

A-429 (Bivona). Requires humane societies to keep records of each animal received and disposition of same; designates failure to comply as a disorderly person violation.

A-431 (Stewart). Proposes broad changes in the Public Employees' Retirement-Social Security Integration Act, affecting designation of beneficiaries, payments, disability benefits, age limits and new memberships.

A-456 (Brady, Davis). Creates a Division of Meat Inspection and Veterinary Public Health in the Department of Health to inspect and supervise the slaughter of animals, and to prescribe and enforce rules concerning slaughtering, processing, labeling and general sanitary meat handling procedures; appropriates \$350,000 for the 1958-59 fiscal year.

A-462 (Brady, Musto). Includes chiropractors, as well as physicians, surgeons and hospitals, within the provisions of the Workmen's Compensation Act requiring the employer to pay for medical treatment of injured employees.

A-467 (Keegan, LeWine). Authorizes any district sewerage authority to enter into a contract with property owners, private corporations and individuals within one mile of the boundaries of the district for the use of the complete district sewerage system.

A-485 (Kraut). Requires the State to reimburse counties maintaining institutions for the treatment of alcoholics for the maintenance of such institutions.

A-510 (Franklin, Bivona). Appropriates \$10,000 to the Legislative Commission on Mental Health created by ACR-42, 1956 and reconstituted by ACR-2, 1958.

A-561 (D'Aloia). Permits county shade tree commissions to construct, maintain and operate plants or facilities for the disposal of tree waste material.

A-577 (Bivona). Provides that every municipality which maintains a pound for domestic animals found running at large, shall provide suitable facilities for the placement in homes of such animals, prior to their destruction.

ACR-29 (Musto). Creates an eight-member commission, two Senate, two Assembly; two appointed by Attorney-General, of whom one shall be a member of the State Police; one appointed by Commissioner of Education, one appointed by Commissioner of Labor and Industry to study the problems of the dangers in unsupervised experiments with chemicals and liquid fuels by youths and others, and to recommend a program for constructive control.

Division of Chronic Illness Control

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

Programs:

Alcoholism Control	WILLIAM J. HARRIS <i>Program Coordinator</i>
Cancer Control	STELLA BOOTH, M.D. <i>Program Coordinator</i>
Cardiovascular Disease	MARVIN R. BLUMENTHAL, M.D. MARVIN L. BIERENBAUM, M.D. <i>Program Coordinators (part time)</i>
Chronic Diseases	MARGARET H. EDWARDS, M.D. <i>Program Coordinator</i>
Diabetes	ARTHUR KROSINICK, M.D. <i>Program Coordinator (part time)</i>
Public Health Social Work	ADRIANE V. DUFFY, M.S.W. <i>Program Coordinator</i>
Tuberculosis Control	JAMES E. PETERMAN, M.D., M.P.H. <i>Program Coordinator</i> WILLIAM A. HOPPER* <i>Administrative Secretary</i>

Public Health Nurse Consultants

(Assigned from Public Health Nursing Program, Division of Local Health Services)

DOROTHY FOULKS, R.N.
VERNA HANISCH, R.N.
ELIZABETH T. HARRIS, R.N.
GRACE MILLER, R.N.

* Resigned April 18, 1958

Division of Chronic Illness Control

Health services should be person-centered rather than organization-centered and should provide continuing and appropriate service to meet the needs of the individual in all stages of health and illness. This concept is vital to the Chronic Illness Control Program and there seems to be a growing realization of its importance among both professional persons and the public. This augers well for "the prevention, early detection and control of chronic illness and rehabilitation of the chronic sick," as outlined in the Act of 1952, New Jersey Statutes Annotated 26:1A-92.

As a means of encouraging this trend, the Division asked the State organizations of various professional disciplines to appoint a representative to a State-wide committee on "Continuity of Care." This committee sponsored a pilot workshop which was held in New Brunswick on April 30. Fifty selected health and welfare workers participated and discussed ways of accomplishing, at the local level, joint planning for joint action by all health and welfare agencies. It is hoped to hold other workshops in all areas of the State to promote evaluation and integration of health services, because continuity of care will become a reality only as professional workers and the public accept the concept and set up mechanisms for achieving it.

PROGRESSIVE PATIENT CARE

As a corollary, some hospitals throughout the country are considering a new plan to provide a cycle of patient services on priority from acute seizure to services for the ambulatory patient. "Progressive patient care" is the term being used by physicians and hospital administrators to describe this proposed system of handling patients that promises better care and more economical operation of hospitals. It provides for different zones within the hospital where care is tailored to the patient's needs, from intensive medical and nursing supervision with emergency equipment close at hand to a self-help unit where a convalescent patient is expected to wait on himself within the limits of his capacity.

ASSISTANCE TO COMMUNITY HOSPITALS

During the past year, the largest proportion of chronic illness funds was used in promotion of comprehensive restorative services in hospitals, planned and undertaken as early as possible, preferably at the time of diagnosis. Hospitals which have undertaken a program of restorative services have laid

groundwork for "progressive patient care," utilizing not only in-patient services but out-patient services and community agencies. In this program, ideally progressive service to the patient is planned at the time of diagnosis, and reviewed from time to time by the patient's physician in collaboration with paramedical personnel of the hospital, including medical social worker, physio-therapist and occupational therapist, and representatives of such community agencies as may be indicated.

Assistance to community hospitals to strengthen chronic illness programs in areas other than restorative services has also been a primary objective of the Division. As in the past, this assistance has included consultation services and educational programs (listed on page 31) for professional personnel. The major expenditure of funds has been (1) for the purchase of scientific equipment for loan to general hospitals for detecting disease by routine screening and to utilize new techniques in diagnosis and control of disease; and (2) through grants-in-aid for paramedical personnel, such as specialized technicians, social workers, and physio-therapists.

The hospitals and agencies receiving grants during the year are listed on page 32. Thirty-one different community hospitals, the New Jersey Hospital Association, and three Homemakers Services received financial assistance in a total amount of \$234,000. The grants helped these local agencies in beginning or strengthening programs for the rehabilitation of alcoholics, the evaluation and correction of hearing and speech defects, diagnostic service for epilepsy and other convulsive disorders, comprehensive restorative services for the ill or disabled, early detection of tuberculosis and heart disease by routine chest X-ray examination, screening tests for early detection of cancer and diabetes, the development of centers for the application of highly specialized techniques in connection with the diagnosis and treatment of cancer and cardiovascular disease, the improvement of food service in hospitals, and the promotion of Homemaker Service.

In re-negotiating the grant-in-aid contracts for the year 1958-1959, 15 per cent of the total amount was assumed by the local agencies, thus releasing this amount of money for promoting other chronic illness programs or similar programs in other localities. Certain hospitals expanded their programs to include additional skilled personnel without additional financial help from this Division. This kind of expansion is regarded as an assumption of further financial responsibility. The programs which are subsidized in selected hospitals or other community agencies serve primarily as a demonstration of the possibility of reducing the burden of chronic illness and, as a result of these demonstrations, similar programs are being adopted in other communities without State financial assistance.

Scientific equipment was purchased for loan to 21 different hospitals during the year (See page 34). There are 64 hospitals throughout the State using equipment placed by the Division since 1953 to improve their chronic illness facilities.

Physician Training

Continued support has been given for lectures, seminars, courses and consultation to bring to physicians scientific information in chronic disease control. This educational program has been in cooperation with community hospitals, medical societies, professional organizations, the Academy of Medicine, and the Academy of General Practice. A listing follows:

ST. MICHAEL'S HOSPITAL, NEWARK

Courses:

- Recent Advances in Internal Medicine (10 bi-weekly sessions).
- Recent Advances in Endocrinology (4 bi-monthly sessions).
- Recent Advances in Clinical Cardiology (8 bi-weekly sessions).
- Cardiac Resuscitation (one day training held once a month).

ACADEMY OF MEDICINE—Chronic Illness Courses:

- Newcomb Hospital, Vineland (4 bi-weekly sessions).
- Newton Hospital, Newton (6 weekly sessions).
- Somerville (6 bi-weekly sessions).

WEST JERSEY HOSPITAL, CAMDEN

Courses:

- Diseases of the Heart, Diagnosis and Management (9 weekly sessions).
- Chronic Illness (3 monthly sessions).
- Services of consultant cardiologists in the development of cardiac diagnostic and surgical procedures.

NEWCOMB HOSPITAL, VINELAND:

- Services of a consultant cardiologist in the development of a rural cardiac facility.

PASSAIC GENERAL HOSPITAL, PASSAIC:

- Services of a consultant cardiologist in the development of cardiac diagnostic and surgical procedures and cardio-pulmonary function laboratory.

BETH ISRAEL HOSPITAL, NEWARK:

- Fifth Annual Diabetes Symposium.

PRESBYTERIAN HOSPITAL, NEWARK:

- Cancer Symposium.

SETON HALL COLLEGE OF MEDICINE AND DENTISTRY, JERSEY CITY:

- Symposium on basic research in muscle physiology.

SUSSEX COUNTY MEDICAL SOCIETY:

- Speaker on rehabilitation.

DEPARTMENT OF HEALTH

LIST OF GRANT-IN-AID CONTRACTS 1957-1958

By Name of Agency and Type of Service

- ALL SOULS HOSPITAL, MORRISTOWN:
Rehabilitation service for alcoholics.
- ATLANTIC CITY HOSPITAL:
Diagnostic and consultation service for convulsive disorders.
Evaluation and correction of hearing and speech defects.
- ATLANTIC COUNTY HOMEMAKER SERVICE:
Homemaker program.
- BERGEN COUNTY BOARD OF FREEHOLDERS:
Homemaker program of Homemaker Service of Bergen County.
- BERGEN PINES COUNTY HOSPITAL:
Rehabilitation service for alcoholics.
- F. W. DONNELLY MEMORIAL HOSPITAL, TRENTON:
Rehabilitation service for alcoholics.
- ELIZABETH GENERAL HOSPITAL:
Diagnostic and consultation service for convulsive disorders.
- ENGLEWOOD HOSPITAL:
Diagnostic and consultation service for convulsive disorders.
- ESSEX COUNTY BOARD OF FREEHOLDERS:
Comprehensive program of restorative services at Essex County Hospital-Belleville.
- FITKIN MEMORIAL HOSPITAL:
Routine chest X-ray of in-patients and hospital personnel.
- HOMEMAKER SERVICE, CRANFORD:
Homemaker program.
- HUNTERDON MEDICAL CENTER, FLEMINGTON:
Routine chest X-ray of in-patients, out-patients and hospital personnel.
Screening tests for diabetes and other chronic disorders.
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.
Medical social services.
- MIDDLESEX COUNTY BOARD OF FREEHOLDERS:
Rehabilitation service for alcoholics (county program with headquarters at Roosevelt Hospital).

DIVISION OF CHRONIC ILLNESS CONTROL

- 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.
Cardio-pulmonary function laboratory.
- MOUNTAINSIDE HOSPITAL, MONTCLAIR:
Routine chest X-ray of in-patients, out-patients and hospital personnel.
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:
Hospital dietary consultant services.
- ORANGE MEMORIAL HOSPITAL, ORANGE:
Cardio-pulmonary function laboratory.
- 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.
Screening tests for cancer.
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.
Evaluation and correction of hearing and speech defects.

- 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.
Cardiac consultant services.
- SALEM COUNTY MEMORIAL HOSPITAL:
Diagnostic and consultation service for convulsive disorders.
- SOMERSET HOSPITAL, SOMERVILLE:
Comprehensive program of restorative services.
- WEST JERSEY HOSPITAL, CAMDEN:
Rehabilitation service for alcoholics.
Routine chest X-ray of in-patients, out-patients and hospital personnel.

LIST OF CHRONIC ILLNESS SERVICES PROMOTED BY
SCIENTIFIC EQUIPMENT LOANED TO HOSPITALS

JULY 1, 1957 - JUNE 30, 1958

- BARNERT MEMORIAL HOSPITAL, PASSAIC:
Work classification unit.
- BERGEN PINES COUNTY HOSPITAL, PARAMUS:
Evaluation and correction of hearing and speech defects.
Cardiac diagnosis and evaluation.
- F. W. DONNELLY MEMORIAL HOSPITAL, TRENTON:
Comprehensive program of restorative services.
- ESSEX COUNTY HOSPITAL, BELLEVILLE:
Comprehensive program of restorative services.
- JERSEY CITY MEDICAL CENTER:
Cardiac diagnosis and evaluation.
- MIDDLESEX REHABILITATION AND POLIO HOSPITAL, NEW BRUNSWICK:
Comprehensive program of restorative services.
- MILLVILLE HOSPITAL:
Cardiac diagnosis and evaluation.
- MOUNTAINSIDE HOSPITAL, MONTCLAIR:
Research studies in peripheral vascular disease.
- NEWARK EYE AND EAR INFIRMARY:
Evaluation and correction of hearing and speech defects.
Diagnosis and evaluation of eye defects.
- NEWCOMB HOSPITAL, VINELAND:
Cardiac evaluation.

- NEW JERSEY ORTHOPEDIC HOSPITAL, ORANGE:
Comprehensive program of restorative services.
- ORANGE MEMORIAL HOSPITAL:
Cardiac diagnosis and evaluation.
- PRESBYTERIAN HOSPITAL, NEWARK:
Demonstration and training in oral cancer.
- PRINCETON HOSPITAL:
Diagnostic and consultation services for convulsive disorders.
- ST. FRANCIS HOSPITAL, TRENTON:
Routine chest X-ray of in-patients, out-patients and hospital personnel.
Evaluation and correction of hearing and speech defects.
Cardiac evaluation.
- ST. MARY'S HOSPITAL, HOBOKEN:
Diagnostic and consultation services for convulsive disorders.
- ST. MICHAEL'S HOSPITAL, NEWARK:
Comprehensive program of restorative services.
- SETON HALL COLLEGE OF MEDICINE AND DENTISTRY, JERSEY CITY:
Diagnosis and control of renal disease.
Cardiac diagnosis and evaluation.
- SOMERSET HOSPITAL, SOMERVILLE:
Comprehensive program of restorative services.
- SUSSEX COUNTY WELFARE HOME, BRANCHVILLE:
Comprehensive program of restorative services.
- WEST JERSEY HOSPITAL, CAMDEN:
Comprehensive program of restorative services.

Participation in National Planning

The Director participated in the Biennial Meeting of State Directors of Chronic Disease Programs, held at Ann Arbor, Michigan, under the auspices of the Public Health Service. The Director and the former Chairman of the State Consultant Committee on Community Homemaker Service are serving on committees to plan for a national meeting on Homemaker Service to be held in Chicago next year. The Coordinator of the Program on Alcoholism is serving as a committee chairman for the North American Association of Alcoholism Programs. At a national meeting of Public Health Social Work Consultants, held in Chicago prior to the Conference of Social Welfare, the State Consultant on Medical Social Work led a workshop on "Adult Chronic Disease and Rehabilitation Programs."

Nutrition

With the cooperation of the State Consultant, Public Health Nutrition, the Division developed a project with the New Jersey Hospital Association to provide dietary consultation to community hospitals. This Division provided a grant-in-aid for the salary of a well-trained dietitian experienced in hospital problems who was employed by the New Jersey Hospital Association. Since she was employed in October, 1957, she has visited 29 hospitals ranging in size from 26 to 622 beds, spending from two to seven days in a hospital. A written report was prepared and presented to the hospital administrator outlining conditions found and listing specific suggestions for improving the food service to patients. The hospitals have been most appreciative of this service.

Alcoholism Control

In June, 1958, the latest statistics on the incidence of alcoholism in the United States were released by the Yale Center of Alcohol Studies. The researchers, Mark Keller and Vera Efrom, using the Jellinek Estimation Formula, found there were 4,712,000 alcoholics in this country and a rate 4,520 alcoholics per 100,000 adult population aged 20 years and over. According to Keller and Efrom, New Jersey has 232,200 alcoholics and ranks second in order of States. Keller and Efrom report, "it has been hypothesized that the rising rate of alcoholism in recent years is an artifact reflecting the increasingly better reports of deaths from cirrhosis of the liver."

Treatment Facilities

On February 1, 1958, All Souls Hospital in Morristown opened a full-time out-patient center for alcoholics. The Hospital is presently involved in an extensive building and renovating program; when completed, the hospital will open a separate section with eight beds for in-patient care of alcoholics.

Plans have been completed for a new out-patient program at Mountain-side Hospital in Montclair. As soon as a psychiatric social worker can be recruited, the program will get underway. For the first time, the request for a service came from the hospital. This is very encouraging and leads us to think the hospitals are becoming more aware and willing to do something about the problem of alcoholism.

On July 1, 1957, a new out-patient service was opened at Bergen Pines County Hospital in Paramus. The Department had a contract with this hospital for about a year, but because of the inability to obtain a psychiatric social worker, the service was not opened on a full-time basis. However, a psy-

chiatric social worker from an alcoholism clinic in another hospital has been working at Bergen Pines on a part-time basis until an additional worker may be secured.

Opening of these two services, brings the total number of facilities for alcoholics throughout the State to nine.

A total of 976 patients made 4,497 clinic visits this fiscal year in the six full-time and three part-time out-patient facilities. We are pleased to be able to show increases in these two areas even though there were two resignations of psychiatric social workers, and a third temporary vacancy due to the prolonged illness of one of the social workers. Four of the nine centers did not operate at full capacity for the entire fiscal year.

Again this year, the largest single source of referral is the practicing physician: 22 per cent of referrals of new patients were from physicians.

Group Therapy

More than 500 individuals attended weekly group sessions held in five tuberculosis hospitals, at the Neuropsychiatric Institute, and at a county workhouse. These sessions, conducted by a representative of this Department, are for persons who are in the institution and also have a problem with alcohol. In many instances, the excessive use of alcohol has resulted in or is the cause of the individual being in the hospital or workhouse.

During the year, the Medical Director of Glen Gardner, the State Tuberculosis Sanatorium, requested our help in the development of a program on alcoholism control. Following several orientation lectures and film showings, for all employees and patients, weekly group sessions were instituted for patients who have an alcoholism problem.

Education

The dissemination of educational materials and approved information on alcohol and alcoholism continues to be an important part of our program.

The quarterly mailing of our publication, "Alcoholism—A Treatment Digest for Physicians," to physicians and other interested persons in the State is an essential part of our educational program. The Digest is in its seventh year and has been a useful periodical to the practicing physician, according to a recent survey. Much of the material used is syndicated from the Yale Center of Alcohol Studies. The Department of Health has exclusive use in New Jersey. Of the 557 physicians who returned post cards with regard to the usefulness of this publication, 532 answered favorably, and over 200 took the trouble to write favorable comments, many of which will be helpful to us in planning future issues.

During the year, we participated in a total of 32 meetings on alcoholism with such groups as service clubs, social and welfare agencies, medical and nursing groups, probation officers, social workers, and parent-teacher associations.

The use of films as a means of disseminating information has proved very useful. During the past year, there were 313 film showings with a total attendance of 21,252. A large percentage of these persons were of school age, and it is with this group we must continue to work toward the prevention of alcoholism.

The first Conference on Alcoholism for Clergymen in New Jersey was co-sponsored by this Program and the New Jersey Council of Churches. The meeting was held in Newark with an attendance of 85 clergymen from north and central areas of the State. Because of the favorable response and interest, we plan to hold similar conferences annually.

Another first for our Program was a Workshop on Alcohol Education for teachers, offered at the State Teachers College in Trenton. This two-week Workshop gave two semester hours credit. We hope to continue to sponsor this course with the State Teachers Colleges, and hope to offer it next year in the northern part of the State.

Training Program

Ten individuals availed themselves of scholarships to the Yale Summer School of Alcohol Studies. The scholarships were offered by this Department to persons interested in developing their skills in dealing with the problems of alcoholism. Those who attended included social workers, clergymen, parole officers, teachers, and a psychologist.

Because of the difficulty in obtaining trained and experienced personnel for our out-patient treatment centers, a training program was developed during the year. Trained but inexperienced workers have been placed in certain clinics under qualified supervision for a period of training in the field of alcoholism. After this training, we hope to be able to place these trainees in new centers as they become available. In addition to providing training for the workers, the services to patients are greatly increased when an additional worker is added to the staff.

Program Emphasis

The Program Coordinator is a member of the Mercer County Committee on Alcoholism which has completed a one-year study of the facilities available for alcoholics in the county. The purpose of the committee is to provide a community-wide approach to deal with the problems of alcoholism. This

committee was organized at the request of the Board of Chosen Freeholders of Mercer County. Recently, this committee submitted a report with recommendations to the Board, asking that it institute part of the program, as submitted, at the County Workhouse. Mercer County is the first to examine the alcoholism problem on a county basis following legislation (Chapter 213, Laws of 1956) passed in January, 1957, authorizing boards of chosen freeholders to establish programs to deal with the alcoholism problem. The accomplishments of this committee are a good example of what a well-organized and representative committee can do to combat a major public health problem.

Several meetings have been held with representatives of Seton Hall Medical School to develop a comprehensive program of treatment, rehabilitation, training, and research. The details of the program have been approved and it is hoped the program will be initiated during the next fiscal year.

Future plans include the development of new out-patient treatment centers for residents of other areas of the State so that all who need this service will find it readily available; continuation of the promotion of conferences and workshops for professional and lay persons; expansion of educational programs to include all groups, and expansion of speaker services.

CANCER CONTROL

There are, as yet, no new, spectacular approaches to cancer control. The method of attack is: Early diagnosis with proper and adequate treatment. It is hoped that a break-through will come soon from the great amount of research being carried on throughout the world in psychology and chemotherapy in relation to cancer.

A Screening Demonstration

The cancer screening program for State employees, which was started last year, has been continued. 1,382 men were screened for lung cancer and 113 women for cervical cancer. This program has the two-fold purpose of providing health services to State employees and of determining the practicality of certain modifications in collecting material for cytology examinations. If these modifications prove feasible for this captive group, they will be employed in other situations involving different socio-economic groups and those age groups most vulnerable to cancer.

In collecting specimens from women, the Draghi Tampon is used in place of the usual aspiration technique. The women are carefully instructed in small groups and given the material for collection of a specimen at home. These specimens are examined, using Papanicolaou techniques, in two cytology cen-

ters which have been developed with State assistance—Presbyterian Hospital in Newark and Hunterdon Medical Center, Flemington. The program as it is being carried on has educational value as well as providing specimens for study and evaluation as a screening procedure.

The men also are instructed in groups and are then given material for the self-collection of sputum specimens. The same procedure as described for women is used in the examination of the specimens, except that the laboratory work is carried on at Pollak Hospital, Jersey City.

Pollak Hospital has continued the special lung neoplasm study of hospital patients; 375 patients with chest pathology were studied during year, 113 of whom were diagnosed as cancer of the lung. Hunterdon Medical Center continued the examination of vaginal smears from in-patients and 1,500 women participated in this study.

Radiobiology and Cancer

The increasing concern about biological aspects of radiation, the development of more penetrating and powerful instruments, and the increase in man-made isotopes, as applied to the diagnosis and control of cancer, make it essential that dosimetry be calculated by a physicist. It is necessary that hospitals carrying out procedures in cancer diagnosis and treatment have adequate facilities and specially trained personnel. The Cancer Program has therefore continued the support of a physicist at the cancer center of the United Hospitals of Newark (Presbyterian Hospital) as a demonstration. This physicist is a member of the team concerned with the use of isotopes and deep X-ray therapy. She has become so useful to the medical staff of the hospital that the administration hired a junior physicist to aid in the work. The workload has doubled in the past year:

Type of Treatment	1956-1957	1957-1958
Radiation Therapy	256 patients	539 patients
Isotope	301 patients	336 patients
Deep X-ray therapy	7,513 treatments	12,384 treatments

Assistance was also given to Presbyterian Hospital in a study of the use of the "Positron," a complex diagnostic instrument using isotopes for the diagnosis of brain tumor.

Lymphoma-Leukemia Study

The Cancer Program undertook an epidemiologic study in cooperation with the Program on Veterinary Public Health and the Public Health Service, using dogs as possible indicators of disease. A State-wide lymphoma registry for dogs is contemplated, as well as for humans. This project is planned for a five-year period. A diagnostic service for this study has been established in cooperation with the State laboratory and a Veterinarian Pathology Consultant.

Professional Education

The orientation program for nurses which was started last year at Presbyterian Hospital, Newark, was continued. This opportunity to spend a day at the cancer center has been greatly appreciated by public health nurses throughout the State. The newest techniques of the diagnosis and treatment of cancer patients are observed and follow-up care of the patients in the hospital and in the home is discussed. This year, 226 nurses attended in addition to the 157 nurses who attended last year.

The training of cytology technicians was continued at Presbyterian Hospital. With present facilities, five technicians are being trained each year.

The physicist at Presbyterian Hospital trained five X-ray technicians and one isotope technician.

A symposium was held for physicians and paramedical personnel on the subject "Radiation Problems, Hazards, and Safeguards in Medical Practice." Physicists, geneticists, and radiologists participated in the program which was attended by about 100 physicians.

The Program Coordinator participated in a two-day workshop on cancer for local health officers which was arranged by the Division of Local Health Services with a committee of local health officers. A total of 35 attended. Arrangements were made for them to visit the cancer center at Presbyterian Hospital and 23 of them took advantage of this opportunity to spend the day at the center, as did three of the District State Health Officers.

The Program Coordinator lectured to nurses as a part of the in-service training of the Department. She also participated in the first workshop for teachers and educators held by the New Jersey Division of the Cancer Society.

Copies of the pamphlet "Self-Examination of the Female Breast" were sent to 45 physicians on request in a total amount of 4,500 copies.

The Program Coordinator participated in a Cancer Symposium arranged by the Regional Office of the Public Health Service. Attendance at this meeting was limited to representatives of the official Cancer Program in New

York and Pennsylvania, the American Cancer Society, and medical schools. In addition, each State was privileged to invite two representative practicing physicians.

Cardiovascular Disease

During the past fiscal year, there has been continuing marked expansion and consolidation of projects for the Cardiovascular Disease Control Program in the fields of prevention, detection, diagnosis, and control. Largely, as before, effort has been directed toward development or expansion of community facilities, through cooperative planning with community agencies.

Educational Programs

Courses for physicians were continued at West Jersey Hospital, Camden, and St. Michael's Hospital, Newark, with continuing good attendance and interest. We plan to continue the joint educational program at St. Michael's Hospital, under auspices of the College of Medicine and Surgery, Seton Hall University.

A workshop planned by a committee of State and local health officers for full-time health officers was held in Lakewood. Interpretation of general information concerning the various heart diseases was followed by group sessions to discuss ways in which local health officers might lend assistance in the problem of community facilities for the cardiac patient. This seminar was well received by all participants, and proved helpful in considering next steps in the Program.

New Projects

Assistance was given to the Hospital of the Oranges, by loan of equipment and grant-in-aid for services of a bio-chemist, to establish a cardiac physiology and surgical unit.

Equipment was loaned to Barnert Memorial Hospital, Paterson, for use in a Work Classification Unit, the first in Passaic County and recently developed by the Heart Association in joint planning with State and local agencies. The Unit is now fully active and contributes excellent service in a heavily industrial area.

Diagnostic equipment was also loaned to the Cardiac Clinic at Jersey City Medical Center to promote early detection of heart disease.

At Passaic General Hospital, the service of a consulting physiologist was provided to give guidance in the proper development of the cardiac surgical unit.

New projects were established (a) at Morristown Memorial Hospital to help in a pulmonary function unit; (b) at Millville Hospital to improve laboratory services for the cardiac patient; (c) at St. Francis Hospital, Trenton, to stimulate the development of a work classification unit; and (d) at Somerset Hospital to improve the safety of surgical procedures in the aged.

Continuing Programs

Further assistance and services were given to a number of existing cardiac facilities throughout the State. Consultation services were continued at Newcomb Hospital, Vineland; West Jersey Hospital, Camden; and St. Michael's Hospital, Newark. Grants-in-aid were continued to Newcomb Hospital, Vineland; Hunterdon Medical Center; and Mountainside Hospital, Montclair. Equipment was provided to (a) Seton Hall University, College of Medicine and Surgery, to assist in establishment of its cardiac physiology laboratory; (b) Mountainside Hospital to expand its rehabilitation services; and (c) Bergen Pines County Hospital to improve patient safety during surgical procedures.

During the first six months of the fiscal year, a total of 50,250 people were screened through community chest X-ray surveys, of which 2.65 per cent were cardiac suspects. Suspects were notified to report to their physicians for further examination and the physicians were notified of the X-ray findings. A review of 426 replies received from doctors indicated that at least 25 persons with previously unknown heart diseases were brought under treatment. The physicians indicated that 319 additional cases were previously known, and in many instances the physicians expressed appreciation of the referral as it had impressed upon patients the importance of regular medical check-up.

Cooperation with the Rheumatic Fever Program has further increased the number of patients brought under proper care.

Public Health Nursing

Attention was given to public health nursing service as a part of the total program of heart disease control. Through public health nurse consultant services, there has been active participation in planning, with nursing representatives of State and local agencies, for program meetings, institutes and workshops relating to nursing aspects of heart disease control. These educational efforts are sponsored by the county heart associations, in cooperation with local hospitals, community nursing service agencies and State and other official organizations.

Public health nursing materials have been prepared such as a guide sheet for follow-up of patients with heart disease, in-service education outlines,

reference reading lists and other teaching aids, to provide essential tools for improvement of nursing services. In conferences and consultation services with members of nursing and other disciplines, coordination of community care has been stressed as an essential element in achieving continuity of care for the heart patient.

Planning for the future includes the provision of clinical observation and experience for nurses in cardiac clinics and teaching centers.

Plans for the Coming Year

In the coming year, a pulmonary physiological laboratory is scheduled to start in Middlesex General Hospital, New Brunswick, under the direction of a biochemist supported by a State grant-in-aid. This laboratory will help to solve the serious problem of pneumoconiosis, existing in this heavily industrialized region. In addition, it is hoped that cardiac clinic services will be extended at Shore Memorial Hospital in Somers Point, and at Newton Hospital, thus making further progress toward the goal of improving medical care in the rural communities in the State.

Chronic Disease Program

In cooperation with the Academy of Medicine and local county medical societies, three series of lecture courses in chronic disease were given, at the Newcomb Hospital in Vineland, Newton Hospital at Newton, and in Somerville. The courses were sponsored by the county medical societies in the adjacent areas and were open to all members. The subjects, covering a broad spectrum of chronic disease, were chosen by program committees from county medical societies and the local hospitals, and outstanding speakers in each field were obtained. The speakers and those who attended the programs felt that they mutually benefited, and constructive suggestions were made relative to future programs.

A one-day symposium on basic research in muscle physiology was held at Seton Hall School of Medicine, sponsored jointly by Seton Hall and this Division. Sixty-five physicians from the Metropolitan area attended.

In cooperation with the Coordinator of the Nutrition Program, and a consultant in allergy, an informative pamphlet containing a diet manual on food allergy has been prepared for distribution among physicians, and for the use of those directing the management of persons with allergies to foods.

In cooperation with the Coordinator of the Nutrition Program and a consultant in biochemistry, an informative paper on diet and atherosclerosis has been written for publication in a scientific journal, and a question-and-answer type pamphlet on the same subject prepared for lay distribution.

Arthritis

A program was planned in a new and important area of chronic disease, arthritis. Two program-planning conferences were held and were attended by 28 representatives of interested agencies and the professional societies in the fields of medicine, nursing, physical therapy, social work, occupational therapy and rehabilitation. At the second conference, working committees in the fields of medical services, special services, and general services were formed, from whose activities an orderly program will result. Closer cooperation between those agencies and professions presently concerned with arthritis sufferers, to avoid duplication, as well as the expansion and betterment of facilities for the various services which arthritics require, will form the broad basis of this program.

Convulsive Disorders

This Program has attempted to facilitate early detection of convulsive disorders by the use of electroencephalograph instruments which have been placed in community hospitals, and for which the services of technicians have been subsidized. In the past year, the work of this Program was augmented by the placement of two additional electroencephalograph instruments, one at St. Mary's Hospital, Hoboken; the other at Princeton Hospital. The equipment can be used to best advantage in these hospitals because they have developed a neuropsychiatric wing as a part of the services of a general hospital.

A total of 3,034 recordings were reported from the 12 hospitals using this equipment, compared with 2,500 reported from 11 hospitals last year. The number classified as "convulsive" was 42 per cent (1,284/3,034), and as "tumor," 6½ per cent (207/3,034). A new one-sheet simplified electroencephalograph reporting form has been devised and is currently in use by the hospitals using the electroencephalograph instruments.

The Convulsive Disorder Consultation Service, a combined project with the State Department of Institutions and Agencies and several interested professional organizations, examined 202 patients referred by 179 physicians in the hospitals designated as Consultation Centers in the four State Health Districts. This brings the number of patients examined by this Service over its six year history to 848. Plans are almost concluded for a fifth consultation center in the Metropolitan District.

The Advisory Council to the Convulsive Disorder Service has stimulated active liaison with the Bureau of Motor Vehicles. A conference and a series of consultations have taken place, and an orderly combined procedure for licensing drivers with controlled convulsive disorders is being developed.

Hearing and Speech

Continued grant-in-aid assistance has been given to the Newark Eye and Ear Infirmary and to Hunterdon Medical Center in support of hearing and speech centers. New centers were opened at the Atlantic City Hospital and at St. Francis Hospital, Trenton, after many consultations with local agencies. The center at St. Francis Hospital had a particularly successful first year, due in part to the fact that the need has been recognized for several years and the Junior League has actively promoted such a program. A second therapist was needed and was employed, using local funds for these additional salaries.

The Bergen Pines County Hospital is preparing to open a hearing and speech center and this Division has assisted by loaning needed equipment.

These hearing and speech centers demonstrate the importance of an adequate otolaryngological examination and medical-social evaluation of patients in a community hospital setting.

The following is a summary of the service rendered by the hearing and speech centers:

<i>Hospital</i>	<i>No. of Patients</i>	<i>No. of Patients Visits</i>
Atlantic City Hospital	84	420
St. Francis Hospital, Trenton	219	1,011
Newark Eye and Ear Infirmary	962	20,446
Hunterdon Medical Center	311	1,668

A speech screening program for school children was carried on in some of the Hunterdon County schools and a speech improvement program outlined for children who need it. Children with speech difficulties were also screened for hearing defects to determine the possible relationship of hearing loss and speech problems.

A special project was carried on by the Newark Eye and Ear Infirmary to evaluate three different methods of screening children for hearing defects. Approximately 10,000 children were included in the study.

Homemaker Service

A new Homemaker Service began operation in Atlantic County and provided 1,500 hours of service during the year. This brings the total of functioning Homemaker Services in this State to eight.

Grant-in-aid assistance was given to three of the eight Homemaker Services on a demonstration basis to provide full-time directors (Atlantic County

Homemaker Service, Inc., The Community Homemaker Service of Bergen County, and Homemaker Service, Inc., in Cranford, providing service for part of Union County). The other five Services were supported entirely by local agencies.

The eight Services, as listed below, provided 116,000 hours of service to 1,500 families:

Atlantic County Homemaker Service, Inc., Ventnor
 Chr-III Homemaker Service, East Orange (Essex County)
 Homemaker Service, Inc., Cranford (part of Union County)
 SAGE Visiting Homemaker Service, Summit (part of Union County)
 The Community Homemaker Service of Bergen County, Inc., Englewood
 Visiting Homemaker Service of Middlesex County, Inc., New Brunswick
 Visiting Homemaker Service of Morris County, Morristown
 Passaic County Homemaker Service, Paterson

In addition, three counties have completed organization and should be serving the public early next year: Hunterdon County, Monmouth County, and Somerset County.

Interest is developing also in Burlington County, Cape May County, and Hudson County. Members of the State Consultant Committee have been largely responsible for stimulating interest and guiding local individuals and groups in planning and organizing Services.

The Training Course for Homemakers, conducted by Rutgers University Extension Division and subsidized by this Division, was given eight times and was attended by 132 Homemakers. Almost 500 women have attended these courses since they were initiated four years ago.

After this experience with the Training Course, committees were appointed to evaluate the Course and to suggest revisions. Fifty women, experienced volunteers and representatives of various professional disciplines, working in 10 different committees, prepared a revision which was adopted and has been used since January 1, 1958. Formerly a 16-hour course, the revised course provides for 19 required hours and three elective hours and adds sessions on Understanding Children, Understanding the Elderly, Understanding Mental Illness, Orientation to Occupational Therapy, Accident Prevention and Safety in the Home.

After two years of planning, a 30-minute motion picture entitled "Home Again" was completed. This was initiated by this Division and was made by the Mental Health Film Board in cooperation with other agencies. Five copies have been put into use to promote the Program in areas of the State not now covered. Several pamphlets originated by the Consultant Committee in cooperation with the Division were revised and widely distributed. A new exhibit was prepared.

The Consultant Committee on Community Homemaker Service, composed of 40 representative women from various parts of the State, held four meetings during the year. The Executive Committee met frequently. The Executive Committee is composed of the Chairman of the State Committee and the chairmen of its four Divisions: Administration Division, Financial and Legal Division, Organizational Division, and the Program, Education and Training Division. Work of the sections resulted in approved "Recommended Personnel Standards and Practices" and "Recommended Standards for Homemaker Services," and approval from the Medical Society of New Jersey of certain specified activities of the Homemakers in relation to patients.

Restorative Services

Negotiations for the establishment of comprehensive rehabilitation services at Donnelly Memorial Hospital, Trenton, which have been carried on over a two-year period, were completed, and agreement reached as to the support that will be given by the City Government, the State Rehabilitation Commission, the State Department of Health, and several community agencies. As its share, this Division has already purchased equipment for the use of therapists in the restoration of physical function and has entered into a grant-in-aid contract effective July 1, 1958 to provide funds for a demonstration period for salaries of a medical social worker, a physical therapist, an occupational therapist, a supervising nurse trained in rehabilitation, and a clerk. As soon as personnel can be recruited, the service will be started for patients referred by the Rehabilitation Commission and by other hospitals. Twenty beds will be available at the beginning of the program and it is hoped to increase the number of beds later as may be needed and to establish out-patient services.

Continued support has been given with equipment and grants-in-aid to the projects in Essex County Hospital and Camden County General Hospital, demonstration projects of the possibilities for restoring to some measure of activity the public welfare cases hospitalized in these institutions. A study just completed, of 188 patients who have been admitted to the program at the Essex County Hospital since it was initiated in 1955, indicated that estimated savings of \$400,000 have been effected. These patients are now in nursing homes, boarding homes, or with families, with various reductions in the cost of their maintenance.

The demonstration program in a general hospital, Somerset Hospital, Somerville, also has received continued assistance. Mountainside Hospital, Montclair, continues to make good use of equipment on loan to it in its excellent rehabilitation program.

SOMERSET HOSPITAL:

Number of in-patients	Physical Therapy	136
	Occupational Therapy	24
Number of out-patients	Physical Therapy	230
	Occupational Therapy	30
Number of patient visits		3,800

CAMDEN COUNTY HOSPITAL:

Number of patients evaluated	209
Number of patients accepted for treatment	164
Number of patient visits	757
Number discharged from unit as improved	50

MOUNTAINSIDE HOSPITAL, MONTCLAIR:

Number of patients	980
Number of patient days	18,768

ESSEX COUNTY HOSPITAL, BELLEVILLE:

Number of patients evaluated	93
Number accepted for treatment	72
Number of visits	8,800

Also, substantial assistance through the loan of equipment has been given to the following hospitals to strengthen their programs for restoring function to the disabled: Middlesex Rehabilitation and Polio Hospital, New Brunswick; West Jersey Hospital, Camden; Hospital of the Oranges; St. Michael's Hospital, Newark; and the Sussex County Welfare Home.

Grants-in-aid for medical social workers in seven hospitals have strengthened the program of restorative services in the respective hospitals, as reported in the Public Health Social Work section of this report.

Screening in Hospitals

Eighteen general hospitals are using X-ray equipment on loan from this Department and eight received grants-in-aid in connection with routine chest X-ray screening programs for patients and hospital personnel. Among 41,000 persons X-rayed, as reported by 13 of the hospitals, 13 per cent had presumptive positive findings as follows:

Cardiovascular disease	49 Per cent
Tuberculosis	8 Per cent
Tumor	3 Per cent
Other	40 Per cent

Three additional X-ray units have been ordered but have not yet been placed. It is anticipated that these will be used to replace fluoroscopes as a precaution against radiation hazards.

Hunterdon Medical Center continued its demonstration, using several screening procedures. Of 1,562 persons screened, presumptive abnormalities were recorded from the following tests:

Chest X-ray	117
EKG	67
Blood Pressure	234
Diabetes	10
Hematocrit	149

State Employees Health Program

Diabetes and cancer screening tests were again made available to State employees. 1,382 men and 113 women availed themselves of cancer tests and 2,152 employees were screened for diabetes. Details of these programs are included in the cancer and diabetes sections of this report.

Chest X-ray, which has been provided for several years, was not offered this year, in line with State-wide policy to concentrate this program on groups with a high incidence of tuberculosis. State employees are a low incidence group.

Diabetes

Professional and public education was given great emphasis in the Diabetes Control Program during the year 1957-1958. The following activities were included:

On October 30-31, 1957 a diabetes institute for health officers was held in Lakewood, N. J. The workshop technique was utilized, with coverage of both medical and public health aspects of diabetes control as subjects. Formal lectures, exhibits, demonstrations, films and round-table discussions were utilized. One "hit" of the session was a dramatic presentation, with Departmental personnel enacting a scene in the doctor's office, to demonstrate the necessity for a "team approach" to diabetes control.

The Fifth Annual Diabetes Symposium for physicians was held in October, 1957. A new technique was utilized in that the setting for the meeting was the Beth Israel Hospital, Newark, and a morning session consisted of diabetes teaching ward rounds with an eminent specialist from Boston. The afternoon was taken up with lectures and a panel discussion. An interesting scientific diabetes exhibit was displayed.

A special pamphlet concerning diabetes detection was prepared and distributed to all New Jersey physicians.

Surveys in the past have indicated a lack of uniformity in New Jersey in the field of diabetic dietary management. The Diabetes Control Program

advocates the system "Meal Planning with Exchange Lists," but realized that all New Jersey physicians are not acquainted with this method. In order to eliminate this defect, a packet of literature was sent to every New Jersey physician. This included a booklet called "Meal Planning with Exchange Lists," a Diabetic Diet Card for Physicians, nine sample diet lists and a pamphlet called "Taking Care of Diabetes."

The Program Coordinator participated in a regional meeting of the Industrial Nurses Association, and discussed the subject "Employment and Diabetes." Due to the great interest on the part of this group, reprints of an article by the Committee on Employment of the American Diabetes Association was sent to each interested nurse. The title of the reprint is "Employment of Diabetics."

Education of the general public was a large part of Diabetes Detection Week. Approximately 140,000 diabetes leaflets were distributed throughout the State. Numerous articles appeared in newspapers, and the Program Coordinator participated in several radio programs. Diabetes Detection posters were displayed in most communities. The Program Coordinator arranged a public forum on diabetes.

The Program Coordinator participated in a meeting of the Central and Southern New Jersey Dietitians. Plans were made for a pilot demonstration of group instruction for diabetic patients referred by personal physicians.

County and local health chairmen of the New Jersey Congress of Parents and Teachers showed great interest in diabetes at a Workshop at Trenton State Teachers College.

Screening Tests

Diabetes detection activities included both blood and urine test methods. The statistics referable to diabetes detection are included in the accompanying table.

The use of the St. Louis Dreyapak has been relegated more to the role of specific high incidence groups, where percentages of utilization are greater. The new enzyme urine sugar test methods have somewhat replaced the Dreyapak at the local level, because of inherent simplicity and accuracy of the test material.

The Diabetes Program has cooperated with the Venereal Disease Program in the performance of diabetes tests on blood drawn for serology studies for syphilis. This proved an economical means of surveying for diabetes since more than one test is performed on a single blood specimen.

The Public Health Nurse Consultant to the Diabetes Program was active in a number of projects. She made valuable observation visits to numerous

diabetes clinics in New Jersey hospitals. She participated in the Diabetes Workshop for Health Officers, the Teaneck diabetes detection program, and in many diabetes meetings. The Consultant also made valuable observation visits to a newly opened summer camp for diabetic children.

Table 1*
DIABETES SCREENING: 1957-1958
RESULTS OF DREYPAKS TESTED†

	Number Tested	Positive Reactors	Known Diabetic	Newly Diagnosed Diabetic	Potential Diabetic	Diagnosis Not Determined	Negative	Diagnosis Incomplete
Industries	745	8	..	1	1	1	5	..
State Employees	881	6	1	1	2	1	1	..
General Public	2,014	44	5	8	5	12	13	1
Totals	3,640	58	6	10	8	14	19	1

† These figures include only those Dreypons returned to State Laboratory or volunteer hospital laboratories for testing.

BLOOD SCREENING TESTS

	Number Tested	Results as Reported by the Individual's Physician					
		Positive Reactors	Known Diabetic	Newly Diagnosed Diabetic	Potential Diabetic	Diagnosis Not Determined	Negative
Industries	190	5	..	1	1	1	2
State Employees	1,271	9	3	3	2	..	1
Teaneck Survey	1,538	28	7	7	..	3	11
Totals	2,999	42	10	11	3	4	14

* Tables are numbered consecutively by Division.

Public Health Social Work

The Public Health Social Work Program has directed efforts toward integrating its Program with all related programs of the State Department of Health during the past year, at both State and District levels. This approach, in collaboration with other disciplines, has assured joint assessment and planning for Program goals.

Program Personnel

A new District Consultant, Medical Social Rehabilitation, began work in the Metropolitan District in May, 1958. A planned program of orientation to the Public Health Social Work Program was carried out for her.

District Consultants of the Northern and Central Districts resigned during the year to accept faculty appointments on the teaching staffs of the University of Pittsburgh, School of Social Work, and the Harvard School of Public Health. It has been impossible to fill these vacancies.

The acute shortage of qualified medical social workers presents a serious problem. The demand for social workers and the high salaries which they can command elsewhere makes it difficult to recruit well-qualified personnel and to retain those already employed. This has resulted in interruption of some programs; for example, a vacancy has existed since May, 1957 at the Essex County Hospital. This was the first demonstration in comprehensive restorative services promoted by the Division in cooperation with the County Freeholders and County Welfare Board and has served as a model for other programs. The State Consultant was successful in recruiting workers for the Camden County Hospital and Somerset Hospital.

Social Work in Hospitals

Grant-in-aid demonstration projects in community hospitals and county institutions have demonstrated tangibly the value of long and short term case work service. There are now projects covering medical social workers in Somerset Hospital, Somerville; the Hospital Center at Orange; McKinley Memorial Hospital, Trenton; St. Michael's Hospital, Newark; West Jersey Hospital, Camden; Camden County Hospital, Blackwood; and Essex County Hospital, Belleville. A total of 2,036 patients received case work service related to problems of a personal or environmental nature, which interfered with obtaining the maximum benefits from medical care. This involved 4,236 case work interviews.

These demonstrations have undoubtedly contributed to the interest in medical social services which has been expressed by other hospitals including Warren Hospital, Phillipsburg; Columbus Hospital, Newark; and also, the Newark Visiting Nurse Association.

In his inaugural address in May, 1958, the new President of the New Jersey Hospital Association gave strong support to the field of medical social work.

"If we are to make significant progress in dealing with problems such as hospital utilization, earlier discharge of patients, development of plans for

the continuity of patient care, establishing mental health clinics, developing home care programs and rehabilitation services, we will need the advice and counsel of qualified personnel in the medical social work field. For over 50 years, this professional group has made outstanding contributions in the field of medical care and still there are some large general hospitals in this State which do not include them on their staffs. I would urge that the Committee on Professional Practice explore the possibility of establishing a joint committee with this professional group to review areas of common interest and to seek their advice and counsel in the development of plans for improved patient care."

This new sub-committee has been appointed as part of the professional committee of the New Jersey Hospital Association with representation from the National Association of Social Workers, Medical Social Work Section, in New Jersey. This sub-committee should accelerate the trend to incorporate qualified medical social workers as an essential part of hospital staffs. Social work consultation and educational material have been provided to the committee by the State Consultant.

Other Activities

Other activities included conferences related to the development of public health social work projects; consultation to homemaker committees; consultation regarding restorative services to hospitals, sanatoria, and welfare homes; educational conferences; meetings related to Departmental programs; staff conferences conducted for District Consultants, Medical Social Rehabilitation; pre-planning conferences for workshops, seminars and meetings and participation in workshops and seminars; consultation with professional staff of Divisions and Districts; consultation with other public and voluntary agencies; participation in the evaluation of existing grant-in-aid projects and the development of new projects.

Social Research

In cooperation with the Essex County Board of Freeholders, the Essex County Welfare Board and the Essex County Hospital, Belleville, the State Consultant, Medical Social Rehabilitation and the statistician of the Department have completed an admission and cost analysis study of the 188 patients who received restorative services in the Essex County Hospital over a 2½ year period—5-1-55 to 12-31-57. This study was designed to evaluate both the restorative aspects as well as the financial savings resulting from restorative services.

An analysis of some of the findings of this study revealed estimated savings of \$400,000 resulting from this program of restorative services at the hospital. This study illustrates the importance of intensive restorative services, beginning ideally at the time of diagnosis.

National Conferences

The State Consultant, Medical Social Rehabilitation led a workshop on "Adult Chronic Disease and Rehabilitation Programs" at the National Meeting of Public Health Social Work Consultants, held in Chicago prior to the National Council of Social Welfare.

This workshop was attended by representatives from the Federal government, medical social work consultants from 24 State health departments and Hawaii and Puerto Rico.

Marked interest was expressed by the group in the written Public Health Social Work Program of this Department, as it is a new pattern for written programs for social work in the public health setting. Its "community focused" approach, through use of consultation only, created great interest. Copies of the Public Health Social Work Program were distributed.

The State Consultant also participated as a leader in the discussion following the showing of the film "Home Again," the new homemaker film, at the National Conference on Social Welfare. It was enthusiastically received by over 150 social workers who attended this showing.

Tuberculosis Control

The year 1957-1958 has been eventful in Tuberculosis Control. The shift of emphasis in case-finding from mass X-ray surveys to selective screening of populations in areas of high tuberculosis incidence has been accelerated. During the calendar year 1957 there were 128,816 persons examined in the X-ray screening program. Of this number, 42,120 X-rays were taken in Newark; 10,457 in Atlantic City; 7,163 in Camden and 10,981 in Trenton; four of the major high incidence areas within the State. Tables 4, 5 and 6 provide other pertinent data.

Public reaction to a nation-wide news release by the Surgeon General of the Public Health Service, recommending selective screening and pointing up the need to reduce exposure to unnecessary radiation, was most helpful in moulding public opinion to more ready acceptance of the Mantoux intradermal tuberculin test as a safe and economic case-finding procedure.

Tuberculin Testing

A tuberculin testing pilot study in Somerset County and Mercer County schools was successfully conducted with the cooperation of the State Department of Education, the Medical Society of New Jersey, the New Jersey Tuberculosis and Health Association, the Archdiocese of Trenton of the Roman Catholic Church and the medical societies, tuberculosis associations, and school authorities of Mercer and Somerset Counties.

In Somerset, a county of low reported tuberculosis incidence, there were 83 reactors found among 5,695 children tested, an over-all reactor rate of 1.5 per cent. In Mercer, a high reported incidence county, 694 reactors were found among 19,219 children tested, an over-all reactor rate of 3.6 per cent. The reactor rate in Trenton schools was double that of schools elsewhere in the county.

Incomplete follow-up of reactors and their contacts in Mercer County has thus far uncovered six active heretofore unknown tuberculosis cases. No active cases were found in follow-up of Somerset County reactors and contacts. This was not too surprising; Somerset County was selected as a control because it is a low incidence county.

Joint consideration by the State Departments of Education and Health and the New Jersey Tuberculosis and Health Associations has resulted in specific recommendations for voluntary tuberculin testing in New Jersey schools in 1958-1959 of all children entering school for the first time, students in high school, students in State teachers colleges and teachers and employees of all schools. Appropriate X-ray examination of positive reactors has been recommended.

New X-ray equipment was installed on lease at Somerset Hospital, Somerville, and St. Francis Hospital, Trenton, for X-ray screening of patients and personnel. This equipment is expected to reduce radiation exposures per chest film by 70 to 80 per cent by reason of increased speed and reduced exposure time.

The Tuberculosis Control Program also continues to provide personnel and equipment to locally administered clinics in many areas of the State as indicated on Table 7.

There was a considerable increase in effort during the year to reduce radiation hazards in State-owned X-ray equipment. Ten inspections were made to assure safe operation thereof.

The tuberculosis death rate for 1957 in New Jersey was 9.8 per 100,000 population, the lowest in recorded history. However, this is only slightly lower than the rate of 10.0 for 1956. A comparison of death rates for the five-year period 1953-1957 is indicated in Table 8.

The reported incidence of tuberculosis cases, although decreasing, has not declined as rapidly as has mortality. The case rate of 34.2 per 100,000 population for newly reported active cases in 1957 may be compared with previous years in Table 9. The 1,806 active cases reported in 1957 added to those remaining active from previous years and an estimated several hundred undiscovered active cases indicates a need for efficient control measures and case-finding activities.

Detailed morbidity and mortality data for counties and major municipalities of the State for 1957 are shown in Tables 10, 11, 12, 13, 14, 15, and 16.

Table 2

TREND OF DAILY PARTICIPATION AND REFERRAL RATES FOR COMMUNITY AND INDUSTRIAL SURVEYS, NEW JERSEY: 1953-1957

Calendar Year	Total Readable Plates	Average Daily Participation	Per cent Referral Rates				
			TB	Cardiac	Cancer	Pulmonary (Non-TB)	Other
1953	141,984	414	3.10	2.49	.19	.85	.24
1954	96,566	535	3.39	3.3	.19	.86	.27
1955	115,255	437	3.22	3.23	.21	.74	.22
1956	143,616	371	3.21	3.72	.15	.81	.16
1957	128,816	210	3.26	2.89	.15	.16	.12

Table 3

TUBERCULOSIS CASE REPORTS RESULTING FROM STATE SPONSORED SURVEYS VS. TOTAL MORBIDITY, SELECTED CITIES: 1956-1957

Area	Year of Report	1956		1957			
		Total Cases Reported	Survey Cases		Total Cases Reported	Survey Cases	
			Number	Per cent		Number	Per cent
Atlantic City	140	54	38.6	115	37	32.2	
Camden	139	37	26.6	117	41	35.0	
Trenton	146	31	21.2	154	28	18.2	

DEPARTMENT OF HEALTH

Table 4

TUBERCULOSIS CASES REPORTED AS RESULT OF STATE SPONSORED SURVEYS
VS. TOTAL MORBIDITY, 18 COUNTIES SURVEYED: 1957

County Survey Area	Total Cases Reported 1957	Case Reports Resulting from Surveys	
		Number	Per cent of Total
<i>18 Counties</i>	3,432	306	
Atlantic	161	49	30.4
Burlington	62	11	17.7
Camden	152	43	28.3
Cape May	33	1	3.0
Cumberland	72	9	12.5
Essex	658	96	14.5
Gloucester	33	3	9.0
Hunterdon	13	0	0
Mercer	285	41	15.8
Middlesex	192	15	7.8
Monmouth	122	7	5.7
Morris	89	12	13.5
Ocean	55	0	0
Salem	19	3	15.7
Somerset	71	1	1.4
Sussex	9	0	0
Union	62	6	9.6
Warren	25	9	36.0

DIVISION OF CHRONIC ILLNESS CONTROL

Table 5

DISTRIBUTION OF EQUIPMENT AND SERVICES PROVIDED TO CLINICS

Clinics	Services	X-ray Equipment or Supplies
ATLANTIC COUNTY		
Atlantic City	*	*
Hammonton	*	*
Mays Landing	*	*
BERGEN COUNTY		
Cliffside Park	*
Garfield	*
BURLINGTON COUNTY		
Burlington	*
CAPE MAY COUNTY		
Cape May Court House	*	*
CUMBERLAND COUNTY		
Bridgeton	*	..
Millville	*	..
Vineland	*	..
ESSEX COUNTY		
Newark	*
GLOUCESTER COUNTY		
Pitman	*	..
Woodbury	*	..
MERCER COUNTY		
Princeton	*	..
Trenton	*	*
MONMOUTH COUNTY		
Asbury Park	*	..
Freehold	*	..
Long Branch	*	..
Middletown	*	..
OCEAN COUNTY		
Toms River	*	*
PASSAIC COUNTY		
Paterson	*
SALEM COUNTY		
Elmer	*	..
Salem	*	*
SUSSEX COUNTY		
Newton	*
WARREN COUNTY		
Phillipsburg	*	*

DEPARTMENT OF HEALTH

Table 6

DEATH RATE PER 100,000 DUE TO TUBERCULOSIS
STATE HEALTH DISTRICTS OF NEW JERSEY 1953-1957

Year	New Jersey	State Health Districts			
		Metropolitan	Northern	Central	Southern
1953	13.8	13.4	12.2	15.4	14.0
1954	11.0	10.4	8.6	12.9	11.6
1955	11.1	11.6	5.7	10.8	12.9
1956	10.0	9.7	6.2	10.7	12.8
1957	9.8	9.7	6.4	6.4	3.6

Table 7

CASE RATE PER 100,000 ACTIVE TUBERCULOSIS
STATE HEALTH DISTRICTS OF NEW JERSEY 1953-1957

Year	New Jersey	State Health Districts			
		Metropolitan	Northern	Central	Southern
1953	45.6	44.3	28.2	49.6	41.0
1954	41.5	39.0	31.7	44.2	36.9
1955	41.6	41.7	26.8	42.4	40.0
1956	36.8	34.7	30.0	38.4	36.9
1957	34.2	33.8	19.8	37.1	23.8

DIVISION OF CHRONIC ILLNESS CONTROL

Table 8. TUBERCULOSIS CASES AND DEATHS, NUMBERS, RATES AND CASE-DEATH RATIOS
FOR NEW JERSEY COUNTIES AND MAJOR CITIES, 1957

AREA	Deaths			Cases*			Case-Death Ratio†
	Number	Rate‡	S.E.§	Number	Rate‡	S.E.§	
New Jersey	519	9.8	0.4	3,543	67.1	1.1	6.8
Atlantic County	21	15.1	3.8	161	115.8	9.1	7.7
Atlantic City	11	17.7	5.4	118	157.1	17.4	10.5
Bergen County	41	6.8	1.1	410	68.4	3.4	10.0
Burlington County	14	9.3	2.5	65	43.0	5.3	4.6
Camden County	34	10.3	1.8	152	46.1	3.7	4.5
Camden City	22	16.4	3.5	117	57.3	8.1	5.3
Cape May County	2	5.4	3.8	36	95.3	16.2	18.0
Cumberland County	12	12.5	3.6	70	72.9	8.7	5.8
Essex County	112	11.5	1.1	668	68.2	2.6	5.9
East Orange	6	7.1	2.9	39	35.3	6.4	5.0
Irington	1	1.6	1.6	20	32.3	7.2	20.0
Newark	84	17.8	1.9	537	113.8	4.9	6.4
Gloucester County	5	4.9	2.2	33	32.0	5.6	6.6
Hudson County	51	11.7	1.3	395	57.1	2.9	4.9
Bayonne	8	9.5	3.4	45	53.6	8.0	5.6
Hoboken	9	16.7	5.6	38	70.4	11.4	4.2
Jersey City	39	12.2	2.0	225	70.3	4.7	5.8
Union City	6	10.5	4.3	15	26.3	6.8	2.5
Hunterdon County	2	4.3	3.0	14	29.8	8.0	7.0
Mercer County	42	16.8	2.6	256	102.4	6.4	6.1
Trenton	30	22.2	4.1	154	114.1	9.2	5.1
Middlesex County	26	8.6	1.7	191	63.2	4.6	7.3
Monmouth County	26	10.5	2.1	121	48.8	4.4	4.7
Morris County	18	9.8	2.3	88	47.8	5.1	4.9
Ocean County	4	6.5	3.2	55	88.7	12.0	13.8
Passaic County	25	6.8	1.4	355	97.3	5.2	14.2
Clifton	3	4.2	2.4	58	80.6	10.6	19.3
Passaic	2	3.4	2.4	69	101.7	13.1	30.0
Paterson	15	10.2	2.6	167	113.6	8.8	11.1
Salem County	5	9.1	4.1	19	34.5	7.9	3.8
Somerset County	4	3.6	1.8	73	65.2	7.6	18.3
Sussex County	2	5.3	3.7	9	23.7	7.9	4.5
Union County	39	8.9	1.4	164	37.4	2.9	4.2
Elizabeth	15	12.4	3.2	74	61.2	7.1	4.9
Warren County	2	3.4	2.4	24	40.7	8.3	12.0
Institutions	2	†	..	76	†	..	38.0
Military Posts	0	..	..	113	†	..	..

* Cases, regardless of activity, reported for first time in 1957.

† Rate per 100,000 estimated population.

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

§ Number of cases reported per death reported.

¶ Rates not computed due to lack of population base.

Table 9. TUBERCULOSIS CASES BY SEX AND BY COLOR FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1957

AREA	Sex			Color			
	Total	Male	Female	Total	White	Nonwhite	Unknown
New Jersey	3543	2228	1315	3543	2789	732	22
Atlantic County	161	92	69	161	111	48	2
Atlantic City	116	63	53	116	71	45	.....
Bergen County	410	252	158	410	383	23	4
Burlington County	65	44	21	65	56	9	.....
Camden County	152	102	50	152	116	36	.....
Camden City	117	81	36	117	85	32	.....
Cape May County	36	26	10	36	30	6	.....
Cumberland County	70	39	31	70	62	6	2
Essex County	663	440	223	663	358	301	4
East Orange	30	18	12	30	11	18	1
Irvington	20	11	9	20	19	.....	.....
Newark	537	361	176	537	263	271	1
Gloucester County	33	16	17	33	21	11	1
Hudson County	395	250	145	395	312	79	4
Bayonne	45	32	13	45	39	6	.....
Hoboken	38	24	14	38	33	4	.....
Jersey City	225	143	82	225	159	67	1
Union City	15	7	8	15	14	.....	.....
Hunterdon County	14	7	7	14	13	1	.....
Mercer County	256	151	105	256	200	56	.....
Trenton	154	91	63	154	109	45	.....
Middlesex County	191	118	73	191	168	23	.....
Monmouth County	121	71	50	121	86	35	.....
Morris County	88	47	41	88	83	4	1
Ocean County	55	24	31	55	53	.....	2
Passaic County	355	224	131	355	318	37	.....
Clifton	58	35	23	58	56	.....	.....
Passaic	60	32	28	60	53	.....	.....
Paterson	167	115	52	167	137	30	.....
Salem County	19	11	8	19	14	5	.....
Somerset County	73	54	19	73	73	.....	.....
Sussex County	9	8	1	9	9	.....	.....
Union County	164	103	61	164	122	41	1
Elizabeth	74	50	24	74	52	21	1
Warren County	24	13	11	24	24	.....	.....
Institutions	76	58	18	76	68	7	1
Military Posts	113	78	35	113	109	4	.....

Table 10. TUBERCULOSIS CASES BY AGE GROUPS FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1957

AREA	Age Group									
	All Ages	Under 1 Year	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
New Jersey	3543	11	61	74	258	1251	1288	686	14	
Atlantic County	161	.....	2	2	11	41	61	44	.....
Atlantic City	116	.....	2	1	7	31	45	30	.....
Bergen County	410	.....	6	3	15	132	163	84	7
Burlington County	65	.....	.....	.....	7	15	33	10	.....
Camden County	152	.....	1	6	6	50	69	20	.....
Camden City	117	.....	1	5	6	34	57	14	.....
Cape May County	36	.....	.....	.....	1	9	13	13	.....
Cumberland County	70	.....	.....	.....	4	22	21	23	.....
Essex County	663	7	30	39	60	242	233	57	1	
East Orange	30	2	3	1	7	8	8	1	.....
Irvington	20	.....	.....	.....	1	6	8	5	.....
Newark	537	4	23	29	44	204	190	43	.....
Gloucester County	33	.....	1	.....	6	10	12	4	.....
Hudson County	395	1	6	7	30	141	146	62	2	
Bayonne	45	.....	.....	.....	2	16	16	11	.....
Hoboken	38	.....	1	1	2	14	14	5	1
Jersey City	225	1	3	6	22	83	80	29	1	
Union City	15	.....	.....	.....	.....	5	6	4	.....
Hunterdon County	14	.....	1	.....	1	3	6	3	.....
Mercer County	256	1	4	2	15	94	97	43	.....
Trenton	154	1	4	2	10	39	54	24	.....
Middlesex County	191	1	1	3	9	89	61	27	1	
Monmouth County	121	1	3	5	10	39	45	18	.....
Morris County	88	.....	.....	4	6	20	36	21	1
Ocean County	55	.....	1	1	4	14	25	10	.....
Passaic County	355	.....	1	1	19	119	142	73	.....
Clifton	58	.....	.....	.....	1	22	25	10	.....
Passaic	60	.....	.....	.....	1	20	30	5	.....
Paterson	167	.....	1	.....	4	55	63	34	.....
Salem County	19	.....	.....	1	2	6	4	6	.....
Somerset County	73	.....	1	2	4	27	23	15	1
Sussex County	9	.....	.....	.....	.....	4	4	1	.....
Union County	164	.....	3	2	9	72	49	28	1
Elizabeth	74	.....	3	1	5	30	24	10	1
Warren County	24	.....	.....	.....	1	7	7	9	.....
Institutions	76	.....	.....	1	7	24	30	14	.....
Military Posts	113	.....	1	.....	31	72	8	1	.....

Table 11. TUBERCULOSIS CASES BY CLINICAL STATUS FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1957

AREA	Clinical Status				
	Total	Active	Not Active	Undetermined	Not Stated
New Jersey	3543	1806	1549	176	12
Atlantic County	161	46	108	7	.....
Atlantic City	116	30	83	3	.....
Bergen County	410	92	281	35	2
Burlington County	63	38	15	9	.....
Camden County	152	75	79	7	.....
Camden City	117	59	64	8	.....
Cape May County	36	12	22	1	1
Cumberland County	70	17	45	8	.....
Essex County	963	462	184	15	2
East Orange	90	23	5	2	.....
Irvington	29	11	9	9	.....
Newark	587	367	187	11	2
Gloucester County	33	21	10	2	.....
Hudson County	396	239	136	17	3
Bayonne	45	31	12	2	.....
Hoboken	58	22	18	2	1
Jersey City	225	143	73	8	1
Union City	15	7	8	.....	.....
Hunterdon County	14	9	2	3	.....
Mercer County	256	126	125	4	1
Trenton	184	84	66	3	1
Middlesex County	191	106	72	12	1
Monmouth County	123	92	23	6	.....
Morris County	88	41	44	3	.....
Ocean County	55	14	39	2	.....
Passaic County	365	106	238	9	.....
Clifton	58	6	52	.....	.....
Passaic	60	15	45	.....	.....
Paterson	167	73	87	7	.....
Salem County	19	10	9	.....	.....
Somerset County	73	27	29	17	.....
Sussex County	9	5	4	.....	.....
Union County	164	134	23	6	1
Elizabeth	74	60	12	2	.....
Warren County	24	5	15	4	.....
Institutions	76	46	24	6	.....
Military Posts	113	61	28	3	1

Table 12
ACTIVE TUBERCULOSIS CASES AND CASE RATES BY COUNTY
NEW JERSEY: 1957

County	Number	Rate ^a
STATE TOTAL	1,806	34.2
Atlantic	46	33.1
Bergen	92	15.4
Burlington	38	25.2
Camden	75	22.7
Cape May	12	32.4
Cumberland	17	17.7
Essex	462	47.5
Gloucester	21	20.4
Hudson	239	34.5
Hunterdon	9	19.1
Mercer	126	50.4
Middlesex	106	35.1
Monmouth	92	37.1
Morris	41	22.3
Ocean	14	22.6
Passaic	108	29.6
Salem	10	18.2
Somerset	27	24.1
Sussex	5	13.2
Union	134	30.6
Warren	5	8.5
Institutions	46	b
Military Posts	81	b

a. Rate per 100,000 estimated population.

b. Rates not computed due to lack of population base.

Table 13
ACTIVE TUBERCULOSIS CASES AND CASE RATES BY AGE GROUPS
NEW JERSEY: 1957

Age Group	Number	Rate ^a
All Ages	1,806	34.2
Under 1	11	11.6
1-4	52	12.8
5-14	52	7.2
15-24	187	26.6
25-44	671	39.1
45-64	587	48.8
65 and over	241	55.8
Unknown	5	.....

a. Rate per 100,000 estimated population.

Table 14

TIME INTERVAL BETWEEN DATE OF CASE REPORT AND DATE OF DEATH FOR DEATHS
ASSIGNED TO TUBERCULOSIS AS A PRIMARY OR SECONDARY CAUSE
NEW JERSEY: 1957

TIME INTERVAL	Total Primary and Secondary Tuberculosis Deaths		Tuberculosis as Primary Cause of Death		Tuberculosis as Secondary Cause of Death	
	Number	Per Cent of Total	Number	Per Cent of Total	Number	Per Cent of Total
Total Deaths	697	100.0	519	100.0	178	100.0
Not reported as cases	152	21.8	101	19.4	51	28.7
Reported as cases:						
After death	51	7.3	42	8.1	9	5.1
Within 1 month before death	42	6.0	38	7.3	4	2.2
1 month to 1 year before death ..	75	10.8	58	11.2	17	9.6
1-4 years before death	186	26.7	140	27.0	46	25.8
5-9 years before death	109	15.6	84	16.2	25	14.0
10 years or more before death ...	82	11.8	56	10.8	26	14.6

Next Year

The appointment of a full-time Medical Coordinator for the Chronic Disease and Rehabilitation Program and a part-time physician to assist with cancer studies and other programs will make it possible to expand some activities. In broadening and revising programs, a two-fold objective has been outlined:

(1) To separate into specific categories those aspects of chronic illness requiring unique skill, knowledge, and management.

(2) To correlate and integrate wherever possible the objectives of the Division which apply in more or less similar manner to all disease states and to disability in general.

These objectives will be promoted under broad program categories such as: Cardiovascular and Renal Programs, Endocrine and Metabolic Programs, Neuromuscular and Skeletal Programs, Neoplastic and Hemotologic Programs, Chronic Disease and Rehabilitation Programs, including programs involving the special senses, and including community supportive services such as homemakers and volunteer aides.

In his address at the Annual Meeting of State and Local Health Officers, Governor Robert B. Meyner said, "It will behoove you to do an adequate job with the resources which are available." The Division Program is based on the philosophy that existing local agencies can apply most economically and efficiently present knowledge to reduce the burden of chronic illness. The Division has sought to assist in strengthening or re-directing the activities of local agencies and in encouraging coordination of local resources to best serve the needs of the individual.

Division of Constructive Health

CURTIS F. CULP, M.D., M.S., *Acting Director*

ADULT AND OCCUPATIONAL HEALTH PROGRAMS:

Air Sanitation Program	WILLIAM A. MUNROE <i>Program Coordinator</i>
Occupational Health Program	E. LYNN SCHALL, M.P.H. <i>Program Coordinator</i>
Radiological Health Program	BYRON KEENE <i>Program Coordinator</i>
Crippled Children Program	CURTIS F. CULP, M.D., M.S. <i>Program Coordinator</i>
Dental Health Program	VACANT
Maternal and Child Health Program	RENEE ZINDWER, M.D., M.P.H. <i>Program Coordinator</i>
Nutrition Program	MARGARET P. ZEALAND, M.S. <i>Program Coordinator</i>

Air Sanitation Program

Air pollution control activity in New Jersey is carried on under authority contained in the New Jersey Air Pollution Control Act (1954).

An Air Pollution Control Commission, as authorized by this legislation, was appointed and organized in February, 1955. Operating within the framework of the State Department of Health, it has power to formulate and promulgate codes, rules and regulations controlling and prohibiting air pollution.

The State Department of Health is assigned the responsibility of controlling air pollution in accordance with any code, rule or regulation promulgated by the Commission. The Department is also empowered to conduct and supervise research and educational projects and to require the filing of reports on the emissions of air contaminants.

The Act further prescribes procedures for hearings before the Department and provides for protection of confidential information. When investigation discloses violation of any code, rule or regulation, the Department of Health is required first to endeavor to bring about correction by conference, conciliation and persuasion. In case of failure to remedy the violation in this manner, the law provides for penalties.

Shortly after its organization, the Commission determined that air pollution could be dealt with in four major categories.

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

The first of the four major categories established by the Commission, "smoke and odor from open burning," became the subject of regulation by adoption of Chapters I through III of what is now known as the New Jersey Air Pollution Control Code, effective May 1, 1956. These chapters control air pollution by prohibiting open burning of refuse, including garbage, refuse and trade wastes and by prohibiting open burning in connection with salvage operations.

The second category, "smoke, fly ash and odor resulting from incomplete combustion of solid, liquid and gaseous fuel," was the subject of a public hearing conducted by the Commission on April 15, 1957. After careful con-

sideration was given to all information received, the Commission adopted Chapter IV to the New Jersey Air Pollution Control Code, controlling and prohibiting air pollution by smoke, effective January 1, 1958.

Chapter V of the Code, controlling and prohibiting air pollution from combustion of solid fuel was adopted and became effective July 1, 1958.

The Commission is now directing its attention toward the third category, dusts, gases, vapors, fumes and odors and to the subject of airborne pollens of allergenic significance.

At the time of preparation of this report, a noticeable reduction in air contamination is evident. It is further evident that there has been a general acceptance of the philosophy of the Air Pollution Control Commission and the Commission's way of conducting its affairs.

The Air Sanitation Program of the New Jersey State Department of Health has been designed to carry out the responsibilities assigned to the Department by the New Jersey Air Pollution Control Act (1954) and for functional purposes, this program is subdivided into three sections:

1. Enforcement.
2. Technical Service and Special Investigation.
3. Research and Development.

This subdivision is necessary because of the different specialized training and experience required for carrying out the basic functions of the program activities. Each section has been staffed and equipped to carry out its assigned activities. This type of organization makes it possible to develop a high degree of competence in each of the specialized sections with a limited number of professional personnel.

Enforcement

The enforcement activities during the period of this report consisted of:

- (a) Obtaining compliance with code requirements regulating and prohibiting open burning of refuse and open burning associated with salvage operations.
- (b) Developing field and office procedures and training personnel for the enforcement of code provisions prohibiting air pollution by smoke which became effective January 1, 1958 and obtaining compliance with the provisions since that date.
- (c) Developing field and office procedures, training personnel and designing the technical procedures to be applied in the administration of Chapter V of the New Jersey Air Pollution Control Code, which regulates fly ash emissions from solid fuel burning installations and which became effective July 1, 1958.

It should be noted here that the State of New Jersey is the first State to regulate air pollution at State level and, accordingly, the Department is pioneering in the field of technical and administrative procedures associated with State-wide activity. There being no established precedent, it has become necessary to develop techniques and complex technical capabilities which are unique to the State of New Jersey.

Control of Open Burning

Three hundred ninety persons, municipalities and industries were cited for violation of code requirements prohibiting open burning in refuse disposal and salvage operations during the period of this report. This brings to a total of 726, the number of persons cited for violations since the effective date of May 1, 1956. Although it is difficult to be certain that corrective measures will be 100 per cent effective, it is conservatively estimated that a total of 230 have discontinued open burning operations since the effective date as the direct result of enforcement actions taken by the Air Sanitation Program. Of this total, 203 were corrected during the period of this report. Office conferences were held with 128 violators, and 181 persons submitted written agreements to cease violation in lieu of conferences. The number of voluntary actions taken on the part of municipalities and industries in the State adds considerably to the total number of open burning operations which have been discontinued.

A total of 1,967 field investigations was made during this year, 34 per cent were related to municipal dumps, 14 per cent to industrial processes, 23 per cent to salvage operations, 20 per cent to commercial operations, and eight per cent to other forms of open burning.

Control of Smoke Emissions

Administration of code requirements regulating the density of smoke emissions from stacks has been essentially in the nature of education. Two hundred fifteen field investigations were made in connection with violations of this requirement and 66 persons or industries were cited for violations.

The cooperation from industry, industrial organizations, and from trade organizations associated with combustion engineering has been excellent.

It is unfortunate that technical facilities are not available at the present time to make it possible to evaluate the improvement in air quality on a purely objective basis. However, to the experienced observer, it is evident that much has been accomplished in the reduction of air pollution from open burning and smoke. These accomplishments have been achieved primarily through

conference and persuasion and with only limited application of law and penalties, as exemplified by the fact that only 13 formal hearings, resulting in Departmental orders, were conducted this period and four cases were referred to the Attorney-General for necessary action.

Although the administrative approach used by the Department at times appears to be slow and does not provide for dramatic changes, experience to date has indicated that remarkable results are being obtained without undue hardship on the part of industry, municipal government, and the general public.

Of no small significance is the fact that many municipalities in New Jersey have been stimulated by the actions of the State Department of Health to adopt local ordinances and to increase enforcement activity in connection with existing ordinances controlling smoke, open burning, etc.

Technical Service and Investigation

Providing a technical service to boards of health or other governmental agencies responsible for local control of air pollution not regulated by the State code comprised about 20 per cent of the total activity of the Air Sanitation Program. This assistance ranges in nature from conducting in-plant surveys for the purpose of evaluating air pollution control practices of an industry to detailed aerometric studies of ground level air contaminants conducted to determine source or concentration of one or more airborne substances. The findings obtained, together with interpretation and recommendations for further action, are referred to the local agencies concerned. Follow-up service, including attendance at meetings, informal hearings, and court action initiated under local authority, was provided where indicated.

In a number of instances, it appeared desirable for local governments to adopt ordinances to provide some degree of control in matters of nuisance caused by air contaminants. Technical assistance was provided in the preparation, adoption and enforcement procedures.

It is evident from the number of requests for assistance received from local boards of health that there is increasing concern on the part of local agencies and the general public in the matter of atmospheric pollution.

Seven dramatic incidents of overnight house paint discoloration involving large numbers of houses occurred in various parts of the State during the summer of 1957. Investigation revealed that in all cases the causative agent was hydrogen sulfide and the source was stagnation of streams, rivers or swampland resulting from below normal rainfall during the summer season of this year.

Summary of Technical Service Actions From July 1, 1957 to June 30, 1958

Investigations for local agencies	87
Special investigations of complaints	21
Number of recommendations submitted	87
Estimated compliance with recommendations	20
Assistance in local control	81
Detailed aerometric surveys	9

Research and Development

Research and development projects comprised about 20 per cent of the total activity of the Air Sanitation Program. These projects are carried on with the objective of defining the air pollution problem as it exists in this State, developing technical field and laboratory capabilities for evaluation and control, and designing practical administrative and technical facilities for application in routine enforcement and investigation activity.

Specific projects carried on or completed during the period of this report were:

1. Study of petroleum refinery practice:

A joint project with the State of Pennsylvania and the City of Philadelphia carried out with the objective of estimating the contribution of petroleum refineries to air pollution in the Delaware Valley Area. Findings of this study may have application in the promulgation of certain regulations.

2. Development of technical field procedures for evaluating smoke density from stacks for application in enforcement activity:

These procedures, which are unique to the New Jersey State Department of Health, will undoubtedly become a standard for use by most municipalities having smoke control ordinances.

3. State-wide air pollution survey—Smoke Index:

A report was prepared and published on the findings of an experiment conducted over one calendar year to evaluate a procedure for rating municipalities on the basis of soiling characteristics or "dirtiness" of the atmosphere.

4. Aerometric sulphur dioxide study:

A detailed study of airborne sulphur dioxide and sulphur compounds over one calendar year in the South Amboy-Sayreville area. The findings of this study may be the basis for legal action by the State Department of Health or it may provide valuable information to indicate the need for regulation.

5. Stack sampling training aid:

A full scale working model of a simulated 27" diameter stack was designed and constructed for evaluation of procedures for evaluating emissions from stacks. This device will be used in a training program for Department personnel and eventually for representatives of local government and industry.

Educational Activity

Educational activity continues to be an important phase of this relatively new public health program of air pollution control. Program personnel assisted in the organization of 10 courses or technical conferences, 16 lectures or talks were given, 12 conferences or courses were attended. Two formal training courses were conducted for program personnel and representatives of local agencies. These courses entitled, "Smoke Observation Training and Qualification Course," have been very well received and will hereafter be a routine service of the Program.

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

Operating within the framework of existing legislation, a definite and noticeable improvement in air quality has been attained and progressive improvement should continue to become evident.

Occupational Health Program

"The health of workers is New Jersey's greatest industrial and economic asset," according to Governor Robert B. Meyner.* It is estimated that, in this State, workmen lose about 17 million man-days a year to sickness and injury, representing a loss of millions of dollars to both workmen and industry.

Tackling this major problem in an increasingly complex industrial age is the function of the Occupational Health Program. Trained physicians, nurses, engineers, and toxicologists attempt, first, to discover whatever health hazards exist in an industrial plant and, second, to devise methods of controlling or correcting these hazards.

A worker spends more time in his place of employment than anywhere else, except in his home. The conditions of his place of work may affect not only his happiness and mental and emotional well-being, but also that of his entire family. Unnecessary hazards to the worker's health and safety on the job are a crucial threat to him and a menace to the future of his family. Occupational diseases and disabilities can be prevented by careful evaluation and control of environmental conditions which have an adverse effect on the human body.

Industry has grown increasingly complex. Whole new industries and methods of work have developed and more new materials and chemicals are being used than ever before. Millions of tons of raw materials are poured

* Proclamation. *Industrial Health Week in New Jersey*, April 19-25, 1958.

daily into the manufacture of products used in factories and homes. Often these materials are used without full knowledge of the possible harmful effects. Usually, the seriousness or cause of a particular hazard can be determined only by a trained observer who has the proper equipment and instruments available for making tests and analyses. Such a service is offered New Jersey industries by this Program.

With industrial employment near an all-time high, new raw materials and compounds used in industry, dual employment (one worker holding two jobs by working different shifts), and many new industrial plants operating in New Jersey, the total work-load of this Program increased 49 per cent above the work-load reported for the previous fiscal year.

Provide Relevant Information

The Occupational Health Bulletins published by this Program continue in widespread demand. Requests for these bulletins were received from 253 persons residing in the United States and 28 additional requests received from persons in Bolivia, Brazil, Canada, China, Cuba, England, France, Germany, India, Peru, Switzerland, and Venezuela. Our bulletins are mailed to approximately 1,500 persons, of whom 90 per cent are industrial plant personnel located in New Jersey. It is interesting to note that these bulletins are being used for educational purposes in several universities and insurance companies.

Communications received from persons in this State and throughout the United States requesting advice or assistance with various occupational health problems totaled 426, an increase of 22 per cent over the previously reported fiscal year.

Visitors from foreign countries again spent considerable time with Program personnel to gain occupational health orientation and information. Several industrial nurses working in this State visited the Program to receive advice and training in occupational health nursing. Several technicians were trained by the staff toxicologists in the method of conducting the urinary porphyrin test, a new screening procedure for the detection of excessive lead absorption.

Industrial orientation was provided 11 physicians, graduate students in dermatology at the Skin and Cancer Hospital, New York University Medical School. The orientation was in response to a request from United States Public Health Service representatives. Industrial plant tours were conducted to observe factory operations and plans were discussed for the prevention and control of industrial dermatitis.

The activities conducted by this Program have received university credit for studies pursued on a graduate level. Student candidates working for the degree of Doctor of Philosophy with a major in the field of occupational health may earn up to 12 semester credits for three months work satisfactorily completed with this Program.

Ten occupational health lectures were delivered, accompanied in five instances by instrument demonstrations. Sixty-two professional meetings were attended to educate and train staff members.

Promote Health of Adults

Complete surveys and studies conducted within industries in New Jersey totaled 181, an increase of 22 per cent over the previously reported fiscal year. Thirty-two of these studies were self-initiated either as a follow-up of reported compensation claims or in preparation for a study of hazards associated with the silversmith industry in New Jersey. A second study was initiated concerning health hazards associated with the asbestos industries. Remaining surveys and studies were completed as the result of direct requests from industrial management, labor, medical personnel, or local and District health offices. Employees in the establishments visited totaled 184,139 and of this number, 36,260 were directly affected by the services given. The public health team approach prevailed in the following detailed conditions:

Introductory visits	121
Technical studies of hazards	121
Occupational health surveys	117
Noise and vibration studies	22
Consultation only (advisory)	6
Follow-up on recommendations	8
TOTAL	395

The total, 395, represents an increase of 34 per cent over the same activities for the previously reported fiscal year.

Atmospheric contaminants determined in plants totaled 294 and 654 physical conditions were recorded. Administration of the Occupational Health Laboratory for toxicological studies was temporarily transferred to this Program during this report period. Routine laboratory analyses accounted for 361 samples, with clinical diagnostic analyses totaling 403. The total laboratory work-load was almost one-third greater than that reported in the 1956-1957 annual report.

Throughout the year, assistance was given many hospital pathologists in diagnosing suspected lead poisoning cases. Blood lead and urine lead determinations were performed in the Occupational Health Laboratory.

The following activities were completed to assist other State departments to solve occupational health problems:

1. On four occasions, assistance with necessary laboratory support was given the medical staff of the New Jersey Neuro-Psychiatric Institute in determining the magnitude of lead absorption by nine men employed as painters.
2. Carbon monoxide gas detection and evaluation was taught five representatives from the Department of Law and Public Safety, Division of Motor Vehicles. Instrument maintenance was demonstrated, sampling techniques provided, and methods for permanent recording established. Known concentrations of carbon monoxide gas were sampled for experience.
3. The Occupational Health Laboratory performed free silica analyses on many samples submitted by the New Jersey Department of Labor and Industry, Bureau of Engineering and Safety. Results and interpretations thereof were given to that Department.
4. At the request of the Department of the Treasury, Bureau of Insurance and Special Services, a comfort and ventilation study was conducted in offices located at 137 East State Street, Trenton.
5. At the request of the Department of Labor and Industry, Wage and Hour Bureau, Child Labor Law Division, a report was prepared outlining reasons for lowering to 16 years of age the limit requirement in New Jersey for minors who may be employed in gasoline service stations.
6. The Department of Law and Public Safety, Division of Motor Vehicles, requested and received ventilation studies in the new inspection stations located at Trenton and Camden. A recommendatory report was prepared and forwarded, designed to improve the present inadequate ventilating systems.
7. Comfort and ventilation studies were conducted at the license issue agency of the Department of Law and Public Safety, Division of Motor Vehicles, located in the basement of the Arnold Constable building in Trenton. A recommendatory report was submitted which, when effected, improved existing ventilation and working conditions.

Industrial Health Laboratory

The Occupational Health Laboratory continued coordinated activities with the personnel of the Adult and Occupational Health Program. The administration of these laboratory activities was transferred from the Chemistry Program to the Occupational Health Program during the year.

Field activities in which laboratory personnel participated included:

Number of plants visited	8
Number of field visits made	32
Number of inquiries on industrial hygiene subjects answered	14
Total number of field tests	941

There were 489 samples received for chemical analysis. The total number of analyses performed was 974. The spectrographic laboratory assisted the Chemistry Program in determination of unknowns. Periodic urine and blood analyses for lead were continued in control of exposures at the New Jersey Psychiatric Institute. Physicians submitting specimens were assisted in establishing diagnoses.

Determinations which are made as field tests have their inception in the Industrial Health Laboratory in the preparation of equipment and materials to conduct the tests. These tests are made by particular types of field equipment or apparatus specifically designed for the determinations to be undertaken. Equipment used is generally that commercially produced. Being portable, it can be taken to the site of test. Sampling equipment is mainly also of this type.

Determinations requiring chemical laboratory analysis are run in the Occupational Health Laboratory, except in such cases where the analysis must be run immediately. This is then done in the field, but by the usual laboratory methods. Much glassware, analytical reagents, and considerable diverse laboratory equipment are needed to meet the varied demands placed upon the Laboratory in the evaluation through analytical determinations of the potentially toxicological conditions found in industry and the neighborhoods around industries throughout the State.

There was an increase of over 100 per cent in the number of field tests, based on the number for 1956-1957. A decrease of about 10 per cent in the number of chemical laboratory analyses performed indicates the shift toward the use of the field apparatus which have been acquired by purchase during the last few years. Continuous recording of contaminants, which would represent countless spot tests, are not included in the above statistics. Samples for radiological measurements are processed in the laboratory, unless measurements are made directly in the field, and are likewise not included in the above totals.

A new emission spectograph was installed in the spectrographic laboratory. It is anticipated that there will be a marked increase in the number of findings made possible by spectographic means, as methods are developed for their application to determinations of atmospheric pollutants.

Lead continues to lead the list as the most common metal investigated. Several tests were made for the less common metals also, as Beryllium, Columbium, and Zirconium. Tests for natural gas have made their appearance in the list for the first time.

Radiological Health Program

The Radiological Health Program was established as a result of the recognized fact that the widespread and ever increasing use of radioactive materials, X-ray machines and other sources of ionizing radiations has become a public health problem. As more and more research has been done on the possible biological and genetic effects of these radiations, it has also become more evident how large a segment of the population is exposed to man-made radiations. This has caused the National Committee on Radiation Protection to recommend a reduction in allowable exposure levels to one-third those previously used.

Recognition of the problem has resulted in the development of two broad principles or working concepts for the Program. These are:

1. To take every advantage of all the benefits to be derived from the uses of radioactive materials, nuclear energy, and X-ray machines, while at the same time
2. Insuring that all these sources of radiation are used with the necessary precautions to reduce exposure to radiation to the smallest amount practicable.

The magnitude of the problem is indicated by the fact that as of May 31, 1958, there were in New Jersey, 185 licensed users of Atomic Energy Commission radioisotopes with a total authorized possession limit of nearly 50,000 curies of radioactivity: an estimated 6,000 to 8,000 medical, dental and industrial X-ray units; and several hundred radium users.

During the year, Program personnel increased to a total of eight. This resulted in an appreciable increase in work accomplished, particularly in the field of environmental sampling.

Two new projects came into being. One is a research project being carried out under contract with the Atomic Energy Commission. It is planned to conduct an epidemiological follow-up of all former radium dial painters and patients treated with radium solutions or injections who can be located. Such data are of great interest since most of the calculations leading to establishment of maximum body burdens for the various radioisotopes are based on earlier experiences with radium. It is now some 40 years since many of these incidents occurred. Since one of the difficulties in establishing the biological effects of internal radioactive materials is the often long and variable latent period of seeming well-being, now would seem to be an ideal time to gather data on the possible effects of small quantities of internally deposited radium.

In carrying out this research project, close contact is being maintained with groups at Argonne National Laboratory, Massachusetts Institute of Technology, the Health and Safety Laboratory of the Atomic Energy Commission, and a group in England, all of whom are engaged in similar efforts.

As the biological effects being sought are slight and are concealed in a group whose members are, for the most part, in their fifties and sixties, it is necessary to accumulate data on a large number of subjects in order that reliable conclusions may be drawn.

The second project deals with the radioactivity levels of surface waters of the State. It has been supported in part by the Public Health Service. Some 60 sampling points have been established on the principal rivers, streams, and surface water supplies throughout New Jersey. These points are sampled a minimum of four times a year, with some points being sampled as often as bi-weekly. The frequency of sampling is established by the type of radiation installations located in the drainage area, and by the use to which the water is put. The samples are prepared and analyzed for radioactivity in the Radiological Health laboratory. Results of the analyses are furnished the Public Health Service on a quarterly basis for entry into a national registry of such data.

Several talks and lectures were presented to various groups, such as the New Jersey Society of X-ray Technicians, the Public Health Council of the State Department of Health, the Metropolitan Health Officers Association, and the New Jersey Section of the American Waterworks Association. Subject matter ranged from a general description of the philosophy and objectives of Radiological Health to a description of methods of analysis for radioactivity in water.

Program personnel continued to serve on the American Public Health Association Program Area Committee on Radiological Health, the American Standards Association N5 Sectional Committee on Chemical Engineering for the Nuclear Field, and the American Conference of Governmental Industrial Hygienists' Committee on Ionizing Radiation. Personnel also attended meetings of the Regional Coordinating Conference on Radiological Health, the Health Physics Society, the New Jersey Sewage and Industrial Wastes Association, and the Industrial Health Conference.

Several inspections and radiation surveys were made during the year. These included both medical and industrial applications of X-ray equipment and radioisotopes. Several of the inspections involving the use of radioisotopes were made in company with personnel from the Atomic Energy Commission's Division of Inspection. One visit by Program personnel resulted in a request to the Commission to visit a plant for the purpose of evaluating procedures for handling enriched uranium. It is necessary, when handling this material, that careful consideration be given to the problem of inadvertently achieving a critical mass by too close positioning of non-critical masses. This requires specialized knowledge of nuclear physics which Program personnel do not, at this time, possess.

Intensive environmental sampling continued throughout the year in the area surrounding the Plainsboro site of the Industrial Reactor Laboratories' research reactor. This included samples of air, water, silt, soil, and vegetation. The results obtained by the Program were compared with those obtained in the same general area by Associated Nucleonics, Inc., and were found to be in agreement within errors caused by differences in sampling sites. Personnel made several trips to the facility to become familiar with it.

Two new automatic sample changers equipped with proportional flow-counters were obtained and put into use during the year. This enabled one technician to continue to handle all sample preparation and counting in spite of the increased workload. All counting equipment was moved to a new room and air-conditioned. This reduced some of the troubles formerly encountered due to line voltage fluctuation, and the addition of air conditioning practically eliminated the problem of condensation on insulators in the equipment.

Operation of the New Jersey station of the Public Health Service Radiation Surveillance Network was carried out on a seven-day week basis throughout the summer and early fall of 1957. During the winter months, it continued on a one-third duty cycle. Full operation began again in May of 1958. This network is designed to provide additional data collecting points for radioactive fallout to supplement the world-wide sampling network operated by the Atomic Energy Commission. It is normally in continuous operation only during United States nuclear weapons test series. In addition to providing an augmented network of sampling sites within the United States, it also provides nation-wide information on radioactive fallout for the use of responsible State officials.

An important duty and responsibility of the Program is that of providing technical consultation in the form of statements of fact and opinion on such matters as the adequacy of proposed standard operating procedures, shielding, building design, etc., where radiation and radioactive materials are concerned. To this end, a number of conferences and consultations were held with industrial and medical personnel and with representatives of official agencies.

The design of a specialized building for industrial radiography utilizing high-level gamma ray sources was approved following two conferences with company representatives and a member of the Department of Labor and Industry.

Several meetings were held with members of the Industrial Reactor Laboratories' staff to clarify proposed operational procedures, and to review certain aspects of the Hazards Summary Report Supplements.

The Program Chief and a member of the Atomic Energy Commission's Division of Licensing and Regulation met with the president of a company interested in establishing a processing and shipping site in New Jersey for

the sea disposal of radioactive wastes. The matter was further investigated by the Program Chief at the company's plant in California.

Information regarding the names of isotope users in a number of municipalities throughout the State was furnished to officials requesting this information. An improvement in record keeping procedures, including the use of edge-punched cards coded by location, type of source, type of use, etc., made it much easier to locate and compile such information.

A survey of radiation exposures and X-ray practices in the field of dentistry has been started with the cooperation of interested members of the Mercer County Dental Society. A preliminary study of the exposure of dentists and dental technicians is being carried out by means of film badges. Film badges were also supplied throughout the year to members of the Program and to other Departmental personnel whose duties entail possible exposure to X-rays. Experience again indicated the desirability of the continued use of these devices in order that a permanent record may be maintained of the integrated exposure of Program staff, and to measure the exposure to individuals at either low radiation levels or under conditions of irregular exposure. In both of these latter circumstances, an estimate of exposure based on instrument surveys is subject to large errors and may result in a considerable deviation from the true exposure. For these reasons, and particularly due to the legal implications of having a permanent record of occupational exposure of Program personnel, it is felt that the fullest possible continued use should be made of these devices in the future.

Crippled Children Program

General Statement

The Crippled Children Program is basically a case serving program for individual children under the age of 21 years with handicapping conditions as defined and acceptable by the Program. In attempting to fulfill this mission, it became quite apparent that such a Program could only be brought to its maximum of accomplishment through the combined effort of all interested groups, not only at the Federal and State levels, but at the county and municipal levels.

One of the major activities of the Crippled Children Program was its participation in a two-day Professional Symposium on Restorative Services for the Handicapped conducted in cooperation with the Alfred I. duPont Institute of the Nemours Foundation. This Symposium was devoted to a realistic evaluation of the problems associated with restorative services for the handicapped in New Jersey. As participants, it included interested groups

of Federal, State, county and municipal levels. Its objectives were to evaluate services presently being provided by interested groups, to determine unmet needs throughout the State, to evolve a plan by which needs might best be met, and to achieve greater cooperation by interested groups. The recommendations of this Symposium include:

1. That the providing of services for the handicapped is a primary responsibility of the community.
2. That there should be greater coordination at community level between all governmental, private, philanthropic, and fraternal organizations interested in the rehabilitation problem.
3. That communities should take a realistic look at the services for the handicapped now available within their area in an effort to determine the unmet needs.
4. That there should be a closer working relationship in each community between the medical and other professional groups providing services for the handicapped.
5. That there is a governmental responsibility for serving the handicapped; however, this role should be one of assistance rather than one of direct service.

These recommendations represent the combined thinking of approximately 250 medical and professional representatives of 100 official, voluntary, and private organizations in New Jersey.

Community Services and Program Activities

In accordance with the definition of a crippled child and within the diagnostic categories as accepted and approved by the Program, there were 18,773 children registered with the Program at the end of the year of 1957. A breakdown of this number is reflected in the following table, Table 1:

Table 1*—CRIPPLED CHILDREN ON STATE REGISTER

On Register as of January 1, 1957	18,766
Placed on Register during Calendar Year	2,143
Total Entered on Register	20,909
Removed from Register for Specified Reasons	2,136
Reached age of 21	624
Dead	140
Cured	384
Residence established in another State	222
Ineligible for service	52
Cannot locate	565
Registration in error	35
Maximum recovery	114
Other reasons	0
On Register at End of Year December 31, 1957	18,773

* Tables are numbered consecutively by Division.

In the form of direct services, the Program sponsored and participated in 43 State Cerebral Palsy Diagnostic and Follow-up Medical Clinics open to all children in the State referred by physicians desiring such services. These clinics were held in Newton, Jersey City, Camden, Trenton, Long Branch, Atlantic City, and Somerville.

Through the Program, the services of seven physicians specially trained in the field of Cerebral Palsy were made available to these clinics. In addition, six consultation clinics for follow-up study of cerebral palsy cases were provided by the Program, which were held in each of the four State Health Districts on alternate months.

Hospitalization and Convalescent Care

In a supportive manner, the Program has in this service (Table 2) assisted in underwriting 13,416 bed days of hospitalization for 393 children, and 15,361 bed days of convalescent care for 90 children at a total expenditure of \$260,381.19. Of this, State and Federal funds utilized were \$131,319.93, contributions by county boards of chosen freeholders \$109,015.91, and contributed by parents and voluntary agencies such as Polio Foundations, Elks Lodges, and others, \$20,045.35.

Artificial Limbs, Bracing and Appliances

In this Program, services were provided for 473 children in the purchase of 573 such appliances at a total cost of \$64,411.37. State and Federal contributions amounted to \$30,956.91, contributions on the part of county boards of chosen freeholders were \$25,414.32, and contributions on the part of parents and voluntary agencies amounted to \$8,040.14.

Nursing Services

Home nursing services are provided under the Program by:

1. Local Public Health Nurses under the supervision of State employed Public Health Nurse Supervisors.
2. Nurses provided by private and official agencies having a cooperative arrangement with the Program, and
3. Contractual agreements with the Program on the part of 40 local private nursing agencies.

During the year of 1957, those agencies having contracts with the Program made a total of 9,703 nursing visits to crippled children registered with the Program at a total cost of \$29,109.00. Reimbursement for this cost was made completely by the Crippled Children Program.

In addition to the aforementioned, the Program provides consultative services to all nursing agencies working with the Program through its Crippled Children Program Public Health Nurse Consultant.

Psychological Services

These services as provided by the Program during the year have been conducted in three areas.

Service Area

Direct psychological consultation services were provided to 108 handicapped children. In addition, nine counseling sessions were held with parents of handicapped children. These latter sessions were designed to assist the parents so that their children might become socially more competent. Many of these sessions were so arranged that in addition to parental participation, educators and psychologists could also be present and might be helped in developing their skill as counselors.

Educational Area

Through conferences, lectures, and demonstrations, the Program psychologist worked with psychologists from the New Jersey public schools in demonstrating the methods of examining handicapped children, the materials utilized and the techniques of evaluation. In these sessions, the significance of recent research in the field of psychology was interpreted, as well as the evaluation of test results and their application to the educational problems.

Research Area

An increased amount of time was devoted in the research area. Work was continued on the research project, "Perceptual Problems of Children with Brain Damage." In addition, the psychologist, in cooperation with the Special Educational Department of the University of Syracuse and the Department of Education in Montgomery County, Maryland, has participated in an evaluation project of educational methods applicable to the handicapped.

Special Projects

Speech and Hearing

In support of a total rehabilitation program developed at the Municipal Hospital, Camden, New Jersey, the Program supported the cost of 775 speech therapy treatments for 31 children from the Camden area.

Physical Therapy

The Program in support of total rehabilitation facilities participated in underwriting the cost of 2,770 physical therapy treatments for 113 handicapped children in Mercer County.

Table 3. CHILDREN WHO RECEIVED CLINIC, HOSPITAL AND CONVALESCENT SERVICES AND THE NUMBER OF VISITS OR DAYS, CALENDAR YEAR 1957

Services	Number Children	Number Visits or Days
Clinic	6,910	13,353 Visits
Hospital	393	13,416 Days
Convalescent	90	15,361 Days
Duplicated Count of Children and Services	7,393	42,130 Units
Unduplicated Count of Children	7,249	

Table 4. COUNTY RESIDENCE OF CHILDREN RECEIVING CLINIC, HOSPITAL AND CONVALESCENT SERVICES, CALENDAR YEAR 1957

Total Number of Children		7,249	
County	Number of Children	County	Number of Children
Atlantic	52	Middlesex	393
Bergen	916	Monmouth	648
Burlington	147	Morris	280
Camden	410	Ocean	22
Cape May	9	Passaic	68
Cumberland	12	Salem	22
Essex	2,005	Somerset	172
Gloucester	102	Sussex	28
Hudson	720	Union	775
Hunterdon	69	Warren	30
Mercer	366	Military	3

Table 5. DISTRIBUTION OF CHILDREN RECEIVING CLINIC, HOSPITAL AND CONVALESCENT SERVICES BY NUMBER, RACE, AND AGE, CALENDAR YEAR 1957

	Number Children	Age in Years				Unknown
		Under 1	1-4	5-14	15-20	
TOTAL	7,249	335	1,924	3,824	1,119	47
Race						
White	6,075	259	1,492	3,287	994	43
Other	1,164	76	429	533	122	4
Unknown	10	..	3	4	3	..
Number who received physician's services for the first time	2,904	335	1,113	1,162	284	10
Number who had received physician's services in previous years	4,345	..	811	2,662	835	37

Table 6. DISTRIBUTION OF CHILDREN RECEIVING CLINIC, HOSPITAL AND CONVALESCENT SERVICES BY DIAGNOSIS GROUP, SEX, AND AGE, CALENDAR YEAR 1957

Report Group Code No.	Diagnosis Group	Total	Sex		Age in Years				Unknown
			Male	Female	Under 1	1-4	5-14	15-20	
Total		7,249	4,006	3,243	335	1,924	3,824	1,119	47
0120	Tuberculosis of bones and joints	18	6	12	...	...	9	9	...
0130	Late effects of tuberculosis of bones and joints	27	17	10	...	5	14	8	...
0199	Other tuberculosis, except respiratory ...	1	1	...	...	...	1	...	...
0809	Poliomyelitis, acute ..	16	8	8	...	1	11	4	...
0818	Late effects of acute poliomyelitis	1,240	737	503	1	75	861	290	13
2830	Rickets, active	2	1	1	...	...	1	1	...
2840	Late effects of rickets	17	6	11	...	6	8	3	...
3510	Cerebral palsy	1,600	864	736	3	341	997	253	6
3530	Epilepsy	1	...	1	...	...	...	1	...
3590	Other diseases of the nervous system and sense organs, except eye, ear, and mental disorders	34	20	14	2	6	18	6	2
3899	Other diseases of the eye, except congenital or diabetic cataract	4	...	4	...	...	1	3	...
3999	Other diseases and conditions of the ear and mastoid process	12	7	5	...	...	10	2	...
4090	Rheumatic fever, acute	47	17	30	...	1	27	19	...
4100	Chronic rheumatic heart disease	27	12	15	...	...	17	9	1
4300	Other diseases of the heart, except congenital malformations	20	12	8	...	...	9	11	...
5399	Other diseases of buccal cavity and esophagus	1	...	1	...	...	...	1	...
7200	Arthritis and rheumatism, except rheumatic fever	31	15	16	...	2	16	13	...
7309	Osteomyelitis and periostitis, except tuberculous	34	19	15	...	2	19	13	...

Table 6. DISTRIBUTION OF CHILDREN RECEIVING CLINIC, HOSPITAL AND CONVALESCENT SERVICES BY DIAGNOSIS GROUP, SEX, AND AGE, CALENDAR YEAR 1957—(Continued)

Report Group Code No.	Diagnosis Group	Total	Sex		Age in Years				
			Male	Female	Under 1	1-4	5-14	15-20	Unknown
7459	Curvature of spine, except congenital or late effects of poliomyelitis or tuberculosis	128	35	93	...	2	47	77	2
7469	Flatfoot, acquired or unspecified	13	8	5	...	1	9	3	...
7499	Other diseases of the bones and organs of movement, except congenital malformations	465	329	136	2	74	279	102	8
7510	Spina bifida and meningocele	153	66	87	14	43	74	21	1
7530	Congenital malformations of the circulatory system	86	38	48	8	29	37	10	2
7540	Cleft palate and hare-lip	562	312	250	75	193	253	39	2
7571	Congenital dislocation of hip	174	50	124	9	94	61	10	...
7584	Clubfoot, congenital or unspecified	1,099	636	463	107	521	425	43	3
7585	Flatfoot, congenital ..	10	7	3	...	5	4	1	...
7599	Other congenital malformations	1,045	562	483	102	469	406	67	1
7609	Injuries at birth, intracranial and spinal, except cerebral palsy and epilepsy	2	1	1	1	1	...	...	...
7619	Other injuries at birth, except cerebral palsy and epilepsy ..	134	75	59	8	37	64	25	...
9400	Burns	71	41	30	...	7	44	19	1
9980	Other morbid conditions due to accidents, poisonings, and violence	118	76	42	1	2	66	45	4
9991	Other diagnosed diseases, injuries, or handicapping conditions, except provisional or deferred diagnoses	57	28	29	2	7	36	11	1

Dental Health Program

General Statement

The objectives of the Dental Health Program in 1957-1958 were to develop activities in research, education, prevention and treatment of dental disease in order to promote and maintain oral health as an essential component of the total health of individuals. When designing a dental program to suit the needs of the over-all population, it is necessary to place emphasis on prevention and dental health education. When considering expansion of the existing prophylaxis and treatment project for children in rural areas, a cooperative effort must be continued among members of the dental profession, responsible local agencies, and the State Department of Health. These precepts have been important factors in the guidance of the Dental Health Program during this past year.

Implementation

1. Health Education

- a. Public.—A pilot educational program was initiated in Phillipsburg designed to study the effectiveness of public instruction on preventive measures in relation to the incidence of dental disease in children of school age. A complete evaluation will not be forthcoming for several years. However, an interim report indicates that the lectures, which are presently being conducted in classrooms by a team of two dentists, have been enthusiastically received by pupils and teachers alike.
- b. Professional.—A series of postgraduate courses was presented in cooperation with the New Jersey State Dental Society and the Dental Schools at Fairleigh Dickinson University and University of Pennsylvania. Thirty-eight dentists, the majority of whom are presently participating in the rural school treatment project, attended courses in "Dental Treatment for Handicapped Children" and "Periodontal Disease."

2. Prevention

- a. Fluoridation.—The New Jersey State Dental Society designated the chairman of the fluoridation committee to work with the Dental Health Program Coordinator and other health profession groups to study and develop a unified approach to the fluoridation of communal water supplies. Continued efforts to inform the public of the value of fluoridation as a means of promoting total health through the prevention of dental disease has resulted in an increase of 62,000, to bring the present New Jersey population now deriving the benefits of fluoridation to a total of approximately 300,000, exclusive of military installations.
- b. Topical Fluoride Application.—This procedure provides protection against dental caries for children served by the rural treatment project in areas where communal fluoridation has not been instituted. The total number of

applications, 5,294, is reflected in Table 9, which shows that this preventive measure is an integral part of dental treatment.

c. Nutrition.—A survey conducted jointly by the State Department of Education and the Dental Health Program, has revealed that approximately 10 per cent of the schools reporting offer carbonated beverages and refined carbohydrate products for sale to children. A similar survey is being conducted presently in the parochial schools to determine the over-all need for establishing a project to supplant foods containing refined carbohydrates with fruits and fruit juices.

3. Research

The primary effort in this part of the program involved a proposed plan for the epidemiological study of periodontal disease. Extended conferences were conducted with specialists in this field to locate qualified personnel to conduct the study.

4. Treatment

Dental treatment for children of rural areas is provided through joint sponsorship by the Dental Health Program and local agencies. The percentage of local contributions has increased rather steadily.

A comparison of the total of local contributions with the total Federal and State funds now covered by Grant-In-Aid contracts indicates a trend in the acceptance of responsibility by local agencies. During this year, three additional counties, Essex, Hunterdon, and Somerset, have signed Grant-In-Aid contracts, as indicated in Table 7. Preliminary arrangements have been made for the inclusion of eight additional counties at the beginning of the next fiscal year.

Tables 8 and 9 reflect summary and complete totals in terms of services rendered. Financial eligibility is determined by formula on a county wide basis, and is approved by the County Dental Health Committee and component dental society. Treatment is provided by 88 dentists in seven mobile units, community and school clinics and private offices. Each of the four State Health Districts has a Dental Health Supervisor who acts in an advisory capacity to local agency officials and participating dentists.

The total number of children treated, 6,844, was slightly less than previous years largely due to the introduction of one educational project in lieu of direct dental care. It is anticipated that future expansion of the treatment project will depend upon the initiative of the responsible local agencies, and the Dental Health Program activities will expand in the direction of dental health education and prevention.

Table 7. BUDGET—DENTAL HEALTH PROGRAM
JULY 1, 1957 TO JUNE 30, 1958

Year	Federal and State		Local Contributions		Total		Status of Grant-In-Aid
	Amount	%	Amount	%	Amount	%	
1947-48	\$85,455	72	\$34,150	28	\$119,605	100	...
1948-49	94,257	70	41,377	30	135,634	100	...
1949-50	91,829	58	67,367	42	159,196	100	...
1950-51	89,996	58	64,897	42	154,893	100	...
1951-52	91,107	58	66,033	42	157,140	100	...
1952-53	87,858	54	76,165	46	164,023	100	...
1953-54	91,902	58	65,371	42	157,273	100	...
1954-55	107,929	60	72,426	40	180,355	100	\$1,500
1955-56	101,713	54	88,296	46	190,009	100	3,075
1956-57	101,327	53	90,935	47	192,262	100	4,650
1957-58	97,339	52	91,153	48	188,492	100	8,350

Table 8. DENTAL TREATMENT PROGRAM
JULY 1, 1947 TO JUNE 30, 1958

Year	Number of Teeth	School Districts	Number Examinations	Number of Children Treated	Percentage of Completed Cases	Number Extractions of Permanent Teeth per 100 Children Treated	Number of Operations per 100 Children Treated
1947-48	100	189	21,597	8,539	69	12	711
1948-49	107	170	26,050	8,782	60	12	837
1949-50	110	191	37,919	8,340	67	13	800
1950-51	107	189	29,627	7,869	70	14	779
1951-52	102	179	31,825	7,890	69	15	765
1952-53	98	173	25,534	6,874	64	14	698
1953-54	92	177	28,424	6,179	62	16	667
1954-55	102	199	34,021	6,422	62	20	792
1955-56	89	203	35,846	7,144	59	22	715
1956-57	84	213	36,348	7,018	54	20	740
1957-58	88	207	42,609	6,844	63	18	727

TYPES OF PROGRAM

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

1955-1958 Clinics, Private Offices, three Trailers and four Mobile Clinics.

Programs by Counties and Communities	Type of Program*	Dentists	Communities	Operating Hours	Examinations	Visits	Extractions			Fillings			Propylaxis	X-rays	Liths and Others†	Fluoride Treatment	Total Operations	Clinically Treated	Cases Completed	Percentage of Completed Cases
							Permanent	Deciduous	Amalgam	Silicate	Temporary Filling	Permanent									Amalgam
Atlantic	1947	1	6	298	462	379	50	173	356	10	0	0	52	0	308	301	1,290	89	57	61
Bergen	1943	1	3	237	602	407	20	42	428	20	27	73	145	48	145	47	660	88	52	53
North Arlington	1945	1	1	525	1,332	2,500	12	66	438	30	11	3	117	10	571	150	1,020	118	118	100
Rutherford	1943	1	1	106	1,988	67	4	3	77	5	4	0	23	0	23	0	1,020	19	0	0
Burlington	1943	0	1	183	383	429	69	129	424	40	29	174	63	298	29	1,253	115	66	58	
City of Burlington	1944	2	1	1,812	4,295	1,483	32	20	2,471	141	98	769	32	135	308	4,207	720	708	88	
Lawnside	1944	1	12	917	1,414	67	15	6	71	0	3	13	101	1	0	167	18	11	61	
Cape May	1947	2	2	224	64	59	80	20	42	22	0	3	13	101	1	0	167	18	11	61
Mobile Clinic	1947	1	8	752	271	1,327	44	110	205	0	1	13	101	0	240	296	1,620	158	6	9
Camden	1942	1	12	1,762	271	1,327	44	110	205	0	1	13	101	0	240	296	1,620	158	6	9
Essex-Quincy	1947	3	1	330	292	1,050	13	128	1,053	61	33	145	2	8	0	1,403	713	170	51	
Gloucester	1940	1	27	988	4,171	1,415	22	137	1,831	33	110	228	228	774	0	2,610	197	179	91	
Hunterdon	1942	4	4	247	321	835	15	166	422	13	0	83	4	118	498	4,122	506	511	95	
Middlesex	1942	1	1	266	302	727	20	317	340	41	16	83	4	240	40	835	433	153	31	
South Brunswick	1941	1	1	1,111	1,027	1,435	5	24	1,133	10	2	272	0	37	0	1,061	232	119	47	
Monmouth	1945	1	1	731	4,874	1,230	110	417	1,850	89	101	210	323	0	1,300	88	438	32	15	47
Matawan	1946	1	1	109	1,023	392	43	80	433	19	42	116	15	386	7	3,404	464	241	52	
Union Beach	1945	1	1	45	44	44	3	23	23	3	5	23	5	73	53	1,000	172	97	64	
Chloro Foundation	1944	1	1	1,012	528	1,863	58	212	1,692	130	61	50	22	701	509	4,071	482	323	67	
Morris	1944	1	1	158	122	281	21	57	185	19	81	50	22	701	509	4,071	482	323	67	
Ocean	1944	3	11	679	334	1,582	105	443	1,040	130	536	233	8	779	883	4,189	247	201	86	
Franklin	1944	1	1	168	131	394	23	56	180	5	0	169	5	4	246	628	60	38	57	0
Wanaque	1945	1	1	139	1,012	292	16	43	184	3	0	169	5	4	246	628	60	38	57	0
Salem	1945	1	1	139	1,012	292	16	43	184	3	0	169	5	4	246	628	60	38	57	0
Somerset	1942	1	13	881	1,390	165	81	61	60	8	1	79	0	16	90	444	38	15	41	0
Union	1942	16	19	984	635	1,743	82	181	850	47	4	284	52	87	588	2,125	475	275	0	0
Union	1942	1	1	69	455	79	10	3	141	27	62	494	205	927	322	3,369	540	476	80	0
Kenilworth	1945	1	1	147	1,130	180	2	10	115	10	4	46	0	131	53	16	222	14	12	80
Warren	1947	2	1	270	5,042	1,306	73	293	1,022	248	49	281	42	744	3	322	26	20	76	78
Phillipsburg***	1954	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTALS (19 Counties)....		88	207	12,868	42,648	23,518	1,294	4,376	18,051	1,765	1,420	5,558	3,398	5,091	5,294	49,788	6,844	4,301	63	0

* Code for Type of Program: P, O.—Private Office; Cl.—Clinic; Mo. Cl.—Truck Mobile with complete dental equipment; Tr.—Trailer with dental equipment.
† Lithium Salts: Vincent's Infection—Guttapercha; Post Operative Root Canal—Absorbent for extraction or cavity preparation.
*** Health Education.

Maternal and Child Health Program
Hospital Consultation Services

The Maternal and Child Health Program makes available to hospitals special advisory consultation services in the area of maternity and newborn care and exchanges pertinent information with representatives of the Department of Exchanges and Agencies and the New Jersey State Board of Nursing.

This service has met with continuing approval and success, as attested by numerous letters received from hospital administrators and others. The number of hospitals receiving consultation services during the fiscal year was 46, including the six maternity homes licensed by the State Department of Institutions and Agencies. Requests for consultation services from the individual hospitals are on the increase. By the end of the calendar year 1958, 50 per cent of the hospitals in which approximately 70 per cent of the births in New Jersey occur will have been covered by this service.

The Program is increasingly being requested to assist hospitals in dealing with the problem of antibiotic resistant staphylococcal infections.

Midwives

There were 95 licensed midwives registered to practice in the State, or three midwives less than were registered in the preceding year; 25 midwives were active in 1957 in contrast to 19 in 1956. The total number of infants delivered by midwives was 72, the same as in the preceding year. These 72 midwife deliveries represented .05 per cent of the 125,834* deliveries occurring in New Jersey during 1957. Midwife activities by the State Health Districts were as follows:

Table 10.

State Health District	Number of Active Midwives	Number of Infants Delivered by Midwives
Central	8	23
Northern	2	6
Metropolitan	13	35
Southern	2	8
TOTALS	25	72

* Live Births

The Program distributed a new set of forms with regard to midwife activities and supervision of midwives, and has oriented the State Health District personnel and midwives in their use. A manual for midwives and for supervision of midwives was drafted.

Retrolental Disease

Retrolental Disease, a serious eye condition which is preventable in most instances, is today's leading cause of blindness among young children in this country. Occurring particularly in very small premature infants, it has been definitely associated with administration of large and prolonged doses of oxygen. Therefore, restriction of oxygen therapy to an absolutely necessary minimum has been advocated and methods of control have been recommended. The Program has made every effort to alert hospitals and physicians to current recommendations and has assisted hospitals to institute desirable safeguards. It is believed that these efforts have contributed to the dramatic decline in the occurrence of the disease as indicated by the number of cases reported to the New Jersey Commission for the Blind. Informed by the Commission of newly reported cases of retrolental disease, the Program promptly follows these up and offers specific consultation regarding oxygen administration and equipment to hospitals where these cases occurred.

Table 11.

<i>Year of Birth</i>	<i>Number of cases of Retrolental Disease reported to the Commission for the Blind as of 6-4-58*</i>
1952	58
1953	34
1954	18
1955	11
1956	4
1957	2

* As indicated by correspondence to the Maternal and Child Health Program

Boarding Homes for Children

Reporting by the individual boards of health to the Division of Local Health Services indicated that altogether 28 boards of health (five per cent) had adopted the New Jersey Boarding Home for Children Code (1956); 255 boards of health or 45 per cent—almost one-half of the boards of health in New Jersey—have made no provision for control of boarding homes for children. This is of very serious concern to the Program.

Migrant Health

A pediatric clinic for children of migrant workers was established in conjunction with the Court Street School in Freehold. Seven clinic sessions were held during the month of August; 76 children were examined by the physician, six of them in the one to four age group, 61 of them were five years or over; in five children re-examination was indicated and performed by the physician. The general condition of the children was astoundingly good. A few minor conditions, particularly skin infections, were found and treated. A six-year-old girl was diagnosed as having cerebral palsy and epilepsy and was referred to the Crippled Children's Program. Poliomyelitis vaccination was provided to children needing this protection and whose parents gave their consent. A total of 24 children received the initial dosage of polio vaccine and 17 the second dose. Tuberculin Patch testing was also performed, with no positive reactors found.

In addition, arrangements were made to provide financial assistance to the Monmouth County Organization for Social Service, for additional medical and nursing services needed in the prenatal clinic and child health station, and for follow-up nursing services for pregnant migrant women and migrant children.

Postgraduate Education

1. Course in Pediatrics

A postgraduate course "Recent Advances in Pediatrics" for practicing physicians was held in conjunction with Seton Hall University Medical and Dental School. The course consisted of 10 sessions; 47 physicians registered. Plans were made for two regional obstetrical institutes and one State-wide pediatric course entitled: "Emotional and Psychiatric Aspects of Pediatrics" for the academic year 1958-1959.

2. Perinatal Pathology Institutes

Two regional institutes for pathologists were held, one in Newark and one in Trenton. They were conducted by Dr. Peter Gruenwald, noted authority in the field, and were co-sponsored by the Department and the New Jersey Society for Clinical Pathologists. Considerable interest was shown by the pathologists and the attendance was excellent.

3. *In-Service Training for Nurses*

- a. Two lecture series for nurses were held in Mercer and Middlesex Counties, each consisting of four three-hour sessions dealing with physical and emotional aspects of pregnancy, labor and delivery, and the post-partum period.
- b. Three full-day sessions of in-service training for field nurses, dealing with a variety of maternal and child health subjects, were conducted by Program personnel in the Southern State Health District.
- c. The Public Health Nurse Consultant-Pediatrics assisted in in-service training activities in the Metropolitan State Health District.
- d. The leadership training course in prenatal group discussions for nurses, conducted in conjunction with the Child Study Association of America and initiated in the preceding fiscal year, was continued. Four seminar sessions were held, with 11 nurses in attendance. In addition, six nurses were supervised by the Child Study Association's staff in conducting an additional prenatal group discussion series. The Public Health Nurse Consultant for Hospitals, who participated in the original training institute, continued with advanced training in supervision of parent group discussions.
- e. The Public Health Nurse Consultant—Maternal and Child Health attended a two-weeks' course for Nurses in "Growth and Development" at Boston University.
- f. The Public Health Nurse Consultant—Pediatrics participated in a two-weeks' regional workshop on Parent Education at New York Hospital, given under the auspices of the United States Children's Bureau, the Child Study Association of America, and the New York State Department of Health.

*Health Education Material*1. *Films, Pamphlets, Exhibits*

There were 102 films on child growth and development presented through the State Museum in 2,865 showings to audiences totalling 127,587 persons, twice as many people as in the preceding year. Printed materials on subjects concerning maternal and child health and on sex education were purchased and made available for distribution. A total of approximately 65,000 such pamphlets was distributed. The Program's exhibit: "Childhood Accidents" was presented at the Annual Meeting of the New Jersey Congress of Parents and Teachers; the exhibit "Two Childhood Problems" at the meetings of the

New Jersey Welfare Council and at the American Medical Association Clinical Meeting in Philadelphia.

2. *New Materials Prepared by the Program*

The first Supplement to the "Bibliography of the Newborn" has been printed and, together with the original issue, is in considerable demand. Requests were received from 28 States, Washington, D. C., Chile, British Guinea, Egypt, Virgin Islands, Puerto Rico, and Canada.

The October, 1957 issue of *Public Health News*, devoted to the subject of Mental Retardation and consisting of the printed series of lectures, presented at the preceding year's Institute for Physicians on the subject, has been reprinted and distributed to all practicing physicians and other groups and interested persons in the State. In addition, the issue has received national recognition and requests have been received from 32 States, the District of Columbia, Puerto Rico, Canada, and the Canal Zone. These requests have come from physicians, nurses, educators, librarians, psychologists, program directors, mental retardation associations, and professional schools.

Program personnel cooperated with the Nutrition Program in the revision of several lay education pamphlets on nutrition requirements of children in various age groups and in the development of new Spanish language materials on prenatal nutrition.

Maternal Deaths

The Maternal and Child Health Program works cooperatively with the Special Committee on Maternal and Infant Welfare of the Medical Society of New Jersey in the study of deaths in women during pregnancy, delivery or the puerperium. These studies reveal that the irreducible minimum of maternal deaths has not as yet been reached, despite the dramatic decline of the maternal death rate. The statistical tables on maternal deaths, presented in the subsequent pages, are based on death certificates and compiled according to the "International Classification of Diseases, Injuries and Causes of Death." The tabulation resulting from field studies of these deaths shows a slightly different picture. During the report year, development of a new report form has begun, which should lead to more detailed and more efficient reporting by the field physicians.

Upon request of the Special Committee on Maternal and Infant Welfare, the Program Coordinator distributed to all members of the committee, all field physicians and the secretary of each County Medical Society, the American Medical Association's "Guide to Maternal Death Studies." Response to inquiry was received from all but Cape May and Burlington County Medical Societies, indicating that a County Maternal Welfare Committee existed.

Poison Control Service

Because accidental poisoning, especially among children, presents a public health problem and because increasing professional and citizen interest in this problem has developed in recent years, a Consultant in Public Health Toxicology was assigned to the Maternal and Child Health Program in February, 1958 and an integrated program activity in accidental poison prevention was thereby initiated.

There are presently 10 functioning poison control units in the State of New Jersey. These units are as follows: Atlantic City Hospital, Atlantic City; Babies Hospital, Newark; Monmouth Memorial Hospital, Long Branch; Fitkin Memorial Hospital, Neptune (Sub-Unit of Monmouth); Mountainside Hospital, Montclair; Nutley Child Safety Program, Nutley; Orange Memorial Hospital, South Orange; Morristown Memorial Hospital, Morristown; Tri-County West Jersey Hospital, Camden; All Souls Hospital, Morristown. The Program assisted considerably in establishing the three last mentioned units. The poison prevention service has also consulted with eight additional hospitals which are planning poison control units.

The main objectives of the poison control service are as follows: Coordinate, encourage and assist in establishing poison control units; establish and maintain uniform procedures for reporting in all poison control units; develop epidemiological follow-up report methods with poison control units, local boards of health and visiting nurse associations; process and analyze the reports and prepare periodic statistical analysis on same; study of area and seasonal trends in poisoning, and successful methods of prevention and treatment; establish and maintain an up-to-date library of reference materials for toxicological information on the more important potentially toxic substances; provide accurate poison control information and materials to physicians, hospitals and poison control units (product information, antidotes, etc.); develop poison prevention educational material for the lay public (talks, radio spots, pamphlets, etc.); serve as a liaison with all State and national poison control activities (medical societies, pharmaceutical societies, health officers, local boards of health, hospital associations, the United States Public Health Service, national clearinghouse, etc.); serve as a central clearinghouse for the coordination and interchange of information for all State-wide poison control activities.

A standardized reporting system on all cases of poison coming to the attention of a poison control unit has been established. Reports are presently received from seven of the 10 active poison control units. We anticipate that within a short period of time we will be receiving poison reports from all active poison control units in New Jersey.

Field Activities on Local Level

The operation and administration of Department sponsored and supervised maternal and child health activities on local level is the responsibility of the four State Health Districts. It is hoped that the responsibility for these local activities will eventually be assumed entirely by the local communities themselves. During the report year, the Department supervised the work done at 78 child health stations, at which 1,569 sessions were held with the physician present, and at which more than 10,000 children attended.

With the premise that public health nursing service is an important factor in good prenatal care and that good prenatal care is probably one of the most significant approaches toward the reduction of prematurity, stillbirth and perhaps even neonatal mortality, more emphasis will be needed on prenatal case finding and working with prenatal patients. Importance of continued concern with infants and preschool children has shifted from the physical to the emotional aspects of child care; but the increase in infant mortality for the second year in succession, even if slight, and the problem of accidental injuries and deaths, particularly in young toddlers, point out, that we have not, as yet, overcome disease and physical trauma. Therefore, there continues to be a great need for public health nursing in the field of maternal and child health, which not only is expanding in interest and scope, but still remains a very basic public health activity even in terms of preventing chronic illness. Since the work load of the individual nurse is great, emphasis on case selection on basis of priority is essential. An increase of group activities may, to some extent, alleviate the problem. There exists a need for in-service training of nurses in the area of maternal and child health regarding newer trends and developments in the field.

Miscellaneous Activities

Consultation and assistance have been given on numerous occasions to the four State Health Districts in regard to their maternal and child health activities. Requests for consultation have been increasing.

The close working relationship of the Program with the Maternal and Infant Welfare Committee of the Medical Society of New Jersey, as well as with the New Jersey Chapter of the American Academy of Pediatrics, continued. Cordial liaison was maintained with the Bureaus of Child Welfare, Community Services, Mental Deficiency, and Community Institutions of the Department of Institutions and Agencies, and the New Jersey Commission for the Blind. Close contact exists also with the New Jersey Hospital Association.

Assistance was given to Rutgers University's and Seton Hall University's Nursing Schools, by providing teaching materials and loan of films. Assistance was given also to several hospital nursing schools by providing pertinent teaching material and loan of films.

In addition to participating in in-service training activities mentioned above, Program personnel participated as speakers or discussion leaders as follows: Lectured at Rutgers School of Nursing on "Maternal and Child Health Services"; participated in a panel discussion at the Professional Symposium on Medical Rehabilitation; discussed "Staphylococcal Infections" and "Current Trends in Maternity Care" at a meeting of the New Jersey League for Nursing; spoke to the Bergen-Passaic Unit of the New Jersey Association for Mental Retardation on "Preventive Aspects of Mental Retardation"; spoke to the Salem County Auxiliary on "Child Safety"; led two conferences on Premature Care at the Seventh Annual Congress on Maternity Care in Chicago; discussed "Emotional and Educational Needs of the Parents of Prematures" at a Rutgers Workshop on "Support of the Family During Pregnancy"; discussed the staphylococcal infection problem at a Conference on the Newborn at Teachers College, Columbia University; served on an Advisory Committee which, under the chairmanship of Dr. Paul Lemkau and under the auspices of the Child Health Committee of the American Public Health Association, was given the task of developing a Guide on Services for Emotionally Disturbed Children; served on a Committee of the Maternal and Child Health Section to review the Task Force Report and recommend implementations; worked with a Section Committee on the revision of the Maternal and Child Health portion of the American Public Health Association's Evaluation Guide; served, by invitation from the National Association for the Aid of Crippled Children, on a Steering Committee, which planned nationwide research activities on childhood accident prevention; served in consultant capacity to the Study Group on the Use of Perinatal Data of the Public Health Conference on Records and Statistics; participated in a special meeting of the American Medical Association Committee on Perinatal Mortality.

Vital Statistics

The statistical tables and discussions presented in the following pages have been prepared by the Public Health Statistics Program, but are included in the Maternal and Child Health Section of the annual report because of their particular pertinence. The majority of statistical material, also of great importance and concern to the Maternal and Child Health Program, is included in that portion of the annual report which deals with the activities of the Public Health Statistics Program.

Table 12. INFANT AND MATERNAL DEATHS BY COUNTY
(NUMBERS AND RATES)
NEW JERSEY: 1957

County	Births	Infant Deaths		Maternal Deaths	
		Number	Rate	Number	Rate
STATE TOTAL	129,257	3,161	24.5	44	0.3
Atlantic	3,067	104	33.9	..	..
Bergen	15,508	315	20.3	..	..
Burlington	4,245	115	27.1	..	..
Camden	8,459	235	27.8	5	0.6
Cape May	883	17	19.3	1	1.1
Cumberland	2,348	61	26.0	..	..
Essex	20,424	605	29.6	13	0.6
Gloucester	2,956	85	28.8	2	0.7
Hudson	13,367	321	24.0	1	0.1
Hunterdon	997	23	23.1	..	..
Mercer	5,785	129	22.3	5	0.9
Middlesex	9,913	201	20.3	5	0.5
Monmouth	7,353	156	21.2	2	0.3
Morris	5,555	120	21.6	2	0.4
Ocean	2,111	42	19.9	..	..
Passaic	8,594	209	24.3	2	0.2
Salem	1,334	48	36.0	1	0.7
Somerset	3,050	50	16.4	..	..
Sussex	949	31	32.7	..	..
Union	10,626	258	24.3	3	0.3
Warren	1,258	25	19.9	1	0.8
State Institutions	20	..	..	..	..
Military Posts	455	11	24.2	1	2.2

Note: Rates are per 1,000 live births.

Table 13. RESIDENT BIRTHS BY WEIGHT GROUP, BY AGE GROUP OF MOTHER, NEW JERSEY: 1957

Age in Years	BIRTH WEIGHT GROUP							Weight Not Stated	
	over 2500 Grams		2001-2500 Grams		1501-2000 Grams		1001-1500 Grams		
	5 lbs. 9 ozs. and over	4 lbs. 7 ozs. to 5 lbs. 8 ozs.	3 lbs. 5 ozs. to 4 lbs. 6 ozs.	2 lbs. 3 ozs. to 3 lbs. 4 ozs.	2 lbs. 3 ozs. to 3 lbs. 4 ozs.	less than 2 lbs. 3 ozs.	under 1001 Grams		
All Ages	Total	119,089	6,317	1,712	754	649	736		
10-14	129,257	119,089	6,317	1,712	754	649	736		
15-19	97	73	14	2	3	4	1		
20-24	9,785	8,668	688	193	100	67	69		
25-29	36,064	33,186	1,788	492	215	162	221		
30-34	39,796	36,962	1,749	483	193	205	204		
35-39	27,361	25,338	1,261	326	148	141	147		
40-44	13,197	12,159	653	168	80	57	80		
45-49	2,833	2,593	154	46	14	12	14		
50-54	122	108	10	2	1	1	0		
Unknown	1	1	0	0	0	0	0		

Table 14. BIRTHS BY LEGITIMACY BY COLOR FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1957

AREA	All Births			Legitimate		Illegitimate		Unknown	
	Total	White	Nonwhite	White	Nonwhite	White	Nonwhite	White	Nonwhite
State Total	129,257	113,907	15,650	112,165	13,200	1,440	2,449	2	1
Atlantic County	3,067	2,399	668	2,332	492	66	176	1	0
Atlantic City	978	488	490	445	347	43	143	0	0
Bergen County	15,508	15,128	380	15,050	328	69	52	0	0
Burlington County	4,245	3,879	366	3,836	328	43	88	0	0
Camden County	8,459	7,442	1,017	7,371	799	71	218	0	0
Camden City	2,821	1,993	828	1,961	644	32	184	0	0
Cape May County	883	772	111	751	94	21	17	0	0
Cumberland County	2,348	1,866	482	1,802	388	64	94	0	0
Essex County	20,424	15,041	5,383	14,776	4,367	265	873	0	1
East Orange	1,688	1,217	471	1,205	409	12	42	0	0
Irvington	1,067	1,092	5	1,090	5	2	0	0	0
Newark	10,377	6,215	4,362	5,998	3,592	217	770	0	0
Gloucester County	2,958	2,611	347	2,579	284	32	61	0	0
Hudson County	13,367	11,962	1,405	11,763	1,208	198	197	1	0
Bayonne	1,571	1,501	70	1,489	65	12	5	0	0
Hoboken	1,076	1,031	45	1,023	41	8	4	0	0
Jersey City	6,493	5,239	1,254	5,692	1,075	146	179	1	0
Union City	1,075	1,070	5	1,061	4	9	1	0	0
Hunterdon County	997	981	16	965	13	16	3	0	0
Mercer County	5,785	4,693	1,092	4,564	935	129	137	0	0
Trenton	2,627	1,795	832	1,751	733	44	99	0	0
Middlesex County	9,913	9,361	552	9,302	500	59	32	0	0
Monmouth County	7,353	6,359	994	6,310	845	49	149	0	0
Morris County	5,555	5,416	139	5,370	122	46	17	0	0
Ocean County	2,111	2,028	83	1,995	96	33	17	0	0
Passaic County	8,594	7,693	901	7,594	761	99	140	0	0
Clifton	1,503	1,798	5	1,790	2	8	3	0	0
Passaic	963	823	140	814	128	9	14	0	0
Paterson	3,328	2,863	745	2,921	622	62	123	0	0
Salem County	1,324	1,070	254	1,041	208	29	56	0	0
Somerset County	3,050	2,934	116	2,904	109	30	7	0	0
Sussex County	949	943	6	925	5	18	1	0	0
Union County	10,626	9,420	1,206	9,359	1,067	70	139	0	0
Elizabeth	2,919	2,091	428	2,057	377	34	31	0	0
Warren County	1,238	1,250	8	1,224	6	26	2	0	0
State Institutions	20	19	1	16	1	3	0	0	0
Military Posts	455	840	115	336	114	4	1	0	0

Table 15. ILLEGITIMATE BIRTHS BY COLOR AND AGE OF MOTHER
NEW JERSEY: 1957

Age of Mother	Total		Color			
	No.	%	White		Nonwhite	
			No.	%	No.	%
All Ages	3,889	100.0	1,440	100.0	2,449	100.0
10-14	84	2.2	18	1.3	66	2.7
15-19	1,548	39.8	497	34.5	1,051	42.9
20-24	1,219	31.3	484	33.6	735	30.0
25-29	529	13.6	209	14.5	320	13.1
30-34	323	8.3	134	9.3	189	7.7
35-39	138	3.6	64	4.4	74	3.0
40-44	48	1.2	34	2.4	14	0.6

Although it is recognized that not all births to unmarried mothers are correctly reported as such, the discrepancy between actual and report figures probably does not vary significantly between age groups. Bearing that qualification in mind and assuming that there is no race difference in the reluctance of females to give correct information, the data in the table may be studied to advantage.

Table 16. MATERNAL DEATHS BY SPECIFIC CAUSE*
NEW JERSEY: 1957

TOTAL MATERNAL DEATHS	44
Total complications of pregnancy (640-649)	10
Toxemias of pregnancy (642)	7
Placenta praevia (643)	1
Ectopic pregnancy (645)	2
Total Abortions (650-652)	7
Abortion without mention of sepsis or toxemia (650)	4
Abortion with sepsis (651)	3
Total deliveries without complications (660)	1
Delivery without complication (660)	1
Total deliveries with specified complications (670-678)	15
Delivery complicated by placenta praevia or antepartum hemorrhage (670)	4
Delivery complicated by retained placenta (671)	1
Delivery complicated by disproportion or malposition of fetus (674)	2
Delivery complicated by prolonged labor of other origin (675)	1
Delivery with other trauma (677)	4
Delivery with other complications of childbirth (678)	3
Total complications of the puerperium (680-689)	11
Sepsis of childbirth and the puerperium (681)	7
Puerperal phlebitis and thrombosis (682)	1
Puerperal pulmonary embolism (684)	2
Puerperal eclampsia (685)	1

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

Table 17. MATERNAL DEATHS BY CAUSE, COLOR AND AGE GROUPS
NEW JERSEY: 1957

Cause* and Color	Age Group		
	All Ages	15-24	25-44
ALL CAUSES (640-689)	44	10	34
White	24	3	21
Nonwhite	20	7	13
Complications of pregnancy (640-649)	10	1	9
White	4	..	4
Nonwhite	6	1	5
Abortion (650-652)	7	3	4
White	3	2	1
Nonwhite	4	1	3
Delivery without complications (660)	1	..	1
White	1	..	1
Nonwhite .....	..	..	..
Delivery with specified complications (670-678)	15	2	13
White	10	1	9
Nonwhite	5	1	4
Complications of the puerperium (680-689)	11	4	7
White	6	..	6
Nonwhite	5	4	1

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

Infant Deaths by Cause and Age, New Jersey: 1957

In 1957, New Jersey acquired 129,257 live-born babies. During the same year the State lost by death 3,161 infants. This loss occurred at the rate of 24.5 infants for each 1,000 live births.

The accompanying table presents the 3,161 infant deaths by cause and by age groups. Causes have been divided according to the major groupings of the International Statistical Classification of Diseases and Causes of Death (sixth revision). 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.

The individual cause to which the greatest number of deaths was charged was postnatal asphyxia and atelectasis. There were 730 deaths, or 23.1 per cent of all deaths under one year, assigned to this cause. More than one-half of the infants whose deaths were charged to this cause were under one day old and a total of 690 or 95 per cent were under one week old. Immaturity was indicated on 71 per cent or 520 of the 730 death certificates for babies whose deaths were due to postnatal asphyxia and atelectasis.

Immaturity unqualified was the second most important single cause of death for New Jersey infants in 1957. There were 630 deaths or 20 per cent of all deaths under one year, assigned to this cause. The greatest number of these deaths, 408, occurred to infants less than one day old, while 191 occurred to those who were one day old but less than one week old.

As a result of congenital malformations, 536 infants died. This represents 17 per cent of all deaths under one year of age. Over half of these deaths occurred to infants less than one week old.

Considered together, the 320 infant deaths charged to diseases of the respiratory system and the 139 deaths charged 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, most of the deaths due to diseases of the respiratory system were for infants 28 days and older. Of the 139 deaths due to pneumonia of the newborn, 138 occurred to infants less than 28 days old. Of the 320 deaths due to diseases of the respiratory system, 293 were of infants 28 days and older.

Over 8 per cent of all infant deaths in 1957 were charged to birth injuries. There were 256 deaths due to this cause, of which 151 were for babies less than one day old and 95 were for babies from one day through six days old.

In 1957, accidents accounted for 92 infant deaths. Seventy-five per cent of these deaths were due to the following causes:

- a. Inhalation and ingestion of food or other objects causing obstruction or suffocation (41 deaths).
- b. Accidental mechanical suffocation in bed or cradle (28 deaths).

Of the 92 accidental deaths, 81 occurred to infants 28 days and over.

If New Jersey's live-born babies die they experience death early in their brief existence. Of the 3,161 deaths which occurred in 1957 to infants under one year of age, 1,252 or about 40 per cent were for infants less than one day old. Approximately 77 per cent or 2,430 infants died when they were less than 28 days old. Immaturity was indicated on the death certificates of 1,432 of these 2,430 infants.

Additional information is given in the following table. It is important to remember that 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. However, infant deaths from all causes were included in the tabulation. Certificates of death from causes which give no opportunity for an immaturity classification were counted in the group labeled "Immaturity Not Indicated."

Table 18. INFANT DEATHS BY AGE AND IMMATURITY, NEW JERSEY: 1957

Age	Total		Immaturity Indicated on Death Certificate		Immaturity Not Indicated on Death Certificate	
	No.	Per cent	No.	Per cent	No.	Per cent
< 1 day	1,252	39.6	841	58.2	411	24.0
< 1 week	2,151	68.0	1,353	93.6	798	46.5
< 28 days	2,430	76.9	1,432	99.0	998	58.2
< 1 year	3,161	100.0	1,446	100.0	1,715	100.0

Note: Numbers of deaths for each age classification are cumulative totals from birth to the indicated age.

Table 19. INFANT DEATHS BY CAUSE AND AGE, NEW JERSEY: 1957

Cause of Death Showing International List (6th Revision) Numbers	Total	Less Than				Age at Death			
		1 Day				1 Week			
		1 Day	<1 Week	1 Day	<1 Week	1 Day	<28 Days	1 Week	<1 Year
ALL CAUSES (001-637, 690-E999)	3,161	1,252	899	279	731	1,252	899	279	731
Infective and parasitic diseases (001-138)	20	...	...	2	18	...	...	2	18
Diseases of other endocrine glands (270-277)	14	...	...	3	11	...	...	3	11
Diseases of the nervous system and sense organs (330-398)	38	1	4	3	30	1	4	3	30
Diseases of the respiratory system (470-527)	320	8	11	8	293	8	11	8	293
Diseases of the digestive system (530-587)	64	11	3	5	45	11	3	5	45
Congenital malformations (750-759)	536	136	139	85	176	136	139	85	176
Birth injuries (760, 761)	1,169	550	479	120	20	550	479	120	20
Postnatal asphyxia and atelectasis (762)	256	151	95	7	3	151	95	7	3
Pneumonia of the newborn (763)	730	371	319	28	12	371	319	28	12
Diarrhea of the newborn (764)	139	18	54	66	1	18	54	66	1
Ophthalmia neonatorum (765)	5	...	1	4	...	...	1	4	...
Other infections of the newborn (766-769)	...	...	...	...	...	...	...	...	...
Other diseases peculiar to early infancy (770-776)	39	10	10	15	4	10	10	15	4
Hemolytic disease of the newborn (770)	846	530	256	41	19	530	256	41	19
Hemorrhagic disease of the newborn (771)	80	51	23	5	1	51	23	5	1
Nutritional maladjustment (772)	13	4	9	...	...	4	9	...	...
Ill-defined diseases of early infancy (773)	8	...	...	3	5	...	...	3	5
Immaturity unqualified (774-776)	115	67	33	10	5	67	33	10	5
Synptoms and ill-defined conditions (780-795)	630	408	191	23	8	408	191	23	8
Accidents (E800-E962)	17	10	1	1	5	10	1	1	5
Inhalation and ingestion of food or other objects causing obstruction or suffocation (E921-E922)	92	1	2	8	81	1	2	8	81
Accidental mechanical suffocation in bed or cradle (E924)	41	...	1	4	36	...	1	4	36
All other accidental causes (E800-E920, E923, E925-E962)	28	...	1	3	24	...	1	3	24
All other causes	23	1	...	1	21	1	...	1	21
	45	5	4	3	33	5	4	3	33

Table 20. DEATHS DUE TO CERTAIN DISEASES OF EARLY INFANCY BY SPECIFIC CAUSE AND AGE GROUP, NEW JERSEY: 1957

Cause of Death Showing International List (6th Revision) Numbers	Total	Less Than				Age at Death			
		1 Day				1 Week			
		1 Day	<1 Week	1 Day	<28 Days	1 Day	<1 Year	1 Week	<1 Year
Total, Certain diseases of early infancy (760-776)	2,015	1,080	735	161	39	1,080	735	161	39
Without immaturity indicated (760-773 with 0-4)	569	239	223	82	25	239	223	82	25
With immaturity indicated (760-773 with 5-9 and 774-776)	1,446	841	512	79	14	841	512	79	14
Birth injuries (760, 761)	256	151	95	7	3	151	95	7	3
Without immaturity indicated	118	63	48	5	2	63	48	5	2
With immaturity indicated	138	88	47	2	1	88	47	2	1
Postnatal asphyxia and atelectasis (762)	730	371	319	28	12	371	319	28	12
Without immaturity indicated	210	91	103	7	9	91	103	7	9
With immaturity indicated	520	280	216	21	3	280	216	21	3
Pneumonia of newborn (763)	139	18	54	66	1	18	54	66	1
Without immaturity indicated	98	15	31	51	1	15	31	51	1
With immaturity indicated	41	3	23	15	...	3	23	15	...
Diarrhea of newborn (764)	5	...	1	4	...	...	1	4	...
Without immaturity indicated	5	...	1	4	...	...	1	4	...
With immaturity indicated	...	...	...	...	...	...	...	...	...
Other infections of the newborn (766-769)	39	10	10	15	4	10	10	15	4
Without immaturity indicated	20	5	7	6	2	5	7	6	2
With immaturity indicated	19	5	3	9	2	19	5	9	2
Without immaturity indicated	80	51	23	5	1	51	23	5	1
With immaturity indicated	73	40	19	4	1	40	19	4	1
Without immaturity indicated	7	2	4	1	...	2	4	1	...
With immaturity indicated	13	4	6	1	...	4	6	1	...
Hemorrhagic disease of the newborn (771)	8	2	6	...	...	2	6	...	...
Without immaturity indicated	5	2	3	...	...	2	3	...	...
With immaturity indicated	8	...	...	...	...	...	...	...	...
Nutritional maladjustment (772)	7	...	...	...	...	...	...	...	...
Without immaturity indicated	...	...	...	...	...	...	...	...	...
With immaturity indicated	1	...	...	...	...	...	...	...	...
Ill-defined diseases of early infancy (773)	115	67	33	10	5	67	33	10	5
Without immaturity indicated	30	14	8	3	5	14	8	3	5
With immaturity indicated	85	53	25	7	...	53	25	7	...
Immaturity unqualified (774-776)	630	408	191	23	8	408	191	23	8

Table 21. DEATHS DUE TO ACCIDENTS BY CAUSE OF ACCIDENT FOR SELECTED AGE GROUPS
NUMBER AND RANK, NEW JERSEY: 1957

Rank Order	1-4 Years		5-14 Years		15-24 Years	
	Cause of Death	Number	Cause of Death	Number	Cause of Death	Number
1	All accidental deaths (E800-E962)	93	All accidental deaths (E800-E962)	131	All accidental deaths (E800-E962)	235
	Motor vehicle accidents (E810-E835)	25	Motor vehicle accidents (E810-E835)	47	Motor vehicle accidents (E810-E835)	151
2	Accidents caused by fire and ex- plosion of combustible material (E916)	18	Accidental drownings and sub- mersions (E929)	31	Accidental drownings and sub- mersions (E929)	27
	Accidental drownings and submer- sions (E929)	15	Accidents caused by fire and explosion of combustible ma- terial (E916)	17	Accidental falls (E900-E904) ..	11
3	Accidental falls (E900-E904)	14	Railway accidents (E800-E802)	10	Accidents caused by firearms (E916)	11
	Inhalation and ingestion of food or other objects causing obstruction or suffocation (E921, E922)	8	Accidental falls (E900-E904) ..	3	Accidental poisonings (E870-E895)	8
4	Accidental poisonings (E870-E895)	6	Accident to rider of pedal cycle not involving collision with motor vehicle (E843)	3	Accidents caused by fire and ex- plosion of combustible material (E916)	6
	All other accidents	7	All other accidents	20	All other accidents	21

Nutrition Program

Since nutrition is recognized as an important consideration in every aspect of health and disease, demands for nutrition services have been increasing in proportion to the development of other public health programs. The Nutrition Program, through the State Consultant and the four District Consultants in Public Health Nutrition, has continued to provide advisory and consultative services to the staffs of official and voluntary agencies on State, District, and local levels.

Realizing that good food service in a hospital can have far reaching good effects in community health and that public health implications in hospital food service are many, a hospital dietary consultant service was initiated in October, 1957. A well-trained Hospital Dietary Consultant was employed by the New Jersey Hospital Association through a grant-in-aid from this Department. Under the administrative direction of the Executive Director of the New Jersey Hospital Association and with the technical advice and guidance of Departmental personnel, the Hospital Dietary Consultant has been responsible for planning and developing a program of consultation and dietetics in relation to chronic illness control and in improving over-all food service to patients.

Nutrition information for professional persons and the lay public has been provided through the development of materials, preparation of articles for professional use, correspondence in response to specific questions, and the review and evaluation of films and other educational materials.

Staff Education

Staff Education has continued to be a major activity of the Nutrition Program. The Program Coordinator and the District Consultants in Public Health Nutrition participated in programs for health officers, dietitians, public health nurses, school nurses, school lunch personnel, camp directors and visiting nurse associations.

Specific Activities

Following are the specific activities in Departmental programs to which the Nutrition Program has contributed during 1957-1958:

Orientation and In-service Training of Nutrition Personnel

Orientation was provided for the Hospital Dietary Consultant of the New Jersey Hospital Association.

The State Consultant assisted in the orientation of a dietary consultant recently assigned to the Division of Chronic Diseases of the United States Public Health Service.

A three-week field training was arranged for a student from Teachers College, Columbia University, who is working for a Master's Degree in Public Health Nutrition.

In cooperation with the District State Health Officers and other program coordinators, the following opportunities were provided for in-service training of Program personnel:

The State Consultant attended the First Public Health Nutrition Institute, held at the Graduate School of Public Health, University of Pittsburgh. This Institute was jointly sponsored by the Department of Biochemistry and Nutrition, Graduate School of Public Health and the Division of Nutrition, Pennsylvania Department of Health. The theme of the Institute was "Nutrition and the Life Cycle."

The District Consultant Public Health Nutritionist in the Central State Health District attended the two-week Community Nutrition Institute at Syracuse University.

In the spring, two of the District Consultants attended the series of four Nutrition Seminars held at Douglass College, New Brunswick.

Two District Consultants attended the Institute on Food Purchasing sponsored by the New Jersey Dietetic Association.

Special Projects and Committees

As a member of the National Committee on Rehabilitation of the American Home Economic Association and the American Dietetic Association, the State Consultant assisted in compiling and identifying various programs and agencies currently working with the handicapped and in exploring the contributions nutritionists, home economists, and dietitians can make to members of rehabilitation teams.

Because the cardiovascular diseases and coronary artery diseases are today the leading causes of death in the United States, the attention of many research workers has been focused on determining whether the kind and amount of fat in the diet has any relation to these diseases. After a careful review of current research literature, two articles were jointly prepared by Dr. Margaret

Edwards of the Division of Chronic Illness Control, Dr. Anne B. Caldwell, Chairman of the New Jersey State Nutrition Council, and the State Consultant.

The State Consultant assisted with the Nutrition Section of the revised course content for the New Jersey Homemakers Service Training Course.

The New Jersey Hospital Dietary Consultant and the State Consultant have acted as consultants to the Diet Therapy Committee of the New Jersey Dietetic Association in the preparation of a State Dietary Manual.

Maternal and Child Health

Program personnel have contributed to the Maternal and Child Health Program by participating in institutes, staff conferences and case studies to assist nursing personnel in applying current knowledge of nutrition.

The Program leaflets "Food for Schoolagers" and "Food for Growing Up" have been completely revised to conform with the daily food guide recently introduced by the United States Department of Agriculture which replaces its nutrition literature using the Basic Seven. Through the Council on Human Relations, arrangements were made to translate these leaflets into Spanish for use with Puerto Rican families. In addition, a new bi-lingual leaflet "So You Are Having A Baby" was also prepared.

Crippled Children

The Nutrition Program has continued to serve those who provide medical and nursing care for children with cerebral palsy, rheumatic fever and related crippling and handicapping conditions by determining opportunities for in-service training and providing educational materials.

The State Consultant represented the Nutrition Program at the two-day Symposium on Rehabilitation at Atlantic City, sponsored by the Department's Crippled Children Program.

Chronic Illness Control

During the year, 29 hospitals were surveyed and received the benefit of the services of the Hospital Dietary Consultant. Because of the enthusiastic response from hospital administrators, the contract with the New Jersey Hospital Association was renewed.

The State Consultant participated in the three workshops on Cancer, Heart Diseases, and Diabetes offered for full-time health officers at Lakewood, New Jersey, and acted as a special consultant in the Workshop on Continuity of Care held in New Brunswick.

The Southern State Health District Consultant in Public Health Nutrition served on the Planning Committee for the Institute on Restorative Services for Cardiovascular Patients at Ocean City and Atlantic City, New Jersey.

Diabetes Program

Nutrition Program personnel were offered the opportunity to share information with the Program Coordinator and Public Health Nurse Consultant of the Diabetes Program. The Central State Health District Consultant in Public Health Nutrition and the State Consultant participated in planning meetings for the Mercer County Diet Counseling Service for Diabetic Patients. This service is jointly sponsored by the Mercer County Dietetic Association and the Mercer County Medical Society.

Camps

Nutrition consultation was offered to summer camp directors in the four State Health Districts.

Consultation services were offered to a diabetic camp by the District Consultant in Public Health Nutrition in that area.

Aging

A new Department leaflet "Feeding Older Folks... A Food Guide For Boarding Home Operators" was prepared by the Metropolitan State Health District Consultant in Public Health Nutrition. This leaflet is presently available for State-wide distribution.

When requested, the District Consultants in Public Health Nutrition have continued to offer consultation services to nursing homes and homes for the aged in their area.

New Jersey State Nutrition Council

As a member of the Food Facts and Fallacies Committee, the State Consultant assisted in the preparation of fact sheets on various weight control products currently on the market.

A nutrition bibliography for physicians, nutritionists, teachers, and the general public, was published in cooperation with the New Jersey State Nutrition Council and is available from the Nutrition Program.

Film Showings and Distribution of Literature

There were 374 showings of nutrition films and over 23,000 pieces of literature distributed during the year.

Division of Environmental Sanitation

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

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

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

Division of Environmental Sanitation

The broad objectives of the Division of Environmental Sanitation are: To influence the planning, construction, maintenance, and operation of sanitary facilities 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, milk, shellfish and other food and drug supplies; activities to discover the transmission of animal diseases to humans and to determine the mode of transmission and practical methods of control; 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 programs:

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

ADVISORY CODE COMMITTEES

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

Food and Drugs

GENERAL

Food and Drug programs are designed to protect public health and to prevent the manufacture and sale of adulterated or misbranded foods, drugs, devices, and cosmetics. Laws and regulations pertaining to the operation of milk plants, dairy farms, ice cream plants, refrigerated warehouses, egg-breaking establishments, non-alcoholic bottling plants and other food establishments, are to manufacturers and wholesalers of drugs, devices, and cosmetics are enforced.

Certain types of food and drug establishments are required by law or regulation to obtain licenses, permits or certificates from the Department. The following tabulation shows the number of licenses, permits, and certificates issued and the revenue derived from that activity:

<i>Establishment</i>	<i>Licenses</i>	<i>Permits</i>	<i>Certificates</i>	<i>Revenue</i>
Milk Plant .....	...	521	...	\$13,025.00
Goat Dairy .....	...	28	...	260.84
Refrigerated Warehouse and/or Locker Plant	94	...	...	4,450.00
Ice Cream Factory	1,299	...	...	11,350.00
Narcotic Drug	86	...	...	1,150.00
Creamery and/or Pasteurizing Plant	45	...	...	No fee
Egg-breaking Plant	18	...	...	No fee
Non-alcoholic Beverage Bottling and Bottled Water Plants	185	...	...	No fee
Shellfish Interstate Shipping Plants ....	...	...	223	No fee
Shellfish Intrastate Shipping Plant .....	...	...	69	No fee
	<u>1,727</u>	<u>549</u>	<u>292</u>	<u>\$30,235.84</u>

In addition, \$3,060.40 in penalties and court costs were collected by the Attorney-General for violations of these laws and regulations.

IN-SERVICE TRAINING ACTIVITY

One Assistant Sanitarian attended the Basic Public Health Course given at Rutgers University. One Principal Sanitarian completed the Principles of Supervision Course given by the Department. Another Principal Sanitarian completed an advanced course of instruction at the Federal Bureau of Narcotics Training School, Washington, D. C.

State Health District supervisory personnel and Program Coordinators met quarterly for discussion of activities in the various programs and for resolving mutual problems.

Personnel of the Food and Milk programs participated as lecturers in the Basic Public Health Course sponsored by the Department in cooperation with the Rutgers University Extension Service.

Food Program personnel also assisted in planning and giving a course in Food Handler Training for local and State health department personnel.

MEETINGS

Program personnel served on committees, participated in panel discussions or served as consultants in connection with meetings of the following organizations and agencies:

- Central Atlantic States Association of Food and Drugs Officials of the United States
- Farm Practices Committee of the New York State Association of Milk and Food Sanitarians (Uniform Milk House Plans for the Northeast, Revision of Veterinary Certificate Form, Mastitis Control Program, Uniform Industry Farm Sanitation Report Form, Uniform Brucella Test Standards)
- United States Public Health Service (Milk Sanitation Rating Officers, Shellfish Control)
- Bergen County Public Health and Sanitary Association
- Monmouth County Health Officers Association
- New Jersey Health Officers Association (Food and Drug and Legislative Committees)
- Ice Cream Manufacturers Conference, Rutgers University
- Market Milk and Fieldmen's Conference, Rutgers University
- Dairy Products Improvement Institute, Inc.
- Association of Ice cream Manufacturers of Pennsylvania, New Jersey and Delaware, Inc.
- Joint Annual Conference of the Oyster Institute of North America and the National Shellfisheries Association
- United States Food and Drug Administration
- New York and New Jersey Joint Patrol Program Affecting Raritan Bay Shellfish Areas

LEGISLATION

Chapter 10 of Title 24 was amended to define and establish standards for ice milk, which now permits the sale of a frozen dessert which was heretofore prohibited in New Jersey. Legislation was also enacted adding noscapine and papaverine to the list of exempt narcotic preparations defined in Chapter 18 of Title 24.

Rules and Regulations Governing the Production and Handling of Farm Bulk Milk were adopted by the Department after consultation and agreement with representatives of milk producers and processors, equipment manufacturers and local health departments.

Food (Other than Milk, Ice Cream and Shellfish)

Egg-breaking plants, non-alcoholic beverage bottling and bottled water plants, and refrigerated warehouses and locker plants are licensed and sanitary requirements must be met by these establishments and other non-licensed food establishments. Food samples are collected for analyses for bacteriological and chemical adulteration, and established standards of quality and identity must be met. Results of analyses and labels of such samples are reviewed for violations of standards and for the use of statements which tend to mislead or deceive the consumer.

One thousand two hundred and forty-nine samples of food, other than milk, milk products, ice cream and shellfish, were collected during the year.

CHEMICAL ADULTERATION OF MEATS

Six hundred and ninety-eight samples of fresh and cooked meats were collected for analyses to detect chemical adulteration and substitution of horseflesh for beef. Fifty-nine samples of meat, 8.5 per cent of the samples collected, were found to be adulterated by the addition of sodium sulphite or sodium bisulphite, indicating that such illegal practices were prevalent in certain parts of New Jersey. Nineteen cases were recommended for prosecution to the Attorney General's office and \$850.00 in penalties were collected. None of the samples analyzed this year was found to contain horseflesh.

ENRICHED BREAD AND ROLLS

During the year, 151 samples of white bread and white rolls were collected from bakeries for analyses to determine compliance with the Flour and Bread Enrichment Act of 1946 (Revised Statutes 24:11A-1 et seq.) which requires all white bread and rolls to be enriched with minimum quantities of certain vitamins and minerals. Analyses disclosed that an estimated 9 per cent of the samples were found to be deficient in vitamin or mineral content. Letters were sent to the bakery operators calling attention to the violations and advising the operators to enrich the products in compliance with the statute. Follow-up sample collection showed full compliance with our requirements.

Samples of cider, vinegar, carbonated beverages, and miscellaneous food are included in the above total collected and analyzed.

Many new and revised labels for food, submitted by industry and local health officials, were also reviewed and comments made regarding compliance with laws and regulations.

Assistance in the solving of food problems was rendered to other State agencies and to local boards of health. Agents of the Department also cooperated with Federal agencies in placing embargoes on suspected adulterated and misbranded food in interstate commerce. In these instances, the articles were held under embargo until seizure was effected by the United States marshal or the food was released.

Over a ton and a half of frozen meat stored in a refrigerated warehouse for a long period of time was examined and found unfit for human consumption. The meat was removed from human food channels under supervision of a representative of this Department.

Two certificates of inspection covering products to be exported to a Central American country by a New Jersey food manufacturer were issued following inspection of the plant, investigation of quality control and review of labels and labeling.

The following tabulation lists the number and types of food establishments, other than milk, ice cream and shellfish plants, inspected by representatives of this Department:

Egg-breaking plants	37
Refrigerated warehouses and locker plants	76
Non-alcoholic beverage bottling plants	354
Other food establishments*	585
Total	1,052

* Includes bakeries, eating places, confectionery plants, egg candling and packing plants, frozen food plants and cider mills.

Drug, Device, and Cosmetic

During the year, 68 inspections were conducted of plants, warehouses and research laboratories holding narcotic licenses issued by this Department. Cooperating with agents of the Federal Bureau of Narcotics, special emphasis was placed on improving safeguards for stocks of narcotic drugs in these establishments to prevent diversion by burglary or pilferage to illicit channels. All recommendations were complied with.

Nineteen investigations and inspections of drug, device, and cosmetic establishments were conducted in cooperation with representatives of the United States Food and Drug Administration, New Jersey State Police, and United States Public Health Service.

Six consultations with officials of establishments applying for or holding licenses to manufacture narcotic drugs were held with regard to new construction and the necessary safeguards for protecting the stock of narcotic drugs.

Assistance was rendered the Federal Bureau of Narcotics in inventorying and supervising the destruction of four lots of various preparations containing narcotic drugs. These items consisted of returned, aged, or damaged products containing narcotic drugs. The lots consisted of (1) 340 gallons of cough syrup, (2) 98,400 tablets, (3) 758 pounds bulk manufacturing material, and, (4) 1,365 packages of tablets, ampules, vials, etc.

Thirty-six samples of drugs were collected for analysis and label review. First violators were warned by letter. One prosecution was recommended and a \$50.00 penalty paid for sale of a substandard vitamin preparation. An embargo was placed on another lot of substandard vitamin preparation manufactured in another State. The United States Food and Drug Administration was notified in this case and subsequently notified this Department that its investigation had revealed other instances of substandard products manufactured by this concern. The embargoed vitamins were voluntarily destroyed by the retailer under supervision by representatives of this Department.

The stock of a drug manufacturing plant damaged by fire was placed under embargo by representatives of this Department. Stock that could not be salvaged was voluntarily destroyed under supervision.

The Department continued to render a service to qualified drug and cosmetic firms in this State by issuing certificates of inspection for products to be exported to foreign countries. After inspection of the plant, investigation of quality control and review of labels and labeling had shown satisfactory compliance, 223 certificates for various products were issued.

The Department has cooperated with local boards of health, the State Police, United States Food and Drug Administration, the State Board of Pharmacy, and the United States Public Health Service by joint inspections or investigations and exchange of information.

Milk Control

Early in the year, the Federal Milk Marketing Administration Order No. 27 was expanded to cover the northern counties of the State. Conferences were held with representatives of the Office of Milk Industry, New Jersey Department of Agriculture regarding adjustments in the milk supply necessitated by that action.

After the sale of "ice milk" was made legal in New Jersey, a survey was made to determine whether that product was being sold as or substituted for ice cream. As a result of that survey, and of a continuing sampling program,

cases have been referred to the Attorney General for prosecution for sale of below-standard ice cream.

Meetings were held with representatives of the milk industry and milk regulatory agencies to assist in establishing standards to be used in determining whether dairy animals are free of brucellosis as required by the Sanitary Code, effective April 1, 1958. Experience to date indicates compliance with that requirement.

Discussions have been held with the Pennsylvania Department of Agriculture regarding development of a reciprocal milk inspection program between the two States. Additional meetings will be necessary to develop operational procedures acceptable to both agencies.

The Department cooperates with the United States Public Health Service by inspecting milk plants and ice cream plants for listing as sources of approved supplies for Interstate Carriers and United States Coast Guard installations, and as Interstate Milk Shippers. Thirty-three such inspections were made.

Local boards of health having reciprocal inspection agreements with the Department submitted 386 Reports of Inspection of milk plants holding permits.

The following average ratings of milk plants and dairy farms supplying milk and milk products for New Jersey consumers have been obtained:

<i>Out-of-State</i>	1958
Fluid Milk Plants	92.7
Fluid Milk Dairy Farms	90.4
Manufacturing Milk Plants	92.3
Manufacturing Dairy Farms	89.0
<i>In-State</i>	1958
Milk Plants	89.1
Dairy Farms	87.5

The following tabulation shows the number of inspections made and samples obtained during the year by Department personnel of various establishments handling milk, cream, ice cream, and milk products:

Milk Plants	455
Dairy Farms	3,535
Goat Dairies	46
Ice Cream Plants	890
Samples Collected	5,184

Shellfish Control

Laws and regulations governing the harvesting, handling and sale of shellfish (clams, mussels and oysters) are enforced by the Department under authority contained in Chapter 14 of Title 24 of the Revised Statutes. The adulteration and misbranding of such products are regulated under the general provisions of the New Jersey Food, Drug and Cosmetic Act. Shellfish growing areas and market shellfish are periodically examined for bacteriological quality and inspections are made of all establishments shucking or wholesaling shellfish. Regulatory procedures include patrolling of shellfish waters condemned pursuant to Revised Statutes 24:14-2 to prevent harvest or sale of potentially dangerous shellfish. Almost 1,000 hours of irregular patrol were spent in condemned areas which has resulted in a material reduction of violation of laws enforced by this Department.

The Department also participates in a voluntary cooperative program administered by the United States Public Health Service in which all shellfish producing States use the Public Health Service Manual of Recommended Practice for the Sanitary Control of the Shellfish Industry as a uniform enforcement guide. Compliance with the recommended practices contained in the manual permits publication of the names of New Jersey shippers in a list of certified shippers of raw shellfish in interstate commerce.

Due to the death of large numbers of oysters in the Delaware Bay area from unknown causes, only five of the oyster shucking-packing establishments operated during the past year. The plight of the industry may become more acute due to predictions of higher mortality rates during the 1958 harvesting season.

In addition to the oyster shucking industry, there are eight plants engaged in the shucking and packing of sea clams in the State. These establishments process sea clams harvested beyond the continental limits of the United States for use in soups, stews, and other preparations and are centralized in New Jersey due to the large supply of sea clams off the coast of the State.

The following tabulations show the number of inspections of shellfish establishments performed and the number of water samples collected for bacteriological analyses:

Number of Inspections

Shellfish shucking plants	79
Shellfish shipping plants	533

Number of Samples Collected

Shellfish waters	3,862
Shell oysters	139
Shucked oysters	180
Shell hard clams	235
Shell soft clams	29
Frozen shellfish	18
Mussels	1
Miscellaneous products	3

In addition, the water supplies of 10 shucking plants were surveyed to determine compliance with State laws and Federal standards.

Public Health Engineering

STREAM POLLUTION CONTROL

Stream Pollution Control encompasses the whole field of liquid waste collection, treatment and disposal as it affects stream quality.

It includes interstate stream pollution problems and cooperation in the pollution control activities of both the Interstate Commission on the Delaware River Basin (Incodel) and the Interstate Sanitation Commission.

Plans, specifications and other engineering data were examined and permits issued for the construction and operation of 216 sewerage projects having an estimated cost of construction of \$46,981,624.00. This is the second highest estimated expenditure for any single year and indicates that the high level rate of construction of recent years is being maintained.

Seventeen permits were issued permitting factories or workshops to locate or establish on potable watersheds.

"Orders of Necessity" were issued to 16 municipalities permitting them to exceed their bonded indebtedness in order to construct necessary sewerage projects.

Twenty-four formal orders were issued to municipalities and industries requiring the cessation of the pollution of waters of the State.

Twenty new sewage treatment plants and/or additions and alterations to existing sewage treatment plants and six new industrial waste treatment plants were completed and placed in service. Many of the new sewage treatment plants serve housing developments.

Included in the new plants completed and placed in service were the Middlesex County Sewerage Authority project of 54 million gallons daily capacity and the American Cyanamid Company, Bridgewater Township, activated sludge plant of 25 million gallons daily capacity.

Three hundred and twenty-seven routine inspections and 144 special investigations were made. The inspections and investigations include "as built" inspections of treatment plants, routine inspections, extended inspections of sewage and industrial waste treatment plants, odor complaints, complaints of stream pollution, fish kills, progress of construction of sewerage facilities, etc. An extensive program of sanitary and biological surveys was conducted on Raritan Bay and certain of its tributaries to obtain base line data for future use after the Middlesex County Sewerage Authority project became operative.

Routine inspections have indicated that extended investigations must be made on approximately one-third of the sewage and industrial waste treatment plants to obtain sufficient data to take proper measures to bring the plants up to efficient operation and maintenance.

A routine stream sampling program was started in the spring of 1958. One hundred and twenty-five sampling stations have been selected at key points on the streams of the State.

Many conferences were held with industrial management and other personnel relating to sites for new industry in New Jersey, discussion of methods of waste treatment, effluent requirements, progress in pilot plant studies and the general policies, rules, regulations and practices of the Department.

Cooperation with other State and interstate agencies having an interest in stream pollution was maintained and intensified, including other programs of the State Department of Health.

Six applications for Federal grants to aid in the construction of sewage treatment works and the required supporting documents were processed and forwarded to Public Health Service, Region II, together with complete plans, specifications and other engineering data. Later, State priorities were given upon advice from Public Health Service that the projects met their prerequisites for a grant. The six projects consumed all of the money allotted to New Jersey for the fiscal year 1957-1958.

The foregoing activities in Stream Pollution Control are making major contributions to the conservation of our water resources through the control and prevention of pollution in our lakes and streams.

POTABLE WATER

Eleven new sources of water supply, 24 new treatment plants, four storage units and additions and alterations to 49 existing water supply facilities were approved for construction having an estimated cost of \$5,974,000.00.

Eighteen original physical (cross) connection permits were issued pursuant to statute, bringing the total of cross connection permits to 223.

Fluoridation installations were approved for three public water supplies, all municipally owned and operated. The supplies so approved are for Atlantic City, Egg Harbor City, and Roosevelt which serve collectively approximately 67,000 persons.

A total of approximately 288,000 persons, including approximately 57,000 children, are now receiving fluoridated water in this State. The other supplies being fluoridated are East Brunswick Township, the Monmouth Consolidated Water Company, Perth Amboy, Rahway, Asbury Park, Allenhurst, and Peapack-Gladstone.

The following supplies have a natural fluoride content of 1.0 part of fluoride per million parts of water or above: Gandy Beach Water Works, East Greenwich Township, Blackwood Water Company, South Jersey Water Supply Company, Mantua Water Company, Sewell Water Company, Pitman Borough, New Jersey Conference Camp Meeting Association at Pitman, Wenonah, Mantua Terrace Civic Association, Inc., Woodbury, Glassboro, and Woodstown.

Three "Orders of Necessity" were issued pursuant to the provisions of R. S. 40:1-16(g) so that the municipalities concerned might be able to provide additional sources of water supply and more adequate distribution facilities.

An active part was taken in surveys of municipal water supply data for New Jersey on behalf of the United States Public Health Service which is conducting a national survey of such facilities.

The biennial survey of the chemical and physical content of public water supplies was completed. The results will be available early in 1959.

The Department has recognized that increased numbers of new developments in suburban areas, together with industrial expansion, require the provision of new sources of water supply and distribution systems or the expansion and enlargement of existing water supplies and the extension of their distribution systems. Plans were formulated for more active participation in activities related to this problem.

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

SOLID WASTES

The use of the sanitary landfill method of municipal refuse disposal has increased during this fiscal year to a total of 51 sanitary landfills serving 194 municipalities or approximately 37 per cent of the population of the State.

The number of incinerators operated by municipalities for the disposal of combustible domestic refuse has decreased. Three municipalities, Pennsauken, Tenafly, and Raritan, closed their incinerators in favor of sanitary landfill operations. Pennsauken and Raritan are now operating new sanitary landfills. Tenafly is disposing its refuse in the Bergen County sanitary landfill. There are only 16 municipal incinerators in operation serving 17 municipalities or approximately 15 per cent of the population of the State. Three municipalities, Wildwood, Trenton, and Camden, are preparing plans for the construction of new incinerators. Trenton and Camden are planning to replace existing ones in the immediate future.

A survey is being made of refuse disposal areas in the State.

Conferences were held in the promotion of proper disposal of solid wastes.

RAGWEED AND POISON IVY

Twenty-one pollen collection stations were in operation in the State. The findings of these stations are circulated to the Districts, other agencies, newspapers and individuals. Five pollen collection devices were purchased and all were put to use. Three new pollen collection stations were set up in various sections of the State to supplement our existing pollen collection locations. These were established in Atlantic City, Ramsey, and Madison.

The following places in the State had less than seven pollen grains per square centimeter average: Sparta 2, Jersey City (Pavonia Avenue) 2, Beach Haven 4, Westfield 5, Newark 5, Jersey City (Medical Center) 5, and Asbury Park 5.

Roadside herbicide spraying for weed and brush control is increasing, particularly in Sussex, Warren, and Hunterdon Counties, both on county and municipal roads.

The New Jersey Bell Telephone Company is aiding roadside herbicide spraying by the control of vegetation under open wires in order to provide better telephone service. Approximately 1,000 miles of telephone roadsides under open wires were sprayed in Morris, Burlington, Salem, Monmouth, Somerset, Warren, and Cumberland Counties.

Herbicide spraying along roadsides in Sparta Township and along county highways to control the growth of ragweed, other weeds and brush as well as poison ivy, has contributed to the low pollen count in Sparta in Sussex County.

Roadside treatment for the control of weeds along turnpikes and parkways in this and neighboring States has provided relief this season to hay fever victims while traveling along such treated roads.

Many conferences and meetings were attended to promote and encourage greater acceptance of weed control activities by county, municipal, and other agencies as well as by individuals in the State.

CAMPS AND BATHING PLACES

Thirty-six municipalities have now adopted the "Swimming Pool Code of New Jersey (1955)." This Code continues to serve the State and many communities, design engineers, and equipment manufacturers as a guide in swimming pool operation and design.

Thirteen Certificates of Compliance were issued to those bathing lake places meeting Department certification standards. The New Jersey surf and other tidal bathing waters were sampled in accordance with procedures adopted some years ago.

A total of 213 summer camps received Departmental Certificates of Approval.

HOUSING

A suggested housing ordinance was prepared at the request of one municipality. This was reproduced and distributed to our district offices for distribution to all local boards of health or other municipal officials interested in strengthening their code enforcement work.

Veterinary Public Health

This report, outlining the activities and accomplishments of the Program of Veterinary Public Health, is a statement which presents important aspects of the epidemiological and ecological investigations and resulting control procedures relative to disease outbreaks in humans that have been traced to animals or with potential animal and insect vectors.

TRICHINOSIS

An ordinance providing for the Maintenance of Swine was prepared and issued, requiring the cooking of garbage to prevent the transmission of trichinosis and other diseases inimicable to human health. This code is recommended for adoption by local health departments. Seventeen cases of trichinosis were reported and in six other cases there was a strong possibility of trichinosis.

Q FEVER

Investigations in the past year revealed three known cases of Q Fever. A goat that was infected and a dairy herd which had proven to be infected had the infective organism *Coxiella Burnetii* isolated from them.

RABIES

A lieutenant of the United States Army and his wife were bitten by their own dog in Texas. On June 28, the dog died and was diagnosed as being rabid. The lieutenant and his wife were given three injections of antirabies serum on the first day and then were given 14 daily doses of vaccine. On October 29 (four months after the bite occurred) the wife died, and on November 7, the lieutenant was notified at his home in New Jersey that his wife's death was caused by rabies and that he should report to a physician to obtain another series of vaccinations. The Department investigated and suggested that due to a prior indication of allergic response to the serum, no more serum be administered to the lieutenant. A new type of duck embryo killed vaccine was recommended and administered to the lieutenant in place of the original Semple type killed vaccine. Research data available from the World Health Organization was forwarded to all concerned, which indicated that not more than one dose of serum should be given since there is a possibility of suppression of active antibody formation. The lieutenant remained healthy and it was presumed he would not succumb to rabies.

The data listed below indicate, for comparative purposes, revenue received, number of dogs licensed, and number of dogs vaccinated for the last five fiscal years:

	<i>Revenue Received</i>	<i>No. Dogs Licensed</i>	<i>No. Dogs Vaccinated</i>
1953-1954	\$92,177.00	368,708	36,400
1954-1955	91,752.00	367,010	44,800
1955-1956	94,378.75	377,515	65,100
1956-1957	99,333.40	397,778	66,300
1957-1958	96,942.60	387,770	67,000

It will be noted from the following tabulation that the State of New Jersey continues to be surrounded by an endemic area of rabies in both domestic and wild animals. With this in mind, the Department continued the program initiated in 1949.

<i>Year</i>	<i>Rabies in Delaware</i>	<i>Rabies in New York State Exclusive of New York City</i>	<i>Rabies in Pennsylvania</i>	<i>Rabies in New Jersey</i>
1943 .....	...	189	826	42
1944 .....	...	314	902	68
1945 .....	...	663	843	51
1946	1	1,175	502	276
1947 .....	...	696	293	94
1948	1	568	147	112
1949 .....	...	515	31	67
1950 .....	...	1,022	102	5
1951 .....	...	539	241	...
1952	7	337	300	1
1953	2	437	27	...
1954 .....	...	472	38	...
1955	26	517	167	...
1956	46	306	99	1
1957	5	202	21	...

ENCEPHALITIS

The field research project on encephalomyelitis was continued. A scientific paper, "Equine Encephalitis Vaccine Studies in Pheasants Under Epizootic and Pre-Epizootic Conditions," by Oscar Sussman, Daniel Cohen, Jean E. Gerende, and Robert E. Kissling was published in the *Annals of the New York Academy of Sciences*. In these *Annals*, it is of interest to note that the Summary prepared by Dr. Leonard M. Schuman, of the School of Public Health, University of Minnesota, referred to this article as follows:

"... Sussman, Cohen, and their co-workers applied EEE vaccine to flocks of pheasants in New Jersey during the 1956 epizootic, with surprisingly good results. Of significance is the fact that appreciably less than 100 per cent vaccination of a flock during an outbreak will provide reasonably high protection for the flock as a whole, with evidence that nonvaccinates in a partially treated flock also enjoy relative protection. Applied prior to an outbreak, partial treatment of a flock gave even higher protection rates. To an epidemiologist this work represents more than the achievement of a practical tool to control an animal disease that is both of economic importance and a potential hazard to man. In it I can see a striking example of experimental epidemiology in the field, a sadly neglected area of inquiry since the pioneering work of Greenwood. Furthermore, the study on partial flock immunization represents a direct counterpart of human population immunization phenomena, with the significant exception that the latter have involved conjecture more often than analytic observation. As such, the pheasant study represents an epidemiological model with aspects that may throw light upon human epidemic dynamics."

DEPARTMENT OF HEALTH

The project continued crossbreeding pheasants that were retained as known disease victims of this disease in an effort to determine whether genetic factors can be utilized to decrease susceptibility to this disease. The project to date has indicated a favorable trend towards increased resistance. This investigation is being continued.

Investigations were made on 11 human cases. Attempts were made to have more complete laboratory workups on some of the cases that might possibly be Eastern equine encephalomyelitis.

MEAT INSPECTION

A new Federal Poultry Inspection Act will require the inspection and grading of all poultry that moves in interstate commerce. This means that all red meat and poultry moving in interstate commerce will have inspections for wholesomeness, and for proper sanitation in the very near future. It is essential that a State system of inspection for wholesomeness and proper sanitation be established. A new set of regulations setting standards of sanitation and for inspections for wholesomeness comparable to the Federal standards is being drafted. It is estimated that there are 160 red meat slaughterhouses not under Federal inspection and probably 1,500 to 2,000 slaughterhouses dealing with poultry.

An Advisory Committee was appointed by the Department to draft a Meat Inspection Code that could be recommended by the Department for adoption by local communities by reference.

This Advisory Committee met three times and drafted a set of technical standards which are being used by the Department as a basis for the development of its rules and regulations. The Department has requested funds to institute a comprehensive meat inspection program.

Division of Laboratories

ELMER L. SHAFFER, Ph.D., *Director*

Bacteriology Program	JOHN H. SPOONER, JR. <i>Program Coordinator</i>
Chemistry Program	JOHN J. NELSON, M.S. <i>Program Coordinator</i>
Pathology Program	EDWIN O. GILBERT, D.V.M. <i>Program Coordinator</i>
Serology Program	ELEANOR E. THOMAS <i>Program Coordinator</i>
Virology Program	J. NORMAN WELSH, M.S. <i>Program Coordinator</i>

Division of Laboratories

The impact of the Asian influenza epidemic in the latter half of the fiscal year, as well as the needs for laboratory services in polio surveillance during the past four years, served to emphasize the demand for a budget-supported full program in Virology. Due to the unceasing efforts of the Commissioner of Health, budget support was obtained in the last few months of the year, which enabled us to develop the facilities to meet the responsibilities assumed by the approved Program in Virology. With the cooperation of the City of Trenton, adequate housing facilities for the Virus laboratory were obtained at the Madden Building of the Donnelly Memorial Hospitals. Additional equipment, scientific and technical workers were obtained and at the end of the year, the Virus laboratory was prepared for service. Further development of a professional and scientific staff and securing more equipment adequate for extended investigations in virus studies are being carried forward. The participation of the Virus laboratory in the poliomyelitis and influenza situations pointed up the great need for liaison between the laboratory and epidemiological investigation of all outbreaks of infectious diseases coming to the attention of the Department.

This Division can make its most important contribution in this field. It is anticipated that this objective will be pursued in the coming year. As a monitor, and sometimes forecaster, the laboratory can act for the Department as a "hurricane warning" station for impending epidemic storms. Well in advance of public acceptance of the coming of the influenza epidemic and its sequelae, we prepared and publicized our willingness to assist in furnishing laboratory services required. As described by the Commissioner, these services were given under the most "painful" circumstances of wholly inadequate facilities and dedicated personnel services beyond the call of duty. This should not occur again.

Again, several years ago we became aware and did prepare to meet the problems of hospital-acquired staphylococcal infection. We developed facilities for staphylococcus phage typing long before a consistent demand for services arrived. This is a good example of how a public health laboratory must be prepared before an emergency arises and why it must be an integral part of an epidemiological team.

We continue to be designated as a collaborating laboratory of the World Health Organization Influenza Program. We have also been designated as a Staphylococcus Phage Typing Center and modest services have been extended to other States not having this facility.

In March, 1958, we collaborated with the Maternal and Child Health Program in arranging for refresher courses in perinatal pathology for all pathologists of the State. This was very well received with excellent attendance at the two regional sessions, each of two full afternoons.

This is only one of several efforts in which we have continued our activities in support of professional education in the laboratory fields, such as the annual cancer seminar, the annual seminar of medical technologists, the educational program of the New Jersey Blood Bank Commission, and our own program of refresher courses for laboratory personnel. Our efforts have been so well accepted in the teaching field that we are being pressed to assume larger responsibilities. For the first time, we gave an undergraduate course in complement fixation tests to students of American Medical Association approved schools of medical technology. These activities consume much time and effort on the part of our own personnel in preparations and teaching, but we feel the sacrifices to be worthwhile. Our efforts in promoting refresher education of laboratory workers have stimulated other organizations to develop such programs.

The Blood Bank Commission of New Jersey requested us to conduct a voluntary evaluation of blood banks. About 50 blood banks participated in the first evaluation series and the results have been published. It is anticipated that this will be a continuing activity. It also exemplifies the fact that those we serve have trust in our competence to render unbiased evaluations in the laboratory field. This confidence could have been won only by past demonstration of our abilities to do the job required.

Our evaluation-assistance activity for laboratories approved under the provisions of the Sanitary Code has been an important obligation of the Division. During the past five years, this activity has been intensified in the Serology Program and has yielded excellent results by raising standards of performance in the approved laboratories. During the past year, this evaluation-assistance activity has been extended to cover those laboratories approved for the bacteriological examinations in communicable diseases. There is great need for raising the standards of performance in the fields of microbiology and greater effort will be made to attain higher levels of competence in the approved laboratories.

The increasing number of research institutions in the State using animals for investigative purposes has resulted in numerous requests for inspections and approvals under R. S. 4:22-16. The Director has, in all cases, personally made such inspections and reported to the Commissioner of Health for action in each case.

On November 21, 1957, in cooperation with the Academy of Medicine of New Jersey, a symposium on "Virus Diseases" was arranged. The Director acted as moderator and virologists of national and international repute read papers on the relation of virus disease to medical practice and public health. This was part of our effort to acquaint the medical profession with the methods of virus diagnosis and the facilities being made available in this State.

Continued alertness to the utilization of new developments in the rapidly changing scientific world must be maintained. The possibilities for the use of the fluorescent antibody techniques for the rapid identification of microorganisms (including viruses) must be exploited and adapted to the needs of the public health laboratory. The support and encouragement of the Commissioner of Health in obtaining the necessary equipment and the training of personnel will make itself felt in future years. The further refinement of the fluorescent antibody technique may well revolutionize public health laboratory procedures, and we have an obligation to share in developing this important facility.

As in previous annual reports, the Director must mention his appreciation of the fine efforts of the Division staff, scientific, technical and clerical, not only for fulfilling their program obligations, but in many instances going beyond normal requirements of duty to complete assignments. This is the spirit we encourage and desire to carry forward.

In each of the five approved Program reports below, important highlights of activities are given; their omission in this chapter does not indicate a lack of consideration on the part of the Director. All the Program Coordinators have conscientiously participated in carrying their approved programs forward, and have contributed to the methodology of program writing and evaluation of program accomplishments.

This is one of the first annual reports in recent years in which no special mention has been made of our needs for a new modern laboratory. We believe we have made our point sufficiently in previous years and we are sure that everyone is cognizant of these needs. We must now await fulfillment, while we labor under handicaps.

Bacteriology Program

HIGHLIGHTS

Outstanding during the fiscal year was the 10-fold increase in specimens and examinations for staphylococci phage typing performed in the Bacteriology Program. The 196 specimens processed last year increased to 1,976 this year, with over 50,000 examinations. There was a total increment of over 2,300 specimens involving over 55,000 extra examinations in the total Program (six activities increased, one remained equal, and there was a decrease in four).

Activities showing an increase were briefly: phage typing, nose and throat cultures, rabies specimens, miscellaneous cultures, water bacteriology, and water and shellfish work at the branch laboratories in Bivalve and Tuckerton. Enteric bacteriology remained approximately the same, but there was a lesser number of tuberculosis, blood agglutinations, gonorrhoea spreads, and milk bacteriology specimens.

There was a marked improvement in the quality of milk products except chocolate milk, if percentages of below standard samples can be used as a criterion.

In March, 1958, Dr. L. A. Black from the Robert A. Taft Laboratory, United States Public Health Service, reviewed the milk and water laboratory for their techniques in analysis for strict adherence to standard methods. Dr. Black found the Bacteriology Program conducting these tests satisfactorily except our media making. Because of slow steam pressure caused by lack of gas pressure, media cannot be completed in the time interval prescribed by standard methods. Each year we are evaluated, we receive a deviation in this classification.

During the oyster season, the branch laboratory at Bivalve and the central laboratory conducted a comparison survey on examination of shellfish by the coliform method versus the *E. coli* identification technique. In June, the Program Coordinator attended a joint meeting of representatives from shellfish producing States of the eastern seaboard and the Sanitary Engineering Center of Public Health Service in Washington. Reports of all participating laboratories had been summarized and reviewed. As a result, findings seem to indicate that *E. coli* M.P.N. and total plate count will replace the old coliform M.P.N. as a standard for evaluating market shellfish.

TRENDS

Some activities that increased this year will tend to increase next year, namely, water bacteriology, shellfish work, throat and nose cultures. Enteric bacteriology and other activities should maintain approximately the present work load or decrease. There should be a decrease in demand for staphylococcus phage typing as epidemiological studies are applied.

COMPARISON CHART 1956-57, 1957-58

	Specimens		Examinations	
	1956-57	1957-58	1956-57	1957-58
Total	60,387	62,657	96,395	152,233
Central Laboratory—				
Communicable Diseases	42,742	43,026	68,050	119,737
Waters	8,667	9,862	13,039	15,742
Milks	5,328	5,284	7,558	7,153
Branch Laboratories—				
Shellfish and Shellfish Waters	3,550	4,485	7,748	9,601

Numerical Summary: Total specimens refers to the number of specimens received in various categories, the total of examinations is 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 exposed persons receive mice inoculations intra-cerebrally; these are counted as separate examinations.

The bacteriological, parasitological and agglutination specimens and examinations made in the Bacteriology Program were in the following categories:

M. tuberculosis identification: Stained spreads of sputa and other secretions and excretions:

Total Specimens	Positive	Negative	Unsatisfactory
15,643	517 (3.3%)	14,493	633
Total Examinations			
31,573			

M. Tuberculosis Cultures

Total Specimens	Positive	Negative	Unsatisfactory	
15,140	1,137 (7.5%)	13,938	65	
13,837	1,095 (7.9%)	12,686	56	
Sputa	599	9	587	3
Urine	530	19	508	3
Gastric	29	5	24	..
Bronchial Wash.	47	2	43	2
Pleural Fluid	13	..	13	..
Spinal Fluid	85	7	77	1
Miscellaneous				

Animal inoculations are made on body fluids and catheterized urine specimens: 637.

ENTERIC DISEASES

<i>Total Specimens</i>				
10,213				
Enteric Bacteriology (Feces and Urine)	9,166			
	<i>Total</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>
Ova and parasites	923	38	885	..
Occult Blood	82	21	61	..
Cultures for identification	42	..	..	..
Salmonella	4,351	80	4,137	134
Shigella	4,351	6	4,211	134
Sensitivity Tests	8	..	..	..
No examination	464	..	..	..

This work includes the more complete identification of the Salmonellae and Shigellae into their respective species, 110 Salmonellae and 9 Shigellae. The Division was assisted by the United States Public Health Service Communicable Disease Center at Chamblee, Georgia, in these identifications.

Salmonellae

S. bareilly	1	S. java	1	S. reading	1
S. choleraesuis		S. litchfield	2	S. saintpaul	2
(var. kunzendorf) .	1	S. montevideo	7	S. tennessee	1
S. derby	3	S. newport	1	S. thompson	2
S. enteritidis	4	S. oranienburg	7	S. typhi	27
S. heidelberg	3	S. panama	1	S. typhimurium	41
S. infantis	7				

Shigellae

S. flexneri—2a	2
S. flexneri—3	2
S. flexneri—6	1
S. flexneri y-like	
variant	1
S. sonnei	3

BLOOD AGGLUTINATIONS

Blood agglutination tests are performed for typhoid O and H antigens, para-typhoid, A and B, undulant fever, tularemia and Weil-Felix reactions for typhus and Rocky Mountain Spotted fever.

Following is the performance chart:

<i>Total Specimens</i>				<i>Total Examinations</i>
3,526				5,643
DIPHTHERIA AND ORGANISMS OF NOSE AND THROAT				
<i>Total Specimens</i>				<i>Total Examinations</i>
6,280				6,577
GONORRHEA SPREADS				
<i>Total Specimens</i>				<i>Total Examinations</i>
4,292				4,783
<i>Positive</i>	<i>Negative</i>			<i>Unsatisfactory</i>
491 (11.4%)	3,761			40

RABIES

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 were made on the following number and species of animals: dogs, 142; cats, 44; squirrels, 34; mice, 30; fox, 17; chipmunks, 4; rodents, 17; hamsters, 14; rabbits, 9; raccoons, 6; muskrats, 3; ground hogs, guinea pigs, bats and monkeys, 2 each; and one each skunk, mole and chimpanzee.

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 1,067 such follow-up inoculations made on 267 of the above specimens.

Total	Positive	Negative	Unsatisfactory	Total Examinations
331	..	316	15	1,398

STAPHYLOCOCCUS PHAGE TYPING

This program, started in May, 1957, rapidly increased in volume of work during the fiscal year. It required the services of one bacteriologist full time and one technician part time, plus the preparation of large amounts of media, glassware, incubation and refrigeration space. Specimens and examinations were as follows:

Total Specimens	Total Examinations
1,976	58,576

MISCELLANEOUS EXAMINATIONS, diagnostic microbiology

Total Specimens	Total Examinations
767	893

BACTERIOLOGICAL ANALYSIS OF WATER, TRADE WASTES, SEWAGE AND MILK PRODUCTS. SHELLFISH AND SHELLFISH WATERS

	Total Specimens	Total Examinations
	19,631	32,496
Waters	13,716	23,835
Milks	5,284	7,153
Shellfish	631	1,508

Central Laboratory water specimens and examinations were from the following sources:

	Total Specimens	Total Examinations
	9,862	15,742
Public	4,486	...
State and County Institutions	203	...
Schools	205	...
Camps	129	...
Ice Cream Stands	33	...
Dairy Plants	73	...
Bottled Water Plants	29	...
Pools	48	...
Bathing Areas	294	...
State Parks	32	...
Surfs	261	...
Sewage	820	...
Streams	937	...
Waste	98	...
Private, Local Boards of Health and District State Health Office	2,121	...
Millipore Filter	71	...
Miscellaneous	23	...

DAIRY PRODUCTS EXAMINED

Total Specimens	Total Below Standard	Per cent Below Standard	Total Examinations
5,284	364	6.7%	7,153

There was an apparent marked improvement in the quality of milk products except chocolate milk as indicated by a comparison of below standard percentages between this year and the last fiscal year:

	1956-1957	1957-1958
Total Milk Products Below Standard	9.6%	6.7%
Milk	13.8%	10%
Cream	19.6%	15%
Skimmed Milk	16%	14%
Chocolate Milk	12%	14.6%

Total specimens and examinations made at the Bivalve and Tuckerton Laboratories were as follows:

	Total Specimens	Total Examinations
	4,485	9,601
Bivalve Shellfish	346	...
Shellfish Waters	954	2,946
Tuckerton Shellfish	285	...
Shellfish Waters	2,900	3,185

LABORATORY INSPECTION AND APPROVAL

Certain New Jersey statutes and State Sanitary Code regulations require that laboratories, in order to perform certain examinations, shall be laboratories approved by the New Jersey State Department of Health.

As mentioned in "Highlights" of this report, the Bacteriology Program is now giving evaluation, examination and assistance to approved laboratories on a yearly basis. One new laboratory was approved during the last fiscal year, two were re-approved and five had their approval discontinued. Approved laboratories now consist of 62 hospital laboratories, 41 private laboratories and 11 municipal laboratories, together with the State Department of Health, Division of Laboratories, total, 115.

(See Serology Program for serology evaluation of approved laboratories.)

All approved laboratories have been visited by a representative of the Bacteriology Program, evaluated on the Bacteriology Program evaluation outline, and were left check specimens. These results are reported back to the laboratory and an adjective rating given on the results. Assistance on any laboratory problem or technique is invited both at the time of the representative's visit to the laboratory and also when the check results are returned. These evaluations have for the greatest majority been accepted and performed satisfactorily. A number of technicians have visited this laboratory for instruction on problems as a result of the evaluation studies. In all, 80 approved laboratories were visited and later reported on evaluation specimens; 23 per cent of laboratories did not meet standards of performance.

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 Cases	6,776
Tuberculosis Mailing Cases	23,452
Gonococcus Mailing Cases	7,106
Feces and Urine Mailing Cases	9,729
Syphilis Mailing Cases	265,739

Total 312,802

6,440,650 cubic centimeters of various kinds of media were produced for our laboratories during the year.

Chemistry Program

SUMMARIZED STATISTICS, 1957-1958

<i>Character of Samples</i>	<i>Number of Samples</i>	<i>Number of Determinations</i>
Milk and Dairy Products	1,907	5,169
Other Foods	1,629	2,798
Drugs	37	157
Water, Sewage and Industrial Wastes	5,210	30,107
Urinalyses (Dreypaks)	2,579	2,579
Blood Sugars (Clinitron)	3,003	3,003
Miscellaneous*	430	852
Totals	14,795	44,665

* Includes methods development, referee samples, other urinalyses and research.

Comments on Character and Numbers of Samples Processed

The total work load of the Chemistry Program has continued to rise over the past several years in this order:

<i>Fiscal Year</i>	<i>Total Number of Samples</i>	<i>Total Number of Determinations</i>
1954-1955	12,901	35,450
1955-1956	13,507	34,549
1956-1957	17,999	43,585
1957-1958	14,795	44,665

The decrease in the total number of samples submitted this year as compared to 1956-1957, was largely attributable to the receipt of some 3,300 less urine sugar (Dreypak) and blood sugar (Clinitron) specimens. Both of these determinations, however, are of relatively minor importance in terms of man hours and supplies and this decrease was more than offset by the determinations required on the greater number of water, sewage, and industrial waste samples received.

Mainly as a result of intensified stream pollution control activities, almost 5,000 more determinations were conducted in that area than last year. This increase is even more significant than implied by the figure alone for the reason that Biochemical Oxygen Demand determinations, when conducted on sewage or industrial waste, require five to six "work units" each (i.e., 1st day dissolved oxygen, 3-4 dilutions and their respective 5th day dissolved oxygens). Close to 20,000 of these "work units" were required for the 2,730 Biochemical Oxygen Demand determinations conducted during 1957-1958.

The increase of approximately 1,100 determinations performed by the Chemistry Program during this fiscal year as compared to 1956-1957, is especially significant since the total this year does not include atmospheric and industrial samples processed by the Occupational Health Laboratory. That activity was administratively transferred on a temporary basis to the Division of Constructive Health on July 1, 1957.

Also of interest is the changing character of the drug samples submitted for identification and assay. During the last fiscal year, drugs received an average of 1.2 determinations per sample; this year they required 4.2 determinations each. The receipt of items such as multi-vitamin tablets accounts for this sharp increase in the ratio of samples to determinations.

The decrease in milk and dairy products samples, which was apparent last year, continued during 1957-1958. This is primarily due to the practice of discontinuing routine July and August milk sampling to enable the assimilation of other seasonal work loads.

TRAINING ACTIVITIES OF PERSONNEL

The Program Coordinator attended a training course, Principles of Supervision, given by the Department of Civil Service.

In-service training and orientation were required by two new employees. One of the positions involved had been vacated through retirement; the other was created to enable the processing of larger numbers of samples pertaining to stream pollution control. The splendid cooperation shown by more experienced personnel smoothed the integration of these new members and minimized disruption of normal activities.

The taking of special training and graduate courses by Chemistry personnel was not encouraged this year due to the stress of work and the need for every available man-hour in the laboratories. This measure was considered to be of a temporary nature under the circumstances and it is hoped that such curtailment will not be necessary in the next year. Continuity of education, both academic and technical, is mandatory in this rapidly changing field.

NOTES ON PROGRAM ACTIVITIES

Hindered by the limitations imposed by laboratory space and facility inadequacies, and with only one additional technician for half of the year, a substantially increased work load was absorbed through greater efficiency of operations.

An evaluation of the necessity and real worth of all determinations conducted for water, sewage and industrial waste samples was undertaken through

collaboration with the respective program coordinators. As a result, the time-consuming and rather complex Chemical Oxygen Demand determination was deleted as a standard analysis and placed in a "special request" category. Also, Total and Soluble Solids, Ash and Loss on Ignition determinations were eliminated on most sewage plant samples; only Suspended Solids, Suspended Ash and Suspended Loss on Ignition determinations are now conducted routinely on such samples.

Efficiency of operations was also enhanced by resorting to greater use of instrumentation whenever feasible. The colored reaction products formed in the Iron, Chlorine, Nitrite and Nitrate Ammonia determinations are now being read on a photoelectric colorimeter rather than through the use of visual comparators. A saving of time and greater accuracy were achieved.

Great care was taken to ensure that no loss in reliability of results would be incurred through the adoption of more efficient operations and that collaborative obligations in the development of better analytical methods were not shirked.

In this connection, referee samples of milk and water provided by the Sanitary Engineering Center of the Public Health Service were requested and analyzed with gratifying results. Also, investigations were begun, and in some cases, completed, on proposed analytical methods for the determination of fluoride, hardness, tannins, aluminum, calcium, chlorides, and boron. Participation in such studies with other State and Federal laboratories enables progress to be made in the official methodologies which pertain to our field.

Several visitations by municipal and industrial technicians were made for advice and practical training, particularly on sewage and industrial waste analyses. This type of activity is especially welcome not only because of the gratification inherent in being of assistance to others, but also since it stimulates the performance of routine analyses at the local level.

In addition to cooperating with industrial and local health technicians, several opportunities were afforded through analytical procedures to offer leads to our own field engineering personnel when they were confronted with particularly baffling pollution problems. The Department of Conservation and Economic Development also received assistance in the form of chemical analyses in stream and pond pollution cases which resulted in fish kills.

FUTURE PROBLEMS AND TRENDS

It is anticipated that next year's total work load will be somewhat higher than that experienced this year, particularly with a continuing emphasis on stream pollution control activities.

Serious deficiencies in our physical plant have brought some areas of work close to the saturation point, but every effort will be made to accommodate all essential requests for analytical services until more suitable quarters are made available.

This report of how a much larger and more complex number of determinations was assimilated by the Chemistry Program during 1957-1958 within the confines of inadequate laboratories and with a minimum of new help is not an attempt to impress the reader through the sheer weight of formidable totals, but rather an expression of professional pride in meeting the analytical requirements of our Department under difficult circumstances. Mere statistics, whether they reflect increasing or decreasing work load trends, are not in themselves indicators of public health progress. The use to which the results of our labors are put and the degree of achievement attained are the true measures of success.

Pathology Program

As indicated in the last annual report, this program has reached a plateau of work volume. There has been continued activity in professional education for pathologists and training of technologists. The efforts of this program have further stimulated the desire for specialized seminars and institutes to be developed covering important pathological subjects.

The 7th Annual Slide Seminar on "Unusual Tumors" was held on December 7, 1957, in Newark at the Essex House. Over 150 pathologists, members and guests of the New Jersey Society of Pathologists attended, with Dr. Arthur Purdy Stout, Emeritus Professor Pathology at the College of Physicians and Surgeons, Columbia University, as moderator. As usual, the transactions were published and distributed to those attending. The cases presented were derived from the files of the New Jersey Tumor Registry maintained in the Bureau of Pathology.

The Pathology Program cooperated with the Program in Maternal and Child Health in seminars on perinatal pathology with Dr. Peter Gruenwald, of the Margaret Hague Maternity Hospital, as lecturer and moderator. The Pathology Program prepared and distributed micro slides, case histories and lecture notes of these proceedings. Excellent attendance and interest of the pathologists was obtained, and there are plans for extending these seminars next year on related phases of perinatal pathology in cooperation with the Maternal and Child Health Program's interest in reducing perinatal mortality.

The Program in Pathology has cooperated closely with the Cancer Control Program in the epidemiological investigation of lymphoma occurring in dogs and humans. Histological and pathological services have been rendered to this project.

<i>Histology</i>	1956-1957	1957-1958
Contributions to tumor registry	331	344
Consultation cases	106	199
Tissues processed	599	609
Slides prepared	9,392	12,550
Slides stained H and E	7,044	7,407
Slides stained with special stains	1,112	1,278
Special stains used	35	28
Slides distributed	3,181	5,660
Pollen count slides	195	210
Institutions visited	31	31
Meetings attended	5	11
Kodachromes	514	345
Black and Whites	109	42

Serology Program

The outstanding contributions of the Serology Program for the year 1957-1958 were two-fold: teaching on an undergraduate level and participation in treponemal testing. In both endeavors, the goal was to offer the means of reliable results from approved laboratories and to give additional assistance where needed in the diagnosis of syphilis or the biologic false positive. At the request of the pathologists who are directors of approved schools for medical technologists in the State, two courses, of one week each, in complement fixation testing were held for student technologists in approved schools. These courses were given with the assistance of the Venereal Disease Research Laboratory. Forty-seven students attended the courses, representing 19 approved hospital schools of medical technology. Ten of these students were from Puerto Rico, Iran, China, Korea, and the Philippines. We can only trust that the results from this effort will be recognized in the near future and in areas where such services are greatly needed. As a pilot undertaking, the difficulties of transporting materials and cleaning glassware were many when classes were removed from home quarters; in the future, our role in teaching may focus on those who do the teaching, thereby leaving the responsibility of teaching where it rightfully belongs, namely, the laboratory directors of the approved schools.

More and more doctors are challenging the results of the serological tests for syphilis when they are reactive. By performing a Kolmer test using a treponemal antigen we are able to give additional information. The concepts that Biological False Positives (BFP's) are forerunners of other conditions emphasizes the importance of such differential tests and justifies the additional effort and cost.

At the request of our Laboratory Director, the Serology Program and activities were reviewed by a representative of the Venereal Disease Research Laboratory of the Public Health Service. The following features were commended: "The satisfactory performance of a large volume of serologic tests under difficult working conditions; the program for assisting approved laboratories to improve test performance by offering a continuous evaluation survey and training; the excellent working relations and cooperation with the organizations of pathologists and medical technologists in New Jersey."

Serologic activities outside of syphilis are increasing and since the last quarter expanded to include a test for trichinosis. It should not be deduced from the following annual statistics that the concept of syphilis detection is changing. The decrease of about 26,000 specimens is a temporary status coinciding with a similar reduction of industrial specimens and is a direct reflection of the economic recession during the same period.

	1956-1957	1957-1958
Specimens	277,183	252,515
Tests	309,176	278,349
Quantitative V.D.R.L. (Venereal Disease Research Laboratories)	16,778	15,961
Kolmer Simplified	15,215	15,597
C.F. employing Treponemal Antigen	195 Tests	554 Tests
Spinal Kolmers	1,380	1,268
Total Protein Tests	711	615
T.P.I. (Treponema Pallida Immobilization)	188	237
Total Premarital and Prenatal	118,000	119,497
Premaritals	47,711	46,720
Prenatals	70,289	72,777
Infectious Mononucleosis	1,119	1,171
Specimens	1,119	1,171
Tests	2,155	2,193
Cold Agglutinins	99	164
Specimens	99	164
Tests	241	310
Antistreptolysin Titer	209	315
Specimens	209	315
Tests	285	401
Agglutination Test (S-K) for Trichinosis .....	...	112 Tests

Virology Program

In the annual report 1956-1957, reference was made to certain virus diagnostic services. The need for such services predicted during the Asian flu epidemic was amply fulfilled by events that followed in the early part of the present fiscal year. Despite swamping of our facilities with specimens for polio and influenza virus isolation and serology, the needs were met under the most painful operational circumstances. Introduction of Senate Bill No.

86 on February 10, 1958, eventuated as Chapter 24, P. L. 1958 when signed by the Governor, on April 29, 1958, thus establishing budgetary support and officially activating the Virology Program.

Since space was not available in the Division of Laboratories, arrangements were made to utilize space in the Madden Building of the Donnelly Memorial Hospitals of the City of Trenton. Remodeling to convert these facilities into laboratory space proceeded forthwith; additional equipment and personnel were acquired in accordance with the needs expressed in the written approved Program in Virology.

We are now well on the way to developing a modern laboratory and Program to service the needs for the study and control of virus diseases in this State as demanded by changing times as science advances.

The integration of virus diagnostic services into a broad program of epidemiological surveillance is a need which must be met if we are to make the fullest use of these services. It is anticipated that the coming year will see the fulfillment of these plans. The services offered by this Program have been publicized to the physicians and health officers of this State, and increased numbers of specimens are already being received.

The statistics below list the number of tests made during 1957-1958:

Specimens received	2,363
Tests performed	5,176
Type of Tests:	
Virus isolations	876
Serologic—human	3,694
Serologic—veterinary	626

Plans for the coming year include the addition of professional and scientific personnel to round out the staff of this Program. Not only must we perform our part in rendering direct services to the citizens of New Jersey through the routine diagnostic tests available, but we have an added responsibility of contributing by investigative procedures to the advancement of the science of Virology as a means of protecting and preserving the health of our people.

Division of Local Health Services

JESSE B. ARONSON, M.D., M.P.H., *Director*

RALPH T. FISHER, M.P.H., *Assistant Director*

Civil Defense, Medical and Health Services ... MARIE SENA, M.D.

Public Health Nursing Program GLADYS J. WILSON, R.N., M.P.H.
Program Coordinator

STATE HEALTH DISTRICTS

Central GEOFFREY W. ESTY, M.D., F.A.A.P.
District State Health Officer

Metropolitan MIRIAM SACHS, M.D., M.P.H.
District State Health Officer

Northern HARRY R. H. NICHOLAS
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 responsible for ensuring the well-being of the citizens and visitors of this State by stimulating the development and maintenance of effective local health services in all areas of the State. Such local services are intended to prevent disease and to provide the possibility for optimum health. The Director of the Division is responsible for the activities of the four State Health Districts, the Public Health Nursing Program, and the Office of Civil Defense. The staff of the Division presently consists of 91 professional and 37 office staff members.

The Office of the Director has the following major functions:

1. Administering the four State Health Districts, the Public Health Nursing Program and the Office of Civil Defense, including the development, rationalization and consolidation of administrative procedures.
2. Advising with and bringing to the attention of local boards of health public health problems and needs and making known to them acceptable methods of meeting these problems and needs. With the expected completion, approval and promulgation of the "Recognized Public Health Activities of Local Health Departments" and "Minimum Standards of Performance," focusing public health attention on these standards and securing compliance with them will require special effort and additional activities.
3. Establishing and maintaining productive working relationships with State-wide organizations which are active or interested or which may become active or interested in the status and development of local public health services.
4. Maintenance of constructive working relationships with the several Departmental divisions and their programs in order that District activities be developed to produce an optimum level of program accomplishment and so that the coordinators may be fully aware of local problems, needs and accomplishments.
5. The evolving and refinement of concepts and methods to stimulate the development and maintenance of effective local public health services in a State whose local government organization is such that the accepted pattern of a county health department and method for its establishment present extraordinary problems and extensive modification of such a pattern must be devised.

6. Development of and administration of a system of grants-in-aid to local health agencies, both official and voluntary, designed to stimulate the initiation and expansion of demonstration programs and projects that will point out more effective methods of providing local health services.

The four State Health 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 State Health Districts have the following major functions:

1. To promote a coordinated program of optimum local health services.
2. To guide and advise local health agencies in all phases of organization and program.
3. To maintain a competent staff of professionally trained workers in the several public health disciplines to whom communities can direct requests for guidance and consultation.
4. To carry out the programs of the State Department of Health by performing all required activities of these programs, to integrate the activities of the several programs in terms of the problems, needs, and priorities within any specific area of the State.
5. To assist in conducting evaluations of the local and State health programs.
6. To assist in the development of community health organization to make the people of the community cognizant of the needs, to evaluate these needs, and to recommend facilities and services to meet their needs.
7. To bring to the attention of the coordinators of the State Health Department programs the problems and needs in the various local areas of the State, enabling them to develop such programs so that they will more closely meet the real needs of our communities and citizens.

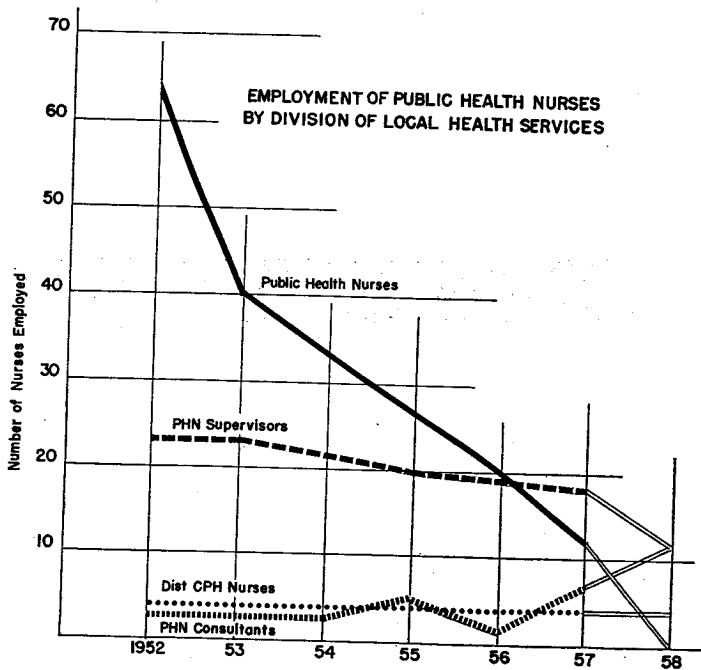
The staff of the four State Health Districts is shown in Table 1.

Table 1

<i>Title</i>	<i>Total</i>	<i>Central</i>	<i>Metropolitan</i>	<i>Northern</i>	<i>Southern</i>
District State Health Officer	4	1	1	1	1
District Chief Environmental Health	4	1	1	vacant	vacant
Principal Public Health Engineer	4	1	1	1	1
Principal Sanitarian	4	1	1	1	1
Senior Sanitarian	4	1	1	1	1
Sanitarian	8	3	3	1	1
Assistant Sanitarian	2	..	..	1	1
Public Health Veterinarian	4	1	1	1	1
Veterinarian (part-time)	1	..	1	..	..
Rabies Control Warden	5	1	2	1	1
District Consultant Community Health Organization	4	1	1	1	1
District Consultant Medical-Social Rehabilitation	4	vacant	1	vacant	1
District Consultant Public Health Nutrition	3	1	1	..	1
Public Health Nutritionist	1	..	..	1	..
District Chief Public Health Nurse	4	1	1	1	1
Public Health Nurse Supervisor	17	2	5	4	6
Public Health Nurse	2	1	..	..	1
Senior Public Health Physician	1	..	1	..	..
Physical Therapist	1	1	..	..	..

District staffs have been built up to a point where they can effectively carry out State Department of Health program activities in the areas of the State on a decentralized basis with a significant degree of program integration and with a close working relationship with local health agencies, both official and voluntary. The District Administrative Plan as approved by the Commissioner became effective as the administrative pattern for the Districts for the two-year period beginning July 1, 1957. Until last year, there was considerable variation in the table of organization for the staffs of the four Districts. With the creation of a number of new positions, the staffs of each District were made parallel. During the course of the year, some of these positions were filled, others are still vacant and awaiting the results of Civil Service examinations. Two of the District offices are located in modern office buildings and adequate space is provided for each member of the staff. During this year, definite arrangements had been made to move the other two Districts into similar type of quarters. Such moves now await the completion of construction of new quarters.

As the result of local acceptance of responsibility for the operation and support of many local health services, direct local health services hitherto performed by State personnel have to a significant extent been taken over by local agencies, permitting District staffs to devote the major portion of their time to advisory, consultant and promotional activities. This has been accompanied by a decrease in field personnel on the service level and their replacement by a smaller highly trained staff on the consultant level. This is exemplified by the marked shift in environmental sanitation activities to the staffs of local health departments. This has been greatest in milk control and ice cream factory inspection. It is expected that continued movement in this direction will take place. Thus work load data indicate an apparent decrease, since a significant number of inspections are for demonstration purposes and for training of local personnel. This change is also illustrated in the following graph representing the level of employment of public health nurses by this Division.



Successful efforts to develop local health services can only be consolidated if there is available properly trained personnel to administer the services. This Division, therefore, has a basic responsibility to initiate and, in cooperation with other Divisions of the Department, to provide training opportunities for local health officers and other professional personnel.

During the past year, two-day workshops were conducted for full-time local health officers in Cancer Control, Diseases of the Heart and Circulatory System, and Diabetes Control. Of the 61 full-time local health officers in New Jersey, an average of 35 attended these workshops. The objectives of the Chronic Illness Workshops were as follows:

1. To provide a fuller understanding of cancer, four specific diseases of the heart and circulatory system, and diabetes, and available methods of control.
2. To consider the total community program for the control of these chronic illnesses and to delineate the areas of activity of the local health department.
3. To develop recommendations for activities of local health departments in the control of these chronic illnesses.

The recommendations for control programs of each of these diseases for local health departments were formulated by the workshop groups, edited by a committee of health officers and will be published in the near future. As a result of these workshops, there has developed among the participating local health officers considerable interest in additional workshops and in developing local programs covering the newer fields of activity in public health.

With the acceptance of the fact that the major unsolved problem in public health today is the control of long term or chronic illness, a primary objective is the delineation of and implementation of patterns of local public health services that will meet these needs. The public health nursing, medical-social work, nutrition, and community organization consultants on the District staffs are all involved in this effort. In order effectively to carry out these activities, it is necessary that these members of the District staff work closely with medical and allied health professions, hospitals, and other health agencies in the community. During the past year, definite progress was made in the decentralization of chronic illness program activities. A Senior Public Health Physician was assigned to the Metropolitan District with the primary responsibility of establishing a close liaison with the hospitals and other agencies who have contracts for chronic illness services with the Department or who have Department-owned equipment on loan. The purpose of this liaison is to provide consultation leading to the more effective use of these services and equipment, to insure adequate reporting by the contracting agency of the use made of these services and equipment, to bring to the attention of the Department

knowledge of additional needs and, in general, to coordinate these chronic illness activities of the Department with the several other activities heretofore administered from the District offices. It is expected that similar assignments will be made to other Districts as soon as this pattern of activity is stabilized.

The system of reporting District activities, program by program, and making available these reports to each of the program coordinators has resulted in a closer working relationship between the operating staff in the District offices and the technical staffs in the central offices. Additional opportunity in this direction is afforded by the regular periodic meetings of specialized District personnel with their colleagues in central offices and in one case by the temporary assignment of a member of a District staff (engineer) to central offices for broader experience.

The start made in the previous year in the development of local health services in rural areas on a county rather than on a township basis in Burlington County served as an example for the promotion of similar patterns of services in additional counties. In Hunterdon County, a citizens committee has completed plans for the development of a county-wide public health nursing service to absorb the individual township nursing services. The implementation of this plan, including a grant-in-aid from the State Department of Health, now only awaits the recruitment of a trained and experienced person for the position of Public Health Nurse Director. In Somerset County, a citizens committee has been working to coordinate the sanitary services on a county-wide basis and is actively promoting plans to set up an office of Public Health Coordinator for the county. The activities of this office initially will be concerned with environmental sanitation. In Middlesex County, the visiting nurse services in the county were brought together into a single visiting nurse association. This was stimulated by the provision of grant-in-aid assistance. In Burlington County, further progress was made in the development of the county-wide nursing service.

Following the approval by the Public Health Council in June, 1957 of the "Recognized Public Health Activities" and their resolution that such activities would be mandatory upon local boards of health when "Minimum Standards of Performance" were similarly completed and approved, the committee of health officers who formulated the "Recognized Public Health Activities" has been over the past year intensively engaged in formulating the "Minimum Standards of Performance."

The Advisory Committee on State and Local Health Services met regularly and took under consideration the following subjects: "Recognized Public Health Activities of Local Health Departments"; Asian influenza and the availability of vaccine; evaluation of the chronic illness workshop; program

planning for the 47th Annual Conference of State and Local Health Officials; completion of arrangements for the Annual Conference; use of data secured from annual reports of local boards of health; activation of special committee to consider generalized nursing program; Bayonne Survey; training institutes and workshops for the future; employment of unlicensed personnel in local health departments.

The members of the Committee appointed by the State Commissioner of Health were:

- Dr. Jesse B. Aronson, Director, Division of Local Health Services, Chairman
- Dr. Miriam Sachs, District State Health Officer, Metropolitan State Health District
- Mr. Ralph T. Fisher, Assistant Director, Division of Local Health Services
- Mr. T. Everett Ross, President, New Jersey Health Officers Association and Health Officer of Somerville
- Mr. Carl Wendel, Vice-President, New Jersey Health Officers Association and Health Officer of Maplewood Township
- Mrs. Mary O. Wiley, Chairman, Executive Committee of New Jersey Health Officers Association and Health Officer of Mahwah Township
- Mrs. Marian F. Chew, Executive Secretary of Gloucester County Tuberculosis Association
- Mrs. Marion Selbie, Director, Visiting Nurse Association of Plainfield and North Plainfield
- Miss J. Margaret Warner, Health Officer of Burlington City

Twenty-one issues of the bi-weekly newsletter "Public Health Briefs" were published and mailed to over 200 individuals engaged full-time in the administration of public health activities. These included health officers, executive directors of voluntary health agencies, directors of visiting nurse associations, and secretaries of county tuberculosis associations as well as county superintendents of schools and county boards of freeholders.

A notable achievement through grants-in-aid during the fiscal year was the assumption by a number of local boards of health and boards of education of full financial responsibility for payment of the salaries of eight public health nurses performing local nursing services who previously had received part of their salaries from the State Department of Health. Beginning 40 years ago, public health nurses employed by the Department were assigned to local communities on a demonstration basis with the proviso that they would gradually become fully paid by the local boards of health and education which they served. Now the Department makes a grant-in-aid to the local health agency

so that it may fully employ such nurses from the date of employment. The nurses referred to above were the last ones to be so transferred. As of July 1, 1957, these eight nurses were rendering public health nursing services to 16 boards of health and 17 boards of education in the Northern State Health District and to five boards of health and six boards of education in the Southern State Health District. During the year, grant-in-aid contracts were negotiated and signed with 12 boards of health and 10 boards of education which were served by the eight nurses, and six boards agreed to pay the nurses' salaries without the aid of grants. The grants made to the 22 boards employing the nurses amount to \$8,858.00 per year.

At the beginning of the year, July 1, 1957, there were in effect five grant-in-aid contracts which had been entered into prior to that date, the terms of which extended into the fiscal year. Three of these contracts were with local boards of health to assist them in providing public health nursing services: one with a county board of freeholders for the same purpose; and one with a regional health commission to provide sanitation services. Effective July 1, 1957, one new contract and nine renewals were entered into. All were with local boards of health to further their nursing services. The renewals, in most cases, were for amounts one-third less than the previous contracts. Effective June 1, 1958, the Department entered into a contract with the newly combined Visiting Nurse Association of New Brunswick and Perth Amboy to provide funds to pay part of the salary of a public health nurse supervisor. The funds provided made possible the consummation of the merger. This new agency will provide practically county-wide service. Expenditures under grant-in-aid contracts consummated through the Division of Local Health Services during the fiscal year amounted to \$28,976.48 divided as shown in Table 2.

Table 2

<i>No. of Contracts</i>	<i>Grantee</i>	<i>New Contracts</i>	<i>Renewal Contracts</i>	<i>Totals</i>
25	Boards of Health	\$5,389.92	\$10,414.30	\$15,804.22
1	Board of Education	258.00	.....	258.00
1	Regional Health Commission .....	.....	2,937.50	2,937.50
1	Board of Freeholders .....	.....	8,101.66	8,101.66
2	Visiting Nurse Associations	277.60	97.50	375.10
1	Rutgers University .....	.....	1,500.00	1,500.00
31	Totals	\$5,925.52	\$23,050.96	\$28,976.48

The above Table lists by name of the grantee all grant-in-aid contracts in effect during the fiscal year which were initiated by the Division of Local Health Services and shows the amount and term of each contract.

Public Health Nursing Program

The Program's primary objective is "to encourage development and maintenance of effective public health nursing services." There is evidence that efforts to increase coordination of such services are proving successful. An outstanding example of Departmental accomplishment, in which the Public Health Nursing Program had an important part, is the recent merger in Middlesex County of the New Brunswick and Perth Amboy public health nursing service agencies. This provides the people of the county with a more practical, uniform and effective organization of service. Other communities, moving more slowly, are beginning to make objective evaluation of their nursing resources and needs, and are seeking consultation and guidance from the Program.

An increase may be noted in the acceptance, by local communities, of the responsibility for public health nursing services, including supervision. Eleven communities have discontinued the use of State-supplied public health nursing supervision. In some areas, where supervisory services have been withdrawn or left vacant, the District Chief Public Health Nurses are providing advisory service for the protection of communities not yet ready to employ their own supervisors or to purchase supervision.

In the coordination of public health nursing services with other public health activities, there has been notable increase in the number and kind of activities in which the Chief Nurse and other Program personnel have been engaged. They have served as representatives of the Program, interpreting its objectives, functions and relationship to State-wide groups and agencies, and have assisted in the implementation of plans in which public health nursing has a role. The range is wide, from inter- and intra-Departmental communication and action, to State-wide organizational undertakings, developed through joint planning in universities, professional nursing organizations, State and local agencies, official and voluntary. To cite an example, a wide range of service agencies in the metropolitan area of the State was represented when 65 persons met in a workshop on "Continuity of Care" to discuss ways to achieve community coordination and planning. Communications and referral systems, recognized as cornerstones of effective patient care, were emphasized. This workshop, sponsored by the Division of Chronic Illness Control, was developed by a State-wide committee of representatives from the professional nursing organizations and universities and the social work association. The Public Health Nursing Program participated actively in planning and presentation. Similar workshops are planned for the future in other areas of the State.

Intra-Departmental planning was demonstrated when a series of three two-day workshop sessions were offered to full-time health officers sponsored by the Department at the request of the New Jersey Health Officers Association. The theme was "The Public Health Control of Chronic Illness" and the program was designed to provide a fuller understanding of chronic diseases, the implications for community action in control, and through discussions, to formulate recommendations for local health department activity relating to control measures. The Public Health Nursing Program was represented in planning for the workshop, and Public Health Nursing Consultants presented public health nursing aspects of cancer, diabetes, and heart disease control.

The number of Public Health Nurse Supervisors employed by the Department has decreased by one. Of four vacancies created by resignations in the Metropolitan State Health District, three replacements have been made. These new personnel accepted employment with the proviso that, as communities are ready to employ supervisors, these three will transfer to grant-in-aid status to the communities, if requested.

Better coverage for nursing consultation service in special health programs has been accomplished, as three permanent appointments have been made for Public Health Nurse Consultant in the following Programs: Crippled Children, Maternal and Child Health, and Occupational Health.

NEW PUBLIC HEALTH NURSING PROGRAM FORMS

Two new forms have been completed and approved for use:

1. A Public Health Nurse Requisition form (PHN-9) for ordering supplies.
2. Annual Tabulation of Public Health Nurse's Monthly Reports. This will expedite the assembling of data on a yearly basis, and will be of value in appraisal of work load, types of service given, areas of health needs and determination of trends and priorities in public health nursing service.

In view of the present emphasis on continuity of patient care, definite progress is reported in the promotion of the Health Services Referral Form (Adm. 25) developed in the Public Health Nursing Program last year. Interpretation of its purpose and uses has been extensive at Program, State Health District, and community levels, with resultant interest and acceptance in a number of instances. A county hospital has adapted the form and, for the first time, is now using an organized system of referral to community agency services for discharged patients. A well established voluntary agency,

providing public health nursing service in a large urban area, has prepared a similar form, suited to its particular needs. Several community hospitals have indicated their interest in the Health Services Referral Form as an essential tool in all hospital-to-community planning. In most of the cases cited, there had been no organized referral system before the interpretation conferences relating to it.

ADDITIONS TO STAFF, CHANGES, PRESENT STATUS

The Public Health Nurse Consultant (Crippled Children) was appointed District Chief Public Health Nurse (Acting) in the Northern State Health District. This filled the vacancy created by transfer of District Chief Public Health Nurse from Northern to Metropolitan State Health District, a position left vacant by resignation.

In addition to the Program Coordinator, the nursing staff now includes the following numbers:

District Chief Public Health Nurses	4
Public Health Nurse Consultants	9
Public Health Nurse Supervisors	17
Public Health Nursing staff nurse	2
(1 on loan to Burlington County Public Health Nursing Service, administratively responsible to that agency.)	
Number of State supervised nurses	198
(Of these, 18 are on grant-in-aid status.)	

PUBLIC HEALTH NURSE CONSULTANT ACTIVITIES

In addition to the many responsibilities pertaining to in-service training programs, Public Health Nurse Consultant services show marked evidence of progress, both in number of requests received and in range of activities for which service was requested. A total of 361 consultation service visits is noted. Of this total, 17 visits were on extended basis, requiring an average of one to two weeks' time in hospitals for consultation service pertaining to maternity and newborn care.

A review of Public Health Nurse Consultant reports during the past year shows wide variation in the type of services rendered. According to the needs of the special health program, Public Health Nurse Consultants were occupied in consultation services to community agencies and health units, conferring, giving help in problem-solving and making recommendations for improvement of nursing services. Two Public Health Nurse Consultants visiting hospitals have given assistance in investigations of Salmonella infection and retrolental

disease. Services are carried out in joint planning and coordination with Program and District staff, demonstrating the objectives and policies of the Department.

Brief summaries of major activities may help to illustrate the scope of services (by Program assignment):

Cancer Control: Development of plans for follow-up.

Crippled Children: Orientation in orthopedic nursing to Public Health Nurse Supervisors in official and voluntary agencies; evaluation conferences to 11 public health nursing agencies having contracts with the Crippled Children Program.

Convulsive Disorder: Conferences to promote and arrange for public health nursing follow-up services to patients referred from the Convulsive Disorder Consultation Clinics.

Diabetes: Furthering plans for effective public health nursing follow-up of suspected and positive cases.

Heart: Preparation of guide sheet for public health nursing follow-up of patients with heart disease; participation in planning with county heart associations for program meetings for nurses; consultation services to agencies for integration of nursing in heart disease control.

Maternal and Child Health: Consultation visits to hospitals, pertaining to improvement of nursing services for maternity and newborn patients; assisting hospital personnel to set up teaching programs for parents' classes.

Occupational Health: Conferences in industrial plants with management, medical and nursing personnel for effective health services programs for employees; participation in plans and programs of orientation to occupational health for visitors from other lands.

Tuberculosis: Planning and participation in tuberculin testing demonstrations, in Mercer County and other areas of the State; preparation of policies and procedures for nursing services; consultation services concerning follow-up record systems and referrals.

Members of the staff have served, this past year, in professional nursing organizations. Two District Chief Public Health Nurses and one of the Public Health Nurse Consultants served on committees of the New Jersey State

Nurses Association, at State and District levels; the Chief Nurse and another Public Health Nurse Consultant served on committees in the New Jersey League for Nursing. The Chief Nurse is a member of the Association of State and Territorial Directors of Public Health Nursing. The Public Health Nurse Consultant (Pediatrics) served on an Ad Hoc Committee, Public Health Nursing Section of the American Public Health Association. Staff members have attended State and National nursing organization conferences and special program meetings.

EDUCATIONAL ACTIVITIES

This segment of the Program has been very active during the past year, both in planning and participation in in-service training programs, and in the furthering of professional preparation by individual members of the staff.

1. In-service training program participation.

In devoting a large portion of time and effort to this subject, Program personnel directly reflect the trend throughout the State. The university colleges of nursing, the professional nursing organizations and nursing service agencies, official and voluntary, are actively concerned with the need for providing in-service training, suited to the requirements of public health nurses. Program personnel have been active, serving on committees at State, District and local levels, in planning and presentation of meetings, field trips, institutes and workshops.

It has been a primary objective, in meeting with interested groups, to encourage long-range planning. Efforts are made to promote formation of county or regional committees, on a permanent basis, to plan nursing education projects of interest to both hospital and community service nurses. As a result, one such county-wide committee is now functioning, another group is being developed on a regional level, and a third is in the planning stage.

Highlights of the past year's inservice education program include the following:

Three workshops at Rutgers University in which Public Health Nurse Consultants made contribution pertaining to nursing aspects in Departmental Programs—Maternal and Child Health, Crippled Children, and Heart Disease Control. Plans are in progress for an institute on Mental Health in the fall.

At New Jersey State Teachers College, Trenton, the Public Health Nurse Consultant (Tuberculosis) presented material to a group of 20 students.

The Public Health Nurse Consultant (Pediatrics) in Maternal and Child Health Program participated in nurse education programs in out-of-state meetings; in New York City at Teachers College, Columbia University, and at New York Hospital; and in Chicago, served as leader in two conferences at the 7th Annual Congress on Maternal Care.

As a result of Program planning with Presbyterian Hospital, Newark, the Public Health Nurse Consultant (Cancer) has assisted with a program wherein public health nurses spend a day observing the cancer control work at Black-Stevenson Unit in that hospital. In the past year, 226 public health nurses in New Jersey have visited. All agree that this kind of inservice training is valuable in keeping informed of present techniques in cancer control.

For nurses working in industry, the Public Health Nurse Consultant (Occupational Health) has participated in programs of orientation to Newark Health Department nurses, assigned to industries, and inservice training to individuals and groups for improvement of employees' health services.

In smaller group meetings, in the State Health Districts, 25 meetings have been held for interpretation by Public Health Nurse Consultants of nursing aspects of Heart, Tuberculosis, Alcoholism, Cancer Control Programs, and Maternal and Child Health and Crippled Children Programs. Nursing personnel of official and voluntary agencies are invited to these meetings.

Various program meetings, sponsored by the New Jersey League for Nursing, have been co-sponsored in planning and presentation, by the Public Health Nursing Program and its nursing staff.

2. Continuation of professional preparation

a. University accreditation

Two members of the Public Health Nursing Program staff have earned Master's degrees in the past year; Public Health Nurse Consultant (Cancer) M.A., Public Health Nursing Administration; and Public Health Nurse Supervisor (Central State Health District) M.P.H.

Other members are continuing studies toward completion of requirements for Master's degree; Public Health Nurse Consultant (Diabetes) and two Public Health Nurse Supervisors (Metropolitan State Health District). Two Public Health Nurse Supervisors (Metropolitan State Health District) are completing studies required for Bachelor of Science degree. Several of the State-supervised nurses in local communities have been encouraged to further their professional preparation and are working toward attainment of B.S. degree.

b. Special training

In addition to attendance and/or participation in program meetings arranged by professional organizations in nursing and allied health services, members of the Program staff have been given Departmental approval for extended in-service training related to their special program interests:

Maternal and Child Health—Public Health Nurse Consultant attended a two-week workshop at the University of Massachusetts, and spent a two-week period of observation and participation in field consultation service in Connecticut State Department of Health. Public Health Nurse Consultant (Hospital) completed special training at Child Study Association, New York.

Tuberculosis—Public Health Nurse Consultant attended the four-day convention of the National Tuberculosis Association, Philadelphia.

Chronic Illness Control—As part of University requirements for field work, Public Health Nurse Consultant (Chronic Disease, Diabetes) arranged for three-week field experience in the Home Care Program, Montefiore Hospital, New York.

Venereal Disease Control—To represent the Program, the Chief Nurse attended a two-day conference and workshop in Philadelphia, sponsored by the Communicable Disease Control Center, Public Health Service.

Occupational Health—Public Health Nurse Consultant participated in a one-week workshop for Occupational Health Nurse Consultants at Yale University.

Civil Defense Medical and Health Services

The year 1958 marked further progress in the State Medical and Health Training Program. Increased responsibility was given to municipal and county officials for the recruitment, classification, and training of the multi-discipline professional, technical and auxiliary personnel so necessary for the efficient operation of the Medical and Health Services in times of disaster. In-service advanced training in the public health and control center aspects of the Medical and Health program was given to key public health professional personnel of the State Department of Health, veterinarians of the Division of Animal Industry of the State Department of Agriculture, and volunteers of the Radchem section of the Medical and Health Services. Training of Radchem Instructors and County Radchem Monitors continued at strategic geographic locations of the State. An extensive portion of the Radchem instruction was given by volunteers from Montclair State Teachers College, Bell Telephone Laboratory, Colgate Palmolive Company, and Bayonne Toxicological Laboratory.

The following are the major highlights of the year's activities:

Public Health Laboratory Programs

BLOOD PROGRAM

As part of the training program, 119,497 blood specimens for Blood Group tests and Blood Rh typing tests were examined in the State's Serology Program.

The Director of the Division of Laboratories, as an official observer and liaison officer, attended all meetings of the State Blood Bank Commission. Much consideration was given at these meetings to civil defense and disaster needs for blood banking.

BIOLOGICAL WARFARE PROGRAM

The Virology Program and other programs of the Division of Laboratories cooperated in field and laboratory investigations, many of which have afforded training and equipment to departmental and non-departmental personnel for the management of public health and diagnostic problems that might arise from biological warfare. The Virology Program is being expanded further to engage in newly developed techniques (fluorescent antibody) for the rapid identification of micro-organisms of pathogenic significance. This method will be especially useful for Biological Warfare Defense. Costly equipment is being obtained and personnel are being trained.

Seminars on and field experiments by the Veterinary Public Health Program dealing with the transmission of virus of encephalitis and the effects of vaccine were initiated and are continuing.

The Research Unit established in the State Department of Health in July may make studies of the reservoirs and epidemiology of special diseases and illness of unknown origin, air pollution, and radiological hazards to health. Such studies may be of great value and provide a useful service to the special weapons defense effort.

VITAL STATISTICS

The preparation of 1878-1903 birth records for microfilming was completed. All original records of births and marriages from 1878-1903 and the original death records from 1878 through 1930 have been microfilmed and transferred to the State Library for storage.

ENVIRONMENTAL SANITATION

The State Department of Health provided assistance to the United States Public Health Service in compiling an inventory of municipal water supply data in municipalities with population under 25,000.

ON ALERT FOR THREATENED DISASTER

The Public Health Engineering staff was placed on alert when a large break in a water main occurred in Jersey City. Appropriate telegrams were also sent to Jersey City Water and Jersey City Health Departments with reference to protecting the residents of Jersey City from drinking possibly contaminated water.

RADIOLOGICAL-CHEMICAL DEFENSE SERVICES

Radchem Activities

Members of the State Radchem Program (Environmental Health) presented a paper on "Safeguarding Water Supplies in the Atomic Age" before the New Jersey Section of the American Water Works Association.

The State Medical and Health Director, as State Commissioner of Health, was Chairman of the Program Area Committee on Radiological Health of the Technical Development Board of the American Public Health Association. This committee, with the assistance of several advisors, including the State's Radchem Planning and Operations Officer, prepared an informational document on radiation for public health personnel. Copies of the document were sent to local health officers within the State. This document is a valuable adjunct in the orientation of pertinent persons by introducing them to a few basic ideas of radiological health.

The Radchem Planning and Operations Officer has been appointed head of a working group of Sub-Committee of the American Standards Association dealing with the disposal of radioactive wastes.

Members of the State Radchem Staff attended a one-week course at Tatt Engineering Center of United States Public Health Service in the Detection and Control of Radioactive Pollutants in Water.

Serving also as a training program for operators of water treatment plants, health officers, health inspectors and public health laboratory technicians, the State Radiological Program of the State Division of Environmental Health has undertaken the sampling of water supplies for radioactive material. The primary purposes of such a project are (1) to determine the normal radioactive background of water; (2) to detect any increase from aerial fallout from weapons testing or from radioactive isotopes in industrial wastes, and (3) to encourage water purveyors using surface water sources to secure enough equipment, and (4) to train personnel to detect unusual circumstances quickly. Such an activity affords training on a significant and continuing basis and will have a considerable impact on the over-all Radchem defense program. About 200 samples are collected and analyzed monthly. Analyses of the North-east and Southeast Watersheds have been completed.

Routine analyses of background radiation from other environmental sources continue.

Registration of all New Jersey users of radiation-producing equipment and radioisotopes is being undertaken.

RADCHEM TRAINING

State Department of Agriculture

Veterinarians of the Division of Animal Industry of the State Department of Agriculture were given a four-day training program in Radchem aspects of the civil defense medical and health program at Montclair State Teachers College. This course was made a prerequisite of the civil defense training program to be given early in 1959 jointly by the State Department of Health, State Department of Agriculture, and the State Division of Civil Defense and Disaster Control.

The staff of New Jersey Forestry Fire Service of the State Department of Conservation and Economic Development received orientation on the impact of modern weapons upon their activities.

State and local health officials of New Jersey heard Doctor Richard H. Chamberlain, Professor of Radiology, University of Pennsylvania, lecture on public health aspects of radiation.

United States Post Office Department

United States Post Office Department employees with a college science background received training in Radchem defense at Pennsauken and at Montclair State Teachers College.

Radchem Instructors and Radchem Monitor Training Program

A four-day Advanced Monitor Training Program for Radchem Instructors was given at two strategic geographic locations by the State Radchem volunteers. About 100 individuals received intensive training in instrument calibration and trouble shooting; Radchem organization; responsibilities and operations, with supervised field work, in the monitoring of personnel, food, and areas.

TRAINING FOR X-RAY TECHNICIANS

Two basic orientation training programs, co-sponsored with the New Jersey Society of X-ray Technicians, were offered at Esso Research Center and at Martland Medical Center. Registered X-ray technicians received orientation in the civil defense organization in New Jersey and the role of the X-ray technician in civil defense. In addition, they received instruction and supervised practice in the use of the mobile X-ray unit supplied with the Federal Civil Defense Administration 200-bed Emergency Hospital Units. Voluntary personnel from the Somerville Depot, United States Veterans Administration, Montclair State Teachers College, and the manufacturer of the Unit assisted in the instruction.

ENVIRONMENTAL SANITATION ASPECTS

Mass Feeding Training Program

Sanitarians from the State Health District Offices cooperated with Civil Defense Welfare Services in giving instruction in the sanitary aspects of mass feeding and providing resource material.

IN-SERVICE DEPARTMENTAL TRAINING

Intradepartmental Training

Principal members of the State Department of Health participated in a three-day program which involved the integrated paper solution of theoretical medical and health problems which might arise from a nuclear bomb attack on New Jersey and adjacent States. The State health officials prepared a written solution based on the revised concepts of Federal Civil Defense Administration's Medical Care Program which now stresses essential medical and health services for displaced populations. Emphasis was placed on selection, utilization, allocation and rationing of appropriate chemoprophylactic agents, immunization, vector control, and laboratory tests. The group also considered anticipated public health needs in evacuation and in handling mass care centers.

State and National Alerts

These same key people participated in State and national tests. They participated on a rotation basis in the two-day control center operations and prepared the "paper solution" for 30-60-90 days post attack. Preliminary technical explanatory and guidance material for national exercise was prepared for the regional offices of the Federal governmental agencies, State governmental agencies, the military, county, and municipal civil defense organizations.

EDUCATION OF THE PUBLIC

To promote an accurate and adequate understanding of the medical and health problems and associated recommended action, lectures and demonstrations by the Director of Medical and Health Services and members of his staff were given on radio, television, and at annual conventions and local meetings of interested groups.

Technical information for public information, training, news releases, etc., was prepared for use by Director of Division of Civil Defense and his staff.

SURVIVAL STUDY

Medical and Health and Special Weapons Phase

Members of the State Medical and Health staff gave technical consultation in Survival Studies. The proposed New Jersey State Civil Defense Operational Survival Plan was received for review. The Medical and Health and Special Weapons annex and the Radiological Defense annex were reviewed in detail by the specialists from the several divisions of the State Department of Health. Major portions of both annexes were rewritten to conform with the basic policies and procedures recommended by the State Medical and Health Preparedness Committee and with the basic assumptions for Survival Planning. The revised annexes were submitted to the Acting Director of the Division of Civil Defense and Disaster Control.

FEDERAL ALLOCATION, MEDICAL AND HEALTH SUPPLIES

Hospital Units

Revisions of policy of the civil defense emergency hospital program of the Office of Civil and Defense Mobilization (OCDM) include a new allocation of emergency hospitals to the States based on the ratio of one hospital per 70,000 target area population and a change of minimum distance in storage selection from 15 miles to the AA (aiming area) boundary. The latter point is subject to justification by each State.

During 1958, an additional 12 200-Emergency Hospital units have been distributed and stored at strategic sites. This makes a total of 19 already stored in New Jersey. New Jersey's allocation would be well over 30 such units. It is hoped that local and county civil defense directors and hospital administrators will make available further storage space for these additional hospital units.

Radchem Units

The 200 radchem practice exercise kits federally allocated through State office to the counties and their municipalities have been distributed throughout the State to those counties requesting them. The preliminary allotment has been five such kits per county; some counties have requested and received additional kits. Other counties have not applied for any.

Other radchem practice exercise kits have been allotted through the State Department of Education to 160 selected senior high schools in the State as training aids in giving instruction useful during atomic attack and to acquaint science students with the general principles underlying radiation phenomena.

CENTRAL STATE HEALTH DISTRICT

District Administration Plan

The activities of the District staff were again handicapped to a degree by the lack of a District State Health Officer most of the year, and progress in the development of plans for local health projects were, therefore, somewhat curtailed. Nevertheless, the District staff was alert for opportunities to improve community health services, and particularly to secure the cooperation of local communities to assume responsibility for furnishing minimum recognized health services or for improving those activities which are inadequate.

A problem, when presented to the District by individuals of a community, requires planning and many exploratory meetings with local official and non-official agencies. This has been an effective method of approach in securing the development of interest and participation by the local responsible agency and the ultimate solution to the problem. The following problems presented to the District during the year serve to illustrate this approach.

In Trenton, the bringing into existence of a Citizens Advisory Committee for the Survey of Health Facilities was due largely to the activities of the League of Women Voters of the city. Added impetus was given to the formation of this committee by a presentment previously handed down by the Grand Jury, whose action resulted from Trenton being cited as a "Case City" in a previous survey of its housing conditions.

Through a series of meetings with the committee members, appointed by the Mayor, and personnel of the District, a working organization developed, with a chairman and four subcommittees, each responsible for a definite segment of the survey. These District personnel were assigned as consultants to the several committees, and render guidance and advisory assistance to its members. During the year, all subcommittees were activated and oriented in their particular survey activity. It is expected that the final report will be issued in 1959.

Citizen interest has been aroused in behalf of a demand for a full-time qualified medical health officer for Trenton.

One of the characteristics of public health nursing services in New Jersey has been the numerous public and private agencies rendering categorized types of services to the public, resulting frequently in several such nurses entering a single home. In Middlesex County, pronounced progress has been made in the consolidation of such services by the merging of the Visiting Nurse Associations of New Brunswick and Perth Amboy, and the willingness of the Perth Amboy Elks nurses to transfer their home nursing services to crippled

children to the newly formed Middlesex County Nursing Association. Additional consolidation of units is anticipated shortly.

In Burlington County, under the stimulus of a grant-in-aid contract between the State Department of Health and the County Board of Chosen Freeholders, the Burlington County Public Health Nursing Association extended its public health nursing services further to include additional communities who are planning to purchase either services or supervision from that agency.

In Ocean County, where nursing services are already administered centrally and financed by the Board of Freeholders, county officials have continued to show interest in supplying additional health services, possibly through the employment of a health officer and a sanitarian, thus furnishing a nucleus of a county health unit. The rapid increase of population in this county, together with large seasonal increases of shore populations, have overburdened the health and sanitary facilities of the many small municipalities, and have added interest in the formation of such a county unit.

In Monmouth County, a step toward the unification of health services on a county basis has been realized through the signing of a grant-in-aid contract with the Department and the Board of Freeholders for crippled children nursing services through the Monmouth County Organization for Social Services. This county-wide nursing organization contracts in turn with the several small visiting nurse associations in the county. A similar grant-in-aid contract for dental health programs is expected to follow. In this county, an active health officers association, representing the health departments of the more urban shore communities, took the lead in the development of plans for a joint milk control program. It gave preliminary consideration to the formation of a county health unit which would provide health and sanitary services for the many small municipalities failing to provide for such necessary services.

In Mercer County, a rehabilitation center for the chronically ill and disabled has been established at the Donnelly Memorial Hospital, in cooperation with the Commissioner of Public Affairs of the City of Trenton. The outpatient services of that hospital are also integrated with the center and now include services for alcoholics, cerebral palsy, physical disabilities in children, and speech and hearing services.

The many environmental health problems arising particularly in the small rural communities in the District, finding themselves burdened with rapidly rising populations, have caused officials and citizens to seek aid and guidance from the District, and have furnished important opportunities for engineers and sanitarians to educate such communities to improve their health services by the employment of trained licensed personnel.

The adoption, by local boards of health, by reference, of the public health and sanitation codes approved by the Department continues to be an indication of the gradual awareness on the part of local health officials for better health surveillance of their communities. The following summary indicates this continuing demand for these codes.

<i>Reference Codes of New Jersey</i>	<i>Total Codes Adopted Cumulative—1957</i>
Public Health Nuisance (1953)	24
Retail Food Handling Establishment (1953)	16
Individual Sewage Disposal System (1953)	22
Smoke Control (1953)	8
Weed Control (1953)	3
Swimming Pool (1955)	8
Plumbing (1953)	24
Trailer Court (1956)	9
Boarding Home for Children (1956)	6
	120

Administration Programs

HEALTH EDUCATION

An activity of unusual interest demonstrating a means for health education occurred as a result of a request from the Health Officer of South River for assistance in planning an information program on public health activities for the health classes of junior and senior high students. After joint planning with representatives of the local health department, the local school system and District personnel, a four-week presentation was arranged, involving 12 class sessions, and reaching about 150 students each week. The interest and response expressed by these students demonstrated the value of this type of health education approach.

Health education activities were conducted during the year particularly by the District Consultant in Public Health Nutrition, the District Chief Public Health Nurse, and the District Public Health Veterinarian. These activities are described under their respective programs.

PERSONNEL AND TRAINING

In addition to the vacancy in the position of District State Health Officer, the position of Medical Social Rehabilitation Consultant became vacant during the year through resignation, handicapping the District activities of the chronic illness control programs. Following the transfer of the District Epidemiologist to the Metropolitan District, this work was added to the responsibilities of the

Public Health Veterinarian. After a six-month training experience with the Bureau of Public Health Engineering, the District Principal Public Health Engineer returned to his District duties at the end of the fiscal year. During his absence, the sanitarian staff coped with problems of potable water, stream pollution control and realty developments. Personnel changes among the District sanitarians near the end of the fiscal year necessitated a re-assignment of their areas of responsibilities.

The District Consultant in Public Health Nutrition attended the 12th Annual Community Nutrition Institute at Syracuse University in June. Subject material was planned to be of interest to persons working in hospitals, schools, colleges and public health. Lectures and discussions covered water and electrolyte metabolism, nutrition in surgery, human relations, nutrition in public health, growth and development, and weight control.

Environmental Health Programs

AIR SANITATION

During the year 1957-1958, 54 preliminary conferences were held in the District office by staff members of the Air Pollution Control Program. The purpose of these conferences was to explain the provisions of the New Jersey Air Pollution Control Code with reference to violations from open burning and salvage operations, and to point out proper action to be taken to conform to the provisions of the code.

Such conferences generally resulted in recommendations of economic benefit to those responsible for open burning. Compliance with the code usually resulted in making further official hearings seldom necessary.

CAMPS AND BATHING

Letters were sent to all camp directors at least a month prior to the date of opening suggesting that repairs and improvements be made to wells, structures and equipment, and to arrange with local boards of health for the collection of water samples. Inspections were completed by District sanitarians as soon as possible after the opening of the camps. Based upon their recommendations, certificates were issued to 22 resident camps. Seventeen day camps were also inspected. Samples of bathing waters were collected from all of the artificially constructed pools operated by resident camps.

Nutrition consultation was given to six summer camp directors. Assistance was most often requested in planning menus and utilizing surplus commodities.

The Joint Committee on Bathing Beach Sanitation of Monmouth County again cooperated with the District and collected samples of bathing waters from most of the beaches from Raritan Bay to Beach Haven.

DRUG, DEVICE, AND COSMETIC

Occasional samples of vitamins and other drugs, when indicated in the Food and Drug Work Program, have been collected as required.

HOUSING

Construction of housing declined during the period of this report. Many large tracts were approved in previous years. Most of the new realty subdivisions contained less than 50 dwelling units. Only 13 realty subdivisions were submitted during the year as compared to over 30 the previous year. Site surveys and conferences with local health departments were made of realty subdivisions to determine if soil characteristics, surface drainage, and ground water conditions were favorable. Existing housing projects were also inspected with local boards of health where unsanitary conditions prevailed.

At the request of the Boards of Health of Millstone and Manalapan Townships, representatives of the District assisted local officials in conducting surveys of areas of substandard housing.

POTABLE WATER

Due to the drought that existed during the summer and fall of 1957, a number of water purveyors made surveys and some constructed additional sources of water. The distribution of water from approximately 12 new wells located in the District was approved. One large water purveyor on the Atlantic Coast is in the process of constructing a large impounding reservoir. Almost all the water supplies in the District were inspected and sampled during the past year. Some of the water supplies were also inspected for United States Public Health Service certification.

This past year, over 1,000 water samples were submitted by local health departments to the State Health Department Laboratory, for analysis, and the results were processed by this office.

SOLID WASTE DISPOSAL

The field staff of the District, in conjunction with representatives of the Air Pollution and Solid Waste Disposal Programs, conducted an extensive survey to locate open burning dumps. A total of 217 such sites were inspected and reported to the Division of Environmental Health.

STREAM POLLUTION CONTROL

In February, 1957, the primary responsibility for this Program was taken over by the Bureau of Public Health Engineering. However, the District is still cooperating in making joint surveys of stream pollution at the request of local boards of health, Fish and Game, Bureau of Public Health Engineering, and other agencies.

Although complaints pertaining to overflowing septic tanks or other sanitary conditions are routinely referred to the local board of health concerned, the District staff have held numerous conferences and meetings with local boards of health, governing bodies, civic associations.

In a number of instances, where recently installed individual sewage disposal facilities were found not to be working satisfactorily, and these installations were not inspected or approved by the local boards of health, the District Chief of Environmental Health, notified the local board of health of its responsibility for enforcing the "Standards for the Construction of Sewerage Facilities for Realty Improvements" (Chapter 199, P. L. 1954).

RAGWEED AND POISON IVY CONTROL

Boards of health and other municipal officials were encouraged to adopt the necessary codes and to conduct active campaigns to locate and control growths of poison ivy and ragweed in their municipalities.

VETERINARY PUBLIC HEALTH

During the past fiscal year, there were no reported cases of rabies in man or lower animals in the entire State of New Jersey. To accomplish the eradication of this dreaded disease, control efforts have been directed toward the fostering of approved dog control practices and the use of rabies vaccine to immunize the canine population. The Public Health Veterinarian and the Rabies Control Warden directed their efforts in rabies control in a manner to fulfill these requirements.

Each town was required to submit an annual census of unlicensed dogs. These were tabulated and towns failing to comply were visited to determine the reason for non-compliance. This provided an opportunity to discuss all phases of rabies control with local officials at the time of the visit. During the year, 95 per cent of the towns made an approved type of census.

Another aspect of dog control activities is centered around the local personnel and facilities for impounding dogs running at large, and the quarantine of

biting animals. The use of multi-community dog control units has been the answer to this thorny problem. This means the employing by a group of municipalities of a common Rabies Control Warden. The principle involved is similar to local boards of health combining in order to use existing funds more efficiently. The community wardens are paid from dog license revenues. At present, there are 106 municipalities that employ the use of community dog control facilities. This compares to six municipalities under this system in 1953-1954. The Rabies Control Warden can efficiently supervise these units. As an example, by observing methods in dog control employed by these units, he can more efficiently utilize his time. One visit may be as effective as going to 16 or 17 towns under an individual warden system. All towns under these plans have been indirectly assisted during the year.

There were 25,135 dogs vaccinated in 281 clinics sponsored by local boards of health. The role played by the Rabies Control Warden and the Public Health Veterinarian was to assist in promoting the clinics and coordinate distribution of the rabies vaccine. Although there were only 10 local boards of health that conducted their initial clinics, there was an increase of 3,281 dogs over 1956-1957. Consultations were held with 50 physicians regarding the treatment of humans bitten by lower animals.

There are 30 red meat slaughterhouses in the District. Each one was inspected four times during the year. These inspections were aimed toward the improvement of sanitary facilities. Local officials were assisted in two towns in formulating ordinances requiring that meat sold or slaughtered be given a post-mortem inspection. Of the 30 slaughterhouses, nine had both ante- and post-mortem inspections, seven had post-mortem, and 14 operated without any inspection.

During 1957-1958, 42 poultry slaughterhouses were inspected. The sanitation facilities ranged from those wholly inadequate to adequate. Here, again, is a need for ante- and post-mortem inspections.

There was one confirmed case of psittacosis in humans. The patient was the wife of a parakeet breeder. Although subsequent testing of the birds did not reveal the infection, it was suspected that the infected birds had been disposed of before quarantine was put in effect.

A case of echinococcus granulosus was investigated. The patient had lived in a farming area in Sicily 32 years ago. The exact diagnosis was not determined until pathological sections were made of a liver abscess following surgery. It must be assumed that the initial infection was contacted in Sicily as the infection is no longer known to be present in dogs in this country.

FOOD

All food establishments requiring a license or permit from the Department were inspected in accordance with Program procedures. These included non-alcoholic beverage bottling plants, refrigerated warehouses and locker plants, and egg-breaking establishments. Appropriate recommendations relative to the issuance of licenses were submitted to the Food and Drug Program.

Other establishments inspected either by District sanitarians alone or in conjunction with local boards of health include retail food stores, auction sales, cider plants, etc.

Among food items placed under embargo as being unfit for human consumption were 132 dressed turkeys and 108 large cans of broken and frozen eggs.

MILK CONTROL

Inspections and reinspections of pasteurizing plants, dairy farms, ice cream manufacturing plants, including custard stands, followed closely the procedures set out in the Program. Samples of all products were collected routinely and submitted to the laboratory for analysis. Efforts were continued to secure the cooperation of qualified representatives of boards of health in making many of these inspections, and to make information available to both State and local representatives.

Disease Control and Constructive Health

CANCER CONTROL

Public health nurses representing all agencies within the District observed patient care and facilities for care at the Black-Stevenson Clinic, Presbyterian Hospital, Newark. These observations have been of great interest and proved valuable to the nurse in her care of patients with cancerous conditions.

CARDIOVASCULAR DISEASE

Several educational programs for nurses have been presented within the District covering cardiovascular disease. Newer concepts in the medical and nursing aspects in the treatment of conditions were presented. In all of the institutes, emphasis was placed on the nurse "treating the person in the patient," or trying to understand each patient as unique.

Assistance was given by District Consultant, Public Health Nutrition in planning the program for the annual Cardiac Institute of the Middlesex County

Heart Association and the regional meeting of the South Jersey Chapters of the New Jersey Heart Association.

Interpretation of the new sodium restriction diet booklets, published by the American Heart Association, was given to hospital dietitians in the District. Considerable interest has been shown by dietitians and public health nurses in these booklets, since they represent an attempt to standardize and give uniformity to restricted sodium diets.

CHRONIC ILLNESS

The need for continuity of care from hospital to home was pointed out in many discussions of the nursing staff. The need for nursing service in the care of the chronically ill was continually being promoted.

AGING

At the request of the Director, a nutrition consultation was held with staff members of one home for the aged, to give assistance with menu planning, food purchasing, storage and preparation, and the use of surplus commodities.

Nutrition materials related to needs of the older person have been distributed to various individuals and agencies in the District. The importance of good nutrition in geriatric care has been stressed during conferences with public health nurses, teachers, dietitians, and others.

COMMUNICABLE DISEASE

During the year, staphylococcal infections in hospitals became a serious public health problem. The role played by the Department, at present, consists of local consultations with the infectious disease committees, specific phage typing of all coagulase positive cultures, and hospital studies by consultant nurses of the Maternal and Child Health Program. The basic causes for this problem include poor housekeeping, relaxed aseptic techniques, carriers, and faulty use of antibiotics. Until hospitals attack all these causes, the problem can be expected to continue.

Conferences on Asian influenza were held with the Preventive Medicine Officer, Fort Dix. The first confirmed cases occurred in two companies returning from the Far East.

During the early part of the year, literature was sent to nursing agencies concerning procedure for diagnostic tests on Asian flu.

Two confirmed cases of typhoid were diagnosed. The source of infection for one case has not yet been determined. The second case, a young child, contacted the infection from a baby sitter. The baby sitter was not a known carrier, but has since been placed on the carrier list.

Three cases of Rocky Mountain spotted fever were investigated. All three cases had a history of a tick bite previous to onset of symptoms.

In cooperation with personnel of the Division of Preventable Diseases, a food poisoning outbreak was investigated. Nineteen of 143 persons attending an outing developed gastroenteritis. The source of the infection was staphylococcus aureus determined by isolation of the organism from a piece of canned ham served at the outing.

During the year, over 100 cases of amebiasis were reported in the New Brunswick area of Middlesex County, largely by two physicians and a clinical laboratory. Verification studies of laboratory reports have been started prior to epidemiological efforts. If diagnoses are sustained, this condition may be much more common in New Jersey than has previously been suspected.

CONVULSIVE DISORDERS

Regularly scheduled convulsive disorder clinics were held at St. Francis Hospital, Trenton. One special clinic session was held in another area for teaching purposes. Reports of clinics are sent to the referring physician who in turn may refer cases to nursing agencies for follow-up.

CRIPPLED CHILDREN

Criteria evaluations were made of nursing agencies to determine whether they shall be of a supervisory or consultative type. The criteria evaluations were approved by the Advisory Nursing Committee.

The grant-in-aid contract for Crippled Children Program nursing services with the Burlington County Public Health Nursing Association was handled through the Board of Freeholders. The Public Health Nursing Association of Burlington County in turn subcontracted with three smaller nursing agencies in the county, and also provided supervision. It is anticipated that more public health nursing agencies will receive their crippled children contracts through the boards of county freeholders during the coming year.

The possibility of developing a county crippled children registry was explored with two agencies. A registry would help establish follow-up priorities within the Crippled Children Program.

DENTAL HEALTH

During the year, there was little activity in behalf of fluoridation of community water supplies. Technical difficulties required a temporary discontinuation of fluoridation in Perth Amboy and surrounding small communities. Perth Amboy itself, however, resumed fluoridation.

In Highland Park, Middlesex County, a citizens committee was formed for the promotion of fluoridation. Program and District staff participated in a public hearing and discussions and furnished informational materials. To date, the question of adoption by ordinance or referendum has not been settled.

The District Dental Health Supervisor has been very active throughout the year in preparing communities and counties to receive Department participation in their local dental treatment programs through grant-in-aid contracts in place of direct program reimbursement.

DIABETES CONTROL

The District participated in the promotion of the Diabetes Program. Meetings were held in the various counties with local health officials, medical societies, and interested citizens. Dreybaks were sent out to the various agencies requesting them and the ones returned were sent to the cooperating hospitals for processing. There was a total of 3,000 Dreybaks sent out and 227 were returned for testing.

Assistance was given the Diabetes Control Program by the District Consultant, Public Health Nutrition in planning and presenting an educational program for the public during Diabetes Detection Drive Week in Trenton.

The Program Coordinator of the Diabetes Control Program discussed patient education in diabetes at a monthly meeting of the Mercer County Dietetic Association. As a result of the interest shown in patient education, a counseling service for diabetics was planned for Trenton to begin during the fall, 1958.

TUBERCULOSIS CONTROL

The tuberculin testing pilot study in Mercer County required a considerable amount of community health organization and an extensive amount of time from the District personnel. The District participated in the original planning with the Tuberculosis Program and was a member of the Mercer County Tuberculin Pilot Study Committee. Other representatives on this committee were from the medical society, Trenton Board of Education, parochial school system, public and parochial parent-teacher associations, Mercer County Tuberculosis and Health League, District Nurses Association, and County Su-

perintendent of Schools. Before actual planning for the pilot study could be done, it was necessary to secure the acceptance of the plan by the boards of education in the 13 school districts in the county. Ten of the school districts readily agreed to participate, but it required considerable education and persuasion until all accepted. Several educational programs and institutes were also held for participating nurses.

There were two methods used in conducting the voluntary tuberculin testing program in the selected grades in the schools. One method was furnishing, without cost, upon request, a team which had been previously trained in the tuberculin testing procedures, and would be responsible for the entire testing; the other method was that a school district could secure the materials without cost and be responsible for carrying out its own program. It was estimated that half of the 19,916 tested was done under the second method. There were 914 reactors found in the Mercer County pilot study. In the process of X-raying these reactors and their contacts, five cases of active tuberculosis, never reported before, had been detected by the end of the fiscal year.

Preliminary conferences have been held in Burlington County in the anticipation of conducting tuberculin testing in the elementary school grades in the fall of 1958. It has been the accepted practice of using the Mantoux test for a number of years in the secondary schools in this county; it is hoped that a demonstration of value of this method of tuberculosis testing in the lower grades will convince the school authorities to extend their program to include the elementary grades.

VENEREAL DISEASE CONTROL

A decided upturn in the number of cases of venereal disease reported was evident for the year 1957. In 1956, 875 cases of syphilis and 680 cases of gonorrhea were reported in the five counties comprising the District. These statistics represent rates of 87.9 and 68.3 per 100,000 respectively. A total of 1,355 syphilis and 787 gonorrhea morbidities were submitted by physicians and clinics to the State Department of Health in 1957. These numbers represent rates of 133.8 and 77.7 per 100,000 for syphilis and gonorrhea.

During the summer months of 1957, 2,704 migrant workers in the District were blood-tested by personnel attached to the mobile clinic. Another 353 workers were tested at the stationary clinic in Freehold. These groups represent approximately three-fourths of the total 4,077 agricultural migrants who were examined for venereal disease during the 1957 season.

Venereal disease control activities among agricultural migrants have become increasingly mobile. There has been a steady rise in the percentage of

examinations (from 58.9 in 1953 to 85.9 in 1957) attributed to mobile facilities during the last several years. Experience seems to indicate that bringing health services to the migrant camps provides more complete coverage.

Of the 4,077 persons tested serologically during 1957, 606 were reactive for syphilis. Over 500 of the suspects who required epidemiological follow-up were located; 97.2 per cent of the migrants with reactive serologies were brought to examination. Three Venereal Disease Investigators followed up all suspects residing in the area. They obtained case histories to assist the physicians in their diagnoses.

Serologic surveys were conducted in selected areas of several communities as exemplified by Carteret, New Brunswick, and Hightstown. A total of 1,773 blood tests were taken in seven cities and the Mercer County Jail. These specimens yielded a reactor rate of 9.5 per cent. Sixty-two persons were brought or returned to treatment for syphilis.

In September of 1957, an outbreak of gonorrhea cases at New Lisbon State Colony was reported. Two representatives from the District visited the institution to discuss follow-up and reporting procedures.

Closed television circuit equipment was allocated to the District by the United States Public Health Service for demonstration of venereal disease interviewing techniques. Techniques of obtaining difficult information from a patient were shown. Approximately 45 interested health workers in the fields of nursing, sanitation, social service and venereal disease control attended the all-day session at McKinley Hospital, Trenton, on October 17.

In January, the District representative and the Monmouth County investigator presented a two-hour educational program to a group of 30 student nurses and their supervisors at Fitkin Hospital. A short talk by the State representative was given on the three principal methods used in the control of venereal disease. Following the talk, a selected interviewing tape was played for the group and the film "Invader" was also shown.

In February, this film was shown to a group of medical technicians at St. Francis Hospital, Trenton, and was presented at the request of the State Laboratory and Public Health Service personnel who were conducting a course in serology.

Four representatives from the District Office participated in a blood testing survey at the Mercer County Workhouse in April. A total of 194 bloods was taken. Case histories on the 16 reactors were obtained and forwarded to the clinician at the penal institution for follow-up.

Several members of the District staff attended a two-day Venereal Disease Seminar in Philadelphia in May. The seminar was divided into disciplinary section meetings.

A primary syphilis case in the Mercer County area was revealed to District personnel through the routine follow-up of reactive serologies submitted by private physicians. The subsequent interview of the patient yielded 15 contacts. As a result of the interviews and the follow-up, a secondary case, an early latent and a late latent case were discovered.

NUTRITION

The Nutritionist served the public chiefly through consultation with staff members of health agencies, both official and voluntary. This was accomplished through meetings and conferences in which the Nutritionist participated. With other District personnel, nutrition education was planned as part of the total activities of the District. Through these activities of the Nutritionist and other members of the District Staff, more than 7,800 pieces of nutrition materials (posters, bibliographies, and booklets) were distributed to various agencies and individuals during the year.

Talks were given to two parent-teacher associations in Mercer County, to a public health nursing class at Trenton State Teachers College, the "Slenderettes" class at the Trenton Young Women's Christian Association, the freshman class of the St. Francis Hospital School of Nursing, Trenton, to school lunch personnel registered in a summer workshop at Rutgers University, and the participants in a "Better Living Course" sponsored by the Community Welfare Council, the Board of Education and the Housing Authority of New Brunswick. The Nutritionist also participated as a panel member at a career conference held at one of the Junior High Schools in Trenton, and in a panel discussion of problems and methods in nutrition education for a graduate course in Home Economics Education at Rutgers University. Visual aids, including poster, films and booklets, were used in connection with most of the lectures.

At the invitation of the Health Chairman, the fall meeting of the Monmouth Council of Parents and Teachers was attended to demonstrate the use of nutrition quiz board and its accompanying question and answer sheet.

The school lunch supervisor of a parochial school in Ocean County was given assistance in setting up a new school lunch program. Use of good meal planning principles, food purchasing, sanitation, and utilization of available surplus commodities were stressed. Consultation was also given to supervisors of school lunch programs in Burlington and Mercer Counties.

Consultations have been held with Home Economics teachers in Carteret, New Brunswick, and Trenton, to discuss nutrition teaching methods and aids, and to give suggestions for classroom teaching. Nutrition teaching materials

have also been made available to home economics advisors connected with public utility companies within the District.

Considerable assistance was given to the new Trenton Practical Nurse School in preparing and presenting diet therapy material included as part of the practical nurse training course.

Several consultations have been held with dietary staff members of 10 hospitals in the District. Problems often encountered are in the interpretation of therapeutic diets (particularly diabetic and sodium restricted) for in-patients, clinic services for out-patients, preparing diet manuals, improving patient food service, recruiting dietitians, planning course materials for student nurse classes in nutrition and diet therapy, and in supplying current reference and teaching materials. When additional assistance was needed, a recommendation was made that the services of the Dietary Consultant, New Jersey Hospital Association, be requested for a complete food service survey. One very successful joint survey of this type was made when nutrition consultation services of the District were requested by a Trenton City Commissioner for Donnelly Memorial Hospital.

Additional nutrition activities are reported under Camps, Cardiovascular Disease Control, Aging, Diabetes Control, Public Health Nursing, and Maternal and Child Health.

PUBLIC HEALTH NURSING

The District Public Health Nursing Program has continued to promote the development of effective and efficient public health nursing services to communities. In Middlesex County, the merger of the Visiting Nurse Association of New Brunswick and the Perth Amboy Visiting Nurse Association has been evidence of the progress of public health nursing in that county. This new organization shall now be known as the Visiting Nurse Association in Middlesex County. During the period of negotiations of these two agencies, the State Department of Health loaned a supervisor to Perth Amboy Visiting Nurse Association so that the area covered by the agency might have adequate nursing coverage, since the agency was without a nursing director.

In cooperation with the nursing director of Monmouth Memorial Hospital, conferences were held with representatives of hospitals and public health nursing agencies and a referral form was developed and placed in use. It is hoped that this will prove valuable for continuity of care between hospital and home.

Quarterly conferences with the public health nursing associations of Monmouth County have been held. Representatives of agencies include both staff

nurses and board members. The newly formed Welfare Council of Monmouth has offered to present the problem of transportation to its board for consideration.

Monmouth County Organization for Social Service has secured a Federal grant for a mental health project. Under this project, all patients admitted to the State Hospital at Marlboro will be referred to that agency for follow-up after discharge. So that nurses might be prepared for this type of follow-up, an educational program has been arranged covering mental health and illness.

The Public Health Nursing Association in Burlington County expanded its program to include bedside nursing. A supervisor was also employed by the agency with the assistance of a Departmental grant-in-aid through the County Board of Freeholders.

A "Mercer County In-Service Nurses Program Committee" was formed. This committee is composed of representatives of different types of nursing services. The committee plans to hold two institutes yearly. The purpose of the committee is to help nurses of the county become better oriented to modern public health and nursing practices. The very successful first institute, held in April, dealt with the topic of some newer trends in nursing.

Staff education programs have been held in Middlesex and Mercer Counties for local public health staff nurses receiving supervision from the State Department of Health. Such programs, however, are also open to all nurses in the counties.

At the request of the Public Health Nurse Supervisors, nutrition orientation was given by the District Consultant, Public Health Nutrition to new locally employed public health nurses in Mercer and Middlesex Counties. Orientation was also given, when requested, to new staff members of various visiting nurse associations in the District.

As requests were received from public health nurses for assistance in handling specific nutrition problems, conferences were arranged by the Nutrition Consultant so that all nurses from the requesting agency could join in discussing the problem. This method of staff in-service education has been helpful in discovering current nutrition problems and needs of public health nurses. Requests for assistance in handling specific nutrition problems were frequently received from official agencies in Mercer and Middlesex Counties, and visiting nurse associations in Burlington, Mercer, and Middlesex Counties. This service has also been requested in a few instances by school nurses in four counties of the District.

Additional District public health nursing activities are reported under Cancer Control, Cardiovascular Disease, Chronic Illness, Communicable Disease, Convulsive Disorders, Tuberculosis Control, Crippled Children, and Maternal and Child Health.

MATERNAL AND CHILD HEALTH

A series of four health institutes for nursing groups in Mercer and Middlesex Counties was arranged by District and Maternal and Child Health Program staffs, and covered aspects of prenatal care and nutrition.

Additional educational materials on nutrition in prenatal care were made available to nursing agencies and to hospital out-patient clinics, dietary, and teaching staffs. The District Consultant, Public Health Nutrition frequently gave assistance in planning material to be included in classes, child health conferences and nursing home visits. A few nutrition talks were given to mothers' classes on a demonstration basis.

METROPOLITAN STATE HEALTH DISTRICT

District Administrative Plan

The Metropolitan State Health District, a rapidly growing area with a population in excess of 3,000,000, includes the five counties of Bergen, Essex, Hudson, Passaic, and Union. Terminating the fiscal year, 38 staff members comprised the working unit in the District. Included were the District State Health Officer; Senior Public Health Physician; Dental Health Supervisor; District Chief, Environmental Health; District Chief Public Health Nurse and five Public Health Nurse Supervisors; District Consultant, Community Health Organization; District Consultant, Medical Social Rehabilitation; District Consultant, Public Health Nutrition; Principal Public Health Engineer; Principal Sanitarian and four Sanitarians; Public Health Veterinarian; Veterinarian (part-time); two Rabies Control Investigators; Health Program Representative and four Venereal Disease Investigators; and Principal Clerk and a clerical staff of nine.

Trends—Collecting factual information for the purpose of defining actual needs in the District might well be considered the major activity during the past year, together with:

1. Interpretation of program and procedures to local health officers and personnel.
2. Cooperative projects with local health departments and health agencies.
3. Sponsoring coordinated programs and services in the District.

Studies to date have revealed the increasing needs for improving general health services and health facilities on the local level. Most communities are still primarily sanitation-oriented so that there is a pressing need for stimulation and education to include chronic illness control, mental health, nutrition, aging, and other medical programs in the complement of local health services. It has become very apparent that small communities cannot adequately support all these services even on a minimum basis; consolidation or regionalization appears as the only satisfactory solution.

Local health officers of the Metropolitan District were well represented at the three State-wide workshops on chronic disease control, held in the fall of 1957, under the sponsorship of the New Jersey Health Officers Association and the State Department of Health. The District State Health Officer and the District Consultant, Community Health Organization participated as members of the workshop groups. The District Consultant, Community Health Organization also assisted in the preparation of the initial workshop session on the public health aspects of cancer control. These workshops provided a stimulus for increased local health department planning and activity in the field of chronic illness.

A number of local health officers from various parts of the District visited the cancer treatment center at Presbyterian Hospital, Newark, as a means of expanding their knowledge of community resources. In addition, requests for educational material and a growing trend toward cooperative projects in chronic illness control with voluntary agencies have indicated progress toward development of needed local programs.

Nationwide publicity on radiation hazards and the intradermal tuberculin testing field trials in Somerset County were responsible for a modification of tuberculosis case-finding surveys in many areas of the District. Following District consultation, the Board of Education, Union County Regional High School District No. 1, with the support and assistance of the Union County Tuberculosis and Health Association, undertook a full-scale Mantoux testing program for students and personnel of the Jonathan Dayton (Springfield) and the Arthur Johnson (Clark Township) High Schools. In Bergen County, upon the recommendation of the Case-Finding Committee of the Bergen County Tuberculosis and Health Association, numerous high schools initiated plans for intradermal tuberculin testing during the 1958-1959 school year. Inquiries relative to the feasibility of tuberculin testing programs were also received from municipalities in Essex and Hudson Counties. Tuberculosis associations throughout the District have expressed a willingness to promote this activity.

A recurring problem in many Bergen County municipalities has been difficulty with the sanitary disposal of septic tank cleanings. The District office initiated a meeting to discuss this subject. Municipal administrative and health authorities, the Bergen County Health and Sanitary Association, and representatives of the Bergen County Sewerage Authority were invited to attend. The discussions resulted in appointment of a committee of health officers to study and attempt to find a solution to this problem. The committee called another general meeting to report on its deliberations and recommendations. The most promising recommendation involved construction of disposal facilities on the premises of the Bergen County Sewerage Authority, the project to be financed by participating municipalities. Due to the manner in which the construction of facilities and operations of an authority are financed, legislative permission is necessary before such a purpose can be accomplished. This activity was a notable achievement in that it brought together State, county, and local officials and utilized their individual interests in the development of a workable solution to a common problem.

COMMUNITY HEALTH SERVICES

Health Councils—A wide variety of needs was explored by local health councils during the past year. Several councils made a real effort to evaluate their effectiveness and undertake new activities dictated by the rapid population growth and changing needs of the areas which they serve.

The Bergen County Council of Social Agencies appointed a committee to study plans for the employment of professional personnel. This step was taken in recognition of the fact that planning and coordination of health and welfare services in the county require the intensive direction and service which only a full-time staff can provide. Increased efforts in this direction have been planned for the coming year.

The Health and Hospital Division of the Council of Social Agencies of the Welfare Federation of Newark placed emphasis upon expansion of its Steering Committee to include representation from several major voluntary agencies which have not been active participants in the past. Closer coordination of hospital services with other community health programs will be implemented through the newly organized Hospital Advisory Committee of Martland Medical Center and formation of a Community Hospital Council within the Council of Social Agencies.

In the absence of an active Council of Social Agencies, the Hudson County Tuberculosis League has begun to explore the possibilities for organization of a Citizens Committee to work toward extension of public health nursing service in the North Hudson area. At present, the only community in the area

which has an adequate nursing program is Union City. Nursing coverage of the remaining municipalities could be accomplished through expansion of the Union City service. Such expansion would be based upon contractual agreements for service and possibly eventual regionalization of all public health services in the area.

In Passaic County, there has been increased interest in planning for more effective local health services. A preliminary gathering of county leaders will be held in the fall. The objective for the 1958-1959 year is a countywide meeting to serve as a springboard for an action program. The Passaic County Health and Welfare Association has fully endorsed this program. District staff has been requested to assist.

Bayonne Survey—The report of the Citizens Public Health Survey Committee of the City of Bayonne was submitted to the City Commissioners during the first week of March. Major survey recommendations call for organization of a board of health to replace the Commissioners who presently serve in that capacity, appointment of a full-time health officer, and formation of a combination nursing agency to provide more comprehensive and efficient service.

A series of conferences between members of the Citizens Committee and City Commission members was held during April, May, and June. Excellent cooperation on the part of the local press resulted in publication of the entire survey report as well as considerable general coverage and editorial comment related to activities of the committee and the governing body. Many health and civic organizations serving Bayonne have sent written endorsements of survey recommendations to the Commissioners at the request of the Citizens Committee.

Livingston Survey—A survey of public health services in Livingston Township (Essex County) was initiated in February at the request of the Township Manager. This survey provided a means for stimulating interest on the part of municipal officials in the advantages to be gained, by a small (20,000 population) municipality, through regionalization of public health services.

A survey guide, covering the various aspects of local health department service, was prepared by the District staff. In addition, District personnel assumed major responsibility for orientation of the local Advisory Health Council (Board of Health) and Division of Health as well as collection of factual data and preparation of a written report.

A series of field visits to health facilities and interviews with official and voluntary agency personnel constituted the primary survey effort. Members of the Advisory Health Council participated in each of these activities. A close liaison with the Township Manager was maintained throughout.

A final survey report was presented to the Advisory Health Council and the Township Manager in June. The principal recommendation called for municipal officials to initiate discussions on regionalized health services with governing bodies of surrounding West Essex municipalities. This recommendation was related to the fact that Livingston and several other adjacent communities are without the services of a licensed health officer and to the need in the entire West Essex area for increased public health activity in fields such as nutrition, chronic disease control, health education, and public health nursing.

Preliminary results of this survey effort have already been seen. The West Essex Community Planning Council will initiate a fall program of educational activities on the subject of regionalized health services.

Consolidation of Nursing Services—As a result of consultation services, two public health nursing agencies in Essex County are presently considering amalgamation. This amalgamation would provide qualified direction and supervision for the smaller agency which is presently without the services of a nurse-director. It would allow for greater administrative efficiency and economy and provide opportunity for increased service to the area covered.

Consultation services have been given to a local public health nursing agency in Bergen County with regard to developing its program and obtaining financial support from the local municipalities which it serves. Preliminary planning has been completed for a study of the agency's maternal and child health program and the need for follow-up public health nursing services in behalf of patients attending clinics at the local hospital. The study will focus attention upon individual and community needs for public health nursing services and the advantages to be gained through closer coordination of nursing activities with those of interrelated community health programs.

Intensive efforts were made by District personnel to facilitate preparation and transmittal of the 1957 Annual Report of Local Boards of Health. A series of orientation meetings and field consultations were held in various parts of the District. This method of interpretation and assistance resulted in an initial return of more complete and accurate data than in previous years.

Administration Programs

HEALTH EDUCATION

The second District Conference of the Council for Local Public Health Services of New Jersey was held in May at the Boys' Club of Newark. Approximately 125 lay and professional people from health and welfare groups in the five Metropolitan counties attended. The theme of the meeting was "Health Services—Are You Getting Your Money's Worth?" As a means for continuing deliberations which had begun at the conference, follow-up meetings on a county basis have been scheduled for Bergen and Passaic Counties.

At the start of the 1957-1958 school year, Parent-Teacher Association County Health Chairmen met with District personnel to consider cooperative methods of program planning. Departmental materials and consultation services available through the District were discussed. Periodic informal contacts were maintained with individual chairmen throughout the year.

More than 100 teachers, school administrators, and public health nurses attended a countywide Health Education Workshop, sponsored by the Essex County Tuberculosis League and the Essex County Department of Education. The workshop was held in September on the campus of Montclair State Teachers College. A full day was devoted to consideration of the school health aspects of nutrition, dental health, mental health, and tuberculosis control.

Approximately 90 local public health nurses participated in discussions on the use of visual aids, presented by the District Consultant, Community Health Organization. These discussions served as the initial part of the District public health nurse supervisors' staff education program for the 1957-1958 year.

Graduate students at Columbia University School of Public Health and Administrative Medicine completed a student project in which 75 key leaders in Bergen County were interviewed relative to their interest and concern with public health needs and resources. The students concluded that there was overwhelming leadership opinion in favor of reorganization of health services on a county or area basis. This project was primarily an educational effort for the students involved, as well as the community leaders who were interviewed.

The District Consultant, Community Health Organization devoted major effort to survey planning, operation, and promotion of Program activities.

PERSONNEL AND TRAINING

The District Chief Public Health Nurse resigned, effective December 1, 1957. Replacement was made by transferring the District Chief Public Health Nurse from the Northern State Health District. Four Public Health Nurse Supervisor positions became vacant due to one promotion, two transfers to other State departments, and one resignation. Three new public health nurse supervisors were employed. Two vacancies were not filled.

The Principal Sanitarian received his M.P.H. degree upon the completion of a year's study at the School of Public Health and Administrative Medicine, Columbia University.

The District Consultant, Medical Social Rehabilitation joined the District staff on May 1, 1958.

A second rabies control warden was assigned to the District in June.

Two public health nurse supervisors are matriculated for degrees at accredited universities. One supervisor is working for an M.A. degree and one supervisor is working for a B.S. degree. Both supervisors are taking courses part time.

The District Public Health Veterinarian attended a three-day conference on animal diseases, a two-day conference of the New Jersey Health Officers, and the Department's "Principles of Supervision" course. District engineering, sanitation, and nutrition personnel participated in an Institute for Food and Restaurant Sanitation which was sponsored by the East Orange Board of Health.

District sanitarians are being trained by the Program of Food and Drugs as milk plant raters. This is in preparation for performance of inspections in accordance with United States Public Health Service standards.

Environmental Health Programs

CAMP AND BATHING

Camp certificates will be issued to 22 camps for meeting minimum standards in camp sanitation. There is a total of 27 full-time summer camps operating in the District. In an effort to improve the health aspects of camp programs, personnel of the Northern and Metropolitan Districts met with representatives of local camps. The meeting was sponsored by the Council of Social Agencies of Newark, Irvington, and West Hudson. Discussion centered upon the nutrition and sanitation aspects of camp activity.

Seven bathing places will receive a Certificate of Compliance for the summer season of 1958. As with the Camp Program, emphasis is placed primarily upon the sanitary aspects of the bathing area and its facilities. News items released early in the bathing season by the Department, citing the bathing places in compliance with Departmental standards, stimulated the interest of the operators in this Program.

POTABLE WATER

In order to take full advantage of the present abundant water supply, the Newark and Hackensack Water Departments are constructing additional impounding reservoirs that will have respective capacities of 2.8 billion and 5.6 billion gallons. Drilled wells to supplement existing surface supplies are continually being constructed to combat the ever-increasing demand for water in the Metropolitan area. During the past year, District personnel performed five new two-hour well tests.

During the past fiscal year, municipal and private water purveyors appropriated \$3,184,257.00 for the construction of wells, additions, and alterations to water treatment plants in this District.

Vessel, railroad, and airline watering facilities and the sources of supply were inspected by District personnel on a routine basis as heretofore and recommendations made for certification by the United States Public Health Service.

Applications for 22 cross-connections were received by this Department for establishments in the Metropolitan State Health District. These installations were inspected, recommendations made for approval, and permits issued.

A water-main break in Jersey City caused concern and an enormous loss of water for several days until the break was found. Fortunately, due to the nature of the break, the Water Department was able to maintain a positive pressure in its entire distribution system. There was, consequently, little or no danger of contamination to the supply.

SOLID WASTE DISPOSAL

Data was accumulated relative to the location of all refuse disposal areas in the District and their manner of operation. This information will be used in a promotional effort to obtain compliance with the new Chapter VIII of the State Sanitary Code. A refuse disposal area that started as an experimental project is now in full operation. The swamplike meadowland is rapidly being converted to a useful recreational area, forming Overpeck Marine Park.

Originally, two municipalities contributed to this project. There are now 11 utilizing the site for the disposal of refuse. The services of this disposal area are open to all municipalities in Bergen County that desire to participate. The improper operation of a refuse disposal area in Little Ferry was referred to the office of the Attorney General and resulted in legal action. The operators agreed to provide proper and sufficient earth-cover upon termination of activity on the disposal site.

STREAM POLLUTION CONTROL

The Departmental approval of plans and specifications indicates that during the past fiscal year, the various municipalities and sewerage authorities appropriated \$18,503,027.00 for the construction of new sewage treatment facilities and \$4,322,213.00 for the installation of new sewers within this District.

VETERINARY PUBLIC HEALTH

A follow-up procedure encouraging delinquent municipalities to report their census of unlicensed dogs resulted in compliance by over 90 per cent of the municipalities. There is every indication that the 100 per cent figure will be reached within a few months.

As a result of spot surveys, several municipalities were found to be operating inadequate stray-dog pick-up service and/or poor dog-pound facilities. A number of smaller communities did not have facilities of any sort. Local officials were advised and stimulated to employ procedures to remedy these potentially dangerous situations. The results showed construction of new pounds, repair of the majority, and abandonment of a few. Several municipalities made plans to purchase new vehicles, hired new personnel, and established recommended quarantine procedures.

Contact was made with every municipality which failed to hold free anti-rabies vaccination clinics during the 1956-1957 fiscal year. As a result, 99 municipalities held clinics during which 40,159 animals were vaccinated at 73 municipal clinics in 1956-1957. Other promotional efforts included rabies control educational programs which reached 2,400 students in the fifth to twelfth grades in four municipalities.

Surveys of local rabies control programs, in three municipalities having a total population of more than a quarter of a million, were undertaken by District personnel. Studies have been completed and recommendations prepared for the cities of East Orange and Elizabeth. The third survey is in progress in the town of Irvington.

Routine inspections were made of 292 kennels, pet shops, shelters, and pounds. Local health officials were encouraged to license and inspect all such establishments within their jurisdiction.

There were no reported human cases of psittacosis in the District. Only one infected bird was found. Of equal importance, only two individuals were found to have imported birds without obtaining the proper certificates of health. This success is attributable to the persistent effort of local and District personnel to encourage psittacine bird dealers to practice measures discouraging illicit importation and to maintain accurate records.

Thirty-eight epidemiological investigations of animal diseases transmissible to man were made in the District this year. The number of people associated with each of the 16 types of diseases investigated varied from a single case of tetanus to a group of over 300 cases of a food-borne salmonellosis. Other investigations were made of suspected or diagnosed cases of listeriosis, leptospirosis, ringworm, encephalomyelitis, brucellosis, milker's nodules, etc. Aside from investigative findings, each effort resulted in the educating of local personnel, assuring closer cooperation, prompt reporting, and more comprehensive investigating.

Seventeen licenses were issued to slaughterhouses during the year. All except two of them are under Federal inspection. An abattoir owner and a meat processor were requested to appear in the District office for discussion of poor operational procedures and physical deficiencies within their plants. Spot inspections of poultry abattoirs disclosed inadequacies in the operation and physical facilities of over 80 per cent. Deficiencies included lack of refrigeration, insufficient hot water, insect and rodent infestation, and filthy-covered equipment. Almost immediate improvement was made in operational techniques as a result of these inspections.

DRUGS, DEVICES, AND COSMETICS

Near the close of the fiscal year, positive steps were taken to institute an active routine inspection and sampling program of all establishments manufacturing, warehousing, or distributing drugs, both intra- and interstate. District personnel were oriented to administrative procedures and inspection and sampling techniques by the Food and Drug Program Coordinator.

FOOD

As a result of routine sampling and laboratory analysis, a high percentage of meat and sausage products was found to be adulterated. A number of cases was cited to the Attorney General's office for collection of penalty. In an increase over the previous fiscal year, a total of 233 bakeries was inspected in conjunction with local personnel; some were cited to the Food and Drugs Program for Departmental action. Sanitary conditions observed during inspections warrant continued effort for improvement. Local boards of health are being requested to assume full responsibility for these types of establishments in their sanitation program.

A variety of some 300 food samples was collected by District sanitarians and submitted to the Departmental laboratory for analysis. Considerable quantities of adulterated or insect-infested foodstuffs were found. These were destroyed under the supervision of a representative of the Department. Notable among these were 68,736 pounds of butter found to be substandard in fat content and 47 100-pound bags of flour found to be insect- and weevil-contaminated. The butter was seized by a United States marshal since interstate shipment was involved.

MILK CONTROL

Approximately 500 milk and milk-product samples were submitted for analysis to the State laboratory by District personnel during the past year. Results indicated that the quality of milk, both chemically and bacteriologically, being distributed throughout the Metropolitan area is generally good. With passage of the Ice Milk Law, allowing a frozen dessert to test lower than the 10 per cent minimum butterfat for ice cream, District sanitarians found many roadside ice cream stands selling ice milk as ice cream. Violations were referred to the office of the Attorney General.

A milk sampling program in which several Bergen and Hudson County communities are participating is now under way. The laboratory facilities of the Newark and Jersey City Health Departments and Bergen Pines Hospital are integrated in this project. Conferences were held with the local officials to assign sampling schedules. This program is designed to coordinate all sampling and analytical efforts and to result in the mutual exchange of information, a more equitable distribution of the workload, and a broader picture of the over-all milk industry in this area.

Disease Control and Constructive Health Programs

AGING

As a result of a survey completed by the Bergen County Committee on Aging, a permanent Division on Aging was established within the framework of the Bergen County Tuberculosis and Health Association. As its first program activity, the Division undertook renovation of a former residence in Hackensack, to be known as the Park Street Day Center. The center, which opened in May, provides services for elderly people including information, referral, and counseling. Recreational activities have also been initiated. District staff participated in the survey and assisted in the recruitment of social work personnel for the center.

The Newark Center for Older People, which provides information and referral services as well as recreational activities, began operation in April. The center is supported by voluntary contributions and has a growing membership of over 200. More than 50 per cent of the people using the facilities of the center come from municipalities other than Newark, indicating a widespread need for programs of this sort.

The Senior Citizens Committee of the Community Welfare Council of Eastern Union County developed a plan for establishment of a Day Center in Elizabeth. The committee has formed itself into a Board of Directors for a Senior Citizens Center and is working towards purchase or rental of space for this facility.

ALCOHOLISM CONTROL

District personnel participated in conferences with the Program Coordinator and staffs of the Elizabeth General (Union County) and Mountainside (Essex County) Hospitals. These conferences served as initial steps in the establishment of alcoholism study clinics within the hospitals.

CANCER CONTROL

The Cancer Control Program, in cooperation with the Public Health Nursing Program, arranged with the Black-Stevenson Memorial Unit of the Presbyterian Hospital, Newark, for a series of observation visits by public health nurses. New medical and nursing techniques used by the hospital in the care of cancer patients were demonstrated. Ninety-five nurses from official and voluntary agencies were scheduled, by the District nursing staff, to attend.

CARDIOVASCULAR DISEASE CONTROL

The third Cardiac Work Classification Unit in the District was opened at Barnert Memorial Hospital, Paterson, early in October. A team consisting of physician, social worker, and vocational counselor functions as part of the unit. The unit has had a heavy caseload since its inception. The medical-social worker attached to the unit is the first qualified member of that profession to serve full time as a member of a hospital staff in Passaic County. The District Consultant, Medical Social Rehabilitation and personnel of the Division of Chronic Illness Control provided consultation in the planning stages of the program.

The Bergen County Heart Association sponsored a course in "Cardiovascular Disease Nursing." The course, given at Holy Name Hospital, Teaneck, began in January and included eight evening sessions. One hundred and sixty nurses completed the course and received certificates. The Public Health Nurse Consultant, Cardiovascular Disease participated in planning the course and attended the sessions. The "Fourth Annual Cardiac Conference for Nurses," sponsored by the Passaic County Heart Association, was held in Clifton during April. Ninety-four nurses from Passaic County were present.

CHRONIC DISEASE CONTROL

As a step towards increasing rehabilitation facilities for the chronically ill, the Union County Tuberculosis and Health League organized a county committee to develop plans for a shelter workshop. Support has been enlisted from groups such as United Cerebral Palsy, National Council of Jewish Women, National Foundation for Infantile Paralysis, and the New Jersey Parents Association for the Mentally Retarded.

Plans have been developed by the Union County Board of Chosen Freeholders for expansion of county hospital facilities for the chronically ill. At the present time, 40 beds at the John E. Runnells Hospital for Chest Diseases are being used for persons with chronic illnesses other than tuberculosis. Moneys have been appropriated for conversion of additional hospital space which will add another 44 beds. The Freeholders are also considering plans for a 200-bed chronic disease unit as part of Runnells Hospital.

The East Orange Health Department conducted a multiple screening program designated Health Protection Week. The program consisted of 70 millimeter chest X-rays and distribution of Dreykaps for diabetes screening. Detailed plans were made for local follow-up of persons whose X-rays indicated cardiac abnormalities. Procedures employed in the program were worked out in cooperation with the Director of the Division of Chronic Illness

Control, the Program Coordinator of the Heart Disease Control Program, the Essex County Tuberculosis League, and medical representatives of the Essex County Heart Association. This broadened approach to health department activity provided an excellent opportunity for cooperative planning on the part of official voluntary health agencies.

COMMUNICABLE DISEASE CONTROL

An explosive food poisoning outbreak in a Union County restaurant, involving approximately 500 persons, was cooperatively investigated by the local health department, the State Department of Health Acute Communicable Disease Control Program, and the District. Results disclosed that the food vector was probably contaminated by either of two food handlers found to be carriers of Salmonella. A report outlining the principles used in making an investigation of this type appeared in *Public Health News* (April, 1958).

An outbreak of gastroenteric disease among employees of a department store in Essex County was reported in January. Epidemiological investigation disclosed that 37 per cent of the 228 persons who were at the meal had been ill. The illness attack rate among persons eating turkey a la king was 61 per cent, as compared to an attack rate of 3.1 per cent among those who did not eat this food. The relationship of illness to eating other foods was within the limits of chance variation.

Consultation relative to the control of staphylococcal infections was provided the Englewood Hospital (Bergen County) and the East Orange General Hospital (Essex County) by the District Public Health Veterinarian and the Communicable Disease Control Program Epidemiologist. Recommendations were made relative to investigation of hospital procedures and measures to be included in preventive programs.

At the request of the Health Officer of North Arlington (Bergen County), a District sanitarian and the Communicable Disease Control Program Epidemiologist assisted in an investigation of meningococcal meningitis in a fifth-grade teacher. As a result of the efforts of the local Health Officer, all parents of fifth-grade students and teachers at the school were advised to see their family physician; appropriate prophylactic treatment was recommended. Nose and throat cultures were obtained and analyzed. No additional cases of disease were reported.

In anticipation of an Asian influenza outbreak, the District cooperated with the World Health Organization in the collection of blood samples from horses and hogs to determine relationships between the virus as it occurs in man and in animals.

CRIPPLED CHILDREN

During the year, crippled children supervisory activities in the District office were incorporated in the generalized nursing program. Eleven supervisory agencies which have contracts for crippled children services were assigned to the five District public health nurse supervisors. Direct nursing service to crippled children in five municipalities in North Hudson County is given by a public health nurse supervisor. These municipalities have a population of over 115,000 and are practically devoid of generalized public health nursing service.

During the year, the 22 crippled children contract agencies in the District were evaluated for nursing services by a team consisting of the District Chief Public Health Nurse, the Public Health Nurse Consultant, Crippled Children; and a public health nurse supervisor. Following the evaluation, written reports and recommendations were sent to these agencies. The status of two agencies was changed from supervisory to consultant.

Three meetings, related to the completion and processing of crippled children records and reports, were held with contract and cooperating agencies. In addition to nursing agencies, hospital medical-social workers and cerebral palsy treatment center coordinators participated. The purpose of these meetings was to clarify District administrative problems.

Schedules were drawn up and approved for the two cerebral palsy clinics that are included in the Crippled Children Program. Twelve clinic sessions were held.

Two cerebral palsy consultant clinics, conducted by Winthrop Phelps, M.D., were held. Emphasis was placed on the educational aspects of these clinics and the number of patients examined was reduced in order to provide time for clinical teaching. The attendance at the two clinics was 243, which included nurses and other professional workers. District nursing staff and local public health nurses attended Cerebral Palsy Seizure Control Clinics. The clinics were sponsored by the Hudson County Cerebral Palsy Society and held at the A. Harry Moore School, Jersey City.

A new cerebral palsy treatment center has been established in Garfield. The center is sponsored by a lay group. Orientation to the Crippled Children Program was given to the personnel of the center by District nursing staff.

The Public Health Nurse Consultant, Crippled Children made 47 visits to the District. She conducted a series of four in-service training sessions for staff-supervised nurses and a series of in-service training sessions for a local public health nursing agency.

DENTAL HEALTH

A series of discussions with representatives of the Newark Council of Social Agencies, the Essex County Dental Society, and the Public Health Service Regional Office, related to new approaches to fluoridation of the public water supply in Essex County, was held during the late fall and early winter months. No action program has evolved although there is still considerable professional interest in fluoridation of county water supplies. The Fair Lawn (Bergen County) League of Women Voters initiated formation of a Citizens Committee for Fluoridation which conducted an intensive educational campaign. In Montclair, the Citizens Committee restated its endorsement of fluoridation before the governing body. No action was taken by these officials because of the "controversial" nature of the recommendation. The Social Planning Committee of the Community Welfare Council of Eastern Union County reactivated a study group which explained the question of fluoridation of public water supplies serving the communities of Elizabeth, Hillside, Linden, Roselle, and Roselle Park. As a result of its review of available data, the study group recommended to the Water Commissioners of Elizabeth that the communal water supply be fluoridated.

Approximately \$24,567.00 were spent in four counties for dental health programs in 1957-1958; \$7,947 of this expenditure were State funds. Included in these programs were 10 separate projects in Bergen, Essex, Passaic, and Union Counties. At the present time, all grant-in-aid contracts for dental programs, with the exception of Wanaque, have been signed or agreed upon for 1958-1959.

A postgraduate refresher course in Periodontics, sponsored by the Dental Health Program, was given in June at Fairleigh Dickenson University School of Dentistry, Teaneck, New Jersey.

DIABETES CONTROL

One thousand five hundred and thirty-eight persons participated in a blood-screening program for diabetes, held in Teaneck (Bergen County) in early September. Twenty-eight persons were referred to private physicians for further medical examinations. This survey was planned and conducted by District and Program personnel in cooperation with the Bergen County Tuberculosis and Health Association. Interpretation of the program by the Diabetes Public Health Nurse Consultant and efficient sampling methods employed by Venereal Disease Program personnel were largely responsible for the success of the program. As its major project for the 1957 Diabetes Detection Week, the Essex County Medical Society, in cooperation with the

Newark Division of Health, organized a mass blood-screening program using the Clinitron method. A total of 974 individuals was screened. Twelve new diabetics were found. More than 20,000 Dreybaks were distributed to local health departments in the District. An effort was made to increase the scope of local health department diabetes detection activities through instructing local personnel in the testing of Dreybaks and reporting of results. The municipalities of Kearny, Summit, Linden, and Roselle Park incorporated these procedures in their programs. Year-round diabetes detection activities were continued in Bergen and Passaic Counties, under the sponsorship of the local tuberculosis associations and medical societies.

TUBERCULOSIS CONTROL

Two thousand three hundred and fifty-four students participated in the Mantoux tuberculin testing program at Jonathan Dayton and Arthur Johnson Regional High Schools, Union County. This represented 80 per cent of the student population at the Dayton School and 88 per cent at the Johnson School. Over 50 per cent of school personnel was also tested. Approximately five per cent of students and 35 per cent of personnel were found to have positive reactions.

A county-wide institute for school and health department personnel, sponsored by the Bergen County Tuberculosis and Health Association, was held in May for the purpose of presenting detailed plans and procedures for a tuberculin program. District and Program staff members served on various planning committees for the institute.

State-sponsored community chest X-ray projects were conducted in areas of high tuberculosis incidence in the District. A total of 153-unit days of survey time was allocated to the municipalities of Newark, East Orange, Orange, West Orange, Irvington (Essex County) and Elizabeth, Linden, Roselle, Summit, and Union (Union County). There were 47,190 individual X-rays taken. Findings indicated 1,446 individuals with suspected tuberculosis, 1,141 with cardiac pathology, and 50 with suspected neoplasms. More than 7,000 persons were X-rayed in an intensive survey of the City of Hoboken. This survey was co-sponsored by the Hudson County Tuberculosis and Health League, the Hudson County Hospital for Chest Diseases, and the Hoboken Health Department. Major emphasis was placed upon community organization and the use of volunteer services. Year-round X-ray screening programs were conducted in Passaic and Bergen Counties.

VENEREAL DISEASE CONTROL

Private physicians, institutions, and clinics in the Metropolitan District reported a total of 2,863 cases of syphilis (93.4 per estimated 100,000 population) as compared to 2,407 cases for the previous year. There were 3,463 reported cases of gonorrhea (112.9 per estimated 100,000 population) as compared to 2,782 cases which were reported for the previous year. However, there continue to be many cases which are not brought to diagnosis and treatment, as well as cases which are found but not reported. During the past year, trained venereal disease investigators working in close cooperation with the local health departments have succeeded in increasing venereal disease morbidity reporting in the municipalities of Newark, Jersey City, Paterson, East Orange, Elizabeth, Passaic, Bayonne, and Union City. Increases ranged from 20 to more than 100 per cent over the previous year.

As part of a continuing educational program in the District, the Public Health Service provided demonstrations of venereal disease interviewing techniques through closed circuit television. More than 250 physicians, health officers, hospital administrators, and other interested health workers viewed the demonstrations and participated in follow-up discussions.

Selective blood-testing programs for syphilis were conducted in Bayonne and Newark during the past year. During these campaigns, 4,306 persons volunteered for a blood test. An over-all reactive rate of 12.4 per cent was found. Out of 534 patients showing reactive blood tests, 257, or 48.1 per cent, were in need of treatment. From January to August, 1958, a special health program was conducted at the Essex County Jail. Three thousand four hundred and twenty-seven persons were tested with a reactive rate of 13.6 per cent. Two hundred and forty-five individuals were found to require treatment.

An unusual case investigation resulted from a private physician's report to the Newark Venereal Disease Clinic of a case of gonorrhea in a 14-year-old male. During an initial interview with the patient, eight sex contacts were elicited. In less than two weeks, a total of 40 teenagers was examined and treated. The average age of the group was 15 years. This age was made higher because of one 30-year-old female in the group. With this exception, the age range was from 12 to 16 years. A graphic "tree of infection" of these cases was prepared for publication in a professional journal.

NUTRITION

One key project of the District Nutrition Program was an educational program to raise the nutritional status of older people living in boarding homes. The project was instituted by the East Orange Health Department, as a result of its concern for the health and safety of senior citizens in the community. Plans for a workshop with boarding-home operators were developed in cooperation with the Visiting Nurse Association of the Oranges and Maplewood, the American Red Cross, county and local welfare agencies, and the District Consultant, Public Health Nutrition. The meetings with the operators were led by the American Red Cross Nutritionist. They were held in different neighborhoods to encourage better attendance and to allow full discussion of food and nutrition problems.

A guidebook for boarding-home operators, entitled "Feeding Older Folks," was developed by the District Consultant, Public Health Nutrition for use in the workshop meetings. The booklet includes a daily food guide for older persons, menu suggestions, and ideas for planning, preparing, and serving attractive and nourishing meals. It was printed by the State Department of Health and copies were distributed to health departments and nursing agencies for use with boarding-home operators.

Continued efforts were made to integrate nutrition in the health programs of various agencies at the county and local level. This was accomplished through consultation in program planning with voluntary and official agencies interested in promoting food and nutrition projects. Cooperative planning took place with such groups or individuals as county extension agents, Home Economics Association, teachers, school nurses, Young Women's Christian Association health directors, county heart associations, county tuberculosis and health associations, American Red Cross chapters, health departments, visiting nurse associations, and other groups.

A nutrition problem that was brought to the attention of the District Consultant, Public Health Nutrition concerned the poor eating habits of many Puerto Rican families. Consequently, in-service training of nurses included discussion on food patterns of the Puerto Ricans and how they can be helped to use foods found in this country in order to improve their food habits. Requests for materials printed in Spanish came from public health nurses in Newark, Paterson, Jersey City, and Hoboken. Leaflets in Spanish will be available from the State Department of Health to meet the requests of nurses for such materials.

Staff education programs for visiting nurse associations was another District activity. Nutrition was included in the in-service training programs of

the nursing agencies in Summit, Hoboken, Jersey City, and Newark. A discussion on Nutrition in Maternal and Child Health was on the staff conference agenda for State-supervised public health nurses in Bergen, West Hudson, Passaic, and Union Counties.

Continuous nutrition services were rendered to the Newark Visiting Nurse Association. These services included orientation sessions with new staff nurses and student nurses and consultations with individual nurses on various nutrition and food problems.

PUBLIC HEALTH NURSING

At the end of the fiscal year, the District was supervising the work of 69 local official nurses in 40 communities; during the year, 14 State-supervised nurses resigned and 18 replacements were secured. At the beginning of last fiscal year, there were four vacancies.

Public health nursing supervision was discontinued in 13 municipalities in Bergen County and in two municipalities in Union County. Following the discontinuance of public health nursing supervision, two municipalities in Bergen County abolished the position of public health nurse.

All local boards of health receiving State supervision adopted the new Public Health Nurses Daily Report (PHN-7) and the Public Health Nurses Summary Report (PHN-8). All local nurses were supplied with these records and reports and were instructed in their use. These completed the adoption and use of the generalized public health nurse record system.

"Medical Policies" for local public health nurses were approved by the Passaic County Medical Society. The policies were adopted by the nursing agencies in the county and became effective in April, 1958.

An "Eye Symposium," sponsored by the New Jersey State Commission for the Blind, was held during May in Hackensack. District nursing staff participated in planning for the symposium.

The annual "Home Safety Conference," sponsored by the New Jersey Safety Council, was held in Newark during March. The theme of the conference was "Growing Older Safely." District public health nursing staff and local nurses attended. Two of the public health nurse supervisors are serving as members of the Bergen and Hudson County Safety Councils.

During the year, the public health nursing staff attended 81 meetings. Two hundred and seventy-one consultations were held with local official and voluntary agencies. District nursing staff attended 10 meetings for the purpose of planning nursing institutes.

Nursing staff education included eight District staff meetings. The District Chief Public Health Nurse held nine staff meetings with public health nurse supervisors. The public health nurse supervisors held eight meetings with State-supervised nurses. In-service training for State-supervised and local nurses consisted of 15 sessions. The topics covered included chronic illness, crippled children, maternal and child health, nutrition, visual aids, and family counseling. The total attendance was 582. The work of the public health nurse supervisors included the orientation and training of 18 new State-supervised public health nurses. The supervisors held 576 individual and group conferences with local nurses and accompanied them on 531 field visits. Forty-six visits were made to crippled children contract agencies. Thirty supervisory visits were made to the 16 active, licensed midwives in the District. Ninety-five direct nursing service visits were made.

The Public Health Nurse Consultants made 106 visits to the District.

PUBLIC HEALTH SOCIAL WORK

A formal, well-organized, written plan of study for orientation was presented to the District Consultant, Medical Social Rehabilitation. The plan set forth areas of study which would give a broad background of the procedures, practices, accomplishments, and future goals of the State Department of Health.

The orientation plan had been prepared by the District State Health Officer; the State Consultant, Medical Social Rehabilitation; and consultants in other areas in the District staffs.

Interviews were planned and executed with directors of six health and welfare agencies, including nursing services, community planning organizations, homemakers, local health departments, and agencies concerned with a specific disease control program.

The District Consultant, Medical Social Rehabilitation prepared written plans giving long- and short-range goals for Public Health Social Work Program plans for Metropolitan District. These plans were reviewed with the District State Health Officer in reference to their timeliness and priority of importance.

The plans included projects

1. To strengthen and raise the standards of medical-social services in hospitals, sanatoria, and other settings where programs have already been established.
2. To promote, encourage development of demonstrations, and clarify the value of trained medical-social workers in the restorative services

programs. This is to be done through short-term, limited studies of services to patients in out-patient clinics in reference to certain illnesses. A long-range project of this kind would be carried on by a medical social worker on a grant-in-aid program.

3. To work with community groups and boards toward total services for the individual's well-being; to assure that services are meeting the needs of individual families without duplication of services.
4. To plan and execute two demonstrations:
 - a. Home Care Program—this to include a complete team: doctor, nurse, physical therapist, social worker, nutritionist, occupational therapist, speech therapist, and laboratory technician. This is to be done in combination with a private insurance company and an industrial plant.
 - b. A second demonstration program would be to establish a "Keep Well Station" for the persons over 65, where periodic health examinations for specific disease case-finding and follow-up on patients would be carried out to see if they have been able to make continued, suitable medical plans as well as financial, social, and recreational plans to meet their total needs.

MATERNAL AND CHILD HEALTH

The District supervised the work of 48 Child Health Conferences, 39 having State-paid physicians and nine others in which the physicians were paid locally. In addition, 36 local municipalities conducted Child Health Conferences which were not supervised by the District. Supervision of three Child Health Conferences was discontinued.

With the help of the Program Coordinator of the Maternal and Child Health Program and the Public Health Nurse Consultant (MCH), considerable progress was made in improving the standards and operation of State-supervised Child Health Conferences. A meeting of Child Health Conference physicians was held in June. The Program Coordinator, Maternal and Child Health discussed the policies, standards, and operation of the Child Health Conferences. The introduction of new and revised material and child health record forms for Child Health Conferences and midwives aided in raising the standards of performance. Public health nurse supervisors, State-supervised nurses, and midwives were instructed in the use of the forms.

A statistical evaluation of 39 State-supervised Child Health Conferences, covering the first quarter of 1958, was completed. Review of the evaluations

indicated areas for improvement, such as initiation of appointment systems, increasing attendance, and including immunizations in the programs of all Child Health Conferences. "Qualitative Evaluations" of 39 Child Health Conferences are now in progress and will be completed by the end of 1958.

During 1957, 16 licensed midwives delivered 48 mothers. The number of deliveries per midwife varied from one to 10. Through group instruction, more intensive supervision, and the use of the improved records, considerable progress was made in improving standards and techniques of active midwives. Prenatal patients registered with midwives are now reported to the District office. District nursing staff refers these patients to local agencies for public health nursing supervision. Unattended births occurring in the District were investigated and reports were sent to the Program Coordinator of the Maternal and Child Health Program.

NORTHERN STATE HEALTH DISTRICT

District Administrative Plan

The Northern State Health District encompasses the five counties of Hunterdon, Morris, Somerset, Sussex, and Warren. At the close of the fiscal year, the staff consisted of 22 persons including the District State Health Officer, Public Health Physician, District Chief Public Health Nurse, Public Health Veterinarian, District Consultant in Community Health Organization, Public Health Nutritionist, Public Health Engineer, Principal Sanitarian, Senior Sanitarian, Sanitarian, Assistant Sanitarian, Rabies Control Warden, four Public Health Nurse Supervisors, and six office personnel.

Within the framework of available personnel and in line with established policies and priorities, the present unit functioned as a team in integrating and coordinating Departmental programs with the practice of local public health personnel for the purpose of the promotion of better local health services through:

1. Analysis of health needs, formulation of plans and development of program content.
2. Promotion of cooperative programs by official and voluntary agencies.
3. Provision of qualitative, consultative and advisory services in public health activities.
4. Direct service in emergencies.

These responsibilities were discharged by the District staff in accordance with community needs, requests, and development of program.

Increasing suburbanization in the District has had a marked effect on the type of services rendered and has materially influenced measures and procedures necessary to plan for program objectives. Population increases in the District over the 1950 census figures as noted at the close of the 1957-1958 fiscal year were as follows: Hunterdon 12 per cent, Morris 27 per cent, Somerset 24 per cent, Sussex 16.7 per cent, and Warren 10.5 per cent. The extremely rapid growth of population in the District, accompanied by the rapid influx of industry and causing a transition of predominantly rural farm areas into urban communities, presents numerous health problems. The most pressing are the provision of a sufficient, safe and potable water supply and the proper disposal of sewage, including the constant surveillance and improvement of sanitation of both home and community. Though the designated work load in man-hours for the environmental health activities in the District was in excess of the number of work hours presently available, emphasis of the staff has been on quality control and promotional effort.

The needs for expansion of all other services, including public health nursing and chronic disease control, are equally imperative to ensure to our citizens the best results of present-day knowledge for the practice of healthful living. The nature of the work performed by the nursing staff has also changed in the light of significant trends in the District. More assistance is now being given to existing nursing agencies to help these agencies to expand and improve the quality of service rendered. Several counties are working toward consolidation of their nursing services, whether this be the establishment of new agencies on a county basis (Hunterdon) or combination and consolidation of existing nursing agency services (Somerset). Complete public health nursing services will thus be available for purchase by municipalities as well as by citizens on a basis which is financially practical and feasible.

Increased awareness by voluntary hospitals of the broad aspects of and the need for comprehensive services in the area of rehabilitation has been evident in all five counties in the District. This in turn has emphasized the scope in leadership and skill needed for careful observation of fundamental standards and bases of community health services as well as for amalgamation of all resources, including personnel and finances.

In the light of the above developments and requirements for sound public health practice, the following is a summary of the major efforts of the District staff in fulfilling its responsibilities.

COMMUNITY HEALTH SERVICES

Hunterdon County—District staff participated in many meetings with the Hunterdon Nursing Committee to plan for a coordinated generalized nursing service. In early spring, the recommendations of the Nursing Study Committee were outlined as follows:

1. That the Hunterdon County Public Health Association assume the responsibility for promoting a coordinated public health nursing service in Hunterdon County through the establishment of a comprehensive visiting nurse type association which will accept fees for services rendered.
2. That the Hunterdon County Public Health Association Board of Trustees take the following steps toward accomplishing this goal:
 - a. Authorize the appointment of a nursing committee to employ appropriate consultative—administrative staff personnel; direct their activities; and establish personnel policies.
 - b. Accept and disburse funds to carry on the program.
 - c. Enter into contracts for nursing services after appropriate planning, organization and education.
 - d. Formulate further plans as necessary and report such plans to the Board of Trustees at its regular meeting.
3. That the president appoint a nursing committee in accordance with the by-laws of the Association.
4. That the president dissolve the 1957 Public Health Nursing Study Committee with the commendation of the Board.

Orientation and interpretation of the proposed nursing plan have been jointly presented by the Nursing Committee and District staff to three township committees and boards of education. The team has been generally well accepted and the time spent in this endeavor indicates an acceptance of the proposed nursing program.

Efforts are still being directed toward locating a qualified Nurse Director and, in the meantime, new nurse replacements are being made to provide a continuous nursing service in the communities currently receiving such service.

Somerset County—During the summer of 1957, a joint committee of the Somerset County Council of Social Agencies, the Somerset County Medical Society, and the Greater Somerset County Association prepared a resolution endorsing county coordination in public health through the establishment of the position of a county public health coordinator and petitioning the Board of Freeholders to take such steps as are necessary to establish such a position. It was the intent of the joint committee that the purpose of the county coordination would be further implemented through the employment of a first-class sanitary inspector who would be available on a per diem contract basis to municipalities who would elect to contract for these services. The State Health Department agreed to assist the county in its efforts by means of a grant-in-aid.

By fall, the resolution had been adopted by all three parent organizations. Plans were made for presentation of the resolution to the County Board of Freeholders and the municipal governing bodies as well as for discussion of the method of its implementation.

A detailed outline was also prepared and the resolution and outline were sent to municipalities which had indicated a willingness to participate. Further discussion and interpretation of the proposal by representatives of the joint committee were offered. As a result of the informal meetings with the Freeholders, it was evident that specific action by the Freeholders would be contingent upon the interest manifested by the communities in Somerset County. Representatives of the joint committee met with one of the voluntary agencies and with Bridgewater Township and Montgomery Township officials. Early in June, representatives from all local boards of health in the county were invited to attend a general meeting for discussion and interpretation. Tentative plans were then made for setting up an orientation session during the summer months to enlarge the "speakers bureau" and to prepare for specific interpretation and detailed discussion to be carried out in the fall with each local board of health and with citizens groups.

One local board of health, Bernardsville, committed itself in writing to the endorsement of the proposal. Two other boards of health requested their own members to review the proposal in detail and report their findings at regular board meetings. There seems to be general agreement in the county with the need for a coordinator. This was evidenced through many informal meetings carried on during the year as well as by the efforts of all the health-related agencies to keep themselves informed of developments.

District nursing staff has been assisting two public health nursing agencies in the county (Community Service Society of Bound Brook and the Somerset Valley Visiting Nurse Association) in their planning for the merging of their

nursing services. This consolidation of service will provide for improved and expanded program. A request for grant-in-aid funds for a public health nurse supervisor to aid in this endeavor has been submitted for budget approval.

The transfer of the Somerville Elks nursing caseload to the Somerset Valley Visiting Nurse Association culminated many years of planning and discussion. This will provide a generalized nursing service to these cases and their families.

The Elks program in Somerset County will be directed toward the provision of treatment facilities at their out-patient center. Diagnostic and consultative services will be available at Somerset Hospital.

Warren County—Early in the fall, conferences were held with representatives of the Warren County Survey Committee regarding compilation of the information contained in Part II of the Warren County Survey. Because problems of a technical and professional nature arose, statistical assistance was requested. The State Department of Health agreed to assist the Warren County Welfare Council with a grant-in-aid to cover the anticipated consultation fees. The evaluation is expected to be completed by early fall.

An Advisory Council of the new Warren Hospital was organized in the fall to assist the new hospital in rendering the best possible service to the community through interpretation of program, plans and problems of the hospital and to express opinions, sentiments and suggestions of the community to the hospital board of trustees. All of the members of the Health Committee of the Warren County Welfare Council were asked to be members of the new Advisory Committee.

The Warren County Hospital Board requested assistance from the District as well as from the new Advisory Council in planning for the rehabilitation needs of the county. With the new hospital expected to open on September 1, 1958 particular assistance was sought by the hospital for the development and establishment of a comprehensive rehabilitation program. By the end of the fiscal year, practically all of the community organizations concerned with any aspect of rehabilitation have concurred in the need for a comprehensive program and have indicated their willingness to pool facilities and resources to implement such a program.

The Health Committee of the Warren County Welfare Council continues its efforts to develop a county generalized nursing service. The added health facilities of the new Warren Hospital will provide many additional resources for care for the citizens of this county and will ease, to some degree, the functions of the nursing staff in seeking these services for their patients. Grant-in-aid funds for nursing personnel for a county-wide program have been requested.

Other District Activities—Late in the fall, District staff held a conference to plan for the Council for Local Public Health Services meetings in the District in the late spring of 1958. Preliminary planning meetings were held in each of the five counties throughout January and February to explore the interest, reaction to and participation in such a District conference. The Northern District Conference for the Council for Local Public Health Services was held at the Far Hills Inn on May 7. Each of the five counties in the Northern District presented a short summary of outstanding or unique health activities. The principal speaker of the evening was Dr. Jackson Davis who presented an interesting and enlightening discussion relating to the formation of the Bucks County Health Department. There were 79 representatives from official and voluntary agencies in the District attending the meeting.

Consultation sessions for local boards of health regarding the annual report were held in each of the five counties early in 1958. Eleven per cent of the entire District was represented at these conferences. Although this method obviously was not successful in securing better participation by the local boards, those who did participate found the experience valuable.

The Northern District Health and Sanitary Association held its annual dinner meeting in the spring. Dr. Harold Hatch, Medical Superintendent of Shonghum Mountain Sanatorium, spoke on the subject of radiation hazards. Over a hundred members attended the meeting.

Phillipsburg (Warren County), with grant-in-aid assistance from the State Department of Health, has hired a full-time licensed health officer, culminating years of effort to improve the availability of health services to the residents of that town. The Board of Commissioners has also appointed a lay Health Committee to assist in the study of health needs and problems in the community and to serve as an active and interested complement of the plans and projects of the Health Department. The Health Committee itself is made up of representatives of several of the professions as well as interested citizenry. Some interest is evident in the reappraisal of nursing services available to the community and to the school and the possibility of integration of service. It is anticipated that this step taken by the town of Phillipsburg will have a marked effect on the quantity and quality of public health practice in the surrounding municipalities and in the rest of the county.

During the past year, three complete courses for baby sitters sponsored by the Junior Woman's Club of Dover (Morris County) were held in the Dover schools. One hundred and twelve teenagers attended and completed the course which included sessions on baby care-child care, security and fire safety measures, first aid, and ethics of baby sitting. This project had been worked out with members of the local board of health, the medical profession, school personnel, representatives of the police and fire departments, the New Jersey

State Safety Council, and with assistance and consultation from the District office. The efforts expended to focus community agency action on this particular project have resounded in many other co-sponsored projects with the Junior Woman's Club and other groups and organizations in Dover and have served to emphasize the fact that community action is a two-way street.

CIVIL DEFENSE

District staff attended the three training sessions in Civil Defense given early in January, 1958, participated in Operation Opal 1958 as members of the Medical and Health Services staff at the State Control Center, and also participated in the Radchem Training Course held at Montclair State Teachers College.

The District furnished a speaker for a county civil defense course on emergency mass feeding.

Administration Programs

HEALTH EDUCATION

Health education consultation has been provided to staff personnel throughout the year more routinely than heretofore. Nursing and sanitation staff as well as the other disciplines are integrating their health education efforts on specific and on joint problems.

A series of five broadcasts dealing with public health nursing, environmental sanitation, nutrition, veterinary public health, and community health organization were presented over the Washington radio station (WCRV) during May and June. District staff prepared the scripts and participated in the broadcasting. Arrangements were then made to present a similar series in Morris and Sussex Counties in the fall over stations WMTR and WNNJ respectively.

Local health departments and voluntary agencies in the District have requested and received assistance in planning and using health education methods, materials, and activities as well as program.

Assistance was given to the Warren County Health Committee in preparation for its presentation at a panel discussion relating to the survey at the Annual New Jersey Welfare Council Meeting in Asbury Park in the fall.

The State Parent-Teacher Association Health Chairman as well as the Health Chairmen of Morris, Sussex, and Warren Counties met with the District staff early in October. This provided the opportunity to discuss program and projects and explore possibilities of close coordination. At the request of

the Hampton (Hunterdon County) Parent-Teacher Association, the District Consultant, Community Health Organization spoke to the members on local board of health functions and responsibilities.

A member of the District staff participated as a leader of the health workshop for the Fall Regional Conference of the Warren-Hunterdon Region, Diocesan Parochial Parent-Teacher Association. The attendance and response of the workshop group were noteworthy.

In the summer of 1957, volunteers were recruited and oriented to man the civil defense exhibit at the Sussex County Horse Show. The "Talking Mirror" was used by the group with questions prepared by the Medical and Health Services, Civil Defense. The exhibit was well received and over 1,000 questions per day were asked.

A member of the District staff participated as a resource person at the meeting of the National Advisory Committee for Local Health Departments in Philadelphia in the spring.

PERSONNEL AND TRAINING

A telephone courtesy course was held at the District office with assistance from the Telephone Company. Sixteen members of the staff attended the course.

Environmental Sanitation Programs

CAMP AND BATHING

As in previous years, the full-time and day camps located in the District were inspected by our sanitation personnel. Out of a total of 120 camps inspected, 108 were awarded the Department's Certificate of Approval.

For the first time, the Nutritionist accompanied the District sanitarians and some local health officers during their routine inspections of 21 summer camps. Camp directors and their respective food service managers became aware of the services and assistance available through the Nutrition Program.

At a meeting of the Camp Committee, Essex County Council of Social Agencies, the Nutritionist and Public Health Engineer discussed State Health Department services available to camps. The Nutritionist urged that menus be reviewed for adequacy and palatability by a person trained in home economics or related professions. The fact that nutrition consultation is available to camp directors is to be included in the preface of the camp handbook.

Four cooperating lake bathing places were also inspected in accordance with the Program and were issued Certificates of Approval.

HOUSING

Interest in better housing on the part of local communities is evident by the number of requests for information and consultations. In many instances, the local housing problem appears to be only the elimination of a few old buildings or shacks. An over-all control program of housing by local municipalities, while slow in developing, is nevertheless beginning to move ahead.

POTABLE WATER

With the exception of the problems of water shortage brought about by the very dry 1957 summer season, the public water supplies in the District have encountered little difficulty. Additional sources of water are being sought in some areas of the District, notably Netcong, Stanhope, Boonton, Hacketts-town, Parsippany-Troy Hills Township, and the Fayson Lakes area of Kin-nelon Borough.

RAGWEED AND POISON IVY

Roadside spraying by counties and municipalities was continued in Warren, Sussex, and Morris Counties. The pollen count in the areas of Sparta in Sussex County and Madison in Morris County was so low that persons susceptible to ragweed pollen should have encountered very little discomfort.

SOLID WASTE DISPOSAL

As was anticipated, the activity in this Program increased during this period. Inspection of all of the disposal areas in the District was carried out to obtain information and to advise local municipalities of the requirements of Chapter VIII of the Sanitary Code and to offer the services of the District personnel in local planning. In addition to the actual inspections of disposal areas, District personnel have attended meetings with municipal officials and general public in order to assist local officials in accepting and administering a sound Solid Waste Disposal Program.

STREAM POLLUTION CONTROL

Activities under this Program have been primarily those of front-line surveillance and investigation of complaints to determine the extent and seriousness of pollution problems. The major portion of the District's activity under this Program has been in the field of individual sewage disposal. Chapter 199, P. L. 1954 and the "Standards for the Construction of Sewerage Facilities

for Realty Improvements" have been a great help to our local boards of health in the installation of new disposal systems, though the problem of correcting existing disposal systems is ever present. Until more of our local municipalities realize the need for a trained public health official to assume the responsibility for the administration of the environmental health program of their respective municipalities, there can be no real reduction of the direct service activities of the District personnel in this field.

VETERINARY PUBLIC HEALTH

Thirty-seven consultations and investigations were held relative to the epidemiology of 15 types of zoonoses. These involved the total collection and submission to the laboratory of 297 human and animal blood and tissue specimens.

Fifty-six inspections and consultations were held at red meat and poultry slaughtering establishments. These included the examination of products for wholesomeness, the outlining of standards for acceptable environmental sanitation and follow-up for compliance.

District personnel assisted in the administration of 98 anti-rabies inoculation clinics at which 15,106 animals were vaccinated. These figures represent an increase of 2,370 animals vaccinated over the previous year. Thirteen were initial or new clinics. A total of 150 contacts was made with local municipalities and canine establishments in order to assist them in the following manner: conducting surveys, investigating bites involving humans, inspecting kennels (including municipal pound facilities), initiating reports and fulfilling other requirements of the Rabies Control Law. Heads of 96 animals involved in human bites were submitted to the laboratory for diagnosis of rabies.

DRUGS, DEVICES, AND COSMETICS

The sampling of drugs, at the retail level, has been limited severely by budget restriction of travel allotments. It is anticipated that future sampling will be done primarily at the wholesale or manufacturing level.

Drug establishment inspections made jointly with the Program Coordinator will be initiated in September, 1958.

A local health officer in Parsippany-Troy Hills requested accurate information on the nutritive claims of "royal jelly." This was referred to the Committee of the New Jersey Nutrition Council on "Facts and Fallacies" and a copy of its findings was forwarded to the local health officer.

Food

All egg-breaking establishments, refrigerated warehouse and locker plants, and non-alcoholic bottling plants were inspected.

Several cases of food poisoning were investigated, one involving cream-filled bakery products.

Personnel of this District participated in a Restaurant Sanitation Institute sponsored by the New Jersey Health Officers Association, United States Public Health Service, and the State Department of Health.

Pre-planning conferences were held in the fall and winter by District staff with the Mayor of the town of Phillipsburg, the Phillipsburg Regional Health Council, and selected local health officers to plan for the food handlers training course to be held in Phillipsburg in the spring. District staff and the full-time health officers of Morris County prepared and presented the course which was given in April in two sessions, afternoon and evening. In addition to routine content regarding food handling, storage, refrigeration, dishwashing methods and good housekeeping, a short session covering attractive service, eye-appeal and nutritional aspects was included. Time was also devoted to the model code and its interpretation, and a practical demonstration of an inspection of a kitchen and food storage area was included.

The Principal Sanitarian is chairman of a committee which is promulgating a Vending Machine Code which may be recommended to local boards for adoption by reference.

MILK CONTROL

All milk plants, creameries, and raw milk producers, as well as all reciprocity plants in the District were inspected and sampled during the current fiscal year.

The majority of ice cream factories in the District were both inspected and sampled. An increasing number of mobile soft ice cream factories are coming into the District.

Personnel of the District performed some dairy inspections for the Metropolitan District. The general trend among milk companies in the District seems to be toward consolidation; several important mergers took place this past year.

The inspection of milk plants for the Public Health Service Interstate Carrier and Shipper Certification has been transferred to the District. The Principal Sanitarian, being a qualified rater, has performed these inspections.

The District has been provided with equipment and personnel for the testing of high-temperature, short-time, pasteurizing units. Increasing numbers of plants are installing this type of equipment. A course in High-Temperature, Short-Time instrumentation given by the Public Health Service and the State Department of Health was attended by two representatives of this District.

SHELLFISH CONTROL

Shellfish establishments in the District were inspected during the year. All of them are wholesale reshipper establishments.

AIR SANITATION

While District personnel have not been active in this program to date, it is anticipated that the responsibility for field surveys in the enforcement of Chapter IV of the New Jersey Air Pollution Control Code will be carried out at the District level during the coming year.

District staff cooperated with the Metropolitan District and Program personnel in the United States Department of Agriculture gypsy moth spraying and air sampling program.

Disease Control and Constructive Health Programs

CANCER CONTROL

Special assistance was given by District staff in the Canine Malignant Lymphoma Study conducted in cooperation with the Division of Chronic Illness. Municipalities were surveyed in order to determine variables in the canine population. Licensing reports were utilized as a source of statistical data.

CARDIOVASCULAR DISEASE CONTROL

Starting in the spring of 1958, meetings were held with representatives of the five County Heart Associations as well as the nursing disciplines to plan for a heart institute for nurses to be held in the fall and to be co-sponsored by the five County Heart Associations and the Northern State Health District.

By June, the final program was tentatively outlined to cover "New Aspects in the Nursing Care of Cardiovascular Patients." New methods of treatment will be discussed; a case presentation of a patient with myocardial infarction will be made and discussed from the medical, hospital nursing, dietary, emotional, vocational, public health nursing, and family points of view; and the

program will conclude with a demonstration on "Training for Independence in Daily Living." This institute will be held in November, 1958 at the Far Hills Inn, Bridgewater Township, Somerset County.

CHRONIC DISEASE CONTROL

Community awareness of the increasing demands for bedside nursing service in chronic illness have, of necessity, focused attention and direction toward in-service education efforts and also resulted in many meetings in the five counties with local groups to plan for expansion of hospital facilities to meet this need.

Preliminary and planning conferences were held regarding expansion of program to include comprehensive rehabilitation services at Chilton Memorial Hospital (Morris County), the Homestead (Sussex County), and Warren Hospital (Warren County). Physical facilities, personnel, financial support, and community responsibility were outlined and discussed in detail. Proposed plans are being detailed, clarified and reviewed by all agencies involved.

In the fall, District staff participated in the pre-planning conferences and the Chronic Illness Workshop Sessions in Lakewood relating to cancer, heart disease, and diabetes and also in the spring workshop, "Continuity of Care," held in New Brunswick.

Meetings were held throughout the year with local agency and hospital personnel as well as State Health Department representatives in Somerset County to plan for the establishment of a Homemaker Service which was effected during the spring. Space and telephone service were donated by the hospital and funds for a part-time director for the first year's operation were donated by voluntary agencies in the county.

Plans have also progressed satisfactorily for the Homemaker Service in Hunterdon County. Efforts are being expended in securing community support for this service.

COMMUNICABLE DISEASE

The Public Health Nurse Supervisor and State-supervised public health nurses assisted local health officials in organizing and setting up polio vaccine clinics and assisted the physicians who gave the injections. A total of 55 clinics was held at which 4,990 injections were given.

A physician from the United States Public Health Service spoke to 12 public health nurses on Asian flu. Several communities offered Asian flu injections. Five clinics were held with 667 injections given. Public health nursing staff assisted at these clinics.

A survey to determine the relationship between animal and human influenza was conducted cooperatively with the World Health Organization. Specimens from the following species were obtained for laboratory examination: bovine, equine, and porcine.

District personnel assisted in an epidemiological investigation of an Amebiasis outbreak at the New Jersey Neuro-Psychiatric Institute at Skillman (Somerset County).

CONVULSIVE DISORDERS

Monthly consultation convulsive disorder clinics continued to be held in the District. Public health nursing follow-up on selected cases was continued. Twenty-five public health nurses attended an in-service training program for 13 hours in this Program and 60 nurses, teachers, guidance personnel and others attended a District field trip to New Jersey Neuro-Psychiatric Institute.

The quarterly meetings of the North Jersey Council for Convulsive Disorders were attended by District staff and offered an opportunity for discussion with other interested individuals and agency representatives.

CRIPPLED CHILDREN

The District office supervised, under contract, the crippled children work of five local visiting nurse agencies.

The Public Health Nurse Supervisors held 128 conferences with public health nurses and 983 cases were reviewed.

Thirty-eight direct nursing visits were made to crippled children in municipalities which were uncovered for nursing services.

The transfer of approximately 100 records from the Somerville Elks nursing service to the Somerset Valley Visiting Nurse Association culminated many years of planning for a generalized nursing service for these cases. Consultation from the Public Health Nurse Consultant (orthopedics) was arranged to orient the Visiting Nurse Association staff because of this additional caseload and because the Elks nursing program was geared primarily to cerebral palsy children.

There were six cerebral palsy clinics held in the District. Eighty-nine children were examined.

Loss of personnel in Somerset and Sussex Counties necessitated cancellation of therapeutic services for several months. In Somerset County, arrangements were made to provide cerebral palsy children with diagnostic and consultative services through Somerset Hospital where the total team resources

were available. However, physical therapy and speech therapy will continue to be given at the Somerville Elks Treatment Center.

Hunterdon Medical Center provided diagnostic and therapeutic services for the cerebral palsy of Hunterdon County when adjacent county services were no longer available.

The Phillipsburg Elks have added an extra session for orthopedic clinic services. No physical therapy is available in the county.

The Morris County Public Health Nurse Supervisor assisted in the coordination of services for the orthopedic clinic at Chilton Memorial Hospital.

Several home visits have been made by the Nutritionist at the request of the Visiting Nurse Association of Morris County and other public health nurses to assist in eliminating or preventing nutritional problems in the handicapped child. These have been designed primarily to demonstrate to the nurse some techniques which can be used in coping with similar situations in the future.

DIABETES CONTROL

During the summer months and early in the fall, plans were made for diabetes detection in the District. Meetings were held with local health officers, representatives of the medical society, and hospital personnel. A local health officer, two representatives from the medical society, and District staff participated in a radio broadcast over WMTR promoting diabetes detection. Spot announcements also were used by a local radio station.

Conferences were held with the county medical society representatives and St. Clare's Hospital laboratory staff to plan for a blood collection center at the hospital for Morris County. However, due to technical difficulties, this blood collection center did not materialize. A total of 8,741 Dreybaks was distributed with only 456 being utilized and returned to either the local health departments or to the District office. Two hundred and eighty-two were analyzed by the local health departments and 174 by a local hospital. Three new positives were found as well as one previously known case. Results of the hospital laboratory analyses were forwarded to the local health departments for follow-up.

The District nursing staff also participated in the Diabetes Detection Drive by interpreting the purpose of the drive to local agencies, working with local health officials, and, in some instances, distributing Dreybaks.

Follow-up public health nursing visits were made on suspected cases as indicated.

MENTAL HEALTH

During the spring, plans were made with the Morris County Visiting Nurse Association, Morris County Mental Health Association, and the New Jersey Mental Health Association to co-sponsor a fall program on "Continuity of Nursing Care for the Mentally Ill." The program includes a one-day institute early in September for agency directors and supervisors and four seminar sessions from September through December for public health staff nurses. It is anticipated that this program will serve as a training demonstration applicable to other areas in the State as well as to other professional groups.

TUBERCULOSIS CONTROL

District staff participated in several Morris County meetings with health, welfare, school, State agency, and consultant personnel to discuss new trends in this Program. The practical value of the tuberculin test was reviewed and the future tuberculosis testing process in the Morris County schools was discussed. The need for the most accurate test to do the best screening job was emphasized. A total of 9,451 residents in the District participated in the Tuberculosis Program X-ray Surveys and referrals included 459 for tuberculosis follow-up and 194 for possible heart involvement.

VENEREAL DISEASE CONTROL

During the fiscal year, 471 suspects, contacts and diagnosed cases were received in the District for follow-up. Four hundred forty-nine of these referrals have been completed and 22 are currently being investigated.

Follow-up of cases, contacts and suspects was referred to the following: Local boards of health (full-time health officer and public health nurse)—207; State Venereal Disease Investigator—132; Visiting Nurse Association—31; and Public Health Nurse Supervisor—101, totalling 471.

Two full-time health officers, in communities where no local public health nurses were employed, were oriented to the Venereal Disease Program by the Public Health Nurse Supervisor. These two health officers are now doing the venereal disease follow-up in their respective communities.

Three Public Health Nurse Supervisors, 12 State-supervised nurses, and a Director of a visiting nurse association attended a Venereal Disease Interviewing Institute.

Plans to send a clinic nurse from Somerset Hospital to the Detroit Venereal Disease Training Center have been postponed until the fall at the request of the Hospital Administrator.

Consultation with Program personnel resulted in redistricting the Venereal Disease Investigator's area in the Northern State Health District. To conserve time and mileage for venereal disease referrals in the southern areas of Hunterdon and Somerset Counties, the cases to be followed were channeled through to the Central State Health District Venereal Disease Investigator.

NUTRITION

The primary purposes of nutrition activities in the District have been educational, promotional and consultative services in order to achieve or maintain optimal nutrition. These services have expanded considerably during the past year. There appears to be a growing awareness that nutrition education is essential and that improving the status of nutrition has a positive influence on maintaining health.

The Nutritionist discussed sodium-restricted diets as part of the in-service training program for the public health nurses. Though only 12 nurses were present for this session, 25 questionnaires dealing with this subject and prepared jointly by the District Consultant, Community Health Organization and the Nutritionist, were returned by the nurses. These questionnaires listed lack of palatability as the most pressing problem of patients. Other information obtained dealt with economic difficulty, monotony of diet, lack of standardization or understanding of sodium-restricted diets. The importance of including protective foods, by means of interesting meals, while remaining within the restriction imposed by this diet was emphasized. Literature on this subject was obtained from several sources, mainly the Morris County Heart Association.

At the request of the Director of the Visiting Nurse Association of Somerset Hills, the Nutritionist discussed with the staff nurses some methods for inaugurating an educational program for school children who routinely omit breakfast.

The chief of the Dietetic Service of the Veterans Administration Hospital, Lyons had requested nutrition information for families or foster families responsible for the discharged patient. The possibility of providing some nutrition education to these families in conjunction with the social service department is now being given serious consideration.

The operator of a nursing home in Whippany requested assistance in planning menus and improving food service in the home. The existing menus were reviewed, and suggestions for improving their quality and appeal were made. Purchasing and food service were also discussed.

Perhaps the most outstanding project with parent-teacher groups was carried on in a Madison Nursery School where a group of mothers met weekly to observe and discuss the behavior of their pre-school children. Part of one meeting was devoted to consideration of the eating habits of these young children. The Nutritionist acted as a consultant to these mothers during this meeting. More of these groups are planned for the coming years, in hopes that a wider area of Morris County may be served.

The medical director and the cafeteria manager of an industry in Rockaway (Morris County) requested assistance in establishing a nutrition education program for company personnel for the purpose of improving the menu selection of employees. Suggestions made by the Nutritionist consisted of methods for inaugurating this campaign.

The Nutritionist assisted in field training of a student nutritionist from Teachers College, Columbia University, by arranging for observation and participation in some nutrition activities in this District.

PUBLIC HEALTH NURSING

Miss Alma Seber was assigned as District Chief Public Health Nurse on December 1, 1957 upon the transfer of Mrs. Mary Nevin to the Metropolitan State Health District. The public health nursing staff included four Public Health Nurse Supervisors in addition to the District Chief Public Health Nurse.

Because of the needs, administration, program, health and welfare resources and location of individual nursing agencies and local health departments, the public health nursing services provided by the Northern State Health District office have had to be adaptable and flexible. Areas served by a full-time health officer or a well-staffed and administered voluntary nursing agency indicated needs for availability of qualitative public health nursing advisory services particularly relating to public health nursing policies, functions, and responsibilities.

District nursing staff have expended much time and effort in assisting in the development of generalized county nursing services. Major promotional efforts were outlined earlier in this report.

As of June 30, 1958 the District office was supervising the work of 39 local official nurses including five under local grants-in-aid. The years of effort to obtain local support for public health nursing services culminated in the signing of 17 grant-in-aid contracts and the complete absorption of the nurses' salary by six other boards. Also, additional nursing time was requested in some communities. There are now no partially State-paid nurses in the Northern District.

Nursing staff promotional work, including negotiating grant-in-aid contracts, securing local increases, assisting local boards in securing nurse replacements, interpreting the generalized nursing program as well as nursing services in specific programs and including consultation and participation, involved a total of 787 meetings and conferences with local officials and other personnel.

The Public Health Nurse Supervisor spent 148 hours instructing six new nurses, made 157 direct nursing visits aside from 663 field visits with local nurses, and attended 37 clinics and child health conferences. In-service training sessions were held for a total of 93 class hours and included lectures, field visits and observations at clinics. In addition, all public health nurses in the District were given the opportunity to attend the cerebral palsy clinics and Convulsive Disorder Clinics. Each of the field trips to the Black-Stevenson Cancer Clinic and to the New Jersey Neuro-Psychiatric Institute was attended by 60 nurses.

Plans were formulated for an all-day seminar and four additional seminar sessions to be held in the fall, 1958 on "Continuity of Care for the Mentally III" (see detail under Mental Health).

A practical nursing program approved by the State Department of Education and the New Jersey Board of Nursing began in the fall at the Morris Regional High School in Rockaway (Morris County). The course covered a period of one year and included seven months' clinical experience through affiliation with St. Clare's Hospital in Denville or Dover General Hospital in Dover. District staff were called upon for assistance and consultation.

The interest and efforts of several groups in our District to integrate their nursing services have resulted in an increase in requests for assistance from the District nursing staff. Projected needs indicate a greater demand for advisory and consultative services in the ensuing year.

MATERNAL AND CHILD HEALTH

During the calendar year 1957, the State-supervised public health nurses made 49,065 nursing visits in the Maternal and Child Health Program. The visits were classified as follows: prenatal, 4,261; postpartum, 4,449; infant, 15,353; pre-school, 18,785; and school age, 6,217.

As of June 30, 1958 there were eight State-supervised Child Health Conferences in the District. During the fiscal year, Netcong Borough discontinued its Child Health Conference sessions and the public health nurse withdrew from State supervision. The town of Boonton opened a new Child Health Conference station in November, 1957 and the Heckman Terrace Station in

Phillipsburg set up an additional session. Of 176 planned sessions, the physicians attended 154.

District nursing staff made several field visits to State-supervised Child Health Conferences to complete evaluation forms.

During the year, four unattended births in the District were investigated. Reports of the investigations were sent to the Chief of the Maternal and Child Health Program.

There are four licensed midwives in the District, two of whom are retired and do not practice and two who are active. The new midwife forms were sent to them and a follow-up visit will be made to assist in further interpretation. More frequent supervisory visits are planned since the two midwives continue a small, but active, caseload and the implementation of the new required forms and reports will indicate their acceptance of supervision and compliance with recommended procedures.

In the fall, District staff met with the Pre-school Chairman of the Morris County Council of Parent-Teacher Associations to discuss plans for a child observation workshop. A pilot group is being planned with the cooperation of the boards of education and adult school programs in order to educate the mothers in an understanding of the needs and growth patterns associated with the child's normal development process as well as to give the children experience in group activity at a pre-school level.

SOUTHERN STATE HEALTH DISTRICT

District Administrative Plan

The Southern State Health District serves six counties and a population of over 760,000. Its mission, as defined in the District Administrative Plan, is to provide consultation and advisory services, to aid in the establishment of full-time adequately staffed public health units, and to effect local implementation of over 40 individual Program Plans.

Since 1950, the population of the District has increased by about nine per cent. One county, Gloucester, has increased by 12 per cent. As part of the lower Delaware Valley, the area is sharing in the industrial and population growth of the Greater Philadelphia area.

The District's new office was opened on December 27, 1956 with some 2,500 square feet for our use. Partitioning in November, 1957 provided a good-sized conference room, which also serves as a work area for certain field personnel.

A severe handicap to the development and maintenance of adequate local health services is the fact that the District has only one full-time Health Officer and eight part-time Health Officers. None of our communities of over 15,000 has a full-time Health Officer. Camden, with a population of over 134,000, has had no Health Officer since 1954.

COMMUNITY HEALTH SERVICES

In January, a meeting was held in each of the six counties of the District to assist representatives of local boards of health in preparing the annual report to the Department. Representatives from 56 of the District's 129 municipalities attended these meetings. Recognized Public Health Activities of Local Health Departments, as approved by the Public Health Council in June, 1957, were reviewed and discussed. The significance of the coming Minimum Standards of Performance of these Activities was emphasized. This was but one of several instances in which the Department took steps to notify local officials of the events which will relatively soon make it incumbent on each municipality to provide a minimum public health program, as legally defined, for its citizens.

In June, the Camden County Council of Community Services, in which District personnel have been active for over six years, was dissolved. In its place, the Health and Welfare Council of Camden County was formed. The District State Health Officer was named to its board of directors. The new organization functions without divisions; specific assignments are made to project committees as indicated.

The Atlantic County Council for Health, Welfare and Recreation underwent a reorganization, the previous division structure being abolished. The District Consultant for Community Health Organization gave consultation to their new board on several subjects, including dental health services.

Interest developed in Cape May County in the possibility of the employment of qualified public health personnel on a county level. At present, the only county-wide employee in the health field is a public health nurse, jointly employed by the Cape May County Regional Health Commission and the Board of Chosen Freeholders. Several exploratory meetings were held with interested officials and laymen, and the legal possibilities were explored.

The Camden County Council for Community Services, through its Health Division, focused its attention on such needs as public health nursing, rehabilitation, and community homemaker service. A concrete achievement was the allocation of funds by the Community Chest for a survey of public health nursing services in Camden County. This survey was scheduled for the end of 1958 by the National League for Nursing. Four representatives of the

District served in the Health Division or on the Executive Board of the Council during the year.

The Southern District Committee of the Council for Local Public Health Services of New Jersey held a meeting in Bridgeton in November. Some 80 South Jersey citizens representing local and county governments, official and voluntary health and welfare agencies, the health professions, and the lay public heard the Director of the Bucks County (Pennsylvania) Health Department describe the steps taken in the organization of his County Health Department.

The Salem County Council for Local Public Health Services embarked on a county-wide survey of health needs and resources, using the American Public Health Association "Guide to a Community Health Study." Survey committees began work in Elmer and Lower Penns Neck. Plans were made to set up a local survey committee in each of the 15 municipalities of the county.

Our Public Health Nurse Supervisor for Gloucester County served on the board of directors of the Gloucester County Tuberculosis and Health Association. Following a survey of the Association's activities, made through the New Jersey Tuberculosis and Health Association, it was recommended that the presently employed tuberculosis nurse be absorbed in a general program. Plans were made in June to study the public health nursing needs of the county. District personnel will participate.

There was an increasing awareness of health and related problems of the aged. Golden Age and similar clubs were formed in many areas. This is a field in which nutrition education would be helpful. The District Consultant in Public Health Nutrition spoke in March to 48 members of a Golden Age Club and found them to be extremely interested. A continuing committee on the aged was set up within what is now the Health and Welfare Council of Camden County.

HOMEMAKER SERVICES

In an effort to promote community homemaker services, the exhibit of the same name was displayed at six different organizations, in addition to the District office.

The Atlantic County Public Health Nurse Supervisor participated in the formal training of homemakers for the Atlantic County Homemaker Service. Seventeen homemakers completed their course in July and the Service began to take cases on August 1. Initially, its services were not available on the mainland of Atlantic County, but plans were made for future expansion.

The establishment of a homemaker service as an independent agency in Camden County was recommended by a study committee to the County Council of Community Services. Cape May County had an active committee, but interest in some of the other counties was still to be developed.

The District Consultant in Medical Social Rehabilitation participated in the revision of the homemaker training manual, which is used throughout the State.

MENTAL HEALTH

In January, representatives of the Camden County Mental Health Association formally presented their Community Plan for a Child Guidance Clinic to the Executive Board of the Camden County Council for Community Services. The Board commended the plan and also took note of the fact that the child guidance facilities provided or planned by the Freeholders at the Camden County Hospital for Mental Diseases would in no way conflict. The committee's studies indicated that there is a need for several child guidance clinics in Camden County.

In the spring, the Camden County Mental Health Association started a drug distribution program on a pilot study basis at the psychiatric clinics of the three general hospitals in Camden. Ataractic drugs were provided on the psychiatrist's prescription and sold through the hospital pharmacy at a reduced cost, for the benefit of patients who need to be spared part of the cost of prolonged medication. As a member of the Association's professional advisory committee, the District State Health Officer was active in working out the plan for this unique project. It is understood that this is the first such program in New Jersey, if not in the nation.

REHABILITATION

A well qualified coordinator of rehabilitation services in the Department of Physical Medicine and Rehabilitation at Camden County General Hospital was employed on January 2. This was done by means of a grant-in-aid contract and completed the rehabilitation team. Certain items of physical therapy equipment have been provided by our Department. The results from the standpoint of patient care have been gratifying. The social aspects of treatment for these patients loom almost as large as the medical. Conferences with the District Consultant in Medical-Social Rehabilitation were started on a weekly basis to help the coordinator with her orientation. This facility will be more fully used as a community resource as it becomes better known.

Visits were made to Atlantic County to stimulate interest and ascertain the need and facilities for the rehabilitation of the older age group. Comprehensive services are available at one sectarian home for the aged, but little is being done elsewhere.

Administration Programs

HEALTH EDUCATION

To stimulate the improvement of local health education activities, conferences were held by the District Consultant in Community Health Organization, with the health officer and other local officials in a number of the larger municipalities. Recommendations included the installation of literature racks in health department offices and clinics. Emphasis was placed on the adoption of desirable community health projects, such as food handler training courses.

PERSONNEL AND TRAINING

On July 1, 1957 the position of Principal Clerk was filled. This was the first time since the District office was organized in 1951 that all positions in the clerical organization plan had been filled title-wise.

In November, as a result of Civil Service examination, the position of Principal Sanitarian was filled for the first time, thus completing the table of organization in the sanitarian line.

Environmental Health Programs

In a five to six week period, 6,000 or more children, aged five to 13, attend overnight camps in the District. About 500 of these children attend two camps which do not meet minimum public health standards. All camps inspected were receiving Federal commodities, but few of them knew about the availability of the Special Milk Program until the visit by the District Nutrition Consultant. Some camps were in existence for some time and others were newly established. Some camps that were supposedly for overnight lodging were actually day camps. In checking some of these camps, it was found that very meager sanitary facilities had been provided. Several established camps received Certificates of Approval and the ones that did not are slowly providing facilities that will improve their status and eventually make them eligible for certification. The Principal Public Health Engineer and Principal Sanitarian reviewed plans for individual sewage disposal facilities for a Boy Scout camp in the Atlantic City area, and construction of new facilities was begun. Disposal of liquid kitchen wastes was a problem for this camp and had previously resulted in stream pollution.

A sanitary survey was made with the president of a local recreation association to determine the suitability of Wenonah Lake in Gloucester County for bathing purposes. Discussions were held with representatives of several local boards of health concerning their responsibility for the safety of lake bathing.

The annual surf sampling program was carried on during June, 1958. Samples were collected from 65 ocean beaches along the South Jersey shore, from Brigantine to Cape May Point. All of the beaches were satisfactory for bathing at the time of sampling. In most cases, it was possible to have the actual collection of samples made by persons whose services had been arranged for by the local board of health.

HOUSING

Several inspections were made of sites for proposed realty subdivisions. Assistance was given to local boards of health in reviewing plans for individual sewage disposal systems.

POTABLE WATER

Fluoridation of the public water supply of Egg Harbor City was begun in November, 1957. Fluoridation of the Atlantic City supply began in March, 1958. A sampling program was initiated in cooperation with the respective water departments. The Commissioners of the Borough of Collingswood gave careful consideration to providing fluoridation in their municipality.

In the spring, arrangements were made for the monthly submission of water samples from each of seven vessel watering points in the District. This was done following a request to the Department from the United States Public Health Service. Previous practice was to have a Department representative collect samples only at the time of the inspection made in connection with annual certification.

A heavy snowstorm in March caused power failure in many localities and affected several water supplies. Interconnections with other supplies and sufficient storage capacity prevented undue hardship to consumers. However, the Borough of Newfield in Gloucester County was unprepared for an extended emergency. An unapproved well, powered by an auxiliary generator, was connected to the water system. The local board of health was told to issue a notice to all consumers to boil the water. A hypochlorinator supplied by the District office was then installed in the system and used until power was restored and samples were bacteriologically acceptable.

The Ocean City Water Service Company made extensive improvements to its water supply by installing chlorination equipment in five pumping sta-

tions and providing roofs on two standpipes. Alterations were made to other water supplies to increase quantity, improve quality, and maintain adequate pressure.

RAGWEED AND POISON IVY CONTROL

A pollen collection station was maintained at the District office, as in past years. This was one of two stations in the District, the other being located in Wildwood.

SOLID WASTE DISPOSAL

Five new sanitary landfills were started, bringing the total to nine by the end of the fiscal year. Twelve municipalities, with a population of well over 125,000, are served. Thus, about 17 per cent of the District's population was served by sanitary landfills. No sanitary landfills or incinerators were in operation in Cape May, Gloucester, or Salem Counties, but many municipalities throughout the District were active in planning ways to comply with Chapter VIII of the State Sanitary Code. District personnel gave consultation to governing bodies, boards of health, and private contractors regarding the establishment of sanitary landfill operations for 11 municipalities. Help was also given to the Board of Chosen Freeholders of Cape May County regarding the special problems faced by their municipalities because of the large amount of low-lying marshy land.

All of the Sanitarians participated in inspections of disposal areas. Some difficulties were encountered in that some municipal officials were not sure as to the location of disposal areas of private contractors who collect trash, etc. from their municipalities. In others, there were several municipally operated disposal areas. By the end of the fiscal year, most of the disposal areas had been inspected and reports sent to the Program Coordinator, in preparation for enforcement of Chapter VIII of the State Sanitary Code.

STREAM POLLUTION CONTROL

Overflowing cesspools in one section of Delaware Township, Camden County, were investigated. It was found that several private wells in the area showed evidence of contamination. A meeting was held with the mayor and township engineer to discuss the problem and plans were made for definite action. An investigation was made with the Director of the Vineland Health Department of the sewage disposal facilities for a veterans housing project. Subsequent alterations were made to improve the system. These are two examples of types of activity involving District personnel, but the primary responsibility for this Program is carried by personnel of the Bureau of Public Health Engineering.

VETERINARY PUBLIC HEALTH

Public rabies vaccination clinics were held in 54 per cent (70 of 129) municipalities in the District. These municipalities supported over 68 per cent of the total dog population. All six counties were included, though Vineland was the only municipality in Cumberland County to hold clinics. Only 11.3 per cent of the licensed dogs were vaccinated in Vineland. The average for all participating municipalities in the District was 24.2 per cent; the highest participation (28.8 per cent) was attained in Camden County. Of over 68,000 licensed dogs in the six counties, over 11,000 (16.5 per cent) received the benefit of vaccination. It is not known how many dogs were vaccinated by veterinarians in private practice, but the holding of public clinics was a stimulus to owners to ask for this type of protection.

Another year passed without any evidence of rabies in the District, though it is known to be present in the neighboring States of Pennsylvania and Delaware. We feel this status is the product of a simple community formula: an active dog licensing program, the energetic elimination of strays, and the establishment and maintenance of an immune dog population through annual free municipal vaccination clinics.

Inspection and licensing of slaughterhouses were designed to bring about improvement in practice, sanitation, and physical facilities. Persuasion and example were used primarily in our efforts to get better performance, but the lack of a local inspection program in all but two communities of the District was a handicap.

DRUGS, DEVICES, AND COSMETICS

The Principal Sanitarian and the Program Coordinator embargoed a stock of sub-standard multi-vitamins. In another case, a variety of drugs damaged by fire were embargoed. In both instances, the products were later destroyed in the presence of District personnel. Drug samples were purchased throughout the year and submitted to the Laboratory for analysis. There was no activity by District personnel involving either devices or cosmetics.

FOOD

The following are examples of specific activities or problems encountered during the year.

A conference was held with the Director of the Vineland Department of Health and the owner of a proposed egg-breaking establishment concerning the type of facilities to be provided for the operation. The eggs were to be prepared for human use.

A Sanitarian embargoed fire-damaged flour, dried milk solids and a sugar product at a bakery in Landisville.

The Principal Sanitarian helped orient a new sanitary inspector in Pennsauken Township on matters pertaining to food and general sanitation.

Several food establishments in the District paid fines as prescribed by the law for selling hamburger and sausage that contained sulphites.

Churches, fire departments, and other community groups raise money by serving luncheons and dinners. Their facilities are frequently inadequate, making it impossible to prepare and serve foods according to sanitary standards. An attempt was made to contact committees in charge of advertised dinners, and alert them to take necessary precautions.

Samples were collected of low-sodium bread delivered to several general hospitals and submitted for analysis. In some cases, there was no label, the loaf being identified only by a white band. In other cases, the labeling did not comply with Federal regulations. Appropriate letters were sent by the Program Coordinator to the manufacturers concerned, requiring compliance. It was apparent that patients on low sodium diets did not always receive bread as prescribed.

Numerous establishments were inspected and samples obtained in connection with the requirements for the vitamin enrichment of flour. It was found that several small bakeries were not complying, and appropriate corrective action was taken.

MILK CONTROL

The Principal Sanitarian conferred with the president of a company which fabricates mobile ice cream units for clients along the eastern seaboard. This provided an opportunity to give guidance regarding the sanitary features of units which will be operating in the District.

Three pasteurizing plants in the District receive part of their supply from farms in Pennsylvania and Delaware, and District sanitarians included these out-of-State farms in their inspections. The magnitude of the District's routine milk control activities is reflected by the fact that over 300 inspections were made of dairy farms and over 200 inspections of ice cream factories.

AIR SANITATION

District personnel cooperated with representatives of this Program in making inspections of disposal areas that had been burning. About 25 meetings with municipal officials and other responsible persons were held in the District office to discuss alleged violations of the Air Pollution Control Code and bring about compliance without legal action. These conferences involved one or more municipalities in all six counties of the District.

RADIOLOGICAL HEALTH

Following a request from the Public Health Nurse Supervisor, the X-ray equipment in two Department-supervised chest clinics in Atlantic County was checked for radiation safety. In both cases, recommendations were made for improvements in the physical arrangement of the clinics.

Disease Control and Constructive Health Programs

ALCOHOLISM CONTROL

In August, another social worker was added to the staff of the Social Service Department at West Jersey Hospital in Camden. A grant-in-aid contract helps subsidize her salary. In March, a part-time medical-social worker started as a trainee in the "Study Clinic" to gain experience in work with alcoholics. In this way it is hoped to recruit new medical-social workers to the field of alcoholism control.

CANCER CONTROL

During the year, all six Public Health Nurse Supervisors, 42 State-supervised field nurses, and a few nurses from visiting nurse associations observed the Black-Stevenson Memorial Clinic at Presbyterian Hospital in Newark. They all considered this quite a privilege in spite of the difficulty of travel, and undoubtedly gained fresh insights into the problems of care for cancer patients and their families.

In November, a conference of Department and local representatives was held at the cancer diagnostic clinic in the Hammonton Health Center. Arrangements were made with the pathologist of Newcomb Hospital in Vineland to assume immediate responsibility for the processing of Papanicolaou specimens. This activity had been conducted for a number of months by the Bureau of Pathology. The services of this clinic are supervised by the District and operated under the auspices of the Regional Health Commission of Central Atlantic County, with public health nurses paid by the Board of Chosen Freeholders.

CARDIOVASCULAR DISEASE CONTROL

A series of lectures was arranged for South Jersey physicians. These were held, beginning in the fall, at Newcomb Hospital in Vineland and carried credit arranged through the New Jersey Academy of General Practice. The series was jointly sponsored by the Department and the local county medical societies. Payment to the visiting specialists was arranged through the Division of Chronic Illness Control.

On January 27, the first open cardiac surgery was performed at West Jersey Hospital in Camden, on a patient referred from Atlantic City. This represented part of the program made possible through the provision of expensive apparatus, and grant-in-aid assistance arranged through the Division of Chronic Illness Control. Cardiac surgery and the related diagnostic services at West Jersey Hospital have been of great use in Atlantic, Camden, and Gloucester Counties.

A few years ago, a rural cardiac clinic was set up at Newcomb Hospital in Vineland. Equipment was provided and assistance with personnel costs was arranged through a grant-in-aid contract. Experience in the cardiac clinic showed a need for a facility to provide care for cardiac patients with other medical conditions. Partly as a result of this need, a medical out-patient clinic was established.

In Atlantic County, plans were made for the local public health nurses to assume responsibility for nursing follow-up of cardiac patients (mainly rheumatic fever patients) previously supervised on a specialized basis by the Atlantic County Heart Association. Centers were set up in Hammonton and Mays Landing for the distribution of medications for eligible patients residing on the mainland. An in-service training program to orient nurses participating in this service was given, presenting the medical and nursing aspects of rheumatic fever. The Atlantic Visiting Nurse and Tuberculosis Association (now the Visiting Nurse Association of Atlantic City) gave service to patients living on the island. Later, nurses employed by the Atlantic City Bureau of Health assumed some of this responsibility.

Representatives from the New Jersey Heart Association, nursing homes, the Department of Institutions and Agencies, and our Department planned a District-wide program on "Restorative Services for the Cardiovascular Patient." The meeting was held in April in Ocean City; about 200 were present. Subsequently, a permanent committee, composed of representatives from the different interested groups, was set up to plan for further educational programs.

Low sodium diet conferences were held in Ocean City in the fall and in Atlantic City in June, to emphasize the importance of diet and to give sug-

gestions for enhancing the diet. Both conferences of two days each were well received; 40 was the average attendance for Ocean City and 85 the average for Atlantic City. These conferences were the first of their kind held in New Jersey.

The District Consultant in Public Health Nutrition worked with the Regional Representative of the New Jersey Heart Association in planning the new herb-spice leaflet "Flavor Helps." It has been widely distributed.

A course held in Camden County was designed to train women to conduct a work simplification course in their own communities. This was done, for example, by one nurse for all the nurses in the Gloucester County Visiting Nurse Association. Other courses were being planned by Camden, Gloucester, and Salem Counties, to be given in the fall. The course is designed to help the housewife simplify her work at home, thereby giving her more free time, and to help the handicapped person lighten her work, making it possible for her to rest or engage in appropriate activities. The District Nutrition Consultant participated in the planning for the leaders course, together with representatives of the New Jersey Heart Association and County Extension agents.

The District veterinarian contributed to a medical research project at the Johns Hopkins University School of Hygiene and Public Health by obtaining and shipping bovine embryos on two occasions. These were used in tissue culture work in the study of cardiovascular disease.

COMMUNICABLE DISEASE

Epidemiologic investigations were made of a wide variety of communicable diseases. Included, since this type of activity was assigned to the Public Health Veterinarian in April, were brucellosis, typhoid fever, food infections, Rocky Mountain spotted fever, and staphylococcal disease. Earlier in the year, cases of anthrax, ornithosis, trichinosis, and Q fever were investigated and reported.

In cooperation with a world-wide influenza survey sponsored by the World Health Organization, paired blood specimens were collected from horses, cattle, and swine for the assay of antibodies that might indicate susceptibility or past exposure to Asian influenza. The indication for this survey was the relationship to swine established following the 1918 influenza pandemic.

In-service education for Department-supervised public health nurses in the District included two timely subjects, Asian influenza and staphylococcus infection. Some of the latter was reported from hospitals in the District, and consultation by District personnel was provided on request.

District personnel assisted the Department's epidemiologist in collecting specimens during an outbreak of influenza at the United States Coast Guard

Receiving Station in Cape May in August. Positive laboratory evidence of Asian influenza was obtained. A smaller outbreak occurred at the Station in February, when three out of 12 throat washings were reported positive for Asian strain type A influenza. There is a rapid turnover of recruits at this installation.

School boards in a few communities took advantage of permissive legislation and made immunization against poliomyelitis a requirement for admission to kindergarten or the first grade. The Bridgeton school system was the first to take this important preventive measure.

In November, a case of typhoid fever occurred in Gloucester County in a young boy. A case had occurred in another member of the family in 1954, but at that time examination of stool and urine specimens failed to reveal the source of infection. This time, the boy's grandmother was proven to be a carrier, though single specimens from her were reported negative for *Salmonella* organisms in 1954. The known facts in regard to the viability of *Salmonella typhosa* would make it desirable that purged specimens be obtained during epidemiologic investigations.

CRIPPLED CHILDREN

Decentralization of the crippled children case records was completed for the last two counties, Cape May and Cumberland, and all the Public Health Nurse Supervisors assumed greater responsibility for this Program. There are some areas without a local public health nurse in the community, notably in Cape May, Camden, and Salem Counties. In some of these areas, school nurses make home visits, but no services are available from visiting nurse associations to offset the lack of a community-wide service.

Nursing consultation visits were made with the Public Health Nursing Consultant to all contract agencies for the purpose of evaluation and recommendations. Periodic visits for the guidance of agency personnel were made by the Public Health Nurse Supervisors.

Transfer of many children to United Cerebral Palsy clinics was effected and will be continued until all children are under supervision. State Cerebral Palsy Clinics for diagnosis and consultation were held bi-monthly in Camden County.

Many nurses attended the Symposium on Restorative Services for the Handicapped in Atlantic City in November, 1957. Also of interest to nurses was the educational program provided at Dr. Phelps' clinic; 62 persons—most of them nurses—attended the consultation clinic held in August by the State cerebral palsy consultant.

United Cerebral Palsy of Atlantic County (which also serves Cape May County) was reorganized and their clinic services coordinated with those at the Children's Seashore House in Atlantic City. Program and District personnel participated in the planning, and assisted agency personnel in getting their clinic services on a sound administrative basis.

For several years, the services of a speech therapist were supplied in the Camden area, primarily for the benefit of physically handicapped children. This service was financed by a voluntary agency, which found it necessary to discontinue the service. In the fall, the therapist transferred to Camden Municipal Hospital and a grant-in-aid contract with the city of Camden, which took effect on November 1, permitted the continuation of the service. However, in view of the facilities available to Camden County children through United Cerebral Palsy of Camden County, all cerebral palsied children requiring speech therapy were referred to their clinic.

DENTAL HEALTH

In November, arrangements were made for closer liaison between the District staff and the Dental Supervisor for the South Jersey area. The Supervisor's attendance and participation in District staff meetings aided greatly in the exchange of helpful information.

The Salem County Dental Clinic for indigent school children, a project sponsored by the Salem County Council for Local Public Health Services, has now been in operation for several years. It has received financial support through an annual appropriation from the Salem County Board of Chosen Freeholders. The Bureau of Dental Health continued to provide the services of a dental operator.

DIABETES

In connection with the annual Diabetes Detection Week in November, the Diabetes Detection Committee of the Gloucester County Medical Society sent a questionnaire to all members, stressing the need for routine testing of patients for glycosuria. The questionnaire asked each physician to indicate the percentage of his general patients tested.

Most of the local health officers took part in the detection campaign in November. A large industry in Delaware Township, Camden County, and the Camden County Parent-Teacher Association also participated.

MIGRANT HEALTH

The only stationary clinic in the District was opened for a few weeks in July and August. The trend toward increased mechanization in large farming operations resulted in a substantial decrease in the number of migrants in need of venereal disease control and dispensary services. It was decided in June that there would be no need to open the clinic during the summer of 1958.

TUBERCULOSIS CONTROL

Early in 1958, county tuberculosis association executives were informed that time available for mass chest X-ray surveys would be very limited and that priority would have to be given to Camden and Atlantic City. Camden is the only city in the District with a population of over 100,000. In 1955, it had the second highest tuberculosis mortality rate in New Jersey and ranked third in the United States among cities of over 100,000.

The Public Health Service statement counselling against excessive use of chest X-rays and against use among relatively non-productive population groups created much interest. It, plus the restrictions in available survey time for 1958, tended to make many local authorities consider tuberculin testing as a case-finding method. Tuberculin testing was instituted, in cooperation with the county tuberculosis association, in two elementary schools in Gloucester County. Provision was made for X-raying positive reactors. In May, the tuberculosis associations of Gloucester and Salem Counties sponsored a meeting at which various speakers discussed tuberculin testing.

In April, the first executive of the newly formed Atlantic County Tuberculosis and Health Association was employed. The functions of this agency were previously carried out by the Atlantic Visiting Nurse and Tuberculosis Association, whose activities on the mainland of the County were very limited.

In Atlantic County, the most important nursing activity was a study of case records and follow-up of patients.

This was done by the Public Health Nursing Consultant, in response to a request from the District. A conference was also held with the Program coordinator and representatives from Region II, United States Public Health Service, regarding the improvement of clinic records.

Plans were made for the District Consultant in Public Health Nutrition to demonstrate nutrition teaching for clinic patients at the Mays Landing Chest Clinic. Improvements were made in the physical setup of the clinic, and the Consultant began her work in the spring. It is the Consultant's objective to train the clinic nurses so that they can incorporate nutrition counselling in

their work with individual patients. Since the same nurses make home visits, they have a real opportunity to follow through with education in the home.

A District-wide in-service education session was conducted by the Program Coordinator and the Public Health Nursing Consultant. Nurses also took advantage of the educational programs of the annual meeting of the National Tuberculosis Association held in Philadelphia in May, 1958.

Problems were met in some areas which showed the need to incorporate tuberculosis nursing as part of a total nursing program. It is not satisfactory for one nurse to provide therapeutic care, another nursing follow-up, and another, interested in community nursing, to have no knowledge of the diagnosis. The National Tuberculosis Association and the New Jersey Tuberculosis Association and the New Jersey Tuberculosis and Health Association have urged that the county associations give up the employment of specialized nurses. In Atlantic County and Camden County, specific steps were taken in that direction.

VENEREAL DISEASE CONTROL

In October, in cooperation with the Public Health Service and the Atlantic City Bureau of Health a mobile interviewing school was set up in Atlantic City Hospital. Closed circuit television was used and served as a useful medium for the orientation of public health nurses and others concerned in Atlantic County and nearby areas.

In May, a special house-to-house serological survey was made in selected areas of the city of Camden; over 5,100 specimens were obtained from persons between the ages of 16 and 60 during a 15-day period. There were 426 reactors, giving a positivity rate of 8.3 per cent. The national average is six per cent on blood surveys. Follow-up of the reactors showed 183 persons brought to treatment at special Health Department clinics, 208 persons with previous treatment adequate, and 23 biological false positives.

The survey was sponsored by the Camden City Department of Public Health and the State Department of Health. Both United States Public Health Service and local health department personnel participated. The survey was unusual in the extent and intensity of the house-to-house canvassing, the largest such operation ever conducted in New Jersey.

NUTRITION

In 1953 and 1954, the District Consultant in Public Health Nutrition participated in a nutrition education project among Puerto Ricans in Camden. Her report on the project was used during the past year as a guide for home economic students at the Drexel Institute of Technology in Philadelphia. It

was also used by the Camden regional office of the Department of Labor of the Commonwealth of Puerto Rico, as a guide for nurses of the Visiting Nurse Society of Philadelphia, and for nutritionists of the Philadelphia Department of Public Health.

In February, a survey of hospitals in the District was made regarding the staffing of hospital kitchens with members of the American Dietetic Association. Such membership is recognized as showing the attainment of a desirable level of professional competence. Nine American Dietetic Association member dietitians were employed in seven of 15 hospitals. There were seven persons in charge of diet kitchens in as many hospitals who did not have a professional degree. In two hospitals, American Dietetic Association dietitians were on the staff, but non-American Dietetic Association dietitians were in charge.

The nutritional status of the handicapped child, whether physically or mentally handicapped, is very important. The District Consultant in Public Health Nutrition had an opportunity to discuss nutrition problems with 28 parents in the Camden County Child Study Group for the Mentally Retarded. This group is made up of parents having retarded children in the special classes at the Collingswood Training Center.

Many areas were without electricity during bad winter storms, causing homes to be without light, heat, refrigeration, cooking facilities and water. Because of this, there were numerous requests for information on emergency measures.

PUBLIC HEALTH NURSING

When the District was established in 1951 there were 22 partly State-paid nurses on the payroll. Today there are no nurses in that category. This has been accomplished primarily through the use of grant-in-aid contracts. Supervision is given to about 65 locally employed public health nurses, and seven visiting nurse associations holding contracts for nursing services to crippled children.

In January, formal action was taken to dissolve the Atlantic Visiting Nurse and Tuberculosis Association. Nursing activities were continued through the newly formed Visiting Nurse Association of Atlantic City, under the same director. There is no organized service for bedside nursing in any community on the mainland of Atlantic County, such care being provided in some instances by a single local nurse or by one employed through the Board of Chosen Freeholders. Unfortunately, the Freeholder nurses functioned without nursing supervision, except for three assigned to communicable disease work in the District's Mays Landing office.

Action was taken early in 1958 by the Camden County Community Chest to allocate funds for a survey of public health nursing services by the National League for Nursing. This was done on the recommendation of the Council of Community Services. The survey was scheduled to be made late in 1958.

Twelve grant-in-aid contracts were in force during the fiscal year, under which graduate nurses or public health nurses were employed by local boards of health. These involved all counties except Salem and involved the commitment of over \$12,000.00 of Department funds.

In June, the last of several grant-in-aid contracts was signed with local officials in Cape May County, permitting the resignation of a public health nurse from the Department by the end of the fiscal year. This was the last locally paid field nurse to be taken over entirely on local payrolls.

The turnover among local public health nurses was high. Forty per cent of the 20 resignations during the year were caused by withdrawal to full-time school nursing. The large number of replacements required much time for orientation. In many areas, increases in the number of part-time nurses occurred. Three positions were abolished, nine vacancies existed, and plans were completed for four replacements.

The supervisory staff continued to make every effort to retain nurses and increase needed services. Parochial school nursing was added to the services rendered by public health nurses in three communities. Increases in nursing time were effected in all counties except Cape May. It is hoped that continued efforts will result in a more unified plan for public health nursing. Three counties were planning to study public health nursing services.

Educational programs were provided in many phases of public health nursing. In addition, nurses availed themselves of the opportunity to attend local, regional, State and national meetings of interest. In two counties, Public Health Nurse Supervisors participated in the education programs of private agencies.

New nurses were oriented, in part through a day spent in the District office. Each of the professional staff members told the nurses about the program activities for which he or she has primary responsibility. A number of nurses from private agencies attended these sessions.

One Public Health Nurse Supervisor and 20 locally employed staff nurses working under Department supervision pursued college courses during the year. Three staff nurses have their B.S. degrees. Eleven nurses have no college credits, and the rest have varying amounts. In reviewing the college courses taken by the staff, it was seen that the majority secure the credits required by law for a school nursing certificate. Many of these courses were taken at Glassboro State Teachers College. Of the 20 pursuing studies during

the year, seven had not taken public health nursing. Three had not taken school nursing.

The new record forms for daily and monthly service reports were introduced in the summer of 1957 and are now in general use by State-supervised nurses. These forms represent a considerable improvement over their predecessors and make a much better supervisory tool.

Supervisors' meetings were held regularly throughout the year. In addition to the business part of the program and orientation to new services and procedures, educational aspects were considered. The Public Health Nurse Consultant for Maternal and Child Health presented the new record forms of that program. The District Consultant in Public Health Nutrition and the District Consultant in Medical Social Rehabilitation each participated once in a program relating to their specialties.

PUBLIC HEALTH SOCIAL WORK

The District Consultant in Medical-Social Rehabilitation continued to serve as a member of the social work practice committee of the Philadelphia-Camden Social Service Exchange which has been concerned with the integration of good inter-agency communication into agency practice. She was also active in the South Jersey Chapter of the National Association of Social Workers.

Consultation was given to the social workers at several hospitals. Requests for consultation on specific case situations were handled directly, or referred to the other members of the District staff when indicated. A number came from hospitals, but equally as many came from individuals, social and health agencies, and one came from a Freeholder in Cape May County.

MATERNAL AND CHILD HEALTH

Since the end of 1957, arrangements have been in effect with all three general hospitals in Camden to furnish the District office with a monthly list of expectant mothers, as they register for prenatal care. In the case of one of the hospitals, referrals have been made since the end of 1953. The names listed are promptly referred to the appropriate public health nursing agency in Camden or Gloucester County, so that the local nurse can cooperate with the hospital clinic, assist the family in getting ready, and help the mother care for the baby. Similar arrangements have also been in effect between the Public Health Nurse Supervisor and a few other hospitals—e.g. in Atlantic County—where prenatal clinics exist.

Three District-wide in-service education programs were held during the year for Department-supervised public health nurses.

Visits were made to Child Health Stations by the District Chief Public Health Nurse to evaluate their services. According to the standards, the majority needed additional sessions. Practically all had many more children at each session than is desirable. This was particularly true in stations where immunizations are emphasized. Part of the heavy case-load was a result of attendance from nearby communities. In some cases, attempts were made to exclude non-residents. The appointment system was implemented in some areas with good results, but the pattern in existence for many years takes time to change. The new record forms helped provide an objective basis for qualitative evaluation of each station.

There was a keenly felt need for the services of a consultant pediatrician to provide medical guidance for the Stations subsidized by the Department, and steps were taken to obtain a budget item for this purpose.

The prenatal clinic at the Salem County Memorial Hospital continued to be manned by local community public health nurses. Patients generally registered late in pregnancy, pointing to the need for more widespread education. The need for follow-up through a postpartum clinic has become evident and the patient load is such that more clinic time should be provided in the prenatal clinic. The Public Health Nurse Supervisor continued to provide nursing supervision for this clinic.

In November, a plan was developed with Cooper Hospital in Camden for more satisfactory inter-agency referrals of premature infants. This has been working to the mutual satisfaction of both hospital and public health nurses. The referral is now made shortly after the baby's birth instead of at the time of discharge.

Approximately 114 persons attended three parent-teacher association meetings at which nutrition was discussed. The films "Food as Children See It" and "And One to Grow On" were shown by the District Consultant in Public Health Nutrition.

DEPARTMENT OF HEALTH

POISON CONTROL

Public health nurses in Atlantic County assisted in the follow-up of patients referred from the poison control center at Atlantic City Hospital.

The Woman's Auxiliary to the Camden County Medical Society was given assistance in its efforts at public education in poison control. Its annual public relations meeting in March featured impressive poison control exhibits obtained from the Philadelphia Department of Public Health and the American Medical Association. Several hundred persons attended.

Physicians at West Jersey Hospital in Camden were interested in setting up a poison control center and sought advice from the District and the State Consultant in Public Health Toxicology.

Division of Preventable Diseases

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Communicable Disease Control ProgramADELE C. SHEPARD, M.D., M.P.H.
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Division of Preventable Diseases

Communicable Disease Control Program

MORBIDITY, MORTALITY AND TRENDS OF NOTIFIABLE DISEASES

During the calendar year 1957, there were reported in New Jersey 45,830 cases of notifiable diseases (exclusive of epilepsy, cerebral palsy, mental deficiency, tuberculosis, and venereal diseases) as compared with 25,643 cases for the preceding year. A large proportion of the increase was due to the marked rise in reporting of measles and influenza.

There were no reported cases during 1957 of cholera, dengue, glanders, leprosy, leptospirosis, plague, psittacosis, rabies (human), smallpox, trachoma, tularemia, typhus fever, and yellow fever.

In 1957, there were 1,878 deaths from reportable diseases (exclusive of cerebral palsy, epilepsy, mental deficiency, tuberculosis, and venereal diseases). Omitting the 1,793 deaths from pneumonia and influenza, there were 85 deaths due to the remaining notifiable diseases.

There were 81 poliomyelitis cases reported in 1957. The incidence rate per 100,000 population was 1.5 or less than half the rate of 3.9 in 1956. Of the 81 cases reported, 29 were paralytic and 52 were non-paralytic. There has been a 90 per cent reduction in paralytic polio over the past two years. Another favorable feature is that during 1957 the proportion of cases that were paralytic was 35.8 per cent whereas in 1956 the proportion was 45.0 per cent of reported cases.

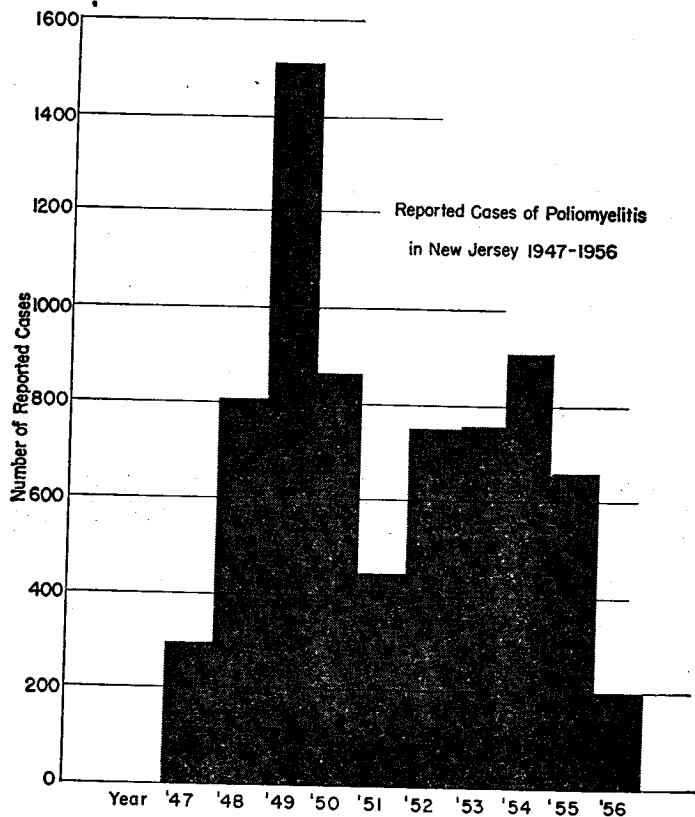
Four of the 21 New Jersey counties—Cape May, Gloucester, Hunterdon, and Ocean Counties—had no cases of poliomyelitis in 1957. However, 53 cases occurred in residents of Bergen, Essex, Hudson, and Monmouth Counties.

The reduction in poliomyelitis cases experienced in 1957 may be due in part to the following. It is believed that 1957 was a "low" year for poliomyelitis. Many cases may not have been recognized at the time of occurrence. Because of intensive work on the part of the Department, boards of health, physicians, and hospitals to obtain epidemiologic information and specimens for virus isolation, diseases such as aseptic meningitis and encephalitis were less likely to be reported as poliomyelitis in 1957.

Late in September, it was evident from the number of case reports received that Asian influenza had reached New Jersey. The disease had spread from the Orient to India and the Middle East, to Europe and the Atlantic Coast.

GRAPH No. 1

REPORTED CASES OF POLIOMYELITIS IN NEW JERSEY: 1947-1956



By administrative action, reporting of influenza cases was speeded up so that health officers and reporting officers were required to send counts of influenza cases daily to the Public Health Statistics Program. Influenza-like diseases were reported by total daily. Absenteeism reports from selected schools and industries were also received as part of the medical intelligence established by the Department.

Official reports of influenza cases received numbered 7,827. In addition, on epidemiologic grounds it was learned that 32,119 cases of upper respiratory infections and influenza-like diseases occurred. Most of these cases occurred during the months of October and November. It should be pointed out that the incidence of influenza was higher than the figures indicate. However, the statistical information obtained permitted the immediate pinpointing of the areas to which the disease had spread and provided a conservative count of illnesses in each county during the epidemic.

During 1957, there were 2,982 pneumonia cases with a rate of 56.5 per 100,000 population. In 1956, there were 2,477 cases and a rate of 47.6. Pneumonia, like influenza, began to increase in September and rose appreciably during the last quarter of 1957.

Mortality from influenza and pneumonia reached a peak in October. Deaths from influenza and pneumonia declined in November and December but were found to be higher than the number of deaths recorded for these diseases during the same months in preceding years.

Sixty-two per cent of all reported cases of illness in 1957 were measles. Reports of measles totaled 28,519 cases in 1957, as compared with 19,083 in the previous year. The first seven months of the year accounted for the largest number of measles cases.

Diphtheria cases in 1957 numbered 11, as against 23 in 1956. The five counties in which the 11 cases occurred were Camden (3), Hudson (4), Morris (1), Somerset (2), and Warren (1). Six of the 11 cases occurred in individuals 15 years of age and over. This emphasizes the need for attention to immunization procedures.

There were 659 cases of whooping cough and a rate of 12.5 per 100,000 population in 1957. Both total and rate were lower than the 760 cases and the rate of 14.6 recorded in 1956. A downward trend in whooping cough cases has been noted in the past five years. The decrease is not entirely due to under-reporting. The five-year average, based on 1953-1957 figures, was 1,300 cases. Thus, the 1957 total of whooping cough cases is approximately one-half of the five-year average.

In 1957, the total number and incidents rate of streptococcal infections, including scarlet fever, were more than double those in 1956. There were

4,655 cases with a rate of 88.2 per 100,000 population in 1957, compared with 2,053 cases and a rate of 39.4. The 1957 total was more than twice the five-year average of 2,710 cases. Without a doubt, the increase in the incidence of streptococcal infections represents a definite rise in these diseases.

New Jersey, in the last decade, has been free of smallpox. There was one case of smallpox reported in 1947 and the case terminated in death. No smallpox cases were reported in continental United States during 1954, 1955, or 1956 (the last year for which final figures are available).

The incidence of typhoid fever has been declining and in 1957 reached a low of 18 cases with a rate of 0.3 per 100,000 population. There were 70 typhoid carriers listed in the State Health Department files at the end of fiscal year 1958. Reports of amebiasis numbered 314 in 1957, as against 335 in 1956. Cases of shigellosis rose from 10 in 1956 to 31 in 1957. There were 89 cases of salmonellosis reported in 1957 and 61 cases in the year preceding. In 1957, there were three cases of diarrhea of the newborn reported and none in 1956. The incidence of this group of diseases is believed to be higher than the 1956-1957 figures reflect.

During 1957, infectious hepatitis continued its downward trend. There were 284 cases reported in 1957, as compared with 380 cases in 1956. Decreases in incidence of infectious hepatitis were noted in the nation as a whole, as well as in New Jersey, beginning with 1955.

SURVEILLANCE

Asian Influenza

The origin of the 1957 pandemic of Asian influenza is unknown, although unofficial reports suggest that the disease was present in China prior to its occurrence in Hong Kong early in April. First reports stated that the infection was mild as measured by the number of complications and deaths. The epidemic spread rapidly and assumed pandemic proportions by the end of May. It arrived in the United States early in June and in New Jersey during September.

The Asian strain of influenza was identified in outbreaks in 19 of New Jersey's 21 counties. As the number of reported cases increased in volume, arrangements were made with health officers, reporting officers of boards of health, and registrars in military installations to submit a daily collective case report, rather than individual case reports. In addition, weekly reports were secured from county superintendents of schools on absenteeism in the schools.

A safe vaccine had been developed that gave significant protection if administered at least 10 days in advance of exposure. Inasmuch as productive

capacity for the vaccine was not great enough to cope with prevailing demand, priorities for its use, which were established by the Commissioner on September 18, gave preference to those who served the sick directly, to those who constituted the greatest risk groups such as chronically ill persons and pregnant women, and to those to whom the community looked for essential protective and public utility services. The recommended priorities were lifted on October 29, 1957 because enough vaccine had been shipped into New Jersey by then to have given one dose of the vaccine to each person in the designated priority groups. At the same time, it was recommended that vaccination against Asian influenza continue as extensively as possible.

A study in a prison population was performed to evaluate the effectiveness of a monovalent influenza vaccine containing the A/Japan/305/57 strain of influenza A virus, 200 CCA units per cubic centimeter. A significant degree of protection against Asian influenza by the vaccine was suggested in the study. The 1.0 cubic centimeter dose of vaccine administered subcutaneously was preferable to the 0.1 cubic centimeter dose administered intradermally.

Poliomyelitis

The Public Health Service Poliomyelitis Surveillance Unit at the Communicable Disease Center in Atlanta, Georgia continued to serve as a clearing house for a nation-wide study to determine the effectiveness of the poliomyelitis vaccine during this year. A new report form supplied by the Surveillance Unit became effective January 1, 1958. 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 continued to participate in the study during fiscal year 1958.

In order to accomplish complete surveillance, communications were sent to every hospital in New Jersey that normally accepts poliomyelitis patients for hospital care. The Surveillance Program which had been in existence for the preceding two years was again presented to these hospitals, and the importance of securing certain epidemiologic data and of collecting and examining blood and stool specimens to establish definitive diagnosis of poliomyelitis stressed. Agreement was again reached with all hospitals on the procedure for the collecting of stool and blood specimens and the transportation of these specimens to the Division of Laboratories in Trenton.

* Now the National Foundation.

Staphylococcal Infections

Staphylococcal infections constitute one of the serious public health problems of today, particularly among hospital populations. The accumulated evidence suggests that many hospitals in the State are experiencing increased numbers of staphylococcal infections; frequently epidemics of these infections have occurred. The strains of staphylococci isolated from hospital-acquired infections are referred to as the "hospital strain" and are usually resistant to several antimicrobial agents. The strains which seem to be responsible for most outbreaks usually have a bacteriophage pattern containing Type 80/81. The organisms are harbored by carriers among professional personnel; they may colonize some of the patients who, in turn, become nasal carriers; they may be found in the physical environment of the ward or nursery, for example in the dust or air, or on bedding or furniture. Staff of the Division gave 35 consultations to hospitals with reference to this problem. Epidemiologic studies included the following programs: survey of the morbidity and mortality due to staphylococcal disease; review of techniques, procedures, practices, and policies in the maternity-newborn unit; cultures on mothers, newborns, fomites, air, and personnel in order to assess the degree of colonization of the hospital and staff by pathogenic staphylococci; institution of various control and preventive measures.

POLIOMYELITIS VACCINE DISTRIBUTION

Federal funds which were appropriated to this Department under the Poliomyelitis Vaccination Assistance Act of 1955 in the amount of \$1,046,723.00, and funds from the Children's Bureau in the amount of \$60,000.00 totaling \$1,106,723.00 were used for the purchase of Poliomyelitis Vaccine. All the vaccine purchased with these funds have been distributed by February 10, 1958. The use of vaccine purchased with this money was limited to persons under 20 years of age and pregnant women.

A cumulative total of approximately 5,529,000 cubic centimeters of poliomyelitis vaccine had been received and distributed in New Jersey as of June 30, 1958. Of this total, the State Department of Health distributed approximately 2,275,000 cubic centimeters to public clinics, child health stations, and to physicians through the biologic distributing stations. From the beginning of the Poliomyelitis Vaccination Program in 1955 through February 10, 1958, 1,639,677 cubic centimeters of vaccine purchased with Poliomyelitis Vaccination Assistance Act funds were made available to public clinics in approximately 500 municipalities in New Jersey. An additional 107,010 cubic centimeters of vaccine purchased with Children's Bureau funds were made available

to child health stations in New Jersey. During the fiscal year, 216,990 cubic centimeters purchased with State funds were made available to physicians through the regular biologic distributing stations. New Jersey physicians also obtained 943,398 cubic centimeters through normal commercial channels.

During the year, public demand for the vaccine was high. However, because the supply of vaccine for public clinic use became exhausted on February 10, the Department discontinued the distribution of vaccine to municipalities. The Department continued to provide vaccine for child health stations and distributing stations throughout the remainder of the fiscal year.

During the course of the year, the Department continued to urge that persons of all ages seek the protection of the vaccine as promptly as possible.

POLIOMYELITIS VACCINATION PROGRAM AMONG STATE EMPLOYEES

The State Department of Health administered a third injection of poliomyelitis vaccine to approximately 2,200 State employees who previously received the first two under this program. Because the vaccine was purchased through normal commercial channels, all employees receiving the injections were requested to pay for the cost of the vaccine. No charges were made for the injection and for incidental expenses. All injections were administered by physicians of the Department staff who were assisted by Department nurses.

EDUCATION AND INFORMATION

An extensive education and information program using various media was designed to promote the full utilization of available Salk vaccine and Asian influenza vaccine. In addition, there was a particularly detailed exchange of information concerning the conduct of the poliomyelitis and influenza surveillance programs among Federal, State, and local personnel.

The meeting for State and Territorial Health Officers dealing with the problem of Asian Influenza which was called by the Public Health Service in August was attended by the Coordinator of the Communicable Disease Control Program. The conference agenda was concerned with a historical review of influenza and influenza vaccine, epidemiology of Asian influenza, laboratory diagnostic facilities and procedures, and vaccine production and testing.

In June, the Coordinator represented the State Commissioner of Health on the occasion of the dedication of the communicable disease ward of Valley View Hospital in Passaic County. Newer methods of treating tuberculosis have made it unnecessary to hospitalize many of the minimal and moderately advanced cases and have shortened the hospital stay of others. This condition

made it possible to devote a portion of hospital space to the care of persons with communicable diseases other than tuberculosis.

An Institute on Food and Restaurant Sanitation was held for full-time health department personnel on May 19 and 20 in the East Orange Health Department. The Coordinator served on a panel to discuss practical field problems involved in the epidemiology of food-borne diseases.

As part of the in-service education program, the Coordinator and the epidemiologist assigned to the Communicable Disease Control Program lectured to 70 nurses in the Southern State Health District on staphylococcal infections and problems of venereal disease among pregnant women and children. The meeting took place in Atlantic City in April. Additional lectures were given on the Asian influenza situation and the public health problems associated with ringworm.

The Coordinator attended a meeting of the Preventable Disease Committee of the New Jersey Health Officers Association. Discussions dealt with possible radiation hazards associated with chest X-rays, with the legal aspects of prophylaxis for ophthalmia neonatorum, and with the current value of premarital blood testing.

A seminar on eastern equine encephalomyelitis, arranged by Departmental personnel, was held in Princeton on July 11. The seminar was attended by medical pathologists, representatives of interested State, Federal, and local governmental agencies, and control specialists from universities. In addition, members of the staff of the Division of Preventable Diseases attended a three-day conference in New York during September on "Animal Diseases and Human Health."

The Coordinator of the Communicable Disease Control Program participated in teaching the course in Basic Environmental Sanitation which was given at Rutgers University. This course is 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.

The Coordinator of the Communicable Disease Control Program presented a paper entitled "Administrative and Epidemiologic Uses of Morbidity Data" at the 47th Annual Conference of State and Local Health Officials, held in Trenton April 17 and 18. This was in connection with two clinics on morbidity and mortality registration and reporting.

Two documents "Epidemiology of Diphtheria" and "Epidemiology of Streptococcal Sore Throat, Including Scarlet Fever," prepared by the Division of Preventable Diseases, were distributed among those individuals responsible for communicable disease control field activities. The documents provide a useful guide for conducting epidemiologic investigations of these diseases.

A paper "Report of an Outbreak of Food Poisoning," prepared in the Division of Preventable Diseases, was published in the April, 1958 issue of *Public Health News*.

There were 181 showings of communicable disease films to 7,465 viewers during fiscal year 1958. In addition, 10,491 pieces of literature dealing with the communicable diseases were distributed from the warehouse.

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, during the fiscal year 1958, consisted of the following personnel:

Administrative

Program Coordinator
Supervisor of Poliomyelitis Vaccine Program (Until May)

Field

Field Representative
Epidemic Intelligence Service Officer (Until April)

Clerical

1 Principal Clerk Stenographer
1 Senior Clerk Stenographer
2 Clerk Typists

DEPARTMENT OF HEALTH

Table 1.* CASES OF REPORTABLE DISEASES BY COUNTY OF RESIDENCE
(Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases)
New Jersey, 1947

COUNTY	Ameliasis	Anthrax	Hollism	Brucellosis	Diarrhea of Newborn	Diphtheria	Encephalitis Infections	Epilepsy	Food Poisonings	Hepatitis Infections	Influenza	Malaria	Measles
State total	314	0	1	4	3	11	24	88	291	884	7,827	0	28,810
Atlantic	0	0	0	0	0	0	0	0	0	0	137	0	3,747
Burlington	0	0	0	0	1	0	0	0	0	0	424	0	0
Camden	1	1	0	0	0	0	0	0	0	0	1,041	0	465
Cape May	0	0	0	0	0	0	0	0	0	0	471	0	213
Cumberland	0	0	0	0	0	0	0	0	0	0	0	0	53
Essex	3	0	0	0	0	0	1	0	0	0	6	0	70
Gloucester	0	1	0	0	1	0	0	0	0	0	482	0	11,763
Hudson	0	0	0	0	0	0	0	0	0	0	10	0	0
Hunterdon	0	0	0	0	0	0	0	0	0	0	78	0	0
Mercer	1	0	0	0	0	0	0	0	0	0	0	0	2,065
Middlesex	37	0	0	0	0	0	0	0	0	4	129	0	606
Monmouth	1	0	0	0	0	0	0	0	0	0	0	0	1,836
Morris	0	0	0	0	0	0	0	0	0	0	0	0	1,897
Ocean	0	0	0	1	0	0	0	0	0	0	0	0	1,962
Passaic	0	0	0	0	0	0	0	0	0	0	0	0	0
Salmon	0	0	0	0	0	0	0	0	0	0	0	0	0
Somerset	1	0	0	0	0	0	0	0	0	0	0	0	0
Sussex	1	0	0	0	0	0	0	0	0	0	0	0	0
Union	1	0	0	0	0	0	0	0	0	0	0	0	0
Warren	0	0	0	0	0	0	0	0	0	0	0	0	0
Windsor	0	0	0	1	0	0	0	0	0	0	0	0	0
Hungarian Peasapies	0	0	0	0	0	0	0	0	0	0	0	0	0
State Institutions	208	0	0	0	0	0	0	0	0	0	0	0	0
Military Posts	1	0	0	0	0	0	0	0	0	0	0	0	0

* Tables are numbered consecutively by Division.

DIVISION OF PREVENTABLE DISEASES

Table 1.* CASES OF REPORTABLE DISEASES BY COUNTY OF RESIDENCE
(Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases)
New Jersey, 1947—Continued

COUNTY	Meningococcal	Mental Deficiency	Ophthalmia Neonatorum	Pneumonia	Polymyelitis	Q Fever	Rocky Mountain Spotted Fever	Salmonellosis	Shigellosis	Streptococcal Sore Throat Including Scarlet Fever	Tetanus	Trichinosis	Typhoid Fever	Whooping Cough
State total	89	1	0	2,982	81	2	2	89	31	4,655	6	22	18	600
Atlantic	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bergen	0	0	0	21	10	0	0	0	0	0	0	0	0	76
Burlington	0	0	0	45	1	1	0	0	0	103	0	0	1	14
Camden	0	0	0	207	2	0	0	0	0	462	0	0	0	76
Cape May	0	0	0	0	0	0	0	1	2	0	0	0	0	0
Cumberland	3	0	1	38	2	0	0	0	1	25	0	0	3	13
Essex	17	1	1	1,302	13	0	0	14	2	763	2	4	3	238
Gloucester	0	0	0	14	0	0	0	0	0	10	0	0	2	22
Hudson	0	0	1	51	15	0	0	0	11	470	0	0	1	68
Hunterdon	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mercer	3	0	0	82	1	0	0	5	2	49	1	4	2	24
Middlesex	3	0	0	74	4	0	0	1	0	166	0	0	0	3
Monmouth	1	0	0	46	3	0	0	0	0	43	0	0	0	0
Morris	1	0	0	35	0	0	0	1	0	11	0	0	0	0
Ocean	0	0	0	0	23	0	0	4	2	321	0	3	0	69
Passaic	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salmon	1	0	0	1	1	0	0	0	0	0	0	0	0	0
Somerset	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sussex	0	0	0	29	1	0	0	0	0	32	1	0	0	1
Union	0	0	0	123	4	0	0	0	0	211	0	0	0	2
Warren	0	0	0	0	3	1	0	0	0	33	0	0	0	0
Hungarian Escapades	0	0	0	19	0	0	0	0	0	0	0	0	0	0
State Institutions	2	3	0	19	0	0	0	4	6	23	0	0	0	0
Military Posts	0	0	0	828	0	0	0	0	0	667	0	0	0	0

* Tables are numbered consecutively by Division.
Note: No reported cases of Cholera, Dengue, Glanders, Leptospirosis, Plague, P. tritacosis, Rabies (human), Smallpox, Trachoma, Tularemia, Typhus Fever and Yellow Fever.

Table 6. REPORTED CASES OF NONPARALYTIC POLIOMYELITIS BY COUNTY AND AGE GROUPS—NEW JERSEY, 1957

COUNTY	All Ages	Age Groups								
		Under 1	1-4	5-9	10-14	15-19	20-24	25-44	45-64	
		State Total	52	1	4	15	14	6	2	10	0
Atlantic	1	0	0	1	0	0	0	0	0	
Bergen	7	0	0	1	3	0	0	0	0	
Burlington	1	0	0	0	1	0	0	3	0	
Camden	2	0	0	2	0	0	0	0	0	
Cape May	0	0	0	0	0	0	0	0	0	
Cumberland	1	0	0	0	0	1	0	0	0	
Essex	7	0	2	1	3	1	0	0	0	
Gloucester	0	0	0	0	0	0	0	0	0	
Hudson	3	0	1	1	1	0	0	0	0	
Hunterdon	0	0	0	0	0	0	0	0	0	
Mercer	1	0	0	0	0	0	1	0	0	
Middlesex	2	0	0	1	0	0	0	1	0	
Monmouth	15	1	0	7	3	3	1	0	0	
Morris	3	0	0	0	0	0	0	3	0	
Ocean	0	0	0	0	0	0	0	0	0	
Passaic	2	0	0	0	1	1	0	0	0	
Salem	1	0	0	1	0	0	0	0	0	
Somerset	1	0	1	0	0	0	0	0	0	
Sussex	1	0	0	0	1	0	0	0	0	
Union	2	0	0	0	1	0	0	1	0	
Warren	2	0	0	0	0	0	0	2	0	
State Institutions	0	0	0	0	0	0	0	0	0	
Military Posts	0	0	0	0	0	0	0	0	0	

Table 7. POLIOMYELITIS CASES BY MONTH WITH MEDIANS FOR FIVE-YEAR PERIOD NEW JERSEY, 1953-1957

MONTH	Median 1953-1957	1957	1956	1955	1954	1953
State Total	692	81	202	692	906	756
January	5	1	1	8	5	6
February	1	0	4	1	3	1
March	1	0	1	4	1	0
April	2	0	3	6	3	2
May	3	0	3	9	3	5
June	12	4	9	18	16	13
July	48	14	18	48	78	117
August	186	38	66	215	186	230
September	212	26	71	216	226	212
October	62	7	16	92	125	125
November	25	0	8	30	116	25
December	12	3	2	12	50	18

Venereal Disease Control Program

MORBIDITY, MORTALITY, AND TRENDS

Syphilis

During 1957, New Jersey experienced a rise of 27.4 per cent in reported cases of syphilis. The 5,444 cases reported (case rate 103.1 per 100,000 population) is the highest number reported since 1950. The increase results primarily from an increase in late latent and late syphilis, of which 4,661 cases were reported—the highest number within the last 10 years.

Gonorrhoea

The total number of gonorrhoea cases reported in 1957 was 5,276, with a rate of 99.9 per 100,000 population, the highest rate since 1952. Gonorrhoea cases reported in the civilian population were higher by 25.1 per cent as compared with the previous year. The teenage group (10-19 years) accounted for 939 gonorrhoea cases in 1957 as against 592 in the preceding year, representing an increase of 58.6 per cent.

Mortality

In 1957 there were 82 deaths reported as due to syphilis.

CONTACT INTERVIEWING AND INVESTIGATION

Interviewing

The interviewing of patients with infectious venereal disease was again stressed during this year. An analysis shows:

Disease	Cases Reported	Cases Interviewed	
		Number	Per cent
Primary and Secondary Syphilis ..	121	105	86.8
Gonorrhoea	5,276	2,039	38.6

	Primary and Secondary Syphilis			Gonorrhoea		
	Patients Interviewed	Contacts Obtained	Contact Index	Patients Interviewed	Contacts Obtained	Contact Index
Private Physician Patients ...	33	50	1.52	322	236	.73
Military Personnel	8	25	3.13	365	513	1.41
Other Patients	64	126	1.97	1,352	1,594	1.18
Total	105	201	1.91	2,039	2,343	1.15

The national contact index for primary-secondary syphilis during this year was 3.42 and for gonorrhoea was 1.13.

Investigation

During calendar year 1957, 11,231 venereal disease suspects, representing an increase of 10.5 per cent over the previous year, were forwarded to or originated in State Health Districts and local health departments and required investigation by field personnel.

Of the suspects requiring investigation, field personnel brought 8,645 or 77.0 per cent to examination, of whom 2,945 were brought or returned to treatment.

Of the 10,720 cases of syphilis and gonorrhea reported during 1957, 27.5 per cent were brought or returned to treatment as a result of epidemiologic activity. Field investigation was responsible for bringing to treatment 46.4 per cent of the cases of syphilis reported in New Jersey.

Assistance from the Public Health Service during the 1957 calendar year made it possible to continue the assignment of specialized venereal disease control personnel trained in case-finding techniques.

SELECTIVE SEROLOGIC SCREENING

A Public Health Service Project Grant provided funds for conducting selective serologic surveys. During the calendar year 1957, 25 serologic surveys were conducted in urban and rural areas of suspected high syphilis incidence. Various types of surveys were conducted including street corner, house to house, industrial, and jail. 13,905 persons were tested with 1,673 or 12.0 per cent having reactive tests for syphilis. The number of people brought or returned to treatment as a result of selective screening made up 16.0 per cent of the total number of syphilis cases reported during 1957.

VENEREAL DISEASE AMONG MIGRANTS

Agricultural Workers

A total of 4,077 agricultural migrants, representing four population groups, were examined for venereal disease during the 1957 season. This group manifested a reactivity rate of 14.9 per cent which appears to represent a leveling off process. The reactivity rates in per cent for the years since 1953 have been 25.2, 22.8, 21.5, 12.1, and 14.9, respectively.

In view of the low venereal disease case-finding yield among Puerto Ricans experienced during 1955 and 1956—1,418 serologic tests for syphilis during these years yielded a positivity rate of 2.3 per cent—personnel time and supplies during the 1957 season were directed mainly to reaching other groups

that might reasonably be expected to have a higher incidence of venereal disease.

The southern Negroes, as a group, continued to yield the highest proportion of reactive blood tests, 17.1 per cent of those examined. Maximum attention, consequently, was focused on this group.

The proportion of reactors among the Jamaicans remained approximately the same as the previous year. In 1956, 7.6 per cent were reactive to the serologic test for syphilis and in 1957, 7.2 per cent were reactive.

The small number of whites tested, 54, yielded no reactive tests. This is consistent with previous experience.

Reaching Into the Farms

Since the clinic at Prospect Plains was discontinued this year, it was necessary to rely more heavily upon mobile facilities to reach the majority of migrants. In addition to the mobile clinic that traveled to the larger camps, a passenger automobile and station wagon, appropriately staffed, reached the smaller camps for blood testing and subsequent follow-up.

Venereal disease control activities among agricultural migrants have become increasingly mobile. There has been a steady rise in the percentage of examinations (from 58.9 in 1953 to 85.9 in 1957) attributed to mobile facilities during the last five years except for 1956. In 1956, the emphasis on the examination of Puerto Ricans at the Glassboro Service Association tended to distort the percentage for that year. The percentages of migrants examined by mobile facilities during the years 1953 and following were 58.9, 63.2, 67.0, 63.8, and 85.9, respectively. Experience seems to indicate that bringing health services to the migrant camps provides more complete coverage.

Epidemiologic Follow-up

Of the 4,077 persons tested serologically during 1957, 606 were reactive for syphilis. Of 614 suspects who required epidemiologic follow-up, 597 or 97.2 per cent were brought to examination. This represents an increase of almost eight per cent over last year. Seven suspects moved out of the State before follow-up could be completed. Epidemiologic reports were initiated on these individuals and were forwarded to the State health departments concerned.

Treatment

Treatment was facilitated by the use of disposal syringes of bicillin (benzathine penicillin G). This type of sterile syringe, containing 1.2 million units of bicillin for the treatment of gonorrhea and 2.4 million units for the treatment of syphilis, eliminated the need for cumbersome sterilization equipment in the field and aided mobility.

In almost all instances treatment was completed, when indicated, within 24 hours of taking of the blood specimen. Through the cooperation of the Division of Laboratories of the State Department of Health, blood test results were made available to the Migrant Health Program within 24 hours.

In 1956, there were 163 suspects closed out as "previous treatment adequate." In 1957, there were 174 such suspects.

Of the 432 persons treated for syphilis, 274 were regarded as previously unknown infections and 158 were regarded as having had previous inadequate treatment. Ninety-nine more persons were treated for syphilis for the first time during 1957 than during 1956. This increase in number of cases is consistent with the high syphilis incidence currently being reported by the States from which these migrants come.

Fewer cases of gonorrhea were discovered during 1957. While 156 cases of gonorrhea were treated during 1956, only 81 cases were found and treated during 1957.

There were 689 cases of venereal disease diagnosed during the 1957 agricultural migrant season and 515 were either treated for the first time or were returned to treatment.

Race Track and Seafood Workers

In addition to the 4,077 agricultural laborers examined for venereal disease during the 1957 migrant season, 1,446 workers at the race tracks and in the seafood industry were examined.

Serologic surveys were conducted at the Garden State, Atlantic City, and Monmouth Park Race Tracks, which operated intermittently from May through August. 881 employees were tested. Among those examined were grooms, stable boys, exercise boys, jockeys, and concession employees. Of those tested, 52 had reactive blood results giving a reactivity rate of 5.9 per cent. This rate was lower than the 9.4 per cent for the 901 persons tested during 1956 and the 9.3 per cent for the 1,063 persons tested during 1955. Field personnel were successful in bringing 50, or 96.1 per cent of those with reactive blood test results, to examination. Of the reactors, 27, or 51.9 per cent were brought or returned to treatment and were previously unknown to the Department.

During October and November, 1957, seasonal workers in the oyster and clam shucking areas of Cumberland County were examined. The survey was conducted with the cooperation of the Port Norris Board of Health and the Port Norris Oysterman's Sanitary Association. Of the 565 individuals tested, 94 had reactive blood tests, giving an over-all reactivity rate of 16.6 per cent. This rate was higher than the 13.0 per cent for the 437 persons tested during 1956, but substantially lower than the 27.6 per cent for the 692 persons tested during 1955. Field personnel brought 93, or 98.9 per cent of all suspects to examination.

Education and Information

Television, technical publications, lectures, movies, pamphlets, tape recordings, or stereoscopic slides were employed during the year for in-service training and to raise the public and professional index of suspicion of infection with venereal diseases. A total of 16,162 pieces of literature and other information documents were distributed to individuals, health departments and interested organizations, and five films were shown 115 times to a total audience of 4,550 people.

The entire technical staff of the Venereal Disease Control Program and representatives of local health departments and military installations, totalling over 30 individuals, attended the Venereal Disease Control Seminar sponsored by the Public Health Service for States in Regions I, II, and V. The meeting was held in Philadelphia, Pennsylvania, May 14 and 15. The Program Coordinator served as a resource person in a discussion dealing with venereal disease control among migrants. The Public Health Representatives on the staff of the Program served as resource persons and recorders in discussions dealing with venereal disease educational materials and case-finding techniques.

The Program Coordinator attended the Ninth Annual Symposium on Recent Advances in the Study of Venereal Diseases on May 12 and 13 in Philadelphia, Pennsylvania. The program included discussions of a wide variety of problems in research, diagnosis, treatment, and epidemiology of the venereal diseases.

A two-day conference on migratory labor which was held in Harrisburg, Pennsylvania and was sponsored by Regions II and III of the Public Health Service was attended by the Program Coordinator. The problems which were explored dealt with housing, sanitation, camp inspections, drinking water, health services, medical care, including hospitalization of indigent migrants, medical care insurance plans, interstate health cards, child care, education, recreation, community services by church groups, welfare problems (except medical care), interstate school cards, police protection, transportation, crew leaders and workmen's compensation. Members of the staff of the Venereal

Disease Control Program participated in a Conference on Migratory Labor sponsored by Region II of the Public Health Service and held in New York on May 22 and 23. Discussions dealt with health services, child day-care centers and educational services for migrant children, and transportation and housing problems of migrants.

Two Migrant Labor Board meetings took place during the year. A written report was submitted to the Board delineating the positions of the Departments of Institutions and Agencies and of Health as regards health and welfare problems of migrant workers.

During September and October, the Venereal Disease Branch of the Communicable Disease Center of the Public Health Service made available closed circuit television equipment to the State Department of Health for demonstration of venereal disease interviewing techniques. Actual patient interviews were presented during clinic sessions in Atlantic City, Jersey City, Newark, Paterson, and Trenton, demonstrating techniques of obtaining difficult information. Interviewing and investigation procedures and State and local policy, records and reports were discussed. Films were shown on syphilis and the other venereal diseases. Approximately 275 students attended the seven one-day sessions.

Four members of the field staff attended a two-week intensive training course on the clinical aspects of venereal diseases and on control techniques. The course was held in Detroit and was sponsored by the Michigan State Department of Health and the Public Health Service.

In February, the Program Coordinator and another member of the staff conducted an in-service training program for a group of 20 nurses at Clinton State Farms. The program dealt with the interviewing of venereal disease patients and associated venereal disease control problems. The Coordinator also gave a paper dealing with the epidemiology of syphilis before a conference of the New Jersey League for Nursing, held in Trenton at St. Francis Hospital. There were 125 nurses in attendance from all over the State. As part of the in-service education program, the Coordinator and the epidemiologist assigned to the Communicable Disease Control Program discussed the problems of venereal diseases among pregnant women and children and staphylococcal infections with 70 nurses in the Southern State Health District. The meeting took place in Atlantic City in April.

Three staff meetings for venereal disease control field personnel were held during the year. Current field and supervisory problems were discussed and procedures were standardized relative to the cluster testing program. The programs included a discussion of public health nursing activities and of the handling of morbidity data by the Public Health Statistics Program. In ad-

dition, visitors from the Public Health Service presented information on the Communicable Disease Center and on Public Health Service personnel practices.

A short article concerning New Jersey's gonorrhea problem among teenagers appeared in the September, 1957 issue of *Social Hygiene News*, a publication of the American Social Hygiene Association and in the December, 1957 issue of *Public Health News*. In addition, a listing and samples of venereal disease educational materials were made available to the Department of Education for distribution among teenagers. It is among this population group that alarming increases in venereal disease incidence have occurred.

The annual survey questionnaire, "Status of the Venereal Diseases and their Control in Fiscal Year 1957," prepared by the American Social Hygiene Association, the American Venereal Disease Association, and the Association of State and Territorial Health Officers, was completed. The accumulated data are used in preparing a Joint Statement which is used by Congressional committees handling appropriations, and as basic resource material in discussion groups, health education classes, and seminars throughout the country.

In a meeting with the Provost Marshal of the First United States Army, a mechanism was developed whereby military authorities would be apprised of the place of encounter and place of exposure in each instance of venereal infection among military personnel when encounter or exposure took place in New Jersey. Names of patients or contacts will not be divulged. Information concerning places of encounter and of exposure is of value to military authorities in their efforts to maintain desirable conditions in places frequented by service personnel.

A simplified, single venereal disease morbidity report form was devised to replace the two forms which were in use previously. The revision of this form was timed to coincide with the withdrawal of the Federal franking privilege. Distribution was made to all physicians and venereal disease clinics.

DRUG DISTRIBUTION

The Venereal Disease Control Program distributes drugs for the treatment of venereal diseases without charge to physicians, clinics, and hospitals. Drugs distributed during calendar year 1957 were as follows:

- 4,144 vials of benzathine penicillin G (bicillin 10 cc)
- 486 disposable syringes of benzathine penicillin G (bicillin—2.4 million units)
- 133 disposable syringes of benzathine penicillin G (bicillin—1.2 million units)
- 153 bottles of aureomycin capsules (4 gram)
- 51 bottles of terramycin capsules (4 gram)
- 21 bottles of sulfadiazine (50 gram)

PERSONNEL

The staff of the Venereal Disease Control Program, as of June 30, 1958, consisted of the following personnel:

Administrative

- 1 Program Coordinator
- 2 Health Program Representatives

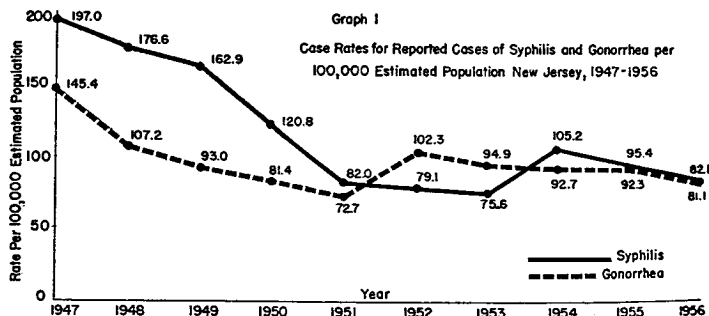
Field

- 2 Health Program Representatives (District and Field)
- 2 Public Health Advisors (District and Field)
- 6 Venereal Disease Investigators (Field)
- 1 Field Representative, Health

Clerical

- 1 Senior Clerk
- 1 Clerk-Stenographer
- 1 Clerk-Typist
- 1 Clerk

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, one position of non-medical epidemiologist was requested in the State budget for fiscal year 1959-1960.



"Case Rates for Reported Cases of Syphilis and Gonorrhea per 100,000 Estimated Population. New Jersey, 1948-1957."

Table 8. CASES OF VENEREAL DISEASES BY DISEASE, BY STAGE (FOR SYPHILIS ONLY) BY REPORTING AGENCY
NEW JERSEY, 1965-1987

DISEASE	1967			1968			1969		
	Private Doctor	Clinics and others†	Military	Private Doctor	Clinics and others†	Military	Private Doctor	Clinics and others†	Military
Syphilis (All Stages)	5,444	3,015	15	4,274	2,437	11	4,905	2,648	51
Primary and Secondary	2,404	1,171	7	1,826	42	8	1,227	139	13
Early Latent	447	287	5	109	309	1	1,250	602	32
Late Latent	4,081	2,577	3	3,459	2,177	0	1,474	1,875	1
Congenital	181	80	0	131	72	0	3,176	94	81
Not Stated	14	0	0	7	0	0	22	7	14
Gonorrhea	5,270	3,367	487	4,222	2,488	384	4,747	1,244	2,908
Chancroid	3	1	15	6	0	0	6	0	12
Granuloma Inguinale	3	3	0	1	0	1	2	0	1
Lymphogranuloma Venereum	9	5	1	8	7	0	15	2	1

* Includes all resident cases reported in New Jersey and those occurring to New Jersey residents reported in other states and referred to the Public Health Statistics Program.

† Hospitals, jails, reformatories, and other institutions.

Table 9. SYPHILIS AND GONORRHEA CASES AND RATES BY DISTRICT AND COUNTY—NEW JERSEY, 1957

AREA	Syphilis		Gonorrhoea	
	Number	Rate*	Number	Rate*
New Jersey (Total Cases)	5,444	103.1	5,276	99.9
Northern District	122	27.7	55	12.5
Hunterdon County	11	23.4	5	4.3
Morris County	36	25.5	24	13.0
Somerset County	47	32.1	18	16.1
Sussex County	15	30.5	8	21.1
Warren County	13	22.0	3	5.1
Metropolitan District	2,863	93.4	3,463	112.9
Bergen County	200	33.4	62	10.4
Essex County	1,697	174.6	2,495	256.7
Hudson County	481	69.3	341	49.3
Passaic County	233	43.8	376	103.0
Union County	252	37.5	159	43.2
Central District	1,355	133.8	787	77.7
Burlington County	167	110.6	49	32.3
Mercer County	457	182.8	249	99.6
Middlesex County	291	76.5	175	57.9
Monmouth County	438	176.6	295	118.1
Ocean County	62	100.0	21	33.9
Southern District	1,086	142.9	472	62.1
Atlantic County	216	155.4	136	97.8
Camden County	213	64.5	125	37.9
Cape May County	65	15.7	16	43.2
Cumberland County	318	331.3	121	126.0
Gloucester County	120	116.5	21	20.4
Salem County	154	280.0	53	96.4
Institutions	2	†	12	†
Military Posts	16	†	487	†

* Rates expressed per 100,000 estimated population.

† Rates not computed due to lack of population base.

Table 10. SYPHILIS AND GONORRHEA CASES AND RATES BY DISTRICT AND SELECTED CITIES—NEW JERSEY, 1957

AREA	Syphilis		Gonorrhoea	
	Number	Rate*	Number	Rate*
New Jersey (Total Cases)	5,444†	103.1	5,276†	99.9
Northern District	122	27.7	55	12.5
Metropolitan District	2,863	93.4	3,463	112.9
Bayonne	35	41.7	6	7.1
Clifton	24	33.3	8	11.1
East Orange	97	114.1	55	64.7
Elizabeth	88	72.7	99	81.6
Hoboken	47	87.0	14	25.9
Irvington	26	41.9	7	11.3
Jersey City	313	97.8	308	96.3
Newark	1,443	305.7	2,364	498.7
Passaic	49	83.1	32	54.2
Paterson	149	101.4	330	224.5
Union City	23	40.4	7	12.3
Central District	1,355	133.8	787	77.7
Trenton	317	234.8	200	148.1
Southern District	1,086	142.9	472	62.1
Atlantic City	141	227.4	118	190.3
Camden	130	103.7	98	73.1

* Rates expressed per 100,000 estimated population.

† Includes institutional and military cases.

Table 11. GONORRHEA CASES OF CIVILIANS BY AGE, RACE, AND SEX
NEW JERSEY, 1947

AGE GROUPS	White		Nonwhite		Not Stated	
	Total	Female	Total	Female	Total	Female
	Male	Female	Male	Female	Male	Female
All ages	4,780	3,261	1,598	1,400	4,094	2,798
Under 1	0	0	0	0	0	0
1-4	6	4	15	4	13	4
5-9	20	5	38	10	28	6
10-14	41	11	80	42	432	268
15-19	489	418	1,405	991	474	316
20-24	1,000	804	2,332	1,733	216	111
25-29	1,648	1,003	4,698	3,698	66	33
30-34	1,548	1,003	2,290	1,605	60	30
35-39	1,277	988	1,133	848	16	8
40-44	127	98	61	48	3	2
45-49	115	77	61	33	1	1
50 and over	110	73	15	10	0	0
Unknown	21	10	3	3	0	0

Table 14. SELECTIVE SEROLOGIC SCREENING ACTIVITY—NEW JERSEY, 1957

GROUP TESTED	Number Specimens Taken	Number Reactive	Per Cent Reactive	Number Reactors Treated	Per Cent of Reactors Treated	Number of Persons Treated Per 100 Tested
Agricultural Migrant	4,077	606	14.9	417	68.3	1.02
Jail	5,325	660	12.4	264	40.0	.50
Race Track	881	52	5.9	27	51.9	.30
Seafood Processing Plant	565	94	16.6	36	38.3	.64
Community and Other	3,057	261	8.5	126	48.0	.41
Total	13,905	1,673	12.0	870	52.0	.63

Division of Vital Statistics and Administration

Administrative Services Program	JOHN B. VAN ELLIS <i>Program Coordinator</i>
Budget and Accounts Program	GEORGE E. FORMAN <i>Program Coordinator</i>
Examination and Licensing Program	KENNETH J. CARHART <i>Program Coordinator</i>
Board of Barber Examiners	FRANK MARCHESI <i>Secretary-Treasurer of the Board and Program Coordinator</i>
Personnel and Training Program	WILLIAM R. MONYER <i>Program Coordinator</i>
Public Health Statistics Program	ANNA P. HALKOVICH, B.A., M.B.A., <i>Program Coordinator</i>
Vital Statistics Registration Program	F. MERTON SAYBOLT, B.S., M.S.P.H. <i>State Registrar and Program Coordinator</i>

Division of Vital Statistics and Administration

Administrative Services Program

Functions of the Administrative Services Program include the design and production of health education materials; maintenance and display of exhibits; maintenance of audio-visual aids; warehousing and distribution of printed materials and office supplies; production of printed materials; and mimeographing, addressing, and mailing services. The distribution of drugs, biologics and vaccines directly and through distributing stations is also administered by this Program. Personnel at the end of the fiscal year totaled 17.

Graphic art services and assistance were rendered to several other departments of the State Government, particularly with respect to their television, exhibit and printing needs.

Considerable time was spent in coordinating Departmental moves, planning telephone changes, preparing office space layouts, and assisting the staff of the Office of the Commissioner on special projects.

A study of Departmental space needs, with respect to the State office building program currently being considered, was completed. While detailed plans and specifications cannot be undertaken without the availability of funds for such a project, considerable data are available which would permit an architect to make rapid progress in this area. The study included personal surveys of several State health buildings in other States and represents considerable investigation of the specialized needs of a public health building.

HEALTH EDUCATION SERVICES

Production of health education exhibits was curtailed due to a five-month vacancy of a key position in this field. However, the use of existing exhibits continued on a loan basis to various local health departments and other civic groups. Twenty-eight exhibit bookings were made.

Demand for the use of health education films increased considerably. Lay film bookings continued to be made for this Department by the New Jersey State Museum. These films were seen by a minimum of 250,000 persons. The film library remains deficient in several areas due to the limited funds available for the purchase of health education materials.

The professional film library maintained by this Program was made available to outside professional groups in addition to the Departmental staff. (b) bookings were made for professional films.

Requests for the use of the addressograph and mailings services of the Program increased. A total of 114 addressing jobs and 93 mass mailings, including printing, folding, addressing, stuffing and sealing, were completed.

WAREHOUSE

Printed materials, office supplies, and nurses' field supplies were stored and distributed on a Department-wide basis. Refrigerated storage of perishable drugs and biologics is maintained for various programs. A perpetual inventory was maintained for all items.

The storage facilities of the warehouse continue to be inadequate. In addition to the problem of not being able to service several programs with respect to printed materials and supplies, there are several instances where the programs presently being serviced cannot be adequately provided for as their individual activities increase.

DISTRIBUTION OF BIOLOGICS

The distribution of drugs, vaccines, and biologics continues to constitute a major function of the Program. Sixty-five distributing stations throughout the State are maintained for the convenience of local physicians and health officials. They are located principally in offices of local boards of health and in a few instances in hospitals. No charge for rent or personnel services is made against the Department by these stations. Materials distributed through the stations were as follows:

Diphtheria Toxoid, alum precipitated	1,200 pkgs.
Gamma Globulin (2cc)	12,515 pkgs.
Pertussis-Diphtheria Tetanus (alum refined)	19,500 pkgs.
Pertussis-Diphtheria-Tetanus (fluid)	8,500 pkgs.
Rabies Vaccine (human)	178 pkgs.
Rocky Mountain Spotted Fever Vaccine	300 pkgs.
Smallpox Vaccine	33,000 pkgs.
Typhoid-Paratyphoid Vaccine	1,900 pkgs.

Because of increased material costs and an increase in the demand for the use of the above materials, approximately \$9,000.00 beyond the original budgeted funds for this purpose were required. This represents an increase of more than 40 per cent of the 1957-1958 budget for these materials.

Salk Poliomyelitis Vaccine was distributed as follows:

Clinics	173,160cc
Child Health Conferences	47,133cc
Distributing Stations	216,630cc
Total	436,923cc

In addition, 93,870cc of polio vaccine was distributed directly to New Jersey physicians by mail upon request.

On March 31, 1958 this Department ceased providing poliomyelitis vaccine for public clinics due to the fact that Federal funds for the purpose were completely used.

Current supplies of poliomyelitis vaccine are purchased with State funds which require that it be used only for persons who are under 20 years of age and pregnant women who are unable to afford the cost of the material.

Bicillin, aureomycin, and other drugs were distributed for the Venereal Disease Control Program as was canine rabies vaccine for the Rabies Control Program.

Constant supervision of the distributing stations was made through periodic and special inspection visits. Local problems concerning the administration of the distributing stations were corrected. Daily inventories and other necessary record-keeping devices were also maintained for all materials described. The fine work performed by the distributing stations for the Department and the excellent cooperation of their personnel are commended.

Budget and Accounts Program

The establishment of new health programs and the expansion of others necessitated certain adjustments in our accounting procedures.

The Budget and Accounts Program 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.

During the fiscal year 1957-1958, one new division, the Division of the Aging, was activated. In the same fiscal year, the Virology Program was also established. The Budget and Accounting Office was responsible for the allocation of and accounting for the expenditure of moneys for these two new units, together with advance preparations and purchases relating to housing of the Virology section in their headquarters at the Madden Building, Donnelly Hospital, Trenton.

During this same fiscal year, a grant of money was made by the Federal Government for the establishment of a Radiation Research Project, involving additional accounting with respect to expenditures of these funds.

Several accounting procedures were revised in order to simplify the system further and to provide increased fiscal information to the program coordinators.

An 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, 1958.

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 being 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.

Immediately below is a consolidated financial statement of the Department as it was constituted on June 30, 1958.

DEPARTMENTAL ALLOCATIONS

DIVISION	Subsides		Other Allocations		Total State	Total Federal	Total All Funds
	State	Federal	State	Federal			
Office of the Commissioner	\$75,078.04	\$19,508.84	\$10,294.50	\$1,446.83	\$92,328.14	\$14,245.17	\$106,657.71
Vital statistics and administration	322,286.82	113,839.49	181,075.53	12,360.22	503,402.35	126,130.71	629,533.06
Preventable diseases	324,743.24	62,870.81	97,443.23	30,091.40	422,187.67	46,431.72	468,619.39
Chronic illness	66,544.20	22,705.84	21,068.45	17,660.90	127,987.39	258,407.31	386,394.70
Laboratories	85,181.79	48,449.42	71,033.38	15,833.01	136,396.19	110,883.20	247,279.39
Constructive health	43,655.00	138,332.83	231,273.04	170,234.05	324,038.04	110,883.20	434,921.24
Special consultation service	481,334.70	104,771.50	96,117.88	73,700.76	675,932.82	238,406.32	914,339.14
The Aging	47,871.06	2,806.86	7,880.30	.....	58,558.22	.....	58,558.22
Total allocations	\$1,226,120.07	\$370,456.14	\$988,313.31	\$311,937.84	\$2,210,442.38	\$1,198,125.08	\$3,408,567.46

DEPARTMENTAL EXPENDITURES

Office of the Commissioner	\$58,000.14	\$12,606.05	\$18,728.13	\$1,440.80	\$87,428.27	\$13,955.45	\$101,383.72
Vital statistics and administration	222,286.82	113,839.49	174,021.08	12,445.20	497,606.11	126,130.71	623,736.82
Preventable diseases	318,738.05	62,870.81	91,064.02	21,020.29	413,693.17	40,028.53	453,721.70
Chronic illness	62,439.01	28,577.00	22,456.62	165,750.10	319,222.73	270,855.58	589,078.31
Laboratories	85,181.79	41,201.94	71,033.38	14,960.00	202,377.11	169,221.80	371,598.91
Constructive health	43,655.00	114,298.43	198,828.88	137,831.20	494,613.51	110,883.20	605,496.71
Special consultation service	445,069.77	130,619.68	85,627.39	61,001.47	722,318.31	274,431.15	996,749.46
The Aging	47,871.06	7,880.30	11,076.32	.....	66,827.68	.....	66,827.68
Total expenditures	\$1,043,775.05	\$639,918.63	\$917,924.80	\$480,347.81	\$2,101,606.35	\$1,110,406.34	\$3,212,012.69
Balances June 30, 1958	\$84,354.02	\$16,208.01	\$70,388.41	\$25,300.13	\$136,250.57	\$71,656.74	\$207,907.31

STATE DEPARTMENT OF HEALTH
FINANCIAL STATEMENT
FISCAL YEAR 1957-1958

Receipts

Received for Transfer to State Treasury:

License and Permit Fees	\$216,530.44
Penalties	3,160.40
Certified Certificates	34,610.50
Examination Fees	8,393.00
Miscellaneous	3,347.44
Net Total	\$266,041.84

Received for Disbursement:

State Appropriations and Transfers	\$2,716,442.38
United States Department of Health, Education and Welfare—Public Health Service	710,603.87
Children's Bureau	460,084.93
Crippled Children Donations	429.60
Other Federal Funds	17,004.68
Net Total	\$3,904,565.46

Examination and Licensing Program

The period covered by the report may be considered the most active since the inception of program. This may be a result of the promotion of public health standards to provide, through better trained and qualified personnel, greater public health service to the citizenry.

During this period, the Public Health Council, by adoption, raised the qualifications necessary for admission to licensing examinations for Health Officers; Sanitary Inspectors, First Grade; and Sanitary Inspectors, Second Grade; and in accordance with statutes enacted adopted the qualifications for Veterinary Meat Inspectors and Meat Inspectors for admission to licensing examinations.

The Program received a total of 1,142 applications for admittance to examinations and held 39 examinations, an increase over the previous year.

Despite the increase in number of new license holders, there still exists a shortage of licensed operators for sewage and water plants. Programs to encourage interested and qualified personnel to become licensed operators are being promoted through the two associations concerned.

The Program and Department are grateful to the members of the various licensing Boards for their cooperative services rendered during this period.

\$96,830.00 was transmitted to the State Treasurer by this Program during the fiscal year covered.

Board of Barber Examiners

REVENUE STATEMENT

FISCAL YEAR ENDED JUNE 30, 1958

Cash Receipts	\$88,437.00
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License Fees:

8,438 Certificates Renewed @ \$5	\$42,190.00
8 Certificates Renewed @ \$3	24.00
454 Certificates by Examination @ \$5	2,270.00
257 Certificates Restored @ \$10	2,570.00
1 Certificate Restored Prior Year @ \$10	10.00
4,219 Shop License Renewals @ \$5	21,095.00
89 Shop License Renewals @ \$10	890.00
* 351 Shop Licenses @ \$25	8,775.00
128 Barber Shop Removals @ \$5	640.00
410 Apprentice Certificates @ \$3	1,230.00
582 Examination Applications @ \$15	8,730.00
Miscellaneous Fees	13.00

Total	\$88,437.00	
Cash Receipts Refunded		293.00
Net Revenue Earned	\$88,144.00	

* 351 Shop Licenses @ \$25 represents:

148 New Shops
203 New Owners

—
351 Total of New Shop Licenses Issued

FINANCIAL STATEMENT

FISCAL YEAR ENDED JUNE 30, 1958

Received for Disbursement:

State Appropriations	\$64,773.00
Salaries	\$47,855.00
Heat, Light and Power	10.00
Motor Vehicular	705.50
Stationery and Office Supplies	450.00
Printing	1,000.00
Replacement, Office Equipment	212.50
Traveling Expenses	6,800.00
Telephone and Telegraph	570.00
Insurance	15.00
Household or Office Expenses	5.00
Subscription and Membership Dues	25.00
Postage	850.00
Miscellaneous Expenses	30.00
Current Repairs—Office Furniture, Machines and Equipment ..	45.00
Current Repairs—Automotive Equipment	200.00
Automotive Equipment	6,000.00
Net Appropriations	\$64,773.00

Expenditures:

Expended for Operation of Board	\$63,916.07
Salaries	\$47,853.21
Heat, Light and Power	7.55
Motor Vehicular	284.69
Stationery and Office Supplies	426.73
Printing	841.95
Replacement, Office Equipment	212.50
Traveling Expenses	6,796.75
Telephone and Telegraph	570.00
Insurance	15.00
Household or Office Expenses	4.89
Subscription and Membership Dues	25.00
Postage	850.00
Miscellaneous Expenses	14.25
Current Repairs—Office Furniture, Machines and Equipment ..	35.80
Current Repairs—Automotive Equipment	1.75
Automotive Equipment	5,976.00
Total Expenditures	\$63,916.07

Unexpended Appropriation Balance as of June 30, 1958

\$856.93

GENERAL SUMMARY OF WHAT HAS BEEN ACCOMPLISHED BY
THE BOARD OF BARBER EXAMINERS

Number of inspection of shops	11,457
Special Investigations	1,616
Shops found with sanitary violations	276
Reinspections	276
Hearings held	10
Shop licenses suspended as a result of a hearing	3
Court Cases	11
Convictions	11
Barbers found working with expired certificates	2
Persons found working without a certificate	44
Unlicensed apprentices	4
Shops found operating with expired licenses	1
Shops operating without a license	17
Shops reported out of business	66
Complaints received from public and investigated	36
Barbers reported deceased	92
Number of applicants scheduled for examination	608
Applicants examined	513
Applicants passed examination	464
Applicants failed to pass examination	49
Applicants failed to appear for an examination	95
Number of examination days	35
Examination fees forfeited	19
Incoming mail	15,471
Outgoing mail	21,840

GERALD LA TORRACA, *Chairman*
 ANDREW FOHL
 THOMAS J. FRINZI
 FRANK MARCHESE, *Secretary-Treasurer*
 Program Coordinator

Personnel and Training Program

Personnel and training needs, in terms of numbers, professional groups and position requirements, are constantly changing in a modern public health program. Many adjustments were made because of changing funds, Civil Service regulations, position titles, specifications, Federal and State laws, position turnover, and availability of qualified applicants.

The personnel and training office during the past year has continued to improve its procedures and to develop further its functions in both the personnel and training areas.

A new educational inventory has been put into operation whereby the complete and up-to-date record of every employee's educational background is available in the personnel office. A close check is being kept on all requests for training privileges.

On-campus recruitment of employees was conducted at many of the leading colleges and universities throughout the eastern section of the United States by members of the personnel and training staff.

A new procedure manual for personnel and training was developed and circulated to all operating units of the department.

As of July 1, 1957, a general upward revision of all professional, technical and non-technical salary ranges was accomplished in cooperation with the State Departments of Civil Service and Treasury.

The orientation course and stenography courses were continued, as was the telephone conduct course. In-service training programs for administrative assistants were held.

A supervisory training course was initiated in the Department and proved to be very successful.

As of June 30, 1958 there were 558 budgeted positions of which 419 were filled by persons with permanent civil service status, 72 by persons with temporary civil service status. In addition, nearly 338 professional workers, such as doctors, dentists, nurses, etc., were hired during the year on a per hour or per diem basis.

Public Health Statistics Program

Calendar Year, 1957

The Public Health Statistics Program in 1957 provided basic, routine statistical data and service to 513 applicants. Primarily, Departmental Programs and other governmental agencies receive much of the statistical services and information compiled. A review of requests received by the Statistics Unit during the year showed that users of statistics consisted mainly of school superintendents, planning associates, research agencies, news reporters, industries, and students. Interests centered on population estimates, numbers of births and deaths, incidence of poliomyelitis and influenza, and data for community surveys.

Collection of illness reports is another function of the Program. The State Sanitary Code prescribes the list of reportable diseases, reports of which are collected on behalf of the medical Programs. Thus, the Morbidity Unit received about 73,000 case reports which were checked against previous reports, unduplicated and coded for additional processing.

It may be of interest to note the number of vital events records processed by the Business Machines Unit. A total of 228,944 records were machine processed in 1957 as against 222,260 in 1956. The 3.0 per cent increase in records in 1957 was due entirely to a new high in births and a rise in deaths.

Population: The population estimate for New Jersey as of July 1, 1957 was 5,279,000. This estimate and the estimates for the counties and major cities as shown in Table 3 were obtained by adding the excess of births over deaths for the period April 1, 1950 through June 30, 1957 to the 1950 census count for the same area 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 non-white races represented 6.7 per cent of the total population. Application of that percentage to the July 1, 1957 estimate of total population gave a figure of 354,000 as the estimated number of non-white persons. The estimate of the white population was 4,925,000 as of July 1, 1957.

Births: The 129,257 live births together with a birth rate of 24.5 per 1,000 population in 1957 were the highest recorded in the last 10-year period. The 1956 live birth total was 124,580 and the birth rate was 23.9.

Of the 113,607 births in 1957 to white mothers, 1,440 or 1.3 per cent were reported as illegitimate. There were 15,650 live births to non-white mothers and 15.6 per cent or 2,449 of this total were illegitimate.

Except where otherwise specified in the text or tables, all births were allocated to the usual residence of the mother.

Of the 125,834 births occurring in New Jersey during 1957, there were 703 records having no entry for weight at birth. Therefore, only 125,131 births were used as the denominator in computing the following percentages by weight.

Weight Group	Number	Per cent
Over 2500 grams	115,915	92.7
2001-2500 grams, incl.	6,176	4.9
1501-2000 grams, incl.	1,680	1.3
1001-1500 grams, incl.	730	0.6
1000 grams or less	630	0.5
Total with weight given	125,131	100.0

Of the 125,834 birth records on which the attendant was clearly identified, 124,824 births or 99.2 per cent occurred in hospitals; 875 or 0.7 per cent were attended by physicians outside of hospitals; and 74 or slightly less than 0.1 per cent had midwives in attendance. The midwife data presented here may differ from figures accumulated by the Maternal and Child Health Program after it checks back on information given on these original birth records.

Marriages: There was a drop of 1.9 per cent in the number of marriages performed in 1957 as compared with the preceding year. In 1957, there were 40,367 marriages with a rate of 7.6 per 1,000 population. Marriages numbered 41,152 in 1956 and resulted in a rate of 7.9.

Of interest was the fact that 25 per cent of the brides married before their twentieth birthday. Six per cent of the grooms married prior to reaching age 20.

Tables 6 and 7 give information on marriages by age and previous marital status of the individuals. All marriage tabulations are by place of occurrence.

Deaths: A total of 57,171 resident deaths from all causes was recorded for New Jersey in 1957. The crude death rate of 10.8 per 1,000 estimated population was the highest recorded in the last 10-year period. The 1949 rate of 10.0 was the lowest in the State's experience.

Table 19 on principal causes of death by age groups deserves careful study by persons interested in learning more of the health hazards facing the citizens of New Jersey.

Summarization of deaths in New Jersey revealed the following items of interest.

Of the 56,057 deaths, 4,698 or 8.4 per cent were deaths of veterans. Of these, 2,700 were World War I veterans; 1,374 were World War II veterans; and 64 were veterans of both wars. Spanish-American War veterans accounted

for 148 deaths plus an additional five persons who were veterans of both the Spanish-American and First World Wars. Veterans of the United Nations Force accounted for 122 deaths and an additional 10 decedents were veterans of other wars. On the remaining 275 death certificates, military service was indicated but war service was unspecified.

Except where otherwise specified in the text or tables, all deaths were allocated to the usual place of residence of the deceased.

Infant Mortality: Deaths of infants under one year of age numbered 3,161 in 1957 and resulted in a death rate of 24.5 per 1,000 live births which is the same rate as in 1956. During 1957, there were 2,475 white infant deaths with an infant mortality rate of 21.8 per 1,000 live births. The non-white infant deaths numbered 686 resulting in an infant mortality rate of 43.8.

Neonatal deaths (infant deaths under 28 days) rose from 2,324 in 1956 to 2,430 in 1957. The neonatal mortality rate in 1957 was 18.8 per 1,000 live births as compared with 18.7 in the preceding year.

A relative new measure of risk at birth is the perinatal mortality rate which is computed as follows:

$$R = \frac{\text{Infant deaths under seven days plus fetal deaths of 20 or more weeks gestation}}{\text{Live births plus fetal deaths of 20 or more weeks gestation}}$$

The perinatal mortality rate was 32.8 in 1956 and 32.7 in 1957. The 1957 rate is based on 2,148 fetal deaths and 2,151 infant deaths under seven days of age.

Maternal Deaths: During 1957, there were 44 maternal deaths, 24 among white mothers and 20 among non-white mothers. The maternal mortality rate was 0.3 per 1,000 live births; for white mothers it was 0.2 and for non-white mothers the rate was 1.3. In 1956, there were 39 maternal deaths, 24 to white mothers and 15 to non-white mothers. The maternal mortality rate in 1956 was 0.3 and 0.2 for white mothers and 1.0 for non-white mothers.

Fetal Deaths: The 2,148 fetal deaths reported for 1957 accounted for a death rate of 16.6 per 1,000 live births. In 1956, there were 2,110 fetal deaths with a rate of 16.9. There were 1,752 white fetal deaths in 1957 and a fetal death rate of 15.4 per 1,000 live births. In 1956, there were 1,708 white fetal deaths and a death rate of 15.5. The non-white fetal deaths in 1957 totalled 390 and resulted in a fetal death rate of 24.9 per 1,000 live births. The non-white fetal deaths and fetal death rate in 1956 were 391 and 27.2, respectively. Race or color was not stated on six fetal death reports for 1957 and on 11 fetal death reports for 1956.

Leading Causes of Death: In 1957 as in 1956, heart diseases, malignant neoplasms, vascular lesions and accidents were responsible for 75 per cent of deaths from all causes.

Heart Disease: There were 24,623 deaths due to heart disease and a death rate of 466.4 per 100,000 population in 1957. In 1956, heart disease deaths numbered 23,620 and yielded a death rate of 453.7.

Cancer: Deaths due to malignant neoplasms totalled 10,423 in 1957 as against 9,937 deaths in 1956. The cancer death rates per 100,000 population were 197.4 and 190.9, respectively.

Vascular Lesions: In 1957, there were 5,230 deaths from vascular lesions with a death rate of 99.1 per 100,000 population. Deaths due to these causes in 1956 numbered 5,054 and resulted in a death rate of 97.1.

All Accidents: A total of 2,301 fatalities were attributed to all accidents in 1957 as compared with 2,183 deaths in 1956. The death rates per 100,000 population were 43.6 in 1957 and 41.9 in 1956.

Influenza and Pneumonia: Asian influenza struck the New Jersey population late in September. Official case reports received numbered 7,827. An additional 32,119 cases of upper respiratory infections and influenza-like diseases were reported. Mortality from both influenza and pneumonia reached a peak in October. Though deaths due to these causes fell off in November and December, they were higher than the number recorded for these diseases during the same months in 1956.

In 1957, there were 138 deaths due to influenza with a death rate of 2.6 per 100,000 population. There were 33 influenza deaths and a rate of 0.6 in 1956. Pneumonia deaths rose from 1,333 in 1956 to 1,655 in 1957. The pneumonia death rate in 1957 was 31.4 per 100,000 population as compared with 25.6 in 1956.

Tuberculosis: It is of interest to note that in 1957 both the number of tuberculosis deaths and the death rate continued to decline. In 1957, there were 519 tuberculosis deaths with a rate of 9.8 per 100,000 population as compared with 522 deaths and a death rate of 10.0 in 1956. Tuberculosis of the respiratory system accounted for 492 fatalities and a rate of 9.3 in 1957 and 487 deaths with a rate of 9.4 in 1956.

Deaths From Other Reportable Diseases: By law and regulation, morbidity reports of certain diseases are required. Although the numbers of deaths from some of these diseases can be found in the mortality tables, reference should also be made to the reports of the Communicable Disease Control Program and the Venereal Disease Control Program.

Changes in Statistical Tables: Attention is called to the renumbering of tables which appear in the section reserved for statistical tables. Table 2, "Births, Infant Deaths, Neonatal Deaths, Fetal Deaths and Maternal Deaths (Numbers and Rates) New Jersey: 1933-1957," was formerly Table 4. Table 3, "Vital Events by Counties and Major Cities, Numbers and Rates," appears for the first time in the Annual Report. Table 4, "Births, Marriages, Deaths, Fetal Deaths, Maternal Deaths, Infant Deaths and Neonatal Deaths by Counties and Municipalities: 1957," was formerly Table 1b. Table 5, "Births, Marriages and Deaths in New Jersey by Month of Occurrence: 1957," was formerly Table 1a. Table 6, "Marriages in New Jersey by Age of Husband by Age of Wife" and Table 7, "Marriages in New Jersey by Previous Marital Status," were previously numbered as Tables 7 and 7a, respectively.

Vital Statistics Registration Program

Calendar Year, 1957

HISTORICAL BACKGROUND

The State Registrar has custody of more than 12 million records of births, marriages, deaths, and fetal deaths which date back to 1848. In addition, approximately 175,000 delayed reports of births have been received, examined, and filed. About 250,000 corrections to original records, covering the period from 1848 through 1930, have been placed temporarily in this same file for future disposition.

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 a 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.

During the last decade, the original records from 1848 through May 31, 1878, and the geographical and alphabetical indices needed for the searching of birth, marriage, and death records for the period June 1, 1878 through December 31, 1903, have been microfilmed and appear on 166 reels of film. In addition, the original marriage and death records from June 1, 1878 through December 31, 1903 have been microfilmed and appear on 380 reels of film. Also, the original death records from January 1, 1904 through December 31, 1930 and the geographical birth indices from January 1, 1920 through December 31, 1924 have been microfilmed and appear on 489 reels of film. The original records, with the exception of the indices, have been transferred to the State Librarian for storage. Twenty boxes and 136 volumes containing

original fetal death records for the period June 1, 1878 through December 31, 1954 were also transferred to the State Librarian. Those latter records will be microfilmed before destruction.

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 105 reels of microfilm.

By law, the State Registrar has supervisory power over the 567 local registrars and must furnish the forms necessary for the registration of vital events. Certain of these forms are used exclusively by the local registrar and others are distributed by him to physicians, clergymen, funeral directors or hospital administrators for registration of pertinent vital events.

NEW LEGISLATION

During the 1957 legislative session, two bills were approved which affected the Program. One new statute permits the State Registrar to record the birth of any child born outside of the United States to a citizen or citizens of the United States provided the child is or shall become a resident of New Jersey. The other statute authorizes the State Registrar to receive a fee for searching the 1905 and/or 1915 State Census Records and issuing certified copies thereof.

WORK LOAD AND ACCOMPLISHMENTS

During 1957, the Program received and processed 225,515 original reports of vital events, 2,000 delayed reports of births, and 6,000 corrections. In addition, there were 6,448 office or telephone calls by persons who wished to file corrections to records, or who were interested in other registration procedures.

Birth certificates under new names were prepared and filed for 2,012 individuals who have 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.

An average of 13 requests daily were received in 1957 for searches of and transcripts from 1905 and/or 1915 State Census Records.

The State Department of Health must certify monthly the name, place and date of burial or cremation, and the name of the war for each veteran dying in New Jersey whose death certificate indicates that burial or cremation was within New Jersey. In 1957, this required the typing of 4,017 copies, all of which were subsequently sorted by county and forwarded to the respective county supervisors of veterans' interments.

The original birth records from June 1, 1878 through December 31, 1903 were microfilmed and transferred to the State Librarian for storage. The 225 reels containing the microfilmed images are used for searching and the preparation of certified copies. Before these birth records could be microfilmed, it was necessary to unfold each record and transfer the file 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 were engaged in this activity. This project was completed on August 16, 1957.

Due to lack of time in previous years, corrections to the original birth records for the period January 1, 1904 through December 31, 1930 have been accumulating. It is estimated that at the beginning of 1957 there were 160,800 correction forms filed alphabetically by years in wooden filing cabinets. In searching birth records for this period, the searcher had to make a double search in order to make certain each search had been properly completed. Following the completion of the microfilm project, the three temporary clerks began the task of attaching the correction forms to the original records. It is expected to complete this project early in 1960.

A daily average of 300 pieces of mail were opened and processed. 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.

A total of 49,799 searches of the records were made 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.

New steel shelving was installed in the vault area where the old records from 1848 to 1903 had been stored. This area is now being used for the storage of marriage records.

The Business Machines Unit is continuing to work on the preparation of an alphabetical index of marriages by the surname of the bride for the period January 1, 1910 through December 31, 1919. This will complete the indices by the surname of the bride, providing a continuous index from June 1, 1878 to date.

Beginning October 1, 1957, photostatic copies of the Ten Percent Monthly Mortality Sample have been prepared instead of the handwritten transcripts. This prevents any errors in transcription.

Training sessions for local registrars were held in Essex and Bergen Counties on October 28, 1957 with an average attendance of 50 registrars, deputies and hospital personnel at each of the two meetings.

Beginning July 1, 1957 all original records are being bound currently by Program personnel in loose leaf binders at a total saving of over \$700.00 each year. The drilling machine has been made available to other Programs and its use will mean additional savings in time and money.

A new Photostat machine was installed in April, 1957 and has been an invaluable aid in keeping up with the photostatic copy work load. It is completely automatic which means the old dryer and sink could be removed, thus providing more space in the photostat room. Fine results are being secured in the preparation of photostatic copies of microfilm images.

There are 166 duplicate reels of 35 millimeter film and 1,094 duplicate reels of 16 millimeter film containing the indices and original records. These reels are stored in three steel cabinets in the Microfilm Room. The original negative films are stored at a different location for security.

There has been cooperation with the National Office of Vital Statistics in its training program by accepting one of its personnel for training in New Jersey policies and procedures, both in the office of the State Registrar and in the office of a local registrar.

A summary of the volume of the major activities of the Program follows:

I. Original Certificates Received, Processed and Permanently Filed.

Certificate Type	Calendar Years		
	1957	1956	1955
Births	125,866	120,271	116,961
Fetal Death	2,016	1,979	2,047
Marriage	40,404	41,156	40,335
Remarriage	1,165	1,194	1,113
Death	56,064	53,348	53,140
Total	225,515	217,948	213,596

II. Searches Requested and Fees Received.

Item	Fiscal Years		
	1958	1957	1956
Searches made and/or certified copies issued for which fees were received	32,624	36,631	34,957
Searches made and/or certified copies issued for which no fees were received	16,195	16,120	14,623
Total searches	48,819	52,751	49,580
Fees received for searches and certified copies	\$34,610.56	\$36,094.52	\$35,383.61

TABLES AND CHARTS—1957

- Table 1. Population estimates and vital events (numbers and rates): 1933-1957.
- Chart 1. Birth and death rates per 1,000 population (based on five-year averages of events and population): 1880-1954.
- Table 2. Births, infant deaths, neonatal deaths, fetal deaths and maternal deaths: 1933-1957 (numbers and rates).
- Table 3. Vital events by counties and major cities: 1957 (numbers and rates).
- Table 4. Births, marriages, deaths, fetal deaths, maternal deaths, infant deaths and neonatal deaths by counties and municipalities: 1957.
- Table 5. Births, marriages and deaths in New Jersey by month of occurrence: 1957.
- Table 6. Marriages in New Jersey by age of husband by age of wife: 1957.
- Table 7. Marriages in New Jersey by previous marital status: 1957.
- Table 12a. Deaths from neoplasms by age, sex and color for each cause group: 1957.
- Table 12b. Death rates per 100,000 population for malignant neoplasms by age, sex and color for each cause group: 1957.
- Chart 2. Cancer death rates per 100,000 population (based on five-year averages of deaths and population): 1880-1954.
- Table 13a. Motor vehicle deaths in New Jersey by age, by cause of death: 1957.
- Table 13b. Nontransport accidental deaths in New Jersey by cause of death by place of accident: 1957.
- Table 14a. Deaths from diseases of the circulatory system by age, sex and color for each cause group: 1957.
- Table 14b. Death rates per 100,000 population for diseases of the circulatory system by age, sex and color for each cause group: 1957.
- Table 15. Deaths from diabetes by age, sex and color (numbers and rates) New Jersey: 1957.
- Table 18a. Infant deaths by age and immaturity: 1957.
- Table 18b. Infant deaths by cause and age: 1957.
- Table 19. Principal causes of death by specified age groups (numbers and rates): 1957.
- Table 20. Deaths by cause by sex and age groups: 1957.
- Table 22. Deaths by cause groups by sex and age groups: 1957.
(For the State, each county, cities having estimated populations of 50,000 or more, State institutions and military posts.)

Table 1. POPULATION ESTIMATES AND VITAL EVENTS

(Numbers and Rates): 1933-1957

YEAR	Estimated Population As of July 1	BIRTHS		MARRIAGES		DEATHS	
		Number	Rate	Number	Rate	Number	Rate
1933	4,080,000	56,672	13.7	24,433	6.0	43,350	10.6
1934	4,061,500	54,841	13.4	28,991	7.1	43,547	10.6
1935	4,103,700	55,039	13.4	29,724	7.2	43,267	10.5
1936	4,115,600	54,145	13.2	22,771	8.0	44,659	10.9
1937	4,127,500	55,197	13.4	26,190	8.3	45,312	11.0
1938	4,139,400	56,602	13.7	21,006	7.5	44,045	10.6
1939	4,151,300	56,359	13.7	31,895	7.7	43,837	10.6
1940	4,163,100	59,328	14.3	41,059	9.9	45,206	10.9
1941	4,199,900	67,104	16.0	46,588	11.1	45,971	10.9
1942	4,226,428	80,812	19.1	50,488	11.9	46,270	10.9
1943	4,235,233	82,358	19.4	41,045	9.7	49,781	11.8
1944	4,167,840	75,532	18.2	36,084	8.7	47,340	11.4
1945	4,200,941	76,995	18.3	39,711	9.5	47,633	11.3
1946	4,304,261	95,044	22.1	61,020	14.2	46,201	10.7
1947	4,423,000	106,088	23.9	55,802	12.6	48,276	10.9
1948	4,729,000	97,278	20.6	51,913	11.0	48,107	10.2
1949	4,786,000	97,414	20.4	44,469	9.3	47,706	10.0
1950	4,852,000	97,734	20.2	46,291	9.6	48,837	10.1
1951	4,896,000	105,215	21.5	44,594	9.1	50,958	10.2
1952	4,949,000	110,215	22.3	41,123	8.3	51,430	10.4
1953	5,006,000	112,522	22.5	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	120,969	23.5	40,327	7.8	54,053	10.5
1956	5,206,000	124,880	23.9	41,152	7.9	54,418	10.5
1957	5,279,000	129,237	24.5	40,367	7.6	57,171	10.8

Note: Rates are per 1,000 population.

Marriage data are by place of occurrence.

For similar data for the period 1921 through 1932, see Table 1 of the Annual Report for any year from 1933 through 1957; for the years 1879 through 1920, see Table 1 of the Report for any year from 1921 through 1950.

CHART I.

BIRTH AND DEATH RATES

per 1,000 population

(Based on Five-Year Averages of Events and Population)

1880 - 1954

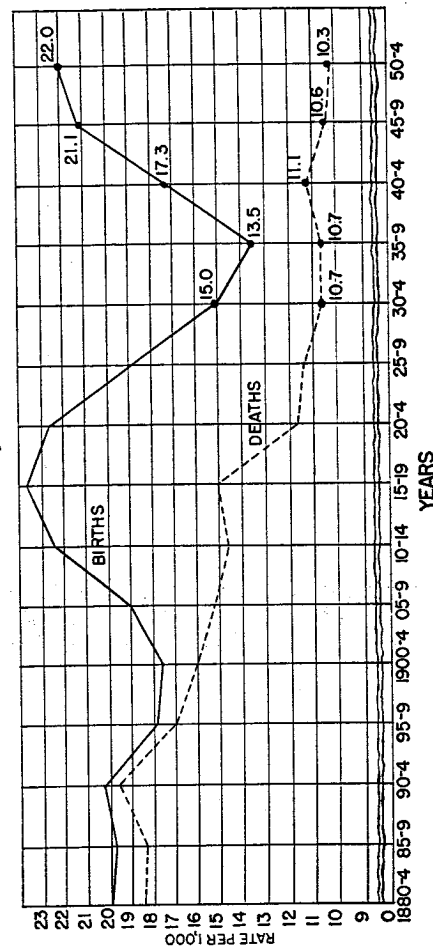


Table 2. BIRTHS, INFANT DEATHS, NEONATAL DEATHS, FETAL DEATHS AND MATERNAL DEATHS: 1933-1957
(Numbers and Rates)

Year	Births		Infant Deaths		Neonatal Deaths*		Fetal Deaths		Maternal Deaths	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1933	56,072	46.5	2,608	27.3	1,533	27.3	2,079	37.0	289	6.1
1934	54,841	49.9	2,686	49.9	1,533	27.3	2,025	36.9	294	6.3
1935	55,059	46.1	2,530	28.8	1,560	28.8	1,946	34.0	249	4.5
1936	54,145	44.0	2,383	26.8	1,449	26.8	1,846	31.1	232	4.7
1937	55,197	59.3	2,170	24.0	1,327	24.0	1,731	31.4	182	3.2
1938	56,002	80.3	2,228	24.1	1,305	24.1	1,704	30.1	101	1.8
1939	56,859	88.3	2,180	23.8	1,412	23.8	1,513	28.3	160	2.9
1940	59,328	85.3	2,094	22.6	1,422	22.6	1,513	28.3	160	2.9
1941	57,372	85.6	2,392	26.6	1,651	26.6	1,732	28.8	172	3.0
1942	58,842	81.4	2,355	25.4	1,621	25.4	2,006	24.8	152	1.9
1943	82,556	83.8	2,782	23.0	1,892	23.0	1,978	24.0	151	1.8
1944	75,682	83.9	2,767	23.2	1,756	23.2	1,744	23.0	151	1.8
1945	75,682	83.9	2,767	23.2	1,756	23.2	1,744	23.0	151	1.8
1946	85,044	82.1	2,470	22.8	1,680	22.8	1,827	23.7	119	1.6
1947	100,056	77.9	2,020	19.3	2,217	21.3	2,127	22.4	116	1.3
1948	97,278	26.6	1,961	20.2	1,961	20.2	1,994	20.2	76	0.8
1949	104,444	25.0	1,910	19.6	1,910	19.6	1,972	20.2	72	0.7
1950	107,784	25.0	1,875	19.2	1,875	19.2	1,845	18.9	69	0.7
1951	105,218	23.0	1,747	17.3	1,666	17.3	1,593	18.9	69	0.7
1952	110,252	23.0	1,633	15.2	1,566	15.2	1,502	18.2	70	0.6
1953	119,592	23.6	1,654	14.2	2,048	18.2	2,046	18.2	55	0.5
1954	118,282	23.4	2,078	17.6	2,078	17.6	1,933	16.3	59	0.5
1955	120,009	24.0	2,054	17.1	2,054	17.1	2,115	17.5	64	0.5
1956	124,580	24.5	2,824	18.7	2,824	18.7	2,115	17.5	64	0.5
1957	129,257	24.5	3,161	24.5	2,430	18.8	2,448	19.0	44	0.3

Note: Rates are per 1,000 live births.
* Beginning with 1951, neonatal deaths include only deaths under 28 days of age.

Table 3. VITAL EVENTS BY COUNTIES AND MAJOR CITIES: 1957
(Numbers and Rates)

Area*	July 1 Estimated Population	Births		Marriages†		Deaths	
		Number	Rate‡	Number	Rate‡	Number	Rate‡
STATE TOTAL	5,279,000	129,237	24.5	40,367	7.6	57,171	10.8
Atlantic City	139,000	3,067	22.1	1,168	8.4	2,063	14.8
Atlantic City	62,000	978	15.8	498	8.0	1,016	16.4
Bergen County	599,000	15,508	25.9	4,314	7.2	5,984	10.0
Burlington County	151,000	4,245	28.1	1,113	7.4	1,413	9.4
Camden County	330,000	8,459	25.6	2,518	7.6	3,564	10.8
Camden City	134,000	2,821	21.1	1,184	8.8	1,425	10.6
Cape May County	37,000	883	23.9	352	9.5	645	17.4
Cumberland County	96,000	2,348	24.5	686	7.1	1,038	11.0
Essex County	972,000	20,424	21.0	8,099	8.3	10,597	10.9
East Orange	85,000	1,668	19.6	531	6.2	991	11.7
Irvington	62,000	1,097	17.7	504	8.1	691	11.1
Newark	472,000	10,577	22.4	4,540	9.6	5,257	11.1
Gloucester County	103,000	2,956	28.7	720	7.0	1,133	11.0
Hudson County	692,000	13,367	19.3	5,428	7.8	7,318	10.6
Bayonne	84,000	1,511	18.7	507	6.0	811	9.7
Hoboken	54,000	1,076	19.9	379	10.7	584	10.8
Jersey City	320,000	6,492	20.3	2,651	8.3	3,422	10.7
Union City	57,000	1,075	18.9	559	9.8	699	12.3
Hunterdon County	47,000	997	21.2	282	6.0	580	12.3
Mercer County	250,000	5,785	23.1	1,777	7.1	2,675	10.7
Trenton	135,000	2,627	19.5	1,047	7.8	1,531	11.3
Middlesex County	302,000	9,913	32.8	2,165	7.2	2,936	9.7
Monmouth County	248,000	7,353	29.6	1,915	7.7	3,157	12.7
Morris County	184,000	5,555	30.2	1,284	7.0	1,963	10.7
Ocean County	62,000	2,111	34.0	574	9.3	993	16.0
Passaic County	385,000	8,594	22.5	2,892	7.7	3,946	10.3
Citron	75,000	1,903	25.0	378	5.3	665	9.2
Passaic	59,000	963	16.3	597	10.1	649	11.0
Paterson	147,000	3,328	22.6	1,267	8.6	1,762	12.0
Salem County	55,000	1,334	24.3	349	6.3	556	10.1
Somerset County	112,000	3,050	27.2	690	6.2	1,025	9.2
Sussex County	38,000	940	25.0	306	8.1	480	12.6
Union County	438,000	10,626	24.3	3,030	6.9	4,326	9.9
Elizabeth	121,000	2,519	20.8	868	7.2	1,261	10.4
Warren County	59,000	1,258	21.3	418	7.1	712	12.1
State Institutions	‡	20	‡	1	‡	22	‡
Military Posts	‡	455	‡	378	‡	25	‡

* County figures include city data also. County and city totals exclude events charged to state institutions or military posts geographically located within county or city boundaries.

† By place of occurrence.

‡ Rates are per 1,000 estimated population.

§ Not available.

¶ Rates not computed due to lack of population base.

Table 4. BIRTHS, MARRIAGES, DEATHS, FETAL DEATHS, MATERNAL DEATHS, INFANT DEATHS AND NEONATAL DEATHS BY COUNTIES AND MUNICIPALITIES: 1957
(Births, deaths and fetal deaths adjusted for residence)

BERGEN COUNTY—Continued

ATLANTIC COUNTY							
CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Abscon City	135	23	54	2	...	6	6
Atlantic City	978	498	1016	23	...	39	2
Brigantine City	81	8	29	3	...	2	2
Buena Borough	49	8	36	2	...	3	1
Buena Vista Township	55	18	33	1	...	3	2
Corbin City	3	1	2	1	...	...	...
Egg Harbor City	127	66	67	2	...	5	4
Egg Harbor Township	90	18	59	2	...	7	2
Estell Manor City	6	3	8	3	...	...	...
Folsom Borough	16	1	3	...	...	...	...
Galway Township	69	27	43	1	...	1	1
Hamilton Township	168	19	77	1	...	7	4
Hammonctown	248	91	111	4	...	4	4
Linwood City	83	23	21	...	...	1	1
Longport Borough	15	5	15	...	...	...	...
Margate City	138	38	90	...	...	4	1
Mullica Township	34	13	15	...	...	...	...
Northfield City	109	24	48	2	...	2	2
Pleasantville City	411	123	169	9	...	12	9
Port Republic City	6	...	9	...	...	3	2
Somers Point City	106	29	58	...	...	3	3
Ventnor City	116	94	95	...	...	3	3
Weymouth Township	22	3	15	1	...	2	2
Total	3067	1108	2063	55	...	104	75

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Norwood Borough	52	12	24	1	...	1	1
Oakland Borough	208	12	36	3	...	5	5
Old Tappan Borough	59	10	10	...	...	...	...
Oradell Borough	104	14	59	1	...	6	5
Palisades Interstate Park	...	...	...	...	...	...	...
Palisades Park Borough	237	83	93	2	...	7	6
Paramus Borough	573	73	108	11	...	13	10
Park Ridge Borough	114	46	36	2	...	1	1
Ramsey Borough	158	47	83	2	...	5	4
Ridgefield Borough	239	67	82	2	...	4	4
Ridgefield Park Township	272	84	147	1	...	4	3
Ridgewood Village	372	151	228	7	...	8	6
River Edge Borough	230	57	86	4	...	4	2
River Vale Township	131	3	29	7	...	2	2
Rochelle Park Township	83	32	48	2	...	2	2
Rockleigh Borough	1	...	1	...	...	...	...
Rutherford Borough	421	118	247	10	...	9	6
Saddle Brook Township	236	30	63	5	...	5	5
Saddle River Borough	16	14	13	5	...	...	...
South Hackensack Township	33	1	14	1	...	...	...
Teaneck Township	641	235	357	15	...	14	13
Tenafly Borough	188	71	99	4	...	7	5
Teterboro Borough	...	...	...	...	...	...	...
Upper Saddle River Borough	51	7	6	3	...	...	...
Waldwick Borough	262	20	34	4	...	6	6
Wallington Borough	192	50	92	4	...	3	3
Washington Township	128	16	1	2	...	1	1
Westwood Borough	180	80	77	2	...	1	1
Woodcliff Lake Borough	51	1	18	...	...	3	2
Wood Ridge Borough	113	46	93	3	...	5	3
Wyckoff Township	198	50	83	7	...	3	2
Total	15508	4314	5984	269	...	315	261

BERGEN COUNTY

BURLINGTON COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Allendale Borough	65	11	34	...	...	2	2
Alpine Borough	19	5	7	2	...	1	1
Bergenfield Borough	538	127	206	10	...	13	11
Bogota Borough	136	96	86	...	...	3	2
Carlstadt Borough	117	15	67	4	...	3	3
Cliffside Park Borough	352	104	192	7	...	6	2
Closter Borough	144	22	51	2	...	4	3
Cresskill Borough	150	31	41	1	...	4	4
Demarest Borough	72	22	28	1	...	1	1
Dumont Borough	358	68	117	6	...	4	4
East Paterson Borough	426	65	121	4	...	11	11
East Rutherford Borough	132	70	43	...	...	1	1
Edgewater Borough	77	39	48	...	...	1	1
Emerson Borough	165	17	21	...	...	...	...
Englewood City	526	352	276	12	...	11	9
Englewood Cliffs Borough	19	6	13	...	...	...	...
Fair Lawn Borough	652	139	247	16	...	15	12
Fairview Borough	205	120	87	3	...	6	6
Franklin Lakes Borough	516	185	179	8	...	12	11
Garfield City	66	11	17	1	...	10	8
Garfield City	635	182	226	10	...	15	14
Glen Rock Borough	209	68	76	4	...	2	1
Hackensack City	670	318	303	8	...	15	14
Harrington Park Borough	55	13	20	...	...	...	...
Hasbrouck Heights Borough	231	63	108	5	...	1	1
Haworth Borough	39	10	32	...	...	...	...
Hillsdale Borough	153	24	69	2	...	4	2
Hoboken Borough	57	39	22	...	...	...	...
Leonia Borough	169	37	76	2	...	3	3
Little Ferry Borough	123	34	64	1	...	4	3
Lodi Borough	654	109	157	9	...	8	7
Lyndhurst Township	433	131	178	12	...	12	10
Mahwah Township	119	41	60	1	...	3	2
Maywood Borough	230	73	67	10	...	4	3
Midland Park Borough	163	29	67	2	...	3	3
Montrale Borough	86	4	18	1	...	...	...
Mooneville Borough	78	5	15	4	...	2	2
New Milford Borough	617	62	99	13	...	4	3
North Arlington Borough	417	95	153	2	...	6	6
Northvale Borough	55	11	17	...	...	...	...

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bass River Township	8	5	19	...	...	1	1
Beverly City	131	23	44	1	...	2	2
Bordentown City	235	58	40	3	...	5	5
Bordentown Township	69	1	31	...	...	2	2
Burlington City	247	125	192	4	...	12	9
Burlington Township	185	21	37	1	...	2	1
Chesterfield Township	19	20	14	...	...	1	1
Cinnaminson Township	33	16	27	...	...	1	1
Delanco Township	73	10	50	...	...	...	...
Delran Township	46	7	20	...	...	...	...
Eastampton Township	24	4	9	...	...	...	...
Eastwager Park Township	13	18	11	1	...	1	1
Evesham Township	108	7	25	1	...	...	...
Fieldsboro Borough	15	3	6	...	...	...	...
Florence Township	169	56	75	2	...	4	3
Hainesport Township	66	17	27	2	...	1	1
Lumberton Township	67	8	15	...	...	1	1
Mansfield Township	43	10	21	...	...	...	...
Maple Shade Township	308	90	83	8	...	11	9
Medford Lakes Borough	39	14	13	...	...	4	4
Medford Township	113	19	44	2	...	4	3
Moorestown Township	294	81	136	4	...	4	4
Mount Holly Township	496	104	127	9	...	18	17
Mount Laurel Township	98	4	20	1	...	2	2
New Hanover Township	57	2	4	1	...	...	...
North Hanover Township	25	73	9	...	...	...	...
Palmyra Borough	139	39	51	5	...	6	4
Pemberton Borough	106	16	16	...	...	3	2
Pemberton Township	342	72	62	6	...	9	6
Riverside Township	262	76	88	6	...	9	5
Riverton Borough	92	41	40	...	...	2	1
Shamong Township	13	3	14	2	...	1	1
Southampton Township	86	28	24	...	...	4	4
Springfield Township	37	1	11	...	...	...	...
Tabernacle Township	22	15	9	1	...	...	...
Washington Township	6	5	7	...	...	...	...
Westampton Township	37	3	14	2	...	1	1
Willingsboro Township	6	2	...	...	...	...	...
Woodland Township	17	1	8	...	...	...	...
Wrightstown Borough	79	15	8	...	...	3	2
Total	4245	1113	1413	57	...	115	98

CAMDEN COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Audubon Borough	195	49	101	2	...	4	4
Audubon Park Borough	31	4	14	...	...	3	3
Barrington Borough	168	19	46	1	...	6	5
Bellmawr Borough	304	27	55	4	...	7	3
Berlin Borough	51	67	43	3	...	2	...
Berlin Township	93	2	26	1	...	1	...
Brooklawn Borough	54	12	25	...	...	...	...
Camden City	2821	1184	1425	59	2	90	74
Chesilhurst Borough	7	11	6	1	...	...	...
Clementon Borough	106	11	40	1	...	3	3
Collingswood Borough	389	121	240	4	...	21	18
Delaware Township	234	51	88	2	...	8	8
Gibbsboro Borough	50	3	9	...	...	...	...
Gloucester City	345	91	173	5	1	5	5
Gloucester Township	303	45	106	5	...	6	3
Haddonfield Borough	645	103	186	4	1	15	11
Haddon Heights Borough	154	81	80	...	...	3	4
Haddon Township	162	60	111	1	...	3	2
Hi Nella Borough	...	...	...	...	...	...	...
Laurel Springs Borough	40	8	23	...	...	1	...
Lawnside Borough	54	21	22	2	...	3	2
Lindenwold Borough	179	38	45	2	...	4	4
Magnolia Borough	117	28	28	...	...	...	...
Merchantville Borough	247	60	85	2	...	6	4
Mount Ephraim Borough	123	40	34	3	...	3	3
Oaklyn Borough	100	41	47	4	...	3	3
Pennsauken Township	687	113	216	7	...	12	10
Pine Hill Borough	44	88	36	2	...	1	...
Pine Valley Borough	...	...	...	...	...	...	...
Runnemede Borough	178	60	47	4	1	1	1
Somerdale Borough	133	21	30	...	...	5	3
Stratford Borough	99	12	19	1	...	...	...
Taristock Borough	45	8	21	...	...	...	...
Voorhees Township	45	8	21	...	...	1	1
Waterford Township	93	33	34	2	...	4	2
Winslow Township	121	17	60	2	...	4	2
Wood Lynne Borough	66	16	31	1	...	2	2
Total	8459	2518	3564	124	5	233	178

CAPE MAY COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Avalon Borough	10	5	15	...	...	...	...
Cape May City	92	43	45	5	...	3	3
Cape May Point Borough	2	3	3	...	...	...	...
Dennis Township	49	16	28	...	...	...	...
Lower Township	118	29	80	...	...	...	...
Middle Township	139	48	77	1	...	...	...
North Wildwood City	61	10	38	4	1	5	4
Ocean City	120	58	131	...	...	1	1
Seaside City	21	9	18	...	...	...	...
Stone Harbor Borough	6	7	11	...	...	...	...
Upper Township	61	13	36	...	...	...	...
West Cape May Borough	28	2	13	1	...	2	2
West Wildwood Borough	1	1	3	...	...	...	...
Wildwood City	83	86	100	1	...	2	2
Wildwood Crest Borough	43	13	24	...	...	...	...
Woodbine Borough	48	7	18	1	...	2	1
Total	883	352	645	18	1	17	15

CUMBERLAND COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bridgeton City	584	197	224	13	...	15	8
Commercial Township	46	17	47	...	...	...	...
Deerfield Township	63	12	21	2	...	...	...
Downe Township	89	5	29	...	...	1	1
Fairfield Township	86	21	32	2	...	4	2
Greenwich Township	22	4	9	...	...	...	...
Hopewell Township	72	9	27	1	...	...	...
Lawrence Township	79	26	35	3	...	6	5
Maurice River Township	45	16	32	1	...	...	...
Millville City	426	136	232	5	...	9	7
Shiloh Borough	3	1	7	...	...	...	...
Stow Creek Township	34	1	3	...	...	1	1
Upper Deerfield Township	135	33	36	...	...	4	3
Vineland City	708	206	324	8	...	15	11
Total	2348	686	1058	42	...	61	38

ESSEX COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Belleville Town	759	226	316	13	...	13	11
Bloomfield Town	1141	293	488	25	...	19	14
Caldwell Borough	101	53	95	1	...	1	...
Caldwell Township	3	9	29	1	...	2	1
Cedar Grove Township	274	24	67	4	1	8	6
East Orange City	1685	531	991	25	...	38	25
Essex Fells Borough	24	16	14	...	...	...	...
Glen Ridge Borough	99	38	118	...	...	2	1
Irrington Town	1027	504	681	16	...	17	14
Livingston Township	419	62	99	...	...	8	5
Maplewood Township	305	193	276	6	...	4	4
Millburn Township	213	153	131	4	...	5	5
Montclair Town	792	370	573	10	2	19	14
Newark City	1637	4549	3237	232	10	383	285
North Caldwell Borough	49	8	16	1	...	2	2
Nutley Town	305	245	283	13	...	17	12
Orange City	962	374	467	9	...	32	24
Roseland Borough	47	13	25	1	...	2	2
South Orange Village	196	162	182	1	...	5	4
Verona Borough	237	70	98	3	...	7	5
West Caldwell Borough	126	9	44	4	...	...	...
West Orange Town	759	165	337	5	...	23	20
Total	20424	8096	10597	393	13	605	454

GLOUCESTER COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Clayton Borough	103	33	46	...	...	2	1
Deptford Township	185	56	71	1	...	7	6
East Greenwich Township	49	11	24	2	...	1	1
Elk Township	26	5	23	...	...	2	1
Franklin Township	120	26	61	...	...	4	4
Glassboro Borough	262	48	81	5	...	8	6
Greenwich Township	61	21	20	1	1	1	...
Harrison Township	70	15	23	1	...	2	2
Logan Township	27	3	14	1	...	...	...
Mantua Township	168	40	63	1	...	3	3
Monroe Township	159	43	109	1	...	7	5
National Park Borough	70	22	24	...	...	5	4
Newfield Borough	66	16	19	...	...	6	6
Paulsboro Borough	234	80	89	2	...	8	7
Pitman Borough	153	51	96	5	...	8	7
South Harrison Township	16	2	11	...	...	...	...
Swedesboro Borough	100	45	26	4	...	4	3
Washington Township	41	20	31	2	...	2	1
Wenonah Borough	112	14	25	2	...	3	3
West Deptford Township	110	24	54	1	...	7	4
Westville Borough	128	38	53	...	1	...	...
Woodbury City	583	97	151	2	...	11	11
Woodbury Heights Borough	40	10	17	2	...	2	2
Woodwich Township	12	...	9	...	...	...	...
Total	2356	720	1133	39	2	85	70

HUDSON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bayonne City	1571	507	511	30	...	27	23
East Newark Borough	44	26	31	...	...	1	1
Guttenberg Town	86	32	72	4	...	2	2
Harrison Town	261	109	162	2	...	4	4
Hoboken City	1073	379	354	18	...	25	17
Jersey City	6403	2651	3422	118	...	165	127
Kearny Town	517	272	411	16	...	18	13
North Bergen Township	820	134	441	17	...	20	17
Secaucus Town	183	60	93	2	...	4	3
Union City	1073	539	699	10	...	25	20
Weehawken Township	234	61	178	5	...	8	7
West New York Town	705	436	414	9	1	22	17
Total	13367	5428	7318	227	1	321	251

HUNTERDON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Alexandria Township	31	4	12	...	...	1	...
Bethlehem Township	16	5	11	...	...	...	...
Bloomfield Borough	23	5	10	...	...	...	...
Calton Borough	18	2	8	...	...	...	...
Clinton Town	22	14	28	...	...	2	2
Clinton Township	77	5	38	3	...	1	1
Delaware Township	28	10	22	...	...	2	1
East Amwell Township	46	5	22	2	...	...	...
Flemington Borough	78	63	65	...	...	...	...
Franklin Township	32	6	24	...	...	...	...
Frechtown Borough	27	6	17	...	...	...	...
Glen Gardner Borough	20	...	20	1	...	1	1
Hampton Borough	21	10	13	...	...	1	1
Lebanon	38	10	35	...	...	2	2
Holland Township	31	4	13	...	...	...	...
Kingwood Township	21	10	18	...	...	2	2
Lambertville City	83	31	69	...	...	2	2
Lebanon Borough	13	11	8	...	...	...	...
Lebanon Township	43	8	20	1	...	1	2
Milford Borough	31	11	10	...	...	1	...
Raritan Township	74	6	17	1	...	...	...
Readington Township	106	42	56	1	...	1	1
Stockton Borough	15	6	8	...	...	...	...
Tewksbury Township	43	2	18	1	...	...	...
Union Township	25	3	7	...	...	2	1
West Amwell Township	33	3	13	...	...	3	2
Total	997	282	580	10	...	23	16

MERCER COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
East Windsor Township	43	2	20	2	...	...	...
Ewing Township	536	90	174	7	...	1	0
Hamilton Township	1403	289	512	28	...	29	24
Hightstown Borough	123	45	61	3	1	4	4
Hopewell Borough	46	19	25	1	...	1	1
Hopewell Township	119	14	56	...	...	2	1
Lawrence Township	216	61	76	1	4	4	4
Pennington Borough	57	21	25	1	...	...	...
Princeton Borough	162	165	101	6	...	4	7
Princeton Township	229	10	51	1	...	7	8
Trenton City	2827	1047	1531	47	4	64	45
Washington Township	58	8	13	2	...	...	...
West Windsor Township	66	6	30	1	...	2	1
Total	5785	1777	2675	100	5	120	100

MIDDLESEX COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Carteret Borough	470	194	120	7	...	6	3
Crainburg Township	67	12	19	...	...	...	...
Dunellen Borough	132	89	96	1	...	...	...
East Brunswick Township	471	24	87	9	...	10	10
Easton Township	774	168	190	13	...	20	15
Helmetta Borough	15	9	6	...	...	...	...
Highland Park Borough	159	75	94	4	...	7	6
Jamesburg Borough	110	25	33	1	...	...	...
Madison Township	351	41	93	4	...	11	16
Metuchen Borough	542	80	125	4	...	11	10
Middlesex Borough	248	27	53	4	...	2	2
Milford Borough	173	41	45	1	...	4	2
Monroe Township	64	4	22	2	1	3	2
New Brunswick City	1040	438	416	15	...	24	18
North Brunswick Township	186	9	69	2	1	3	3
Perth Amboy City	822	397	428	16	...	19	15
Piscataway Township	389	54	85	5	...	5	2
Plainboro Township	28	3	5	1	...	...	...
Sayreville Borough	652	46	117	5	1	8	7
South Amboy City	235	88	102	...	...	1	1
South Brunswick Township	137	35	43	5	...	6	4
South Plainfield Borough	464	54	103	6	...	6	5
South River Borough	296	113	117	4	...	6	5
Spotswood Borough	139	18	30	...	...	5	3
Woodbridge Township	1909	224	447	28	2	42	35
Total	9913	2165	2936	138	5	201	157

MONMOUTH COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Allenhurst Borough	19	5	12	...	...	1	1
Allentown Borough	42	17	15	...	...	2	1
Asbury Park City	421	271	290	10	...	4	4
Atlantic Highlands Borough	129	57	52	2	...	1	1
Atlantic Township	37	7	10	...	...	...	...
Avon-by-the-Sea Borough	19	34	27	...	...	3	1
Belmar Borough	96	46	86	4	...	3	1
Bradley Beach Borough	81	38	55	3	...	...	...
Brielle Borough	35	5	30	2	...	...	...
Deal Borough	27	15	14	...	...	1	1
Eatonville Borough	382	53	58	4	...	5	5
Englishtown Borough	13	13	25	...	...	2	1
Fair Haven Borough	108	21	46	1	...	6	3
Farmingdale Borough	28	24	17	...	...	...	...
Freehold Borough	215	102	115	2	2	2	2
Freehold Township	106	3	49	...	...	1	1
Highlands Borough	100	17	56	2	...	3	2
Holmdel Township	24	4	26	...	...	...	...
Howell Township	178	17	95	...	...	5	3
Interlaken Borough	15	2	14	...	...	...	...
Keansburg Borough	158	81	89	4	...	8	5
Keypoint Borough	223	92	83	...	...	5	5
Little Silver Borough	89	5	31	3	...	...	...
Long Branch City	710	181	281	11	...	14	8
Manalapan Township	105	18	36	2	...	3	3
Manasquan Borough	53	45	58	2	...	1	1
Marlboro Township	78	16	39	...	...	...	...
Matawan Borough	161	30	61	1	...	3	2
Matawan Township	122	22	50	2	...	3	1
Middletown Township	889	112	240	13	...	16	13
Milstone Township	78	8	28	1	...	5	5
Monmouth Beach Borough	20	5	15	...	...	...	...
Neptune City Borough	93	16	52	...	...	...	...
Neptune Township	478	39	248	10	...	18	7
New Shrewsbury Borough	125	16	27	1	...	2	2
Oceanport Borough	70	14	23	2	...	1	...

MONMOUTH COUNTY—Continued

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Ocean Township	238	37	69	1	...	2	...
Raritan Township	208	21	44	3	...	7	6
Red Bank Borough	422	188	187	4	...	14	10
Roosevelt Borough	7	1	5	1	...	1	1
Rumson Borough	117	42	54	2	...	3	3
Sea Bright Borough	24	6	17	...	...	...	...
Sea Girt Borough	22	12	21	...	...	...	...
Shrewsbury Borough	61	14	17	...	...	1	1
Shrewsbury Township	32	5	1	...	...	...	...
South Belmar Borough	29	4	18	...	...	...	...
Spring Lake Borough	52	40	37	...	...	1	...
Spring Lake Heights Borough	81	7	21	1	...	...	...
Union Beach Borough	144	23	52	2	...	2	2
Upper Freshold Township	167	17	25	...	...	3	1
Wall Township	139	25	105	3	...	5	2
West Long Branch Borough	68	22	31	1	...	...	...
Total	7333	1915	3157	111	2	156	111

MORRIS COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Boonton Town	150	49	85	1	...	2	2
Boonton Township	61	2	17	...	...	2	2
Butler Borough	154	44	49	3	...	1	1
Chatham Borough	177	69	72	3	1	6	5
Chatham Township	99	2	29	2	...	...	...
Chester Borough	58	28	15	...	...	1	1
Chester Township	48	1	10	1	...	...	...
Denville Township	200	23	91	5	...	6	4
Dover Town	341	140	144	6	...	13	10
East Hanover Township	44	16	24	1	...	1	...
Floham Park Borough	157	21	37	2	...	4	4
Hanover Township	325	29	52	6	...	2	2
Harding Township	45	8	16	...	...	...	...
Jefferson Township	112	23	49	2	...	2	2
Kinnelon Borough	56	5	11	1	...	1	1
Lincoln Park Borough	143	16	43	1	...	2	1
Madison Borough	306	87	128	3	...	4	3
Mendham Borough	40	24	25	...	...	...	...
Mendham Township	37	5	17	...	...	...	...
Montville Township	99	22	29	1	...	5	2
Montville Township	148	25	65	1	...	2	2
Morris Plains Borough	131	55	61	1	...	3	3
Morristown Town	529	174	216	6	1	20	15
Morris Township	177	43	80	2	...	3	3
Mountain Lakes Borough	50	29	26	1	...	1	1
Mount Arlington Borough	23	10	9	...	...	...	...
Mount Olive Township	94	13	36	2	...	2	2
Netcong Borough	70	44	20	1	...	...	...
Passaic-Troy Hills Township	417	53	98	13	...	11	9
Passaic Township	132	29	42	3	...	5	3
Pequanock Township	254	45	70	8	...	4	3
Randolph Township	155	24	38	2	...	2	2
Rivendale Borough	58	11	11	1	...	...	...
Rockaway Borough	121	52	48	1	...	2	2
Rockaway Township	185	36	53	3	...	4	3
Roxbury Township	223	32	80	3	...	8	8
Victory Gardens	31	1	1	1	...	...	...
Washington Township	59	8	33	1	...	1	1
Wharton Borough	111	38	42	1	...	1	1
Total	5555	1284	1963	88	2	150	93

OCEAN COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Barnegat Light Borough	10	...	1	...	...	...	...
Bay Head Borough	12	7	14	...	...	...	...
Beach Haven Borough	24	16	12	...	...	...	...
Beachwood Borough	31	7	28	1	...	1	...
Berkeley Township	33	10	20	...	...	...	...
Brick Township	250	24	85	3	...	3	3
Dover Township	339	102	120	6	...	6	4
Egglewood Township	16	...	14	...	...	...	...
Harvey Cedars Borough	2	...	4	...	...	...	...
Island Beach Borough	...	...	...	...	...	...	...
Island Heights Borough	19	7	14	...	...	...	...
Jackson Township	95	24	53	...	...	...	...
Lacey Township	34	8	28	1	...	4	3
Lakehurst Borough	135	12	21	1	...	5	4
Lakewood Township	334	137	186	6	...	10	9
Lavallette Borough	17	10	18	2	...	...	...
Little Egg Harbor Township	16	7	13	...	...	...	...
Long Beach Township	17	7	13	...	...	...	...
Manchester Township	57	27	11	2	...	...	...
Mantoloking Borough	5	...	...	...	...	...	...
Ocean Gate Borough	11	2	15	1	...	...	...
Ocean Township	12	7	11	...	...	...	...
Pine Beach Borough	13	3	12	1	...	1	...
Pinestead Township	151	25	29	2	...	3	1
Point Pleasant Borough	39	40	52	1	...	2	1
Point Pleasant Beach Borough	224	43	99	5	...	5	...
Senside Heights Borough	12	9	13	...	...	...	...
Senside Park Borough	16	10	22	...	...	1	1
Ship Bottom Borough	15	3	10	...	...	...	...
South Toms River Borough	3	...	5	1	...	...	...
Stafford Township	30	4	26	...	...	...	...
Surf City Borough	5	1	9	...	...	1	1
Tuckerton Borough	47	14	29	...	...	1	1
Union Township	17	15	18	...	...	1	1
Total	2111	574	993	35	...	42	30

PASSAIC COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bloomington Borough	96	17	32	3	...	3	3
Clifton City	1893	373	685	16	1	43	35
Haledon Borough	197	42	50	5	...	2	2
Hawthorne Borough	311	116	159	8	...	4	4
Little Falls Township	237	35	66	2	...	2	1
North Haledon Borough	105	13	43	4	...	...	...
Passaic City	963	597	649	13	1	24	23
Paterson City	3528	1267	1762	65	...	88	62
Pompton Lakes Borough	223	87	47	2	...	3	2
Prospect Park Borough	103	39	59	3	...	1	1
Ringwood Borough	50	7	29	2	...	3	2
Totowa Borough	195	37	68	2	...	6	6
Wanaque Borough	195	22	55	4	...	9	9
Wayne Township	527	73	158	10	...	11	7
West Milford Township	162	30	66	3	...	1	4
West Paterson Borough	158	7	58	...	...	...	...
Total	8504	2802	3946	140	2	209	166

SALEM COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Alloway Township	45	11	18	1	...	1	...
Elmer Borough	38	8	14	1	...	1	...
Elsinboro Township	29	1	15	...	...	1	1
Lower Alloway Creek Township	27	8	17	...	...	...	...
Lower Penns Neck Township	265	47	63	8	...	9	7
Mannington Township	48	4	19	...	...	...	...
Oldmans Township	53	14	19	1	...	2	1
Penns Grove Borough	213	78	99	4	1	4	4
Pilesgrove Township	62	13	19	2	...	4	1
Pittsgrove Township	73	12	30	2	...	3	3
Quinton Township	53	11	24	...	...	5	3
Salem City	219	68	123	6	...	9	5
Upper Penns Neck Township	103	37	44	3	...	4	1
Upper Pittsgrove Township	53	12	24	1	...	2	...
Woodstown Borough	71	25	37	1	...	4	2
Total	1334	349	556	30	1	48	28

SOMERSET COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bedminster Township	37	17	22	...	...	1	1
Bernards Township	111	37	51	3	...	1	1
Bernardsville Borough	90	22	88	...	...	2	2
Bound Brook Borough	298	90	94	2	...	7	7
Branchburg Township	70	2	23	1	...	...	...
Bridgewater Township	299	37	89	6	...	5	3
Far Hills Borough	22	8	13	...	...	2	2
Franklin Township	417	48	96	5	...	2	2
Green Brook Township	91	2	20	...	...	2	1
Hillsborough Township	166	17	36	2	...	3	2
Monville Borough	394	73	81	7	...	7	7
Millstone Borough	7	1	2	...	...	1	...
Montgomery Township	73	6	22	1	...	...	...
North Plainfield Borough	332	105	133	5	...	5	4
Peapack Gladstone Borough	32	15	15	...	...	...	...
Raritan Borough	125	54	44	7	...	1	1
Rocky Hill Borough	13	2	5	...	...	...	...
Somerville Borough	346	100	123	6	...	10	6
South Bound Brook Borough	96	20	32	3	...	...	...
Warren Township	82	15	32	...	...	1	...
Watchung Borough	48	19	24	...	...	2	2
Total	3050	690	1025	48	...	50	39

SUSSEX COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Andover Borough	13	12	9	...	...	3	2
Andover Township	36	1	13	1	...	...	...
Branchville Borough	27	11	14	2	...	...	...
Byram Township	28	1	12	1	...	2	...
Frankford Township	42	1	19	1	...	...	...
Franklin Borough	66	30	56	...	...	2	1
Fredon Township	24	2	4	...	...	1	1
Green Township	9	6	3	...	...	...	...
Hamburg Borough	30	17	14	3	...	...	...
Hampton Township	22	4	11	...	...	...	...
Hardyston Township	52	3	9	1	...	...	...
Hopatcong Borough	52	14	16	2	...	2	2
Lafayette Township	16	10	10	...	...	1	1
Montague Township	16	1	5	...	...	1	...
Newton Town	133	69	82	3	...	6	4
Ogdensburg Borough	135	12	6	...	...	...	...
Sandyston Township	12	2	19	1	...	...	...
Sparta Township	117	22	61	4	...	4	4
Stanhope Borough	47	12	24	1	...	5	3
Stillwater Township	19	4	19	...	...	2	2
Sussex Borough	36	51	30	1	...	...	...
Vernon Township	37	14	21	...	...	1	1
Walpack Township	1	...	5	...	...	...	...
Wantage Township	76	7	18	1	...	1	1
Total	949	396	480	22	...	31	22

UNION COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Berkeler Heights Twp.	141	16	34	4	...	3	3
Clark Township	262	62	48	2	...	7	4
Cranford Township	562	100	179	8	...	9	8
Elizabeth City	2519	668	1261	60	2	68	49
Fanwood Borough	186	20	38	...	...	8	6
Garwood Borough	129	36	43	3	...	2	2
Hillside Township	324	123	180	7	...	1	...
Kenilworth Borough	173	44	41	2	...	5	5
Linden City	849	193	276	16	1	25	23
Mountainside Borough	108	8	31	...	...	4	3
New Providence Borough	269	16	35	1	...	2	2
Plainfield City	1188	350	550	18	...	25	20
Rahway City	633	167	277	13	...	24	21
Roselle Borough	482	145	171	9	...	7	5
Roselle Park Borough	253	74	136	8	...	9	4
Scotch Plains Township	380	73	96	2	...	3	2
Springfield Township	221	59	109	4	...	5	3
Summit City	415	201	228	5	...	13	12
Union Township	575	277	360	8	...	15	13
Westfield Town	607	196	201	11	...	12	9
Winfield Township	37	...	13	3	...	1	1
Total	10626	3030	4326	180	3	258	205

WARREN COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Allamuchy Township	14	2	3	...	...	...	...
Alpha Borough	50	34	23	...	...	3	1
Belvidere Town	63	32	41	2	...	...	2
Blairstown Township	40	12	26	...	...	...	1
Franklin Township	44	5	17	1	...	...	...
Fellinghuysen Township	19	2	13	...	...	...	...
Greenwich Township	38	27	21	1	...	...	...
Hackettstown Town	92	36	64	1	...	3	3
Hardwick Township	9	1	11	...	...	...	...
Harmony Township	29	18	13	1	...	...	3
Hope Township	12	4	12	...	...	...	...
Independence Township	25	7	14	...	...	...	...
Knowlton Township	20	19	21	...	...	...	...
Liberty Township	9	1	11	...	...	...	...
Lopatcong Township	10	7	16	...	...	...	...
Mansfield Township	35	13	26	1	...	1	1
Oxford Township	35	8	25	...	...	...	...
Pahaquarry Township	...	...	...	...	...	...	...
Phillipsburg Town	453	141	247	7	1	1	6
Pobatecong Township	24	9	17	...	...	2	2
Washington Borough	144	41	58	2	...	2	...
Washington Township	46	4	27	1	...	...	...
White Township	27	5	6	...	...	...	...
Total	1258	418	712	18	1	25	19
STATE INSTITUTIONS	20	1	22	1	...	...	...
MILITARY POSTS	455	378	25	3	1	11	9

Table 5. BIRTHS, MARRIAGES AND DEATHS IN NEW JERSEY BY MONTH OF OCCURRENCE: 1957

Month	Births	Marriages	Deaths
TOTAL	125,834	40,367	56,057
January	10,114	2,422	4,931
February	9,391	2,825	4,291
March	10,328	2,467	4,926
April	10,114	2,967	4,477
May	10,314	3,608	4,530
June	10,450	5,836	4,784
July	11,122	2,792	4,533
August	11,038	3,666	4,072
September	10,994	4,468	4,244
October	11,134	3,549	5,397
November	10,329	3,353	4,847
December	10,506	2,414	5,025

Note: The birth and death data have not been adjusted for residence, as have other statistics on these subjects in this report, but, like the marriage figures, represent events occurring in New Jersey.

Table 6. MARRIAGES IN NEW JERSEY BY AGE OF HUSBAND BY AGE OF WIFE: 1957

Wife's Age Group	Husband's Age Group												
	ALL AGES	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+
ALL AGES	40307	2437	16170	9877	4045	2231	1531	1257	877	683	902	408	305
<15	32	48	389	124	160	118	13	15	2	2	...	...	...
15-19	10143	2084	6389	1946	1172	282	106	18	25	7	2	408	305
20-24	10028	316	8998	5506	1362	540	263	180	25	10	2	...	...
25-29	5836	8	725	2380	871	602	311	270	160	32	6	...	...
30-34	1846	...	569	608	368	250	138	220	205	110	17	...	...
35-39	1412	...	260	348	257	138	118	172	177	117	42	...	...
40-44	1060	...	1	7	7	30	83	172	155	113	397	...	...
45-49	799	...	...	...	...	...	...	...	...	...	...	...	...
50-54	700	...	...	...	...	...	...	...	...	...	...	...	...
55-59	357	...	...	...	...	...	...	...	...	...	...	...	...
60-64	102	...	...	...	...	...	...	...	...	...	...	...	...
65-69	79	...	...	...	...	...	...	...	...	...	...	...	...
70+	...	...	...	...	...	...	...	...	...	...	...	...	...

Note: No males under 15 years of age were married in New Jersey in 1957.

Table 7. MARRIAGES IN NEW JERSEY BY PREVIOUS MARITAL STATUS: 1957

Wife's Status	Husband's Status				
	Total	Single	Widowed	Divorced	Unknown
TOTAL	40,367	33,089	2,362	4,577	339
Single	33,414	30,268	641	2,280	225
Widowed	2,470	689	1,136	616	29
Divorced	4,346	2,086	561	1,646	53
Unknown	137	46	24	35	32

Table 12a. DEATHS FROM NEOPLASMS BY AGE, SEX AND COLOR FOR EACH CAUSE GROUP: 1957

Age Groups	ALL NEOPLASMS (210-239)	TOP ALL (140-205)	Malignant					Benign or Unspecified		TOT. ALL (210-239)
			Buccal Cavity and Pharynx (140-148)	Digestive and Peritoneum (150-159)	Respiratory (160-165)	Brain and Central Nervous (170-181)	Other and Unspecified (190-199)	Lymph and Bl. (200-205)		
ALL AGES ...	10,584	10,423	226	3,959	1,490	2,988	938	822	161	
Under 1 yr.	12	8	0	1	0	0	0	2	5	
1-4	64	60	0	3	0	9	9	20	28	
5-9	61	35	0	1	0	2	18	39	4	
10-14	37	35	0	0	0	1	11	23	1	
15-19	30	29	0	3	0	5	13	8	2	
20-24	40	35	0	3	0	5	13	9	1	
25-29	65	61	0	7	3	16	33	20	5	
30-34	122	111	0	18	5	45	63	19	4	
35-39	204	200	3	50	12	80	129	20	11	
40-44	373	360	8	87	46	129	31	47	13	
45-49	577	562	10	152	76	213	59	44	14	
50-54	814	797	22	249	156	223	89	52	15	
55-59	1,176	1,159	20	382	234	321	122	71	17	
60-64	1,458	1,441	35	527	276	396	119	88	18	
65-69	1,708	1,696	31	706	306	434	122	97	12	
70-74	1,537	1,537	36	718	204	384	94	101	10	
75 plus	2,295	2,272	51	1,052	172	727	147	123	23	
Male	5,641	5,559	187	2,185	1,299	888	525	475	82	
Female	4,943	4,864	39	1,774	191	2,100	413	347	79	
White	9,951	9,812	209	3,725	1,421	2,791	883	783	139	
Nonwhite	633	611	17	234	69	197	55	39	22	

Table 12b. DEATH RATES PER 100,000 POPULATION FOR MALIGNANT NEOPLASMS BY AGE, SEX AND COLOR FOR EACH CAUSE GROUP: 1957

Age Groups	TOTAL (140-205)	Blasph. Cervix and Pharynx (140-148)	Digestive and Peritoneum (150-159)	Respiratory (160-165)	Breast and Genit. (170-181)	Other and Blood (190-199)	Lymph and Blood (200-205)
ALL AGES	197.4	4.3	75.0	28.2	56.6	17.7	15.6
Under 1 yr.	8.4	0.0	1.0	0.0	0.0	2.1	5.3
1-4	14.8	0.0	0.8	0.0	2.2	4.9	6.9
5-9	14.8	0.0	0.3	0.0	0.5	4.4	9.6
10-14	11.0	0.0	0.0	0.0	0.3	3.5	7.2
15-19	9.0	0.0	0.0	0.0	1.6	4.0	2.5
20-24	9.2	0.0	0.8	0.0	0.8	2.4	5.2
25-29	13.6	0.2	1.6	0.7	3.6	3.3	4.2
30-34	24.7	0.0	4.0	1.1	10.0	4.5	4.2
35-39	46.7	0.7	11.7	2.8	18.7	7.2	5.6
40-44	92.1	2.0	22.3	11.8	33.0	12.0	11.0
45-49	161.5	2.9	43.7	21.8	61.2	17.0	14.9
50-54	239.3	6.6	74.8	46.8	67.0	26.7	17.4
55-59	406.7	10.2	134.1	82.1	112.6	42.8	24.9
60-64	605.5	14.7	221.4	116.0	166.4	50.0	37.0
65-69	947.5	17.3	394.4	170.9	242.5	68.2	54.2
70-74	1,270.2	29.7	593.4	168.6	317.3	77.7	83.5
75 plus	1,721.2	38.6	797.0	130.3	550.7	111.4	93.2
Male	213.6	7.2	83.9	49.9	34.1	20.2	18.3
Female	181.8	1.5	66.3	7.1	78.5	15.4	13.0
White	199.2	4.2	75.6	28.9	56.7	17.9	15.9
Nonwhite	172.6	4.3	66.1	19.5	55.7	15.5	11.0

CHART 2.

CANCER DEATH RATES

per 100,000 Population

(Based on Five-Year Averages of Deaths and Population)

1880 - 1954

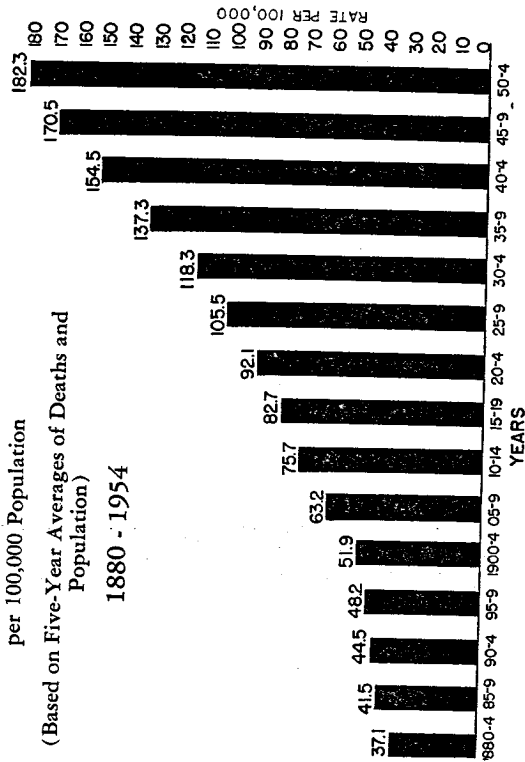


Table 18a. MOTOR VEHICLE DEATHS IN NEW JERSEY BY AGE, BY CAUSE OF DEATHS: 1937

Cause of Death	List No.	All Ages	Age Groups						65 and Over
			Under 1 Year	1-4	5-14	15-24	25-44	45-64	
TOTAL	E810-E835, E900	852	15	25	40	150	229	180	
Collisions	E810	12	0	0	0	0	6	3	
Railway train	E812, E830	27	0	0	0	0	0	0	
Street car	E813, E817, E831	8	0	28	11	35	85	98	
Pedestrian	E815, E832	9	0	0	0	0	0	0	
Motor cyclist	E816, E833	280	0	0	0	0	0	0	
Other motor vehicle	E814, E810	0	0	5	39	92	87	48	
Horse or horse-drawn vehicle	E820-E824, E834	5	0	0	0	0	0	0	
Fixed object	E825, E835	228	0	0	2	12	5	0	
Non-collision	E822, E836, E900	9	0	1	1	0	88	43	
Other and unspecified		0	0	0	0	0	4	1	

Table 18b. NONTRANSFORT ACCIDENTAL DEATHS IN NEW JERSEY BY CAUSE OF DEATH BY PLACE OF ACCIDENT: 1937

Cause of Death	List No.	Total	Home	Farm	Mine and Quarry	Industrial Place and Premises	Place for Recreation and Sport	Street and Highway	Public Building	Resident Institution	Other Specified Place	Place Not Specified
Poisoning by solid and liquid substances	E870-E878	44	30	0	0	0	0	0	0	0	0	0
Poisoning by gases and vapors	E879	1	1	0	0	0	0	0	0	0	0	0
Falls	E900-E904	741	441	0	1	3	6	0	2	2	11	7
Fire and explosion of combustible material	E905	170	143	0	0	12	0	0	0	26	11	44
Mechanical suffocation in bed or cradle	E906	26	25	0	0	0	0	0	0	0	4	3
Drowning	E907	145	71	2	1	0	0	0	0	0	122	1
Other causes	E910-E915 E917-E923 E925-E928 E940-E959 E960-E969 E970-E979	241	101	18	1	25	4	12	0	10	18	51

Table 14a. DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM
BY AGE, SEX AND COLOR FOR EACH CAUSE GROUP: 1987

Age in Years Color	Total (400-468)	Rheumatic Fever (400-402)	Chronic Rheumatic Heart (410-416)	Arteriosclerotic and Degenera- tive Heart (420-422)	Other Diseases of Heart (430-434)	Hypertension of Heart With Mention (440-443)	Hypertension Without Mention of Heart (444-447)	Diseases of Arteries (450-456)	Diseases of Veins (460-466)	Other Diseases of Circulatory System (467, 468)
< 1 Year	26,266	12	618	166,707	688	2,450	350	1,262	106	11
1-4	4	...	1	1	2	...	...	...	...	...
5-14	14	3	3	8	7	2	...	...	...	...
15-24	151	3	30	8	7	2	...	...	...	...
25-34	344	6	207	574	24	69	33	16	15	1
35-44	1,244	2	1,044	1,048	7	62	62	10	33	1
45-54	2,221	3	1,144	1,668	218	1,721	247	1,100	88	2
65 plus	16,221	13	143	14,668	218	1,721	247	1,100	88	2
Sex										
Male	14,818	13	378	12,267	188	1,624	170	664	78	7
Female	11,660	11	441	8,721	182	1,306	180	656	63	4
Color										
White	24,789	21	756	19,838	344	2,131	304	1,248	150	9
Nonwhite	1,714	3	63	1,168	36	290	65	72	16	2

Note: Numbers following descriptive titles refer to International List (6th Revision) Codes.

Table 14b. DEATH RATES PER 100,000 POPULATION FOR DISEASES OF THE CIRCULATORY SYSTEM
BY AGE, SEX AND COLOR FOR EACH CAUSE GROUP: 1987

Age in Years Color	Total (400-468)	Rheumatic Fever (400-402)	Chronic Rheumatic Heart (410-416)	Arteriosclerotic and Degenera- tive Heart (420-422)	Other Diseases of Heart (430-434)	Hypertension of Heart With Mention (440-443)	Hypertension Without Mention of Heart (444-447)	Diseases of Arteries (450-456)	Diseases of Veins (460-466)	Other Diseases of Circulatory System (467, 468)
< 1 Year	262.0	0.5	15.5	397.7	7.2	46.0	8.8	25.0	1.1	0.2
1-4	1.6	...	1.1	1.1	3.2	...	...	...	...	...
5-14	1.9	0.4	0.4	0.2	0.5	...	...	...	...	...
15-24	5.0	0.3	2.7	0.4	1.0	...	...	...	...	...
25-34	35.0	0.3	12.1	33.4	1.4	4.0	1.9	6.3	0.1	...
35-44	100.0	0.4	36.0	473.6	10.3	58.0	6.6	15.9	0.2	0.1
45-54	184.8	0.7	38.0	836.5	50.5	308.4	87.2	266.7	3.2	0.1
65 plus	4,217.8	1.1	33.6	3,366.5	60.5	308.4	87.2	266.7	10.7	1.1
Sex										
Male	508.1	0.5	14.5	471.3	7.0	39.7	6.9	25.5	2.8	0.3
Female	496.5	0.4	16.5	326.1	6.8	52.2	6.7	24.5	3.5	0.1
Color										
White	566.3	0.4	15.3	402.6	7.0	43.3	6.2	25.3	3.0	0.2
Nonwhite	484.2	0.9	17.8	329.9	10.2	84.5	13.6	20.3	4.0	0.9

INFANT DEATHS BY CAUSE AND AGE: 1957

In 1957, New Jersey acquired 129,257 live born babies. During the same year the State lost by death 3,161 infants. This loss occurred at the rate of 24.5 infants for each 1,000 live births.

Table 18b presents the 3,161 infant deaths by cause and by age groups. Causes have been divided according to the major groupings of the International Statistical Classification of Diseases and Causes of Death (sixth revision). 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.

The individual cause to which the greatest number of deaths was charged was postnatal asphyxia and atelectasis. There were 730 deaths, or 23.1 per cent of all deaths under one year, assigned to this cause. More than one-half of the infants whose deaths were charged to this cause were under one day old and a total of 690 or 95 per cent were under one week old. Immaturity was indicated on 71 per cent or 520 of the 730 death certificates for babies whose deaths were due to postnatal asphyxia and atelectasis.

Immaturity unqualified was the second most important single cause of death for New Jersey infants in 1957. There were 630 deaths or 20 per cent of all deaths under one year, assigned to this cause. The greatest number of these deaths, 408, occurred to infants less than one day old, while 191 occurred to those who were one day old but less than one week old.

As a result of congenital malformations, 536 infants died. This represents 17 per cent of all deaths under one year of age. Over half of these deaths occurred to infants less than one week old.

Considered together, the 320 infant deaths charged to diseases of the respiratory system and the 139 deaths charged 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, most of the deaths due to diseases of the respiratory system were for infants 28 days and older. Of the 139 deaths due to pneumonia of the newborn, 138 occurred to infants less than 28 days old. Of the 320 deaths due to diseases of the respiratory system, 293 were of infants 28 days and older.

Over eight per cent of all infant deaths in 1957 were charged to birth injuries. There were 256 deaths due to this cause, of which 151 were for babies less than one day old and 95 were for babies from one day through six days old.

In 1957, accidents accounted for 92 infant deaths. Seventy-five per cent of these deaths were due to the following causes:

- a. Inhalation and ingestion of food or other objects causing obstruction or suffocation (41 deaths).
- b. Accidental mechanical suffocation in bed or cradle (28 deaths).

Of the 92 accidental deaths, 81 occurred to infants 28 days and over.

If New Jersey's live born babies die they experience death early in their brief existence. Of the 3,161 deaths which occurred in 1957 to infants under one year of age, 1,252 or about 40 per cent were for infants less than one day old. Approximately 77 per cent or 2,430 infants died when they were less than 28 days old. Immaturity was indicated on the death certificates of 1,432 of these 2,430 infants.

Additional information is given in Table 18a. It is important to remember that 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. However, infant deaths from all causes were included in the tabulation. Certificates of death from causes which give no opportunity for an immaturity classification were counted in the group labeled "Immaturity Not Indicated."

Table 18a. INFANT DEATHS BY AGE AND IMMATUREITY: 1957

Age	Total		Immaturity Indicated on Death Certificate		Immaturity Not Indicated on Death Certificate	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
< 1 day	1,252	39.6	841	58.2	411	24.0
< 1 week	2,151	68.0	1,353	93.6	798	46.5
< 28 days	2,430	76.9	1,432	99.0	998	58.2
< 1 year	3,161	100.0	1,446	100.0	1,715	100.0

Note: Numbers of deaths for each age classification are cumulative totals from birth to the indicated age.

PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS: 1957

The following tables present the principal causes of death for the total population of the State of New Jersey and for specified age groups. The number of deaths and the death rate for each cause have also been included. Rates have been quoted per 100,000 population in these tables because of the relatively small numbers of deaths in certain classifications. Death rates are age-specific, based on the July 1, 1957 estimates of population as prepared by the Public Health Statistics Program.

This series of tables does not include a separate tabulation of infant deaths. Data on principal causes of death for children under one year of age appear in Tables 18a and b.

Data from these tables may be compared directly with those from the series of tables of principal causes of death for 1956. However, if these data are to be used in comparison with statistics from other studies, the following two definitions of classifications should be carefully noted:

1. "Immaturity" (International List Code Numbers 774, 776) includes all deaths reported by the certifying physician as due to "immaturity with mention of any other subsidiary condition" or "immaturity, unqualified." An additional 816 infant deaths were reported in 1957, with immaturity as a subsidiary cause (International List Code Numbers 760-773 with a fourth digit of .5 to .9). These deaths have been classified with the deaths charged to the cause indicated by the physician as the primary cause of death.
2. The classification "Influenza, pneumonia, and bronchitis" includes "Pneumonia of the newborn" (International List Code 763). A total of 139 deaths due to "Pneumonia of the newborn" were reported in 1957. These were all either deaths of infants under 28 days of age or deaths due to an illness with date of onset prior to 28 days of age. All deaths due to "Pneumonia of the newborn" occurred to children under one year of age.

Table 19. PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS (NUMBERS AND RATES): 1957

ALL AGES			
Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Estimated Population
	TOTAL DEATHS	57,171	1,083.0
1	Diseases of the circulatory system (400-468)	26,503	502.1
2	Malignant neoplasms (140-205)	10,423	197.5
3	Vascular lesions (330-334)	5,230	99.1
4	Influenza, pneumonia, (including pneumonia of the newborn) and bronchitis (480-502, 763)*	2,046	38.8
5	Diabetes (260)	1,200	22.7
6	Cirrhosis of liver (581)	943	17.9
7	Motor vehicle accidents (E810-E835)	739	13.1
8	Accidental falls (E900-E904)	750	14.2
9	Postnatal asphyxia and atelectasis (762)	730	13.5
10	Congenital malformations (750-759)	725	13.7
11	Immaturity (774, 776)*	690	11.9
12	Tuberculosis (001-019)	519	9.8
	All other causes	6,673	126.4

* See text.

1-4 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Estimated Population
	TOTAL DEATHS	446	100.8
1	Influenza, pneumonia and bronchitis (480-502)	87	21.4
2	Congenital malformations (750-759)	65	16.7
3	Malignant neoplasms (140-205)	60	14.8
4	Motor vehicle accidents (E810-E835)	25	6.2
5	Accidents caused by fire and explosion of combustible materials (E916)	18	4.4
6	Accidental drowning and submersion (E929)	15	3.7
7	Accidental falls (E900-E904)	14	3.4
8	Meningitis, except meningococcal and tuberculous (840)	10	2.5
9	Meningococcal infections (057)	9	2.2
10	Infectious encephalitis (082)	9	2.2
11	Nephritis and nephrosis (590-594)	8	2.0
	All other causes	123	30.3

5-14 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Estimated Population
	TOTAL DEATHS	417	57.7
1	Malignant neoplasms (140-205)	95	13.1
2	Motor vehicle accidents (E810-E835)	47	6.5
3	Influenza, pneumonia and bronchitis (480-502)	42	5.8
4	Accidental drowning and submersion (E929)	31	4.3
5	Congenital malformations (750-759)	27	3.7
6	Accidents caused by fire and explosion of combustible materials (E916)	17	2.4
7	Diseases of the circulatory system (400-468)	14	1.9
8	Railway accidents (E800-E802)	10	1.4
9	Nephritis and nephrosis (590-594)	9	1.3
10	Meningitis, except meningococcal and tuberculous (840)	9	1.3
	All other causes	116	16.0

Table 19. PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS
(NUMBERS AND RATES): 1957—Continued

15-24 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Estimated Population
	TOTAL DEATHS	555	79.1
1	Motor vehicle accidents (E810-E835)	151	21.5
2	Malignant neoplasms (140-205)	64	9.1
3	Influenza, pneumonia and bronchitis (480-502)	40	5.7
4	Diseases of the circulatory system (400-468)	35	5.0
5	Suicide (E970-E979)	28	4.0
6	Accidental drowning and submersion (E929)	27	3.8
7	Nephritis and nephrosis (590-594)	18	2.6
8	Homicide (E880-E883)	14	2.0
9	Congenital malformations (750-759)	11	1.6
10	Accidental falls (E900-E904)	11	1.6
11	Accident caused by firearm (E919)	11	1.6
12	Pregnancy, childbirth and the puerperium (640-688)	10	1.4
	All other causes	135	19.2

25-44 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Estimated Population
	TOTAL DEATHS	3,525	205.3
1	Diseases of the circulatory system (400-468)	944	53.0
2	Malignant neoplasms (140-205)	732	42.6
3	Motor vehicle accidents (E810-E835)	290	11.7
4	Cirrhosis of liver (581)	167	9.7
5	Vascular lesions (330-334)	164	9.6
6	Suicide (E970-E979)	126	7.3
7	Influenza, pneumonia and bronchitis (480-502)	124	7.2
8	Tuberculosis (001-019)	101	5.9
9	Nephritis and nephrosis (590-594)	76	4.4
10	Homicide (E880-E883)	63	3.7
11	Diabetes (260)	60	3.5
	All other causes	768	44.7

Table 19. PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS
(NUMBERS AND RATES): 1957—Continued

45-64 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Estimated Population
	TOTAL DEATHS	15,964	1,325.9
1	Diseases of the circulatory system (400-468)	7,277	604.4
2	Malignant neoplasms (140-205)	3,459	326.6
3	Vascular lesions (330-334)	1,087	90.3
4	Cirrhosis of liver (581)	472	39.2
5	Influenza, pneumonia and bronchitis (480-502)	396	32.9
6	Diabetes (260)	356	29.6
7	Tuberculosis (001-019)	221	18.3
8	Motor vehicle accidents (E810-E835)	207	17.2
9	Suicide (E970-E979)	194	16.1
10	Ulcer of stomach and duodenum (540, 541)	176	14.6
11	Accidental falls (E900-E904)	135	11.2
12	Nephritis and nephrosis (590-594)	130	10.8
	All other causes	1,354	112.5

65 YEARS AND OVER

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Estimated Population
	TOTAL DEATHS	38,108	7,662.7
1	Diseases of the circulatory system (400-468)	18,221	4,217.8
2	Malignant neoplasms (140-205)	5,505	1,274.3
3	Vascular lesions (330-334)	3,937	916.0
4	Influenza, pneumonia and bronchitis (480-502)	941	217.5
5	Diabetes (260)	773	178.9
6	Accidental falls (E900-E904)	527	122.0
7	Cirrhosis of liver (581)	300	69.4
8	Intestinal obstruction and hernia (560, 561, 570)	205	47.5
9	Nephritis and nephrosis (590-594)	198	45.8
10	Tuberculosis (001-019)	187	43.3
11	Ulcer of stomach and duodenum (540, 541)	183	42.4
	All other causes	2,106	487.5

Table 20. DEATHS BY CAUSE BY SEX AND AGE GROUPS, NEW JERSEY, 1937.—Continued
(According to the 6th Revision of International Classification of Diseases)

CAUSE OF DEATH	Total	Sex		Age Groups							
		Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
402. Primary atypical pneumonia	162	94	68		48	10	4	4	13	35	46
403. Pneumonia, other and unspecified	100	52	48		6	1	1	1	1	4	0
404. Acute bronchitis	300	27	12		10	1	1	1	1	4	0
405. Chronic bronchitis	30	30	0		1	1	1	1	1	1	0
502. Chronic bronchitis, coded	30	30	0		1	1	1	1	1	1	0
510. Hypertrophy of tonsils and adenoids	46	35	10		1	1	1	1	1	10	32
511. Peritonsillar abscess (quinsy)	9	9	0		1	1	1	1	1	1	1
512. Chronic pharyngitis and nasopharyngitis	1	1	0		1	1	1	1	1	1	1
513. Chronic pharyngitis and nasopharyngitis	1	1	0		1	1	1	1	1	1	1
534. Delected nasal septum	1	1	0		1	1	1	1	1	1	1
515. Nasal polyp	1	1	0		1	1	1	1	1	1	1
516. Chronic laryngitis	1	1	0		1	1	1	1	1	1	1
517. Chronic laryngitis	1	1	0		1	1	1	1	1	1	1
518. Epiglottitis	3	1	2		1	1	1	1	1	1	1
519. Larynx	13	11	2		1	1	1	1	1	1	1
520. Spontaneous pneumothorax	10	7	3		1	1	1	1	1	1	1
521. Abscess of lung	23	18	5		1	1	1	1	1	1	1
522. Pleurisy	18	18	0		1	1	1	1	1	1	1
523. Pleurisy with effusion	18	18	0		1	1	1	1	1	1	1
524. Other specified pneumoconiosis (occupational)	50	50	0		1	1	1	1	1	1	1
525. Other specified pneumoconiosis and secondary increase of occupational origin	0	0	0		1	1	1	1	1	1	1
526. Other chronic interstitial pneumonia	104	80	24		5	2	1	1	1	2	4
527. Other diseases of lung and pleural cavity	76	54	22		2	1	1	1	1	2	6
530. Dental caries	184	149	35		25	1	1	1	1	8	67
531. Abscesses of supporting structures of teeth	8	8	0		1	1	1	1	1	6	105
532. Other inflammatory diseases of supporting structures of teeth	104	104	0		1	1	1	1	1	20	80
533. Periodontitis	8	8	0		1	1	1	1	1	8	78
543. Gastritis and ulcer	6	2	4		1	1	1	1	1	2	4
544. Disorders of function of stomach	6	2	4		1	1	1	1	1	2	4
545. Other diseases of stomach and duodenum	16	1	15		1	1	1	1	1	1	6
550. Acute appendicitis	63	40	23		4	3	1	1	1	24	31
551. Chronic appendicitis	4	4	0		1	1	1	1	1	1	2
552. Other appendicitis	1	1	0		1	1	1	1	1	1	1
553. Other diseases of appendix	1	1	0		1	1	1	1	1	1	1
500. Hernia of abdominal cavity without mention of obstruction	56	25	31		13	1	1	1	1	3	16
651. Hernia of abdominal cavity with obstruction	100	47	53		5	2	1	1	1	4	72
570. Intestinal obstruction, without mention of hernia	177	82	95		6	1	1	1	1	10	72
571. Gastro-enteritis with or without obstructive, age 4 weeks and over	79	31	48		35	6	3	1	1	4	107
572. Chronic enteritis and ulcerative colitis	127	65	64		1	1	1	1	1	1	70
573. Functional disorders of Intestines	1	1	0		1	1	1	1	1	1	1
574. Anal fissure and fistula	5	1	4		1	1	1	1	1	1	1
575. Proctitis	8	3	5		1	1	1	1	1	1	1
576. Proctitis of anal and rectal regions	9	3	6		1	1	1	1	1	1	1
577. Peritoneal adhesions	7	1	6		1	1	1	1	1	1	1
578. Other diseases of intestines and peritonum	31	31	0		1	1	1	1	1	1	1
580. Acute and subacute yellow atrophy of liver	22	22	0		1	1	1	1	1	1	1
582. Stricture of liver bile	625	318	307		1	1	1	1	1	1	1
583. Other diseases of liver	22	15	7		1	1	1	1	1	1	1
584. Cholelithiasis	103	70	33		1	1	1	1	1	1	1
585. Cholecystitis without mention of calculi	27	11	16		1	1	1	1	1	1	1
587. Diseases of gallbladder and biliary ducts	27	11	16		1	1	1	1	1	1	1
500. Acute nephritis	89	55	34		3	1	1	1	1	1	1
501. Nephritis with edema, including nephrosis	21	14	7		1	1	1	1	1	1	1
502. Chronic nephritis	68	37	31		1	1	1	1	1	1	1
503. Nephritis not specified as acute or chronic	30	21	9		1	1	1	1	1	1	1
504. Nephritis of unknown origin	10	10	0		1	1	1	1	1	1	1
600. Infection of kidney	6	4	2		1	1	1	1	1	1	1
601. Hydronephrosis	204	134	70		2	1	1	1	1	1	1
602. Calculi of kidney and ureter	43	28	15		1	1	1	1	1	1	1
603. Other diseases of kidney and ureter	21	13	8		1	1	1	1	1	1	1
604. Stricture of urethra	13	13	0		1	1	1	1	1	1	1
605. Gleet	5	5	0		1	1	1	1	1	1	1
606. Other diseases of bladder	8	5	3		1	1	1	1	1	1	1
607. Urethritis (nongonorrheal)	4	4	0		1	1	1	1	1	1	1
608. Stricture of urethra	1	1	0		1	1	1	1	1	1	1
609. Other diseases of urethra	1	1	0		1	1	1	1	1	1	1
610. Hydronephrosis	100	4	96		1	1	1	1	1	1	1
611. Prostatitis	4	4	0		1	1	1	1	1	1	1
612. Other diseases of prostate	2	2	0		1	1	1	1	1	1	1
613. Gynecomastia	1	1	0		1	1	1	1	1	1	1
614. Epididymitis	1	1	0		1	1	1	1	1	1	1
615. Epididymitis	1	1	0		1	1	1	1	1	1	1
616. Sterility, male	1	1	0		1	1	1	1	1	1	1
617. Sterility, female	1	1	0		1	1	1	1	1	1	1
618. Other diseases of male genital organs	1	1	0		1	1	1	1	1	1	1
620. Chronic cystic disease of breast	1	1	0		1	1	1	1	1	1	1
621. Acute mastitis	1	1	0		1	1	1	1	1	1	1
622. Acute mastitis	1	1	0		1	1	1	1	1	1	1
623. Chronic mastitis and coarctitis	1	1	0		1	1	1	1	1	1	1
624. Sphingitis and epithelitis, uninfected	1	1	0		1	1	1	1	1	1	1
625. Other diseases of ovary and Fallopian tube	4	4	0		1	1	1	1	1	1	1
626. Diseases of parametrium and pelvic peritonum (female)	4	4	0		1	1	1	1	1	1	1
627. Other diseases of parametrium	9	9	0		1	1	1	1	1	1	1
631. Uterovaginal prolapse	1	1	0		1	1	1	1	1	1	1
632. Malposition of uterus	1	1	0		1	1	1	1	1	1	1
633. Other diseases of uterus	1	1	0		1	1	1	1	1	1	1
634. Disorders of menstruation	1	1	0		1	1	1	1	1	1	1
635. Menstrual symptoms	1	1	0		1	1	1	1	1	1	1
636. Sterility, female	1	1	0		1	1	1	1	1	1	1

Table 20. DEATHS BY CAUSE BY SEX AND AGE GROUPS, NEW JERSEY: 1957--Continued
(According to the 8th Revision of International Classification of Diseases)

CAUSE OF DEATH	Total	Male	Female	Age Groups								
				<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
E935. Accidental poisoning by lead and its compounds.....	3	2	1							1		
E936. Accidental poisoning by arsenic and antimony and their compounds.....												
E937. Accidental poisoning by fluorine and its compounds.....												
E938. Accidental poisoning by other and unspecified solid and liquid substances.....												
E939. Accidental poisoning by utility (flaming) gas.....	1	1										
E940. Accidental poisoning by cyanide gas.....	25	15	10									
E941. Accidental poisoning by other carbonic oxide.....	11	11										
E942. Accidental poisoning by cyanide gas.....	4	2	2									
E943. Accidental poisoning by other specified gases and vapours.....	3	3										
E944. Fall on stairs.....	12	2	1									
E945. Other falls from one level to another.....	152	124	28									
E946. Fall on same level.....	142	109	33									
E947. Fall from falling object.....	334	154	180									
E948. Blow from falling object.....	1	1										
E949. Accident caused by vehicle.....	18	17	1									
E950. Accident caused by machinery.....	3	2	1									
E951. Accident caused by cutting and piercing instruments.....	8	7	1									
E952. Accident caused by explosion of pressure vessel.....	16	16										
E953. Accident caused by fire and explosion of combustible material.....	177	109	68									
E954. Accident caused by hot substance, corrosive liquid and steam.....	13	5	8									
E955. Accident caused by firearm.....	22	18	4									
E956. Foreign body entering eye and adnexa.....	68	41	27									
E957. Inhalation and laceration of food causing obstruction or suffocation.....	2	2										
E958. Suffocation and laceration of other object causing obstruction or suffocation.....	4	2	2									
E959. Foreign body entering other orifices.....	20	15	5									
E960. Accidental mechanical suffocation in bed and cradle.....	4	2	2									
E961. Accidental mechanical suffocation in other and unspecified circum- stances.....	28	14	14									
E962. Lack of care of infants under 1 year of age.....	4	2	2									
E963. Accidents caused by bites and stings of venomous animals and insects.....	2	1	1									
E964. Other accidents caused by animals.....	1	1										
E965. Poisoning (drowning and submersion).....	2	2										
E966. High temperature.....	100	121	15									
E967. Excessive heat and scalding.....	12	8	4									
E968. Excessive cold.....	7	5	2									
E969. Hunger, thirst and exposure.....	12	7	5									
E970. Lightning.....	4	3	1									
E996. Other and unspecified accidents.....	29	21	8									
E997. Generalized vaccinia following vaccination.....												
E998. Tetra- and typhoid fever.....												
E999. Botulism.....												
E1000. Other communicable diseases.....												
E1001. Complications of anaesthesia for nontherapeutic purposes.....	1	1										
E1002. Other complications due to nontherapeutic medical and surgical procedures.....	1	1										
E1003. Therapeutic misadventure in surgery.....	1	1										
E1004. Therapeutic misadventure in human or transu- sion.....	1	1										
E1005. Therapeutic misadventure in local applications.....	1	1										
E1006. Therapeutic misadventure in administration of drugs or biologicals	1	1										
E1007. Therapeutic misadventure in medical treatment.....	1	1										
E1008. Other and unspecified therapeutic misadventure	1	1										
E1009. Late complication of surgical operation.....	1	1										
E1010. Late complication of amputation.....	1	1										
E1011. Late complication of radiation.....	1	1										
E1012. Late complication of treatment.....	1	1										
E1013. Late effect of motor vehicle accident.....	1	1										
E1014. Late effect of accidental poisoning.....	1	1										
E1015. Late effect of other accidental injury.....	1	1										
E1016. Late effect of other accidental injury.....	11	7	4									
E1017. Late effect of injury caused by another person (not in war).....												
E1018. Late effects of injuries due to war operations.....												
E1019. Late effects of injuries due to war operations by an- tagonistic and self-inflicted poisoning by analgesic and soporific substances.....	20	6	14									
E1020. Suicide and self-inflicted poisoning by other solid and liquid substances.....	18	5	13									
E1021. Suicide and self-inflicted poisoning by gases in domestic use.....	12	10	2									
E1022. Suicide and self-inflicted poisoning by other gases.....	43	35	8									
E1023. Suicide and self-inflicted injury by submersion and strangulation.....	184	126	58									
E1024. Suicide and self-inflicted injury by firearms and explosives.....	4	4										
E1025. Suicide and self-inflicted injury by cutting and piercing instruments	123	101	22									
E1026. Suicide and self-inflicted injury by jumping from high place.....	18	19	0									
E1027. Suicide and self-inflicted injury by other unspecified means.....	17	11	6									
E1028. Nonaccidental poisoning by another person.....	8	6	2									
E1029. Assault by firearm and explosive.....	48	35	13									
E1030. Assault by other piercing instruments.....	35	22	13									
E1031. Assault by intervention of police.....	38	25	13									
E1032. Involuntary manslaughter.....	4	4										
E1033. Execution.....	4	4										
E1034. Involuntary manslaughter by gas and chemicals.....	1	1										
E1035. Involuntary manslaughter by firearm.....	1	1										
E1036. Involuntary manslaughter by hand mine.....	1	1										
E1037. Involuntary manslaughter by bomb.....	1	1										
E1038. Involuntary manslaughter due to war operations by marine mines, depth charges and other weapons.....	1	1										
E1039. Involuntary manslaughter due to war operations by explosion of artillery shell	1	1										
E1040. Involuntary manslaughter due to war operations by explosion of un- determined origin.....	2	2										
E1041. Involuntary manslaughter due to war operations by aircraft destruction.....	1	1										
E1042. Involuntary manslaughter due to war operations by other and unspecified means.....	1	1										
E1043. Involuntary manslaughter due to war operations but occurring after cessation of hostilities.....	1	1										
E1044. ALL CAUSES.....	47171	31387	25584	3101	4460	417	5351	3929	18604	13103		

Table 22. MALE DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, NEW JERSEY, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years							
				<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
B1	001-138	Infective and parasitic diseases	534	13	13	8	5	6	218	107	
B2	001-005	Tuberculosis of respiratory system	379						60	18	
B3	001-019	Tuberculosis, other forms	17						2	2	
B4	040-049	Syphilis and its sequelae	58						4	23	31
B5	048	Cholera									
B6	045-048	Dysentery, all forms									
B7	050, 051	Scarlet fever and streptococcal sore throat	4								
B8	056	Diphtheria									
B9	057	Whooping cough	3								
B10	057	Membranous infections	3								
B11	068	Plague	10								
B12	080	Acute poliomyelitis									
B13	085	Smallpox									
B14	085	Measles									
B15	100-108	Typhus and other tick-bite diseases	2								
B16	110-117	Malaria	1								
B17		Residual (030-039, 041, 042, 044, 040, 032-051, N 600-674, 681-683, 685-696, 120-138)	1								
B18	140-239	Malignant neoplasms	560	8	6	7	46	63	45	303	11
B19	210-239	Benign and unspecified neoplasms	5640	7	46	63	46	63	45	303	11
B20	240-289	Allergic, endocrine system, metabolic and nutritional diseases	5,588	4	38	59	42	203	263	2,063	862
B21	290	Diseases of the blood and blood-forming organs	82							12	37
B22	290-299	Diseases of the circulatory system	378	0	1	0	2	43	190	218	
B23	300-309	Diseases of the heart	411	0	1	0	2	43	190	218	
B24	310-319	Diseases of the brain and meninges	167	0	1	1	1	14	50	237	
B25	320-329	Diseases of the eye	69	1	1	1	2	12	14	29	
B26	330-339	Diseases of the ear, nose and throat	28	1	1	1	2	2	6	17	
B27	340	Diseases of the skin and subcutaneous tissue	283	1	1	1	2	2	6	17	
B28	340-349	Diseases of the genitourinary system	64	1	1	1	2	2	6	17	
B29	400-488	Diseases of the endocrine and personality disorders	2615	16	15	17	18	23	64	1,732	
B30	490-499	Diseases of the nervous system	2,691	3	1	2	4	8	8	8	
B31	500-509	Neuronal lesions affecting central nervous system	2,691	3	1	2	4	8	8	8	
B32	510-519	Non-neuronal lesions affecting central nervous system	1,813	5	0	0	12	62	400	9	
B33	520-529	Diseases of the eye	33								
B34	530-539	Chronic rheumatic heart disease	1,327								
B35	540-549	Diseases of heart	1,327								
B36	550-559	Diseases of heart	1,327								
B37	560-569	Myocardial infarction	1,088								
B38	570-579	Hypertension without mention of heart	1,684								
B39	580-589	Residual (460-470, 480-485)	179								
B40	590-599	Diseases of the respiratory system	1,421	3	59	23	15	14	14	161	565
B41	600-609	Influenza	172	1	1	1	1	8	31	400	685
B42	610-619	Pneumonia	921	104	30	14	12	40	223	423	
B43	620-629	Bronchitis	400	12	12	2	3	16	36	107	
B44	630-639	Residual (470-475, 510-527)	408	23	11	2	1	29	80	129	
B45	640-649	Diseases of the digestive system	1,170	24	16	5	1	17	108	410	
B46	650-659	Ulcer of stomach and duodenum	292								
B47	660-669	Intestinal obstruction and hernia	51								
B48	670-679	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	134	11	2	4	2	7	18	20	
B49	680-689	Ulcerations of liver	00								
B50	690-699	Diseases of the genitourinary system	625	10	3		2	18	23	45	
B51	700-709	Nephritis and nephrosis	237								
B52	710-719	Disorders of the genitourinary system	583	4	5	1	1	29	80	129	
B53	720-729	Disorders of the genitourinary system	218	1	8	6	13	36	60	103	
B54	730-739	Disorders of the genitourinary system	199								
B55	740-749	Pregnancy, childbirth and the puerperium	297								
B56	750-759	Diseases of the skin and cellular tissue	26								
B57	760-769	Diseases of the bones and organs of movement	20								
B58	770-779	Certain diseases of the eye	465	3	2	1	0	5	5	14	18
B59	780-789	Birth injuries, postnatal asphyxia and atelectasis	1,294	297	46	14	7	26	26	5	
B60	790-799	Other diseases of the newborn	690	159	16	10	10	38	92		
B61	800-809	Other diseases peculiar to early infancy and infancy	116	110							
B62	810-819	Strabismic amblyopia and other conditions	481								
B63	820-829	Accidents, poisonings and violence	8								
B64	830-839	Motor vehicle accidents	995	2	20	36	120	132	133	114	
B65	840-849	All other accidents except falls	350	40	36	61	50	139	123	93	
B66	850-859	Falls	399	4	0	2	1	43	101	222	
B67	860-869	Homicide	318	1	2	1	3	30	41	86	
B68	870-879	Police intervention, execution and operations of war	82								
B69	880-889	ALL CAUSES	31,867	1840	278	252	372	2044	10,061	10,798	

Table 22. FEMALE DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, NEW JERSEY, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years						
				<1	1-4	5-14	15-24	25-44	45-64	65 + Unknown
R1	001-138	Infective and parasitic diseases	222	7	18	8	3	50	76	87
R2	002-008	Tuberculosis of respiratory system	113	1	1	1	1	3	2	2
R3	010-019	Syphilis and its sequelae	10	1	1	1	1	2	5	2
R4	020-029	Typhoid fever	20	1	1	1	1	1	11	8
R5	040	Cholera	1	1	1	1	1	1	1	1
R6	043	Scarlet fever and streptococcal sore throat	2	1	1	1	1	1	1	1
R7	050-059	Diphtheria	1	1	1	1	1	1	1	1
R8	060	Whooping cough	1	1	1	1	1	1	1	1
R9	065	Meningococcal infections	10	3	4	3	3	3	3	3
R10	067	Acute meningitis	1	1	1	1	1	1	1	1
R11	080	Smallpox	7	3	3	3	3	3	3	3
R12	084	Meningitis	1	1	1	1	1	1	1	1
R13	084	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1
R14	085	Residual (600-609, 611-617, 620-629, 630-637)	1	1	1	1	1	1	1	1
R15	100-108	Neoplasms	109	4	10	2	2	12	16	13
R16	110-117	Malignant neoplasms	4944	5	24	37	55	450	1026	2408
R17	118	Benign and unspecified neoplasms	4945	4	22	10	22	439	1810	2446
R18	210-239	Algebraic, endocrine system, metabolic and nutritional	70	1	2	1	1	3	20	30
R19	240-289	Diabetes mellitus	920	7	2	4	2	3	50	204
R20	290	Residual (240-245, 260-254, 270-277, 280-289)	780	1	2	4	2	3	21	215
R21	290-299	Diseases of the blood and blood-forming organs	146	1	2	1	1	3	4	48
R22	300-329	Anemias (580-589)	36	1	1	1	1	1	1	1
R23	330-334	Mental, psychoneurotic and personality disorders	37	1	1	1	1	1	1	1
R24	400-468	Vascular lesions affecting central nervous system	2983	2	12	14	7	123	569	2384
R25	469-483	Communicable meningitis	36	1	1	1	1	1	1	1
R26	484-488	Rheumatic fever	11099	3	2	5	8	31	576	2266
R27	489-493	Diseases of the circulatory system	186	4	9	8	3	34	15	73
R28	494-502	Rheumatic heart disease	441	1	2	1	1	2	1	3
R29	410-418	Chronic rheumatic heart disease	827	1	1	1	1	1	1	1
R30	419-424	Arteriosclerotic and degenerative heart disease	828	1	1	1	1	1	1	1
R31	425-434	Hypertension with heart disease	182	1	1	1	1	1	1	1
R32	435-443	Hypertension without heart disease	1360	1	1	1	1	1	1	1
R33	444-447	Residual (450-456, 460-468)	753	1	1	1	1	1	1	1
R34	470-527	Diseases of the respiratory system	963	114	42	27	27	76	169	654
R35	530-553	Influenza	60	7	2	3	6	7	15	26
R36	554-572	Pneumonia	784	81	29	17	19	56	117	418
R37	573-578	Residual (470-472, 510-527)	34	1	1	1	1	2	3	3
R38	580-587	Digestive system	1250	17	7	5	1	12	268	500
R39	588	Ulcer of stomach	988	40	7	5	10	120	258	500
R40	589	Enteritis and enterocolitis	92	1	1	1	1	1	1	1
R41	590, 591, 570	Intestinal obstruction and hernia	479	13	1	1	1	10	38	113
R42	592, 571, 572	Gastritis, duodenitis, enteritis and colitis, except cirrhosis of liver	116	25	3	4	6	8	15	35
R43	593	Residual (530-539, 542, 544, 545, 573-578, 580-587-587)	318	1	1	1	1	72	140	163
R44	600-609	Genito-urinary system	293	2	3	1	1	3	50	169
R45	610-617	Nephritis of the genito-urinary system	349	1	1	1	1	1	1	1
R46	618-619	Hyperplasia of prostate	223	1	1	1	1	1	1	1
R47	620-629	Pregnancy, childbirth and the puerperium	160	1	1	1	1	1	1	1
R48	630-637	Diseases of the skin and cellular tissue	44	1	1	1	1	1	1	1
R49	638-643	Conceital malformations	58	1	1	1	1	1	1	1
R50	644-649	Certain diseases of early infancy	329	240	22	13	4	11	16	5
R51	650-659	Birth injuries, postnatal asphyxia and atelectasis	317	1	1	1	1	1	1	1
R52	660-669	Other diseases of the newborn	58	1	1	1	1	1	1	1
R53	670-679	Other diseases of early infancy and immature infancy	386	5	5	4	5	1	1	1
R54	680-689	Symptoms, senility and ill-defined conditions	928	39	36	33	50	150	138	166
R55	690-699	Motor vehicle accidents	183	5	11	22	48	54	63	63
R56	700-709	All other accidents except falls	202	30	18	20	14	36	39	39
R57	710-719	Falls	588	1	5	1	1	12	34	905
R58	720-729	Struck by or against objects	138	2	2	1	1	6	42	67
R59	730-739	Home accidents	37	1	1	1	1	1	1	1
R60	740-749	Police intervention, execution and operations of war	2584	1321	168	105	183	1481	8001	16805
R61	800-809	ALL CAUSES	2584	1321	168	105	183	1481	8001	16805

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, BERGEN COUNTY, 1957
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
						<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
B1	001-188	Infective and parasitic diseases	70	44	26	4	5	1	1	10	23	20	..
B2	001-189	Tuberculosis of respiratory system	49	29	11	..	..	..	..	17	17	..	..
B3	010-019	Syphilis and its sequelae	..	1	1	..	..	..	..	..	..	..	..
B4	040	Lymphoid fever	5	4	1	..	..	..	..	..	..	..	..
B5	048	Cholera	..	..	..	..	..	..	..	..	..	..	..
B6	048	Shigellosis	..	..	..	..	..	..	..	..	..	..	..
B7	060, 061	Scarlet fever and streptococcal sore throat	..	..	..	..	..	..	..	..	..	..	..
B8	065	Diphtheria	..	..	..	..	..	..	..	..	..	..	..
B9	066	Whooping cough	..	..	..	..	..	..	..	..	..	..	..
B10	087	Plague	..	..	..	..	..	..	..	..	..	..	..
B11	088	Meningococcal infections	2	..	..	..	..	..	..	..	..	..	..
B12	089	Smallpox	..	..	..	..	..	..	..	..	..	..	..
B13	084	Scarlet fever	..	..	..	..	..	..	..	..	..	..	..
B14	085	Measles	..	..	..	..	..	..	..	..	..	..	..
B15	100-108	Typhus and other rickettsial diseases	..	..	..	..	..	..	..	..	..	..	..
B16	109-117	Malaria	..	..	..	..	..	..	..	..	..	..	..
B17	109-117	Neoplasms	..	..	..	..	..	..	..	..	..	..	..
B18	140-239	Malignant neoplasms	139	8	11	3	4	1	1	2	2	7	..
B19	140-239	Benign and unspecified neoplasms	139	623	250	1	8	0	7	106	468	621	..
B20	240-250	Diseases of the endocrine system, metabolic and nutritional	18	7	9	1	8	0	7	101	401	615	..
B21	200	Diabetes mellitus	139	43	96	0	..	..	..	0	0	88	..
B22	300-320	Diseases of the blood and blood-forming organs	145	10	17	..	..	..	..	1	0	20	70
B23	330-340	Mental, psychoneurotic and personality disorders	13	13	28	0	..	..	..	3	11	13	..
B24	400-402	Diseases of the nervous system and sense organs	11	3	5	..	..	..	..	1	3	6	..
B25	420-422	Residual (204-209)	6	1	5	..	..	..	..	..	..	..	..
B26	430-432	Residual (204-209)	6	1	5	..	..	..	..	..	..	..	..
B27	430-432	Chronic rheumatic heart disease	107	65	52	..	..	..	..	..	..	..	..
B28	440-443	Other diseases of the circulatory system	2130	1272	858	..	..	..	..	..	..	..	..
B29	444-447	Hypertension with mention of heart	23	18	5	..	..	..	..	..	..	..	..
B30	470-527	Residual (450-455, 460-468)	210	103	130	..	..	..	..	..	..	..	..
B31	490-493	Influenza	209	121	89	18	12	5	3	15	31	174	..
B32	500-502	Pneumonia	17	9	8	..	..	..	..	..	..	..	..
B33	500-507	Residual (470-475, 510-527)	129	69	60	17	6	3	2	8	26	67	..
B34	530-537	Diseases of the digestive system	18	11	4	..	..	..	..	..	..	..	..
B35	540-542	Ulcer of stomach and duodenum	48	32	16	..	..	..	..	..	..	..	..
B36	550-552	Intestinal obstruction and hernia	265	160	105	15	1	..	..	..	..	..	..
B37	560, 561, 570	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	51	33	18	..	..	..	..	..	..	..	..
B38	543, 571, 572	Diarrhoea of liver	6	5	1	..	..	..	..	..	..	..	..
B39	581	Diseases of the genito-urinary system	33	22	11	4	..	..	..	..	..	..	..
B40	590-597	Nephritis and nephrosis	18	7	11	..	..	..	..	..	..	..	..
B41	610	Hyperplasia of prostate	80	50	30	..	..	..	..	..	..	..	..
B42	610-619	Pregnancy, childbirth and puerperium	67	33	34	1	1	..	..	..	..	..	..
B43	700-718	Diseases of the skin and cellular tissue	92	52	40	..	..	..	..	..	..	..	..
B44	720-749	Diseases of the bones and organs of movement	34	24	10	..	..	..	..	..	..	..	..
B45	750-759	Congenital malformations	24	24	24	..	..	..	..	..	..	..	..
B46	760-763	Diseases of early infancy	4	..	..	..	..	..	..	..	..	..	..
B47	763-768	Birth injuries	79	52	27	..	..	..	..	..	..	..	..
B48	769-776	Infections of the newborn	208	129	79	208	..	..	..	..	..	..	..
B49	780-785	Other diseases peculiar to early infancy and infancy	101	63	38	101	..	..	..	..	..	..	..
B50	790-805	terry unqualified	22	16	6	..	..	..	..	..	..	..	..
B51	800-809	Strangulation, asphyxia and ill-defined conditions	85	60	35	85	..	..	..	..	..	..	..
B52	810-825	Accidents, poisoning and violence	24	11	13	..	..	..	..	..	..	..	..
B53	830-832	Motor vehicle accidents	204	163	101	8	9	13	34	50	68	70	..
B54	840-849	All other accidents except falls	70	50	20	3	0	19	10	19	10	..	..
B55	850-855	Falls	59	40	10	7	5	0	7	10	11	4	..
B56	860-865	Suicide	64	25	39	1	1	1	1	1	2	0	49
B57	870-879	Homicide	6	5	1	..	..	..	..	..	..	..	..
B58	880-883	Police intervention, execution and operations of war	1	1	..	..	..	..	..	..	..	..	..
B59	890-899	ALL CAUSES	3984	3227	2757	315	46	42	95	850	1636	3523	..

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, CUMBERLAND COUNTY: 1987
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years		Female	Male	Total	Age Groups by Years	Female	Male	Total
				<1	1-4								5-9	10-14	15-24	25-44	45-64	65+	Unknown
B1	001-188	Infective and parasitic diseases	20	1	1	8	12	20	1	8	12	20
B12	001-008	Tuberculosis of any system	9	2	2	7	9	9	2	7	9	9
B13	010-018	Tuberculosis, other forms	2	1	1	1	2	2	1	1	2	2
B14	020-029	Syphilis and its sequelae	2	1	1	1	1	2	1	1	1	2
B15	030	Cryptid fever	1	1	1	1	1	1	1	1	1	1
B16	045-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1
B17	050-051	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1
B18	055	Diphtheria	1	1	1	1	1	1	1	1	1	1
B19	065	Whooping cough	1	1	1	1	1	1	1	1	1	1
B20	075	Plague	1	1	1	1	1	1	1	1	1	1
B21	080	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1
B22	085	Smallpox	1	1	1	1	1	1	1	1	1	1
B23	094	Measles	1	1	1	1	1	1	1	1	1	1
B24	100-108	Diseases and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1
B25	110-117	Residual (030-039, 041, 042, 044, 046, 052-054, 059-074, 081-083, 089-096, 120-135)	5	1	1	3	9	5	1	3	9	5
B26	140-229	Neoplasms	108	1	1	71	97	108	1	71	97	108
B27	210-239	Benign neoplasms of the endocrine system	106	1	1	70	96	106	1	70	96	106
B28	240-269	Allergic, endocrine system, metabolic and nutritional diseases	2	1	1	1	2	2	1	1	2	2
B29	290	Diabetes mellitus	15	1	1	9	7	15	1	9	7	15
B30	290-299	Residual (240-243, 290-294, 270-277, 280-289)	9	1	1	5	9	9	1	5	9	9
B31	300-303	Diseases of the blood and blood-forming organs	6	1	1	2	4	6	1	2	4	6
B32	300-303	Anemias	4	1	1	2	2	4	1	2	2	4
B33	300-303	Residual (291-296)	1	1	1	1	1	1	1	1	1	1
B34	300-303	Mental, psychoneurotic and personality disorders	2	1	1	2	2	2	1	2	2	2
B35	300-303	Diseases of the nervous system and sense organs	132	1	1	62	70	132	1	62	70	132
B36	300-303	Residual (341-345, 350-357, 360-363, 370-389, 390-395)	121	1	1	60	65	121	1	60	65	121
B37	330-334	Nonmeningococcal meningitis	17	1	1	10	7	17	1	10	7	17
B38	400-408	Diseases of the circulatory system	480	1	1	201	278	480	1	201	278	480
B39	400-408	Chronic rheumatic heart disease	17	1	1	9	8	17	1	9	8	17
B40	410-415	Arteriosclerotic and degenerative heart disease	324	1	1	118	206	324	1	118	206	324
B41	420-422	Other diseases of heart	17	1	1	9	8	17	1	9	8	17
B42	430-434	Hypertension with heart disease	76	1	1	36	28	76	1	36	28	76
B43	440-443	Heart failure without mention of heart disease	37	1	1	18	5	37	1	18	5	37
B44	444-447	Residual (400-408, 410-415, 420-422)	45	1	1	18	26	45	1	18	26	45
B45	470-527	Diseases of the respiratory system	28	1	1	16	11	28	1	16	11	28
B46	480-483	Pneumonia	28	1	1	11	17	28	1	11	17	28
B47	500-502	Bronchitis	2	1	1	4	1	2	1	4	1	2
B48	530-537	Diseases of the digestive system	13	1	1	4	9	13	1	4	9	13
B49	540-541	Ulcer of stomach and duodenum	27	1	1	18	9	27	1	18	9	27
B50	550-553	Appendicitis	1	1	1	1	1	1	1	1	1	1
B51	560-561, 570	Intestinal obstruction and hernia	5	1	1	4	1	5	1	4	1	5
B52	545, 571, 572	Gastritis, duodenitis, enteritis and colitis, except cirrhosis of liver	8	1	1	4	3	8	1	4	3	8
B53	581	Cirrhosis of liver	8	1	1	6	2	8	1	6	2	8
B54	582-587	Diseases of the genito-urinary system	7	1	1	6	1	7	1	6	1	7
B55	590-597	Diseases of the genito-urinary system	21	1	1	6	14	21	1	6	14	21
B56	590-594	Neoplasms of the genito-urinary system	11	1	1	6	4	11	1	6	4	11
B57	610	Residual (590-593, 611-617, 620-624, 630-637)	6	1	1	4	1	6	1	4	1	6
B58	640-689	Pregnancy, childbirth and the puerperium	3	1	1	2	2	3	1	2	2	3
B59	690-699	Diseases of the skin and cellular tissue	14	1	1	7	7	14	1	7	7	14
B60	700-709	Congenital malformations and organs of movement	4	1	1	2	2	4	1	2	2	4
B61	710-719	Certain diseases of early infancy	14	1	1	7	7	14	1	7	7	14
B62	720-729	Birth injuries, postnatal asphyxia and atelectasis	25	1	1	12	12	25	1	12	12	25
B63	730-739	Infections of the newborn	1	1	1	1	1	1	1	1	1	1
B64	740-779	Other diseases peculiar to early infancy and limbs	13	1	1	3	10	13	1	3	10	13
B65	780-795	Symptoms, senility and ill-defined conditions	9	1	1	4	4	9	1	4	4	9
B66	800-809	Accidents, poisoning and violence	39	1	1	23	15	39	1	23	15	39
B67	810-835	Motor vehicle accidents	39	1	1	23	15	39	1	23	15	39
B68	840-850	All other accidents except falls	31	1	1	8	20	31	1	8	20	31
B69	860-904	Falls	12	1	1	6	6	12	1	6	6	12
B70	910-905	Suicide	3	1	1	2	1	3	1	2	1	3
B71	920-904	Homicide	8	1	1	4	3	8	1	4	3	8
B72	930-979	Force intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1
B73	980-983	ALL CAUSES	1068	61	61	437	621	1068	61	437	621	1068

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, NEWARK, 1957
(According to the 6th Revision of the International Classification of Diseases)

Abbreviated List No.	Detail List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
						<1	1-4	5-14	15-24	25-44	45-64	65 +	Unknown
B1	001-138	Infective and parasitic diseases	115	81	34	3	8	1	6	28	46	24	..
B1	001-008	Tuberculosis of respiratory system	77	50	27	..	..	..	..	..	..	..	..
B2	009-019	Tuberculosis, other forms	7	6	1	..	..	..	..	..	..	..	..
B3	020-029	Typhoid fever	12	8	4	..	..	..	..	..	..	..	..
B4	040	Cholera	..	..	..	..	..	..	..	..	..	..	..
B5	043	Dysentery, all forms	..	..	..	..	..	..	..	..	..	..	..
B6	045-048	Scarlet fever and streptococcal sore throat	..	..	..	..	..	..	..	..	..	..	..
B7	050, 061	Whooping cough	..	..	..	..	..	..	..	..	..	..	..
B8	055	Whooping cough	..	..	..	..	..	..	..	..	..	..	..
B9	057	Measles	..	..	..	..	..	..	..	..	..	..	..
B10	058	Measles	..	..	..	..	..	..	..	..	..	..	..
B11	063	Acute poliomyelitis	..	..	..	..	..	..	..	..	..	..	..
B12	080	Smallpox	..	..	..	..	..	..	..	..	..	..	..
B13	085	Smallpox	..	..	..	..	..	..	..	..	..	..	..
B14	085	Smallpox	..	..	..	..	..	..	..	..	..	..	..
B15	100-108	Typhus and other rickettsial diseases	..	..	..	..	..	..	..	..	..	..	..
B16	110-117	Malaria	..	..	..	..	..	..	..	..	..	..	..
B17	110-117	Malaria	..	..	..	..	..	..	..	..	..	..	..
B18	140-239	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 085-086, 120-138)	11	10	1	..	..	..	..	..	..	..	..
B19	240-239	Malignant neoplasms	856	480	387	2	4	7	6	64	373	402	..
B20	240	Benign and unspecified neoplasms	836	455	381	..	..	..	..	..	..	..	..
B21	260	Allergic, endocrine system, metabolic and nutritional diseases	20	14	6	..	..	..	..	..	..	..	..
B22	260	Diseases of the blood and blood-forming organs	161	72	80	..	..	..	..	..	..	..	..
B23	300-326	Residual (240-249, 250-254, 270-277, 300-289)	133	51	82	..	..	..	..	..	..	..	..
B24	300-326	Anemias	28	21	7	..	..	..	..	..	..	..	..
B25	330-334	Diseases of the genito-urinary system	10	8	2	..	..	..	..	..	..	..	..
B26	340	Diseases of the blood and blood-forming organs	7	3	4	..	..	..	..	..	..	..	..
B27	400-468	Residual (294-299)	203	119	84	..	..	..	..	..	..	..	..
B28	400-402	Psychoneurotic and personality disorders	28	21	7	..	..	..	..	..	..	..	..
B29	410-416	Diseases of the nervous system	10	8	2	..	..	..	..	..	..	..	..
B30	420-422	Vascular lesions affecting central nervous system	203	119	84	..	..	..	..	..	..	..	..
B31	430-433	Nonmeningococcal meningitis	349	192	157	..	..	..	..	..	..	..	..
B32	440-447	Residual (341-345, 350-357, 360-365, 370-389, 390-398)	45	23	20	..	..	..	..	..	..	..	..
B33	444-447	Chronic rheumatic heart disease	2421	1380	1041	..	..	..	..	..	..	..	..
B34	450-456	Chronic rheumatic heart disease	71	41	30	..	..	..	..	..	..	..	..
B35	460-468	Other diseases of heart	1050	1137	703	..	..	..	..	..	..	..	..
B36	470-487	Residual (460-468, 470-479, 480-486)	30	12	18	..	..	..	..	..	..	..	..
B37	490-493	Infarction with heart disease	244	130	114	..	..	..	..	..	..	..	..
B38	490-493	Infarction with heart disease	26	16	10	..	..	..	..	..	..	..	..
B39	490-493	Infarction with heart disease	26	16	10	..	..	..	..	..	..	..	..
B40	490-493	Infarction with heart disease	213	142	71	..	..	..	..	..	..	..	..
B41	490-493	Infarction with heart disease	6	6	..	..	..	..	..	..	..	..	..

B42	500-502	Residual (470-475, 510-527)	152	90	62	25	7	3	4	17	39	57	..
B43	500-502	Diseases of the digestive system	49	43	6	..	..	..	..	..	..	..	..
B44	500-502	Diseases of the digestive system	209	132	87	13	2	1	2	52	100	49	..
B45	500-503	Apertic stomach and duodenum	47	39	8	..	..	..	..	..	..	..	..
B46	500-561, 570	Intestinal obstruction and hernia	32	16	16	..	..	..	..	..	..	..	..
B47	543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	27	17	10	..	..	..	..	..	..	..	..
B48	581	Diarrhea of newborn	104	73	31	..	..	..	..	..	..	..	..
B49	590-637	Diseases of the genito-urinary system	59	59	..	..	..	..	..	..	..	..	..
B50	590-637	Nephritis and nephrosis	154	71	83	..	..	..	..	..	..	..	..
B51	610	Residual (600-609, 611-617, 630-637)	16	16	..	..	..	..	..	..	..	..	..
B52	640-689	Pregnancy, childbirth and the puerperium	10	25	25	..	..	..	..	..	..	..	..
B53	690-716	Diseases of the skin and cellular tissue	6	5	1	..	..	..	..	..	..	..	..
B54	700-770	Certain diseases of the bones and organs of movement	67	30	37	..	..	..	..	..	..	..	..
B55	780-782	Birth injuries, postnatal asphyxia and atelectasis	145	106	40	..	..	..	..	..	..	..	..
B56	783-788	Infections of the newborn	145	106	40	..	..	..	..	..	..	..	..
B57	780-795	Other diseases peculiar to early infancy and infancy	16	9	7	..	..	..	..	..	..	..	..
B58	800-809	Symptoms, sequelae and ill-defined conditions	94	51	43	..	..	..	..	..	..	..	..
B59	810-835	Accidents, poisonings and violence	202	100	102	..	..	..	..	..	..	..	..
B60	830-835	Motor vehicle accidents	52	41	11	..	..	..	..	..	..	..	..
B61	840-845	All other accidents except falls	70	48	22	..	..	..	..	..	..	..	..
B62	850-855	Falls	101	62	40	..	..	..	..	..	..	..	..
B63	860-869	Suicide	28	18	10	..	..	..	..	..	..	..	..
B64	870-879	Police intervention, execution and operations of war	59	29	30	..	..	..	..	..	..	..	..
B65	880-889	Police intervention, execution and operations of war	2	2	..	..	..	..	..	..	..	..	..
B66	890-899	ALL CAUSES	5257	3033	2224	383	40	31	16	498	1008	2872	..

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, HUDSON COUNTY, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Sex		Age Groups by Years						
				Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-188	Infective and parasitic diseases	108	84	24	9	1	2	1	15	10	46
B2	001-008	Tuberculosis of respiratory system	77	60	17	2	1	1	1	11	37	28
B3	009-029	Tuberculosis of other organs	4	4	0	0	0	0	0	0	0	0
B4	030-039	Syphilis and its sequelae	7	6	1	0	0	0	0	1	2	5
B5	040	Typhoid fever	0	0	0	0	0	0	0	0	0	0
B6	041-049	Cholera	0	0	0	0	0	0	0	0	0	0
B7	050-059	Dysentery, all forms	0	0	0	0	0	0	0	0	0	0
B8	060-069	Typhus, fever and streptococcal sore throat	0	0	0	0	0	0	0	0	0	0
B9	070-079	Diphtheria	0	0	0	0	0	0	0	0	0	0
B10	080	Whooping cough	1	1	0	0	0	0	0	0	0	0
B11	087	Meningococcal infections	1	1	0	0	0	0	0	0	0	0
B12	085	Plague	0	0	0	0	0	0	0	0	0	0
B13	084	Scarlet fever	0	0	0	0	0	0	0	0	0	0
B14	084	Smallpox	0	0	0	0	0	0	0	0	0	0
B15	085	Mumps	2	1	1	0	0	0	0	0	0	0
B16	100-108	Typhus and other rickettsial diseases	0	0	0	0	0	0	0	0	0	0
B17	110-117	Malaria	0	0	0	0	0	0	0	0	0	0
B18	140-239	Neoplasms	16	7	9	2	1	5	8	8	3	5
B19	140-205	Malignant neoplasms	132	72	60	1	1	5	8	8	52	59
B20	210-239	Benign and unspecified neoplasms	132	72	60	1	1	5	8	8	7	11
B21	240-259	Alleged, endocrine system, metabolic and nutritional	20	6	14	1	1	1	1	1	1	2
B22	260	Diabetes mellitus	229	68	141	1	3	3	1	13	71	137
B23	280-290	Diseases of the blood and blood-forming organs	183	93	90	1	1	2	1	8	17	110
B24	290-293	Anemia	11	7	4	0	0	0	0	0	14	21
B25	293-299	Mental, psychoneurotic and personality disorders	7	3	4	1	1	1	1	1	1	2
B26	300-328	Diseases of the nervous system and sense organs	2	2	0	0	0	0	0	0	0	0
B27	330-336	Vascular lesions affecting central nervous system	675	20	655	0	0	0	0	0	0	0
B28	330-334	Nonmeningeal meningitis	0	0	0	0	0	0	0	0	0	0
B29	340	Residual (841-845, 300-304, 370-377, 380-388)	0	0	0	0	0	0	0	0	0	0
B30	400-408	Rheumatic fever	3481	1039	2442	1	1	1	1	1	3	130
B31	409-412	Chronic rheumatic heart disease	10	6	4	0	0	0	0	0	0	0
B32	410-416	Atherosclerotic and degenerative heart disease	2015	162	1853	1	1	1	1	1	3	130
B33	420-422	Other diseases of heart	48	28	20	0	0	0	0	0	0	0
B34	430-432	Other diseases of blood vessels	227	94	133	0	0	0	0	0	0	0
B35	440-444	Hypertension without mention of heart	135	51	84	0	0	0	0	0	0	0
B36	444-447	Residual (450-460, 400-463)	135	51	84	0	0	0	0	0	0	0
B37	470-527	Diseases of the respiratory system	315	200	115	7	3	2	2	15	5	20
B38	480-485	Influenza	5	3	2	1	1	1	1	1	1	1
B39	500-502	Pneumonia	238	145	93	94	5	2	2	8	61	122
B40	503-507	Bronchitis	10	8	2	0	0	0	0	0	0	0
B41	508-512	Residual (470-475, 510-527)	59	44	15	2	1	1	1	7	25	40
B42	530-537	Diseases of the digestive system	390	244	146	4	2	1	1	50	150	184
B43	540-541	Ulcer of stomach and duodenum	38	44	13	0	0	0	0	4	20	20
B44	550-553	Appendicitis	46	22	24	3	1	1	1	2	2	3
B45	560-561, 570	Intestinal obstruction and hernia	0	0	0	0	0	0	0	0	0	0
B46	563, 571, 572	Gastritis, duodenitis, enteritis and colitis, except cirrhosis of the newborn	28	15	13	0	0	0	0	4	10	12
B47	581	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	177	114	63	1	1	1	1	39	85	49
B48	590-597	Diseases of the genito-urinary system	74	41	33	0	0	0	0	7	25	40
B49	600-604	Gonorrhea	133	78	55	2	2	2	2	10	18	21
B50	605	Hyperplasia of the prostate	13	13	0	0	0	0	0	0	0	0
B51	610	Residual (600-609, 611-617, 620-628, 630-637)	11	82	28	0	0	0	0	7	24	39
B52	640-659	Pregnancy, childbirth and the puerperium	1	0	1	0	0	0	0	0	0	0
B53	720-725	Diseases of the skin and cellular tissue	11	4	7	0	0	0	0	1	4	7
B54	730-739	Congenital malformations and organs of movement	12	7	5	0	0	0	0	0	0	0
B55	750-776	Certain diseases of early infancy and atelectasis	0	0	0	0	0	0	0	0	0	0
B56	780-782	Birth injuries, postnatal asphyxia and atelectasis	26	18	8	0	0	0	0	1	5	4
B57	783-788	Other diseases of early infancy and atelectasis	0	0	0	0	0	0	0	0	0	0
B58	790-795	Other diseases peculiar to early infancy and limbs	24	13	11	0	0	0	0	0	0	0
B59	796-798	Symptoms, senility and ill-defined conditions	96	50	46	96	46	46	46	46	46	46
B60	800-809	Accidents, poisonings and violence	277	243	34	6	13	2	27	45	95	83
B61	810-819	Motor vehicle accidents	65	48	17	0	0	0	0	0	0	0
B62	820-829	All other accidents except falls	76	67	9	5	8	2	8	14	21	18
B63	830-835	Falls	81	67	14	1	5	1	1	6	31	39
B64	836-839	Other accidents	38	30	8	0	0	0	0	0	0	0
B65	840-845	Police intervention, execution and operations of war	16	11	5	0	0	0	0	0	0	0
B66	850-859	Residual (860-869)	2	2	0	0	0	0	0	0	0	0
B67	901-909	ALL CAUSES	7318	4123	3195	321	44	27	50	480	2427	4019

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, BAYONNE, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years						
				<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-138	Infective and parasitic diseases	11	8	3	1	1	1	4	5
B2	014-068	Tuberculosis of respiratory system	8	7	1	1	1	1	3	4
B3	020-029	Typhoid and other forms	1	1	1	1	1	1	1	1
B4	040	Typhoid and typhus	1	1	1	1	1	1	1	1
B5	043	Typhoid fever	1	1	1	1	1	1	1	1
B6	046-048	Cholera	1	1	1	1	1	1	1	1
B7	050-051	Dysentery, all forms	1	1	1	1	1	1	1	1
B8	055	Dysentery, bacillary	1	1	1	1	1	1	1	1
B9	057	Dysentery, amoebic	1	1	1	1	1	1	1	1
B10	067	Whooping cough	1	1	1	1	1	1	1	1
B11	083	Measles	1	1	1	1	1	1	1	1
B12	084	Scarlet fever	1	1	1	1	1	1	1	1
B13	084	Scarlet fever	1	1	1	1	1	1	1	1
B14	085	Scarlet fever	1	1	1	1	1	1	1	1
B15	106-108	Diphtheria	1	1	1	1	1	1	1	1
B16	110-117	Diphtheria, all forms	1	1	1	1	1	1	1	1
B17	117	Diphtheria, membranous	1	1	1	1	1	1	1	1
B18	140-230	Neoplasms	15	15	20	1	1	1	10	22
B19	140-205	Malignant neoplasms	12	12	10	1	1	1	10	19
B20	240-259	Benign and unspecified neoplasms	3	3	10	1	1	1	10	3
B21	260-263	Diseases of the endocrine system, metabolic and nutritional	1	1	1	1	1	1	1	1
B22	300-323	Diabetes mellitus	35	15	20	1	1	1	10	22
B23	324-334	Diseases of the blood and blood-forming organs	32	12	19	1	1	1	10	19
B24	400-468	Diseases of the circulatory system	6	6	1	1	1	1	1	2
B25	469-527	Chronic rheumatic heart disease	7	7	6	2	2	2	2	2
B26	530-538	Myocardial degenerative heart disease	3	3	3	1	1	1	1	1
B27	430-434	Other diseases of the heart	347	219	128	1	1	1	16	200
B28	440-447	Hypertension without mention of heart	3	3	4	1	1	1	1	2
B29	447-457	Residual (450-455, 460-468)	13	11	2	2	2	2	2	8
B30	480-483	Influenza	26	16	10	1	1	1	10	12
B31	490-493	Pharyngitis	21	12	9	2	2	2	7	10
B32	500-502	Bronchitis	1	1	1	1	1	1	1	1
B33	530-537	Diseases of the digestive system	8	8	10	1	1	1	3	2
B34	540-541	Ulcer of stomach and duodenum	6	4	2	1	1	1	1	1
B35	560-561, 570	Appendicitis	1	1	1	1	1	1	1	1
B36	543, 571, 572	Intestinal obstruction and hernia and colitis, except diarrhoea of newborn	4	3	1	1	1	1	1	2
B37	581	Cirrhosis of liver	19	14	1	1	1	1	1	8
B38	590-637	Diseases of the genitourinary system	7	6	1	1	1	1	4	2
B39	610	Nephritis and nephrosis	20	12	8	1	1	1	3	14
B40	640-669	Hyperplasia of prostate	1	1	1	1	1	1	1	1
B41	720-749	Residual (690-699, 611-617, 620-628, 630-637)	10	6	4	1	1	1	1	1
B42	750-779	Diseases of the skeleton and the puerperium	2	1	2	2	2	2	2	2
B43	780-778	Diseases of the bones and organs of movement	3	1	2	1	1	1	1	1
B44	780-770	Congenital malformations	2	1	1	1	1	1	1	1
B45	780-778	Certain diseases of early infancy	10	10	10	20	20	20	20	20
B46	780-778	Injury, burn, frostbite, scald, and other injuries, postnatal asphyxia and atelectasis	12	6	6	12	12	12	12	12
B47	780-770	Other diseases peculiar to early infancy and immature	1	1	1	1	1	1	1	1
B48	780-705	Symptoms, senility and ill-defined conditions	7	4	3	1	1	1	1	1
B49	830-839	Accidents, poisonings and violence	23	19	4	3	4	4	11	5
B50	840-849	Motor vehicle accidents	5	5	5	3	3	3	2	2
B51	850-859	All other accidents except falls	0	4	1	1	1	1	4	1
B52	860-869	Falls	9	6	4	1	1	1	1	4
B53	870-879	Self-inflicted injuries	0	0	0	0	0	0	0	0
B54	880-889	War	4	4	4	4	4	4	4	4
B55	890-899	Homicide	4	4	4	4	4	4	4	4
B56	900-909	Police intervention, execution and operations of war	4	4	4	4	4	4	4	4
B57	910-919	Residual	811	480	831	27	6	8	5	268
B58	920-929	ALL CAUSES	480	480	831	27	6	8	5	268

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, JERSEY CITY, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years						
				<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-135	Infective and parasitic diseases	62	1	1	1	1	6	25	17
B2	001-003	Tubercular system	38	2	2	2	2	8	28	10
B3	010-010	Tuberculosis, other forms	1	1	1	1	1	1	1	3
B4	020-029	Syphilis and its sequelae	4	4	4	4	4	4	4	4
B5	040	Typhoid fever	1	1	1	1	1	1	1	1
B6	045-048	Cholera	1	1	1	1	1	1	1	1
B7	050-051	Cholera, all forms	1	1	1	1	1	1	1	1
B8	055	Scarlet fever	1	1	1	1	1	1	1	1
B9	059	Scarlet fever, ant streptococcal sore throat	1	1	1	1	1	1	1	1
B10	057	Whooping cough	1	1	1	1	1	1	1	1
B11	057	Meningococcal infections	1	1	1	1	1	1	1	1
B12	080	Acute poliomyelitis	1	1	1	1	1	1	1	1
B13	084	Smallpox	1	1	1	1	1	1	1	1
B14	085	Measles	1	1	1	1	1	1	1	1
B15	100-105	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1
B16	110-117	Heatstroke	1	1	1	1	1	1	1	1
B17	033-074, 081-083, 085-086, 150-153	Neoplasms	628	1	2	3	2	1	2	3
B18	140-239	Malignant neoplasms	615	1	2	3	2	1	2	3
B19	240-239	Benign and unspecified neoplasms	13	4	4	4	4	4	4	4
B20	200	Diabetes mellitus	102	38	66	9	10	83	56	9
B21	200-200	Insudial (240-243, 250-254, 270-277, 280-289)	20	11	11	2	5	20	44	4
B22	300-328	Diseases of the blood and blood-forming organs	4	4	4	4	4	4	4	4
B23	340	Reidial (204-206)	2	2	2	2	2	2	2	2
B24	400-468	Mental, psychoneurotic and personality disorders	2	2	2	2	2	2	2	2
B25	400-402	Diseases of the nervous system and sense organs	346	153	153	1	1	1	1	1
B26	400-402	Vascular lesions affecting central nervous system	822	138	184	1	1	20	102	221
B27	400-434	Diseases of the circulatory system	17	8	8	1	1	1	1	1
B28	400-443	Chronic rheumatic heart disease	154	8	8	1	1	4	6	0
B29	400-443	Chronic rheumatic heart disease, degenerative heart disease	59	2	2	1	1	2	4	0
B30	400-443	Other diseases of heart disease	1303	728	575	1	1	36	413	853
B31	400-443	Hypertension with heart disease	32	18	16	1	1	8	20	20
B32	400-443	Hypertension without mention of heart	18	9	9	1	1	8	28	46
B33	400-443	Diseases of the respiratory system	669	381	307	2	2	1	10	10
B34	400-443	Influenza	174	116	58	2	2	6	40	37
B35	400-483	Other diseases	2	1	1	1	1	1	1	1
B36	500-502	Pneumonia	135	85	50	10	3	5	33	79
B37	500-502	Bronchitis	5	5	5	5	5	5	5	5
B38	580-587	Diseases of the digestive system	174	110	64	5	1	32	20	29
B39	580-587	Ulcer of stomach and duodenum	4	4	4	4	4	4	4	4
B40	590, 601, 670	Intestinal obstruction and hernia	3	3	3	3	3	3	3	3
B41	513, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	20	9	11	2	2	2	4	12
B42	582-587	Diseases of the genito-urinary system	10	7	3	1	1	23	42	7
B43	582-587	Gonorrhoea	89	58	31	1	1	4	18	15
B44	582-587	Diseases of the genito-urinary system, except gonorrhoea	71	40	20	1	1	6	23	15
B45	600-716	Pregnancy, childbirth and the puerperium	7	7	7	7	7	7	7	7
B46	700-702	Diseases of the skin and cellular tissue	45	32	13	1	1	4	15	23
B47	700-702	Diseases of the bones and organs of movement	6	3	3	3	3	3	3	3
B48	700-702	Certain diseases of early infancy	82	18	14	24	2	1	8	2
B49	700-702	Birth injuries, postnatal asphyxia and stolicastis	111	64	47	111	10	1	5	2
B50	700-702	Infections of the newborn	10	6	4	10	6	2	2	2
B51	700-702	Other diseases peculiar to early infancy and limba	52	28	24	52	2	1	4	2
B52	800-809	Accidents, poisonings and ill-defined conditions	184	10	34	2	5	14	20	45
B53	800-809	Motor vehicle accidents	35	28	7	2	1	8	11	7
B54	800-809	All other accidents except falls	30	27	12	2	4	6	11	11
B55	800-809	Suicide	34	23	11	1	1	3	10	14
B56	800-809	Homicide	12	10	2	1	2	6	1	4
B57	800-809	Police intervention, execution and operations of war	2	2	2	2	2	2	2	2
B58	901-999	ALL CAUSES	3422	1928	1494	105	18	11	24	224

Table 23. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, MERCER COUNTY, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
						<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
E1	001-138	Infective and parasitic diseases	50	35	15	1	1	2	9	23	16	1	1
E2	001-008	Tuberculosis of respiratory system	40	30	10				9	23	16		
E3	010-009	Syphilis, other forms	3	2	1				2	1	1		
E4	040-029	Systemic mycotic diseases	3	2	1				2	1	1		
E5	043	Typhoid fever	2	1	1								
E6	045-048	Cholera											
E7	061-061	Dysentery, all forms											
E8	065-068	Scarlet fever and streptococcal sore throat											
E9	067	Diphtheria											
E10	069	Whooping cough	1	1									
E11	088	Meningococcal infections											
E12	089	Diphtheria											
E13	090	Scarlet fever											
E14	085	Staphylococcal infections											
E15	100-108	Measles	2	1	1								
E16	110-117	Scarlet poliomylitis											
E17		Scarlet fever											
E18	140-239	Malaria	2	2									
E19	210-228	Neoplasms (890-939, 941, 942, 943, 948, 952-954, 956-969, 981-983, 986-996, 120-138)	463	353	110								
E20	240-259	Malignant neoplasms	463	353	110								
E21	290-299	Benign and unspecified neoplasms	463	353	110								
E22	330-334	Allergic, endocrine system, metabolic and nutritional	7	4	3								
E23	340	Diabetes mellitus	7	4	3								
E24	400-468	Diseases of the blood and blood-forming organs	75	53	22								
E25	400-402	Anemia	60	43	17								
E26	420-422	Mental, psychoneurotic and personality diseases	15	8	7								
E27	430-432	Diseases of the nervous system and sense organs	9	3	6								
E28	440-444	Vascular lesions affecting central nervous system	5	1	4								
E29	444-447	Nonmeningococcal meningitis	2	2									
E30	470-527	Diseases of genitourinary system (370-389, 390-398)	257	197	60								
E31	530-534	Rheumatic fever	13	7	6								
E32	535-538	Chronic rheumatic heart disease	122	67	55								
E33	540-544	Arteriosclerotic and degenerative heart disease	39	18	21								
E34	550-554	Hypertension with heart disease	926	531	395								
E35	560-561, 570	Chronic rheumatic heart disease	11	6	5								
E36	643, 671, 672	Hypertension without mention of heart	24	12	12								
E37	681	Residual (480-488, 490-498)	72	37	35								
E38	690-697	Diseases of the respiratory system	130	83	47								
E39	700-708	Influenza	7	5	2								
E40	710-718	Pneumonia	1	1									
E41	720-728	Residual (470-478, 510-527)	35	25	10								
E42	730-738	Diseases of the digestive system	138	78	60								
E43	740-744	Ulcers of stomach and duodenum	18	14	4								
E44	750-759	Appendicitis	31	6	25								
E45	760-762	Intestinal obstruction and hernia											
E46	763-768	Gastritis, duodenitis, enteritis and colitis, except chronic of newborn	70	6	64								
E47	770-778	Disease of gallbladder and biliary tract	32	20	12								
E48	780-785	Residual (330-339, 342, 344, 345, 573-578, 580-582-587)	92	13	79								
E49	800-807	Diseases of the genitourinary system	47	33	14								
E50	810	Neuritis and nephrosis	25	13	12								
E51	820-824	Residual (800-809, 811-817, 820-824, 830-837)	16	12	4								
E52	830-834	Pregnancy, childbirth and the puerperium	3	1	2								
E53	840-844	Diseases of the skin and cellular tissue	9	4	5								
E54	850-854	Diseases of the bones and organs of movement	30	15	15								
E55	860-862	Certain diseases of early infancy and atelectasis	80	20	60								
E56	870-879	Birth injuries, postnatal asphyxia and atelectasis	17	10	7								
E57	880-884	Infections of the newborn	5	2	3								
E58	890-899	Other diseases peculiar to early infancy and limbs	58	37	21								
E59	900-909	Symptoms, senility and ill-defined conditions	8	4	4								
E60	910-935	Accidents, poisonings and violence	146	95	51								
E61	936-939	Motor vehicle accidents	51	33	18								
E62	940-945	All other accidents except falls	34	24	10								
E63	950-954	Falls	40	29	11								
E64	960-964	Suicide	10	10									
E65	970-979	Homicide	2	2									
E66	980-985	Police intervention, execution and operations of war											
E67	990-999	ALL CAUSES	1490	1149	341	120	25	18	32	178	773	1522	

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, TRENTON, 1937
 (According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years								
						<1	1-4	5-14	15-24	25-44	45-64	65+ / Unknown		
R1	601-606	Infective and parasitic diseases	35	25	10	1	1	1	1	1	1	8	13	12
R2	010-019	Tuberculous system	30	22	8	1	1	1	1	1	1	8	12	10
R3	020-029	Tuberculosis, other forms	2	2	0	1	1	1	1	1	1	1	1	1
R4	040	Syphilis and its sequelae	2	2	0	1	1	1	1	1	1	1	1	1
R5	050-059	Typhoid fever	2	2	0	1	1	1	1	1	1	1	1	1
R6	060-069	Dysentery, all forms	2	2	0	1	1	1	1	1	1	1	1	1
R7	060-061	Scarlet fever and streptococcal sore throat	2	2	0	1	1	1	1	1	1	1	1	1
R8	065	Diphtheria	1	1	0	1	1	1	1	1	1	1	1	1
R9	065	Whooping cough	1	1	0	1	1	1	1	1	1	1	1	1
R10	065	Pneumococcal infections	1	1	0	1	1	1	1	1	1	1	1	1
R11	065N	Acute poliomyelitis	1	1	0	1	1	1	1	1	1	1	1	1
R12	080	Smallpox	1	1	0	1	1	1	1	1	1	1	1	1
R13	085	Measles	2	2	0	1	1	1	1	1	1	1	1	1
R14	100-109	Malaria and other rickettsial diseases	2	2	0	1	1	1	1	1	1	1	1	1
R15	110-117	Residual (030-039, 041, 042, 043, 049, 052-064)	1	1	0	1	1	1	1	1	1	1	1	1
R16	110-117	Neoplasms	251	139	112	3	3	3	3	3	3	3	3	3
R17	110-117	Malignant neoplasms	240	138	111	3	3	3	3	3	3	3	3	3
R18	210-259	Benign neoplasms	11	1	0	1	1	1	1	1	1	1	1	1
R19	240-259	Allergic, embryonic, metabolic and nutritional diseases	20	15	5	1	1	1	1	1	1	1	1	1
R20	260	Diabetes mellitus	42	35	7	1	1	1	1	1	1	1	1	1
R21	260-269	Residual (240-245, 250-254, 270-277, 280-289)	8	8	0	1	1	1	1	1	1	1	1	1
R22	290-293	Anemia of the blood and blood-forming organs	7	7	0	1	1	1	1	1	1	1	1	1
R23	290-293	(Residual (291-299))	4	4	0	1	1	1	1	1	1	1	1	1
R24	300-329	Mental, psychoneurotic and personality disorders	133	65	68	2	2	2	2	2	2	2	2	2
R25	330-339	Diseases of the nervous system and sense organs	144	69	84	2	2	2	2	2	2	2	2	2
R26	330-334	Diseases of the brain including central nervous system	144	69	84	2	2	2	2	2	2	2	2	2
R27	340	Nonmeningeoencephalitis	4	3	1	1	1	1	1	1	1	1	1	1
R28	340-349	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	87	37	50	1	1	1	1	1	1	1	1	1
R29	400-468	Diseases of the circulatory system	291	15	276	1	1	1	1	1	1	1	1	1
R30	410-422	Ischemic heart disease	281	16	265	1	1	1	1	1	1	1	1	1
R31	420-422	Arteriosclerotic heart disease	58	287	289	1	1	1	1	1	1	1	1	1
R32	430-434	Other diseases of heart	52	31	21	1	1	1	1	1	1	1	1	1
R33	440-443	Hypertension with heart disease	12	46	39	1	1	1	1	1	1	1	1	1
R34	444-447	Hypertension without mention of heart	37	21	16	1	1	1	1	1	1	1	1	1
R35	470-527	Residual (460-466, 480-488)	19	24	15	1	1	1	1	1	1	1	1	1
R36	480-483	Influenza	6	5	1	1	1	1	1	1	1	1	1	1
R37	490-493	Pneumonia	58	38	20	8	2	2	2	2	2	2	2	2
R38	500-503	Bronchitis	21	16	5	1	1	1	1	1	1	1	1	1
R39	500-502	Residual (470-475, 510-527)	89	52	37	2	2	2	2	2	2	2	2	2
R40	530-537	Diseases of the digestive system	11	9	2	1	1	1	1	1	1	1	1	1
R41	540	Ulcer of stomach and duodenum	10	1	9	1	1	1	1	1	1	1	1	1
R42	540, 561, 570	Intestinal obstruction, anal fissure	3	3	0	1	1	1	1	1	1	1	1	1
R43	545, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	2	2	0	1	1	1	1	1	1	1	1	1
R44	581	Diarrhoea of liver	37	28	9	1	1	1	1	1	1	1	1	1
R45	580-637	Diseases of the genito-urinary system	11	11	0	1	1	1	1	1	1	1	1	1
R46	590-594	Nephritis and nephrosis	10	10	0	1	1	1	1	1	1	1	1	1
R47	610	Hyperplasia of prostate	2	2	0	1	1	1	1	1	1	1	1	1
R48	610-689	Presbycusis, otitis media, deafness, etc.	1	1	0	1	1	1	1	1	1	1	1	1
R49	720-719	Diseases of the skin and cellular tissue	4	4	0	1	1	1	1	1	1	1	1	1
R50	720-729	Congenital malformations	15	8	7	5	6	1	1	1	1	1	1	1
R51	730-732	Birth in disease of early infancy	40	37	3	1	1	1	1	1	1	1	1	1
R52	730-732	Birth in disease of early infancy	11	4	7	1	1	1	1	1	1	1	1	1
R53	740-743	Infections of the newborn	4	4	0	1	1	1	1	1	1	1	1	1
R54	740-743	Other diseases peculiar to early infancy and infancy	20	18	2	1	1	1	1	1	1	1	1	1
R55	750-755	Scabies, urticaria and ill-defined conditions	3	3	0	1	1	1	1	1	1	1	1	1
R56	830-835	Accidents and violence	28	31	27	5	4	4	4	4	4	4	4	4
R57	830-802	Motor vehicle accidents	28	28	0	2	2	2	2	2	2	2	2	2
R58	840-849	All other accidents except falls	10	11	9	5	2	2	2	2	2	2	2	2
R59	850-855	Falls	22	12	10	2	2	2	2	2	2	2	2	2
R60	850-854	Stupefide	2	2	0	1	1	1	1	1	1	1	1	1
R61	850-854	Homeicide	2	2	0	1	1	1	1	1	1	1	1	1
R62	850-859	Police intervention, execution and operations of war	2	2	0	1	1	1	1	1	1	1	1	1
R63	900-999	ALL CAUSES	1531	842	689	84	16	13	16	14	14	44	86	85

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, MONMOUTH COUNTY, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years										
						<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown				
B1	001-188	Infective and parasitic diseases	37	23	14	1	1	1	1	1	1	1	1	1	1	1
B2	001-008	Tuberculosis	23	17	6	0	0	0	0	0	0	0	0	0	0	0
B3	010-019	Tuberculosis, other forms	3	3	0	0	0	0	0	0	0	0	0	0	0	0
B4	020-029	Syphilis and its sequelae	3	3	0	0	0	0	0	0	0	0	0	0	0	0
B5	040	Diphtheria	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B6	045-048	Diphtheria, all forms	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B7	050, 051	Scarlet fever and streptococcal sore throat	1	1	0	0	0	0	0	0	0	0	0	0	0	0
B8	055	Whooping cough	1	1	0	0	0	0	0	0	0	0	0	0	0	0
B9	059	Pneumococcal infections	1	1	0	0	0	0	0	0	0	0	0	0	0	0
B10	057	Acute poliomyelitis	1	1	0	0	0	0	0	0	0	0	0	0	0	0
B11	080	Smallpox	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B12	084	Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B13	085-088	Measles and other rickfebrile diseases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B14	110-117	Malaria and other rickfebrile diseases	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B15	118, 209	Residual (030-039, 041, 042, 044, 046, 052-054, 059-074, 081-083, 088-098, 120-135)	6	1	5	1	1	1	2	1	2	1	1	2	1	1
B16	140-205	Neoplasms	360	297	259	3	10	10	6	32	188	312	188	312	188	312
B17	210-239	Benign neoplasms	540	297	259	7	10	10	6	32	188	312	188	312	188	312
B18	240-289	Malignant neoplasms	7	7	8	0	0	0	0	0	0	0	0	0	0	0
B20	290	Diseases of the circulatory system	74	48	46	0	0	0	0	0	0	0	0	0	0	0
B21	290-299	Diseases of the blood and blood-forming organs	62	23	39	0	0	0	0	0	0	0	0	0	0	0
B22	300-309	Anemias	12	5	7	0	0	0	0	0	0	0	0	0	0	0
B23	309-329	Residual (291-296)	5	2	4	0	0	0	0	0	0	0	0	0	0	0
B24	330-339	Cerebral, psychoneurotic and personality disorders	391	134	167	1	1	1	1	1	1	1	1	1	1	1
B25	340	Alcoholism, drug addiction and nervous system	278	119	159	2	2	2	2	2	2	2	2	2	2	2
B26	340-354	Alcoholism, drug addiction and nervous system	278	119	159	2	2	2	2	2	2	2	2	2	2	2
B27	355-369	Alzheimer's disease, senile dementia, and other diseases of the brain	1540	822	718	1	1	1	1	1	1	1	1	1	1	1
B28	400-409	Chronic rheumatic heart disease	33	13	20	0	0	0	0	0	0	0	0	0	0	0
B29	410-419	Arteriosclerotic and degenerative heart disease	119	67	52	0	0	0	0	0	0	0	0	0	0	0
B30	420-429	Other diseases of heart	147	64	83	0	0	0	0	0	0	0	0	0	0	0
B31	430-434	Myocardial infarction	119	51	68	0	0	0	0	0	0	0	0	0	0	0
B32	434-447	Residual (430-434, 435-439, 440-447)	119	51	68	0	0	0	0	0	0	0	0	0	0	0
B33	448-457	Diseases of the respiratory system	161	91	70	0	0	0	0	0	0	0	0	0	0	0
B34	460-483	Influenza	161	91	70	0	0	0	0	0	0	0	0	0	0	0
B35	484-493	Pneumonia	831	441	389	13	4	4	2	3	21	14	15	41	15	41
B36	494-503	Bronchitis	46	5	1	1	1	1	1	1	1	1	1	1	1	1
B37	504-509	Diseases of the respiratory system	46	5	1	1	1	1	1	1	1	1	1	1	1	1
B38	510-519	Diseases of the digestive system	46	29	11	0	0	0	0	0	0	0	0	0	0	0
B39	520-529	Ulcer of stomach and duodenum	160	56	44	2	1	1	2	2	2	2	2	2	2	2
B40	530-539	Appendicitis	2	2	0	0	0	0	0	0	0	0	0	0	0	0
B41	540, 541, 570	Intestinal obstruction and hernia	15	3	10	0	0	0	0	0	0	0	0	0	0	0
B42	542, 571, 572	Diarrhea of infants, enteritis and colitis, except diarrhoea of liver	6	2	7	0	0	0	0	0	0	0	0	0	0	0
B43	581	Residual (530-539, 542, 544, 545, 575-578, 580, 582-587)	6	2	14	0	0	0	0	0	0	0	0	0	0	0
B44	590-637	Nephritis and nephrosis	24	13	11	0	0	0	0	0	0	0	0	0	0	0
B45	640-649	Hyperplasia of prostate	44	27	17	1	1	1	2	2	7	7	14	14	14	14
B46	650-659	Residual (640-649, 651-657, 659-664, 666-667)	2	0	11	0	0	0	0	0	0	0	0	0	0	0
B47	660-669	Gonorrhea, gonorrhoea, and the proctoperineum, with or without the proctoperineum	17	11	6	0	0	0	0	0	0	0	0	0	0	0
B48	670-679	Diseases of the bones and organs of movement	4	1	2	0	0	0	0	0	0	0	0	0	0	0
B49	680-689	Congenital malformations	55	27	28	0	0	0	0	0	0	0	0	0	0	0
B50	690-709	Certain diseases of early infancy	92	49	46	0	0	0	0	0	0	0	0	0	0	0
B51	710-719	Birth injuries, postnatal asphyxia and atelectasis	49	24	25	0	0	0	0	0	0	0	0	0	0	0
B52	720-729	Other diseases peculiar to early infancy and infancy unqualified	6	4	2	0	0	0	0	0	0	0	0	0	0	0
B53	730-739	Symptoms, senility and ill-defined conditions	37	18	19	0	0	0	0	0	0	0	0	0	0	0
B54	740-749	Accidents, poisoning and violence	7	2	5	0	0	0	0	0	0	0	0	0	0	0
B55	750-759	Motor vehicle accidents	182	129	53	6	2	2	2	2	8	12	14	13	13	13
B56	760-769	All other accidents except falls	51	14	17	0	0	0	0	0	0	0	0	0	0	0
B57	770-779	Police intervention, execution and operations of war	46	37	0	0	0	0	0	0	0	0	0	0	0	0
B58	780-789	Residual (770-779, 780-789, 790-799, 800-809, 810-819, 820-829, 830-839, 840-849, 850-859, 860-869, 870-879, 880-889, 890-899, 900-909, 910-919, 920-929, 930-939, 940-949, 950-959, 960-969, 970-979, 980-989, 990-999)	3157	1689	1468	156	32	31	31	31	178	810	1010	1010	1010	1010

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, MORRIS COUNTY, 1957
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Sex		Age Groups by Years							
				Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
B1	001-188	Infective and parasitic diseases	38	10	10	2	1	1	1	1	11	12	..
B1	001-008	Tuberculosis of respiratory system	17	11	6	1	1	..
B1	010-019	Tuberculosis, other forms
B1	020-029	Syphilis and its sequelae
B1	030-039	Cholera
B1	040-049	Dysentery, all forms
B1	050-059	Scarlet fever and streptococcal sore throat
B1	060-069	Diphtheria
B1	070-079	Whooping cough
B1	080-089	Streptococcal infections
B1	090-099	Acute poliomyelitis
B1	100-109	Smallpox
B1	110-119	Malaria and other rickettsial diseases
B1	120-129	Residual (030-039, 041, 042, 044, 049, 050-054, 056-074, 081-088, 089-090, 120-138)	3	1	2
B18	140-239	Neoplasms	372	190	182	2	6	2	28	155	180	..	
B19	210-239	Malignant neoplasms	304	189	115	1	6	2	28	162	175	..	
B20	240-259	Benign neoplasms	68	4	4	..	..	..	..	..	..	..
B21	260-269	Diseases of the blood and blood-forming organs	33	13	20	1	..	..	..	..	13	18
B21	280-289	Diabetes mellitus	22	9	13	..	..	..	..	..	1	18
B22	290-299	Arteriosclerosis and degenerative heart disease	11	4	7	1	..	..	..	..	..	..
B22	300-309	Other diseases of heart	7	5	2	..	..	..	..	..	..	..
B22	310-319	Other diseases of circulatory system	2	1	1	..	..	..	..	..	..	..
B22	320-329	Alcoholism	213	86	127	1	2	10	37	162	34	154	
B22	330-339	Diseases of the nervous system and sense organs	184	76	118	1	1	1	6	37	6	108	
B22	340-349	Diseases of the eye	17	8	9	..	..	..	..	..	..	..
B22	350-359	Nonmenstrual melioidosis	805	502	303	2	2	27	259	208	..	..
B24	400-409	Chronic liver disease	28	15	13	..	..	..	..	..	7	10
B24	410-419	Arteriosclerosis and degenerative heart disease	71	48	23	..	..	..	..	..	18	190
B24	420-429	Other diseases of heart	8	4	4	..	..	..	..	..	..	..
B24	430-439	Hypertension with heart disease	50	29	21	..	..	..	..	..	10	33
B24	440-449	Hypertension without mention of heart disease	10	4	6	..	..	..	..	..	1	8
B29	470-527	Diseases of the respiratory system	90	25	65	12	7	1	10	11	48	..	
B30	480-483	Influenza	5	3	2	..	..	..	..	..	1	..
B31	500-493	Pneumonia	73	38	35	9	6	3	1	9	10	37	
B32	500-502	Residual (470-475, 510-527)	1	1	..	..	..	..	..	..	..	..
B33	530-537	Diseases of the digestive system	13	6	7	..	..	..	..	..	2	7
B34	540-541	Ulcer of stomach and duodenum	8	4	4	..	..	..	..	..	..	..
B34	550-553	Appendicitis	12	8	4	..	..	..	..	..	..	..
B36	560-571, 572	Intestinal obstruction and hernia	11	4	7	..	..	..	..	..	..	..
B37	580-589	Diarrhea of newborn	5	2	3	..	..	..	..	..	..	..
B37	590-599	Cirrhosis of liver	35	22	13	..	..	..	..	..	..	..
B38	600-604	Diseases of the genito-urinary system	21	7	14	..	..	..	..	..	..	..
B39	600-594	Nephritis and nephrosis	22	10	12	..	..	..	..	..	..	..
B40	610	Hypertrophy of prostate	16	9	7	..	..	..	..	..	..	..
B41	620-629	Diseases of the skin and cellular tissue	1	1	..	..	..	..	..	..	..	..
B41	720-749	Diseases of the bones and organs of movement	29	14	15	..	..	..	..	..	..	..
B42	750-759	Congenital malformations	58	30	28	..	..	..	..	..	..	..
B42	760-769	Birth injuries, postnatal asphyxia and stillbirths	15	8	7	..	..	..	..	..	..	..
B42	780-788	Infections of the newborn	6	3	3	..	..	..	..	..	..	..
B43	790-798	Other diseases peculiar to early infancy and immaturity unqualified as ill-defined conditions	21	12	9	..	..	..	..	..	..	..
B45	780-785	Acute, subacute and ill-defined conditions	121	53	68	4	6	10	26	21	43	..	
BE47	ES10-835	Accidents, poisonings and violence	37	20	17	..	..	..	..	..	..	..
BE48A	ES10-805	Motor vehicle accidents	31	22	9	..	..	..	..	..	..	..
BE48B	ES90-804	All other accidents except falls	..	..	..	..	..	..	..	..	..	..
BE49	EP70-979	Falls	25	14	11	..	..	..	..	..	..	..
BE50A	ES80-883	Suicide	25	20	5	..	..	..	..	..	..	..
BE50B	ES81-909	Homicide	4	2	2	..	..	..	..	..	..	..
BE50D	ES84-909	Police intervention, execution and operations of war	..	..	..	..	..	..	..	..	..	..
..	..	ALL CAUSES	1983	1071	892	129	19	22	28	121	531	1127	

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, PASSAIC COUNTY, 1937
(According to the 8th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years		Unknown					
				Male	Female						
				<	1-1	5-14	15-24	25-44	45-64	65+	
R11	001-138	Infective and parasitic diseases	44	32	12	1	2	1	0	18	0
R12	010-008	Tuberculosis of respiratory system	24	20	4	4	1	1	0	13	0
R13	020-029	Typhoid and its sequelae	7	6	1	1	1	1	1	1	1
R14	043	Cholera	7	6	1	1	1	1	2	4	1
R15	043-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1
R16	043-048	Shigellosis, all forms	1	1	1	1	1	1	1	1	1
R17	050-051	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1
R18	050-051	Diphtheria	1	1	1	1	1	1	1	1	1
R19	057	Meningococcal infections	1	1	1	1	1	1	1	1	1
R20	063	Plague	1	1	1	1	1	1	1	1	1
R21	068	Acute poliomyelitis	1	1	1	1	1	1	1	1	1
R22	080	Measles	1	1	1	1	1	1	1	1	1
R23	085	Mumps	1	1	1	1	1	1	1	1	1
R24	100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1
R25	110-117	Malaria	1	1	1	1	1	1	1	1	1
R26	090-039, 041, 042, 044, 040, 052-054, 059-075, 081-083, 086-090, 120-158)	Nephritis and other diseases of the urinary system	10	6	4	6	2	1	2	4	0
R27	140-206	Malignant neoplasms	700	503	316	1	5	2	46	270	387
R28	210-230	Benign and unspecified neoplasms	699	388	311	1	5	2	46	208	870
R29	240-289	Allergic, endocrine system, metabolic and nutritional diseases	10	5	5	5	1	1	4	3	2
R30	290	Diseases of the blood and blood-forming organs	130	44	86	1	1	1	7	34	80
R31	290-293	Anemias	113	36	77	1	1	1	1	22	51
R32	290-293	Leukemias	17	8	9	4	4	4	3	0	5
R33	300-326	Diseases of the heart and circulatory system	4	2	2	2	2	2	1	1	2
R34	300-326	Coronary artery disease	4	2	2	2	2	2	1	1	2
R35	330-334	Noncommunicable meningitis	407	178	229	1	8	1	2	15	79
R36	340	Communicable meningitis	307	157	150	1	4	1	1	7	301
R37	400-408	Diseases of the nervous system	31	17	14	1	1	1	1	1	1
R38	400-408	Alzheimer's disease	1782	1012	770	1	1	1	0	60	472
R39	410-416	Chronic rheumatic heart disease	3	3	0	2	2	2	1	1	1
R40	420-426	Arteriosclerotic and degenerative heart disease	1491	820	671	1	1	1	4	13	34
R41	430-432	Other diseases of heart	25	12	13	1	1	1	1	9	37
R42	440-444	Diseases of the pericardium with heart disease	145	73	72	1	1	1	1	3	16
R43	444-447	Hypertension with heart disease	123	14	109	1	1	1	2	3	17
R44	444-447	Diseases of the respiratory system	200	124	76	10	4	3	1	18	84
R45	470-527	Influenza	200	124	76	10	4	3	1	43	113
R46	480-483	Pneumonia	140	74	66	10	5	3	2	12	47
R47	500-562	Bronchitis	42	6	36	1	1	1	1	1	1
R48	530-587	Diseases of the digestive system	205	131	72	5	1	1	6	17	18
R49	540-541	Ulcer of stomach and duodenum	30	24	6	2	1	2	2	10	12
R50	550-563	Appendicitis	27	17	10	2	1	3	5	16	2
R51	560-561, 570-572	Intestinal obstruction and hernia	15	8	7	1	1	1	1	3	0
R52	580-587	Diseases of the genitourinary system, except gonorrhea of newborn	89	38	51	1	1	1	1	1	1
R53	581	Cirrhosis of liver	15	8	7	1	1	1	1	1	1
R54	590-597	Diseases of the genitourinary system	24	20	4	1	1	1	1	1	1
R55	590-594	Nephritis and nephrosis	24	15	9	1	1	1	1	1	1
R56	610	Hyperplasia of prostate	14	14	0	1	1	1	1	1	1
R57	610-689	Residual (630-636, 642-644, 645, 673-678, 680, 685-687)	23	12	11	1	1	1	1	1	1
R58	690-699	Presynovial, chondroarthralgia and the periarthralgia	2	2	0	1	1	1	1	1	1
R59	720-750	Diseases of the bones and organs of movement	8	4	4	1	1	1	1	1	1
R60	750-750	Congenital malformations	21	27	24	5	4	3	1	2	2
R61	760-773	Certain diseases of early infancy	138	79	59	5	5	5	16	0	4
R62	780-782	Birth injuries, postnatal asphyxia and tetanus	51	32	19	5	7	4	1	5	0
R63	790-793	Other diseases peculiar to early infancy and immature	7	4	3	1	1	1	1	1	1
R64	790-793	Symptoms, senility and ill-defined conditions	74	42	32	7	4	1	3	2	3
R65	800-809	Accidents, poisonings and violence	171	113	58	0	5	5	16	0	4
R66	810-812	Motor vehicle accidents	31	32	7	4	1	1	1	0	1
R67	820-822	All other accidents except falls	56	41	15	0	1	4	0	18	10
R68A	830-835	Trauma	15	10	5	1	1	1	1	1	1
R68B	835-839	Stomach	15	10	5	1	1	1	1	1	1
R68C	840-844	Head	15	10	5	1	1	1	1	1	1
R68D	845-849	Neck	15	10	5	1	1	1	1	1	1
R68E	850-854	Thorax	15	10	5	1	1	1	1	1	1
R68F	855-859	Abdomen	15	10	5	1	1	1	1	1	1
R68G	860-864	Upper extremities	15	10	5	1	1	1	1	1	1
R68H	865-869	Lower extremities	15	10	5	1	1	1	1	1	1
R68I	870-874	Police intervention, execution and operations of war	1	1	0	1	1	1	1	1	1
R68J	875-879	All causes	1765	2101	1765	200	30	21	35	227	1077
R69	001-999	All causes	3040	2101	1765	200	30	21	35	227	1077

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, GLETON, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years																
				<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown									
B1	001-136	Infective and parasitic diseases	5	3	1	1	1	1	2	1	2									
B2	001-408	Tuberculosis of respiratory system	5	2	1	1	1	1	2	1	2									
B3	010-019	Tuberculosis, other forms	1																	
B4	040-049	Dysentery and its sequelae	1																	
B5	043	Cholera	1																	
B6	045-048	Dysentery, all forms	1																	
B7	050-061	Scarlet fever and streptococcal sore throat	1																	
B8	060-069	Whooping cough	1																	
B9	070-079	Measles	1																	
B10	085	Scarlet fever	1																	
B11	088	Scarlet fever, all forms	1																	
B12	090	Scarlet fever, all forms	1																	
B13	095	Scarlet fever, all forms	1																	
B14	100-108	Whooping cough	1																	
B15	109-118	Measles	1																	
B16	110-117	Scarlet fever	1																	
B17	118-119	Scarlet fever, all forms	1																	
B18	120-239	Malaria	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B19	140-205	Neoplasms (680-699, 691, 612, 044, 040, 652-654, 681-685, 686-688, 120-138)	144	78	66	72	72	80	61	73	61	73	61	73	61	73	61	73	61	
B20	210-239	Benign and unspecified neoplasms	140	74	66	72	72	80	61	73	61	73	61	73	61	73	61	73	61	
B21	240-289	Allergic, endocrine system, metabolic and nutritional diseases	4																	
B22	290	Diseases	26	8	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	
B23	290-329	Diseases of the blood and blood-forming organs	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B24	330-369	Diseases of the nervous system	33	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B25	370-389	Diseases of the endocrine system, metabolic and nutritional diseases	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B26	390-439	Diseases of the circulatory system	27	8	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	
B27	440-449	Arteriosclerotic and degenerative heart disease	27	13	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	
B28	450-459	Other diseases of heart	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B29	460-469	Other diseases of heart	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B30	470-527	Hypertension with or without other diseases of heart	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B31	480-489	Residual (450-469, 490-499)	23	15	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	
B32	490-689	Diseases of the respiratory system	4																	
B33	490-699	Pharyngitis	21	17	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
B34	500-509	Residual (470-499, 510-527)	6	4	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
B35	510-549	Diseases of the digestive system	37	23	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	
B36	550-559	Ulcer of stomach and duodenum	4	4																
B37	560-569	Appendicitis	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B38	570-579	Inflammation of appendix and diverticulitis	1	1																
B39	580-589	Diarrhea	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B40	590-599	Diarrhea of newborn	7	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
B41	600-609	Cirrhosis of liver	1	1																
B42	610-619	Diseases of the genito-urinary system	12	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
B43	620-629	Nephritis and nephrosis	7	5	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
B44	630-639	Pyelitis and pyelocystitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B45	640-649	Residual (600-619, 620-629, 630-639)	5	3	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
B46	650-659	Diseases of the skin and cellular tissue	3	3																
B47	660-669	Scalds and burns	3	3																
B48	670-679	Congenital malformations	28	15	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	
B49	680-689	Strabismic squint	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B50	690-699	Infections of the newborn	11	6	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
B51	700-709	Diphtheria	17	10	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
B52	710-719	Other diseases peculiar to early infancy and infancy	7	7																
B53	720-729	Symptoms, senility and ill-defined conditions	28	19	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
B54	730-739	Alcoholism	5	5																
B55	740-749	Motor vehicle accidents	12	10	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
B56	750-759	Other diseases peculiar to early infancy and infancy	4	4																
B57	760-769	All other accidents except falls	4	4																
B58	770-779	Falls	4	4																
B59	780-789	Homicide	4	4																
B60	790-799	Police intervention, execution and operations of war	1	1																
B61	800-809	ALL CAUSES	905	501	394	43	8	2	4	90	201	353	4							

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, PABSAIC CITY, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years													
						<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown						
B1	001-138	Infective and parasitic diseases	6	4	2														
B2	001-008	Tuberculosis of respiratory system																	
B3	010-019	Tuberculosis, other forms	2	2															
B4	020-029	Typhoid and its sequelae	2																
B5	040	Cholera																	
B6	045-048	Dysentery, all forms																	
B7	050-051	Scarlet fever and streptococcal seps (throat)																	
B8	060-061	Whooping cough																	
B9	065	Whooping cough																	
B10	067	Whooping cough																	
B11	068	Whooping cough																	
B12	080	Measles																	
B13	085	Measles																	
B14	086	Measles																	
B15	100-108	Typhus and other rickettsial diseases																	
B16	110-117	Malaria																	
B17	110-117	Malaria																	
B18	140-239	Neoplasms (501-983, 986-999, 120-138)	2	2															
B19	140-205	Malignant neoplasms	108	65	43														
B20	210-239	Benign and unspecified neoplasms	105	42	63														
B21	240-289	Alberic, endocrine system, metabolic and nutritional diseases	3	1	2														
B22	260	Diseases of the blood and blood-forming organs	21	8	13														
B23	200-209	Anemias	19	7	12														
B24	200-215	Leukemias (251-269)	2	1	1														
B25	300-326	Diseases of the nervous system and personality disorders	1																
B26	330-335	Psychic lesions affecting central nervous system	75	41	34														
B27	330-334	Nonmeningeal meningitis	6	3	3														
B28	340	Residual (341-343, 350-357, 360-369, 370-389, 390-398)	5	4	1														
B29	400-405	Rheumatic fever, circulatory system	304	181	123														
B30	400-402	Rheumatic fever, circulatory system																	
B31	410-418	Chronic rheumatic heart disease	8	4	4														
B32	420-422	Arteriosclerotic and degenerative heart disease	253	142	111														
B33	430-435	Other diseases of heart	23	12	11														
B34	440-443	Hypertension with heart disease	10	5	5														
B35	444-447	Hypertension without heart disease	23	12	11														
B36	470-527	Diseases of the respiratory system	13	10	3														
B37	480-483	Influenza	2	1	1														
B38	490-493	Pneumonia	20	6	15														
B39	500-502	Bronchitis	7	1	6														
B40	500-507	Diseases of 470-475, 510-527	1	1															
B41	540, 541	Ulcer of stomach and duodenum	33	21	12														
B42	550-555	Appendicitis	4	2	2														
B43	560, 570	Intestinal obstruction and hernia	1	1															
B44	571, 572	Gas gangrene	1																
B45	571, 572	Diarrhea of newborn	1																
B46	581	Diarrhea of liver	1	1															
B47	590-597	Residual (530-539, 542, 544, 545, 573-578, 580, 581-589)	10	13	6														
B48	590-593	Diseases of the genitourinary system	7	5	2														
B49	610	Nephritis and nephrosis	12	8	4														
B50	610	Nephritis and nephrosis	4	4															
B51	610-620	Hyperplasia of prostate	1	1															
B52	720-749	Diseases of the skin and subcutaneous tissue	4	2	2														
B53	750-759	Diseases of the bones and organs of movement	10	8	2														
B54	760-769	Congenital malformations	16	9	7														
B55	770-776	Certain diseases of early infancy	9	4	5														
B56	780-785	Injury of the respiratory system	2	1	1														
B57	785-788	Injury of the respiratory system	2	1	1														
B58	790-793	Other diseases peculiar to early infancy and infancy unqualified	8	4	4														
B59	800-809	Symptoms, senility and ill-defined conditions	2	1	1														
B60	810-819	Accidents, poisonings and violence	26	10	16														
B61	820-829	Motor vehicle accidents	6	5	1														
B62	830-839	All other accidents except falls	20	5	15														
B63	840-849	Falls	6	4	2														
B64	850-859	Struck by or against objects	10	5	5														
B65	860-869	Home accidents	6	2	4														
B66	870-879	Police intervention, execution and operations of war	8	2	6														
B67	880-889	Police intervention, execution and operations of war	8	2	6														
B68	890-899	All other causes	640	372	277														
B69	901-999	All other causes	640	372	277														
B70	901-999	All other causes	640	372	277														

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, PATERSON: 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years						
				<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-188	Infective and parasitic diseases	217	1	1	1	4	4	14	4
B2	001-008	Tuberculosis of respiratory system	14					3	5	3
B3	010-010	Tuberculosis, other forms	1					1	1	
B4	020-029	Syphilis and its sequelae	4					3	1	
B5	043	Cholera fever	1							1
B6	045-048	Dysentery, all forms	1							1
B7	050, 051	Scarlet fever and streptococcal sore throat	1							1
B8	055	Diphtheria	1							1
B9	057	Whooping cough	1							1
B10	060, 061	Scarlet fever and streptococcal sore throat	1							1
B11	063	Measles	1							1
B12	068	Acute poliomyelitis	1							1
B13	084	Smallpox	1							1
B14	088	Measles	1							1
B15	100-108	Typhus	1							1
B16	110-117	Malaria and other febrile diseases	1							1
B17	119-200	Residual (030-039, 041, 042, 044, 046, 052-053, 059-074, 081-083, 089-090, 120-128)	2							2
B18	140-200	Neoplasms	204	1	1	1	23	113	159	160
B19	210-239	Neoplasms of the respiratory system	204	1	1	1	23	112	159	160
B20	240-289	Neoplasms of the circulatory, digestive and nutritional systems	2							2
B21	290	Diabetes mellitus	35					17	38	
B22	290-299	Diabetes mellitus	35					17	38	
B23	300-309	Diabetes mellitus	8					4	4	
B24	310-319	Diabetes mellitus	3					1	2	
B25	320-329	Diabetes mellitus	3					1	2	
B26	330-339	Diabetes mellitus	8					4	4	
B27	340	Diabetes mellitus	3					1	2	
B28	400-409	Residual (291-299)	7					1	6	
B29	410-419	Chronic rheumatic heart disease	180					72	108	
B30	420-429	Arteriosclerotic and degenerative heart disease	163					67	96	
B31	430-439	Other diseases of heart	21					11	10	
B32	440-449	Other diseases of heart	21					11	10	
B33	450-459	Other diseases of heart	8					3	5	
B34	460-469	Other diseases of heart	8					3	5	
B35	470-479	Other diseases of heart	44					21	23	
B36	480-483	Influenza	1					1	1	

B37	480-483	Influenza	1					1	1	
B38	500-507	Pneumonia	71					30	34	
B39	508-509	Bronchitis	6					3	3	
B40	510-519	Diseases of the respiratory system	29					18	11	
B41	520-529	Diseases of the digestive system	30					10	20	
B42	530-539	Ulcer of stomach and duodenum	13					7	6	
B43	540-549	Appendicitis	1					1	1	
B44	550-559	Intestinal obstruction and hernia	12					7	5	
B45	560-569	Diarrhea of the small intestine	5					2	3	
B46	570-579	Diarrhea of the large intestine	7					4	3	
B47	580-589	Cirrhosis of liver	5					1	4	
B48	590-599	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	51					21	30	
B49	600-609	Nephritis and nephrosis	4					1	3	
B50	610-619	Nephritis and nephrosis	4					1	3	
B51	620-629	Nephritis and nephrosis	12					7	5	
B52	630-639	Nephritis and nephrosis	7					4	3	
B53	640-649	Nephritis and nephrosis	1					1	1	
B54	650-659	Nephritis and nephrosis	1					1	1	
B55	660-669	Nephritis and nephrosis	1					1	1	
B56	670-679	Nephritis and nephrosis	1					1	1	
B57	680-689	Nephritis and nephrosis	1					1	1	
B58	690-699	Nephritis and nephrosis	1					1	1	
B59	700-709	Nephritis and nephrosis	1					1	1	
B60	710-719	Nephritis and nephrosis	1					1	1	
B61	720-729	Nephritis and nephrosis	1					1	1	
B62	730-739	Nephritis and nephrosis	1					1	1	
B63	740-749	Nephritis and nephrosis	1					1	1	
B64	750-759	Nephritis and nephrosis	1					1	1	
B65	760-769	Nephritis and nephrosis	1					1	1	
B66	770-779	Nephritis and nephrosis	1					1	1	
B67	780-789	Nephritis and nephrosis	1					1	1	
B68	790-799	Nephritis and nephrosis	1					1	1	
B69	800-809	Nephritis and nephrosis	1					1	1	
B70	810-819	Nephritis and nephrosis	1					1	1	
B71	820-829	Nephritis and nephrosis	1					1	1	
B72	830-839	Nephritis and nephrosis	1					1	1	
B73	840-849	Nephritis and nephrosis	1					1	1	
B74	850-859	Nephritis and nephrosis	1					1	1	
B75	860-869	Nephritis and nephrosis	1					1	1	
B76	870-879	Nephritis and nephrosis	1					1	1	
B77	880-889	Nephritis and nephrosis	1					1	1	
B78	890-899	Nephritis and nephrosis	1					1	1	
B79	900-909	Nephritis and nephrosis	1					1	1	
B80	910-919	Nephritis and nephrosis	1					1	1	
B81	920-929	Nephritis and nephrosis	1					1	1	
B82	930-939	Nephritis and nephrosis	1					1	1	
B83	940-949	Nephritis and nephrosis	1					1	1	
B84	950-959	Nephritis and nephrosis	1					1	1	
B85	960-969	Nephritis and nephrosis	1					1	1	
B86	970-979	Nephritis and nephrosis	1					1	1	
B87	980-989	Nephritis and nephrosis	1					1	1	
B88	990-999	Nephritis and nephrosis	1					1	1	
B89	000-009	Residual (900-909, 910-919, 920-929, 930-939, 940-949, 950-959, 960-969, 970-979, 980-989, 990-999)	1702	88	12	11	13	92	401	1055

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, SALEM COUNTY, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years								
				<1	1-4	5-14	15-24	25-44	45-64	65+ - Unknown		
B1	001-138	Infective and parasitic diseases	8									
B2	001-008	Tuberculosis	5									
B3	010-019	Tuberculosis, respiratory system	4									
B4	020-029	Syphilis and its sequelae	1									
B5	030	Dysentery	1									
B6	045-048	Dysentery, bacillary	1									
B7	050, 061	Scarlet fever and streptococcal sore throat	7									
B8	065	Diphtheria	4									
B9	065	Whooping cough	1									
B10	065	Whooping cough	1									
B11	068	Membranous croup	1									
B12	080	Membranous croup	1									
B13	084	Acute poliomyelitis	1									
B14	085	Acute poliomyelitis	1									
B15	110-117	Measles	1									
B16	110-117	Measles	1									
B17		Typhus and other rickettsial diseases	1									
B18	140-229	Residual (030-039, 041, 042, 044, 048, 062-064, 068-074, 081-083, 086-088, 120-183)	1									
B19	210-239	Neoplasms	44									
B20	240-269	Malignant neoplasms	36									
B21	260	Benign neoplasms	8									
B22	290	Allergic, endocrinologic, metabolic and nutritional diseases	2									
B23	340	Diabetes mellitus	15									
B24	400-486	Diseases of the blood and blood-forming organs	14									
B25	410-416	Anemias	4									
B26	420-422	Residual (284-296)	1									
B27	430-434	Mental, psychoneurotic and personality disorders	76									
B28	434-447	Disorders of the nervous system and sense organs	70									
B29	470-527	Nonneurological mentalities	33									
B30	480-483	Residual (341-345, 350-357, 360-369, 370-389, 390-395)	121									

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years								
				<1	1-4	5-14	15-24	25-44	45-64	65+ - Unknown		
B31	500-502	Pneumonia	27									
B32	500-502	Bronchitis	4									
B33	530-537	Residual (470-478, 610-627)	4									
B34	540, 541	Diseases of the digestive system	10									
B35	560, 570	Ulcer of stomach and duodenum	2									
B36	513, 571, 572	Intestinal obstruction and hernia	3									
B37	581	Gastritis, duodenitis, enteritis and colitis (except diarrhea of newborn)	0									
B38	590-637	Cholera of liver	4									
B39	600-604	Diseases of the genito-urinary system	3									
B40	610	Nephritis and nephrosis	4									
B41	640-689	Hyperplasia of prostate	2									
B42	720-749	Diseases of the skin and cutaneous tissue	2									
B43	750-759	Diseases of the bones and organs of movement	1									
B44	760-765	Congenital malformations	0									
B45	765-768	Birth injuries	20									
B46	769-776	Birth injuries, except asphyxia and anoxaemia	9									
B47	780-788	Other diseases peculiar to early infancy and infancy	3									
B48	800-809	Other diseases peculiar to early infancy and infancy, untidy unqualified	14									
B49	810-819	Accidents, quality and ill-defined conditions	3									
B50	820-829	Accidents, quantity and ill-defined conditions	43									
B51	830-839	Motor vehicle accidents	13									
B52	840-849	All other accidents except falls	14									
B53	850-859	Falls	7									
B54	860-869	Suicide	2									
B55	870-879	Homicide	0									
B56	880-889	Police intervention, execution and operations of war	3									
B57	890-899	ALL CAUSES	550	48	6	10	6	35	121	832		

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, UNION COUNTY: 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years						
				<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-138	Infective and parasitic diseases	52	1	3	1	1	8	11	11
B2	001-008	Tuberculosis of respiratory system	31	1	1	1	1	5	8	17
B3	010-019	Tuberculosis, other forms	3	1	1	1	1	1	1	18
B4	020-259	Typhus and its sequelae	6	1	1	1	1	1	1	2
B5	040	Cholera	1	1	1	1	1	1	1	1
B6	045-048	Dysentery, all forms	2	1	1	1	1	1	1	1
B7	060, 061	Scarlet fever and streptococcal sore throat	2	1	1	1	1	1	1	1
B8	065	Whooping cough	1	1	1	1	1	1	1	1
B9	067	Meningococcal infections	2	1	1	1	1	1	1	1
B10	083	Acute poliomyelitis	1	1	1	1	1	1	1	1
B11	080	Measles	1	1	1	1	1	1	1	1
B12	086	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1
B13	100-108	Malaria	3	1	1	1	1	1	1	1
B14	110-117	Neoplasms (890-939, 941, 942, 944, 946, 952-954, 956-959, 961-963, 965-966, 120-138)	888	1	8	7	5	82	326	457
B15	140-239	Malignant neoplasms	449	1	4	4	7	39	324	431
B16	210-239	Benign and unclassified neoplasms	439	1	1	1	1	1	1	0
B17	240-259	Alergic, endocrine system, metabolic and nutritional diseases	17	1	1	1	1	1	1	0
B20	260	Diabetes mellitus	68	1	1	1	1	2	2	58
B21	290-299	Diseases of the blood and blood-forming organs	18	1	1	1	1	1	1	6
B22	300-326	Alcoholism, toxic and infectious diseases	5	1	1	1	1	1	1	0
B23	330-354	Mental, psychoneurotic and personality disorders	3	1	1	1	1	1	1	0
B24	400-468	Diseases of the nervous system and sense organs	13	1	1	1	1	1	1	8
B25	410-416	Vascular lesions affecting central nervous system	439	1	1	1	1	1	1	435
B26	420-422	Nonmeningococcal meningitis	8	1	1	1	1	1	1	3
B27	430-434	Diseases of circulatory system	26	1	1	1	1	1	1	20
B28	440-444	Rheumatic fever	1046	1	1	1	1	1	1	1042
B29	444-447	Chronic rheumatic and degenerative heart disease	8	1	1	1	1	1	1	3
B30	470-527	Arteriosclerotic and degenerative heart disease	31	1	1	1	1	1	1	28
B31	530-534	Other diseases of heart	153	1	1	1	1	1	1	150
B32	540-544	Hypertension without mention of heart	26	1	1	1	1	1	1	23
B33	544-547	Hypertension with mention of heart	12	1	1	1	1	1	1	8
B34	550-554	Residual (450-458, 460-468)	154	1	1	1	1	1	1	150
B35	560-568	Diseases of the respiratory system	104	1	1	1	1	1	1	100
B36	570-577	Influenza	15	1	1	1	1	1	1	11
B37	580-587	Respiratory infections	44	1	1	1	1	1	1	40
B38	590-594	Respiratory infections, other than influenza	14	1	1	1	1	1	1	9
B39	600-604	Respiratory infections, other than influenza, other than tuberculosis	30	1	1	1	1	1	1	26
B40	610-616	Respiratory infections, other than influenza, other than tuberculosis, other than pneumonia	14	1	1	1	1	1	1	10
B41	620-716	Diseases of the digestive system	42	1	1	1	1	1	1	38
B42	720-740	Diseases of the stomach and duodenum	172	1	1	1	1	1	1	168
B43	750-776	Diseases of the liver	26	1	1	1	1	1	1	23
B44	780-788	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	23	1	1	1	1	1	1	20
B45	790-795	Diarrhoea of liver	17	1	1	1	1	1	1	13
B46	800-802	Diseases of the genito-urinary system	34	1	1	1	1	1	1	30
B47	810-816	Nephritis and nephrosis	78	1	1	1	1	1	1	74
B48	820-826	Prostatitis and urethritis	37	1	1	1	1	1	1	34
B49	830-836	Genital diseases of early infancy and childhood	15	1	1	1	1	1	1	12
B50	840-846	Diseases of the skin and cellular tissue	3	1	1	1	1	1	1	0
B51	850-856	Diseases of the bones and organs of movement	9	1	1	1	1	1	1	6
B52	860-866	Congenital malformations	01	1	1	1	1	1	1	0
B53	870-876	Certain diseases of early infancy and childhood	12	1	1	1	1	1	1	9
B54	880-886	Infections of the newborn	9	1	1	1	1	1	1	6
B55	890-896	Other diseases peculiar to early infancy and immature infancy	16	1	1	1	1	1	1	13
B56	900-906	Symptoms, senility and ill-defined conditions	73	1	1	1	1	1	1	68
B57	910-916	Motor vehicle accidents	9	1	1	1	1	1	1	6
B58	920-926	All other accidents except falls	102	1	1	1	1	1	1	99
B59	930-936	Falls	14	1	1	1	1	1	1	11
B60	940-946	Suicide	42	1	1	1	1	1	1	39
B61	950-956	Homicide	10	1	1	1	1	1	1	7
B62	960-966	Police intervention, execution and operations of war	1	1	1	1	1	1	1	0
B63	970-976	Police intervention, execution and operations of war	1	1	1	1	1	1	1	0
B64	980-986	Police intervention, execution and operations of war	1	1	1	1	1	1	1	0
B65	990-996	Police intervention, execution and operations of war	1	1	1	1	1	1	1	0
B66	001-999	ALL CAUSES	4826	268	31	26	40	285	1224	2430

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, ELIZABETH, 1957
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years						
						<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	601-128	Infective and parasitic diseases	20	17	3	1	2	1	1	3	10	4
B2	001-005	Tuberculosis of respiratory system	14	12	2	1	1	1	1	1	5	3
B3	006-008	Tuberculosis of other organs	1	1	0	1	0	0	0	0	0	0
B4	020-029	Syphilis and its sequelae	3	1	2	1	1	1	0	0	2	1
B5	040	Typhoid fever	1	1	0	1	0	0	0	0	0	0
B6	045-048	Cholera	1	1	0	1	0	0	0	0	0	0
B7	049-051	Dysentery, all forms	1	1	0	1	0	0	0	0	0	0
B8	052-054	Diphtheria, diphtheritic fever and streptococcal sore throat	1	1	0	1	0	0	0	0	0	0
B9	055	Whooping cough	1	1	0	1	0	0	0	0	0	0
B10	057	Meningococcal infections	1	1	0	1	0	0	0	0	0	0
B11	058	Plague	1	1	0	1	0	0	0	0	0	0
B12	059	Scarlet fever	1	1	0	1	0	0	0	0	0	0
B13	060	Scarlet polyomyelitis	1	1	0	1	0	0	0	0	0	0
B14	061	Measles	1	1	0	1	0	0	0	0	0	0
B15	100-108	Typhus and other rickettsial diseases	1	1	0	1	0	0	0	0	0	0
B16	110-117	Malaria	1	1	0	1	0	0	0	0	0	0
B17	118-120	Leishmaniasis (890-891, 911, 912, 944, 949, 952-954, 956-957, 981-985, 986-990, 120-138)	1	1	0	1	0	0	0	0	0	0
B18	140-239	Neoplasms	228	114	100	1	3	1	1	17	83	118
B19	240-259	Malignant neoplasms	226	113	102	1	2	1	1	17	83	116
B20	260	Benign and unspecified neoplasms	4	2	2	1	1	1	1	0	3	3
B21	280-299	Diseases of the blood and blood-forming organs	1	1	0	1	0	0	0	0	0	0
B22	300-329	Diabetes mellitus	28	18	10	1	1	1	1	2	11	15
B23	330-389	Diseases of the nervous system and sense organs	22	9	13	1	1	1	1	2	7	13
B24	400-469	Diseases of the circulatory system	1	1	0	1	0	0	0	0	0	0
B25	470-479	Rheumatic fever	1	1	0	1	0	0	0	0	0	0
B26	480-489	Chronic rheumatic heart disease	1	1	0	1	0	0	0	0	0	0
B27	490-499	Arteriosclerotic and degenerative heart disease	139	73	66	4	1	1	1	7	27	89
B28	500-509	Diseases of the heart	129	68	61	4	1	1	1	7	27	89
B29	510-519	Hypertension without mention of heart disease	8	5	3	1	1	1	1	1	3	5
B30	440-443	Hypertension with mention of heart disease	3	2	1	1	0	0	0	0	0	0
B31	444-447	Residual (450-459, 460-469)	30	16	14	10	2	2	2	3	5	25
B32	448-449	Diseases of the respiratory system	45	29	16	10	2	2	2	3	5	25
B33	450-459	Influenza	2	2	0	1	1	0	0	0	1	1

B34	460-469	Pharyngitis	27	14	13	6	1	1	1	2	3	0
B35	470-479	Residual (470-475, 510-527)	6	6	0	1	1	1	1	1	2	6
B36	530-587	Diseases of the digestive system	10	7	3	1	1	1	1	1	2	3
B37	540, 541	Ulcer of stomach and duodenum	61	39	18	2	1	1	1	2	6	3
B38	542, 543	Intestinal obstruction and hernia	1	1	0	1	0	0	0	0	0	0
B39	544, 545, 570	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	5	2	3	1	1	1	1	1	2	3
B40	546, 547, 571, 572	Cirrhosis of liver	24	18	6	2	2	2	2	5	12	7
B41	580-589	Diseases of the genito-urinary system	0	4	4	1	1	1	1	1	2	6
B42	590-597	Nephritis and nephrosis	83	19	14	1	1	1	1	1	2	6
B43	600-609	Hypertensive nephropathy	14	8	6	1	1	1	1	1	2	6
B44	610	Residual (600-609, 611-617, 620-626, 630-637)	13	6	7	1	1	1	1	2	3	7
B45	640-669	Pregnancy, childbirth and the puerperium	2	2	0	1	1	1	1	1	1	1
B46	670-719	Diseases of the skin and cellular tissue	3	2	1	1	1	1	1	1	1	1
B47	720-749	Diseases of the bones and organs of movement	17	15	2	8	6	2	2	2	3	1
B48	750-799	Congenital malformations	42	21	21	42	20	20	20	20	20	20
B49	700-702	Birth injuries, postnatal asphyxia and atelectasis	20	10	10	10	10	10	10	10	10	10
B50	703-708	Infections of the newborn	3	1	2	3	3	3	3	3	3	3
B51	709-719	Other diseases peculiar to early infancy and immaturity unqualified and ill-defined conditions	10	10	0	19	19	19	19	19	19	19
B52	720-729	Accidents, poisonings and violence	2	2	0	2	2	2	2	2	2	2
B53	800-809	Motor vehicle accidents	61	41	20	2	2	2	2	2	2	2
B54	810-835	All other accidents except falls	10	14	2	1	1	1	1	1	1	1
B55	836-839	Falls	21	14	7	2	2	2	2	2	2	2
B56	840-849	Suicide	18	8	10	1	1	1	1	1	1	1
B57	850-859	Homicide	3	3	0	1	1	1	1	1	1	1
B58	860A-869	Police intervention, execution and operations of war	3	3	0	1	1	1	1	1	1	1
B59	870-879	All causes	1391	695	696	68	11	7	10	84	362	690

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, WARREN COUNTY, 1937
(According to the 6th Revision of the International Classification of Diseases)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total	Age Groups by Years								
				Female	Male	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-138	Infective and parasitic diseases	8	0	0	1	1	1	1	1	1	1
B2	001-008	Tuberculosis of respiratory system	2	2	0	0	0	0	0	0	0	0
B3	030-020	Tuberculosis, other forms	0	0	0	0	0	0	0	0	0	0
B4	030-020	Scrophulous tuberculosis	0	0	0	0	0	0	0	0	0	0
B5	040	Typhoid fever	0	0	0	0	0	0	0	0	0	0
B6	043	Cholera	0	0	0	0	0	0	0	0	0	0
B7	048	Dysentery, all forms	0	0	0	0	0	0	0	0	0	0
B8	050-051	Diphtheria, diphtheritic fever and streptococcal sore throat	0	0	0	0	0	0	0	0	0	0
B9	053	Whooping cough	0	0	0	0	0	0	0	0	0	0
B10	057	Meningococcal infections	0	0	0	0	0	0	0	0	0	0
B11	058	Scarlet fever	0	0	0	0	0	0	0	0	0	0
B12	060	Measles	0	0	0	0	0	0	0	0	0	0
B13	084	Scarlet fever	0	0	0	0	0	0	0	0	0	0
B14	085	Measles	0	0	0	0	0	0	0	0	0	0
B15	100-106	Typhus and other rickettsial diseases	0	0	0	0	0	0	0	0	0	0
B16	107	Malaria	0	0	0	0	0	0	0	0	0	0
B17	110-117	Residual (030-039, 041, 042, 044, 049, 052-054, 056-057, 061-063, 066-066, 120-135)	1	1	0	0	0	0	0	0	0	0
B18	140-239	Neoplasms	114	66	48	1	2	3	11	72	1	65
B19	140-206	Malignant neoplasms	113	65	48	1	2	3	10	72	0	64
B20	240-259	Benign and unspecified neoplasms	1	0	1	0	0	0	0	0	0	0
B21	260-299	Allegic, endocrine system, metabolic and nutritional	2	2	0	0	0	0	0	0	0	0
B22	300-320	Diabetes mellitus	15	5	10	0	0	0	0	0	0	0
B23	320-339	Diseases of the blood and blood-forming organs	12	3	9	0	0	0	0	0	0	0
B24	340-359	Anemias (351-359)	2	2	0	0	0	0	0	0	0	0
B25	360-389	Mental, psychoneurotic and personality diseases	1	1	0	0	0	0	0	0	0	0
B26	390-508	Diseases of the nervous system and sense organs	75	33	42	0	0	0	0	0	0	0
B27	510-539	Vascular lesions affecting central nervous system	72	32	40	0	0	0	0	0	0	0
B28	540-569	Residual (390-399, 400-409, 410-419, 420-429, 430-439, 440-449, 450-459, 460-469, 470-479, 480-489, 490-499)	3	1	2	0	0	0	0	0	0	0
B29	400-468	Rheumatic fever	37	22	15	0	0	0	0	0	0	0
B30	470-527	Chronic rheumatic heart disease	13	6	7	0	0	0	0	0	0	0
B31	470-410	Acute rheumatic heart disease	13	6	7	0	0	0	0	0	0	0
B32	430-434	Other rheumatic and degenerative heart disease	269	182	88	0	0	0	0	0	0	0
B33	435-439	Other	4	1	3	0	0	0	0	0	0	0
B34	440-443	Hypertension with heart disease	40	15	25	0	0	0	0	0	0	0
B35	444-447	Hypertension without mention of heart	36	10	26	0	0	0	0	0	0	0
B36	448-457	Residual (480-466, 480-468)	33	10	23	0	0	0	0	0	0	0
B37	460-468	Diseases of the respiratory system	33	19	14	0	0	0	0	0	0	0
B38	469-488	Influenza	0	0	0	0	0	0	0	0	0	0
B39	489-508	Residual (470-475, 510-527)	21	11	10	0	0	0	0	0	0	0
B40	509-539	Diseases of the digestive system	10	6	4	0	0	0	0	0	0	0
B41	540-541	Ulcer of stomach and duodenum	27	18	9	0	0	0	0	0	0	0
B42	542-549	Appendicitis	3	1	2	0	0	0	0	0	0	0
B43	550-559	Gastritis, duodenitis, enteritis and colitis, except chronic	1	0	1	0	0	0	0	0	0	0
B44	560-569	Enteritis, enterocolitis, enterocolitis, except chronic	1	0	1	0	0	0	0	0	0	0
B45	570-579	Cholera of newborn	5	1	4	0	0	0	0	0	0	0
B46	580-589	Cirrhosis of liver	9	5	4	0	0	0	0	0	0	0
B47	590-599	Residual (530-539, 542, 544, 545, 573-578, 580, 581-589)	4	2	2	0	0	0	0	0	0	0
B48	600-609	Nephritis and nephrosis	7	6	1	0	0	0	0	0	0	0
B49	610	Hypernephroma of the genitourinary system	4	3	1	0	0	0	0	0	0	0
B50	620-629	Residual (600-609, 611-617, 620-629, 630-637)	1	1	0	0	0	0	0	0	0	0
B51	630-639	Diseases of the skin and cellular tissue	0	0	0	0	0	0	0	0	0	0
B52	720-749	Diseases of the bones and organs of movement	6	4	2	0	0	0	0	0	0	0
B53	750-759	Congenital malformations	10	4	6	0	0	0	0	0	0	0
B54	760-776	Certain diseases of early infancy	4	0	4	0	0	0	0	0	0	0
B55	770-782	Birth injuries of the newborn	1	0	1	0	0	0	0	0	0	0
B56	780-782	Other diseases of the newborn	1	0	1	0	0	0	0	0	0	0
B57	783-776	Other diseases peculiar to early infancy and infancy	9	4	5	0	0	0	0	0	0	0
B58	780-785	Other diseases peculiar to early infancy and infancy	0	0	0	0	0	0	0	0	0	0
B59	790-799	Symptoms, senility and ill-defined conditions	34	26	8	0	0	0	0	0	0	0
B60	800-809	Accidents, poisoning and violence	14	11	3	0	0	0	0	0	0	0
B61	810-819	Motor vehicle accidents	14	11	3	0	0	0	0	0	0	0
B62	820-829	All other accidents except falls	0	0	0	0	0	0	0	0	0	0
B63	830-839	Falls	4	3	1	0	0	0	0	0	0	0
B64	840-849	Stupefactions	7	4	3	0	0	0	0	0	0	0
B65	850-859	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B66	860-869	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B67	870-879	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B68	880-889	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B69	890-899	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B70	900-909	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B71	910-919	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B72	920-929	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B73	930-939	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B74	940-949	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B75	950-959	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B76	960-969	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B77	970-979	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B78	980-989	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B79	990-999	Police intervention, execution and operations of war	4	4	0	0	0	0	0	0	0	0
B80	001-999	ALL CAUSES	712	404	308	25	5	0	11	40	105	400

INDEX

A

	PAGE
Accidental deaths	302
Activities:	
Departmental	7
Activities of Division, Bureaus, and Programs	
Divisions:	
Chronic Illness	27
Constructive Health	67
Environmental Sanitation	117
Laboratories	135
Local Health Services	155
Preventable Diseases	255
Vital Statistics and Administration	287
Bureaus and Programs:	
Administrative Services	289
Air Sanitation Control	69
Alcoholism Control	36
Bacteriology	139
Barber Examiners	295
Budget and Accounts	291
Cancer Control	39
Cardiovascular Disease	42
Chemistry	147
Chronic Diseases	44
Communicable Disease Control	257
Crippled Children	82
Dental Health	91
Diabetes Screening	50
Examination and Licensing	294
Food and Drugs	120
Grants-in-Aid	32
Heart Diseases	42
Maternal and Child Health	95
Nutrition Program	113
Occupational Health	74
Pathology	150
Personnel and Training	298
Public Health Engineering	127
Public Health Nursing	165
Public Health Statistics	299
Radiological Health	79

	PAGE
Serology	151
Shellfish	126
Tuberculosis	55
Venereal Disease Control	273
Veterinary Public Health	131
Virology	152
Vital Statistics Registration	303
Aging, Division of, Established	7, 204
Alcoholism	36, 204, 243
Administrative Services, Bureau of	289
Biologics	290
Health Education Services	289
Warehouse	290
Air Sanitation	69, 180, 226, 243
Alcoholism Control Program	36
Asian Influenza Epidemic in New Jersey	8, 260

B

Bacteriology Program	139
Examinations	141
Bakery Inspection	122
Barber Examiners Board	295
Bills introduced in Legislature	21, 22
Biologicals, distribution of	290
Biological Warfare Program	172
Births	299
By age groups of mother	104
By counties and municipalities	312
By months	322
Illegitimate	106, 299
Legitimacy by color for counties and major cities	105
Numbers and Rates	299
Population	299
Stillbirths	301
Blood Program	171
Boarding Home for Children Code	96

C

Camps and Bathing Places	131, 180, 199, 222
Cancer	39, 184, 204, 226, 243
Death rate	302
Cancer Control, Bureau of	39
Cardiovascular Disease	42, 184, 205, 226, 244
Charts and Tables, vital statistics	307
Central State Health District	177

	PAGE
Chemistry, Bureau of	147
Chest X-ray Surveys	55
Chronic Illness Control	27
Alcoholism Control	36, 38
Chronic Disease Control	205, 227
Chronic Disease Program	44
Community Hospital Assistance	29
Diabetes	50
Grants-in-Aid	32
Nutrition	36
Physician Training	31
Progressive Patient Care	29
Public Health Social Work	52
Homemaker Service	46, 236
State Employees Health Program	39
Tuberculosis Control	55
Civil Defense Medical and Health Services	171, 221
Communicable Disease Control Program	206, 227, 245, 257
Communicable Diseases, Acute	185
Community Health Services	195, 217, 235
Constructive Health, Division of	67
Air Sanitation Program	69
Occupational Health Program	74
Industrial Health Laboratory	77
Council, Public Health	4, 16
Convulsive Disorders	228
Crippled Children Program	207, 246
Appliance Services	84
Cerebral Palsy	246
Cleft Palate	86
Hospitalization	84
In State Health Districts	228
New Program Activities and Projects	83
Nursing Services	84
Psychological Services	85
Register	83
Tables	83
Cardiovascular Disease Control	42
Chemistry Program	147
Chronic Disease Control	44
Convulsive Disorders	186
Crippled Children	186

D

PAGE

Deaths	300
Accidental	302
Accidents for Selected Age Groups	112
Age groups	336
By months	322
Causes	302
Age groups	336
Age groups, number and rates	337
Cancer	302, 326, 327
Fetal Deaths	301
Heart Disease	302
Tuberculosis	302
Vascular Lesions	302
Circulatory System	330, 331
Counties and municipalities	311, 312, 362
Diabetes	50, 229, 332
Infants	103, 107, 301, 334
Influenza, pneumonia, bronchitis	302
Maternal	106, 107, 301
Neonatal	301, 310
Motor Vehicle	328
Population—Numbers and Rates	300
Tuberculosis	302
Dental Health Program	91, 187, 208, 247
Educational Activities	91
Fluoridation of Public water supplies	91
Research and Evaluation	92
Treatment Program	92
Diabetes	187, 208, 229, 247
Diphtheria	259
Disability Insurance Service	265
Disease Control and Constructive Health Programs	184, 204, 226, 257
Dogs Licensed	132
Drugs, Devices and Cosmetics Program	123, 202, 224, 241
Dumps, Open, are Banned	10

E

Encephalitis	133
Engineering, Bureau of Public Health	127
Environmental Sanitation:	
Division of	117
In State Health Districts	180, 199, 222, 238
Regulations Promulgated	10
Examination and Licensing, Bureau of	294
Expenditures, Departmental	293

F

PAGE

Fetal Deaths	301
Financial Statement	293
Fluoridation of Communal Water Supplies	91
Food and Drugs	120
Food Program	122, 184, 203, 225, 241
Milk Control Program	124, 225
Shellfish Control	126, 226

G

Grants-in-Aid, Contracts	32
Gonorrhea:	
Cases and rate	273

H

Health Council	4, 16
Health Education Services	179, 198, 221, 238, 289
Health Officer Qualifications Raised	9
Homemakers Services	236
Hospitals:	
Activity and reports	95
Housing	131, 181, 223, 239

I

Industrial Wastes	127
Infants:	
Births and Deaths	103, 107, 109, 301
Deaths by age and immaturity	109
Deaths by cause and age	110
Due to Certain Diseases of early infancy	111
Infant and Maternal deaths and rates	103
Influenza	260
Illegitimate Births	106, 299

K

Kolmer Tests	152
--------------------	-----

L	PAGE
Laboratories:	
Approved	146
Division of	135
Legislation:	
Enacted	21
Not enacted	22
Licenses and Permits:	
Food and Drugs	120
Local Health Services, Division of	155
M	
Malaria	266
Marriages	300
By age groups	323
By counties and municipalities	311, 312
By months	322
Number and rates	308
And population	308
Previous marital status	324
Maternal and Child Health Program	193, 214, 233, 252
Hospital Consultation Services	95
Midwives	95
Retrolental Disease	96
Maternal Deaths	106, 107, 301
Measles:	
Reported cases and deaths, with rates	266, 269
Meat Inspection	134
Meningitis, Meningococcal	267
Mental Health	230, 237
Metropolitan State Health District	193
Midwives	95
Migrant Health	248
Milk:	
Control Program	184, 203, 242
Licenses and permits, revenue	120
Motor Vehicle fatalities	328
N	
Narcotic Drugs	120
Neoplasms:	
Deaths—Sex, color and age groups	325
Nicaragua Health Study	15
Northern State Health District	215

	PAGE
Nursing Service	160
Nutrition Program	36, 113
In Districts	190, 211, 231, 249
O	
Occupational Health Program	74
Ophthalmia Neonatorium:	
Reported cases by counties	267
P	
Pathology Program	150
Personnel and Accounts, Bureau of	298
Personnel and Training	298
Poison Control Service	100, 254
Pneumonia:	
Reported cases by counties	267
Reported cases and deaths, with rates	269
Poliomyelitis:	
Control	261
Education and Information	263
Paralytic cases by county and age groups: New Jersey, 1957	271
Nonparalytic cases by county and age groups: New Jersey, 1957	272
Program Among State Employees	263
Reported cases in N. J., 1947-1956	258
Reported cases by month with medians for five-year period, N. J., 1953-1957	272
Reported cases by county and age groups in N. J., 1957	271
Reported cases by county and paralytic status, 1957	270
Surveillance of Cases	261
Vaccine Distribution	262
Potable Water	129, 181, 200, 223, 239
Population	299
Numbers and Rates for Births, Marriages and Deaths: 1933-1957	308
Poultry Inspection	134
Pre-Marital and Pre-Natal Blood Specimens	152
Preventable Diseases, Division of	255
Progressive Patient Care	29
"Public Health Briefs" (a newsletter)	163
Public Health Council	4, 16
Public Health Engineering, Bureau of	127
Public Health Laboratory Program	171

	PAGE
Public Health Nursing Program	165
In Districts	191, 212, 232, 250
Public Health Research	11
Public Health Social Work	213, 252
Public Health Statistics, Bureau of	299

Q

Q Fever	132
Quarters, Inadequate, An Administrative Headache	15
Rabies	132, 143
Radioactive Materials Study on Human Tolerance	13
Radiological Chemical Defense Services	173, 243
Ragweed and Poison Ivy Control	130, 182, 223, 240
Rehabilitation Treatment	237
Reportable Diseases:	
Reported Cases of Notifiable Diseases by County of Residence	266
Reported Deaths by County	268
Retrolental Disease	96
Rocky Mountain Spotted Fever:	
Reported cases by counties	267
Reported cases and deaths with rates	269

S

Salk Vaccine Distribution	262
Salmonellosis:	
Reported cases by counties	267
Scarlet Fever:	
Reported cases and deaths by counties	267
Serology Program	151
Shellfish:	
Program	126
Shigellosis:	
Reported cases	267
Solid Waste Disposal	130, 181, 200, 223, 240
Southern State Health District	234
Specimens Examined in Laboratory	141
Staphylococcus Phage Typing	144
Staphylococcal Infection	185, 262
State and Local Health Officials, Annual Conference	20

	PAGE
State Health Districts:	
Central	177
Metropolitan	193
Northern	215
Southern	234
Statistical Tables and Charts	307
Statistics, Public Health	299
Stillbirths	301
Stream Pollution Control	127, 182, 201, 223, 240
Streptococcal Sore Throat:	
Reported cases and deaths	267, 269
Swine Code	10
Syphilis:	
Blood Tests	152
Cases and rates	273, 280, 282
Migrant workers	248
Serological tests	274

T

Tables:	
Communicable Diseases	266
Vital Statistics	307
Tetanus:	
Reported cases by counties	267
Reported deaths by counties	269
Trachoma:	
Reported cases by counties	267
Trichinosis	131
Reported cases by counties	267
Reported deaths by counties	269
Tuberculosis	55
Control in Districts	187, 209, 230, 248
Death rates	61
Morbidity by clinical status	64
Reported cases and deaths by county and major cities	61
Reported cases by sex and color	62
Reported cases by age groups	63
Specimens examined	141
X-ray surveys	55
Tularemia	267, 269
Typhoid Fever:	
Reported cases by counties	267
Reported deaths by counties	269

	V	PAGE
Venereal Disease Control:		
Bureau of		273
Cases and rates		273
Drugs		279
Education		277
Epidemiologic Follow-up		275
In State Health Districts	188, 210, 230,	249
Investigation of suspects		274
Migrant workers		274
Morbidity, Mortality and Trends		273
Selective Serologic Screening		274
Veterinary Public Health:		
Program		131
In State Health Districts	182, 201, 224,	241
Virology Program Established		7
Vital Statistics:		
Administrative Services		289
Certified copies		306
Examination and Licensing		294
Microfilming		172
Personnel and Accounts		298
Revenue from searches		306
Public Health Statistics Program		299
Registration Program		303
Vital Statistics and Administration, Division of		289
Registration Program		303
Tables and Charts		307

W

Warehouse		290
Waste Disposal	130, 181, 200, 223,	240
Water, Potable	129, 181, 200, 223,	239
Weed Control	130, 182, 223,	240
Whooping Cough:		
Reported cases by counties		267
Reported deaths by counties		269

X

X-rays, Chest		55
---------------------	--	----