

EIGHTY-THIRD ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1960



STATE OF NEW JERSEY

DEPARTMENT OF HEALTH

TRENTON, N. J., July 1, 1960

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:

There is submitted herewith the detailed Annual Report of the Department of Health for the fiscal year ending June 30, 1960.

A shorter, summary report by the Commissioner is published each year in March.

Respectfully submitted,

ROSCOE P. KANDLE, M.D.,
Commissioner of Health.

Department of Health of the State of New Jersey
Public Health Council
Fiscal Year 1959-1960

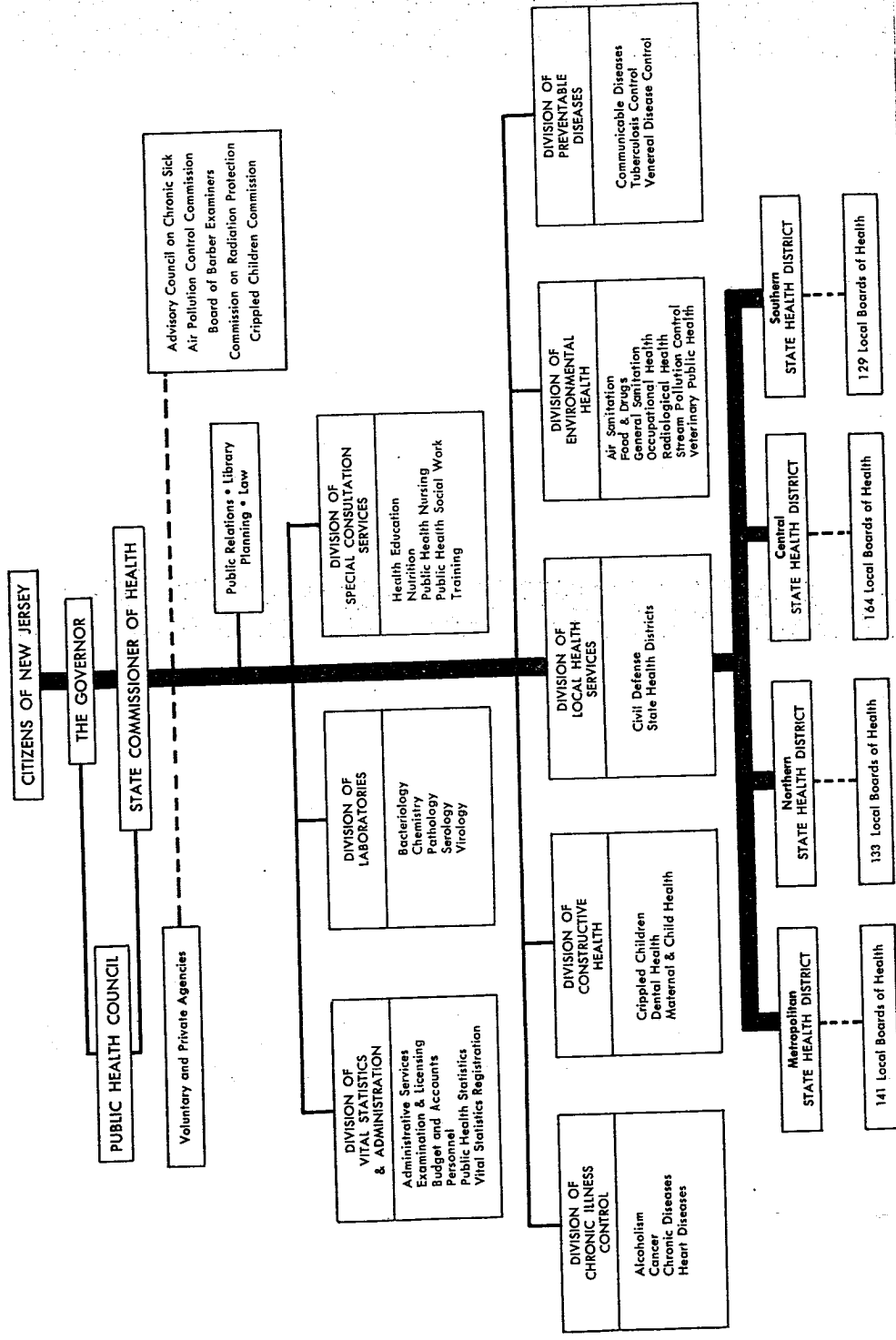
HARRY J. ROBINSON, M.D., *Chairman* Union
KATHLEEN SLETTELAND, *Vice-Chairman* Ridgewood
ERMA T. DILKES, *Secretary* Sewell
C. BYRON BLAISDELL, M.D. Deal
NELSON S. BUTERA, P.E. Morristown
JOHN J. CANE, D.D.S. Phillipsburg
HARRY N. LENDALL, C.E. New Brunswick
ANTHONY P. MILLER, JR. Pleasantville

ROSCOE P. KANDLE, M.D., *State Commissioner of Health*

Table of Contents

EIGHTY-THIRD ANNUAL REPORT OF THE DEPARTMENT OF HEALTH OF THE STATE OF NEW JERSEY, 1960

	PAGE
Report of the Division of Chronic Illness Control	9
Report of the Division of Constructive Health	53
Report of the Division of Environmental Health	79
Report of the Division of Laboratories	115
Report of the Division of Local Health Services	131
Report of the Division of Preventable Diseases	155
Report of the Division of Special Consultation Services	177
Report of the Division of Vital Statistics and Administration	201



Annual Meeting Public Health Council

The annual meeting of the Public Health Council was held on July 13, 1959. The following officers were elected for the fiscal year 1959-1960: Harry J. Robinson, M.D., Chairman; Mrs. Kathleen Sletteland, Vice-Chairman; Mrs. Erma T. Dilkes, Secretary.

The membership of the Public Health Council is as follows:

<i>Name</i>	<i>Address</i>	<i>Expiration of Term</i>
Mrs. 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
Mrs. Kathleen Sletteland	Ridgewood	June 30, 1965
Anthony P. Miller, Jr.	Pleasantville	June 30, 1966

Division of Chronic Illness Control

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

Programs:

Alcoholism Control	WILLIAM J. HARRIS <i>Program Coordinator</i>
Arthritis and Allied Disorders	MARGARET H. EDWARDS, M.D. <i>Program Coordinator</i>
Cancer Control	STELLA BOOTH, M.D. <i>Program Coordinator</i>
Diabetes-Endocrine and Metabolic Disorders	ARTHUR KROSINICK, M.D. <i>Program Coordinator</i>
Diseases of Nervous System and Special Senses	MARGARET H. EDWARDS, M.D. GAETANO A. MAZZANTI, M.D. <i>Program Coordinators</i>
Heart and Circulatory Diseases	ALVIN A. FLORIN, M.D. <i>Program Coordinator</i>

Public Health Nurse Consultants:

(Assigned from Public Health Nursing Program, Division of Special Consul- tation Services)	VERNA HANISCH, R.N. PATRICIA HANNA, R.N. ELIZABETH T. HARRIS, R.N.
--	--

Division of Chronic Illness Control

Chronic illnesses require diversified community services to get the patient back into the community. During the year, the Division has continued to stimulate development of dynamic, comprehensive and coordinated programs for the "prevention, early detection and control of chronic illness and the rehabilitation of the chronic sick." (Chronic Illness Law 26: 1A-92.) We have also tried to strengthen medical and ancillary services.

Activities have been centered in demonstration, casefinding, coordination and consultation services, educational programs, and evaluation studies. Financial assistance has been provided to community hospitals and a few other agencies through grants-in-aid for paramedical personnel specially trained in the techniques and newer aspects of chronic illness control. Also, through the loan of scientific equipment, new methods of diagnoses and control are demonstrated and made available to practicing physicians for the benefit of their patients.

Continuity of Care

Services to the chronically ill are provided through many agencies. Coordinated rather than fragmented efforts are needed to reduce duplication of services and fill gaps.

Two Workshops on Continuity of Care were held in previous years. From interest developed at these workshops, a committee on Continuity of Patient Care has been organized in Union County where the first Workshop on a county level was held in May, 1960 with assistance from this Division and the Metropolitan District office. Eighty persons, representative of a cross-section of professional and non-professional leadership in health and welfare programs, were in attendance.

Cooperative Community Projects

The Division has sought to initiate and strengthen chronic illness control programs in community hospitals and other local agencies. As in the past, assistance has been provided by (1) the loan of scientific equipment to selected community hospitals for demonstration of the newer techniques in diagnosis and control of chronic disease and restoration of the chronic sick; (2) grants-in-aid for paramedical personnel such as specialized technicians, social workers, physio-therapists, etc.; and, (3) consultation services and educational pro-

grams (listed on page 16) for professional personnel to promote understanding of current knowledge of chronic illness and new developments.

Grant-in-aid assistance, amounting to more than \$295,000 (Table 1, page 12), was provided to 20 community hospitals, 9 visiting homemaker services, and 9 other community agencies. The grants helped local agencies to initiate or strengthen many projects including programs to evaluate hearing and speech defects and to rehabilitate the alcoholic; comprehensive restorative and home care services; diagnostic services for convulsive disorders, for early detection of glaucoma, and for low vision rehabilitation; screening tests for the early detection of diabetes and pulmonary disease (by routine x-ray examination of hospital patients); specialized techniques used in the diagnosis and treatment of cancer and cardiovascular disease; homemaker services; and research and special studies in glaucoma, arthritis, and heart disease.

In re-negotiating the grant-in-aid contracts for the year 1960-1961, approximately 15 percent of the total amount was assumed by the local agencies, thus releasing this amount of money to promote other chronic illness programs or similar programs in other geographical areas. In some instances, hospitals expanded their programs to include additional skilled personnel or to make services available to a larger segment of the population without additional financial assistance from this Division. Such expansion is regarded as an assumption of further financial responsibility. In addition to providing a needed service in the community, the programs subsidized in selected hospitals and community agencies serve to demonstrate the possibility of reducing the chronic illness burden and to encourage other communities to inaugurate similar programs without financial assistance from the state.

Scientific equipment was purchased for loan to 10 different hospitals during the year (Table 2, page 15). Sixty-nine hospitals and community agencies are using equipment placed by the Division since 1953 to improve their facilities for the "prevention, early detection and control of chronic illness and the rehabilitation of the chronic sick."

Table 1.

GRANT-IN-AID CONTRACTS: 1959-1960

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.

VISITING HOMEMAKER SERVICE OF ATLANTIC COUNTY:

Homemaker program.

DIVISION OF CHRONIC ILLNESS CONTROL

13

BERGEN PINES COUNTY HOSPITAL, PARAMUS:
Rehabilitation service for alcoholics.

CHR-ILL HOMEMAKER SERVICE, ESSEX COUNTY:
Homemaker program.

DONNELLY MEMORIAL HOSPITAL, TRENTON:
Rehabilitation service for alcoholics.
Comprehensive restorative services program.

EAST ORANGE BOARD OF HEALTH:
Study of latex fixation serologic test for detection of rheumatoid arthritis.

ESSEX COUNTY BOARD OF FREEHOLDERS:
Comprehensive restorative services program at Essex County Hospital—Belleville.

HELENE FULD HOSPITAL, TRENTON:
Cooperative study of hospital and nursing services for stroke patients.

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.
Screening tests for cancer.
Evaluation of vectorcardiograms.
Cytology teaching center.

VISITING HOMEMAKER SERVICE OF HUNTERDON COUNTY:
Homemaker program.

MIDDLESEX GENERAL HOSPITAL, NEW BRUNSWICK:
Rehabilitation service for alcoholics.
Routine chest x-ray of in-patients, out-patients and hospital personnel.
Cardio-pulmonary function laboratory.
Screening tests for diabetes.

VISITING HOMEMAKER SERVICES OF MIDDLESEX COUNTY:
Homemaker program.

VISITING HOMEMAKER SERVICE OF MONMOUTH COUNTY:
Homemaker program.

VISITING HOMEMAKER SERVICE OF MORRIS COUNTY:
Homemaker program.

VISITING NURSE ASSOCIATION OF NEWARK:
Study to evaluate nursing needs of cardiac patients.

NEWARK EYE AND EAR INFIRMARY:
Evaluation and correction of hearing and speech defects.
Glaucoma detection and research.

NEWCOMB HOSPITAL, VINELAND:
Rural cardiology service.
Diagnosis and evaluation of eye defects.

DEPARTMENT OF HEALTH

NEW JERSEY DIABETES LEAGUE:

Summer camp for diabetic children.

NEW JERSEY HOSPITAL ASSOCIATION:

Hospital dietary consultant services.

HOSPITAL CENTER AT ORANGE:

Comprehensive restorative services program.

Cardio-pulmonary function laboratory.

Home care program.

VISITING NURSE ASSOCIATION OF THE ORANGES AND MAPLEWOOD:

Study to evaluate nursing needs of cardiac patients.

B. S. POLLAK HOSPITAL, JERSEY CITY:

Cytology teaching center.

Screening tests for cancer.

Pulmonary neoplasm study program.

PRESBYTERIAN HOSPITAL, NEWARK:

Cytology teaching center.

Screening tests for cancer.

Isotope laboratory.

Cancer training sessions.

Diagnostic and consultation service for convulsive disorders.

ROOSEVELT HOSPITAL, METUCHEN:

County-wide rehabilitation service for alcoholics.

RUTGERS UNIVERSITY:

Homemaker training courses.

SAGE* HOMEMAKER SERVICE, SUMMIT:

Homemaker program.

ST. FRANCIS HOSPITAL, TRENTON:

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:

Rehabilitation service for alcoholics.

Cardiac consultant services.

Comprehensive restorative services program.

ST. VINCENT'S HOSPITAL, MONTCLAIR:

Anti-Coronary Club.

SETON HALL COLLEGE OF MEDICINE AND DENTISTRY, JERSEY CITY:

Scientific studies in the field of arthritis.

Rehabilitation service for alcoholics.

*SAGE stands for Summit Association for Gerontological Endeavor.

DIVISION OF CHRONIC ILLNESS CONTROL

- SHORE MEMORIAL HOSPITAL, SOMERS POINT:
Rural cytology service.
- SOMERSET HOSPITAL, SOMERVILLE:
Comprehensive program of restorative services.
- VISITING HOMEMAKER SERVICE OF SOMERSET COUNTY:
Homemaker program.
- VISITING HOMEMAKER SERVICE OF CENTRAL UNION COUNTY, CRANFORD:
Homemaker program.
- VISITING NURSE ASSOCIATION OF WEST ESSEX:
Study to evaluate nursing needs of cardiac patients.
- WEST JERSEY HOSPITAL, CAMDEN:
Rehabilitation service for alcoholics.
Cardio-pulmonary function laboratory.

Table 2.

Scientific Equipment Loaned to Hospitals to Promote Chronic Illness Services July 1, 1959—June 30, 1960

- ATLANTIC CITY HOSPITAL:
Cancer Control Services.
- HELENE FULD HOSPITAL, TRENTON:
Work Classification Unit.
Comprehensive Restorative Services Program.
- HUNTERDON MEDICAL CENTER, FLEMINGTON:
Comprehensive Restorative Services Program.
- JERSEY CITY MEDICAL CENTER:
Diagnosis and Evaluation of Eye Defects.
- MIDDLESEX REHABILITATION AND POLIO HOSPITAL:
Comprehensive Restorative Services Program.
- NEWCOMB HOSPITAL, VINELAND:
Cancer Diagnosis and therapy.
- ST. ELIZABETH HOSPITAL, ELIZABETH:
Cancer Registry.
Cytology Program.
- SETON HALL COLLEGE OF MEDICINE AND DENTISTRY, JERSEY CITY:
Arthritis Studies.
Post-graduate Physicians—in tissue pathology and cytology.
- SHORE MEMORIAL HOSPITAL, SOMERS POINT:
Cancer Registry.
- WEST JERSEY HOSPITAL, CAMDEN:
Comprehensive Restorative Services Program.

Professional Training

To spread knowledge of new developments, the Division has continued to support lectures, seminars, courses, and consultation services to physicians and paramedical personnel. These efforts have been carried on in cooperation with community hospitals, medical societies, professional organizations, the Academy of Medicine, the Academy of General Practice (accredited), and Seton Hall College of Medicine and Dentistry. A listing follows:

ST. MICHAEL'S HOSPITAL, NEWARK:

Courses:

- Recent Advances in Internal Medicine and Endocrinology (10 bi-weekly sessions).
- Advanced Clinical Electrocardiography (22 weekly sessions).
- Recent Advances in Clinical Cardiology (12 bi-weekly sessions).

ACADEMY OF MEDICINE—CHRONIC ILLNESS COURSE:

- Newcomb Hospital, Vineland (6 sessions).
- Warren Hospital, Phillipsburg (4 sessions).

WEST JERSEY HOSPITAL, CAMDEN:

- Chronic illness course (4 monthly sessions).

NEWCOMB HOSPITAL, VINELAND:

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

BRIDGETON HOSPITAL:

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

HELENE FULD HOSPITAL, TRENTON:

- Arthritis workshop.

HUNTERDON MEDICAL CENTER, FLEMINGTON:

- Cytology symposium.

PRESBYTERIAN HOSPITAL, NEWARK:

- Cancer symposium.

NEWARK:

- Diabetes symposium.

PRINCETON:

- Diabetes symposium.

SUMMIT:

- Continuity of care workshop.

Alcoholism Control

Alcoholism continues to be a major public health problem affecting approximately 1 of every 4 adults in New Jersey. The impact is felt by many more. It has been estimated that 1 alcoholic directly affects the lives of

approximately 15 individuals; i.e., members of the family, friends, and fellow workers.

Mark Keller and Vera Efron, researchers at the Yale Center of Alcohol Studies, New Haven, Connecticut, have estimated that there are 4,712,000 alcoholics in this country—a rate of 4,520 alcoholics per 100,000 adult population, age 20 years and over. According to Keller and Efron, New Jersey has an estimated 232,000 alcoholics with the rate of 6,060 per 100,000 population.

Rehabilitation Services

Developing treatment and rehabilitation services continues to be a major function of the Program. Although no new services were established during the year, efforts were made to strengthen staffs of existing clinics. Additional part-time workers were added to the clinics at West Jersey Hospital, Camden; Donnelly Memorial Hospital, Trenton; and Roosevelt Hospital, Metuchen. As the patient load in clinics increases, we plan to add additional personnel rather than establish new facilities. Superior services can be offered, where more clinic personnel are available, and additional services, such as group therapy, can be added to the treatment program. Interrupted service can be prevented in event 1 social worker leaves the program.

During this past year, it was necessary to discontinue temporarily the services at Bergen Pines County Hospital because personnel could not be recruited and it was not possible to cover the service effectively with state-paid personnel. As soon as qualified social workers can be obtained, the service at Bergen Pines will be reactivated, and a new service will begin at Mountain-side Hospital, Montclair.

The program at Seton Hall College of Medicine and Dentistry has gotten underway in the area of research, medical treatment, and physician education. The 2 studies, Pantothenic Acid, Fatty Liver and Alcoholism, and Effect of Ethanol on Plasma Free Fatty Acids in Man, were conducted in the Divisions of Hepatic Metabolism and Nutrition of the Department of Medicine. Physician education consisted of formal lectures on alcoholism and its medical complications to visiting physicians, the resident and intern staff, and third- and fourth-year medical students. The residents, interns and medical students rotated through a clinic where alcoholics are followed, in a ward where patients with delirium tremens are admitted and treated, and a research ward where the above investigations have been carried out. As soon as additional staff; i.e., a clinical psychologist and psychiatric social worker, can be obtained, an out-patient treatment center for alcoholics will be initiated in the Department of Psychiatry.

There were 1,570 individual patients seen during this fiscal year. Of these, 882 were seen in the out-patient clinics, of which 528 were first admissions. The 882 made a total of 4,622 individual visits to the 4 full-time and 4 part-time clinics. There were 688 persons who attended weekly group sessions in 5 tuberculous hospitals, 1 county workhouse, 1 county jail, and the In-patient Treatment Unit at the New Jersey Neuro-Psychiatric Institute.

During the past 3 years, we have been working with representatives of the Board of Freeholders and community agencies in Mercer County to establish a comprehensive program for alcoholics in the county. On June 1st of this year, the first employee, a social worker, was employed by the county to develop a program for inmates with an alcoholism problem at the Mercer County Workhouse. The Workhouse Program is the first phase of the county-wide service which will include the establishment of a Half-way House (transitional facility) for the alcoholic who is homeless or otherwise unattached. This will be the first facility of its kind in the state and it can serve as a demonstration for other counties to study.

Educational Activities

One of the major educational activities during the fiscal year was a 3-day workshop on Alcoholism Education for teachers who are responsible for curriculum development and classroom instruction in New Jersey schools. The workshop was held at the Princeton Inn in Princeton and was attended by 47 teachers who are responsible in some way for the health education of approximately 65 percent of secondary school students. Speakers and group leaders were recognized authorities.

A technical assistance grant from the United States Public Health Service supported the workshop. The proceedings were printed and distributed.

A second 2-week workshop on alcohol education for teachers and school nurse teachers was co-sponsored with the Montclair State College. For the third year, Trenton State College held a similar workshop. Forty persons attended the 2 programs which ran for 30 hours and offered 2 semester hours credit.

Scholarships to the Summer School of Alcohol Studies at Yale University were granted again this year to 10 individuals. This is a 4-week course to meet the needs of a number of people. Specialists in various fields—medicine, religion, education, and public health—address the student body. Forty-seven individuals have attended the course on scholarships from this Department. Included in this group are social workers, psychologists, probation officers, parole officers, police officers, physicians, teachers, and clergymen.

Showing films has been effective educationally. During the year, there were 613 film showings with 30,774 in attendance. The 5 films available for loan are suitable for both teenage and adult groups.

Twenty-eight lectures were given by Program personnel and personnel of the clinics before nursing schools, social and welfare agencies, professional organizations, and clergy.

Program Emphasis

There will be continued effort to recruit social workers in order to offer services where needed and not now provided. The shortage of qualified psychiatric social workers continues as a pressing problem. We plan to continue placing recently graduated workers in clinics with experienced psychiatric social workers. With the new 3-year program at the Rutgers School of Social Work, we will also try to place graduates of this course.

Educational efforts of the Program will be continued. If alcoholism is to be successfully combated and prevented, it will be through better understanding of the problem by the general public and members of the professional disciplines who work with the alcoholic and his family.

Arthritis and Allied Disorders

Disability and limitation of activity from arthritis and rheumatic disorders affect an estimated 400,000 persons over 14 years of age in New Jersey. Arthritis is the second most common defect or disease encountered on routine physical examination. It accounts for more work-days lost yearly than accidents or injury.

Because of its chronic and episodic nature and the lack of specific means for its prevention, cure or sustained control, arthritis has often been a neglected disease category. This is evidenced by the existence of only 13 hospital clinics devoted specifically to its treatment in our state.

The New Jersey Arthritis Project was initiated in March, 1958 to stimulate increased interest in arthritis, to develop scientific knowledge, and to promote programs of coordinated services and activities related to all aspects of arthritis care. Its membership represented 44 state-wide agencies and professions, and its objectives laid the groundwork for the Arthritis Program in this Division.

Program Activities

Clinical Laboratory Services: The Arthritis Unit of the Seton Hall College of Medicine carried out, with the assistance of personnel and equipment

DEPARTMENT OF HEALTH

from this Division, 2,740 special types of laboratory tests on 1,126 patients with various kinds of arthritis and rheumatic disorders as an aid to diagnosis and specific management. These may be summarized as follows:

Types of tests performed:

Joint fluid analysis	160
RA factor tests	580
Rheumatology research tests	2,000
Total	2,740

Clinical categories of patients tested:

Rheumatoid arthritis	673
Degenerative joint disease	171
Rheumatic fever	83
Gout	88
Other	111
Total	1,126

Special Laboratory Tests: A research project dealing with the application of the Hyland slide test for the RA (rheumatoid arthritis) factor in human sera was begun in January, 1959, at the East Orange Health Department Laboratory. All sera submitted for routine examinations were tested for the RA factor, and the individuals with reactive sera were followed for evidence of arthritis by means of a questionnaire sent to their physicians. The project will be continued to a total of 5,000 individuals tested, and the reactive sera will be further evaluated with special tests in the Laboratory of the Arthritis Unit of the Seton Hall College of Medicine. The results may be summarized as follows:

	1958-59	1959-60	Total
Number of tests performed	1,668	3,240	4,908
Number of sera screened	1,592	3,178	4,770
Number of negative sera	1,571	3,162	4,733
Number of reactive sera	8	9	17
Number of weakly reactive sera	13	7	20

Arthritis Workshop: A demonstration and workshop session on "Keeping the Arthritic Working" was held at the Helene Fuld Hospital in Trenton in April, 1960, and was attended by 67 persons. Valuable assistance in planning and conducting the workshop was given by persons in the Central Health District office, the Division of Consultation Services, and the Department of Institutions and Agencies, as well as by representatives from the medical professions and specialty societies, labor, industry, community organizations, and voluntary agencies. The Proceedings of the Workshop will be distributed to the participants.

The usefulness of the workshop session extends beyond its immediate educational and informational value. Joint discussion of problems of mutual interest by members of community service agencies and organizations has led to new activities in arthritis care.

Rehabilitation: The Comprehensive Rehabilitation Service initiated in 1958 at the Hospital Center at Orange was planned to assist in the care of 3 long-term chronic disease entities, namely, arthritics, hemiplegics, and amputees. The objective was to continue restorative services within the patient's home. With aid for personnel from this Division and with other assistance from state and community agencies, the Service assisted, during the calendar year 1959, in the rehabilitation of 33 arthritics.

Outlook: We will continue and extend aid to community facilities for provision of care to arthritics, chiefly through the media of hospitals, clinics, and laboratories. This aid will include evaluation and standard maintenance. Provision of special consultation service in the field of arthritis is under consideration. Educational and informational activities will be continued through an extended workshop program, and the purchase and distribution of informational documents. Directories of Services for Arthritis are planned for those dealing with the management of persons with this disorder.

Cancer Control

Aging, Cancer, and the New Medical Program for the Aged

Medical care programs for elderly persons probably will be developed in the very near future. This behooves public health cancer control programs to consider what this aid offers to the elderly, to medicine, and to public health. The main question is, how is this help to be used for the greatest good of the elderly?

How can this aid be mobilized so that it will be used, among other things, for active treatment of cancer patients and not just terminal care? This is a burning question.

As is well known, there is an increasing proportion of people over 65 years in the general population. We can anticipate a higher incidence of cancer in this population.

This does not exclude the fact that various types of cancer have a significant spread among all age groups, even young children.

One can postulate that a fairly large portion of the funds made available for care for the aged under any plan should be used in the diagnosis, treatment, and care of cancer in the older age group, 65 and upward.

Older people suffer catastrophic disease other than heart disease, require more frequent and increasingly longer hospitalization, and require more

terminal care than any other age group. This group is less able to care for themselves under conditions of catastrophic illness than younger age groups. They usually have less economic support, less family help, and can take less physical strain under these unusual conditions. They must seek aid from welfare, private, or religious sources.

Lung Cancer and Smoking

Within the last year, there have been developed data which confirm smoking as one of the etiological factors in lung cancer. This correlation was first made by various statistical workers in the field. There is now agreement about this in England, Sweden, and Norway as well as in the United States. Smoking is not only related to lung cancer but to other medical illnesses; this aspect should be emphasized as well as the cancer angle.

Whether one can quickly change the habits of individuals who have been smoking for 20 years or more is debatable, but many habitual smokers have quit. There is justifiable concern about the education of the present-day teenagers and young adults who should be so convinced of this relationship that they will refrain from smoking or break the habit if already established.

A sustained educational effort should be undertaken by family physicians, schools, and voluntary and governmental agencies to condition youth to refrain from smoking and if they have started to smoke, to break the habit. Families, teachers, athletic coaches, ministers and priests, as well as doctors have a real educational "Gibraltar" ahead of them.

Young people are confused. They discover that many, who tell them not to smoke, are smokers themselves.

Hospital and Medical Trends

The small community hospital and the doctors' offices are still the first lines of attack in cancer control. Eventually, treatment may be done in fewer places by those best equipped for all phases of treatment, including surgery, radiation, and chemotherapy.

Follow-up and continued care will be the province of the family doctor and the community hospital. There probably will be a pooling of resources, including medical resources.

Cancer projects and programs are located in selected community hospitals. These are developed by the grant-in-aid of funds or by the loan of equipment to hospitals depending on the need and the stage of development of the project.

Cytology Training Program

Training of cyto-technicians which takes place at the Presbyterian Hospital of the United Hospitals, Newark is an annual project. These technicians are sent for the course by hospital pathologists in the state. The course is held 2 days a week for 45 weeks.

Table 1.

1959-1960

HOSPITALS SENDING TECHNICIANS FOR TRAINING

<i>County</i>	<i>Hospital</i>	<i>Number of Persons</i>
Hudson	St. Mary's Hospital, Union City	1
Hudson	Christ Hospital, Jersey City	1
Sussex	Alexander Linn Hospital, Sussex	1
Union	St. Elizabeth Hospital, Elizabeth	1

Programs for Early Detection and Special Study (Cytology). Cytology smears are made on all hospitalized patients upon admission. The conventional Papanicolaou techniques and his classification for diagnostic purposes are utilized. See Tables Nos. 2, 3, 4, and 5.

DEPARTMENT OF HEALTH

Table 2.
CYTOLOGICAL SMEARS
HUNTERDON MEDICAL CENTER, FLEMINGTON
1959-1960

Vaginal Smears

Number of patients	1,670
Number of slides	3,261
Number of positive findings ...	8
Number of suspicious findings..	2

Table 3.
CYTOLOGICAL SMEARS
POLLAK HOSPITAL, JERSEY CITY
1959-1960

Sputa

Total number of patients 576

A series consists of 3 sputa specimens from each patient.

Four slides are prepared from each specimen—12 slides per series.

		<i>Number of slides</i>				
548—patients had 1 series		6,576				
19—patients had 2 series		456				
7—patients had 3 series		252				
2—patients had 4 series		96				
<hr/> 576		<hr/> 7,380				
Breakdown as to classification		Suspicious III	Positive			
Total	Negative Class I, II, II-III		III-IV, IV, IV-V, V			
576	331	103	50	65	20	7
			142			

Class description:

Class III-IV: Cells seen suggestive for malignancy.

Class IV : Cells seen that are fairly typical for malignancy.

Class IV-V : Cells seen that are classical for malignancy, but few in number.

Class V : Cells seen that, classical for malignancy and in abundance.

Table 4.
CYTOLOGICAL SMEARS
POLLAK HOSPITAL, JERSEY CITY
1959-1960

Miscellaneous Specimens

Total Slides	Specimen	Total No. Patients	Negative I, II, II-III	Suspicious III	Positive III-IV, IV, IV-V, V
592	Bronchial	146	53	30	25 30 8 0 —(63)
476	Chest fluid	81	26	13	12 25 1 4 —(42)
34	Esophagus	7	4	1	0 2 0 0 —(2)
36	Gastric	8	5	3	0 0 0 0 —(0)
2	Biopsy (liver)	1	0	0	0 1 0 0 —(1)
18	Urine	4	2	0	2 0 0 0 —(2)
6	Cervix	3	2	1	0 0 0 0 —(0)
42	Ascitic fluid	8	6	0	0 2 0 0 —(2)
1,206					

GRAND TOTAL OF SLIDES: (Tables 2 and 3)

Sputum 7,380
Other specimens 1,206
8,586

Class description: See Table 3. for explanation.

Rural Cytology Project. The purpose of this small pilot study was to determine whether or not doctors would do more Papanicolaou smears on patients in their offices on a routine basis when given a formalized kit, which contained everything they needed for this test, except the fluid in the jars. This kit was prepared to be kept on the instrument table always ready for use.

This effort was not so successful as we had hoped it would be. Once the material was used in the kit, it was not replaced by the nurse and apparently the doctor did not request the refilling of the kit.

Generalized inferences can be made from this small group of doctors, and from the small number of patients presented.

Radiobiology and Nuclear Medicine. The Radiobiology Department of the Presbyterian Hospital of the United Hospitals of Newark is supported in part by the Cancer Program of this Department. This support is carried out by means of grant-in-aid funds to the hospital for the employment of highly trained personnel (physicist). The increase in the services rendered by the Radiobiology Department is shown by the large patient load in isotopes and in deep X-ray therapy. (See Table No. 5.)

Table 5.
RURAL CYTOLOGY STUDY
1959-1960

Data—Participating physicians 4

Total Number of smears done this year 72

One physician presented 58 of the 72 and another presented 10 of the 72.

The remaining 4 were distributed between the other 2 physicians.

Age Distribution of Females Screened

20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	85-89	no age
2	3	3	10	14	14	13	6	1	4	1	1

Diagnoses

Routine	53	Fibroid	2
Chronic-cervicitis	6	Bleeding from Cervical	2
Cervical polyp	2	Ulcerated cervix	1
Estrogen effect	1	Repeat Pap. smears	2
Probable menopause	1		

PAPANICOLAOU CLASSIFICATION

C	I	II	III	IV
1	62	3	5	0

Nursing Activities of Program

The Program provides a clinical experience in cancer for nurses. This program is planned and organized by the Public Health Nurse Consultant and the nursing staff at Presbyterian Hospital. Seventy-one nurses and 5 social workers participated in this activity during the past year. In the spring of 1960, the Public Health Nurse Consultant circularized the public health nursing agencies and hospitals to find out whether this activity should be continued. Two hundred and thirty nurses from public health nursing agencies and hospitals requested participation in this program.

The Public Health Nurse Consultant visited tumor clinics in 18 hospitals throughout the state. These visits have been helpful in acquainting the Consultant with resources for cancer patients and with the types of therapy given in different areas of the state.

Three hospitals where terminally ill cancer patients are cared for were visited by the Consultant.

Consultation was given to nurses at the Hammonton Cancer Detection Clinic and to nurses in 3 private agencies. The Consultant discussed cancer nursing at 7 in-service educational programs for nurses with a total of 100

in attendance. She also talked about the public health nursing responsibilities in cancer control at a meeting of the board of directors and nurses from a Visiting Nurse Association.

Nursing accomplishments included:

1. Completion of a kit of appliances to be used for demonstration of nursing procedures involved in the care of cancer patients.
2. Publication of the article "A Clinical Experience in Cancer for Public Health Nurses," written by the Public Health Nurse Consultant in cooperation with the Program Coordinator.
3. Completion of the Public Health Nursing Follow-up Cancer Control for the Public Health Nursing Service Guide.

Table 6.
CLINIC LOAD
1959-1960

Presbyterian Hospital of the United Hospitals, Newark (Including Black-Stevenson Clinic)		Number Treat- ments	Number Clinic Visits
	Number Patients		
Presbyterian Hospital Case Load			
Diagnosis			
Evaluations for cancer			
Malignant	1,763	2,344	
Non-malignant	581		
Black-Stevenson Clinic			
Clinic visits—follow-up			2,090
<i>Radiation Treatment</i>			
* Patients receiving radiation therapy	323		
Patients not suitable for any form of cancer treatment	106		
* Number of therapy treatments		7,379	

*—These figures give an example of what the work load means to a community hospital when an adequate cancer service is developed.

- A. Each treatment involves following team for each visit.
Physician, physicist, nurse, technician, and clerk. A single total course of treatment for each particular cancer lesion requires daily treatments lasting from 6 to 8 weeks.
- B. An evaluation of the progress of the patient following treatment is carried out by an elaborate follow-up clinic system, which continues for 5 years and more.
- C. This includes follow-up on patients receiving therapy as well as follow-up on patients not in treatment at this time.

DEPARTMENT OF HEALTH

Table 7.
 WORK LOAD IN ISOTOPES
 At Community Hospitals Where Cancer Program Has Projects
 1959-1960

<i>Hospital</i>	<i>Type of Material Used</i>	<i>Purpose of Procedure</i>	<i>Number of Patients</i>
Presbyterian Newark	I131	<i>Diagnosis:</i> Hyperthyroid	35
		Hypothyroid	62
	AS74	Euthyroid	58
		Brain Scan for tumor localization	14
	Triolein	Fat malabsorption	22
	Oleic Acid	Fat malabsorption	21
	Co60, B12	Pernicious anemia	16
	RISA	Blood volume	1
			229
		I131	<i>Therapy:</i> For hyperthyroidism	39
For polycythemia			5
P-32		For bone metastases (Breast Cancer)	6
			50
West Jersey Camden	I131	<i>Diagnosis:</i> Uptakes	126
		Thyroid scanning	11
	I131	<i>Therapy:</i> Cardiac Therapy	1
		Hyperthyroidism	7
		Thyroid carcinoma	10
	Au198-Gold	<i>Palliation:</i> Abdominal carcinoma	3
Saint Barnabas Newark	I131	<i>Diagnosis:</i> Thyroid study	25
		Fat absorption	1
		Blood volume	27
	P32	<i>Therapy:</i> Polycythemia	1
		<i>Palliation:</i> Pleural effusion	1
	Au198-Gold		

Table 8.

RADIOLOGICAL HEALTH PROGRAM IN CANCER

Presbyterian Hospital of the United Hospitals, Newark—1959-1960

Monitoring of Equipment and Personnel

<i>Equipment</i>	<i>Number of Tests</i>	<i>Personnel</i>	<i>Number of Persons</i>
Calibration for X-ray Machine	7	X-ray with Badge	12 Monthly
Stray Radiation Surveys:		Cobalt and X-ray Therapy with Badge	12 Monthly
Radium Room	4	Radioisotope with Badge	5 Monthly
Cardiac Catheterization	2	Operating Room Staff with Badge	6 Monthly
Calibration of Cobalt Machine	1	Heart Institute for Cardiac Catheterization with Badge	10 Monthly
Calibration of Cobalt Grenz Ray Machine	1	Radiation Therapy and Radioisotope with Pocket Dosimeters	8 Monthly
Standardization of Survey Instruments	4		
Standardization of Pocket Dosimeters	4		
Stray Radiation Survey of New Cobalt Teletherapy Facility	1		
Lead Rubber Absorption	1		

Table 9.

RADIOLOGICAL HEALTH PROGRAM IN CANCER

Monitoring of Equipment and Personnel

<i>Hospital</i>	<i>Machines Monitored</i>	<i>Personnel Monitored</i>
West Jersey Camden	None	22 continuously
Saint Barnabas Newark	Isotopes laboratory working area surveyed	No number given

Research
National Cooperative Child Health Study—Leukemia—Lymphoma Study

This is the continuation of a federal research grant activated February 1, 1959. It is part of an epidemiological study being conducted by the National Cancer Institute of the National Institute of Health at 14 different centers. The diseases included in the study are the lymphoma-leukemia group (200-205 International Classification of Diseases) in the age group 0-16 years.

The study uses the case-history method, applying this to children having the lymphoma-leukemia group of diseases, with comparisons to be made of the characteristics found in the various groups of children and their families.

The data to be studied are obtained through personal interviews with the mother of the index or control child.

The principal control group with which the index cases will be compared are neighborhood controls (selected by a standardized method for this study). The second control group consists of the siblings nearest in age to the index children.

After an index case is chosen and permission from the attending physician has been secured, an appointment for interview is made with the index mother at her convenience. When this mother is interviewed, the neighborhood control is sought.

A register is maintained to facilitate assignment of a family number to each family interviewed, whether it be index or control.

Verification of certain medical data is checked on mother and all children. This entails communication by letter or telephone with doctors, dentists, and hospital record librarians. A physician personally checks hospital records in those hospitals within a reasonable distance, in state and out of state.

To date, 35 index cases and 30 control cases have been interviewed. Twenty-four cases, 12 index and 12 controls, have been completed and forwarded to the National Cancer Institute for processing and analysis.

Rural Cytology—(See Table 5, page 26).

Chronic Illness Survey "Follow-up" Study—Hunterdon County

A review of the status of the original population surveyed under the Commonwealth Fund Chronic Illness Study in Hunterdon County, which started in 1952, was undertaken by the Cancer Program Coordinator. This would be necessary as a preliminary to any clinical follow-up on this same population.

The questionnaire used was designed with some assistance from the Public Health Statistics and the Heart Programs.

There were 769 charts reviewed by 3 part-time physicians and the Coordinator of the Cancer Program during this year. An analysis of the data is now in progress.

Death Certificates: The Program Coordinator acts as liaison between hospitals and the Public Health Statistics Program in furnishing copies of death certificates from cancer. These photo-copies are furnished to hospitals through this Program in an attempt to complete hospital records and to assist

in maintaining the case registries for completeness of follow-up on cancer patients in and out of state.

Table 10.
DEATH CERTIFICATES SEARCHED

County	Number of photocopies of death certificates furnished	Number of searches made—certificates not found
Atlantic	15	4
Camden	41	168
Essex	62	8
Monmouth	57	94
Out of State	16	—
	191	274

Table 11.
PATHOLOGICAL TISSUE SERVICE

Cancer funds support pathological tissue laboratory in Department 1959-1960

Item	Number
Slides processed	10,810
Specimens—special stains	1,251
Specimens—contributed	364
Slides distributed throughout state	8,684
Photographs from cancer specimens	396

The Human-Dog Study of the Lymphoma-Leukemia group of diseases is continuing. 5.12 percent of all of the tissue work in the Pathology Laboratory was devoted to the Lymphoma-Leukemia Human-Dog Study.

Specimens from dogs processed	46
Slides made from above specimens	254

Cancer Registry Activities

The Cancer Program is continuing its efforts to establish hospital cancer registries in the state so that more accurate statistics and follow-up can be made. Cancer registries are valuable tools for evaluating the effectiveness of the teaching programs for physicians as well as for study of survival rates under different types of techniques of diagnosis and treatment.

Forty-seven of the 92 accredited hospitals in New Jersey have cancer registries. The Department loaned 6 of these to hospitals that have met the requirements. Two were loaned during this year.

First Meeting in State of Tumor Board Chiefs

The Program Coordinator met with Tumor Board Chiefs to discuss the value of cancer registries in hospitals and to attempt to increase interest in this valuable follow-up tool. Only 12 physicians attended.

Fifty-five persons attended a meeting conducted by the Cancer Program for Cancer Registry Secretaries and Medical Record Librarians in hospitals.

Questions presented at these 2 meetings indicate the need for supervision and training of the persons who maintain these registries.

Professional Education

Symposium: Fifty physicians attended a Cytological Symposium at Hunterdon Medical Center, Flemington. This symposium was organized by the Cancer Control Program and co-sponsored by the New Jersey Society of Pathologists in cooperation with Hunterdon Medical Center.

Subjects discussed demonstrated the extension of application of cytology to fields other than, but related to, cancer.

Approximately 150 physicians and radiologists attended a meeting at Presbyterian Hospital, Newark, co-sponsored by the Cancer Control Program. Dr. Vera Peters of the Cancer Institute of Ontario emphasized modern trends and management of breast cancer. Important fact shown was that conservative surgery followed by carefully administered radiation is the proper procedure. (Cytology Training—See Table 3, Program Activities.)

Staff Education

Program Coordinator attended approximately 19 sessions to keep up-to-date on current scientific knowledge and experience in the field of Cancer. Program Coordinator also made approximately 100 visits to hospitals and agencies for general survey and future development of possible cancer programs. (See "Nursing" section.)

Public Education

The Cancer Control Program cooperated with the Women's Auxiliary to the Medical Society of Mercer County in a cancer film showing program. The film, "Breast Self-Examination" was shown to 210 women and discussed by 7 physicians.

Film showings are an excellent method of non-professional education. During the year, 3 films on cancer were shown as follows:

Table 13.

CANCER FILM SHOWINGS

<i>Name of Film</i>	<i>Number Showings</i>	<i>Number Attended</i>
Breast Self-Examination	11	381
Man Alive	81	2,993
Cancer	91	3,611

Publications

“A Clinical Experience in Cancer Nursing for Public Health Nurses.”

Work in Progress

“Manual for Cytology Technicians.”

Distribution of Pamphlets

During this year, the following pamphlets on cancer were distributed. Requests from students, especially for pamphlets relating to smoking and lung cancer, indicate the growing concern of this problem.

Table 14.

DISTRIBUTION OF PAMPHLETS

<i>Name of Pamphlet</i>	<i>Distributed To</i>	<i>No. Distributed</i>
Breast Self-Examination	Physicians for selected patients	1,080
Lung Cancer and Smoking	Physicians and selected non-professionals	7,000
When a Family Faces Cancer	Public Health Nurses	25
Cancer Nursing	Public Health Nurses	20
Directory of Cancer Clinics in New Jersey	Tumor Board chiefs in hospitals and physicians	20
Cigarettes and Health	Public health agencies	20
Treating Cancer-Surgery, Radiation, Chemotherapy	Physicians	25
Miscellaneous cancer pamphlets	Professionals and non-professionals	200
(Some New Jersey Cancer Society pamphlets)		9,440

Diabetes—Endocrine and Metabolic Disorders

A summary of the activities of the Diabetes Control Program during the year 1959-1960 is as follows:

1. Case-Finding Activities

- a. The Seventh Annual State-wide Diabetes Detection Drive was observed during November 15-21, 1959. This was a joint effort of the Medical Society of New Jersey, New Jersey Diabetes Association and the State Department of Health. Twenty-one County Medical Society Diabetes Detection and Education Committees were organized. The theme of this project was "Early Detection of Diabetes Means Prevention." A pamphlet based on this theme was prepared and mailed to all New Jersey physicians. Emphasis was made on blood screening, but individual county and local projects used urine tests as well. All techniques of community education, including radio, television, newspaper and periodical publicity were utilized. Public forums on diabetes were held in several areas of the state. The details of material distribution and test results are attached. (See workload data, Tables 1 and 3.)
- b. A number of short-term case-finding projects was completed in small industries as a combined activity with the Venereal Disease Program. Split samples of blood were obtained for these studies from a single vein puncture. (See Table 3.)
- c. Blood tests for diabetes were offered to state employees in the Trenton area and in the Newark area during Diabetes Detection Week. Urine tests were made available to state employees throughout New Jersey. (See Tables 1 and 3.)
- d. The diabetes case-finding unit continued to operate successfully at the Middlesex General Hospital. This Center has utilized blood tests, screened by the Hewson Clinatron. A unique feature is the fact that participants are screened within the hospital and in the community. Personnel are sent into the field for local projects throughout the county. The unit has emphasized industrial employees, service clubs, and other organized groups. The Diabetes Control Program provided the Clinatron, glassware, and Sheppard Tubes, as well as a grant-in-aid to partially cover the cost of technical services. (See Table 3.)

- e. The Diabetes Detection Unit at the East Orange Health Department was loaned a Clinatron and other equipment to institute a blood screening program.
- f. The home case-finding project of the Mercer County Nursing Agencies has continued. The visiting and public health nurses perform urine tests for glucose, utilizing glucose oxidase test sticks. (See Table 2.)

1-A. Additional District Case-Finding Activities

a. Metropolitan State Health District

- (1) Twenty-seven health officers participated in the Diabetes Detection Drive by making Dreybaks available to local citizens and through the distribution of educational leaflets. An outstanding example of a community's participation in this program may be illustrated by that organized by the Irvington Health Department. Twenty-seven drug stores served as distribution and collection points for bottles and specimens during the week. Health education displays and materials were placed in strategic locations throughout the town. Several druggists created special window and counter displays for the observance. One thousand six hundred and forty-nine specimens were collected, of which 39 were positive reactors. Twenty-seven Certificates of Service were awarded by the health department to drug stores for meritorious service and cooperation in the 1959 Diabetes Detection Program.
- (2) The Diabetes Program referred to this District a number of diabetic suspects for nursing follow-up. In all cases, the nurses were successful in having the patient placed under the care of a physician or clinic.

b. Southern State Health District

- (1) The majority of the part-time Health Officers in the District participated in the Diabetes Detection Drive as did the different visiting nurse associations. Approximately 2,100 Dreybaks were submitted for examination to the Departmental Laboratory.

All visiting nurse associations agreed to use Dreybaks on a year-round basis, to assist in case-finding.

(See workload data and tables for statistical information.)

2. Activities Related to Long-term Control of Diabetes

a. Activities related to patient and family

- (1) A grant-in-aid was provided to the New Jersey Diabetes League for the salary of a full-time teaching nurse at the summer camp for diabetic children at Johnsonburg, N. J. District personnel have assisted the camp through consultation.
- (2) The Diabetes Control Program and the Poison Control Service instituted a state-wide campaign to warn diabetic patients and their relatives of the dangers of accidental ingestion of Clinitest tablets. A resumé of the problem was published in the *Journal of the Medical Society of New Jersey* and in *Public Health News*. Warning notices were sent to all New Jersey Poison Control centers and were distributed to all hospitals in New Jersey through the cooperation of the New Jersey Hospital Association.
- (3) The Diabetes Control Program distributed a considerable amount of educational material to diabetic patients and their families. (See workload data.)

b. Activities involving the community

- (1) Educational activities in this category have been primarily related to case-finding programs during Diabetes Week and other diabetes detection programs.
- (2) Requests are received frequently from the general public for diabetes literature. A group of well written pamphlets and brochures on the subject of diabetes is sent on request.
- (3) The diabetes film called "The Story of Wendy Hill" was shown to various community groups. There were 37 showings and 1,269 persons attended.
- (4) The Program Coordinator participated in Diabetes Programs on radio stations WBCB, Levittown, Pennsylvania and WBUD, Trenton.
- (5) An information document, "Diabetes and the School Child," was prepared at the request of the Inter-departmental Committee, Departments of Education and Health. This booklet will be distributed to all school nurses and interested parents

of diabetic school children. It will be available to teachers, physicians, and public health personnel.

c. Activities involving professional personnel

(1) On October 21, 1959, the Seventh Annual Symposium for Physicians entitled "Lipids and Diabetes" was held in the main auditorium of the Prudential Insurance Company of America in Newark. Approximately 100 physicians attended the meeting.

(2) On May 11, 1960, the Second Annual Spring Symposium entitled "Pre-Diabetes and Diabetes in Pregnancy" was held at the Princeton Inn. About 200 attended.

Table 1.

WORKLOAD DATA

All Data on a Fiscal Year Basis

Diabetes-Endocrine and Metabolic Disorders

<i>Description of Workload Data</i>	<i>1958-1959 Actual</i>	<i>1959-1960 Actual</i>
DREYPAKS		
Number Distributed	102,231	107,231
Number Returned for Testing*	7,804	8,105
Number Positives	99	90
BLOOD SCREENING		
Number sheppard tubes distributed	3,304	5,773
Number of tests performed	3,623	7,138
Number of positives	129	118
EDUCATIONAL MATERIALS DISTRIBUTED		
Professional	38,350	25,633
Lay Public	101,884	187,906
Posters	2,869	4,510
Miscellaneous	1,000	1,000
REPORTS AND FOLLOW-UP LETTERS AND QUESTIONNAIRES	10,164	14,121
REQUESTS FOR PHN DIABETES FOLLOW-UP VISITS	—	14
MERCER COUNTY VISITING NURSE ASSOCIATIONS PROJECT		
Uristix (125 strips—bottle) distributed	—	81
Number of tests performed	—	931
Number of positives	—	13

* These figures are not referable to the number distributed since they include only those Dreykaps returned to the State Laboratory for testing. Many were tested locally and were not returned. Follow-up tests were performed on positive reactors by personal physicians.

Table 2.
RESULTS OF DREYPAKS TESTED*
Fiscal Year 1959-1960

	Number Dist'd	Number Returned	Positive Reactors	Newly Diagnosed Diabetics	Known Diabetics	Potential Diabetics	Diagnosis Not Determined**	Negative
State Employees	5,062	473	5	1	2	0	2	0
General Public & Industries	102,447	7,649	85	33	18	8	12	14
Totals	107,509	8,122	90	34	20	8	14	14

* These figures include only those Dreypacks returned to State Laboratory for testing.

** Diagnosis not determined because of lack of patient and/or physician cooperation.

Table 3.
RESULTS OF URISTIX TESTING—MERCER COUNTY
Fiscal Year 1959-1960

	Number Tested	Positive Reactors	Newly Diagnosed Diabetics	Known Diabetics	Potential Diabetics	Negative	Follow-up Incomplete
Mercer County Visiting Nurse Associations	931	13	3	2	1	6	1

DEPARTMENT OF HEALTH

Table 4.
RESULTS OF BLOOD SCREENING
Fiscal Year 1959-1960

	Number Tested	Positive Reactors	Newly Diagnosed Diabetics	Known Diabetics	Potential Diabetics	Diagnosis Not Determined*	Negative	Follow-up Incomplete
INDUSTRIES								
Stacy Laundry	29	1	0	0	0	1	0	0
Trenton Folding Box	72	0	0	0	0	0	0	0
Heinz Co., Salem	189	0	0	0	0	0	0	0
Blakely Laundry	126	1	0	0	1	0	0	0
Morgan Bros. Laundry	53	0	0	0	0	0	0	0
STATE EMPLOYEES								
Trenton Area	1,320	4	3	0	0	0	1	0
Newark Area	1,881	74	9	14	0	3	30	18
GENERAL PUBLIC								
MCOSS Hobby Show	101	3	1	2	0	0	0	0
Lit Brothers Store	121	5	0	5	0	0	0	0
HOSPITALS								
Middlesex General	3,876	36	11	13	2	3	1	6
Totals	7,768	124	24	34	3	7	32	24

* Diagnosis not determined because of lack of patient and/or physician cooperation.

Diseases of the Nervous System and Special Senses

Chronic diseases of the nervous system include disorders ranging from strokes, New Jersey's third leading cause of death, to epilepsy, which numbers over 50,000 victims in our state. Intensive research has so far failed to reveal means of preventing most chronic disorders of the nervous system, but their early diagnosis followed by prompt and adequate treatment can greatly reduce the debility and dependency which are their common accompaniments. It is recognized that social and emotional aspects of nervous system diseases are often as devastating as their physical limitations.

Neurological Disorders

Program Activities

Electroencephalograph machines placed by this Program in 17 hospitals throughout the state, continue to assist in early and accurate diagnosis of chronic neurologic disorders. A total of 4,749 examinations on 4,663 patients was reported in 1959, an increase of 17 percent over 1958. The clinical classification of patients studied, and the results of interpretation of records, are as follows:

Table 1.

CLINICAL DIAGNOSIS OF PERSONS WHO HAD
ELECTROENCEPHALOGRAPH EXAMINATIONS

	Number	Percent
Conclusive Disorder	1,959	42
Trauma	335	7
Tumor	177	3
Cerebrovascular Disorder	211	4
Other Neurological Disorders	907	19
No Neurological Disorder	1,074	23
Total	4,663	

Table 2.

INTERPRETATION OF ELECTROENCEPHALOGRAPH EXAMINATIONS

	Number	Percent
Normal	2,351	
Abnormal	2,377	58
Focal	644	
Diffuse	880	
Compatible with Convulsive Disorder	1,296	31
Other	387	
Total	4,749	

The Convulsive Disorder Consultation Service continued as a user of the above electroencephalograph facilities in 8 community hospitals, 235 persons being served. This Service evaluated 361 persons in 48 clinic sessions held in 6 community hospitals. By this means, intensive in-service training in convulsive disorders is made available to District nursing staff and state supervised public health nurses. The Public Health Nurse Supervisors assist local nurses with follow-up of patients seen in these clinics.

As a result of cooperative planning with the Convulsive Disorder Consultation Service, the *Division of Motor Vehicles* has adopted a procedure planned by this Program for the issuance of motor vehicle licenses to persons with well-controlled convulsive disorders, after an appropriate investigation and medical evaluation, administered by the Motor Vehicle Division. This has resulted in licensure of 14 of 21 applicants with seizures in the second half of fiscal year 1959, the denial of 2, while 5 cases are pending.

The Division of Vital Statistics has submitted to this Program the names of 60 persons reported to the State Department of Health during 1959 as epilepsy. Epilepsy has been a reportable disease in New Jersey since 1911, when it was made mandatory to report to the Department of Health all cases of mental deficiency and epilepsy.

The "Continuation of Care" program of the Comprehensive Rehabilitation Service established at the Hospital Center at Orange in 1958, with assistance from this Division, served 28 patients with chronic neurologic disorders in calendar 1959 with a program designed to continue restorative services in the home. The clinical classification of these patients is as follows:

Poliomyelitis	6
Multiple Sclerosis	8
Parkinsonism	2
Traumatic	6
Infectuous	3
Spina bifida	1
Metabolic	2
	—
Total	28

Future Trends

While awaiting advances in knowledge regarding prevention and management of the chronic neurologic disorders, much can be done now to enhance and expand existing services. Continuance of a program of education through symposia on electroencephalography will be supplemented by conferences on neurologic subjects. A State Directory of Services for Epileptics is planned for the use of all those dealing with the management of persons with this dis-

order. Extension of rehabilitation services for the neurologically disabled is a continuing goal.

Glaucoma

As a cause of progressive visual disability, glaucoma ranks second only to cataracts. Recent investigations have indicated that about 2 percent of the population over the age of 40 have glaucoma. Upon this basis, it can be estimated that in New Jersey 30,000 individuals have glaucoma, with an even greater prevalence expected in the older age group.

Blindness from glaucoma is preventable if the condition is discovered in its early stages and prompt treatment is instituted. Since the primary cause of glaucoma is not known, finding individuals with unsuspected glaucoma and bringing them to treatment is imperative if we are to prevent complete sight loss. Screening for glaucoma has been established as a valuable method of discovering this insidious condition before the person has any noticeable signs of eye trouble.

This Division has encouraged and supported programs for the early detection and treatment of glaucoma at the Medical Center, Jersey City; and at Newcomb Hospital, Vineland. A program of community screening and research is being conducted at the Newark Eye and Ear Infirmary Unit of the United Hospitals of Newark with assistance from this Division through a grant-in-aid and loan of scientific equipment.

During this year, the Department of Visual Rehabilitation of the Newark Eye and Ear Infirmary rendered services to 133 in-patients. Out-patient visits numbered 1,860. An analysis follows: Visual fields 163; low vision 50; tonography 167; glaucoma 927; orthoptic evaluation 211; orthoptic therapy 342. The 927 glaucoma visits were medical therapeutic sessions involving approximately 175 individuals.

In addition, an eye testing program was conducted at the Essex County Health Fair where 800 individuals were screened. Those participants who failed the test were referred to their family physician or ophthalmologist.

Hearing and Speech

It has been conservatively estimated that 3,000,000 children in this country have hearing problems. About 2 percent of them have a loss sufficient to warrant special medical care and educational help and about 30,000 have such a serious degree of hearing loss to be classified as deaf. Among the adult population, 12 million individuals are believed to have hearing impairments varying from slight to total. Early and accurate diagnosis of these disorders may result in therapeutic measures consistent with improvement of hearing

capacity, maximal use of residual hearing, and alleviation of emotional and socio-economic problems.

Continued assistance and guidance have been provided by this Division to promote and develop integrated facilities for the diagnosis and rehabilitation of individuals with hearing and speech problems. In order to demonstrate the importance of integrated services, comprehensive hearing and speech centers have been established in the following hospitals: Bergen Pines County Hospital, Paramus; Hunterdon Medical Center, Flemington; Newark Eye and Ear Infirmary; and St. Francis Hospital, Trenton. The Atlantic City Center will soon be reactivated at the Children's Seashore House. In addition, interest in the establishment of such facilities has developed at Cooper Hospital, Camden, and Warren Hospital, Phillipsburg, and it is anticipated that services will soon be available to residents of those areas.

These hearing and speech centers demonstrate the importance of an adequate otolaryngological examination and paramedical team evaluation of the total needs of the patient in a community hospital setting.

The following is a summary of the services rendered at the Hearing and Speech Centers:

Table 3.

SERVICES AT HEARING AND SPEECH CENTERS

	<i>New Patients</i>	<i>Patient Visits</i>	<i>Referred for Further Medical Consultation</i>
Hunterdon Medical Center	243	1,910	22
Newark Eye and Ear Infirmary	940	2,868	374
St. Francis Hospital	377	2,429	37

A speech screening program for school children was carried on in 6 schools of Hunterdon County. As a follow-up, a speech program was outlined for those children with speech difficulties to determine the possible relationship of hearing loss and speech problems.

Hearing screening tests were administered to 1,600 individuals at the Essex County Health Fair through the auspices of Hearing and Speech Center of the Newark Eye and Ear Infirmary. Those individuals who failed the test were referred to their family physician or otolaryngologist.

Heart and Circulatory Disease Program

Morbidity and Mortality Aspects

Deaths due to diseases of the heart and circulatory system account for the major portion of all deaths in the state.

DEATHS IN NEW JERSEY 1958

From all causes	57,552
From diseases of the circulatory system	27,080
From vascular lesions affecting the central nervous system	5,378
From congenital malformations of the circulatory system	324
Total deaths from heart and circulatory diseases	32,782

These causes represent 58.7 percent of all deaths.

New Jersey ranks among the highest of all states in deaths from heart disease.

Heart and circulatory diseases account for more than 65 percent of all chronic illnesses. Two of every 3 chronically ill patients have some heart or circulatory difficulty either as a primary or contributory condition.

Heart disease kills more men in their most productive period than any other disease. Of the total deaths from diseases of the circulatory system, the largest majority, approximately 22,000, are caused by arteriosclerotic heart disease. It is estimated that there are at least 4 to 5 times as many annual cases of heart attacks as deaths.

One in 6 patients in chronic disease institutions suffers residual effects of a paralytic stroke.

Patients with chronic heart and circulatory disease disabilities require extensive care in rehabilitation procedures. The cost for such procedures is high and causes economic hardship in many families or is a high financial burden on local and state health, welfare, and educational organizations.

New concepts of prevention and treatment appear to make this a disease preventable in part or in whole or can defer the age of onset.

Administrative Aspects

The staff consists of a full-time Program Coordinator physician, 2 part-time physicians, and a full-time public health nurse consultant specially trained in cardiology.

Roughly one-third of the budget was spent for direct Program costs including educational, medical and non-medical material. The remaining two-thirds was given as grants-in-aid to New Jersey hospitals to help finance the following:

- Facilities for diagnosis and treatment of heart disease.
- Research projects in the prevention of coronary heart disease.
- Advancement in newer techniques of diagnosis and therapeutics in cardiovascular disease.

Highlights of Program Activities

An Anti-Coronary Club was planned and initiated in a community hospital. Its purpose is to determine if lowered fat diets will help prevent attacks of coronary heart disease (heart attacks). The Club consists of a group of men 20 years through 50 years of age who have experienced heart attacks. Dietary analysis of their food habits, together with detailed medical and laboratory analysis, have begun on the present group of 75 patients. Eventually, this group will consist of 150 to 200 men who will be followed for 5 years.

The project's head is one of the hospital staff's part-time physicians. Other personnel consists of a part-time physician, a full-time dietitian, a part-time nutrition consultant, and a full-time administrative clerk.

Preliminary findings indicate the following:

- a. Fifty percent of the men in the study were overweight. Weight reduction to ideal weight was accomplished in most cases.
- b. Slight modification of the average man's eating habits results in substantial, significant reductions in blood cholesterol levels.
- c. These changes in dietary habits accomplished and maintained through continuous supervision of the patient by frequent conferences and analysis of his eating pattern.

The Program aided in the strengthening of a number of hospital centers for the accurate diagnosis and treatment of congenital heart defects. These centers have stimulated physicians to provide earlier and more accurate diagnosis of congenital heart conditions. The number of cases treated surgically in New Jersey is increasing yearly.

Assistance was provided to 5 hospitals in a total amount of \$36,600 to help finance in part or in total, cardiac physiologists (2 of these being physicians specially trained and interested in research) and biochemists. Because of the change from hopelessness to hopefulness in the treatment of congenital heart disease, the number of cases for referral to these centers for accurate diagnostic evaluation has markedly increased in the past year.

The Crippled Children Program of the State Department of Health provided assistance to finance a limited number of cases requiring cardiac surgery for whom other financial arrangements could not be made. This portion of the Program is expected to be expanded in the coming year.

A real solid beginning was made into prevention of the crippling after-effects of stroke patients by the following:

- a. Advocating the concept of the continuity of care as a physician, hospital, and community responsibility.

- b. Promoting the training of physicians and public health nurses in the early treatment of stroke patients.
- c. Promoting more rehabilitative and restorative services for the stroke patient.

In connection with the excellent booklet, "Strike Back at Stroke," approximately 2,000 (as in addition to the 6,000 previously supplied) copies were distributed to physicians, hospitals, clinic nurses, public health nursing organizations, physiotherapists, and to non-medical personnel.

Demonstration projects at a number of chronic illness institutions were initiated and maintained in which the value of rehabilitation training was demonstrated with particular emphasis on the eventual saving to the health and welfare organizations in the decrease of hospitalization time and thereby hospitalization costs required.

The post-graduate education of physicians continued. Post-graduate courses were financed in conjunction with a Newark hospital in cardiology, the courses including refresher and advanced electrocardiographic diagnosis, phonocardiographic diagnosis and in some of the newer diagnostic techniques and treatment of heart diseases.

The nursing consultant continued the established pattern of working with the county chapters of the New Jersey Heart Association in establishing program meetings for nurses. More than 1,000 nurses participated in these discussion meetings held throughout the state in cooperation with the District offices. The personnel of the Program participated in committee activities of the New Jersey Heart Association.

Plans for the Coming Year

- a. To conduct a study with the New Jersey Heart Association to determine how many rheumatic fever patients there are in a test area and if all of these patients are taking prophylaxis (oral penicillin) regularly to prevent further attacks of rheumatic fever which cause crippling heart disease and earlier deaths.
- b. To show through a New Jersey hospital study if the devastating after-effects of stroke in patients can be prevented by the coordinated efforts of a hospital staff (physicians, nurses, physiotherapists, and medical social workers) and the services of a local visiting nurse association.
- c. To demonstrate the effectiveness of a new laboratory procedure (the fluorescent antibody technique) as a tool in the early diagnosis and antibiotic treatment of streptococcal infections.

d. To increase the scope of the Anti-Coronary Club Project. The services of the nutrition staff of the project will be made available to practicing physicians for the dietary evaluation of referred patients.

e. To promote the concept of the proper early treatment of the coronary-prone, high-risk individuals as a preventive measure against coronary heart disease, through education of medical and non-medical personnel.

f. To plan an anti-obesity campaign on a county-wide basis in cooperation with the Nutrition Section of the Division of Special Consultation Services to demonstrate the most effective methods of approach.

g. To plan and conduct a series of workshops for physicians, nurses, hospital administrators, medical social workers and other interested personnel on the continuity of care of the stroke and congestive heart failure patient.

h. To conclude a study of the nursing services to patients with heart disease. In 3 voluntary public health nursing agencies of Essex County, staff nurses are recording information of the services concerning 450 patients. It is anticipated that analysis of the data obtained will provide much needed information of the needs of home nursing care and the methods of approach.

Homemaker Services

The rising incidence of chronic illness along with increasing life span, as well as other trends in present-day living, have created an increasing need for various kinds of help in the home. Homemaker service has demonstrated its value as one of the important basic resources for preserving and strengthening family life, whether it is primarily focused on serving children, the aged, the chronically ill, the physically handicapped or the emotionally disturbed.

Homemakers are women who, after a short period of training, are available for hire on an hourly basis in households which have a problem resulting from illness or other disruptive condition.

Four new homemaker services, Burlington County, Cape May County, Hudson County, and Ocean City, began operation during the past year. This brings the total of functioning Homemaker Services in the state to 16, serving the needs of 14 counties and making these services available to more than three-quarters of the population.

Grant-in-aid assistance was provided to 9 of these services to demonstrate the importance of a full-time, qualified director. The other 7 services were supported entirely by local agencies.

The 16 services, as listed below, provided 239,273 hours of service to 3,614 families:

Atlantic County Homemaker Service, Inc., Ventnor.
Chr-Ill Homemaker Service, East Orange.
Homemaker Service of Monmouth County, Long Branch.
Homemaker Service of Somerset County, Inc., Somerville.
Jersey Cape Homemaker Service, Inc., Cape May Court House.
Passaic County Homemaker Service, Inc., Paterson.
Princeton Community Homemaker Service, Princeton.
SAGE Visiting Homemaker Service, Summit.
Visiting Homemaker Service of Bergen County, Inc., Englewood.
Visiting Homemaker Service of Burlington County, Inc., Mount Holly.
Visiting Homemaker Service of Ocean City, Ocean City.
Visiting Homemaker Service of Hudson County, Inc., Jersey City.
Visiting Homemaker Service of Hunterdon County, Inc., Flemington.
Visiting Homemaker Service of Middlesex County, Inc., New Brunswick.
Visiting Homemaker Service of Morris County, Morristown.
Visiting Homemaker Service of Central Union County, Cranford.

The Training Course for Homemakers, conducted by Rutgers University Extension Division and subsidized by this Division, was given 13 times and was attended by 260 Homemakers. More than 900 women have participated in these courses since they were initiated 6 years ago.

The motion picture entitled "Home Again" which was initiated by this Division and made by the Mental Health Film Board, in cooperation with other agencies, was shown 88 times during this year.

In order to coordinate facilities, stimulate local interest, and maintain standards of service, the Visiting Homemaker Association of New Jersey, Inc., was organized and incorporated as a non-profit organization during this fiscal year. This Association will replace and take over the work formerly carried on by the State Consultant Committee on Visiting Homemaker Service. The Association is actively recruiting for the services of an executive director whose salary will be provided by this Division on a grant-in-aid basis.

Nutrition in Institutions

The Dietary Consultation Service which has been provided to community hospitals, nursing homes, homes for the aged, and county units since 1957 was continued through March of this year. This project was carried on through the New Jersey Hospital Association with grant-in-aid assistance from this Division for the salary of a well-trained nutritionist experienced in hospital problems. The nutritionist visited 48 hospitals, ranging in size from 26 to 622 beds, and 24 other institutions including homes for the aged, county geriatric units, and nursing homes. A written report was prepared and pre-

sented to the administrator of each institution outlining existing conditions and listing specific suggestions for improving the food service to patients.

Restorative Services and Home Care

The problem of rehabilitating the long-term patient is one of tremendous magnitude. Mere prolongation of life is an empty achievement unless the sick and the handicapped are helped to regain the maximum level of physical, economic, social, and emotional self-sufficiency. Unless adequate maintenance rehabilitation is continued, the danger that a partially disabled person will deteriorate eventually to a state of total dependency is real.

In order to demonstrate that comprehensive restorative services programs are reasonable investments calculated to offset the greater cost of chronic dependency and progressive degeneration of human resources, support of such programs has been continued in several community hospitals. Grants-in-aid for the salaries of paramedical personnel have been provided to the following hospitals during this year: Donnelly Memorial Hospital, Trenton; Essex County Hospital, Belleville; Hospital Center at Orange; St. Michael's Hospital, Newark; and Somerset Hospital, Somerville.

In addition, equipment has been purchased for loan to Hunterdon Medical Center, Flemington; Middlesex Rehabilitation and Polio Hospital, New Brunswick; and West Jersey Hospital, Camden, to implement or expand comprehensive restorative services programs in these institutions.

Tangible results have been achieved in the Restorative Services Program at Donnelly Memorial Hospital which began operation in August, 1959. Since that time, 29 patients who had been considered permanent residents of the hospital have been returned to community living. This has been accomplished through the cooperative efforts of the staff, relatives, interested individuals and community agencies.

The Hospital Center at Orange has extended its Program to include Home Care services, thus providing a continuum of service, essential to adequate patient care. Consultation has been given to the program by this Division and by the District office, both on the planning level and in the actual operations. During the calendar year 1959, 140 patients were referred to this Program with the following diagnosis: Arthritis 33; blindness 1; cardiovascular 59; fractures 14; neurological 28; primary muscle disorders 3; and miscellaneous 2. Of these, 111 patients have been discharged with the following goals attained: Full ambulation 12; partial ambulation 42; self-care 12; maintenance 43.

Through the efforts of the District Consultant, Medical Social Rehabilitation, interest in the development of Home Care Programs has been stimulated in 3 hospitals in Essex, Hudson, and Union Counties. Establishment of such Programs offers a promising solution to the shortage of hospital beds and the increasing congestion of hospital facilities.

Continued support through grant-in-aid assistance has been provided for the services of a medical social worker to demonstrate the value of casework services in problems of a personal or environmental which interfere with obtaining the maximum benefits from medical care. Five hospitals, Donnelly Memorial, Trenton; Helene Fuld Hospital, Trenton; Hospital Center at Orange; St. Michael's Hospital, Newark; and West Jersey Hospital, Camden, report a total of 1,392 patients receiving casework services during the year. This involved more than 6,166 casework interviews.

Screening in Hospitals

Detection of incipient chronic disease is a basic preventive measure to arrest the progress of the disease and frequently avert disabling sequelae. Screening programs, utilizing simple, inexpensive tests for the early detection of many chronic diseases, have proved to be a relatively rapid and effective method of presumptively identifying major chronic impairments.

This Division has participated in screening programs through the loan of chest x-ray equipment to 10 community hospitals and, in 1 instance, with a grant-in-aid for technical personnel. Among 37,478 persons x-rayed, as reported by 15 hospitals, 13 percent had presumptive positive findings as follows:

Cardiovascular disease	41 percent
Tuberculosis	6 percent
Tumor	6 percent
Other pulmonary	47 percent

Hunterdon Medical Center continues to assume a greater share of the demonstration multiple screening program. Of 2,410 persons screened, presumptive abnormalities were recorded from the following tests:

Chest x-ray	170
EKG	70
Blood pressure	300
Diabetes	60
Hematocrit	440

State Employees Health Program

Screening tests for diabetes were made available to state employees again this year. This program is carried on by this Division in cooperation with the State Personnel Council.

Three thousand two hundred and one employees participated in the blood testing program, of whom 78 were positive reactors. Dreybaks were returned by 473 individuals of whom 5 were positive reactors. Details of this screening program are included in the diabetes section of this report.

Looking Ahead

Health agencies in their never-ending effort to devise and apply effective methods of preventive medicine have grown concerned with the overall health problems of a community of individuals. Emphasis should be placed on the health problems of the community as a single entity rather than a composite of different individuals in various stages of health. Methods of prevention, therapy and rehabilitation may be effectively applied within the community only through a skillful integration and administration of all the health resources. Ideally, the optimum physical, mental, social efficiency and well-being of each individual, young or old, rich or poor, may be reached through a comprehensive health service.

The activities of the Division of Chronic Illness Control, traditionally concerned with demonstration case-finding, coordination, and consultation, will also be directed to improve and integrate the health resources of the community so that every service for the "prevention, early detection and control of chronic illness and the rehabilitation of the chronic sick" may be available to every member of the community without unnecessary duplication of effort and greater economic burden.

Division of Constructive Health

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

Programs:

Crippled Children Program	CURTIS F. CULP, M.D., M.S. <i>Program Coordinator</i>
Dental Health Program	DAVID R. WALLACE, D.D.S., M.P.H. <i>Program Coordinator</i>
Maternal and Child Health Program	RENEE ZINDWER, M.D., M.P.H. <i>Program Coordinator</i>

Division of Constructive Health

Introductory Statement

The Programs of the Division of Constructive Health, in their objectives, share the basic concept of prevention, early diagnosis, and the provision of rehabilitative services for such handicapping conditions as may be corrected or alleviated.

In attempting to fulfill this mission, it has been closely coordinated, but that there must be combined effort on the part of all governmental, private, philanthropic, and professional groups throughout the state in attempting to meet the needs of those requiring such services. This, it is believed, is reflected in each of the following Program annual reports.

Crippled Children Program

General Statement

The objective of the Crippled Children Program is to provide, at the time needed, recommended medical rehabilitation services to the physically handicapped whose disabilities may be corrected or alleviated. Maximum accomplishment of such an objective is attained by major emphasis being placed on cooperation with state, county, and municipal representatives of hospitals, rehabilitation facilities, private, philanthropic, and professional groups.

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 18,911 children registered with the Program at the end of the year. A breakdown of this number is reflected in the following table:

Table 1.

CRIPPLED CHILDREN ON STATE REGISTER, CALENDAR YEAR 1959

On Register as of January 1, 1959	18,968
Placed on Register during calendar year	1,940
	20,908
Removed from Register for specified reasons	1,997
Reached age of 21	615
Dead	125
Cured	285
Residence established in another state	229
Ineligible for service	349
Registration in error	18
Maximum recovery	375
Other reasons	1
On Register at end of year December 31, 1959	18,911

In the form of supportive services, the Program participated in the following activities:

Cerebral Palsy Consultation Diagnostic and Follow-up Clinics

The Program participated in 37 diagnostic and follow-up clinics. These were open to all children in the state referred by physicians desiring such services. Clinics were held in Newton, Jersey City, Camden, Trenton, and Long Branch.

This service was provided through the services of 6 physicians specially trained in the field of cerebral palsy.

In addition, there were 4 state-sponsored consultation clinics for follow-up study of such cases. These clinics were held in each of the 4 State Health Districts.

Hospitalization and Convalescent Care

The Program assisted in underwriting 16,084 hospital bed days for 449 children, and 22,502 convalescent bed days for 137 children. The total expenditure for these services was \$434,723.97, reflecting an increase in cost over the previous year of 9.7 percent.

Of this amount, state and federal contributions were \$228,205.39; contributions by the county boards of chosen freeholders were \$167,766.62; and contributions on behalf of parents, private, and philanthropic agencies were \$38,751.96.

Prosthetic Devices, Bracing, and Appliances

Such services were provided for 497 children through the purchase of 1,121 such appliances at a total cost of \$86,516.62. State and federal contributions amounted to \$40,223.30 and contributions by the county boards of chosen freeholders \$34,824.58. Contributions by parents, private and philanthropic agencies amounted to \$11,468.74.

Nursing Services

Nursing services are provided under the Program by:

1. Local public health nurses under the supervision of State Public Health Nurse Supervisors.
2. Nurses provided by private and official agencies having a cooperative arrangement with the Program.
3. Contract agreements with the Program on the part of 37 local private nursing agencies.

During the year, those agencies having contracts with the Program made a total of 9,065 nursing visits to crippled children registered with the Program at a total cost of \$27,195. Reimbursement for the cost of this service was made entirely on the part of the Crippled Children Program.

In addition, the Program provided consultative services to all nursing agencies working with the Program through its Nurse Consultant.

Psychological Services

Direct psychological consultation services were provided 51 handicapped children. In addition, 15 counseling sessions were held with parents of handicapped children. These latter sessions were planned to assist the parents so that their children might become socially more competent. Many of these sessions were so arranged so that in addition to parent participation, educators and psychologists could also be present and might be helped in developing their skills as counselors.

The Program Psychologist participated in 50 conferences, lectures, and demonstrations to various local groups within the state on diagnostic problems in the field of psychology.

Special Projects*Cleft Palate Evaluations*

Through use of the team approach to rehabilitation of the total individual, the Program continued its assistance in the pre and post-operative evaluation of cleft palate and selected dental facial deformities.

Financial support was granted to 71 such cases through the Center of Reconstructive Surgery at St. Barnabas Hospital in Newark, and the Department of Plastic Surgery at Cooper Hospital in Camden.

In support of this team approach, the Program also assisted in providing 778 speech therapy sessions for 46 children through the Cooper Hospital Center.

Cardiac Surgery

The Program is participating in the provision of diagnostic evaluation and necessary follow-up cardiac surgical procedures for children having congenital malformations of the circulatory system in 3 hospitals in the state. They are Orange Memorial Hospital, Orange; West Jersey Hospital, Camden; and St. Michael's Hospital, Newark. Reimbursement for the cost of these services amounts to \$23,550. and is underwritten entirely on the part of the Crippled Children Program.

Physical Therapy

In support of the total rehabilitation service being afforded the handicapped children of Mercer County at Donnelly Memorial Hospital, Trenton, the Program has provided the services of a physical therapist in this facility.

Similarly, the Program has assisted in providing similar services through the rehabilitation facilities of the Warren Hospital, Phillipsburg. As a result of this project, 155 children had 3,198 physical therapy treatments.

Education and Training

The Program sponsored 1 physician from Somerset County in attending an intensive course in Neuro-muscular Diseases of Children with Special Emphasis on Cerebral Palsy at the Cook County Graduate School of Medicine in Chicago.

DIVISION OF CONSTRUCTIVE HEALTH

Table 2.

CASE NUMBER AND PAYMENT OF HOSPITAL, CONVALESCENT HOME AND APPLIANCE SERVICES FOR CALENDAR YEAR 1959

<i>Hospital Convalescent Care</i> —Total Number of Children		586
Total Bed Days		38,586
<i>In-Patient</i>		
Number of children receiving hospital services		449
Number of bed days		16,084
<i>Convalescent Home</i>		
Number of children receiving convalescent services		137
Number of bed days		22,502
<i>Payment of Bed Day (Hospital and Convalescent Home) Total</i>		
State and Federal Funds	\$228,205.39	\$434,723.97
County Boards of Chosen Freeholders	167,766.62	
Total payments from tax sources	\$395,972.01	
<i>Private Contributions</i>		
Local Chapters of Polio Foundations	\$16,337.24	
Parents	14,718.92	
Elks Lodges	1,458.00	
Insurance	6,237.80	
Total Contributions		\$38,751.96
<i>Appliances</i> —Total Number of Children		
Total Number Purchased	497	
Total Payments	1,121	
State and Federal Funds	\$40,223.30	\$86,516.62
County Boards of Chosen Freeholders	34,824.58	
Total payments from tax sources		\$75,047.88
<i>Private Contributions</i>		
Parents	\$5,716.20	
Local Chapters of Polio Foundations	3,633.31	
Elks Lodges	1,992.56	
Miscellaneous	126.67	
Total payments from private sources		\$11,468.74

DEPARTMENT OF HEALTH

Table 3.

CALENDAR YEAR 1959

Section I—Children Who Received Clinic, Hospital and Convalescent Services, and the Number of Services:

<i>Services</i>	<i>Number Children</i>	<i>Number of Visits or Days</i>
Clinic	6,376	13,659 Visits
Hospital	449	17,786 Days
Convalescent	137	21,854 Days
Duplicated Count of Children and Services	6,962	53,299 Units
Unduplicated Count of Children	6,949	

Section II—County Residence of Children Receiving Clinic, Hospital and Convalescent Services.

Total Number of Children 6,949

<i>County</i>	<i>Number of Children</i>	<i>County</i>	<i>Number of Children</i>
Atlantic	28	Middlesex	508
Bergen	852	Monmouth	561
Burlington	156	Morris	300
Camden	444	Ocean	35
Cape May	12	Passaic	86
Cumberland	18	Salem	20
Essex	1,702	Somerset	202
Gloucester	78	Sussex	23
Hudson	615	Union	760
Hunterdon	47	Warren	53
Mercer	446	Military	3

Section III—Distribution of Children (New and Old Cases) Receiving Clinic, Hospital and Convalescent Services by Number, Race, and Age.

	<i>Number Children</i>	<i>Age in Years</i>				
		<i>Under 1</i>	<i>1-4</i>	<i>5-14</i>	<i>15-20</i>	<i>Unknown</i>
Total	6,949	338	1,818	3,573	1,220	..
Race						
White	5,781	270	1,390	3,036	1,085	..
Other	1,161	68	424	534	135	..
Unknown	7	2	2	3	..	..
Number who received physician's services for the first time	1,596	338	587	539	132	..
Number who had received physician's services in previous years	5,353		1,231	3,034	1,088	..

DIVISION OF CONSTRUCTIVE HEALTH

61

Section IV—Distribution of Children Receiving Clinic, Hospital and Convalescent Services by Diagnosis Group, Sex and Age.

Report Group Code No.	Diagnosis Group	Total	Sex		Age in Years				
			Male	Female	Under 1	1-4	5-14	15-20	Unknown
Total		6,949	3,842	3,107	340	1,816	3,573	1,171	49
0130	Late effects of tuberculosis of bones and joints	34	16	18	...	3	15	15	1
0199	Other tuberculosis, except respiratory	1	1	...	...	...	1	...	...
0809	Poliomyelitis, acute	10	6	4	...	...	3	7	...
0818	Late effects of acute poliomyelitis	1,012	605	407	1	57	633	312	9
2830	Rickets, active	1	1	...	...	...	1	...	...
2840	Late effects of rickets	14	5	9	...	7	4	3	...
3510	Cerebral palsy	1,523	839	684	4	298	944	261	16
3530	Epilepsy	1	...	1	...	...	...	1	...
3590	Other diseases of the nervous system and sense organs, except eye, ear, and mental disorders	33	18	15	1	8	18	6	...
3809	Other diseases of the eye, except congenital or diabetic cataract	1	...	1	...	...	...	1	...
3999	Other diseases and conditions of the ear and mastoid process	6	4	2	...	...	4	...	2
4090	Rheumatic fever, acute	90	44	46	...	3	61	25	1
4100	Chronic rheumatic heart disease	14	6	8	...	...	5	9	...
4300	Other diseases of the heart, except congenital malformations	10	6	4	...	...	5	4	1
7200	Arthritis and rheumatism, except rheumatic fever	27	14	13	...	2	13	12	...
7309	Osteomyelitis and periostitis, except tuberculous	38	27	11	...	7	19	10	2

DEPARTMENT OF HEALTH

Report Group Code No.	Diagnosis Group	Sex			Age in Years				
		Total	Male	Female	Under 1	1-4	5-14	15-20	Unknown
7459	Curvature of spine, except congenital or late effect of polio- myelitis or tubercu- losis	129	33	96	...	2	65	61	1
7499	Other diseases of the bones and organs of movement, except congenital malfor- mations	399	275	124	2	45	257	91	4
7510	Spina bifida and men- ingocele	201	97	104	29	44	96	32	...
7530	Congenital malforma- tions of the circula- tory system	143	66	77	15	48	68	10	2
7540	Cleft palate and hare- lip	612	340	272	56	206	295	55	...
7571	Congenital dislocation of hip	178	50	128	9	77	74	18	...
7584	Clubfoot, congenital or unspecified	1,054	588	466	138	467	399	49	1
7585	Flatfoot, congenital ..	23	17	6	1	6	12	4	...
7599	Other congenital mal- formations	1,072	605	467	79	477	421	91	4
7609	Injuries at birth, in- tracranial and spinal, except cerebral palsy and epilepsy	6	2	4	1	3	2	...	...
7619	Other injuries at birth, except cerebral palsy and epilepsy	100	55	45	2	31	43	23	1
9400	Burns	68	32	36	1	12	41	14	...
9980	Other morbid condi- tions due to acci- dents, poisonings, and violence	97	63	34	...	3	47	43	4
9991	Other diagnosed dis- eases, injuries, or handicapping condi- tions, except provi- sional or deferred diagnoses	52	27	25	1	10	27	14	...

Dental Health Program

Introduction

The Dental Health Program fosters well rounded dental health programs in all communities. Local dentists, nurses, and educators and other interested persons are being enlisted in the effort. In some areas, good dental health programs have been in existence for many years. These need occasional re-examination to see if they are getting the job done in light of the changing complexion of the communities. In other communities, the efforts still are not meeting the goals. These efforts need strengthening to more nearly meet the needs.

The Dental Health Program has assisted some counties in surveying existing programs. When each survey is completed, the programs are adapted to current needs. Surveys will be continued until all dental health programs have been re-evaluated.

The continuing activities of the State Dental Health Program may be classed under the headings of treatment, education, prevention, and research.

Treatment

Nineteen counties in New Jersey have active treatment programs associated with the State Health Department. These programs are held in 59 private dental offices, 12 clinics, 4 mobile clinics, and 3 trailers. In each facility, good dental service can be offered.

In Table 1, it will be noticed that in some counties the service is rather meager while in others it is adequate.

The District Dental Health Supervisors provide supervision to the program personnel on the local level, and consultation and advisory services in community dental health planning, primarily through liaison with county dental health committees and county boards of freeholders.

Education

Dental health education is carried on through the medium of the public schools, the parochial schools and the 2 dental schools, Seton Hall University and Fairleigh Dickinson University.

Programs in the school systems are conducted through the cooperation of local dental societies. The Dental Health Program maintains a constant liaison with the societies through the Council on Dental Health of the New Jersey State Dental Society.

Films, posters, and pamphlets in dental health are made available to people who wish to conduct dental health education programs.

During the past year, a program was initiated in 2 counties in which children who were to enter school in September, 1960 were given a dental inspection by a dentist and advised on matters of home dental care. It was the feeling that by receiving a dental inspection the necessary dental care would be taken care of before the child enters school. (Table 2.)

Post-graduate educational programs were conducted by the Dental Health Program in New Jersey Dental Schools in the fields of "Dentistry for the Handicapped," "Preventive Orthodontics," "Special Techniques in the Prevention of Malocclusion," "Dental Health Education and Preventive Dentistry," and "A Cleft Palate Institute." All these courses were well attended.

Prevention

Adjustment of the fluoride level of all community water supplies to an optimum level of 1 part of fluoride per million parts of water is advocated and encouraged to reduce the amount of dental decay. Program personnel have participated in several community meetings on fluoridation of water supplies.

The Program works with the Fluoridation Sub-Committee of the State Dental Society in providing materials and information on fluoridation.

Application of topical fluoride directly to the teeth has been recommended by the Program for several years. This year a new technique was introduced, utilizing stannous fluoride, which improves the efficiency of topical applications since 1 treatment per year is required rather than a series of 4 treatments at specific intervals.

Emphasis at the universities was on preventive measures which the dentist can incorporate into community dental health education programs.

One method by which preventive techniques have been adapted to dental treatment is the fabrication of space maintenance appliances when premature removal of primary teeth is necessary. This is used for children to maintain the space needed during the eruption period of the permanent teeth, in order to prevent crowding and malocclusion.

Research

The Program made an analysis of dental programs in selected counties. Facilities for dental care were analyzed in relation to need.

Cooperation with Other Agencies

The Dental Health Program cooperates with the Crippled Children Program in providing a rehabilitation service for patients with cleft palate.

The Dental Health Program cooperated in providing a program for children of migrant laborers in New Jersey.

The Dental Health Program worked with the Cancer Program in an oral cytology study.

Liaison is maintained with the Dental Director in the Department of Institutions and Agencies.

Statistical Data

(See Tables 1, 2, 3, and 4 following.)

Table 1.
TREATMENT PROGRAM STATISTICAL DATA
July 1, 1959 to June 30, 1960

Programs by Counties and Communities	Program Initiated	Present Type of Program*	Dentists	School Districts	Total Operating Hours	Examinations	Visits	Total Operations	Children Treated	Cases Completed	Percentage of Cases Completed
Atlantic	1947	Mo. Cl.	1	5	620	503	1,170	3,425	162	152	94
Bergen	1943	P. O.	2	3	300	2,322	400	1,104	112	81	72
North Arlington	1940	Cl.	1	1	325	1,608	2,484	1,533	145	138	95
Rutherford	1945	Cl.	1	1	147	1,182	140	323	43	42	99
Burlington	1943	P. O.	4	10	252	1,263	556	1,293	230	121	53
City of Burlington	1943	Cl.	2	1	132	312	580	1,019	101	53	52
Camden	1943	Mo. Cl.	1	11	864	3,778	1,308	4,722	655	672	97
Lawnsdale	1944	P. O.	1	1	47	15	15	269	15	10	66
Cape May	1947	P. O.	6	10	322	336	519	1,975	162	70	43
Cumberland	1942	Tr.	1	14	828	832	1,221	1,341	786	273	35
Essex—Orange	1944	Cl.	2	1	530	186	983	2,550	184	153	83
Gloucester	1947	Mo. Cl.	1	11	722	4,306	623	2,683	602	546	90
Hunterdon	1940	Cl.	1	20	323	501	667	1,148	458	178	39
Middlesex	1942	P. O.	4	4	245	107	496	979	108	43	40
Kiddie Keep-Well Camp	1942	Tr.	1	1	232	366	727	1,027	281	97	35
South Brunswick	1945	Cl.	1	1	120	1,519	123	256	32	14	44
Monmouth	1941	P. O.	13	13	827	6,723	1,333	3,349	414	276	67
Matawan	1945	Cl.	3	3	281	1,231	890	879	136	62	45
Union Beach	1946	Cl.	1	1	158	329	1,278	521	92	28	30
Collier Foundation	1945	Cl.	1	1	48	49	108	117	49	8	16
Morris	1943	P. O.	17	27	1,042	568	1,896	4,150	564	378	67
Ocean	1944	P. O.	3	5	290	120	446	944	120	64	53
Trailer	1946	Tr.	3	10	754	297	1,383	4,188	304	188	62
Passaic—Bloomingdale	1944	Cl.	1	1	168	82	461	1,060	83	63	78
Salem	1935	Cl.	1	13	163	194	194	511	133	0	0
Somerset	1942	Tr.	7	12	395	5,237	1,532	2,380	348	284	82
Sussex	1942	P. O.	1	20	731	347	1,278	3,560	363	302	83
Union	1948	P. O.	1	1	67	406	91	217	13	11	85
Warren	1947	Mo. Cl.	1	14	1,001	957	1,588	4,087	312	186	60
Phillipsburg	1954	Cl.	2	1	480	.....	.....	.....	.....	.....	.....
TOTALS (19 Counties)			86	217	13,104	37,588	23,441	50,789	7,114	4,493	63

* Code for Type of Program: P. O.—Private Office; Cl.—Clinic; Mo. Cl.—Truck Mobile with complete equipment; Tr.—Trailer with dental equipment.

Table 2.

PILOT PRE-SCHOOL INSPECTION PROGRAM
1959—1960

<i>County</i>	<i>School District</i>	<i>Number Examined</i>	<i>Number Requiring Treatment</i>	<i>Percent Requiring Treatment</i>
GLOUCESTER	Clayton	76	36	47
	Deptford	217	105	48
	Deptford Township	172	98	57
	East Greenwich	55	26	47
	Elk Township	52	32	61
	Franklin Township	103	54	52
	Gibbstown	82	47	57
	Glassboro	221	55	25
	Logan	21	10	47
	Monroe	146	96	65
	Mullica Hill	31	17	55
	National Park	45	24	53
	Newfield	21	14	66
	Paulsboro	132	76	57
	Pitman	160	47	29
	So. Harrison Township	18	13	72
	Swedesboro	34	22	64
	Washington Township	73	48	65
	Wenonah	38	13	34
	West Deptford	152	79	52
Woodbury	69	22	32	
Woodbury Heights	29	11	38	
Totals	(22)	1,947	945	48

DEPARTMENT OF HEALTH

County	School District	Number Examined	Number Requiring Treatment	Percent Requiring Treatment
WARREN	Allamuchy	16	9	56
	Alpha	36	31	86
	Belvidere	33	23	70
	Blairstown	32	18	56
	Franklin Township	34	19	56
	Frelinghuysen Township	15	11	73
	Greenwich	21	10	48
	Hackettstown	64	34	53
	Harmony	36	26	72
	Hope	18	11	61
	Independence	35	27	77
	Knowlton	29	20	69
	Lopatcong	40	17	43
	Oxford	22	13	59
	Phillipsburg	66	38	58
	Pohatcong	54	26	48
	Washington Borough	108	61	56
	Washington Township	64	46	72
White Township	26	18	69	
Hackettstown—St. Mary's	37	20	54	
Totals	(20)	786	478	61

Table 3.
TREATMENT PROGRAM SUMMARY
July 1, 1950 to June 30, 1960

Year	Number of Dentists	School Districts	Number of Examinations	Number of Visits	Total Operations	Number of Children Treated	Percentage of Completed Cases
1950-51	107	189	29,627	29,142	61,319	7,869	70
1951-52	102	179	31,825	29,382	60,289	7,890	69
1952-53	98	173	25,534	22,627	48,015	6,874	64
1953-54	92	177	28,424	21,256	42,046	6,179	62
1954-55	102	199	34,021	22,591	50,849	6,422	62
1955-56	89	203	35,846	22,825	51,061	7,144	59
1956-57	84	213	36,348	24,347	51,981	7,018	54
1957-58	88	207	42,609	23,513	49,788	6,844	63
1958-59	89	217	36,155	24,812	51,499	7,359	61
1959-60	86	217	37,588	23,441	50,789	7,114	63

DIVISION OF CONSTRUCTIVE HEALTH

TYPES OF PROGRAM

1944-1955 Clinics, Private Offices, two Trailers and four Mobile Clinics.
 1955-1960 Clinics, Private Offices, three Trailers and four Mobile Clinics.

Table 4.
 FINANCIAL SUMMARY
 July 1, 1950 to June 30, 1960

Year	Federal and State		Local		Total		Status of Grant-In-Aid (Initiated 1954)
	Amount	%	Amount	%	Amount	%	
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	...
1955-56	101,713	54	88,296	46	190,009	100	\$1,500
1956-57	101,327	53	90,935	47	192,262	100	3,075
1957-58	97,339	52	91,153	48	188,492	100	4,650
1958-59	102,984	53	91,168	47	194,152	100	8,350
1959-60	126,547	58	90,497	42	217,044	100	33,345 34,239

Maternal and Child Health Program

Hospital Consultation Services

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

This service was initiated in December, 1955. It has been well received. Requests for additional consultation services are being received from hospitals consistently. By the end of the fiscal year 1959-1960, 90 percent of the hospitals and maternity homes, in which approximately 91 percent of the births in New Jersey occur, have been covered by the service. In addition, consultation visits were made to maternity homes which do not actually have a delivery service but provide prenatal care. Furthermore, a number of consultation visits were made to hospitals, upon request, regarding pediatric services.

Midwives

There were 72 licensed midwives registered to practice in the state compared with 94 in 1958; 12 midwives were active in 1959, in contrast to 17 in 1958. The total number of infants delivered was 27. These midwife deliveries represent .02 percent of the 126,173 births occurring in New Jersey during 1959. Midwife activities by the State Health Districts were as follows:

DEPARTMENT OF HEALTH

Table 1.
MIDWIVES AND DELIVERIES, 1959

<i>State Health District</i>	<i>Number of Active Midwives</i>	<i>Number of Infants Delivered by Midwives</i>
Central	4	9
Northern	2	4
Metropolitan	5	8
Southern	1	6
Totals	12	27

The decrease in midwife activities over the past 10 years can be seen from the following table:

Table 2.
NUMBERS OF MIDWIVES AND MIDWIFE DELIVERIES

<i>Year</i>	<i>Number of Active Midwives</i>	<i>Number of Midwife Deliveries</i>
1950	67	382
1951	49	253
1952	42	222
1953	40	153
1954	35	129
1955	29	98
1956	19	72
1957	25	72
1958	17	42
1959	12	27

Supervision of midwives is provided by Public Health Nurse Supervisors in the State Health Districts and, in some communities, by local health department nurses.

Unattended Births

In 1959, there were 73 unattended births to New Jersey residents registered on birth certificates, as compared to 83 such births in 1958. Two additional unattended births, not registered as such, have come to the Department's attention. It appears that the number of unattended births may be considerably larger than those reported on birth certificates. These births are probably emergency deliveries, in some instances births in transit to a hospital. Mother and baby are brought to the hospital subsequent to the actual birth and the birth certificate is signed by a hospital physician.

All unattended births coming to the Department's attention are investigated through the State Health Districts and efforts are made to bring mother and baby under follow-up care.

Health of Agricultural Migrants

Three Pediatric Clinics for children of migrant workers were set up in conjunction with the school programs for these children at Freehold, Cranbury, and Fairton, following cooperative planning with representatives of the State Department of Labor and Industry (Bureau of Migrant Labor) and the State Department of Education. The services provided consisted of complete physical examinations of all children attending the schools, as well as a few pre-school children who were brought to the school for this purpose, and included treatment of minor conditions, provision of protective immunizations against diphtheria, pertussis, tetanus and poliomyelitis, as indicated, and dental examinations. Referrals for further medical care were made as necessary.

Additional Maternal and Child Health Services were provided to migrants through the Monmouth County Organization for Social Service. These services were rendered on a contract basis, whereby the Department assisted financially toward the payment of physicians' services in prenatal clinics. The Organization also provided Public Health Nursing services to migrant workers and made their Child Health Conference Services available to the children of these workers.

Professional Educational Activities

A post-graduate course in pediatrics was planned and held in cooperation with Seton Hall University Medical School, with an attendance of 39.

The Maternal and Child Health Program participated with the Division of Chronic Illness in the Post-graduate Institute for Physicians held at Newton Hospital by underwriting 2 lectures on the subjects "The Diagnosis and Management of Hematological Problems in Pregnancy" and "The Diagnosis and Management of Hematological Problems in the Newborn." The attendance was 30 and 31, respectively.

A successful 2-day state-wide Institute on Mental Retardation for key public health nurses and nurse educators was held at Rutgers University. The attendance was 101.

The second annual symposium on "Accidental Poisoning" was held at the Princeton Inn. Physicians, nurses, health officers, pharmacists and others interested in poison control were in the audience. The attendance was 125.

A 1-day Institute for nurses on Family Focused Maternity Care was held for public health and hospital nurses in cooperation with the Northern State Health District. The attendance was 88.

In cooperation with the Central State Health District, a 2-day workshop for nurses on Family Centered Child Care was held in Ocean County. Attendance exceeded 100.

With the cooperation of the Southern State Health District, a series of 5 lectures and discussions on the Child in Health and Disease was arranged for public health, hospital and school nurses in Camden County. The average attendance was 65.

The Public Health Nurse Consultant, Pediatrics, discussed the Premature Infant with nurses of Atlantic County.

Additional professional educational activities in the area of Maternal and Child Health were conducted during the report period. There was increased contact with university nursing schools. The Public Health Nurse Consultants in Pediatrics and Hospitals, for instance, discussed their respective functions in the Maternal and Child Health Program with students at Rutgers University and Seton Hall University Schools of Nursing. The Public Health Nurse Consultant, Pediatrics, also participated in planning a workshop concerned with hospitalization of children and presented the Role of the Nurse in Preparation of Child and Family for Hospitalization at Rutgers University College of Nursing.

At the request of the Red Cross Nursing representative for New Jersey, aspects of nutrition in pregnancy and lactation were presented to a class of nurses at Princeton Hospital. The class was a cooperative project of the Red Cross, the hospital, and the Princeton Visiting Nurses Association to train instructors for future parent's classes.

In the Metropolitan State Health District, poison control was the subject at 4 nurses' in-service training sessions with 69 in attendance. Prevention and Control of Staphylococcal Infections was the topic of discussion at 4 in-service training sessions for nurses in the District. The Public Health Nurse Consultant, Pediatrics, spoke at all sessions. The total attendance was 79. Eye Screening of School Children was another topic presented to nurses in the Metropolitan State Health District. The total attendance at 4 sessions was 104. The District also devoted 4 in-service education meetings for nurses devoted to State Services for the Mentally Deficient. Sixty-five attended these sessions, which were conducted by the Assistant Chief of the Bureau of Mental Deficiency, Department of Institutions and Agencies. The Metropolitan District's Pediatric Consultant discussed Emotional Aspects of Feeding at an in-service training program for nurses, with 29 in attendance.

The Coordinator of Poison Control Services conducted a 3-hour workshop on poison control at the annual convention of the New Jersey First Aid Councils.

The following professional materials were prepared by the Maternal and Child Health Program Staff and published during the report year:

"Principles of Maternity and Newborn Care." This booklet has been widely distributed to hospitals, nurses, and physicians. A second printing had to be made shortly after the first printing because of demand.

The second supplement of the "Bibliography on the Newborn" was sent to all those having received the original and first supplement. In addition, this material is being widely used in our hospital consultation program and in educational activities.

The proceedings of the first symposium on Accidental Poisoning were published in the November, 1959 issue of *Public Health News* and have been in considerable demand.

The "New Jersey Poison Control Statistical Report, 1958-1959" was prepared and over 4,000 copies were distributed.

The issue of *Public Health News* entitled "A Psychiatric Look at Children," which was published in June, 1958, was in great demand during the current report year and was favorably reviewed, in Canada's *Mental Health* as well as in *The American Journal of Psychiatry*, resulting in a number of requests for this issue from Canada as well as various parts of the United States.

A number of papers authored or co-authored by program personnel were published in professional journals.

Several professional articles and booklets were made available to the 4 State Health Districts for distribution to local professional health personnel.

Health Education

Health education is considered an important function of the Maternal and Child Health Program. A variety of health education activities for other than professional health workers and for the public took place during the report year. District personnel assisted visiting nurse associations, parent-teacher associations, and others in a variety of health education programs. The Maternal and Child Health Program has purchased and distributed a variety of health education pamphlets on various aspects of maternity and child care. In addition, a substantial number of film prints on various aspects of child growth and development have been made available through the State Museum to large audiences. Other educational films are handled directly by the Program. The Coordinator of the Poison Control Service participated as a speaker in the New Jersey State Safety Council's 13th Annual Conference and also took part in 2 radio programs on Poison Control.

Maternal Deaths

The Maternal and Child Health Program works cooperatively with a special Committee on Maternal and Infant Welfare of the Medical Society of New Jersey in the study of deaths occurring 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 over the past decades. The 1959 maternal death rate of .04 per 1,000 live births is the same as for the preceding year.

Mental Retardation

The Child Evaluation Clinic at Morristown Memorial Hospital, which was planned for and developed with the assistance of the Maternal and Child Health Program prior to the report year, was officially opened in July, 1959 and began functioning in September of that year. This clinic uses the team approach to the diagnosis, evaluation, and follow-up of mentally retarded children. The Clinic Director is a neuro-pediatrician; other members of the team are pediatricians, a psychiatric social worker, a psychologist, and a public health nurse. Other medical consultation services in a variety of specialties and necessary laboratory facilities are available at the hospital. During the report year, 43 children were completely evaluated. The evaluations of 23 of these children were underwritten by the Maternal and Child Health Program. In addition to those children whose evaluation was completed, 49 were in the process of being evaluated and 50 children were on the waiting list at the end of the fiscal year, 1959-1960. Staff members of the Northern State Health District have participated in several evaluation sessions at the clinic and the District office will serve as a coordinating agency in public health nursing referrals for out of Morris County cases.

Poison Control Service

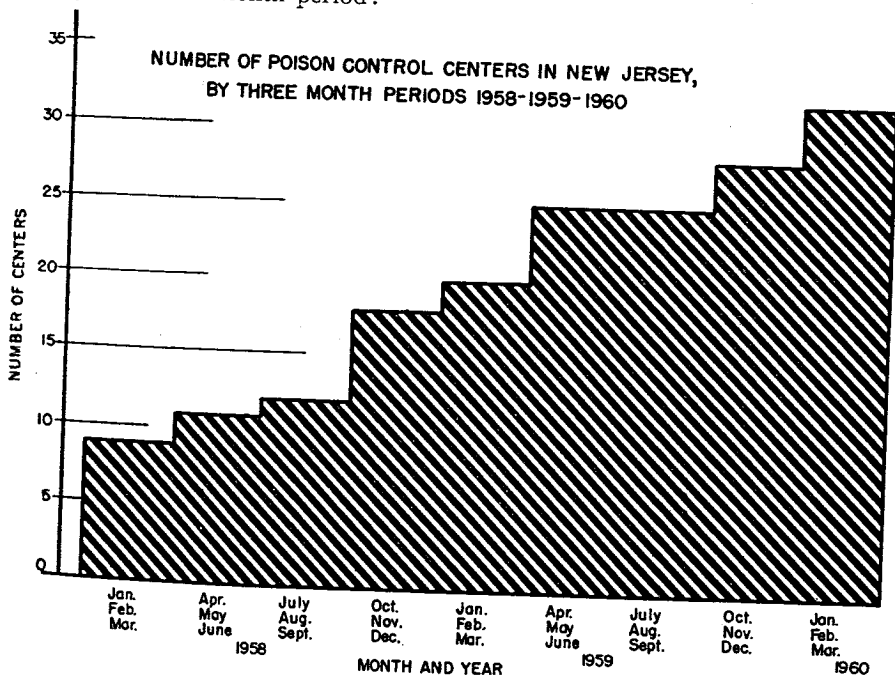
In February, 1958, a consultant in Public Health Toxicology was assigned to the Maternal and Child Health Program to concentrate on the development of Poison Control Services. Prior to his arrival, 10 Poison Control Centers were in existence. During the following fiscal year, the number of Centers had increased to 24, and at the end of the fiscal year 1959-1960, there were 32 active Poison Control Centers throughout our state, an increase of 8 Centers. These Centers are located as follows:

All Souls Hospital, Morristown
 Atlantic City Hospital, Atlantic City
 Babies Hospital, Newark
 Clara Maass Memorial Hospital, Belleville
 Fitkin Memorial Hospital, Neptune
 Holy Name Hospital, Teaneck
 Hunterdon Medical Center, Flemington
 Middlesex General Hospital, New Brunswick
 Monmouth Medical Center, Long Branch
 Morristown Memorial Hospital, Morristown
 Mountainside Hospital, Montclair
 Newark Beth Isreal Hospital, Newark
 Newton Memorial Hospital, Newton
 Nutley Child Safety Prog., Nutley
 Orange Memorial Hospital, Orange
 Overlook Hospital, Summit

Paterson General Hospital, Paterson
 Perth Amboy General Hospital, Perth Amboy
 Princeton Hospital, Princeton
 Riverside Hospital, Boonton
 St. Clare's Hospital, Denville
 St. Elizabeth's Hospital, Elizabeth
 St. Peter's General Hospital, New Brunswick
 Warren Hospital, Phillipsburg
 The Helene Fuld Hospital, Trenton
 West Jersey Hospital, Camden
 Englewood Hospital, Englewood
 St. Barnabas Medical Center, Newark
 Bridgeton Hospital, Bridgeton
 Point Pleasant Hospital, Point Pleasant
 Harrison S. Martland Medical Center, Newark
 Hasbrouck Heights Hospital, Hasbrouck Heights

A card listing existing Poison Control Centers together with address, phone number, and name of director is made available for distribution to all physicians, full-time health officers, hospital administrators, and other interested groups.

The following chart shows graphically the growth of Centers in New Jersey over a 27-month period:



DEPARTMENT OF HEALTH

The Poison Control Service receives individual case reports from these Centers, compiles them prior to forwarding them to the National Clearing-house of the United States Public Health Service. There were 2,550 such reports received from 32 Centers during the fiscal year 1959-1960. The age distribution was as follows:

Table 3.
POISON CASES BY AGE GROUPS AND PERCENT
AS REPORTED BY N. J. POISON CONTROL
CENTERS FOR FISCAL YEAR 1959-1960

<i>Age Groups</i>	<i>Number of Cases</i>	<i>Percent</i>
Under 1	54	2.1
1	282	11.1
2	794	31.1
3	464	18.2
4	168	6.6
5	32	1.3
6 and over	566	22.2
Unknown	190	7.4
Total	2,550	100.00

Health education continues to be a major activity of the Poison Control Service. Many educational meetings were held, at which time the film "One Day's Poison" was presented and discussed.

Field Activities in Municipalities

Administration of the Department sponsored and supervised maternal and child health activities in municipalities is the responsibility of the 4 State Health District. During the report year, the Department supervised the work done at 76 Child Health Stations, rendering services to 8,860 children in 1,441 sessions. Appointment of District Consultant Pediatricians assigned to the 4 State Health Districts has resulted in considerable improvement in the quality of services rendered at the various child health stations. These pediatricians review physical facilities, organization and medical practices in the child health stations, and make appropriate recommendations. These recommendations, in turn, are forwarded to the local health officer in whose jurisdiction the respective station is located. Consultation has, in some instances, been extended to child health stations not under departmental sponsorship.

Expansion of this consultation service to child health stations throughout the state is anticipated. Nursing consultation has been provided through the supervisory nursing staff of the Districts as well as by the Public Health Nurse Consultant, Maternal and Child Health. Nursing consultation regarding maternal and child health nursing activities is being provided to health departments and nursing agencies in the state by the nursing staffs of the 4 State Health Districts and the nurse consultants assigned to the Maternal and Child Health Program. In addition, nursing supervision is provided by the Districts to a number of field nurses working on local levels.

Division of Environmental Health

ALBERT H. FLETCHER, M.S., in Engineering, *Director*
ROBERT S. SHAW, M.P.H., *Assistant Director*

Programs:

Air Sanitation	WILLIAM A. MUNROE <i>Program Coordinator</i>
Food and Drugs	MILTON RUTH, <i>Chief</i>
Food	FRANCIS A. TIMKO <i>Program Coordinator</i>
Drug, Device and Cosmetic	HOWARD C. SAYRE, P.H.G. <i>Program Coordinator</i>
Meat Inspection	MILTON RUTH <i>Program Coordinator</i>
Milk	HOWARD ABBOTT, M.P.H. <i>Program Coordinator</i>
Shellfish	FRANCIS A. TIMKO <i>Program Coordinator</i>
Occupational Health	E. LYNN SCHALL, M.P.H. <i>Program Coordinator</i>
Public Health Engineering	ROBERT S. SHAW, M.P.H., <i>Chief</i>
Potable Water	ANTHONY T. LEAHEY <i>Program Coordinator</i>
Stream Pollution	LEROY FORMAN <i>Program Coordinator</i>
Solid Waste	JOHN ZEMLANSKY, M.S. <i>Program Coordinator</i>
Ragweed and Poison Ivy	JOHN ZEMLANSKY, M.S. <i>Program Coordinator</i>
Camp and Bathing Places	ERNEST R. SEGESSER <i>Program Coordinator</i>
Housing	NORMAL SILVESTER <i>Program Coordinator</i>
Radiological Health	BYRON E. KEENE <i>Program Coordinator</i>
Veterinary Public Health	OSCAR SUSSMAN, D.V.M., M.P.H. <i>Program Coordinator</i>

Division of Environmental Health

The broad objectives of the Division of Environmental Health are to foster planning, construction, maintenance, and operation of sanitary facilities to protect and promote health; to prevent transmission of animal diseases to humans; and to encourage programs to promote healthful environmental conditions generally. More specifically, this includes activities to improve and properly maintain water supplies, liquid and solid waste disposal systems, bathing places, housing, milk, shellfish, meat and other food and drug supplies; to prevent and control air pollution and radiation hazards; to promote health and control unhealthful conditions in industry; to uncover transmission of animal diseases to humans and practical methods of control; and to foster programs to deal with other environmental health problems such as ragweed, poison ivy, insects and rodents.

To carry out these activities, the Division is organized into 3 Bureaus: Engineering, Food and Drugs, and Veterinary Public Health, and 3 other programs: Occupational Health, Air Sanitation, and Radiological Health. The activities are grouped into the following programs and activities:

<i>Engineering</i>	<i>Food and Drugs</i>	<i>Veterinary Public Health</i>
Bathing—Camp	Milk and Milk Products	Rabies
Housing	Shellfish	Other Animal Diseases
Potable Water	Meat	Insect and Rodent Control
Solid Waste Disposal	Food	
Stream Pollution Control	Drugs	
Ragweed and Poison Ivy		
<i>Radiological Health</i>	<i>Air Sanitation</i>	<i>Occupational Health</i>

Codes are drafted and when approved are recommended for adoption by local boards of health by reference. The following is a list of recommended codes pertaining to environmental health in existence to date:

Retail Food Handling	Individual Sewage Disposal Systems
Smoke Control	Trailer Camps
Weed Control	Individual and Semi-Public Water Supplies
Plumbing	Maintenance of Swine
Swimming Pools	Garbage and Refuse Collection and Disposal
Nuisance Control	

Two codes are being prepared:

Housing
Vending Machines

Food and Drugs

General

Five Food and Drug Programs are planned to protect health and to enforce laws to prevent the adulteration and misbranding of food, drugs, devices and cosmetics and laws and regulations to prevent the handling, preparation, storage, and transportation of food under insanitary conditions. Special laws and regulations are also enforced pertaining to operation and licensing of plants where milk, ice cream, milk products, non-alcoholic beverages and bottled water and shellfish are prepared or processed or where eggs are broken, or refrigerated food is stored or narcotic drugs are manufactured or handled wholesale.

Table 1 shows the number of licenses, permits and certificates issued for the past fiscal year and revenue derived from that activity:

Table 1.
LICENSES ISSUED AND REVENUE COLLECTED

<i>Establishment</i>	<i>Licenses</i>	<i>Permits</i>	<i>Certificates</i>	<i>Revenue</i>
Milk Plant .....	...	490	...	\$12,250.00
Goat Dairy .....	...	27	...	239.00
Ice Cream Factory	1,345	...	...	11,345.00
Refrigerated Warehouse and/or Locker Plant	90	...	...	4,400.00
Narcotic Drug	96	...	...	1,110.00
Creamery and/or Pasteurizing Plant	45	...	...	No fee
Egg Breaking Plant	29	...	...	No fee
Nonalcoholic Beverage Bottling Plant ..	179	...	...	No fee
Shellfish Shipping Certificate .....	...	...	224	No fee
Slaughterhouses	196	...	...	No fee
Totals	1,980	517	224	\$29,344.00

In addition, \$2,509 in penalties and court costs were collected for violations of our laws and regulations.

Food (Other Than Milk and Milk Products, Meat and Shellfish)

Licensing of egg-breaking, non-alcoholic beverage bottling and bottled water plants, refrigerated warehouses and locker plants, and enforcement of sanitary requirements in licensed and non-licensed food establishments, excluding shellfish and milk, are functions of the Food Program. In addition,

supervision is exercised over the collection of food samples for analyses for bacteriological and chemical adulteration and compliance with established standards of quality and identity. Labels of food products submitted by industry and state and local health officials are reviewed for violations and for statements which tend to mislead or deceive the purchaser. Results of more than 1,800 analyses of food, other than milk and shellfish, were reviewed.

District personnel are equipped with field test kits to permit rapid determination of the presence of sodium sulphite in ground meats. Following demonstration of the test, which uses Malachite Green Stain to detect the chemical, District personnel initiated use of the test and reported over 1,100 field tests performed. Of the 26 samples reported as positive by means of the Malachite Green Stain Test, 25 were confirmed as positive by the Department laboratory. One thousand, three hundred and seventy-five dollars in penalties were collected from violators for the sale of ground hamburger and sausage containing sulphites. The field testing procedure resulted in a sizable reduction in the number of samples collected for submission to the laboratory, as well as permitting examination of a greater number of meats in comparison to previous years. During 1958-1959, 441 samples of meat were collected for analyses with 14 positive samples reported by the laboratory.

In the early part of November, 1959, Arthur S. Flemming, Secretary of the United States Department of Health, Education and Welfare announced to the press that aminotriazole, a substance said to produce cancer in the thyroid of rats, had been used in a weed killer sprayed on cranberry bogs in Washington and Oregon. The Secretary further stated that since the chemical had been found on cranberries and cranberry products, sales should be discontinued until the industry submitted a workable plan to separate the contaminated berries from those that were not contaminated.

Even though investigation carried out in this state failed to disclose that aminothiazole had been used in New Jersey commercial cranberry bogs, the widespread publicity evoked by Mr. Flemming's announcement made every cranberry in the country suspect and sales of all cranberry products fell off greatly. Subsequent investigation by the Department and the Food and Drug Administration revealed that all fresh New Jersey grown cranberries were free of aminotriazole, but that 1 New Jersey packer had processed suspect out-of-state cranberries some of which were seized out-of-state by the Federal Food and Drug Administration.

After numerous conferences among Members of Congress, agriculture, health and industry officials, a program was developed whereby cranberries tested in accordance with approved procedures could be offered for sale providing they were labeled as follows:

"Certified safe under plan approved by the United States Government for cranberries."

If the cranberries had been tested by the Food and Drug Administration and found safe, such lots could be distributed under the following label:

"Examined and passed by the Food and Drug Administration of the Department of Health, Education and Welfare."

In addition, the United States Department of Agriculture established an indemnity plan to reimburse growers for that portion of their 1959 crop of fresh cranberries which were unsold because of consumer resistance.

Another release of the Federal Department of Health, Education and Welfare announced that minute quantities of diethylstilbestrol, another substance capable of producing cancer in animals, had been detected in the skin, liver, and kidneys of poultry treated with the chemical. The synthetic hormone was injected into young chickens and beef cattle for rapid fattening, but no residues were found in beef. It stated that authorized manufacturers of the product had agreed to immediately stop selling diethylstilbestrol for such purposes, and poultry industry representatives were requested to immediately discontinue the sale of poultry treated with diethylstilbestrol. Even though only 1 percent of all poultry produced in the country was affected and most New Jersey grown poultry was sold to the broiler, fryer and stewing trade rather than as caponettes, there was a pronounced decline in the sale of poultry products during the Christmas holiday season.

Steps were taken by the Federal Food and Drug Administration to revoke prior authorizations for use of diethylstilbestrol in poultry. New Jersey poultry growers were advised by the New Jersey State Health Department that continued use of the substance would result in seizure of poultry carcasses found to contain diethylstilbestrol under the Adulteration Section of our Food Law.

Various types of meat products were collected for examination to detect excessive quantities of nitrites and nitrates. None of the 69 samples analyzed was found to exceed the tolerance of 200 parts per million of nitrites used by the Department as a standard.

Fifty-eight samples of fruits and vegetables were also collected for analysis to determine compliance with pesticide tolerances established by the United States Food and Drug Administration under the Pesticide Amendment to the Federal Food, Drug and Cosmetic Act. None of the samples analyzed exceeded the residue tolerances.

Surveillance of the business of breaking of eggs was also continued to prevent the illicit use of unfit eggs for food purposes. Agents of the Department caused the destruction of 360 30-pound cans of frozen and liquid eggs which were found to be adulterated. In addition, over 700 30-pound cans of frozen eggs and fowl ova were embargoed after preliminary examinations disclosed that some of the products were decomposed. The eggs and ova

will be segregated under our supervision and re-examined, with the unfit products scheduled to be destroyed under our supervision.

Agents of the Department continued to cooperate with federal, state, and local agencies by making special investigations, collecting special samples for analyses and placing embargoes on fire-damaged or otherwise adulterated or misbranded food. In cases where embargoes were placed at the request of federal officials, the embargoes were continued until the articles were seized by the United States Marshal or otherwise disposed of in compliance with the law.

Technical and consultation services were also provided to other state agencies, industry and the consuming public in matters relating to wholesomeness of food and food plant sanitation. Two employees completed courses relating to Applied Procedures for Control of Food-Borne Diseases at the United States Public Health Service Communicable Disease Center in Atlanta, Georgia.

Table 2 lists the number and type of food establishments, other than milk and milk products, meat and shellfish, inspected for sanitation by representatives of the Department during the fiscal year:

Table 2.

ESTABLISHMENTS INSPECTED FOR SANITATION

Bakeries	42
Egg Breaking Establishments	72
Eating Establishments	138
Non-alcoholic Beverage Bottling and Bottled Water Plants	212
Refrigerated Warehouses and Locker Plants	107
Miscellaneous Food Establishments	510
Total	<hr/> 1,081

Drugs, Devices and Cosmetics

Forty-four inspections were conducted of plants, warehouses, and research laboratories holding narcotic drug licenses issued by this Department. Emphasis is placed on safeguards for stocks of narcotic drugs to prevent illegal diversion, burglary or pilferage. In addition, 29 sanitary inspections were made of drug manufacturing plants and 111 samples of drugs and cosmetics were collected for analyses and label review. Analyses were reviewed for compliance with legal or self-proclaimed standards and labels were examined to determine if they were false or misleading in any manner.

A special cooperative survey was made with representatives of the State Police as a result of reports of alleged misuse of exempt narcotic drug prep-

arations by teenage groups. Records of sales and receipts by manufacturers and wholesalers were examined. The survey indicated that a problem existed in certain areas in the state, since sales in New Jersey showed nearly a 100 percent increase over 1958-1959 whereas records of manufacturers and nationwide distributors disclosed a decrease. The information collected during the survey resulted in prosecution of several pharmacists by the State Board of Pharmacy.

Thirteen other special investigations were conducted of drug, device and cosmetic establishments in cooperation with representatives of the Federal Narcotic and Food and Drug agencies, New Jersey State Police, and local boards of health. The most difficult and time-consuming of these investigations was climaxed by nationwide publicity in the press, trade and professional journals, and via radio and television. After weeks of surveillance by Department and State Police personnel, a drug manufacturing plant was entered and several thousand counterfeit drug tablets were seized. These bore trademarks of nationally known ethical drug firms and evidence was collected that distribution of the spurious items was conducted on a country-wide scale. Before the premises were raided under authority of a search warrant, a shipment of 120,000 counterfeit tablets, destined for Hollywood, Florida, was seized at Newark Airport. The 3 persons involved in the manufacture and primary distribution of the drugs were arrested and were awaiting action by the Hudson County Grand Jury as this report was written. Inspection of the manufacturing premises disclosed gross insanitary conditions and all stocks of raw and finished products were embargoed until the court ruled on their disposition.

The legitimate drug industry is so alarmed over the extent of the counterfeiting of trade-marked ethical drugs that an intensive educational campaign is being launched among the trade and professions to emphasize and publicize this type of menace to the public health. Included in the educational materials will be a colored documentary motion picture film using this investigation as a background.

Another investigation of the manufacture and labeling of a vitamin-mineral preparation resulted in the embargo of stocks of the drug at 6 wholesale distributor's warehouses because of adulteration. The lots are being held pending decision of the court regarding their disposition.

Entire stocks of drugs and cosmetics in 2 fire-damaged establishments were embargoed by Department representatives pending segregation. Non-salvageable stocks were destroyed voluntarily by the owners under supervision of Department and local board of health personnel.

The Department issued 122 certificates of inspection covering drug products manufactured in New Jersey which were intended for export to foreign governments. This service to industry is furnished free of charge to permit

firms to export drug and cosmetic items to countries whose governments demand such certificates from health authorities at the point of origin of the items. Certificates are issued only after inspection of the plant, investigation of the quality control systems, and examination of labels have shown satisfactory compliance with our laws and regulations.

The Department continues to cooperate with local boards of health and other state and federal agencies in joint investigations of matters of mutual concern and in the exchange of information affecting the participating agencies.

Meat

Ninety-one red meat and 105 slaughterhouses were licensed by the Department. All the licensed slaughterhouses were inspected by District personnel to determine if they were operating in substantial compliance with the laws and regulations enforced by this Department.

On July 9, 1959, "Regulations Concerning Construction, Operation, Maintenance and Licensing of Slaughterhouses and Inspection and Labeling of Animals Slaughtered for Food," that were filed with the Secretary of State on September 24, 1958, became effective. During the course of the first year of operation, a need for changes in the regulations became apparent. The changes were made and were filed with the Secretary of State effective April 1, 1960.

The following changes were made:

Regulation 4: License Restrictions. Section C added as follows:

C. Slaughterhouses on premises where animals are raised for a period of not less than 60 days, slaughtered thereon and sold directly to household consumers, or restaurants, or other public eating places, or as a prepared meal to the consumer shall comply with the standards of sanitation prescribed by Title 24, Chapter 15 of the Revised Statutes and are not obliged to comply with the provisions of Regulation 9 of these regulations if they do not slaughter annually in excess of any 1 of the following classifications:

- 20 sheep or goats
- 15 swine
- 5 cattle or calves
- 200 poultry animals
- 200 rabbits

Licenses for such places shall be conditioned accordingly.

Regulation 7: Licensed Inspectors

Section c amended to allow persons who raise animals on their premises for 60 days to be exempt from meat inspection, provided they are slaughtered in a licensed slaughterhouse and are sold as previously required in 7c.

Section d was added. Poultry Slaughtered Under a Religious Dietary Law.

Those persons desiring to operate under this exception must make application to the Department requesting permission to operate under this exception and cite the religious laws under which this operation would be conducted.

Regulation 25 was amended to make the placing of the words "Inspected for Wholesomeness" mandatory on meat inspection stamps, brands or labels. It defined the manner in which Kosher dressed poultry should be labeled.

Regulation 26 was amended to place the responsibility for securing and maintaining stamps, brands and labels under the Veterinary Meat Inspector.

Regulation 4 was changed to permit small poultry growers under certain conditions to slaughter animals without meeting all of the construction requirements that are needed by large slaughterers.

The change in Regulation 7c was made so as not to be discriminatory against persons who raise their own animals and who do not own a slaughterhouse. Section d was added to Regulation 7 so that religious groups could enjoy the same privileges under the state regulations as they do under the federal regulations.

In connection with the regular inspection program, the Department again cooperated with the Department of Agriculture in the State Seal of Quality Program for turkeys. This program requires meat inspection as part of their quality requirements.

The following table is a summary of totals showing activity relative to meat and poultry establishments:

Table 1.

STATUS OF LICENSING OF MEAT AND POULTRY ESTABLISHMENTS

Number of applications received, poultry	178
Number of licenses issued, poultry	105
Number of inspections made, poultry	268
Number of denied or pending at year's end	73
Number of applications received, red meat	94
Number of licenses issued, red meat	91
Number of inspections made, red meat	165
Number of denied or pending at year's end	4

The original sanitation ratings of poultry slaughterhouses graphically demonstrated the need for the new regulations. The improvements noted upon reinspection, as measured by the rating system used in this program, have been extremely gratifying.

Table 3.
SUMMARY OF RESULTS OF
ANTE AND POST MORTEM INSPECTION OF RED MEAT ANIMALS

Kind of Animal	ANTE MORTEM INSPECTION				POST MORTEM INSPECTION		
	Passed	Suspected	Condemned	Total	Passed	Condemned	Total
Cattle	9,678	75	10	9,688	9,635	43	9,678
Calves	67,986	76	44	68,030	67,900	86	67,986
Sheep	4,745	20	9	4,745	4,723	22	4,745
Swine	56,288	84	20	56,308	56,259	29	56,288
Poultry	84,578	0	70	84,648	83,295	283	84,578

138,697 Red Meat Animals Were Slaughtered in State Inspected Establishments
During One Half of This Past Year

Table 3.
COMPARISON OF PERCENT OF CONDEMNATIONS OF TYPE OF CATTLE UNDER FEDERAL
VS. STATE INSPECTION FOR ONE-HALF YEAR

Percent of Condemnations N. J. State Inspection	Percent of Condemnations Federal Inspection
Cattle—0.54	Cattle—0.30
Calves—0.19	Calves—0.52
Sheep—0.46	Sheep—0.38
Swine—0.08	Swine—0.16

Condemned Carcasses 178

The above statistics represent figures compiled from the annual report required of all licensed slaughterhouse operators. They represent a half-year's operation since the regulations went into effect.

The totals for the 4 classes of red meat animals represent a cross-section of the volume of slaughtering establishments wherein meat is inspected for wholesomeness.

Table 3, comparing condemnation records for federally supervised and state supervised plants employing New Jersey licensed meat inspection personnel, demonstrates 2 important points:

1. The small percentage of animals condemned under either system of meat inspection.
2. The differences in condemnation records were negligible and so small that no valid conclusions can be drawn.

DEPARTMENT OF HEALTH

The small numbers inspected in state supervised plants tend to reduce the comparative value. One interesting facet in evaluating the type of meat inspection concerns swine ante and post mortem inspection records. Out of the 56,308 ante and post mortem inspections, 44,774 were slaughtered in 2 establishments. In addition to being supervised by the New Jersey Department of Health, they are inspected by the Grading Division, United States Department of Agriculture, the City of Newark, and the City of Trenton. The meat inspectors at the plant are employees of the City of Trenton and have a background of long experience.

The poultry inspection program has not progressed sufficiently to make comments or comparisons concerning inspection for wholesomeness for poultry.

The meat inspection program, which requires industry to use veterinary and licensed meat inspectors, has for the most part been successful. One licensed Veterinary Meat Inspector was ordered to appear before the Public Health Council to explain irregularities in conjunction with his meat inspection practices. The veterinarian was severely censured and his work subjected to close review by departmental veterinarians.

Many conferences were attended with Department of Agriculture personnel, legislators, members of industry and religious leaders in connection with the development of the new program. Twenty-five individual training sessions were held for District personnel and 12 meetings in District offices were called to discuss the program and problems, and to keep personnel informed of changes as they occurred.

With all of the contemplated changes in the regulation completed and a fully-trained staff, the Department looks forward to the licensing of the entire poultry slaughtering industry during the coming year in an orderly transition from unlicensed to licensed status without causing undue hardship to an industry that has not enjoyed great prosperity during these same years.

Milk and Milk Products

Two additional official agencies were included during this past year in our Reciprocal Inspection Program after their personnel and laboratory procedures were evaluated and found acceptable. Reciprocal inspections are planned to eliminate duplication of effort and expense and to provide for uniform interpretations of requirements and evaluation of reports.

Official agencies having reciprocal inspection agreements with our Department submitted 395 reports of inspections of plants holding permits. Meetings have been held with local health officers to expand this reciprocity to include sampling of milk and milk products sold throughout the state. A model sampling program has been developed by a joint committee. It includes

procedures, frequencies and exchange of reports and has been recommended by the Department for adoption by local boards of health.

The Department continued to cooperate with the United States Public Health Service by inspecting milk plants and ice cream plants for approval as Interstate Milk Shippers and as approved sources of supply for Interstate Carriers and United States Coast Guard establishments.

Personnel participated in training programs of the United States Public Health Service Annual Conference of State Milk Sanitation Survey Officers in the Basic Environmental Sanitation Course given by Rutgers University. Training was also given to milk industry representatives in developing good quality control programs and inspection services.

The Department was also represented on working committees of the New Jersey Health Officers Association and the New York State Association of Milk Sanitarians. The June meeting of the Farm Practices Committee of the New York Association held at High Point State Park in Sussex, New Jersey, included representatives of industry and official agencies from northeastern and central Atlantic states.

In many of the meetings held throughout the latter part of the year, including joint conferences with State Department of Agriculture officials, local health officials and representatives of Rutgers University, milk producers and processors, and veterinarian associations, the main topic was the problem of keeping antibiotic and pesticide residues out of milk and milk products. An educational program directed to the proper use of antibiotics was expanded to include the proper use of pesticides. Samples of milk and milk products were analyzed for residues of both antibiotics and pesticides. The samples analyzed to date show that the educational programs of this state and our supplying states are effective in reducing the number of samples where residues have been found.

Table 1 shows the number of inspections made and samples collected in the Milk and Milk Products Program during the year by departmental personnel:

Table 1.

NUMBER OF INSPECTIONS AND NUMBER OF SAMPLES COLLECTED	
Milk Plants	578
Dairy Farms	4,381
Goat Dairies	49
Ice Cream Plants	1,194
Samples Collected	2,540

Shellfish

The sanitary control of the harvesting, handling, and sale of shellfish is based on the provisions of Chapters 14 and 15 of Title 24 of the Revised Statutes and regulations promulgated thereunder. The food, drug and cosmetic act provides authority to control the labeling and proper handling of shellfish. Departmental regulations also require the operator of each establishment engaged in the wholesale handling or shucking of shellfish to obtain a certificate from this Department. Shellfish growing areas, potential growing areas, and market shellfish are periodically examined for bacteriological quality, and inspections are made of all establishments shucking or shipping shellfish on a wholesale basis. Regulatory procedures include boat and land patrol of shellfish areas condemned as potentially dangerous, to prevent the illegal harvesting or sale of shellfish to the public.

Over 850 man hours of patrol at irregular intervals and locations were spent in condemned shellfish areas by Program personnel in addition to the cooperation received from local police departments and agents of the Division of Shellfisheries of the Department of Conservation and Economic Development.

As a part of a voluntary cooperative program administered by the United States Public Health Service in which all shellfish producing states and the Dominion of Canada participate, the Department uses the Public Health Service Manual of Recommended Practice for the Sanitary Control of the Shellfish Industry as a guide to uniform enforcement practices. Compliance with these practices and endorsement of our control program by the Public Health Service permit publication of names of New Jersey shellfish firms in a list of certified shippers of raw shellfish in interstate commerce. This ensures ready acceptance of New Jersey shellfish in other states and Canada.

An extensive survey was made of Absecon Bay and adjacent waters in Atlantic County, in cooperation with Stream Pollution Control Program personnel, to provide current information on the sanitary conditions surrounding these waters and the bacteriological quality of such waters.

The result of this survey was the opening of almost 1,000 acres of shellfish waters on a year-round basis instead of restricting this area to use during only 4 months of the year.

In addition, following evaluation of a survey of Great Egg Harbor Bay and tributaries in Atlantic and Cape May Counties made in 1958-1959, the Department was able to reopen an important shellfish area near Ocean City from October 16 to May 30. However, parts of the Great Egg Harbor and Tuckahoe Rivers had to be closed due to excessive pollution.

Supervision of the large volume of sea clams harvested, shucked, and otherwise handled in New Jersey was continued. Most of the clams are harvested beyond the continental limits of the United States, but practically all vessels engaged in the trade discharge their catches in New Jersey, where they are shipped to shucking plants for evisceration, washing, further processing and distribution to the trade, in a fresh, frozen or canned state. According to United States government statistics, 2.1 million pounds of surf clam meats with a wholesale value of \$200,000.00 were processed in New Jersey plants during June, 1960. This was a 40 percent decrease in value compared to June, 1959. A generation ago, sea clams had no value other than for fish bait.

Tables 1 and 2 show the number of inspections of shellfish establishments made and the number of water and shellfish samples collected for bacteriological analyses:

Table 1.

INSPECTION OF SHELLFISH ESTABLISHMENTS

Shellfish shipping plants	446
Shellfish shucking plants	39
Total	485

Table 2.

NUMBER OF SAMPLES COLLECTED

Shellfish waters	4,168
Shell oysters	63
Shucked oysters	135
Shell Hard clams	513
Shell Soft clams	44
Total	4,923

Potable Water

Eighty-one permits were issued for 114 separate water supply projects during the past year. Ten of these projects were new sources of water supply, 42 were for new treatment plants, 16 for storage units, and 46 were for general additions and alterations to existing facilities. The dollar value of the projects was estimated to be slightly more than 7 millions.

Ten original physical (cross) connection permits were issued pursuant to the statute (R. S. 58:11-9.1 et seq.) bringing the total of such permits to 247.

The biennial survey of the chemical and physical characteristics of public water supplies was continued and a 2-year report will be issued in 1961.

No new public water supplies were equipped to fluoridate. A workshop on the subject of fluoridation for licensed waterworks personnel was held. Fluoridation of the public water supply was approved by the voters at a referendum held in the Borough of Highland Park. Representatives of this Department were active in the promotion of that public health measure and it is anticipated that its benefits will be available in the near future since approval of the installation and operation of the requisite fluoridation equipment has been approved by this Department.

There were 194 public water supplies inspected with appropriate samplings. Additionally, vessel, railroad, and airport watering facilities for carriers engaged in interstate traffic were inspected and the findings certified to the United States Public Health Service. Chlorinated school water supplies also received our attention and no instance of an unsatisfactory supply in that category was found.

Cooperation was extended to local boards of health in matters relating to private and semi-public water supplies. This involved approximately 400 contacts with representatives of such boards and included interpretation of nearly 9,000 chemical and bacteriological results.

Complaints received concerning inadequate water supply and lack of pressure were at a minimum. In those instances where such problems occurred, with 1 exception, small "one well" public water supplies were the culprits.

Expansion of water supply facilities continued as shown in the project breakdown above and several of the big purveyors constructed major additions. The trend in the waterworks field seems to be toward automation of control and operation with the major water supplies being interconnected with resulting flexibility of operation.

Public awareness of the importance of an adequate, safe and palatable public water supply is being reflected more each year. The iron content of water supplies in certain areas has been a problem and complaints of dirty water have come from consumers of these supplies. Two such complaints were the means of finding two supplies falling in the "public" category which had not been approved by this Department.

In a few cases, referral to the Office of the Attorney General was necessary in order to secure cooperation of water supply owners. When this has been the case, we have enjoyed the complete cooperation of that agency and results were obtained without the necessity of court action.

Stream Pollution Control Program

Control of stream pollution involves the examination of engineering design data, investigation of sewage and industrial waste treatment facilities, and

related administrative activities necessary in promoting clean streams in New Jersey.

During this fiscal year, plans, specifications, and other engineering data were examined and permits issued for the construction and operation of 232 sewerage projects estimated to cost approximately \$41,220,000. This represents 40 more projects built and some \$2,000,000 less spent than the previous year. This indicates that many sewerage projects were built to treat smaller pollution loads this year than last.

Twenty-three permits were issued to permit factories or workshops to locate on potable watersheds.

Orders of Necessity were issued to 17 municipalities to permit them to exceed their bonded debt-limit in order to construct necessary sewerage projects.

Fifteen formal orders were issued to municipalities and industries requiring the abatement of pollution of waters of the state.

Twenty-five new sewage treatment plants were completed and placed in operation while 5 treatment facilities were abandoned as a result of trunk sewer construction.

Five hundred and thirty-seven routine inspections and 221 special investigations were carried out. This activity included investigations of odor complaints, fish kills, stream pollution, extended inspections of municipal and industrial waste treatment plants, and other investigatory actions as may have been required.

The Federal Construction Grant Program continued with aid from federal sources amounting to \$1,113,000 applied to 10 sewerage projects. It should be noted that this amounts only to slightly over 2½ percent of the total either spent or obligated by the New Jersey industries and municipalities.

There were only 3 cases of water pollution violations that were referred to the Office of the Attorney General for appropriate legal action. Most of the Program is accomplished without resort to Court procedures.

There were 318 samples obtained from major streams and tributaries of the state. Laboratory analyses of these samples will serve to establish baseline data for use in the future.

A major portion of the studies made on the Raritan Bay and the Raritan River was completed. The findings made as a result of this survey proved that the operation of the Middlesex County Sewerage Authority collection and treatment facility has resulted in the improvement of the Raritan River and Raritan Bay. Additional work related to other aspects of the quality of Raritan Bay waters continues. This work is being carried out by this Department and the Sewerage Authority as it has in the past.

DEPARTMENT OF HEALTH

Some important projects were either completed or well under way during the year. These included Stage II of Bergen County Sewer Authority, the Somerset-Raritan Valley Sewerage Authority and the Rahway Valley Sewerage Authority outfall line. The expansion of the Trenton sewage treatment plant is the last major water pollution control project in the New Jersey portion of the Delaware River Basin.

A comprehensive survey of the status of and the extent of planning for sewerage facilities was made in Gloucester, Warren, and Ocean Counties. This information will be available as a reference for future activities necessary in appraising sewerage problems and needs in these counties.

A sanitary survey of the waters of Absecon Bay was completed in cooperation with the Department's Shellfish Control Program. The findings of this survey have since resulted in opening additional shellfish waters in the Bay. (See the Shellfish Program report.)

The Stream Pollution Control Program continued to cooperate with both the Interstate Sanitation Commission and the Interstate Commission on the Delaware River Basin (Incodel). Both of these agencies used the facilities of the United States Corps of Engineers Experimental Water Station in Vicksburg, Mississippi. Hydraulic models of the Delaware River and Greater New York Harbor area were used in studying both existing and potential water pollution problems.

The Department provided stimulation and consultation through the District Offices to local boards of health in the planning and provision of more effective sewerage facilities for many municipalities.

Solid Wastes Program

Early in 1959, an enabling law, Chapter 20, P. L. 1959, permitted municipalities to postpone the effective date of Chapter 8 of the State Sanitary Code from July 1, 1958, to June 30, 1960, by the adoption of a local ordinance provided the State Commissioner of Health approved its adoption. Seventeen municipalities submitted ordinances for approval. Investigations were made on these applications to determine whether the municipalities were under a financial hardship or were primarily rural in areas where no collection systems were in operation. Only 8 municipalities received approval for the adoption of such an ordinance.

There has been a steady elimination of open dumps or conversion of them into sanitary landfills. In some instances, some sanitary landfills have regressed. We are working on these situations.

A 2-day garbage and refuse institute was held for the Department's sanitation personnel. The training was conducted by departmental and United

States Public Health Service personnel. Instruction considered principles of sanitary landfill operations, classification of sanitary landfills, tidal marsh swamp and upland operation, and incineration.

Inspection personnel were taught how to evaluate refuse disposal areas by using a new rating form developed for use at this institute.

Seventeen dumps were referred to the Attorney General's office for legal action under Chapter 8 of the State Sanitary Code. Sixteen of these dumps are located in the Metropolitan District. Several consent judgments were entered into with municipalities and private contractors. In the other cases, complaints have been filed for action in the courts.

A study is being made of the history of incinerator construction and operation in New Jersey for the past 25 or 30 years. Many have been abandoned, several soon after construction was completed.

Ragweed and Poison Ivy Program

There is continued interest in the use of herbicides along roadsides in this state. During this period, the New Jersey State Highway Department contracted for ragweed and brush control on 800 miles of state maintained highways. Fifty-six miles of state roads were treated in an experiment to test the effect of a herbicide in retarding growth of grass.

The New Jersey Bell Telephone Company has continued its treatment of brush and tree limbs to aid better telephone maintenance in rural areas where non-insulated wires are used.

Additional private work is adding to the overall herbicide treatment on private industrial plants and oil tank areas. All this activity contributes to a better environment and reduces air pollution by pollen as well as by eliminating fire hazards at the industrial plants and similar areas.

Twenty pollen collecting stations reported ragweed pollen counts for the 1959 growing season. The highest pollen count of 165 pollen grains per square centimeter occurred in Flemington on September 6, 1959. The highest average pollen count of 30 per square centimeters was collected in Red Bank. The lowest average pollen count of 1 per square centimeter was collected in Beach Haven. Six collecting stations in 4 municipalities—Madison, Jersey City, Summit, and Beach Haven—had very low pollen counts that did not rise on any day above 7 grains per square centimeter.

The 20 pollen stations are widely scattered over the state and include some in each District.

Aquatic weed problems on lakes and reservoirs discharging into potable watersheds have been considered by committees called together by the Department. Recommendations are being made to control aquatic weeds under

DEPARTMENT OF HEALTH

the guidance of a committee including potable water purveyors, the Agricultural Experiment Station, and the Program Coordinators of the Weeds and Potable Water Programs of this Department during next year.

Secaucus Piggeries

A survey made in March, 1960 at the request of the Attorney General's office of the existing Secaucus stock farmers showed that 5 pig farms were still raising and feeding hogs in violation of Superior Court Judge Stanton's Order. On April 14, 1960, Superior Court Judge Victor A. Kilkenny found the 5 remaining piggeries to be in contempt of court. A penalty of \$50 was imposed on each farmer. An additional penalty of \$50 per day will be assessed against each farmer for each day's continuance in business after September 1, 1960. After October 1, 1960, the penalty will be \$50 for each day plus 15 days in jail.

Camp and Bathing Places

A certificate of compliance is a document issued to proprietors of lake bathing places who meet (comply with) minimum departmental requirements in safety, sanitation, and water quality. The Department offers to each holder of a certificate a sign which can be posted on the premises showing the place has been approved by the State Department of Health. Forty-seven such certificates were issued during the season.

There were 227 summer camps inspected; 193 received departmental certificates of approval. Sampling of New Jersey's surf and other tidal bathing waters continued.

A committee representative of local health officers and this Department prepared a document called "Guide Lines for Municipal Control of Family Pools." This has been made available to all municipalities.

Housing

A Coordinator of the Housing Program was appointed. He received training last year at Yale University at a 5-week intensive housing course sponsored by the United States Public Health Service and Yale University. He was assigned to the Department of Conservation and Economic Development to work on its North Jersey Regional Urban Renewal Survey, giving about 2 days a week for several months time on this project. This provided needed staff assistance to their project and provided him with valuable experience in this phase of housing work.

A Housing Code which could be recommended to municipalities for use in the enforcement phase of housing work is now in preparation. Two engineers from our Department worked with a housing specialist and a planning specialist with the State Department of Conservation and Economic Development in the preparation of a tentative draft of such a code. This draft has been completed. It is to be reviewed by a Citizen's Advisory Housing Code Committee which is now being set up.

The Housing Coordinator will spend more time this coming year in providing much needed assistance to municipal health departments in housing rehabilitation work. He is approved for conducting an appraisal survey of housing conditions using the American Public Health Association Appraisal Technique.

Occupational Health

General

Industrial production in New Jersey hit a new high during this reporting period—and with it came many new occupational health problems. The new industrial revolution has been advancing at an amazing rate in recent years and has introduced new industrial hazards and new work stresses and strains. Out of our research laboratories have come thousands of new chemicals capable of causing occupational diseases of the utmost severity unless handled under strictly controlled conditions.

As in other years, Occupational Health Program personnel worked to protect individuals against health hazards in their work environment and to facilitate placement of individuals according to their physical capabilities and emotional make-up in work which they can perform with acceptable efficiency.

Health of Industrial Workers

Complete surveys and studies in industries in New Jersey totaled 235, a slight increase over the previously reported fiscal year. Fifty-four of these studies were initiated either as a follow-up of previous studies or as a survey of conditions claimed to have provided occupational diseases for which compensation was reported. Employees in establishments visited totaled 88,593 and of this number, 45,650 were directly affected by the service given. Requests for assistance with occupational health problems continue to increase from small industrial plants employing less than 100 persons. This demonstrates an awareness by management of health problems associated with the work environment in plants unable to provide their own services. The public health team approach to contribute to worker health prevailed in the following detailed conditions:

Table 1.
DETAILED CONDITIONS

Introductory visits	178
Technical studies of hazards	141
Occupational health surveys	169
Noise and vibration studies	41
Consultations only (advisory)	10
Follow-up on recommendations	10
Total	549

The total, 549, represents an increase of 23 percent over the same activities for the previously reported fiscal year.

A survey of 56 mobile house trailers was made to determine concentrations of carbon monoxide gas that would be developed in the use of their heating systems. This was stimulated by reports of deaths of hunters in Michigan and Indiana using 1 type of trailer with a defective heating system. These 2 states and the Public Health Service sent out warnings to all state health departments. The company building these trailers also made a country-wide search for these defectively constructed trailers to stop their use and provide replacement of the heating system.

Atmospheric contaminants determined in the field totaled 549 and 990 physical conditions were recorded. This represents an increase of 20 percent and 32 percent, respectively, above the number of determinations reported in the previous fiscal year. Routine laboratory analyses accounted for 225 samples, with clinical diagnostic analyses totaling 131, and research analyses totaling 843. The total laboratory work load was 66 percent greater than that declared in the 1958-1959 report.

Throughout the year, increased assistance was given hospital pathologists and practicing physicians in diagnosing suspected lead poisoning cases and other poisons. Blood lead and urine lead determinations were performed routinely in the Occupational Health Laboratory.

There were 447 occupational diseases reported and 105 of these were investigated.

Providing Relevant Information

There were 618 requests for our Occupational Health Bulletins, an increase of 25 percent over last year. These bulletins are mailed to approximately 1,600 persons, of whom 90 percent are industrial plant personnel located in New Jersey. Requests also came from Brazil, Canada, Denmark, England, Australia, Germany, and Peru.

Communications relating to various occupational health problems were received from persons residing or working in this state and totaled 609, an increase of 30 percent above last year.

Visitors from foreign countries were interested in learning about our Occupational Health Program. Graduate nurse students were provided occupational health nursing orientation. Representatives of the medical, engineering, and legal professions received information on occupational health matters during visits to our offices. One physician and several laboratory technicians were trained by staff toxicologists to perform the urinary porphyrin test as a screening method to detect excessive lead absorption.

Industrial plant orientation and discussions of cases of possible industrial dermatitis were provided 10 physicians, graduate students in dermatology from the Skin and Cancer Clinic, New York University, College of Medicine.

The Department cooperated with Seton Hall University, College of Medicine and Dentistry, in a post-graduate 10-session course for physicians in industrial medicine.

There has been considerable interest in the adoption of codes to control noise from industry. Tewksbury Township adopted a performance-type code, and Englewood, a limited performance-type code. Eight other communities—Linden, Garfield, West New York, Passaic Township, West Paterson, New Milford, the Northwest Bergen Regional Health Commission, and Red Bank—all have noise codes under consideration.

Thirty-two lectures were given, accompanied in 11 instances by instrument demonstrations. A 3-day course and demonstration in the determination and control of noise was presented at Fairleigh-Dickinson University. Program personnel cooperated in giving the course, and students who successfully completed the examination were granted certification as audiologists by Hunter College in New York City.

Personnel from our Department cooperated with the Public Health Service, the City of Philadelphia, and the State of Pennsylvania in presenting a 2-week occupational health course for staff members from industry and government who were working in occupational health programs. The course consisted of lectures and demonstrations by staff members of the 3 cooperating agencies.

An industrial nurse census in New Jersey was completed this year and indicates that 833 nurses are registered for occupational health work. A list of registered industrial nurses was also made public.

Two special studies were completed. One studied the effects of exposure of persons to concentrations of unburned gas caused by the use of defective car heaters at outdoor moving picture theaters. Bottled gas was the fuel used. The second study attempted to determine whether there was a relationship

between the use of pressurized insect repellents and deaths due to aplastic anemia. No relationship was observed to exist.

Community-wide occupational health studies were completed in Boonton and the Pennsauken Industrial Park. Results of the latter study were interesting because 60 industries comprise the Park and none of these plants is over 2 years old.

Program personnel participated in the planning of a new first-aid room and infirmary in the State House. The full-time nurse receives consultation and guidance from the Occupational Health Program personnel.

Radiological Health

Chapter 116, Public Laws of 1958, known as the "Radiation Protection Act," created a Commission on Radiation Protection. The Commission was empowered to draft and promulgate codes, rules and regulations for the control of radiation hazards, and otherwise act as a policy-making body in these matters. By June 30, 1960, a proposed Chapter I of the New Jersey Radiation Protection Code was virtually complete. Chapter I deals with general requirements of the code for the prevention of exposure to unnecessary radiation. The Commission plans an early public hearing on proposed Chapter I; formal adoption is expected to occur during the next fiscal year.

The State Department of Health is responsible for the registration of all sources of radiation and is the administrative agency for the Commission. The Department is responsible for administering regulations promulgated by the Commission.

Registration of Radiation-Producing Machines

The first registration of radiation-producing machines in the State of New Jersey took place during November, 1959. A total of 6,213 machines were registered as of June 30, 1960. The next biennial registration is scheduled for January, 1961. A detailed breakdown of registrations received as of June 30, 1960 follows:

Table 1.

REGISTRATION OF RADIATION-PRODUCING MACHINES

<i>Type of Registration</i>	<i>Number</i>
Dentists	2,800
Medical doctors	1,749
Hospitals and Institutions	763
Industries	380
Chiropractors	173
Chiropodists	172
Veterinarians	115
Colleges and schools	44
Shoe Stores	17
Total	<u>6,213</u>

Information requested on the registration form is designed to locate sources of radiation and provide, among other things, meaningful workload data. It is useful in establishing priorities for departmental inspections and surveys. Since the number of pieces of data exceeds 6,000, a mechanical data extraction system becomes essential to efficiency. Through the excellent cooperation of the Program Operations Branch, Division of Radiological Health, Public Health Service, a plan has been devised whereby we will program the data and send them to it in Washington, D. C. The Branch will punch 2 complete sets of IBM cards and return 1 set to this office, retaining the second set for pilot studies of their own design. No cards have been punched as of June 30, 1960, but all basic arrangements have been made.

Registration of Radioactive Materials

The first registration of radioactive materials in the State of New Jersey was started in April, 1960. The next biennial registration will be during

DEPARTMENT OF HEALTH

January, 1962. As of June 30, 1960, 185 registrations were processed, having a detailed breakdown as follows:

Table 2.

REGISTRATION OF RADIOACTIVE MATERIALS	
<i>Type of Registration</i>	<i>Number</i>
Industries	102
Hospitals and institutions	38
Medical doctors	34
Civil defense agencies	4
State and federal agencies	4
Colleges	3
Total	185

Data extracted from these registrations will be programmed and IBM cards supplied in the same manner as for radiation-producing machines. Copies of licenses for the possession of radioactive materials, issued by the United States Atomic Energy Commission, have been helpful in checking for completeness of registration.

Field Inspections and Surveys

Two hundred eighty-five surveys and inspections have been made to determine the presence of unnecessary radiation at the locations of use of both materials and radiation-producing machines. A detailed breakdown of services rendered follows:

Table 3.

SERVICES RENDERED	
<i>Type of Installation Radiation-Producing Machines</i>	<i>Number of Inspections</i>
Radiographic Units:	
Medical	59
Dental	135
Veterinary	22
Industrial	2
Fluoroscopic Units	35
Therapeutic Units	11
Radioactive Materials	21
Total	285

Plan Reviews

Seven plan reviews were handled during the fiscal year. Greater numbers of plans are expected to be submitted for review by architects and future owners of proposed radiation installations, with the increasing publicity afforded radiological health matters.

Technical Conferences

Thirteen technical conferences to provide relevant information were held with and for representatives of industry and governmental agencies.

Educational Activities

Personnel have attended various courses in radiological health, most of them sponsored by the Public Health Service. One hundred man-days of class attendance were completed by departmental personnel. In addition, 1 member was granted 9 months educational leave and returned in June, 1960 with an M.P.H.

Twenty-four formal and informal lectures and talks to specific groups, societies, etc., were delivered during this past year. Increase in these activities is anticipated.

Civil Defense Activities

Twelve man-days were spent on Civil Defense activities in support of disaster planning and also in participating in Operation Alert, May 3 through May 5.

Nuclear Ship Savannah Launched

The Chief, Radiological Health represented the Department at the launching of the NS Savannah, the world's first nuclear-powered merchant ship. The event took place at the New York Shipbuilding Corporation in Camden. The ship is supposed to be completed during the fiscal year 1960-1961.

Unusual Occurrence

A radiologist in Bergen County unwittingly created a situation that resulted in near-hysteria of persons living in close proximity to his combined home and office. Local residents reacted strongly when they learned the doctor was planning to add a specially designed room to his home for use as a deep therapy unit. The reaction, including a demand for an ordinance prohibiting such installations and x-ray equipment in residentially zoned areas, was finally resolved. Seventeen man-days of Program personnel time were

spent in plan reviews, field inspections, conferences, meetings, and other public relations activities in dealing with this situation.

Bomarc Missile Explosion

On June 7, a nuclear warhead for a Bomarc had a chemical explosion and fire in a missile shelter at McGuire Air Force Base. Departmental personnel immediately checked the areas adjacent to the shelter and found no contamination. Lack of early explanation by military authorities resulted in considerable fear and confusion among residents of surrounding areas.

Public Health Service Personnel Assignments

The Department was fortunate to have Mr. Roscoe H. Goeke, Sanitary Engineer Director, Public Health Service, assigned to serve as Acting Chief for a period of 9 months. Mr. Goeke's assignment was arranged through the Bureau of State Services, Division of Radiological Health, Public Health Service. His being here made it possible for a staff member to spend a school year to obtain training in radiological health.

Mr. Sidney Heidersdorf, Assistant Sanitarian (R), Public Health Service, has also been assigned here on loan from the Bureau of State Services for field experience. Mr. Heidersdorf has had advanced training in nuclear physics and is performing work as a regular employee of the Department. His skills in nuclear physics as applied to Radiological Health are valuable.

Environmental Samples and Radiological Health Laboratory Activities

Approximately 225 samples of fallout were taken for the United States Atomic Energy Commission on gummed plastic sheets supplied by them.

The Trenton air-sampling station of the Radiation Surveillance Network of the Public Health Service was maintained again by personnel of this Department. The samples were obtained daily with one-third duty cycle maintained over weekends.

Samples of water, soil, silt, vegetation, and air were obtained routinely and also for special projects by Program personnel or public water supply operators through a cooperative mailing system. The 1,381 samples obtained have a detailed breakdown as follows:

Table 4.

WATER AND AIR SAMPLES

<i>Water Samples</i>		
Municipal surface water supply samples	Water	165
	Silt	146
Municipal ground water supply samples	Water	96
State-wide stream samples	Water	61
	Silt	46
		36
<i>Air Samples</i>		
Special environmental samples	Silt	154
	Water	164
	Vegetation	236
	Soil	277
		1,381

Air Sanitation Program

The Air Pollution Control Commission established by the New Jersey Air Pollution Control Act (1954) promulgates codes to control and prohibit air pollution.

The State Department of Health is responsible for enforcing the codes. The Department is also empowered to conduct research and educational projects and to require the filing of reports on the emission of air contaminants.

Air Pollution Control

Shortly after its organization, the Air Pollution Control Commission determined that air pollution could be dealt with in 4 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.

Five chapters of the Air Pollution Control Code have been promulgated (as of June 30, 1960) and prohibit open burning of refuse and trade waste, open burning associated with salvage operations, and regulate the amount of smoke and fly ash which can be emitted from the burning of fuels.

Dusts, gases, vapors, fumes and odors received intensive study by the Commission during the past year. Several drafts of emission standards were prepared and considered.

The control of pollens was also studied. A proposed code to regulate ragweed growth was the subject of a public hearing on September 21, 1959. After consideration of the comments and briefs received at the public hearing, it was the decision of the Commission to hold the matter in abeyance and to recommend that an intensive educational program be undertaken by the State Department of Health, in lieu of the adoption of a code, to control this form of air pollution.

The Commission recognizes that it may be some time before specific code requirements can be developed to regulate all forms of air pollution. A proposed chapter which would prohibit air pollution under the definition contained in the New Jersey Air Pollution Control Act has been prepared and was the subject of a public hearing on June 20, 1960. The proceedings of the hearing were being studied at the close of the report year.

Air pollution injury to agriculture was pointed up this year as a serious problem. A 1-day symposium was conducted with representatives of the Department of Agriculture and representatives from Rutgers, The State University. A subcommittee was created to recommend a course of action.

The Commission met with representatives of industrial groups and with the county air pollution control associations to discuss air pollution problems and efforts to solve them.

A joint study is under way between the Public Health Service and this Department to set up such standards of clean air. No such standards exist.

Air Sanitation Program Administration

The Air Sanitation Program is subdivided into 3 sections: enforcement; technical service and special investigation; and research and development.

This encourages development of a high degree of competence in each area. Three air pollution control specialists were transferred to the Metropolitan State Health District office a year ago to carry on enforcement activities in that District. This arrangement has proved efficient. It is planned to transfer personnel to the other 3 District offices during the next 2 years.

Enforcement

Enforcement activity comprised about 60 percent of the total program activity.

Control of Open Burning

A total of 475 municipalities, industries or commercial establishments were cited for violations of the Code chapter prohibiting open burning during the period of this report. This brings to a total of 1,595 persons cited for violations since the effective date of May 1, 1956.

More than 800 persons have discontinued open burning since the effective date as the result of enforcement actions taken by the Department. Experienced observers agree that reduction in open burning of trade wastes on the premises of industrial plants, garbage disposal areas, and in salvage operations has been dramatic. Most manufacturing industries in our state are now aware of their obligation to dispose of trade wastes in accordance with the provisions of the Air Pollution Control Code. Many have demonstrated ingenuity in developing ways and means of disposing of such material as scrapoils, chemicals, rubber, plastics, paints and other forms of industrial wastes by means other than the archaic and highly objectionable method of open burning.

The metal salvage industry has made progress. The non-ferrous part of this industry, which had been accustomed to burning large amounts of insulated wire in open fires resulting in dense smoke, has in most cases developed methods which eliminate heavy smoke. A number of incinerator designs have been developed by this industry, in some cases after considerable research and expenditure of money. Smoking wire burning fires are now almost a thing of the past in New Jersey. The industry itself is happy with its new way of doing business. Twelve hundred twenty-five visits were made by this Department to bring about this change.

The ferrous metal industries, including automobile scrap dealers, have been somewhat slower in solving their problems but considerable advance has been made in the technology and practical application of incinerators for automobile burning. Sixteen automobile incinerators are in operation, under construction, or on order.

Open burning of garbage and refuse on municipal dumps is approached under authority of Chapter 8 of the State Sanitary Code. Properly operated landfills will not permit open burning and thus automatically insure compliance with the Air Pollution Control Code.

Much of what has been accomplished in air pollution control has been through conference, conciliation, and persuasion. There were 139 informal hearings conducted this past year and only 11 departmental hearings were held, resulting in 8 departmental orders. The Department has issued 46 orders since the effective date of May 1, 1956. Only 9 cases have been referred to the Attorney General for legal action.

Control of Smoke Emissions

During the past year, 241 initial violators were cited for illegal smoke emissions. This brings to a total of 620 the number of violations cited since the effective date of July 1, 1958. Since excessive smoke from fuel burning operations can be due either to faulty equipment or operational procedure, it is necessary to keep periodic violators under observation. One departmental

hearing on illegal smoke emissions was held which resulted in a departmental order, and 1 case has been referred to the Attorney General.

Confirming the experience of the previous year, industry in general has been cooperative and sincere in its efforts to prevent excessive smoke.

Not included in the statistics above are a great number of violations cited against vehicles of various types, including trucks, tractors, buses, construction equipment, ships in harbor, and railroad locomotives. More attention has been given to correction of excessive smoke emissions from moving sources. The approach has been educational and the response has been gratifying. About 25 percent of such violations involve out-of-state vehicles.

Control of Fly Ash Emissions

This provision of the Code regulates the quantity of fly ash which may be discharged from solid fuel burning operations and further requires that persons burning solid fuel in excess of 1 million British Thermal Units per hour (approximately 85 pounds of solid fuel) register certain information with the New Jersey State Department of Health.

Since July 1, 1958, the effective date of this chapter, 223 fuel-burning installations have been registered with the Department; 25 were processed during the past year. Detailed inspections of fuel burning operations have been made at 128 installations. Seven informal hearings were held with flagrant violators.

New Jersey is the first state to regulate this form of air pollution at state level. Accordingly, the Department is pioneering in the field of technical and administrative procedures associated with state-wide activity. There being no established precedents, it has been necessary to devote considerable effort toward the development of techniques and procedures.

A 7-day training course in fuel burning techniques, boiler operation, and fly ash control was carried out for Air Sanitation Program personnel. Instructors provided by private industry represented a high level of technical competence in presenting material pertaining to the sources, causes, and control of fly ash emissions.

The conversion or modification of large solid fuel burning operations to meet the requirements of the Air Pollution Control Code is costly. We believe real progress will be evident in the next year or two through a substantially reduced fly ash content in the outdoor atmosphere.

Technical Service and Investigation

Providing 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 percent of the total activity in Air Sanitation

This assistance ranged from in-plant surveys to evaluate air pollution control practices to detailed aerometric studies of ground level air contaminants to determine source or concentration of 1 or more airborne substances. The findings obtained, together with interpretation and recommendations for further action, are referred to the local agency concerned. Follow-up service, including attendance at meetings, informal hearings or court action initiated under local authority, was provided where indicated.

Results from this technical service to other agencies are noteworthy. A total of 167 such investigations was made. This joint effort has resulted in the installation of air pollution controls on such industrial operations as bituminous concrete plants, petroleum refining operations, foundries, basic plastic manufacturing and plastic fabrication industries, paint and varnish processes, calcining and drying operations, ceramic industries, and several chemical manufacturing processes.

In general, industries are cooperative in reducing atmospheric pollution. However, the basic need for emission standards has become more evident.

Table 1.

TECHNICAL SERVICE ACTIONS

Investigations for local agencies	167
Assistance in local control actions	70
Aerometric surveys	2

Research and Development

Research and Development projects comprised about 20 percent of the total activity in Air Sanitation.

These projects are carried on to define the air pollution problem as it exists, to develop technical field and laboratory capabilities for evaluation and control, to design practical administrative and technical facilities for application in routine enforcement, and as a technical service to the Air Pollution Control Commission.

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

1. Development of technical field and office procedures for regulating fly ash emissions.
2. Developing procedures and modifying air sampling equipment for carrying on a state-wide (Smoke Index) study throughout the state.
3. Designing and constructing a new mobile laboratory for evaluation of air pollution.

4. Continuous air sampling at 3 test sites in the state in connection with studies of oxidants, oxides of nitrogen and sulfur dioxide to evaluate vegetation damage potential.
5. Development of the technical aspects of a code to regulate industrial emissions of dusts, gases, vapors, and mists on the basis of a formula.
6. Design and construction of an automatic directional air sampling device for pinpointing sources of suspected air contaminants.

Educational Activity

Educational activity is an important phase of air pollution control. Program personnel assisted in the organization of 3 courses or technical conferences, 7 lectures or talks were given, and 8 conferences or courses were attended. One formal training course was conducted for Program personnel and representatives of local agencies. This course, entitled "Smoke Observation Training and Qualification Course," has been well received and has become a routine service.

Veterinary Public Health

The Program of Veterinary Public Health endeavors to use and influence the veterinary medical arts and sciences to prevent disease, protect life, and promote the well-being and efficiency of man.

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.

Table 1.
CASES OF RABIES IN FIVE STATES

<i>Year</i>	<i>New York</i>	<i>Pennsylvania</i>	<i>Delaware</i>	<i>New Jersey</i>
1946	1,175	502	1	276
1947	696	293	0	94
1948	568	147	1	112
1949	515	31	0	67
1950	1,022	102	0	5
1951	539	241	0	0
1952	337	300	7	1
1953	437	27	2	0
1954	472	38	0	0
1955	517	167	26	0
1956	306	99	46	1
1957	202	21	5	0
1958	261	55	0	0
1959	478	43	0	0

The table below indicates, for comparative purposes, revenue received, number of dogs licensed, and number of dogs vaccinated in New Jersey for the last 6 fiscal years.

Table 2.
DOGS LICENSED AND VACCINATED, REVENUE RECEIVED

	<i>Rabies</i>		
	<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	91,752.50	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
1958-1959	99,602.10	398,408	104,953

Because bats have been reported to be reservoirs of rabies in some areas, several municipalities requested help in eliminating bats. A sampling of the bat population in this state revealed no rabid bats through June 30th, and no control efforts were initiated.

Eastern Encephalitis

Previous research and investigations regarding eastern encephalitis served as a good foundation for further epidemiological, ecological, and research work in connection with the outbreak of this disease in New Jersey in 1959. Details were published in *Public Health News*, Volume 41, Number 4, April, 1960.

Considerable emphasis was placed on a wild bird-mosquito project in Atlantic County. A public health veterinarian and an entomologist were assigned to the project. The veterinarian netted wild birds, identified them, landed them, drew blood samples, and released the birds. The entomologist trapped mosquitoes, separated them according to sex and species, and prepared specimens for virological studies.

An ornithologist was temporarily engaged during the summer months as a field representative to assist in the study of this aspect of the transmission of eastern encephalitis.

DEPARTMENT OF HEALTH

Tuberculosis

Pilot surveys were conducted on a small scale to determine if there is any relationship between the occurrence of tuberculin test reactors in cattle and humans in close contact with such animals on dairy farms. Results were inconclusive but further action did not seem justified.

Q-Fever

Selected dairy herds were tested for Q-Fever. Milk tests were conducted on a large number of herds; blood tests of all cattle were conducted in any herd showing reaction on milk test. Although a high prevalence was indicated in cattle, only 1 case was reported in a human. An epidemiological study of this case was made and the report was published in *The Journal of the Medical Society of New Jersey*, February, 1960 (Volume 57, Number 2).

Leptospirosis

Several investigations were conducted in regard to leptospirosis in dairy herds. Where indicated, rat surveys were conducted and control measures instituted.

Trichinosis

Several cases of trichinosis were investigated. One incident involved 9 individuals who had eaten Polish sausage prepared in a local store.

Division of Laboratories

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

MARTIN GOLDFIELD, M.D., *Assistant Director*

Program:

Bacteriology	JOHN H. SPOONER <i>Program Coordinator</i>
Chemistry	JOHN J. NELSON, M.S. <i>Program Coordinator</i>
Pathology	E. L. SHAFFER, Ph.D. <i>Acting Program Coordinator</i>
Serology	ELEANOR E. THOMAS <i>Program Coordinator</i>
Virology	J. NORMAN WELSH, M.S. <i>Program Coordinator</i>

Division of Laboratories

The facilities of the Virology Program were well prepared to handle the volume of diagnostic specimens sent in by field workers and local physicians during the outbreak of eastern encephalitis in 1959. The details are described in the report of the Virology Program, but this episode is an excellent example of: the need for preparedness of the public health laboratory for all eventualities; the need for team-work approach in the study and control of such outbreaks; the rewarding results that ensue from the application of investigative procedures and the scientific contributions that can be made from a planned study in such situations.

Measured by time, the Virology Program is new, but measured by results, it has attained importance. We anticipate greater work by this Program to meet needs.

The Bacteriology, Chemistry, Pathology, and Serology Programs have fulfilled their obligations in the areas of service of by their stated objectives.

The increase in field activity under the Stream Pollution Program has resulted in increased numbers of specimens submitted to the laboratory. The greater use of food additives, herbicides, pesticides, antibiotics, and hormones produces mounting problems in which the laboratories must anticipate increasing participation in the detection of deleterious substances. Surveillance of drug manufacture appears to be an area in which the laboratories may be required to expand services.

As rapidly as they are made practical, we need to apply newly developed techniques to aid in the diagnosis and control of human and animal diseases. The laboratory programs are not static but move forward with the development and application of new discoveries. Our supervisory personnel must be alert to changes in techniques which will yield more accurate data, more quickly and at a lower unit cost. We have already applied fluorescent antibody identification for rapid diagnosis of streptococcus Group A relative to early prophylactic treatment of potential rheumatic fever cases. We anticipate a further extension of this technique, where applicable, for the rapid identification of other micro-organisms.

We have continued our voluntary evaluation of blood banks cooperatively with the Blood Bank Commission, comprising 50 such banks in the state. The results indicate some need for action where evaluation results are discrepant in this vitally important field.

Attraction of new personnel in the scientific categories who have adequate basic education in the biological and chemical sciences is a growing need. Our problem is a part of a national problem. We are concerned by the dearth of acceptable candidates for vacancies as they occur. There is need for a new look at our job classification system to bring it up to modern requirements of laboratory personnel. We must be assured that those we accept for in-service training have the capacity to absorb such instruction and the will to advance in scientific stature. We shall encourage and support such employees.

At the annual meeting of the New Jersey State Medical Society, in May, 1960, in the Section on Pathology, the Director and Assistant Director participated in a symposium on viral diseases. The following month they also participated in a symposium at the annual meeting of the national organization of Medical Technologists (American Society of Clinical Pathologists).

For some years, the role of the laboratory in epidemiological studies has been stressed. The need for greater liaison in these related fields is a public health problem in inter-relationship and teamwork. As stated in our annual report of 1958-1959, on a national level, representative groups of epidemiologists and laboratory directors have recognized the need and have developed a Joint Liaison Committee to explore the areas which will yield the desired results. The Director has participated as chairman of this Committee. It is anticipated that the recommendations of this group may be applied within this Department in the near future.

Our relationship with local laboratories, individually and through their organizations, continues to be mutually helpful. Where required, we shall assume leadership within our capacity to do so. We hope to extend our evaluation-assistance program to cover a wider area of laboratory activities. In the public interest, there is need for assuring consistently high standards of performance for all laboratories, including our own.

The Director is appreciative of the difficulties under which some of our programs have operated. We are encouraged by the promise of a "new day" when modern physical facilities will be made available for the pursuit of our program objectives.

Bacteriology Program

Highlights

The increase in the demand for services from the Bacteriology Program this year nearly matched the 17 percent increase that occurred last year. Fewer specimens were received but more than 4,000 additional examinations were made. Specimens and examinations for staphylococcus phage typing, blood agglutinations, gonorrhea spreads, and rabies showed increases.

Forty approved hospital, municipal, and private laboratories were evaluated. Specimens were left to be identified and reported back to the Program. Assistance was offered in laboratory problems and the results of visits reported to Bacteriology and Serology Programs.

Eight new laboratories were approved during the year.

Fifteen sanitary bacteriology laboratories were visited by the Program Coordinator frequently accompanied by the Division Director for compliance with Standard Methods of Milk Products Analysis.

In January, 1 of our bacteriologists attended a 2-week participation course in fluorescent antibody techniques for streptococcus identification. This activity was just getting under way at the close of the fiscal year. A darkroom and equipment for fluorescing the specimens have been established at the Virology Laboratory. Specimens will be received and cultured and reported in the Bacteriology Program.

In March, another bacteriologist attended a 3-day seminar in Philadelphia, conducted by the United States Public Health Service, on techniques for antibiotic assay of milk products. During the year only 0.7 of 1 percent of nearly 300 examinations were found to contain penicillin residual.

There are indications that the workload will continue upward and that newer techniques will be applied.

BACTERIOLOGICAL SPECIMENS COMPARED

	<i>Bacteriological Specimens</i>		<i>Bacteriological Examinations</i>	
	<i>1958-59</i>	<i>1959-60</i>	<i>1958-59</i>	<i>1959-60</i>
Total:	74,423	67,043	232,189	236,737

(These include our branches at Bivalve and Tuckerton)

Numerical Summary

The phrase "total specimens" refers to the number of specimens received in various categories, the total of examinations is given to show the volume of work involved. For instance, since all tuberculosis specimens are subjected to a microscopic spread examination and also to culture, these figures are added as separate examinations. All animal brains for rabies are examined microscopically for rabies, but all those in which there has been human exposure receive mice inoculations intracerebrally; these are counted as separate examinations.

DEPARTMENT OF HEALTH

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

Staphylococcus Phage Typing

This activity again showed an increase in specimens. Over 4,000 additional examinations were made during the last fiscal year.

<i>Total Specimens</i>	<i>Total Examinations</i>
5,241	138,240

M. Tuberculosis Identification

Stained spreads of sputa and other secretions and excretions:

<i>Total</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>
14,327	629 (4.4%)	13,120	578

M. tuberculosis

<i>Total</i>	<i>Specimens</i>	<i>Examinations</i>
	14,327	29,603

Cultures: 13,370

Guinea Pig Inoculations (Raw or Treated Specimens): 723

Enteric Diseases

<i>Total Specimens</i>	<i>Total Examinations</i>
9,684	9,684

Enteric Bacteriology (Feces and Urine 8,664

This work includes the more complete identification of Salmonellae into their respective group and *S. typhi* types. This past year the Program has also identified Salmonellae into their specific species. We still use the assistance of the United States Public Health Service, Communicable Disease Center at Chamblee, Georgia, on questionable results.

Salmonellae

<i>Salmonellae Group B (59)</i>	<i>Salmonellae Group C₁ (15)</i>	<i>Salmonellae Group C₂ (8)</i>
<i>S. typhimurium</i> 23	<i>S. oranienberg</i> 2	<i>S. newport</i> 6
<i>saint paul</i> 8	<i>infantis</i> 4	<i>litchfield</i> 2
<i>typhimurium</i> 1	<i>cholera-suis</i> 2	
var.	var.	
<i>copenhagen</i>	<i>kunzensdorf</i>	
<i>java</i> 5	<i>cholera-suis</i> 1	
<i>chester</i> 13	<i>bareilly</i> 4	
<i>paratyphi B</i> 2	<i>montevideo</i> 4	
<i>derby</i> 3		
<i>blockley</i> 4		

<i>Salmonellae Group D (27)</i>	<i>Shigella</i>
<i>S. typhi</i>	<i>S. sonnei</i> Group D (9)
phage type C ₁ 6	<i>E. coli</i> (3)
E ₁ 13	026:B6 2
<i>S. enteritidis</i> 8	0111:B4 1

Blood Agglutinations
(febrile)

<i>Total Specimens</i>	<i>Total Examinations</i>
3,991	6,468

Nose and Throat Cultures

Diphtheria, Diphtheria Virulence, Hemolytic Streptococci, and Sensitivity Tests:

<i>Total Specimens</i>	<i>Total Examinations</i>
7,014	7,970

Gonorrhoea Spreads

<i>Total Specimens</i>	<i>Total Examinations</i>	
4,325	4,909	
<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>
584 (13.5%)	3,694	147

Rabies

Another year has passed with no positive specimens of rabies in New Jersey. The last laboratory identified case of rabies in New Jersey was in 1956. The 1 case in 1956 was the first since 1952. Although no positive cases have been found in 4 years, 72 more animals brains were submitted for examination than last year.

<i>Total</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory for Analysis</i>	<i>Total Examinations</i>
433	0	424	9	2,093

DEPARTMENT OF HEALTH

Bacteriological Analysis of Water, Trade Wastes, Sewage and Dairy Products, Shellfish and Shellfish Waters, Central Laboratory and Branch Laboratories

	Total Specimens	Total Examinations
	21,038	34,756
Waters	10,812	17,035
Dairy Products	5,164	6,849
Shellfish and Shellfish Waters ..	5,062	10,872

Central Laboratory Water Specimens and Examinations

Total Specimens	Total Examinations
10,810	17,035

Central Laboratory Dairy Products

Total Specimens	Total Below Standard	Average Percent Below Standard	Total Examinations
5,164	361	7%	6,849

During the last fiscal year fewer samples were analyzed for milk products, but a greater percentage of below standard samples was found. This is perhaps due to more selective sampling of less desirable suppliers. The summary below would indicate that after systematic sampling was undertaken the milk product quality, based on below standard percentages, improved. This past fiscal year the trend has been reversed:

	1956-57 Percent	1957-58 Percent	1958-59 Percent	1959-60 Percent
Total Milk Products				7
Below Standard	9.6	6.7	6	13.1
Milk	13.8	10	8.8	15.5
Cream	19.6	15	12.5	14.8
Chocolate Milk	12	14.6	14.2	9.7
Skimmed Milk	16	14	6.0	

Laboratory Approval

There are now 125 laboratories approved by the New Jersey Department of Health. Included in this total are 64 hospital laboratories, 51 private laboratories, 4 county hospital laboratories, and 6 municipal laboratories.

Mailing Cases

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	7,293
T. B. Mailing Cases	19,068
G. C. Mailing Cases	6,439
Feces and Urine Mailing Cases	10,061
Serological Mailing Cases	216,218
Total	259,079

Seven thousand, four hundred and twenty-four liters of various kinds of media were produced and supplied during the year.

Chemistry Program

SUMMARIZED STATISTICS, 1959-1960

Table 1.

SAMPLES ANALYZED

<i>Character of Samples</i>	<i>Number of Samples</i>	<i>Number of Determinations</i>
Milk and Dairy Products	1,423	3,429
Other Foods	819	1,117
Drugs	67	145
Water, Sewage and Industrial Wastes	4,920	28,016
Blood Sugars (Clinitron)	1,577	1,577
Urine Sugars (Dreypak)	7,793	7,793
*Miscellaneous	142	513
Totals	16,741	42,590

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

Character and Trend of Work Load

The total numerical work load, which had consistently increased over the past several years, declined significantly during 1959-1960. This trend is especially evident in the right hand column of the following table since the number of determinations conducted is by far the most realistic measure of the true work load.

DEPARTMENT OF HEALTH

Table 2.
FIVE-YEAR COMPARISONS

<i>Fiscal Year</i>	<i>Total Number of Samples</i>	<i>Total Number of Determinations</i>
1955-56	13,507	34,549
1956-57	17,999	43,585
1957-58	14,795	44,665
1958-59	18,373	50,440
1959-60	16,741	42,590

This downward trend was the result of less sampling activity by the Potable Water and Stream Pollution and Liquid Waste Disposal Programs plus specific measures taken to eliminate unnecessary analyses.

One such measure, restricting butterfat and phosphatase testing to selected milk supplies calculated to afford the maximum yield of below standard results, was largely responsible for a reduction of some 1,400 determinations on milk and dairy products. Adoption of a field test for screening meats for sulfite adulteration and the curtailment of horse flesh tests on all beef products as a routine procedure were important in accounting for almost 1,100 fewer determinations on other foods.

These and other changes in the character of the Chemistry Program's work load may be noted in the following tabulation:

Table 3.
CHARACTER OF SAMPLES, 1958-59 AND 1959-60

<i>Character of Samples</i>	<i>Number of Samples</i>		<i>Percent Change</i>	<i>Number of Determinations</i>		<i>Percent Change</i>
	<i>1958-59</i>	<i>1959-60</i>		<i>1958-59</i>	<i>1959-60</i>	
Totals	18,373	16,741	- 9	50,440	42,590	-16
Milk and Dairy Products	1,813	1,423	-22	4,864	3,429	-30
Other Foods	1,566	819	-48	2,201	1,117	-49
Drugs	88	67	-24	172	145	-16
Water, Sewage and Industrial Wastes	6,183	4,920	-20	33,877	28,016	-17
Blood Sugars (Clinitron)	1,199	1,577	+32	1,199	1,577	+32
Urine Sugars (Dreypak)	7,206	7,793	+ 8	7,206	7,793	+ 8
Miscellaneous (Methodology, experimental, etc.)	318	142	-55	921	513	-44

This decrease was offset new, time-consuming pesticide analyses and by the loss of experienced personnel through retirement.

The only satisfactory technique for the screening and detection of micro quantities of pesticides in milk and other foods—paper chromatography—required the acquisition of and familiarization with appropriate equipment and the standardization of procedures using known insecticides. More than 110 chromatographic determinations were conducted after the necessary sample pretreatments consisting of extraction and interference stripping through adsorption columns, both requiring the use of redistilled solvents. The time accorded this 1 complex activity was therefore grossly disproportionate to the relatively few samples involved.

It is of interest to note that of the 1,423 milks and milk products tested this year, 53 (3.7 percent) were found to be below standard; 400 more samples were tested last year with but a 1.8 percent below standard yield. These figures are heartening because they show that concentrating on carefully selected samples can be twice as fruitful as indiscriminate sampling and analyses.

HIGHLIGHT

In November, just prior to the Thanksgiving holiday, the entire national cranberry crop fell under suspicion when traces of aminotriazole were detected in the products of certain producers who had misused this chemical weed killer. New Jersey producers had agreed not to use this chemical prior to the berry harvest, but intensive sampling and analysis were required to ascertain if contaminated cranberries had reached New Jersey markets and to allay the general fear of this carcinogen. Program personnel worked around the clock during this acute 2-week episode. Over 90 separate samples, representing thousands of tons of cranberries, were analyzed and given clearance so that consumers might enjoy this traditional fruit on Thanksgiving Day.

TRAINING ACTIVITIES

Our Principal Chemist attended a 2-day Food and Drug Training Conference in Washington to up-date our chromatographic techniques, particularly those applicable to pesticide residual analyses. He also received a week's training in the chromatographic procedures developed for determining pesticide residues in milk. This session was given by the United States Public Health Service at its Philadelphia Food and Drug Laboratory.

OTHER ACTIVITIES

Numerous visits were made by local health and industrial personnel to receive instruction in various analytical procedures, including the biochemical

DEPARTMENT OF HEALTH

oxygen demand test, the detection of sulfite adulteration in meat products, the phosphatase test for adequate pasteurization, and blood sugar determinations using both the clinatron and a spectrophotometer. A representative of the New Jersey State Department of Agriculture was instructed in the procedure for detecting thiram (a chemical fungicide) in poultry feeds and seeds.

COLLABORATIVE STUDIES

Participation in collaborative studies with federal and other state agencies is considered to be highly desirable since it provides a means of monitoring our own procedures and assists in the improvement of old or the establishment of new analytical methods. During the period of this report, 4 such studies were completed.

Table 4.

	MILK AND MILK PRODUCTS EXAMINED			Determinations
	Above Standard	Below Standard	Total	
Milks	1,370	53	1,423	3,429

(For statistics on other foods and drugs, see Table 1)

Pathology Program

The Pathology Program completed its 10th year of established activities, supplying histological and consultative services to hospital pathologists in addition to fostering professional education in cancer diagnosis. During this decade, the Program has established needed services and has succeeded in stimulating greater interest of pathologists in early and accurate recognition of malignant disease.

While some of the services offered by this Program are continuing in satisfactory volume, the actual number of pathologists supporting the activities is declining. Unless there is increased demand for services by those for whom the Program has been designed, it may be that justification for its continuance may not require present budget support. Fiscal 1960-1961 is the year of decision.

In March, 1960, the Principal Histologist and Program Coordinator (1 person) was transferred to another departmental program. His duties were assumed pro tem by the Director of Laboratories.

The Ninth Annual Slide Seminar sponsored by the New Jersey Society of Pathologists and the State Department of Health was held on December

5, 1959, at the Essex House, Newark. Dr. Hugh Grady, Professor of Pathology, Seton Hall Medical School, was moderator. Some of the cases presented were selected from the files of the New Jersey Tumor Registry, maintained by the Pathology Program.

In keeping with our short-term objectives, 638 follow-up data forms were distributed. Of 310 forms returned, 250 contained additional information which has been recorded.

Field visits to hospital pathologists declined and may have been responsible for a decline in participation of local pathologists.

The Pathology Program cooperated closely with the Virology Program in the eastern encephalitis outbreak. Twenty-nine brains were received of which 13 have been processed. Hematoxylin and Eosin and special stain slides were made. Bird brains from surrounding areas were also processed. Upon completion of this work, study slides will be prepared for distribution.

In cooperation with the Cancer Control Program, 46 cases were processed for the dog lymphoma project.

Pollen counts were completed on 199 slides for the Division of Environmental Health. The number of pollen grains per square centimeter was reported for each slide.

Table 1.
TWO-YEAR COMPARISON

<i>Histology</i>	1958-59	1959-60
Contributions to tumor registry	319	364
Consultation cases	196	209
Tissues processed	622	1,067
Slides prepared	9,770	10,605
Slides stained H & E	9,469	9,443
Requests for special stains	81	88
Slides stained with special stains	1,382	1,367
Special stains used	21	22
Slides distributed	6,364	8,684
Pollen count slides	249	199
Institutions visited	21	12
Meetings attended	7	6
Photographs made	529	396

Serology Program

In April, the Serology activities and Program were reviewed by a representative of the Public Health Service. The report commended "The excellent intrastate evaluation study for approval of laboratories for the performance of premarital and prenatal tests; the number and scope of refresher courses in syphilis serology offered in connection with the state laboratory training program during the past 8 years; the generally good technical performance of a large volume of syphilis serology tests under crowded working conditions."

Arrangements were made for a workshop. The workshop was presented primarily for personnel from laboratories with unsatisfactory performances in the intrastate evaluation and those in the process of becoming approved for the performance of premarital and prenatal blood tests. Ten persons attended the class, representing 9 laboratories. The Venereal Disease Research Laboratory (V.D.R.L.) test was the procedure demonstrated, discussed, and then performed by the members present. Refresher training on an individual basis is always available to laboratory personnel upon request of the laboratory director.

One hundred fifteen laboratories participated in the 1959 Evaluation-Assistance Survey of Approved Laboratories in New Jersey. A specimen of known reactivity with the results of the control laboratory was sent with 10 unknown specimens each month over a 10-month period to each laboratory approved for syphilis serology. Pre-testing and sterilization of materials and glassware were done at our Camden laboratory. Twelve thousand six hundred fifty (12,650) specimens were packaged and mailed by the 1 technician at that laboratory. A comparison of results on evaluation specimens by the approved laboratories showed that 106 laboratories, 92.1 percent, reported satisfactory results in 1 or more tests. Satisfactory denotes 90 percent agreement with the control laboratory on reactive and weakly reactive specimens and 98 percent agreement with the control laboratory on nonreactive specimens.

The Venereal Disease Program conducted a survey in Newark with the Serology Program performing the laboratory work. Twelve thousand specimens were collected over a 10-week period, which, on an overtime basis, were reported within 24 hours after arrival in the laboratory, speeding up the investigations of re-active reports.

From the annual statistics that follow it can be seen that the Kolmer test using the Reiter Protein antigen, a treponemal antigen, is being relied upon significantly as a differential test in the diagnosis of syphilis (a 92 percent increase over last year). Rh and blood grouping on prenatal specimens was discontinued as of July, 1959, accounting for the decrease in those tests for this year. The figures for trichinosis, leptaspirosis, and Q-fever tests indicate the role the Serology Program played in the investigations of those diseases within the last year.

Table 1.
TWO-YEAR COMPARISON

	1958-59	1959-60
Total Specimens	253,186	224,665
Total Tests	282,649	248,082
Prenatal Specimens	45,561	47,580
Rh and Blood Grouping	69,964	43,478
Total Protein Tests	113,061	47,580
Cold Agglutinins	630	625
Antistreptolysin Titers	231	168
Heterophile Antibody Tests	413	321
Kolmer Tests using Reiter Protein Antigen ..	2,150	2,218
Leptospirosis	1,015	1,952
Trichinosis .....	...	417
Q Fever (C.A.T.)	131	159
.....	...	78

Virology Program

The most dramatic event of the 1959-1960 year affecting the Virology Program was the outbreak of eastern encephalitis in the southern area of the state during late summer and early fall. Thirty-one human cases were confirmed in the laboratory by virologic, serologic and/or pathologic techniques. The outbreak gave rise to many investigative problems which were studied during the rest of the year. These studies will continue in order to characterize the virologic, epidemiologic, and pathologic aspects of this heretofore rarely studied disease.

Because of the above studies, the number of specimens processed in the laboratory far exceeded the estimated increase for the year. As yet, no satisfactory work load scheme has been devised to differentiate between the number and character of the specimens received and the type and relative difficulty of the tests performed.

Therefore, in evaluating the statistical report given below, it must be borne in mind that this does not reflect on the complexity, costs, and time consumption in the performance of the various categories of tests. Some specimens may take a few days for completion of tests using relatively simple techniques; others may take months of careful, precise, and involved testing, consuming expensive re-agents and the services of higher echelon personnel.

The suddenness of an outbreak of this type pointed up the immediate need for expanded kitchen facilities and animal quarters. These had been proposed in future normal expansion plans, but were secured at once.

Since much of the clinical material received is being retained in properly preserved condition (freezers, refrigerators) for future research and reference, logistic problems of recording and identification had to be met; we can anticipate a continuance of increasing numbers of such specimens. This will require additional clerical office assistance to maintain proper records. Large numbers of laboratory animals will be required to facilitate studies undertaken and anticipated. This will require additional personnel for care-taking and maintenance of animal quarters.

The laboratory staff was augmented by the employment of a Principal Virologist, a laboratory technician and a laboratory assistant.

Table 1.
TWO-YEAR COMPARISON

	1958-59	1959-60			
Specimens Received	2,742	4,618	{ Serologic Virus Isol. Mosquito Pools	2,499 1,997 122	
Tests Performed	21,984	43,738			
Type of Test:					
Virus Isolation and Identification	8,968	18,298			
Serologic	13,016	25,540			
Consultations	25	110			

Division of Local Health Services

JESSE B. ARONSON, M.D., M.P.H., *Director*

STANLEY P. MAYERS, JR., M.D., M.P.H., *Assistant Director*

MARIE A. SENA, M.D., M.P.H., *Civil Defense Administrator*

STATE HEALTH DISTRICTS

Central	GEOFFREY W. ESTY, M.D. <i>District State Health Officer</i>
Metropolitan	MIRIAM SACHS, M.D., M.P.H. <i>District State Health Officer</i>
Northern	HARRY R. H. NICHOLAS <i>District State Health Officer</i>
Southern	HUGH D. PALMER, M.D., M.P.H. <i>District State Health Officer</i>

Division of Local Health Services

The Division of Local Health Services has 2 major responsibilities. The first is to ensure the well-being of the residents of and visitors to the state by stimulating the development and maintenance of effective local health services in all areas. The activities to carry out this responsibility are delineated in this section of the report. The second is to act as the operational arm of the departmental programs providing program services throughout the state and to keep the central office staff of the respective programs informed of local problems and needs. These activities of the Division of Local Health Services and the State Health Districts are reported in the specific division and program sections.

The Division is made up of the Director, 4 State Health Districts, and the Civil Defense Administration, having a total of 80 professional and 38 office staff members.

The Director has concentrated on the following major functions:

1. Administering the 4 State Health Districts and the Civil Defense activities.
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 prescription of the Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments by the State Public Health Council, focusing public health attention on these standards and securing compliance with them have required 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 governmental organization is such that the classical pattern

DEPARTMENT OF HEALTH

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.

7. Development and stimulation of the use of survey and evaluation methods to determine community health needs and the measurement of health services in respect to these needs.

The 4 State Health Districts are responsible for State Health Department activities in the following counties. The percentage of the state's population in each District as based on the 1960 census is noted.

Table 1.

COUNTIES IN EACH STATE HEALTH DISTRICT	AND PERCENTAGE OF TOTAL POPULATION
<i>Central 22.5%</i>	<i>Metropolitan 53.1%</i>
Burlington	<i>Northern 9.4%</i>
Mercer	Hunterdon
Middlesex	Morris
Monmouth	Somerset
Ocean	Sussex
	Warren
	<i>Southern 14.8%</i>
	Atlantic
	Camden
	Cape May
	Cumberland
	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, both official and voluntary, 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 residents.

The professional staff of the 4 State Health Districts is shown in the following tabulation:

Table 2.
PROFESSIONAL STAFF, LOCAL HEALTH SERVICES

<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	1	1
Principal Public Health Engineer ..	3	1	2	vacant	vacant
Principal Sanitarian	4	1	1	1	1
Senior Sanitarian	5	1	2	1	1
Sanitarian	9	4	1	2	2
Assistant Sanitarian	2	..	vacant	1	1
Public Health Veterinarian	3	1	1	1	vacant
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	1	1	1	1
District Consultant Public Health Nutrition	4	1	1	1	1
District Chief Public Health Nurse ..	4	1	1	1	1
Public Health Nurse Supervisor ..	16	1	6	4	5
Public Health Nurse	1	1	..	..	(1 vacant)
Senior Public Health Physician ...	1	..	1	..	..
Physical Therapist	1	1	..	..	..
Industrial Hygienist	1	..	1	..	..
Assistant Industrial Hygienist	1	..	1	..	..

The 1959-1960 period was characterized by intensive activities in the development of local health services and by a real emergence of public understanding and acceptance of the need for effective local public health services. There were a number of factors leading to this favorable situation. First and foremost is the continuing District activity over a period of almost 10 years, bringing District personnel into constructive working relationships with local citizens, local officials, and local civic groups, voluntary health agencies, and

professional organizations. The basic concept guiding District personnel in these contacts stressed the local responsibility for providing health services meeting local needs. The second factor was the series of activities in preparation of the Recognized Public Health and Minimum Standards of Performance for Local Health Departments and their legal prescription by the State Public Health Council on December 14, 1959. The effective date of these activities and standards is April 1, 1961. A third factor was a series of public health emergencies occurring in the fall of 1959 which brought to universal attention some of the hazards to health that may affect both our well-being and our economy. These were the incident of the use of a chemical in poisonous amounts in preserving fish, the alleged improper use of a carcinogenic herbicide in the growing of cranberries, and the outbreak of eastern encephalitis.

The 1960 census revealed the full extent of the major population shifts that have been occurring in New Jersey. The population of the state has risen by almost 25 percent in the last decade. The population of Ocean County increased by 90 percent; Burlington and Middlesex Counties by over 60 percent; Bergen, Gloucester, Monmouth, Morris, Somerset, and Sussex, by over 40 percent. Of the 570 municipalities, 25 increased in population by over 200 percent and 72 additional municipalities gained 100 percent to 200 percent. On the other hand, of the 6 cities over 100,000 population, 5 cities lost between 5 and 11 percent of their population.

These population changes have created major problems in the provision of basic health services. A large percentage of the population living in the rapidly growing areas is dependent upon the uncertain effectiveness of individual sewage disposal systems. Many of the municipalities involved were recently entirely rural and do not have the basic structure of health and other municipal services.

Following the completion of the draft of the Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments and its submission to the State Public Health Council, a public hearing was scheduled by the Council on October 8, 1959. In preparation for the hearing, state-wide organizations and local organizations in each county which had an interest in health were provided with copies of the draft and urged to study its provisions. Staffs of the State Health Districts played a major role in stimulating and participating in such citizen discussions. Over 500 persons attended the hearing and 67 statements and briefs were presented. After a thorough study of the recommendations made at the hearing and the incorporation of a number of them into the text, the State Public Health Council at its meeting on December 14, 1959, legally prescribed the requirements and standards, setting as their effective date April 1, 1961.

The major efforts to develop community health services were carried out by the staffs of the State Health Districts.

Southern State Health District

Cape May County

The development of county-wide public health services in Cape May County may be traced to the setting up of the Cape May Regional Health Commission in 1938. The Commission represents the boards of health of 15 of the county's 16 municipalities and provides clinic services for venereal diseases and tuberculosis, in cooperation with the State Department of Health. In January, 1949, the Board of Chosen Freeholders employed a full-time county public health nurse. Since 1955, she has worked for both the Freeholders and the Regional Health Commission. Only 1 municipality, Wildwood, had employed a part-time licensed health officer.

In May, 1957, under the leadership of the Council for Local Public Health Services of New Jersey, the first of several Southern District regional meetings was held. Those present were urged to take action in their respective counties. In July, 1957, the County Public Health Nurse, with help from the District Consultant in Community Health Organization, began to stimulate the development of citizen interest in better local public health services. The support of all voluntary health agencies in the county was solicited. Members of the Southern State Health District staff participated in local meetings. The importance of the Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments was emphasized.

Early in 1958, plans were made to organize a county health council. At least 9 meetings were held between January and November. The interest and support of the Director of Welfare of the Board of Chosen Freeholders were solicited. On November 13, at a citizens meeting in Cape May Court House, it was voted to ask the Freeholders to give financial support for the employment of a county-wide health official by the Cape May County Regional Health Commission. The motion was made by the Secretary of the Board of Health of Middle Township.

On January 27, 1959, the Cape May County Medical Society endorsed the formation of a county health council and unanimously passed a resolution supporting the establishment of the position of health officer for the county. In May, the Cape May County Health Council was formally organized. Interest at that time centered around the threat to the shellfish and recreation industries caused by water pollution problems. The Department had condemned certain waters for shellfishing because of pollution.

In the summer and fall of 1959, an outbreak of eastern encephalitis claimed the lives of 21 of 33 diagnosed cases. Cape May was 1 among the 6 counties affected. There was widespread alarm and considerable economic loss. This experience undoubtedly made many citizens and public officials more aware of the importance of health protective measures. On December 3, the Cape May County Health Council devoted its meeting to mosquito control. The occasion was used by the Council's Chairman and the Director of Welfare of the Board of Chosen Freeholders to point out the need for a health officer to serve the county. The action of the State Public Health Council adopting the Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments was a major factor in convincing local citizens, as well as municipal and county officials, that a definite plan was necessary.

Late in December, negotiations were opened for grant-in-aid assistance from the Department to facilitate the employment of a full-time licensed health officer. A number of county-wide organizations passed resolutions urging the employment of a health officer. On January 15, 1960, the Cape May County League of Municipalities, with 15 of the 16 municipalities represented, voted unanimously to ask the Freeholders to budget funds for the salary of a county health officer. The County Medical Society reaffirmed its endorsement of the previous year. On February 1, the Health and Sanitary Committee of the Cape May County Chamber of Commerce adopted a resolution urging the Freeholders to appropriate funds for the employment of a county health officer. The Cape May County Regional Health Commission had long urged similar action.

On February 9, the District State Health Officer was called upon to answer questions and present the Department's position at a public hearing called by the Board of Chosen Freeholders. Support was strong for the employment of a county public health coordinator. To get a further expression of official opinion, the Director of the Freeholders called a meeting of the local mayors on February 23. The District State Health Officer was again called upon to answer questions and explain the Department's plans regarding enforcement of the Minimum Standards. Nine of the 16 municipalities were officially represented. On a roll call vote, all 9 were in favor of having the Board of Chosen Freeholders employ a health officer.

The Cape May County Planning Board had made a study of the legal aspects of various organizational patterns for providing official public health services, as part of 1 of its master plan studies. Its recommendation was presented at the mayors' meeting of February 23, by the Director of the Board of Chosen Freeholders.

On March 1, the Freeholders passed a resolution, introduced by the Director of Welfare, setting up the position of County Public Health Coordinator. On May 1, a grant-in-aid contract between the Department and the Freeholders went into effect, providing a partial subsidy for the position. On May 23, the new position—the first such ever established by a county in New Jersey—was filled by a well qualified health officer. Contracts were then offered by the Freeholders to local boards of health under which the services of the Public Health Coordinator as local health officer could be obtained from the Freeholders for one dollar per year. By the end of June, 12 of the county's 16 municipalities had taken advantage of this opportunity. In this way, coverage by a full-time licensed health officer was made available for the first time to 62.5 percent of the county's population of 47,452 people.

This story clearly demonstrates that the New Jersey pattern of District organization of the State Department of Health can effectively work with local citizens, officials, civic and professional organizations; provide consultative and technical assistance and financial aid; foster understanding of health problems and needs; and stimulate people to action to secure ways to meet their needs.

Atlantic County

In November, 1959, the Council of Community Services, which covers the greater Atlantic City area, employed a part-time executive secretary for the first time. In May, 1960, the Council adopted a resolution aimed at stimulating compliance with the Minimum Standards of Performance for the Recognized Public Health Activities. This was subsequently sent to local officials in all 23 municipalities, as well as to each member of the Board of Chosen Freeholders. Also in May, the Medical Society of Atlantic County adopted a resolution supporting implementation of the Minimum Standards and urging the employment of qualified public health personnel. Two municipal boards of health passed resolutions asking the Board of Chosen Freeholders to aid them in meeting the Minimum Standards by employing a county public health coordinator.

In January, 1960, at their respective annual meetings, the Regional Health Commissions of Central Atlantic and North Atlantic County discussed the possibility of a merger. The objective was to have a common budget of sufficient size to permit the employment of a full-time sanitary inspector. The difference in per capita assessments by the 2 Commissions prevented any concrete action, and it appeared that county-wide services, perhaps under the Freeholders, would be the eventual means of compliance for all except Atlantic City.

Salem County

In the fall of 1959, the findings of the public health survey conducted by the Salem County Council for Local Public Health Services were presented to the Board of Chosen Freeholders. In November, 1959, the survey report was made public at a meeting of the Council addressed by the State Commissioner of Health. In February, 1960, the Director of the Division of Local Health Services, at the invitation of Senator Waddington, discussed the Minimum Standards at a meeting of the association of all municipal officials in Salem County. Subsequently, District representatives discussed the same subject with a group of the Freeholders, at the invitation of the President of the Salem County Council for Local Public Health Services.

Northern State Health District*Hunterdon County*

On July 1, 1959, a director was appointed to the Family Nursing Service of the Hunterdon County Public Health Association. The Hunterdon County Public Health Nurse Supervisor was loaned to that agency and now functions under the director of the new agency. A grant-in-aid contract to promote this program was made available effective July 1, 1959, and a new contract has been signed for the current year. The growth of this agency has been slow but proportionate. Complete integration of the existing official nursing services has not been effective and will continue to require consistent administrative direction and assistance.

District staff met with 22 representatives of 8 local boards of health in Clinton in February, 1960, to discuss and interpret the Minimum Standards and methods of implementing them. At this time, the president of 1 of the local boards suggested that the group consider joining together and forming a regional unit. Though there was no general expressed for acceptance or rejection of this plan, all present agreed that joint planning had to be done.

Morris County

Efforts have been expended by the District staff to develop and expand local agency services and facilities since this county has the greatest number of qualified personnel and organized agencies in the District. Some of the activities in which efforts were directed included provision of supervision by Morris County Visiting Nurse Association for the Jefferson Township local board of health nurses; acceptance by Chester Borough and Township of public health nurse services as part of the local program and provision of such service by the local agency through the Morris County Visiting Nurse As-

sociation; exploration of expansion of child health conference facilities in the Dover area; development of provisions on continuity of care for the discharged mentally ill patient; assistance to 5 Morris County hospitals (Chilton, All Souls, Morristown Memorial, St. Clare's, and Dover General) in the extension of their community activities related to public health; joint planning with health agencies for in-service training and public health education programs and activities; and assistance in the Morris County White House Conference activities and report.

Somerset County

As a result of the discussion and participation of the Freeholders in a radio broadcast relating to the Minimum Standards, they requested a meeting with the District staff to discuss the Somerset County problem. A briefing conference was held in February, 1960. A county-wide meeting was held in April, 1960, to discuss plans for the implementation of the Minimum Standards. Fifteen of the 21 municipalities in the county were represented at this meeting as well as representatives of the county medical society and of the County Board of Freeholders.

Staff gave consultation throughout the summer of 1959 to the Somerville Citizens Survey Committee in collecting and analyzing the survey data and in the preparation of a preliminary report which was presented by the committee to the local board of health in September, 1959. The preliminary report was evaluated by District staff and assistance was given in preparation of the final report and recommendations which were submitted to the local board in January. As a result of the efforts of this Citizens Committee, the local governing body reorganized the administrative functions of the health officer to include vital statistics and began in April to recruit staff to provide more sanitation activities.

On July 1, 1959, the Community Service Society of Bound Brook and the Somerset Valley Visiting Nurse Association merged. A grant-in-aid of \$10,500 for a senior public health staff nurse and other administrative costs was provided effective October 1, 1959. Continuity of supervision and the expansion of nursing services for the communities were effected.

Sussex County

Major efforts in the county were directed toward the development of county health services with the Sussex County Board of Chosen Freeholders, the Sussex County Medical Society, and the local boards of health. Many conferences were held throughout the year to outline functions, responsibilities, and plans for development of service. News releases and radio broadcasts

were prepared relating to the proposed service. A county meeting held in May, pinpointed the need for individual conferences with each of the local committees and boards of health to determine areas of endorsement or contra-indications. By the end of the fiscal year, conferences had been held with 20 of the 24 municipalities in the county.

Warren County

Throughout the year, the Warren County Welfare Council was assisted by District staff in programming and community organization activities, including projected activities for promotion of a county public health nursing service; the County White House Report; development and establishment of homemaker services; Warren Hospital problems, specifically in physiotherapy and social service; and the County Survey Report and recommendations.

The analysis of the Survey was made at the Annual Fall Meeting and the recommendations were as follows:

1. In view of the need for rehabilitation services as found in the survey of individual families, efforts be made to establish a rehabilitation facility in the county, including physical therapy and rehabilitation equipment, physical therapy and rehabilitation personnel, and a medical-social worker.
2. Since Part I of the Survey, the inventory of health resources, indicates a need for a directory of health and welfare agencies, that the Warren County Welfare Council initiate the publication of such a directory.
3. Since the survey indicates that local boards of health are burdened with other duties, and that there is in Warren County a rapid increase in population, that the Council urge that local municipal health departments be strengthened.
4. Since the survey of environmental health, including milk, water supplies, garbage and sewage disposal, food handling, and public nuisance indicates that inspections in municipalities pose problems, that the Council recommend that Warren County would benefit by the services of a professional sanitarian who would be available on a consulting basis to local boards of health.
5. Since the study of maternal and child health services and of visiting nurse services, along with the increasing suburbanization of Warren County indicates a growing need, that the Council recommend that the municipalities of the county study their own needs in this field and consider the steps they may take to meet them. (It is recommended that for optimum public health nursing services, there be 1 nurse for

every 2,000 population.) The Health Committee also asks that the Council authorize its personnel to assist in such studies by making available the material it has collected and by working with the citizens of the municipalities.

Action has been taken on the first 2 recommendations and specific implementation of the others is being explored.

The need for a county-wide combination public health nursing service agency continues to be vital in Warren County. Members of the District staff are continuing to assist the Warren County Welfare Council in promoting this service.

Central State Health District

Mercer County

In order to determine how well its program was meeting the Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments which were prescribed by the New Jersey State Public Health Council in December, 1959, the Board of Health of the Borough of Princeton appointed a committee in January, 1960, to make a survey of health services in that community.

The purposes of this study are to determine how well the Department's programs are being carried out, to discover any gaps in health services, and to investigate the possibility of providing health services on a contractual basis to nearby municipalities.

From the time that the survey was first considered, the District State Health Officer and the District Consultant in Community Health Organization of the District have assisted the committee in an advisory role. This study was started before the State Evaluation Schedule for Local Health Services had been prepared. For this reason, the staff of the District, in cooperation with the survey committee, designed a survey form which was related to the Minimum Standards and could be used to make this survey.

The study is now about half completed. Already plans are being made to improve some services and institute others as a direct result of the findings of the survey.

From the progress of the study up to this point, it appears that the committee will continue to push on to a successful conclusion.

Middlesex County

The multiplicity of public health nursing agencies in Middlesex County has long presented a problem for coordination and supervision. At the present time, the 25 municipalities in the county receive public health nursing services

from 18 different agencies. Some of these agencies are official ones while others are voluntary. Some are county-wide, others include several municipalities in their coverage, and others cover a single municipality. It is possible for a family in 1 municipality to be visited by 7 different public health nursing agencies.

In order to develop community interest in this problem, the Central State Health District in December, 1958 presented the pertinent facts to the Community Welfare Council of New Brunswick and vicinity. As a result of this presentation, the Council determined to study the public health nursing services in the county. For this purpose, a steering committee made up of representatives of interested community groups was appointed.

This committee, with the help of District staff, developed a simplified questionnaire for use in the study. The questionnaire was tested in a pilot study in Highland Park during the early summer of 1959. The full-scale study was begun in the fall of 1959, utilizing interested citizens from various community organizations to assist with the completion of the questionnaires. The District staff has worked closely with the committee, providing professional guidance where necessary and interpreting findings where there were questions about them. Plans call for the study to be completed, and a report with recommendations to be written by December, 1960.

Ocean County

The outbreak of eastern encephalitis which occurred in August and September, 1959, served to highlight the lack of local health services and the absence of trained and qualified personnel to carry them out in Ocean County. The outbreak found Ocean County without a full-time licensed health officer in any municipality. As a result of this experience, there was a reawakening of citizen interest in the development of county-wide protective health services.

Sparked by the Ocean County Medical Society which has long worked for the development of a health program in the county, a number of citizen groups, including parent-teacher associations, have expressed interest in such a development. The District staff met with these groups on numerous occasions during the past year and provided guidance, consultations, speakers, suggested plans and other material to assist in promoting the development of county-wide protective health services.

The citizen groups interested in securing better protective health services in the county began attempting to develop a public health coordinator position in the county similar to that which was developed in Cape May County. Although these efforts have not been successful as of this date, there is much interest in this topic in the county and there is reason to hope for success in the coming year.

Metropolitan State Health District

Bergen County

For several years, there has been a strong feeling among community leaders and many agency groups that public health services in Bergen County needed to be organized and expanded on a more orderly and comprehensive pattern.

Partly as a result of this feeling and partly under the stimulus of the Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments, plans for extended public health services became more formalized during the past year. The Bergen County Council of Social Agencies initiated action by calling a dinner meeting early in the fiscal year, to which local leaders, hospital administrators, the County Medical Society, representatives of the voluntary agencies, the Board of Chosen Freeholders, the Planning Board, New Jersey Health Officers Association, and the State Department of Health were invited. As a result of discussions held at this meeting, a plan suitable for the characteristics of Bergen County began to emerge.

Bergen County is composed of 71 municipalities, ranging in size from a population of 40,000 to less than 1,000. Many of these communities have experienced a "population explosion" within the last 10 years. Regardless of size, all communities have retained a tremendous sense of local pride. It became apparent that any plan for improved comprehensive health services would have to include a provision for a broader tax base and therefore better salaries for the properly qualified and licensed personnel, at the same time allowing adjustment for local autonomy to be retained.

There is strong county pride in Bergen Pines County Hospital which maintains laboratory services, available to all communities, and administers a highly efficient program of tuberculosis, communicable disease, and chronic illness control. This hospital has made progress in establishing a clinic and services in alcoholism control, mental hygiene, and a speech and hearing center.

To the County Board of Chosen Freeholders, Bergen Pines Hospital seemed a logical place to include in its services a public health program available to all Bergen County communities. The Board of Managers of the hospital and its Medical Superintendent accepted such a plan for services and began organizing to accomplish it.

It was agreed to establish at Bergen Pines County Hospital a Division of Public Health and Preventive Medicine. This Division would have as its administrative head a director under the general administrative direction of the Medical Superintendent. Included on the staff of the Division of Public

Health and Preventive Medicine would also be a nursing director, a public health coordinator, and staff of sanitarians with specific responsibility for environmental health.

The Division Director would be available for appointment as municipal health officer to those municipalities which contracted for their public health services from Bergen Pines Hospital. Other Division staff members would also supply services on a contract basis to supply in full or augment services for local communities. Local boards of health would retain their autonomy and the Division Director would be able to assist them with establishing programs, conducting investigations, and pressing any legal actions that might be necessary.

The establishment of this Division by the county hospital presents possibilities for expanding basic public health services and gradually extending programs into the fields of chronic illness control, restorative services, home care, and a wide variety of new responsibilities in public health.

Meetings were held with many associations and groups in Bergen County, such as the Bergen County Tuberculosis and Health Association, the Bergen County Health Officers Association, directors of visiting nurse associations, and representatives of the teachers and school nurses. Local communities were visited on an individual basis to explain the plan, budget implications, and the manner in which community contracts would be operative. Several communities have expressed interest in combining their current services with those to be made available from the Division of Public Health and Preventive Medicine. It is expected that within the very near future the service will become a reality.

Essex County

The District joined with the Essex County Department of Education and the Essex County Tuberculosis League in presenting the Third School Health Conference at the Montclair State College on September 24. Approximately 100 persons, representing all phases of school health programs, were in attendance.

"Earmarks of a Good School Health Program," the theme of the conference, were discussed by Dr. Roscoe Kandle at the evening session. Other conference speakers who discussed the subject included: Mrs. Lester Goldman, Essex County Council Parent-Teacher Associations—"As Seen by the Parent"; Miss Pauline Foster, Assistant Professor of Health and Physical Education, Montclair State College—"As Seen by the Teacher"; Miss Dorothy Crosby, Assistant in Health Education, State Department of Education—"As Seen by the Specialist"; Norman L. Claxton, Vice-Principal, South Junior High School, Bloomfield—"As Seen by the Administrator."

Exhibits displaying educational and resource materials were made available for school health programs by cooperating agencies. Time was allowed in the program schedule for examination of resource materials.

Dr. W. S. Twichell, County Superintendent of Schools, has served as chairman of the conference since it was instituted in 1959. Members of the planning committee assisting in promoting the conferences consisted of representatives of local boards of education and health agencies, Essex County Council of Parent-Teacher Associations, and Montclair State College.

The District office, the Tuberculosis Control Program, and local health departments of Essex County presented a cooperative Tuberculin Text Exhibit and Demonstration at the Essex County Health Fair. Planning meetings were held with the Health Officers Association of Essex County to work out a system of referral to local health departments and Visiting Nurse Associations for reading of the tests performed at the Fair, and to arrange for x-ray examination of positive reactors and family contacts. The District office acted as a clearing house for cross referrals in Essex County, and also for those persons who came to the Fair in Essex County but resided in other counties.

The demonstration created the opportunity for better understanding of the efficiency and reliability of the Mantoux test in case detection programs. The tests were given to adults and children. Parents were required to sign consent forms for their children. The testing program attracted the attention of personnel from local boards of health and education, the medical profession, voluntary agencies, and nursing groups interested in tuberculosis detection programs.

The Essex County Fair, held at the South Mountain Arena, West Orange, was sponsored by the Essex County Inter-Professional Health Council. Approximately 23,822 persons attended the event. Fifty-four agencies took part in displaying exhibits related to health and welfare in the Essex County area.

Union County

Eighty persons representing a cross-section of lay and professional leadership in health and welfare programs attended a Workshop on Continuity of Patient Care in Union County. The workshop was sponsored by the Union County Committee on Continuity of Patient Care and the Community Welfare Councils of Eastern Union County and Plainfield, with the assistance of the Division of Chronic Illness Control and the District.

Pauline G. Stitt, M.D., Assistant Professor, Maternal and Child Health, Harvard School of Public Health, gave the keynote address on the subject—"Continuity of Care as a Challenge to Community Organization."

Some of the suggestions submitted by workshop leaders as an outgrowth of group discussions include: (1) The development of a central referral agency;

(2) Compilation of a county directory of agency resources; (3) Setting up of getting-acquainted meetings for the purpose of closer working relationships between agencies; (4) The organization of a permanent county committee on continuity of patient care.

A permanent committee on patient care is now being organized. A sub-committee has been appointed to develop a plan for the group. District staff will give assistance in the follow-through on plans for the work of this committee.

Grants-in-Aid

The amount expended for grants-in-aid through the Division of Local Health Services for the year ending June 30, 1960, was \$32,749.61. The allocation of this amount by categories was as follows:

Table 3.

GRANTS-IN-AID BY TYPE OF SERVICE

<i>For</i>	<i>Amount</i>
Public Health Nursing Services	\$26,938.43
Health Officer Services	909.72
County Public Health Coordinator	625.54
Sanitation Services	1,999.92
Public Health Courses	1,500.00
Child Health Conferences	736.00
Migrant Labor Services	40.00
Total	\$32,749.61

At the beginning of the fiscal year, July 1, 1959, there were 9 grant-in-aid contracts in effect. Six were with boards of health, 1 with a board of education, and 1 with a county board of Freeholders. All 8 were for public health nursing services. The ninth contract was with a township for child health conference services.

On July 1, 1959, contracts were signed with 3 boards of health and 4 boards of education for public health nursing services. All were renewals of previous contracts but for reduced amounts. Also, on July 1, renewal contracts were effected with a board of health for health officer services, with a visiting nurse association for providing public health nursing services, with Rutgers University for providing courses in public health, and with a regional health commission for sanitation services. Later in the fiscal year, primary contracts were made with a visiting nurse association for public health nursing services, with a board of health, and with a township for the support of child health conferences.

As of January 1, 1960, renewal contracts for public health nursing services were consummated with 2 boards of health and a county board of Freeholders. On May 1, 1960, for the first time, a grant was made to a county (Cape May) to pay part of the salary of a county public health coordinator.

Six contracts with boards of health and 5 with boards of education, all for public health nursing, expired during or at the end of the fiscal year. In each case, the recipients had received 3 years of grants with annual reductions in the amounts.

Table 4, which follows, shows the number of contracts in effect during the year and the amount disbursed according to the type of organization to which the grants were made.

Table 4.
GRANTS-IN-AID BY TYPE OF RECEIVING AGENCY

<i>Organization</i>	<i>No. of Contracts</i>	<i>Amount Expended</i>
Boards of Health	11	\$4,482.44
Boards of Education	5	798.30
Visiting Nurse Association	2	8,715.96
Boards of Freeholders	2	3,239.22
County Public Health Association	1	11,461.77
University for Courses	1	1,500.00
Regional Health Commission	1	1,999.92
County Org. for Social Service	1	40.00
Municipal Governing Bodies	2	512.00
Totals	26	\$32,749.61

DEPARTMENT OF HEALTH

Following is a tabulation showing the amount paid by quarters for each grant-in-aid contract in effect during the fiscal year.

Contract No.	Name of Grantee	1959	1959	1960	1960	Totals
		July-Sept.	Oct.-Dec.	Jan.-Mar.	Apr.-June	
<i>A. For Public Health Nursing</i>						
76 B.	Bd. of Health—Buena Boro ...	\$43.33	\$129.99	\$129.99	\$129.99	\$423.30
31 B.	Bd. of Health—Somerdale Boro .	90.00	90.00	...	...	180.00
29 B.	Bd. of Health—Washington Twp.	337.98	337.98	337.98	337.98	1,351.92
82	Bd. of Health—Alpha Boro	126.99	126.99	63.48	63.48	380.94
83	Bd. of Health—Blairstown Twp.	240.99	240.99	120.48	120.48	722.94
85	Bd. of Health—Harmony Twp. ..	43.23	43.23	...	...	86.46
94	Bd. of Health—Knowlton Twp.	29.73	29.73	...	...	59.46
81	Bd. of Health—Independence Twp.	42.87	42.87	...	...	85.74
89	Bd. of Health—Dennis Twp.	28.98	28.98	...	...	57.96
30 B.	VNA—Middlesex County	603.99	603.99	603.99	603.99	2,415.96
47 B.	Hunterdon County P.H. Ass'n. ...	2,408.32	2,894.74	...	...	5,303.06
48 B.	Hunterdon County P.H. Ass'n. ...	...	...	3,003.23	3,155.48	6,158.71
78 B.	Somerset Valley VNA .....	...	2,100.00	2,100.00	2,100.00	6,300.00
97	Burlington Co. Bd. of Freeholders	756.65	735.11	...	...	1,491.76
92 B.	Burlington Co. Bd. of Freeholders	...	...	533.17	588.75	1,121.92
72 B.	Bd. of Educa.—Alpha Boro	57.99	57.99	57.99	57.99	231.96
27 B.	Bd. of Educa.—Dennis Twp.	36.48	36.48	36.48	36.48	145.92
75 B.	Bd. of Educa.—Upper Twp.	34.23	34.23	34.23	34.23	136.92
32 B.	Bd. of Educa.—White Twp.	51.48	51.48	25.77	25.77	154.50
88	Bd. of Educa.—Allamuchy Twp.	64.50	64.50	...	...	129.00
Total						\$26,938.43
<i>B. For Child Health Conferences</i>						
115	Mt. Holly Twp.	\$72.00	\$72.00	\$72.00	\$80.00	\$296.00
89 B.	Bd. of Health—Burlington ....	...	32.00	64.00	128.00	224.00
97 B.	Edison Township .....	...	...	72.00	144.00	216.00
Total						\$736.00
<i>C. For Health and County Public Health Coordinator</i>						
28 B.	Bd. of Health—Phillipsburg	\$303.24	\$303.24	\$303.24	\$303.24	\$909.72
125 B.	Cape May Co. Bd. of Freeholders	...	...	...	625.54	625.54
Total						\$1,535.26
<i>D. For Sanitation Services</i>						
26 B.	Northwest Bergen Reg. Health Comm.	\$499.98	\$499.98	\$499.98	\$499.98	\$1,999.92

E. For Migrant Labor

77 B. Monmouth Co. Org. for Social Serv.	\$40.00	\$40.00
---	---------	-----	-----	-----	---------

F. For Public Health Courses

78 B. Rutgers University	\$1,500.00	\$1,500.00
--------------------------------	-----	-----	-----	------------	------------

Grand Total					\$32,749.61
-------------	--	--	--	--	-------------

Civil Defense Medical and Health and Special Weapons Services

Bomarc Radiation Incident

On June 7, 1960, a radiological team with special alpha detectors was organized by the Radiological Health Program, and escorted by police to the area of an explosion near McGuire Air Force Base. Samples of soil were collected for analyses at the United States Public Health Service laboratory. Monitoring of the highways and vicinity of the explosion revealed no radioactivity outside the perimeter of Bomarc site.

Tornado in South Jersey

On July 14, 1960, the Weather Bureau reported a tornado in Gloucester County. Investigation by the Southern State Health District and Division of Environmental Health personnel revealed that damage caused by the tornado did not constitute a health hazard.

Training Program

Further progress was made in the State Medical and Health and Special Weapons Training Program with considerable interest and participation by departments of state government. The role of the pharmacist in civil defense was explained to members of the Ocean and Monmouth Pharmaceutical Societies. Assistance was given to the Soil Conservation Division and to the Bureau of Animal Industries of the United States Department of Agriculture by providing instructors, visual aids, and other materials. Orientation on Emergency Handling of Radiation Incidents was given to each of the 5 troops of the New Jersey Division of State Police and to key personnel in the State Highway Department. Two hundred and twenty-five persons attended a 1-day orientation on a 200-Bed Emergency Hospital held at Essex County-State Medical and Health Training Center, Cedar Grove. One hundred and twenty-five individuals completed the didactic and field exercises at Hudson County Radchem Instructors Training Program. Assistance and guidance were given the School of Dentistry, Fairleigh Dickinson University, in the development

of an intra-mural training program in civil defense for junior and senior dental students. A 3-hour radiological-chemical defense orientation was given to over 100 men and women volunteers at the tri-county (Burlington, Gloucester, and Camden) ambulance squads. The role of the school nurse and Radiological-Chemical Defense orientation was given to about 50 school nurses and others attending a first-aid training program at Trenton State College. Orientation on radiological defense and the role of women's clubs in shelter and home preparation were presented at civil defense session of the New Jersey Federation of Women's Clubs. In-service training programs for State Highway Department and State Police to equip them for their role in the National Monitoring Network are being undertaken.

National and State Tests

Key persons of the State Department of Health participated at the control center exercise of national operation alerts OPAL '59, OPAL '60, and the State Exercise '60. Such participation served as a "refresher" on inter-service relationships and on control center procedures. Resource manuals for medical and health control center operations are brought up to date from data obtained from professional organizations and licensing boards as well as from departments of state government.

Special Projects

1. An orientation manual entitled "The Logistics, Storing, Assembly and Operation of 200-Bed Emergency Hospital Unit" was prepared. Such a guide had been requested by civil defense directors and hospital directors.
2. The coding and classification of hospitals were prepared and submitted for consideration by the Public Health Council and by pertinent professional and hospital organizations. There is a recognized need for such classification during natural and enemy action disasters.

Liaison Activities

The role and inter-relationships of the civil defense and the military medical and health services were explored with representatives of Fort Dix, the McGuire Air Force Base, and Eastern Military Transport Service.

Arrangements were made for guided tours at State Hospital Training Center and for state-wide use by various organizations of the training manikin, Mr. Disaster.

Sites for prepositioning of federally allocated 200-Bed Emergency Hospital Units were inspected along with state-regional civil defense coordinators. Other liaison activities included: Conferences with representatives from local, county, state-regional, and federal-regional civil defense organizations, hospital

representatives, the military, United States Atomic Energy Commission, and the United States Public Health Service; preparation of technical letters of reply for staff of State Division of Civil Defense; processing of requests and applications from county civil defense organizations and individuals for Federal Radchem Training Manuals and for Atomic Energy Commission licenses; preparation and distribution of technical guides to departmental staff, to state, county and local civil defense staffs, and other individuals; inspection of radiation detection instruments and supervision of battery replacements at storage sites; and review of training films.

Miscellaneous Activities

Evaluation Schedule

Faced with the problem of securing compliance with the Minimum Standards of Performance, it became necessary to devise a method of measuring local public health activities against these legal standards. With the cooperation of various departmental program personnel, this Division developed an "Evaluation Schedule for Local Health Services" to be used in conjunction with the Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments. This was published in mimeographed draft for field trial and distributed widely to local health department personnel. The Town of Montclair has designated an official citizens survey committee which is using this schedule to evaluate public health activities in that municipality. Other communities are also planning to use the Evaluation Schedule.

Publications

For the past 4 years, the Division of Local Health Services has published a bi-weekly single-page newsletter, "Public Health Briefs," addressed to full-time administrators of local public health services and other officers of official and voluntary agencies interested in local health services. During the year, 23 issues were published. "Briefs" serves to keep its readers posted on day-to-day happenings in public health such as meetings, training courses, personnel changes and policy changes, as well as other events of general interest.

A leaflet entitled "A Yardstick for Health Services in Your Community" was published calling attention to the new Minimum Standards.

Training

In cooperation with the New Jersey Health Officers Association, training workshops were held for full-time local health officials.

For local health officers, workshops were held on "Minimum Standards," "Tuberculosis Control," and "The Use of Visual Aid Equipment."

For local health department sanitarians, workshops were held on "The Public Health Aspects of Housing" and "The Sanitary Control and Supervision of Catering Establishments."

An institute on "The Local Health Department and the Practicing Veterinarian" was held in cooperation with the New Jersey Veterinary Medical Association.

Mosquito Control

According to the statutes, the State Commissioner of Health is an ex-officio member of each of the county mosquito commissions. With the intensified mosquito control activities following the outbreak of eastern encephalitis, members of the District staffs were deputized by the Commissioner and assigned to meet regularly with each of the county commissions. In addition to providing liaison in the activities and research studies aimed to prevent a recurrence of encephalitis, problems of drainage and stream pollution, which are of interest both to the commissions and to the Department, are being approached in a coordinated fashion.

White House Conference on Children and Youth

The District staffs played a major role in working with the county committees in surveying local health needs of children and youth and in formulating plans for meeting these needs.

White House Conference on Aging

The District staffs cooperated with a number of county committees in surveying the problems of the aging in preparation for a report to the State Committee on Aging.

Activities with Parent-Teacher Associations

Each of the District staffs met with the county parent-teacher health chairmen in their Districts. These conferences were undertaken at the suggestion of the Health Chairman, New Jersey Congress of Parents and Teachers. They gave the county health chairmen and members of the District staff an opportunity to accomplish 2 objectives:

1. To explore opportunities for the State Health Department to cooperate with the parent-teacher associations in carrying out the Parent-Teacher Association Biennial Plan of Health Activities.
2. To acquaint the parent-teacher associations with the major local health problems, to secure better understanding of these problems, and to explain the objectives of the State Department of Health activities in meeting these problems.

Division of Preventable Diseases

WILLIAM J. DOUGHERTY, M.D., M.P.H., *Director*

Programs:

Communicable Disease Control	WILLIAM J. DOUGHERTY, M.D., M.P.H.
Tuberculosis Control	JAMES E. PETERMAN, M.D., M.P.H. <i>Program Coordinator</i>
Venereal Disease Control	FERRIS M. HOGGARD, B.S. <i>Health Program Representative</i>

Division of Preventable Diseases

Communicable Disease Control Program

Morbidity, Mortality, and Trends of Notifiable Diseases

The year 1959 will be remembered in New Jersey because the first recorded outbreak of eastern encephalitis in humans occurred in the fall. Between August 17 and December 3, a total of 33 cases of eastern encephalitis was reported. Twenty-one persons died, all but 1 in the course of the acute illness. The case fatality rate of 64 percent was comparable to the Massachusetts experience of 1938.

The early cases of August were followed by a sharp rise in September and a decrease of illnesses in October. The peak was reached in the week of September 7.

Fifty-three percent of the cases were under 10 years of age, 28 percent were over 50 years of age. The age group between 30 and 49 was spared of cases.

Of the 21 deaths, 15 were confirmed on the basis of virus isolation and/or serologic evidence. In 6 cases, histopathological findings were compatible with a diagnosis of eastern encephalitis. Of the 12 living cases, all have been confirmed on the basis of serologic evidence.

The cases of eastern encephalitis were most numerous in Ocean County where there were 18 cases and 10 deaths. All of the cases occurred within the southern counties of the state. Only Camden and Gloucester Counties were spared.

Table 1.
DISTRIBUTION OF CASES AND DEATHS
EASTERN ENCEPHALITIS
NEW JERSEY 1959

<i>Area</i>	<i>Cases</i>	<i>Deaths</i>
NEW JERSEY	33	21
Atlantic County	6	4
Burlington County	3	3
Cape May County	2	2
Cumberland County	3	1
Ocean County	18	10
Salem County	1	1

The communities affected in Ocean County were located along United States Route 9, a principal north-south highway. The homes of affected individuals either bordered this highway or were within a short distance of it. Cases in Atlantic County occurred adjacent to Route 9 and along Route 30 to the west.

The affected communities of Ocean County were situated at the dividing line between the salt marsh, fresh water swamps, and second growth woodland. This physical relationship coincides with the known distribution of *Culiseta* Malanura and the breeding areas of the salt marsh mosquitoes.

The outbreak of eastern encephalitis stimulated a great amount of investigative work that was conducted jointly by the various programs of the Department. Serologic surveys among humans and domestic poultry were undertaken. Studies to determine and elucidate the role of wild birds in the transmission cycle of eastern encephalitis have been carried on throughout the year.

As the serious economic effects of the outbreak became apparent, the Governor established an Inter-departmental Committee on Disease Control to study the related causes and to work out interdepartmental programs for the control of eastern encephalitis. The effective relationship existing within the Interdepartmental Committee and between the participating scientists have provided constructive information and a fuller understanding of the epidemiology of eastern encephalitis.

New Jersey in 1959 experienced a moderate incidence of poliomyelitis, there being 106 cases, 87 with paralysis, and 7 deaths. Laboratory study of 80 of the paralytic cases revealed 54 Type I and 9 Type III infections. Fifty-six percent of the cases with paralytic disease were under 10 years of age. *Nearly half of the paralytic cases have not received poliomyelitis vaccine.*

Cases were concentrated in Bergen, Hudson, Passaic, Essex and Burlington Counties. There was a distinct tendency for cases to occur in low socioeconomic areas of the community.

There were 168 cases of aseptic meningitis, 59 due to Coxsackie virus, 19 due to ECHO virus, 19 due to mumps, and 71 of unknown etiology.

The 168 cases of aseptic meningitis were distributed throughout the state. However, there were distinct concentrations in Bergen, Camden, Essex, Morris, and Passaic Counties. One hundred thirty-one of the cases were tested in the laboratory. In 47 cases no virus isolation or serologic evidence was found to incriminate the etiological agent. Fifty-nine isolations of Coxsackie virus were made, the predominate type B5 was isolated on 35 occasions. Nineteen isolations of ECHO virus were reported, 4 each of ECHO 11 and 14. The outbreak of aseptic meningitis developed slowly in May, June, and July, reached its peak in August and continued into the fall.

There were also 18 cases of encephalitis due to measles and varicella.

At the end of the year after follow-up was completed there were 48 cases of suspected central nervous system disease of virus origin that could not be classified as to etiology.

In 1959 there were 33,021 cases of measles. A heavy concentration of 13,700 cases occurred in Essex County. Union experienced 6,849 cases.

There were 6,455 cases of streptococcal sore throat, including scarlet fever. One thousand one hundred fifty cases were reported from Passaic County.

Whooping cough occurred with increasing frequency. Five hundred eighty-two cases were reported, with concentrations in Essex and Passaic Counties.

Ten cases of diphtheria occurred during the year, 8 of them located in Hudson County. One case, a 3-year-old child, expired in the Isolation Hospital of the Jersey City Medical Center. This girl had not received diphtheria, pertussis or tetanus immunization. One of the patient's 2 sisters had 2 inoculations of triple antigen and the other none. Cases of this type serve to re-emphasize the need for continual surveillance of the diphtheria immunization program.

Eleven cases of typhoid fever were scattered throughout the state. This is less than half the number of cases reported in New Jersey during 1958. There were 61 typhoid fever carriers listed in the State Health Department files at the end of the year.

There were 320 cases of infectious hepatitis reported to the Department. In the preceding year, 1958, there were 193 cases. This seems to have been the low point in a downward trend which started in 1954. The present upward trend appears to parallel that observed in the country as a whole.

Four cases of tetanus were reported to the State Department of Health during the year. The continued occurrence of this disease re-emphasizes the need for maintaining a high level of immunization in childhood and adult life.

There were no reported cases of botulism, cholera, dengue, glanders, leprosy, leptospirosis, mental deficiency, plague, psittacosis, Q-fever, rabies (human), smallpox, trachoma, typhus fever, or yellow fever during the year.

Poliomyelitis Immunization Promotion

The sampling surveys undertaken in Atlantic City, Bayonne, Camden, Hoboken and Trenton, during the spring of 1959, were completed. Information was obtained on a total of 7,279 persons through 39 years of age. The sample was heavily weighted by persons in the middle and low socio-economic groups. For example, only 524 persons were sampled in the upper socio-economic group. Approximately 50 percent of persons in the middle and low socio-economic groups had not received Salk vaccine. Only 28 percent of children under 5 years and 50 percent of children in the 5 to 14 age group

had received 3 or more inoculations. The highest level of triple inoculation, 71 percent, was found in Trenton in the 5 to 14 age group.

A survey conducted by the Newark Division of Health in the late spring and early summer of 1959 revealed that over 7,000 persons through 18 years of age had obtained a complete series of poliomyelitis vaccine. This survey also revealed 2,000 persons who had not received poliomyelitis immunization. Studies conducted in the low socio-economic areas of Jersey City disclosed that only 32 percent of persons had completed a series of Salk inoculations. In Elizabeth, a study of school immunization records indicated that in low income sections of the city, with a school enrollment of over 6,000 students, only 59 percent had received 1 inoculation of Salk vaccine. In Passaic County, more than 20,000 poliomyelitis vaccine inoculations were given, 80 percent to persons receiving first or second doses of vaccine. The effect of the immunization surveys conducted in the spring is demonstrated by the amount of vaccine shipped into the state. Between January 1 and December 31, 1959, a total of 1,785,000 doses of vaccine were received in the state.

The incidence and distribution of poliomyelitis cases in the summer months of 1959 continued to indicate that many children still had not received poliomyelitis vaccine. A joint plan to conduct poliomyelitis immunization surveys in the school districts and schools that did not have requirements for poliomyelitis immunization was prepared. Questionnaires were forwarded to 525 public school districts in the state and to 497 parochial schools. Four hundred forty-six public school districts replied to the questionnaire, 185 indicating that there were no poliomyelitis immunization requirements in effect. Three hundred seventy-one parochial schools replied, indicating that 142 had no poliomyelitis immunization requirements. In many schools the requirement for immunization existed only for admission to kindergarten and the first grade. Surveys to determine the extent to which pupils were vaccinated began in the late fall of 1959 and early winter of 1960 and continued until June. Over 80 percent of children within the schools having no immunization requirements were shown to have received 3 or more inoculations of poliomyelitis vaccine.

The sampling surveys conducted in the spring of 1959 indicated that only 28 percent of the children sampled under 5 years of age had received 3 inoculations of poliomyelitis vaccine. This prompted a recommendation that each board of health throughout the state study a sample of children between 1 and 2 years of age to determine their poliomyelitis immunization status.

One hundred boards of health throughout New Jersey conducted the poliomyelitis immunization survey among children. A total of 6,472 questionnaires were forwarded to parents. Four thousand seven hundred thirty questionnaires were returned. They indicated that 71 percent of children were

triply vaccinated against poliomyelitis. The highest levels of vaccination were observed in the Northern and Metropolitan Districts where 77.9 percent of children studied were triply inoculated.

The extensive immunization activity in the spring of 1960 resulted in the use of over 848,000 doses of vaccine. The immunization studies conducted thus far have continued to indicate a correlation between low socio-economic status and lack of poliomyelitis immunization.

Central Nervous System Illness Surveillance

The many items of information required in the surveillance of poliomyelitis, plus the requirements for surveillance for eastern encephalitis, created a need to re-evaluate the reporting procedures dealing with these illnesses. A comprehensive reporting form was developed and printed. Instructions for its use were prepared and distributed and on the 1st of January, 1960, the new surveillance program was put into effect. Hospitals in critical areas throughout the state and those major institutions that have handled large numbers of poliomyelitis cases in the past were selected for a special educational effort. The administrators, the pathologists, the chiefs of medicine and the local health officers met with the Program Coordinator of the Communicable Disease Control Program for an orientation session in the use and purpose of the surveillance forms. These meetings served a useful purpose, providing an opportunity to discuss the characteristics of the various central nervous system illnesses and the use of the virus laboratory in the diagnosis and management of illness. The excellent cooperation and good will which followed this undertaking in education and organization have proved to be of inestimable value.

Outbreaks of hepatitis

Outbreaks of infectious hepatitis occurred in 2 orphanages in Hudson County. These were investigated by the local health officer. A probable link between the outbreaks was found as children from 1 family were in both orphanages.

Twelve cases of infectious hepatitis occurred within a month in Bergen County, 2 in Paramus, 2 in Hackensack, 6 in Ridgewood, 1 in Midland Park and 1 in Waldwick. These cases were investigated, but no common source of infection was found.

Diarrheal Disease

Three separate investigations of diarrheal disease in Hudson County were conducted, one involving 5 cases of shigellosis, another involving 2 cases of shigellosis, and the third involving cases of salmonellosis. All of the patients

were reported from the isolation unit of the Jersey City Medical Center. No connection was established between the families involved. None of the cases was traceable to a common source.

A food poisoning outbreak involving 42 students was investigated at a state college. No common cause of the outbreak could be discovered.

A local board of health reported 5 cases of food poisoning. Coagulase positive hemolytic staphylococci were isolated from specimens of the turkey that had been served for lunch.

On March 1, the biologics distribution service was transferred from the Division of Vital Statistics and Administration to the Division of Preventable Diseases.

During the fiscal year, 510,147 cubic centimeters of polio vaccine were stored, packaged and mailed. Of this amount, 318,816 cubic centimeters were sent to distributing stations, 78,525 cubic centimeters to child health conferences and 112,806 cubic centimeters to clinics.

Listed below are the amounts of other biologicals distributed during this period:

Diphtheria Toxoid (A)	1,000 pkgs.
Smallpox Vaccine	34,000 pkgs.
DPT (fluid)	4,500 pkgs.
DPT (absorbed)	20,000 pkgs.
Typhoid-Paratyphoid Vaccine	1,400 pkgs.
Rabies Vaccine (Human)	205 pkgs.
Antirabies Serum (1,000 units)	50 pkgs.
Rocky Mt. Spotted Fever Vaccine	300 pkgs.
Gamma Globulin	9,200 pkgs.

All these materials were made available to physicians and local health officials through 66 distributing stations located in strategic points throughout the state's 21 counties.

Bicillin and other drugs were stored and distributed for the Venereal Disease Program as well as Rabies Vaccine for the Rabies Control Program.

On March 1, the Morbidity Collection Unit was transferred from the Division of Vital Statistics and Administration to the Division of Preventable Diseases.

Tuberculosis Control Program

Morbidity, Mortality, and Trends of Tuberculosis

Incidence of active disease and deaths from tuberculosis in New Jersey, although lower in 1959 than in any previous year of record, showed no significant decrease over the preceding year. Increase in the number of inactive cases reported in 1959, as compared with 1958, is attributable to improved

reporting practices. There were reported 2,909 total number of cases, including 1,619 new active cases, 433 deaths due to tuberculosis and 176 other deaths with tuberculosis stated as the secondary cause. Morbidity and mortality experience in the 5 most recent years is apparent in Table 1.

Table 1.

TUBERCULOSIS CASES AND DEATHS, NUMBERS AND RATES, NEW JERSEY, 1955-1959

Year	Estimated Population ¹	Deaths		Total Cases ²		Active Cases ²	
		Number	Rate ³	Number	Rate ³	Number	Rate ³
1955	5,468,000	570	10.4	3,665	67.0	2,139	39.1
1956	5,588,000	522	9.3	3,354	60.0	1,888	33.8
1957	5,708,000	519	9.1	3,543	62.1	1,806	31.6
1958	5,829,000	443	7.6	2,790	47.9	1,622	27.8
1959	5,949,000	433	7.3	2,909	48.9	1,619	27.2

¹ Estimated population based on preliminary April 1, 1960 Census counts.

² Newly reported cases only shown for each year.

³ Rate per 100,000 estimated population.

Nine counties—Bergen, Camden, Essex, Hudson, Mercer, Middlesex, Monmouth, Passaic, and Union—accounted for 80 percent of the new active case load. Eight major cities reported 45.3 percent of new active cases. Tuberculosis problems are centered in the lower socio-economic sections of these cities in areas of substandard housing.

CASEFINDING

Selective X-ray Surveys Under Department Auspices

Mobile units provided screening x-rays to 19,107 individuals in 59 days of operation in 10 counties. Screening included residents of areas of high incidence as well as employees of 71 industries and a race track; also reactors and associates of reactors uncovered by tuberculin testing demonstrations in an industrial plant, in schools of 1 county, and in state employees working in Trenton and Newark.

There were brought to conclusive examination 509 of the 693 persons showing x-ray evidence suggestive of pulmonary disease. There were found 94 individuals having tuberculosis in some form, including 14 active cases, 12 confirmed neoplasms of the lung, and 21 others with cardiovascular lesions. In addition, 330 other persons showing evidence of cardiovascular disease were transferred to the Heart and Circulatory Disease Program for further study. The incidence of active tuberculosis found was 7.9 per 10,000 persons x-rayed. A summary of state-sponsored surveys is shown in Table 2.

Community X-ray Surveys by Other Agencies

The New Jersey Tuberculosis and Health Association, for the fiscal year ending March 31, 1960, reported 177,916 screening x-rays taken by their county affiliate associations in collaboration with county sanatoria and municipal boards of health. There were 4,170 persons referred for follow-up of which 1,850 were followed to diagnosis. From this number, there were discovered 60 new cases of active tuberculosis and 491 previously unknown cases of inactive tuberculosis. Of the total number of films, the largest categories were general community surveys, 51,383; industries, 51,460; and schools, 57,639. Selected high incidence areas, clinic screening films, institutions and miscellaneous groups accounted for the balance of films.

Hospital Admission Screening

A total of 34,796 screening x-rays was reported in 1959 by 14 general hospitals. Presumptive positive referrals numbered 3,832 (11.0 percent), including 319 persons with x-ray shadows suggesting tuberculosis. In the fiscal year 1959-1960, an x-ray unit was installed on lease at Clara Maass Hospital, Newark, for routine large chest films of in-patients and staff. Negotiations have been concluded for installation of similar unit at Martland Medical Center for x-ray of persons attending a large out-patient clinic as well as admitted cases and staff. X-ray units for patient screening are operating in 18 hospitals by lease agreement with this Department, of which 9 units were provided by tuberculosis funds.

The Tuberculin Test

Major emphasis has been placed upon promotion of the intradermal tuberculin test as a primary method of search for tuberculosis, for determination of prevalence of the disease and for prevention of unnecessary x-ray and exposure to radiation. Casefinding demonstrations using the Mantoux test were conducted among state employees in Trenton and Newark, in one large and one small industry, in one county jail, at the Essex County Health Fair, and in 18 chest clinics co-sponsored by the Program.

In all, 19,467 persons were tuberculin tested and 1,623 were found as reactors. The reactor rate was 8.3 percent. Reactor rates increased with age, reaching the highest level of approximately 50 percent in persons over 35 years of age.

A comparative study of the Mantoux and the Heaf tuberculin tests was made at a state institution through the cooperation of the Department of Institutions and Agencies. In this study, 316 persons were tested by the 2 methods. There were 193 of the men who were Mantoux reactors. Heaf test results did not correlate well with the Mantoux results in this study.

An intensive testing program was carried out in the kindergarten and first grades of the public and parochial schools of Atlantic City, Camden, Elizabeth, Trenton, and selected schools of Jersey City. There were 10,420 students tested and 244 reactors were discovered. In these high incidence cities the reactor rate was 2.4 percent. Two cases of primary active tuberculosis and 1 case of inactive re-infection tuberculosis were discovered. Seventy-eight individuals were reported as having evidence of primary inactive diseases. The associates of the younger reactors were sought. There were 1,099 associates named, 614 of whom were examined. Sixteen cases of inactive reinfection tuberculosis were found.

The first grade and kindergarten project in selected schools in Jersey City was part of a larger study there which involved testing children in all elementary grades of 1 ward. In this study, 3,567 students were tested and 130 reactors discovered, a rate of 3.6 percent. These data include the first grade and kindergarten children. Three cases of re-infection tuberculosis were found; 1 having active and 2 having inactive lesions. Three children were found with evidence of primary inactive tuberculosis. The associates of the children available for examination numbered 1,245. In this group, 4 cases of adult tuberculosis, 2 active and 2 inactive, were revealed.

A grant-in-aid contract was negotiated with the Irvington Health Department to conduct a tuberculin testing program in a Junior High School. The Junior High School was chosen because a case of active tuberculosis was reported from the school. There were 464 students tested, 23 reactors were discovered. One case of primary inactive tuberculosis was found on follow-up examination. A total of 42 associates was found within the City. One case of inactive re-infection tuberculosis was revealed among these associates.

A grant-in-aid contract was negotiated with the East Orange Health Department to demonstrate the effectiveness of the procedure by a well organized health department. This project was directed at obtaining adult participation. In all, 1,345 persons were tested. A reactor rate of 4.5 percent was obtained. Approximately one-quarter of the persons tested was over 20 years of age, revealing reactor rates varying between 9 and 24 percent. The older the age group tested, the higher the reactor rate. Seventy-five associates of reactors were tested and a rate of 12 percent obtained.

Another project involved a grant-in-aid contract with Presbyterian Hospital, Newark, for the purpose of testing patients upon admission. The Hospital conducted a patient education program and participation in this program by the patient was on a voluntary base. There were 819 patients tested and 79 were found to be reactors. Persons tested were concentrated in the age group between 20 and 34 years. The highest reactor rate, 15 percent, was found in age group 30 to 34 years.

Interest generated by these projects has stimulated local agencies to initiate Mantoux testing projects. The Mercer County Board of Chosen Freeholders, formerly providing screening chest x-rays to all high school students of the county, by change of policy will hereafter x-ray only tuberculin reactors. To foster cooperative participation by local school boards, the Board of Chosen Freeholders provided financial assistance in the first year of testing.

The tuberculin test has been adopted for routine screening by several high schools including Union County Regional High School No. 1, and Hammonton High School. The test is being increasingly used in elementary schools under the auspices of county tuberculosis associations and school health authorities. Newark State College was the first to establish the test among the colleges of the state. The tuberculin test has been established as routine procedure in the North Edison Township Child Health Conference and is being recommended to other child health conferences throughout the state.

The accumulation of data from increasing number of testing projects provides opportunity to determine reactor rates and hence, tuberculosis prevalence by age, sex and geographic distribution of the population.

CASE ACCOUNTING

Case Reporting

The percentage of tuberculosis deaths unreported as cases during life provides an index as to the effectiveness of tuberculosis case reporting. Of the 607 deaths in 1959 attributable to tuberculosis, 41 percent were reported within 1 month of death or not at all. This represents an increase over the 36.8 percent and 35.1 percent reporting failures in 1958 and 1957. Table 3 presents the problem in greater detail.

Case Registers

County-wide case registers are operated in Bergen, Hudson, Mercer, Middlesex, Monmouth, Passaic, and Union Counties. Between July 1, 1959 and June 30, 1960, personnel of this Department undertook to study the registration of tuberculosis patients in Atlantic, Gloucester, and Camden Counties. On January 1, 1960, the Union case register was initiated under the auspices of the Union County Tuberculosis and Health Association. The Burlington County Tuberculosis and Health Association has agreed to operate a case register in connection with the County Chest Clinic beginning January 1, 1961.

On June 30, 1960, in the 10 counties in which registration activity was conducted, there were 9,630 patients under observation. There were 1,226 patients hospitalized. The number receiving care at home was 8,404. Ap-

proximately one-half of the patients at home were under the supervision of a private physician. There were 1,037 persons receiving care at home who had active or probably active tuberculosis. Fifty percent of these individuals had received a sputum examination in the preceding 12 months. One-quarter of the patients had no sputum examination recorded. Approximately one-quarter of the patients at home were overdue for examination for a period between 3 and 12 months.

The development of tuberculosis case registration in the 10 counties of the state and the precise information concerning patients that was developed has increased the efficiency of tuberculosis case supervision. It is anticipated that the numbers of patients who are delinquent for examination will be gradually reduced and the use of sputum examinations as a means of determining the effectiveness of therapy will progressively increase.

Promotion of Tuberculosis Services

Clinics

Diagnostic and consultation services, and, in some instances treatment are provided by some 60 clinics sponsored by health departments, sanatoria, general hospitals, county government, and tuberculosis associations. A total of 118,877 clinic visits were made by 65,214 individuals. Of this number, 17,180 persons made 19,015 visits to 18 of these clinics served by clinicians from the Tuberculosis Control Program. Clinic attendance in 1959 and for the preceding year is shown in Table 4.

Table 2.

CHEST CLINIC ATTENDANCE 1958-1959

	<i>*State Clinics</i>		<i>All Clinics</i>	
	<i>1958</i>	<i>1959</i>	<i>1958</i>	<i>1959</i>
Number of Persons				
New to Clinic	9,510	10,068	38,898	39,368
Previously Known to Clinic	7,366	7,112	30,847	25,846
Number of Clinic Visits	19,871	19,015	120,022	118,877

* Clinics served by clinicians from Tuberculosis Control Program.

Clinics with inadequate local resources are provided with some essential services and equipment. A new x-ray unit was installed in the Atlantic City Clinic. The old unit, after reconditioning, was transferred to the Cape May Clinic to replace obsolete equipment. The Program is currently providing the services of a clinician to 18 clinics and a technician to 3 clinics; also, x-ray equipment is provided to 9 clinics and x-ray supplies to 3 clinics.

Newer Aspects of Tuberculosis Control

The most important national meeting on tuberculosis control in the past 50 years took place in late November, 1959, at Arden House, Harriman, New York, under the auspices of the United States Public Health Service and the National Tuberculosis Association. A small group of national leaders in several phases of public health and tuberculosis control were called together to determine a blueprint for future action.

It was concluded that elimination of tuberculosis in the United States is a perfectly feasible objective. "Treatment is the Tool," particularly treatment with drugs, was a major recommendation of the conference. Used as a public health measure, drug treatment can speed up the present trend toward conquest of the disease.

The goal is to sterilize the important part of the reservoir of tubercle bacilli that presently exists throughout the country in persons currently suffering from active tuberculous disease, whether presently known or unknown to public health authorities, and in selected persons who previously have had active disease and were inadequately treated.

The technique is to mobilize all resources for a widespread application of the scientifically demonstrated and medically accepted procedures of adequate chemotherapy. These include the proper dosage of appropriate drugs or combination of drugs given continuously over an adequate period of time—procedures that are known to destroy tubercle bacilli in the human body, render the patient's disease noncommunicable to others, and minimize the possibility of reactivation.

This Program has responsibility for leadership in the successful conduct of the Arden House plan in New Jersey. An intensified effort in casefinding and case follow-up will be required to uncover unknown cases and bring previously active cases to re-evaluation. Bold and decisive action to assure adequate drug therapy for every individual with tuberculosis implies the use of larger quantities of drugs to more people than heretofore and requires that the drugs be available to every case regardless of economic status.

Prevailing methods for provision of chemotherapeutic drugs in the several counties of New Jersey have been explored in anticipation of this action. This survey revealed that in many areas of the state, drugs are not available to many patients unable to purchase them.

The New Jersey Tuberculosis and Health Association, the Medical Society of New Jersey and the Tuberculosis Control Program have agreed to bring together experts in the medical and public health fields to determine a plan for action in New Jersey.

Table 3.
X-RAY SURVEYS—FOLLOW-UP AND DIAGNOSIS SUMMARY: 1959

Survey No. and Location	Persons X-rayed	Suspects Referred		Suspects With Established Diagnosis		Tuberculosis Prevalence Rate/10,000 X-rayed		Cases of Tuberculosis Unreported		Established Diagnosis						Diagnosis Not Established			
		No.	Per Cent	No.	Per Cent	All Cases	Active Cases	No.	Per Cent	Total	Active	Inactive	Undet.	Cardias	Neoplasm		Other Path.	No Disease	
New Jersey	19,107	693	3.6	569	73.4	49.2	7.3	43	45.7	94	14	69	11	21	12	98	284	184	
State Health Districts																			
Metropolitan	10,672	335	3.1	277	76.1	34.7	2.8	20	54.1	37	3	33	1	14	8	47	129	100	
Northern	763	36	4.7	33	91.7	131.1	26.2	8	80.0	10	2	2	6	1	0	9	13	3	
Central	2,602	86	3.3	62	72.1	46.1	19.2	4	33.3	12	5	6	1	1	1	11	37	24	
Southern	5,070	236	4.7	179	75.8	69.0	7.9	11	31.4	35	4	28	3	3	3	31	105	57	
Counties																			
Atlantic	2,285	114	5.0	76	66.7	65.6	0.0	9	60.0	15	0	13	2	1	1	11	48	38	
Burlington	508	17	3.3	11	64.7	59.1	19.7	1	33.3	3	1	1	1	0	0	0	8	6	
Camden	2,266	101	4.5	89	88.1	70.6	17.7	2	12.5	16	4	11	1	4	2	17	59	12	
Cape May	283	14	4.9	10	71.4	106.0	0.0	0	0.0	3	0	3	0	0	0	3	4	4	
Essex	5,069	263	3.6	127	62.6	30.0	1.8	9	52.9	17	1	16	0	9	3	27	71	76	
Gloucester	236	7	3.0	4	57.1	42.4	0.0	0	0.0	1	0	1	0	0	0	0	3	3	
Mercer	348	9	2.6	8	88.9	28.7	28.7	0	0.0	1	0	1	0	0	0	0	2	5	
Monmouth	1,740	60	3.4	43	71.4	43.8	17.2	3	37.5	8	3	5	0	1	1	9	24	17	
Union	5,012	132	2.6	108	81.8	39.9	4.0	11	55.0	29	2	17	1	5	5	29	58	24	
Warren	763	36	4.7	33	91.7	131.1	26.2	8	80.0	10	2	2	6	1	0	9	13	3	

Table 4.

TIME INTERVAL BETWEEN DATE OF CASE REPORT AND DATE OF DEATH FOR DEATHS
ASSIGNED TO TUBERCULOSIS AS A PRIMARY OR SECONDARY CAUSE
NEW JERSEY: 1959

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	609	100.0	433	100.0	176	100.0
Not Reported as Cases..	161	26.4	106	24.5	55	31.2
Reported as Cases:						
After Death	58	9.5	48	11.1	10	5.7
Within 1 Month Before Death	33	5.4	30	6.9	3	1.7
1 Month to <1 Year Before Death	62	10.2	44	10.1	18	10.2
1-4 Years Before Death	130	21.4	85	19.6	45	25.6
5-9 Years Before Death	80	13.1	60	13.9	20	11.4
10 Years or More Before Death	85	14.0	60	13.9	25	14.2

Venereal Disease Control Program

I. MORBIDITY, MORTALITY AND TRENDS

The venereal diseases continue to constitute a significant (70.5 per cent) increase in the number of reported cases of primary and secondary syphilis, from 183 in 1958, to 312 in 1959. One hundred and forty-six or 46 percent of the 312 cases reported were private physician cases. The ratio of reported cases of early latent syphilis to primary and secondary syphilis has diminished from 3.8:1 in 1957 to 3.5:1 in 1958 to 2.0:1 in 1959. This decrease is testimony to the effective, persistent, expeditious epidemiologic investigations of cases of early infectious syphilis. In view of the sustained rise of infectious syphilis in New Jersey and a similar increase on a national scale, it is reasonable to assume that a true increase in the incidence of the disease has occurred.

A. Syphilis

In 1959, 4,874 previously unreported cases of syphilis were reported, 1,203 cases fewer than in 1958. The principal decrease was in the number of cases of late and late latent syphilis. Included in this total were 980 cases from Atlantic City, Camden, and Jersey City, cities which conducted serologic surveys in 1958 thus reporting morbidity beyond normal limits for that year.

Table 1.
REPORTED CASES OF SYPHILIS

<i>Syphilis by Stage</i>	1957	1958	1959
Primary and Secondary	121	183	312
Early Latent	467	643	610
Late and Late Latent	4,661	5,030	3,729
Congenital	181	215	223
Not Stated	14	6	...
Total Syphilis	5,444	6,077	4,874

Ten counties—Atlantic, Camden, Cumberland, Essex, Hudson, Mercer, Middlesex, Monmouth, Passaic, and Union, constituting approximately 68 percent of the state's population, accounted for 84 percent of the total cases of syphilis reported during 1959. Six major cities, Atlantic City, Camden, Jersey City, Newark, Paterson, and Trenton, constituting 13 percent of the state's population, contributed 2,197 or 45 percent of the total cases reported in the state.

Of the 312 cases of infectious syphilis reported, 74 percent were reported from the densely populated Metropolitan State Health District with 124 of these cases from the City of Newark.

B. *Gonorrhoea*

During 1959, there were 4,984 cases of gonorrhoea reported, 14 percent less than in 1958. The City of Newark accounted for 520 of the 868 case decrease from 1958.

Six cities, Atlantic City, Elizabeth, Jersey City, Newark, Paterson, and Trenton, had higher gonorrhoea rates than that for the state as a whole and accounted for 3,362 or 67 percent of the total cases reported. The City of Newark reported 1,926 cases or 38.6 percent of the state total.

C. *Mortality*

During 1959, there were 77 deaths attributable to syphilis. This year's report appears to be consistent with the trend of falling death rates which have been reported for several years.

II. GENERAL ACTIVITIES

A. *Contact Interviewing and Investigation*1. *Interviewing*

During the year, 1,797 infectious venereal disease patients were interviewed. These patients named 2,934 sex contacts for investigation. The interviewing of cases of primary and secondary syphilis was given particular emphasis, with the result that 71 percent of the cases reported were interviewed and 683 contacts elicited, a contact index of 3.08.

The following is a comparison of contact indices obtained by New Jersey program personnel and national indices:

Table 2.
CONTACT INDICES, NEW JERSEY AND UNITED STATES

<i>Diagnosis of Patient</i>	<i>Diagnostic Source</i>	<i>Contact Index</i>	
		<i>N.J.</i>	<i>U.S.</i>
Primary and Secondary Syphilis . . .	Private Physicians	1.99	2.61
	Clinics and Institutions	3.97	3.95
Early Latent Syphilis	Private Physicians	2.41	1.72
	Clinics and Institutions	2.93	2.60
Gonorrhoea	Private Physicians	1.34	0.87
	Clinics and Institutions	1.26	1.21

2. *Investigation*

During 1959, 9,598 venereal disease contacts and suspects were reported for investigation. Seven thousand eight hundred sixty-six or 82 percent of these contacts and suspects were located and brought to medical examination, 2,068 were brought or returned to treatment, and an additional 1,120 received epidemiologic treatment. (See Table 7.)

Of the 9,858 cases of syphilis and gonorrhoea reported in New Jersey during 1959, there were 2,063 cases returned to treatment as a result of epidemiologic investigation. Investigation efforts resulted in the diagnosis of 35 percent of all syphilis cases and 32 percent of the cases of primary and secondary syphilis reported during the year.

3. *Cluster Testing*

The extension of the interviewing and investigating process in early infectious syphilis cases to include the examination of the friends and associates of the patient is known as "Cluster Testing." This technique was applied in 69 cases of primary and secondary syphilis and resulted in the naming of 179 "cluster suspects" in addition to sexual contacts, many of whom were referred to jurisdictions outside New Jersey. Investigation of 323 cluster suspects and associates reported from New Jersey and other states resulted in 18 persons being brought or returned to treatment who would not otherwise have been known had the standard interview been limited to sex contacts.

B. *Selective Serologic Screening*

Mass serologic testing surveys were more limited in activity in 1959 than in previous years. These surveys were directed at high incidence groups: agricultural migrants, seafood workers, race track employees, industrial groups, jail inmates, and selected communities. A total of 14,723 persons were tested, of whom 1,264 or 8.6 percent, were reactive and 652 of these reactors were brought or returned to treatment. (See Table 6.)

C. *Program Development Activities*

1. Plans were completed and activity begun on a door-to-door community survey in the City of Newark during the fiscal year. A total of 11,788 serologic tests were performed of which 10 percent were reactive. Follow-up of the reactors was not completed during the fiscal year. Therefore, figures for this survey were not available for inclusion in the summary of All Serologic Survey Activities.
2. Negotiations were completed for the assignment of 2 interviewer-investigators to the Newark City Health Department and 1 to the Camden City Health Department. Negotiations were continued with the Jersey City Health Department, the Seton Hall School of Medicine, and Jersey City Medical Center, and the Hudson County Medical Society for the implementation of effective venereal disease control activities in Jersey City and Hudson County.

3. The County Jail Blood Testing Program was continued with 11 county jails and 1 county workhouse participating. A total of 6,818 inmates were tested of whom 559 or 8.2 percent were reactive and 264 of these reactors were treated.
4. Continued efforts to bring about more complete reporting of reactive serologic tests by approved laboratories throughout the state have resulted in an increase in the number of reactors reported from 25 percent in 1958 to 33 percent in 1959.
5. *Personnel*

As in past years, the Public Health Service provided New Jersey with personnel qualified in the techniques of venereal disease epidemiology. In addition to these directly assigned personnel (13 in number), there were 2 full-time state-employed venereal disease lay epidemiologists.

III. Training

During the year, periodic field staff meetings were held to review problems and procedures involved in the application of epidemiologic, records keeping and program development techniques and to provide training in the latest developments in investigative techniques.

Three members of the field staff attended 2-week training courses offered by the Public Health Service in Atlanta, which cover the clinical and control aspects of venereal disease.

Graph 1

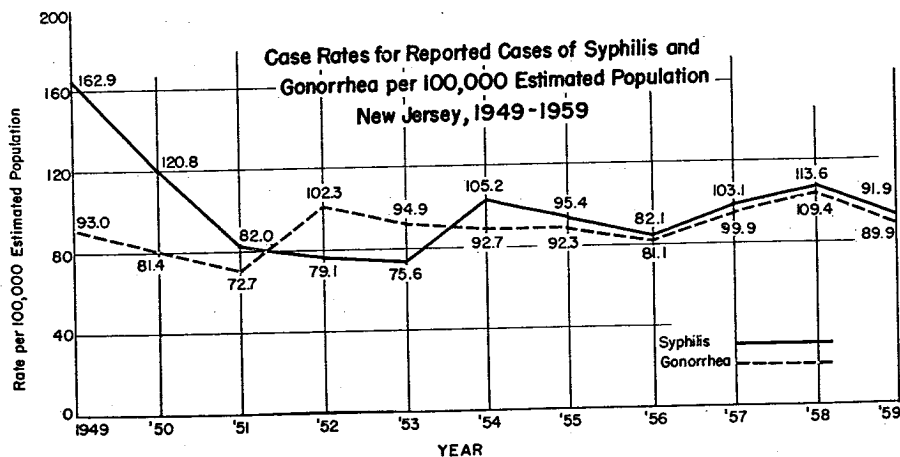


Table 4.

SUMMARY OF ALL SEROLOGIC SURVEY ACTIVITIES

NEW JERSEY

CALENDAR YEAR 1959

<i>Group Tested</i>	<i>No. Specimens Taken</i>	<i>Number Reactive</i>	<i>Percent Reactive</i>	<i>Number Reactors Treated</i>	<i>Percent of Reactors Treated</i>
All Groups	14,723	1,264	8.6	652	51.6
Agricultural Migrants ..	3,969	466	11.7	323	69.2
Seafood Workers	103	18	17.5	6	33.3
Race Tracks	492	29	5.9	5	17.2
Industrial	101	2	2.0	0	0.0
Community	3,220	190	5.9	54	28.4
Jails	6,818	559	8.2	264	47.2

Division of Special Consultation Services

RALPH T. FISHER, M.P.H., *Director*

Programs:

Health Education FLORENCE B. FIORI, M.A.
Program Coordinator

Nutrition MARGARET P. ZEALAND, M.S.
Program Coordinator

Public Health Nursing JOHANNA E. KENNEDY, M.A.
Program Coordinator

Public Health Social Work ADRIANE V. DUFFY, M.S.
Program Coordinator

Training JULE M. ERDIE, B.S.
Principal Training Advisor

Division of Special Consultation Services

This Division provides consultation services to Program and District personnel, to local health departments, to local nursing agencies and other local health agencies, to civic groups, to professional organizations, and to other interested persons.

Health Education, Public Health Nursing, Nutrition, and Public Health Social Work were the original Programs assigned to this Division. During the past year, the Training Program was added and the Division Director was designated as Training Officer for the Department. Placing the Training Program in this Division has permitted expansion of training activities and development of close working relationships with the Health Education and Public Health Nursing Programs, both of which have vital and active roles in training.

Having these 5 consultant Programs together has enhanced the work of each, since they form a functional team on community health problems. Rapid interchange of information and person-to-person communication among the 5 Program Coordinators have proved effective.

Health Education Program

Community Organization

The organization of the New Jersey Public Health Association in October, 1959, culminated efforts over a period of years to establish a strong unit for community organization on a state-wide basis. Establishment of the Association as a result of the merger of the New Jersey Health and Sanitary Association and the Council for Local Public Health Services of New Jersey provides an effective means for coordination of existing resources, involvement of interested individuals and groups, and development of sufficient support to promote activities directed toward solution of health needs.

District personnel supported and participated in the activities of local health councils, councils of social agencies, and similarly organized coordinating bodies. These organizations included among their activities promotion of the Recognized Activities and Minimum Standards of Performance for Local Health Departments; implementation of recommendations resulting from evaluation surveys of local health facilities; establishment of new health services; and preparation of directories of health resources for professional use.

In Passaic County, as a result of the continuing efforts of many interested groups and individuals, the Passaic County Community Council was organized in June, 1960.

Working With Other Organizations

Many organizations at state and local level are engaged in activities directed toward the promotion of individual and community health. Development of cooperative working relationships with these organizations is a primary objective of the Health Education Program. During the 1959-1960 fiscal year, major efforts were directed toward the New Jersey Health Careers Service, the New Jersey Congress of Parents and Teachers, the New Jersey Tuberculosis and Health Association, the New Jersey Health Officers' Association, and the New Jersey Committee for the 1960 White House Conference on Children and Youth. In addition, Health Education personnel worked closely with many other state and local voluntary, professional, and civic organizations to advance activities related to objectives of programs within the Department.

Recognizing the increasingly critical nature of health manpower shortages, considerable time was devoted to revitalizing the New Jersey Health Careers Service. Arrangements were made for temporary establishment of a Health Careers Office in the Division of Special Consultation Services. Funds were provided by the New Jersey Public Health Association, which sponsors the Health Careers Program, and used for employment of clerical personnel and for services of a qualified professional guidance counselor as part-time program director. Throughout the year, emphasis was placed upon organization of information services and creation of public awareness of career opportunities in health fields. Health career programs and exhibits were sponsored at both state and local level. Attention was devoted to work with junior and senior high school guidance counselors. Plans were completed for a quarterly newsletter aimed at this professional group. A steering committee composed of key leaders from the fields of health and education was organized. This committee, in cooperation with the Health Careers Program Director, initiated several planning and fund-raising activities in support of Health Careers.

The good relationship between our Department and the New Jersey Congress of Parents and Teachers made it possible to include promotion of tuberculin testing of school populations, polio immunization, and Recognized Activities and Minimum Standards of Performance for Local Health Departments in the activities of state and local Parent-Teacher Association Health Chairmen. The annual conferences of District State Health office personnel with County Parent-Teacher Association Health Chairmen were used to interpret departmental programs and to distribute materials. Departmental

personnel and materials were also included in the programs of the fall Parent-Teacher Association annual convention and the spring state-wide workshop of County Parent-Teacher Association Health Chairmen. In addition, extensive follow-up consultation and varied material related to the interests of county and local parent-teacher groups were provided by District personnel. As a result of these cooperative efforts, parent-teacher leadership was instrumental in creating greater awareness of major health problems and in building support for essential community health activities.

Health Education Program personnel worked with the Subcommittee on Health of the New Jersey Committee for the 1960 White House Conference on Children and Youth and county study committees. This involved participation of hundreds of volunteer workers and provided opportunity to stimulate interest in health problems on the part of many individuals and organizations. Health Education consultation to the state level Subcommittee on Health was focused on preparation of a study outline for county committees and compilation of the Subcommittee's final report. District Health Education personnel met with many county study committees and assisted in compilation and analysis of data on local health needs and resources.

Working with the Health Education Committee of the New Jersey Health Officers' Association provided opportunity to develop educational programs for full-time local health department personnel. Included among these activities were resident workshops on Minimum Standards and Tuberculosis Control and training institute related to the public health aspects of housing, use of audio-visual equipment, and supervision and control of catering establishments. Consultation on specific subjects was furnished by the Programs and United States Public Health Service personnel.

Voluntary agencies play a major role in community organization for health. Through combined programs, departmental activities, as well as the activities of these organizations, have been strengthened. During the past year, state-wide efforts in behalf of tuberculosis control and improvement of local health services were implemented through 2 major activities undertaken in cooperation with the New Jersey Tuberculosis and Health Association. A 2-day conference of local tuberculosis association executives, focused upon changing health needs in New Jersey, alerted this group to many problems involved in developing adequate local resources. Departmental personnel assisted in planning and conducting this meeting. The workshop on Tuberculosis Control, sponsored by the New Jersey Health Officers' Association in cooperation with our Department, provided opportunity for Tuberculosis Association personnel to render similar consultative assistance to official health agencies in the development of their programs.

Informational Services

The necessity for effective informational services was demonstrated during the year.

Withdrawal from the market, by the federal government, of cranberries carrying traces of aminotriazole, a chemical weed killer said to cause cancer in laboratory animals, made the entire crop suspect in the eyes of the public. This Department worked with the Department of Agriculture to determine whether New Jersey cranberries were safe. When this was satisfactorily established, both Departments did what they could to help the New Jersey industry assure the public that its product was safe.

The limited outbreak of eastern encephalitis in the fall of 1959 created fear and concern which carried over into 1960. The Department went to considerable effort to help secure better understanding of the nature of eastern encephalitis and the limited character of the risk in terms of numbers. A special document of background information for editors and reporters was one of the more successful efforts in this area. After this had been discussed with a committee of the New Jersey Press Association and distributed with its approval, editorial treatment of eastern encephalitis was considerably more conservative than it had been.

Development and Use of Health Education Materials

Health Education staff provided assistance to Program and District personnel in preparation of exhibits and printed materials. New materials related to tuberculin testing, minimum standards of performance for local health departments, homemaker services, the virology laboratory, radiological health, public health nursing consultation, and specific District activities, were developed. Included were a number of Spanish language publications to meet the needs of New Jersey's rapidly increasing Spanish-speaking population.

Departmental exhibits and materials were used at numerous local, state, and national meetings, including the annual conventions of the American Public Health Association, the National Conference of Social Welfare, the New Jersey Congress of Parents and Teachers, the New Jersey Welfare Council, the New Jersey League of Municipalities, the Association of Boards of Chosen Freeholders, the New Jersey League for Nursing, and the Medical Society of New Jersey.

To make more effective use of available funds, use of lightweight, portable multi-use exhibits was fostered. Opportunities for use of existing resources, such as the Audio-visual Library of the State Department of Education, were also explored.

Health Education Consultation

Health Education Consultation is available to all Programs upon request, within the limits of personnel. During the year, particular emphasis was given to providing assistance in the development of health education activities of the Division of Local Health Services, the Dental Health Program, and the Food Control Program.

Through the Division of Local Health Services, an educational Program was developed to publicize the Recognized Activities and Minimum Standards of Performance for Local Health Departments. These efforts included preparation of exhibit and pamphlet material; participation in planning conferences with District personnel; a workshop for local health officers; and information activities directed toward major health and related organizations.

Within all Districts, efforts were made to develop educational activities in cooperation with local groups. Extensive consultation was provided local governing bodies and boards of health. District Consultants, Community Health Organization, participated in a variety of promotional activities.

In cooperation with the Food Control Program and the Health Education Committee of the New Jersey Health Officers' Association, 24 films on restaurant sanitation were previewed and rated on content, technical presentation, and potential use.

Written evaluations were prepared for use in local food service personnel training programs. This was part of an effort to strengthen food sanitation programs.

Working with the Dental Health Program, a departmental pamphlet on fluoridation was revised.

Assistance was given to departmental personnel in planning workshops and conferences on arthritis, mental health, mental retardation, poison control, diabetes, alcoholism, and tuberculosis control.

Nutrition Program

The Nutrition Program provides services to agencies on state, District, and local levels, on public health nutrition practices and policies.

The first responsibility of the District Consultants, Public Health Nutrition, is to render services to the District public health team of which they are a member and to share information on nutrition with county and local professional and lay groups.

Among the highlights of 1959-1960 were the following:

1. Participation in state-wide and District in-service training and education was increased.

2. In Maternal and Child Health, there was emphasis on mental retardation and the importance of dietary treatment in certain in-born errors of metabolism such as phenylketonuria. In the adolescent group, continued concern for the occurrence, in increasing numbers, of younger marriages was noted and resulted in focusing on dietary problems of this age group.
3. In chronic illness, there was emphasis on cardiovascular disease, diabetes, obesity and homemaker services.
4. The dietary evaluation project of boarding homes for the sheltered care of patients, set up as an in-service training project for field representatives of the State Department of Institutions and Agencies, was completed in the spring.
5. There was a notable increase in consultation to hospitals, homes for the aged, and schools of nursing.
6. Forty nutrition resource kits were assembled and distributed to county visual aid libraries.
7. The New Jersey State Diet Manual was published. More than 6,000 copies have been distributed to physicians, state institutions, nursing homes, and hospitals.
8. Field experience in Public Health Nutrition was provided for 2 graduate students, 1 from the School of Public Health of the University of Michigan and the other from the School of Public Health, University of North Carolina.

Several homes for unwed mothers requested and received nutritional consultation.

The Nutrition Bibliography on Pregnancy and Lactation has been revised. Two new leaflets, "Food is Important for the Teenage Girl—The Woman of Tomorrow" and "Food is Important for Agility, Power, Fitness and Fun" have been prepared and printed.

Chronic Illness Control

Since nutrition has such an important part in the therapy of diabetes, cardiac conditions, hypertension, arthritis and weight control, much of the time of Nutrition Program personnel have been devoted to programs in Chronic Illness Control.

The New Jersey State Diet Manual was published by the Division of Chronic Illness Control of this Department with funds made available from the Department of Health, Education and Welfare, Public Health Service, Division of Special Health Services. Copies were sent to over 3,000 physicians

who requested them. Additional copies were made available to administrators of state institutions, nursing homes, hospitals, and county homes for the aged. The state hospitals, through the approval of the State Department of Institutions and Agencies, adopted this as their official diet manual. Many private hospitals, with the approval of their medical staff, are now using the manual in lieu of their own manual. On request, copies have also been sent to medical libraries, nursing school libraries, and public libraries. Many health organizations have requested copies. Visiting nursing associations received copies through the District Consultant, Public Health Nutrition, who interpreted the manual at staff conferences. Many local nursing agencies which had not used the services of the District Consultants in Nutrition are now using them as a result of these conferences.

The dietary services of 49 hospitals, 8 homes for the aged, and 2 county geriatrics units were evaluated and given service by the Hospital Dietary Consultant, employed on a grant-in-aid from the Division of Chronic Illness Control before she terminated her contract this spring. Classification of the hospitals served are as follows:

General	35
Children's	1
Rehabilitation	2
Orthopedic	2
Chest Diseases	2
Psychiatric	1
County General	2 (including geriatrics)
City	2 (including geriatrics)

Revisits were made to 33 hospitals depending upon need. The breakdown of return visits was as follows:

One return visit	20 hospitals—Bed capacity 100—over 400.
Two return visits	5 hospitals—Bed capacity 100—over 400.
Three return visits	4 hospitals—Bed capacity under 100—200.
Five return visits	3 hospitals—Bed capacity under 100—400.
Eight return visits	1 hospital—Bed capacity 100—200 beds.

Dietary improvements were noted in return visits to hospitals in the following areas:

	<i>Number of Hospitals</i>
Sanitation	14
Menu Planning	17
Employee Training	4
Patient Education	1
Patient Contact	7
Job Specifications and Work Schedules	11
Purchasing	2
Communications	1
Change in Meal Hours	1
Education of Student Nurses	2

The hospitals which availed themselves of this service accomplished:

1. Improved sanitation in facilities and food handling.
2. More adequate menus for patients and residents.
3. Better communication on therapeutic diets between doctors, nurses, and dietary departments.

There is need to follow-up this effort and to help dietary personnel to keep up-to-date on dietary matters. District Consultants offer their services to hospitals on request and send them new materials.

Diabetes Program

Reviews and interpretation to physicians and hospital dietary staff of printed materials published by pharmaceutical houses of "their version" of the American Dietetic Association's "Meal Planning with Exchange Lists" for the diabetic patient were requested, as difficulties increased with the use of commercial diet plants in patient education.

In the Southern District, 2 school nurses and a home economics teacher were given assistance in helping 2 teenage brothers recently diagnosed as diabetics. Since receiving help, the boys have attended school more regularly and improvement has been noted in their school work.

In the Northern State Health District, a camp requested and received assistance in menu planning for 25 diabetic campers.

In the Central District, assistance was given to a local hospital in setting up an exhibit on the food exchanges.

Heart and Circulatory Diseases

The State Consultant, Public Health Nutrition, has worked closely with the project physician and project nutritionists in setting up the dietary aspects of the Anti-Coronary Research Project at St. Vincent's Hospital in Montclair.

Because coronary disease, cerebral vascular disease, hypertensive disease and diabetes occur more frequently in the obese, obesity is considered a major public health hazard. Over-eating is recognized as a habit established and sustained by casual factors, personal, individual cultural, and social. Basically, this is why obesity is a common and difficult problem. Real success in weight reduction depends upon breaking a habit pattern and fostering motivation to establish a new one. Guidance to overweight patients was offered through weight control programs sponsored by the Camden County Heart Association in cooperation with the Camden County Home Economics Extension Service, Camden Visiting Nurse Association and the District Consultant in Nutrition. There is interest in preventing obesity, particularly among children. Because of concern of the nurses in the Pennsville School of Salem County for the number of overweight children in the kindergarten through the sixth grade, the District Consultant was consulted and a program planned to include the parents of the children as well as the teachers. As a result of this program, 16 of the 72 children involved have been referred for medical care to their physicians and others have received guidance through individual and parent group discussions.

Homemaker Services

The State Consultant and District Consultants in Nutrition have continued to contribute to the pre-employment and in-service training of homemakers through the state organization and local homemakers services.

The State Consultant served as a member of the National Committee of the American Home Economics Association on the "Role of the Home Economist in Homemaker Services."

Special Projects

The in-service training program for field representatives of the Bureau of Inspections of the Department of Institutions and Agencies was completed in the spring. Sixty-five homes with guest capacity—3 to 31—were visited with the field representatives to observe food and nutrition practices and help determine problems and needs of the operators.

Breakdown of homes visited by State Health Districts are as follows:

Northern District	15
Metropolitan District	17
Central District	18
Southern District	15 (+2 revisits to 2 Atlantic City homes)

Health Careers

Guidance directors seem to be increasingly aware of career possibilities in home economics. The Home Economics Departments of Douglass, Georgian Court, and St. Elizabeth Colleges supplied college requirement materials and alerted their students to the various health career opportunities available to home economics graduates. The District Consultant in Nutrition in the Southern District participated in the Careers Fair at Collingswood High School, first of its kind to be held in the Southern District.

Promoting Community Nutrition Projects

District Consultants assisted in the work of the White House Conference on Children and Youth. The District Consultant in the Metropolitan District assisted in the nutrition service surveys in Essex County and the District Consultant in the Southern District assisted in the nutrition service surveys in Camden County. As a result of the Camden County Survey, the Health and Welfare Council of Camden County requested and received assistance in obtaining a speaker for a meeting on "What is a Good County-wide Nutrition Program." After the meeting, the Executive Board of the Council voted to set up the first County Nutrition Committee in the state.

Assistance was given to improve group feeding programs in summer camps, parochial schools, and in 1 county jail.

Field Training

A Public Health Nutritionist from the Los Angeles County Department of Health who was a graduate student of the University of Michigan, School of Public Health, received 3 weeks of supervised field training with the State Nutrition Program personnel in July of 1959.

A graduate student at the School of Public Health, University of North Carolina, received 2 months of supervised field experience with the State Nutrition Program personnel in April-May, 1960.

Public Health Nursing Program

Developmental Activities

The Public Health Nursing Program made significant progress in a number of areas during the past year. Some of these accomplishments are the result of years of planning and preparatory work, whereas others are new approaches to meet emerging needs.

A major objective of the Public Health Nursing Program is to encourage development and maintenance of effective local public health nursing services. The following examples show some of the progress that has been made during the year, mainly through District activities:

1. The Family Nursing Service of Hunterdon County officially got under way on July 1, 1959, with the appointment of a well-prepared Director and the assignment of a Public Health Nurse Supervisor employed by this Department. A substantial grant-in-aid was made to help this agency get started. Progress has been slow but steady throughout the year.
2. The merger of the Community Service Society of Bound Brook with the Somerset Valley Visiting Nurse Association, supported in part by state grant-in-aid funds, has provided supervision and improved nursing services in Bound Brook. Preliminary plans to transfer the supervision of 2 local official nurses in Bound Brook to the voluntary agency were made.
3. A pilot demonstration of supervisory services being bought from a visiting nurse association by a local board of health was started in Morris County. The Jefferson Township Board of Health negotiated with the Morris County Visiting Nurse Association for this service.
4. Development of a comprehensive public health nursing service for the North Hudson area of Hudson County has moved forward steadily under the sponsorship of the Hudson County Tuberculosis and Health League.
5. A Visiting Nurse Association was organized in Woodstown, Salem County.
6. A survey of nursing problems and needs in Middlesex County was conducted by trained volunteers under the direction of the Nursing Survey Committee of the Community Welfare Council of New Brunswick and Vicinity. The data are being analyzed.

The Crippled Children Program of this Department contributed toward the strengthening of local nursing agencies by requesting a cost study of each contracting agency. A number of small agencies had never before compiled such figures and the results were most revealing to the agencies as well as to the Department. A more equitable distribution of nursing visits, with reimbursement to be made at the going rate being charged in the community, has been worked out.

Two special studies, involving 4 voluntary nursing agencies in Essex and Mercer Counties, were started. Funds to reimburse the agencies for their services have been made available through the Heart Program, Division of Chronic Illness Control.

The film, "Your Friend in Blue," was shown and discussed before 15 groups.

In-service education programs were given regularly in all Districts throughout the year. In cooperation with the Districts, the Public Health Nurse Consultants participated in 62 educational meetings, which were attended by 1,376 nurses. Details of educational activities will be found under the special programs. The 2-day Workshop on Mental Retardation was of particular significance.

Other activities and accomplishments included:

1. Distribution of the "Public Health Nursing Service Guide" to official and voluntary health agencies throughout the state as well as to all State Directors of Public Health Nursing in the country. Many favorable comments were received.
2. Completion of the Public Health Nurse Census, including nurses employed by official and voluntary health agencies, boards of education, and industries. With the cooperation of the New Jersey State Board of Nursing, a complete roster of industrial nurses was established for the first time.
3. Preparation and subsequent publication of the following papers and materials by Public Health Nursing Program personnel:
 - a. Surveillance and Control of Staphylococcal Infections in a Maternity Unit. *Journal of the American Medical Association*, October 24, 1959. (Public Health Nurse Consultant was co-author.)
 - b. Bibliography on the Newborn, Supplement II.
 - c. A Clinical Experience in Cancer Nursing for Public Health Nurses. *Nursing Outlook*, March, 1960. (Public Health Nurse Consultant was co-author.)

- d. Contact Investigation: A Valuable Tool in Tuberculosis Control. (Public Health Nurse Consultant was co-author.) *Public Health News*, July, 1960.
 - e. Guidebook for Industrial Nurses pamphlet describing how to set up a policy manual for use by industrial nurses.
 - f. Current Preparation of the Public Health Nurse in Relation to Psychiatric Care, *Public Health News*, March, 1960.
4. State-wide conference of leaders in mental health, public health nursing and social work regarding the participation of community nursing services in providing service to discharged psychiatric patients. This meeting provided a point of departure for future action.

Program Administration

1. The position of Assistant Chief Public Health Nurse, with primary responsibility in nursing education, was activated toward the end of the fiscal year. Steps are under way to fill this much needed position.
2. The new position of Public Health Nurse Consultant, Mental Health, was filled in May.
3. The vacancy created by the resignation of one Public Health Nurse Consultant, Chronic Illness, was filled by the promotion of a Public Health Nurse Supervisor, who had special preparation in Home Care Programs and Rehabilitation Nursing.

The 2 Public Health Nurse Consultant appointments were of utmost importance because it had become evident that special skills and assistance in mental health and rehabilitation were needed by community agencies. Both consultants were in immediate demand.

Cooperative planning between 2 departments of state government was demonstrated in the employment of the Public Health Nurse Consultant, Mental Health. This Consultant, although a member of the consultant staff of the Public Health Nursing Program, receives medical guidance from the Medical Director (Psychiatrist) of the Mental Health Division, Department of Institutions and Agencies. She also shares office space with the Psychiatric Nurse Consultant and participation in staff conferences of that Division.

The public health nursing staff of the Department consists of the following :

Chief Public Health Nurse	1
Part-time Special Assistant	1
District Chief Public Health Nurse (one in each State Health District) ..	4
Public Health Nurse Consultants	10
Public Health Nurse Supervisors (one assigned to Family Nursing Service of Hunterdon County)	15
Public Health Nurse (assigned to Burlington County Public Health Nursing Association)	1
Total	32

Compared with the previous year, there has been a reduction in 1 supervisory position and the addition of 1 public health nurse consultant. This is consistent with the Department's philosophy that the state has primary responsibility for consultation services and that direct nursing services, including supervision, should be provided locally.

The reduction in state responsibility for supervision is evident in the following table :

Table 1.
STATE SUPERVISED NURSES IN TWO FISCAL YEARS

<i>State Health District</i>	<i>State Supervised Nurses</i>	
	<i>1958-59</i>	<i>1959-60</i>
Metropolitan	69 + 1 Grant-In-Aid	64 + 1 Grant-In Aid
Northern	37 + 7 Grant-In-Aid	25 + 4 Grant-In-Aid
Central	11	9
Southern	61 + 5 Grant-In-Aid	60 + 5 Grant-In-Aid
Totals	178 +13 Grant-In-Aid	158 +10 Grant-In-Aid

During the same year, consultation visits by the Public Health Nurse Consultants have increased markedly, as shown below:

Table 2.
CONSULTANTS' VISITS BY AGENCIES IN TWO FISCAL YEARS

<i>Agencies</i>	<i>Number of Visits in 1958-59</i>	<i>Number of Visits in 1959-60</i>	<i>Change</i>
Hospitals	79	134	+55
District Health Offices	81	49	-32
Local Boards of Health	68	56	-12
Non-Official Agencies	76	118	+42
Other Programs	2	1	- 1
Other State Agencies	11	37	+26
Other	7	12	+ 5
Industrial	20	44	+24
Total Visits	344	451	+107

In addition, the Public Health Nurse Consultants have made a number of observation visits to hospitals and special treatment facilities to familiarize themselves with resources, problems, and needs. These observations and contacts form a sound foundation for future planning.

The 4 District Chief Public Health Nurses also perform a major role in public health nursing consultation, by interpreting generalized public health nursing and implementing the development of adequate community nursing resources.

Public Health Social Work Program

In its sixth year, integration of this Program's objectives with other departmental programs has grown through greater use of social work consultation by other Program Coordinators.

The State Consultant and 4 District Consultants in Medical Social Rehabilitation have continued to stress the need for broader, more comprehensive restorative programs serving the needs of the chronically ill and handicapped of all ages. Priority has been given to working with community hospitals in promoting development of generic social services at onset of disability.

Community support has been developed through participation in committee activities of community health and welfare councils and social agencies. This has resulted in knowledge of specific gaps in community social services and an opportunity to develop methods to meet these needs.

Continuity of care of the individual in the community requires a constellation of services. Visiting homemaker service, one of the basic supportive community services, is strongly promoted by the Public Health Social Work Program.

Medical Social Services

The critical shortage of trained social workers in medical settings and health agencies has been a serious handicap for several years. Hospital administrators are increasingly aware of the need for this service. As a result of planning by the Division of Chronic Illness Control, the Graduate School of Social Work of Rutgers, the State University, and the Public Health Social Work Program, grant-in-aid contract was developed jointly with the Graduate School of Social Work. It will incorporate professional strengths and knowledge in medical social work concepts at faculty level by paying the salary of a field work instructor of a 4 to 6 medical social work student training unit in a community hospital. This plan will help hospital administrators secure trained medical social work personnel for hospitals. This approach is believed to be the first of its kind to use the grant-in-aid technique to foster graduate education in social work.

Availability of scholarships for graduate training in medical social work through the National Foundation has been publicized. As a result, New Jersey's quota of 3 national scholarships was filled. Efforts were made to increase this quota because of 24 student inquiries. Three graduate students, unable to secure admission to the Graduate School of Social Work at Rutgers because of limited admissions, were accepted by New York University School of Social Work.

Social Studies

Findings in the Essex County Hospital Restorative Services Study have been used in many ways.

The New Jersey Commission to Study the Administration of Public Medical Care requested and received material from the Program Coordinator.

In preparation for the 1961 White House Conference on Aging, research data was made available to the Division of Aging for use in state-wide conferences.

At the invitation of the Essex County Welfare Board and Board of Chosen Freeholders, the Program Coordinator presented material on the grant-in-aid program of Restorative Services at Essex County Hospital, Belleville. It stressed gains made because of restorative services and the need for an expanded out-patient program.

Training Program

Administrative Developments

In March, 1960, the Training Program was transferred from the Personnel office to the Division of Special Consultation Services. This move has enabled the Program to intensify the giving of assistance in the training of local health agency personnel and in the development of central reporting.

The Program has participated in planning and conducting workshops and institutes for local personnel in cooperation with the Health Education Program. It has developed procedures, policies, and forms to maintain records of educational activities of all programs in the Department. The Program acts as a clearing house for scheduling of proposed training activities.

The Program has encouraged and trained departmental employees to act as instructors and resource persons in Department-sponsored training activities. Progress has been made in developing training aids and materials.

Training Scope and Activities

Training includes 3 levels: professional, supervisory, and clerical.

Professional training is usually obtained outside the Department in colleges, universities, the United States Public Health Service, and other agencies. It ranges from courses leading to graduate degrees to short-duration technical courses.

Supervisory and clerical training is usually conducted in departmental offices. Employees are also encouraged to attend schools and receive training on their own time and at their own expense. Advice and consultation are available from the training staff.

Informational documents are circulated throughout the Department. Generalized courses, such as orientation and telephone courses, are conducted for all levels of employees.

Another important function of the Program is giving assistance in training of local health agency personnel.

Professional Training Activities:

Table 1.

PROFESSIONAL TRAINING ACTIVITIES

Individual Employee Training

Number of applications received and processed	75
Graduate degrees received during 1959-1960	3
Graduate degrees to be received during 1960-1961	5
Studying toward master's degree	1

Table 2.

WORKSHOPS, INSTITUTES, AND OTHER TRAINING ACTIVITIES BY DIVISION AND DISTRICT

<i>Activity</i>	<i>Date (s)</i>	<i>No. Participants</i>
<i>Division of Chronic Illness Control</i>		
Special Postgraduate Courses in Electrocardiography and Internal Medicine	September thru March	150
Clinical Experience in Cancer for Nurses	September thru June	140
Symposium on Lipids and Diabetes (7th)	October 21	100
Continuity of Care	October 19, February 23, May 24	105
Postgraduate Courses for Physicians (45 sessions) ..	October thru April	232
Training Program for Cyto-Technicians	October thru August	8
Chronic Disease Lecture Series	November 5, December 3, February 4, April 7	29
Modern Trends and Management of Breast Cancer ..	November 10	150
Alcohol Education Workshop for Teachers	December 9, 10, 11	50
Heart and Circulatory Disease	December 2	267
Heart and Circulatory Disease	June 22	168
Cancer Case Registries	March 17	55
Cancer Case Registries	December 3	18
Cancer	April 7	185
Keeping the Arthritic Working	April 13	67
Symposium on Cytology	May 7	50
Continuity of Patient Care (Metropolitan District) ..	May 11	80
Symposium on Pre-Diabetes and Diabetes in Pregnancy (2nd)	May 11	200
Alcohol Education Workshop	June 20 thru July 1	20
Alcohol Education Workshop	June 23, 24, 27 July 7	20
Alcoholism Workshop for Clergymen	May 2, 9, 16	85
<i>Division of Constructive Health</i>		
Postgraduate Pediatric Course for Physicians	October thru December	39
Postgraduate Lectures for Physicians	November 8	30
	November 22	31
Dental Health Education and Preventive Dentistry ..	January 6, 13, 20, 27 February 3, 10, 17, 24	20
Special Techniques in Prevention of Malocclusion	January 18	7
Preventive Orthodontics	January 18, 19	5
The Child in Health and Disease (5 lectures) Southern District)	January—May	60
Mental Retardation Institute for Nurses	March 22-23	101
Cleft Palate Institute (Northern District)	March 30	102
Second Annual Symposium on Poison Control	May 25	125

DIVISION OF CONSULTATION SERVICES

<i>Activity</i>	<i>Date (s)</i>	<i>No. Participants</i>
Family Focused Maternity Care (Northern District)	June 1	88
Family Centered Child Care (Central District)	June 1 and June 8	110
Dentistry for the Handicapped	June 7-9	85 20
<i>Division of Environmental Health</i>		
Institute on Public Health Aspects of Housing	September 24-25	60
Meat Inspection Institute (Northern District)	October 5	100
Dog Control Institute (Northern District)	February 17	74
Training in X-Ray Inspection Procedures	February 29-March 11	20
Institute on the Relationship of Public Health to the Practicing Veterinarian	March 9	60
Fluoridation Workshop for Licensed Waterworks Personnel	April 22	160
Institute on the Sanitary Control and Supervision of Catering Establishments	June 1-2	80
Two-day Institute on Garbage and Refuse Disposal ..	June 20-24	25
<i>Division of Laboratories</i>		
Workshop on Syphilis Serology	April 28	10
Refresher Course on Electrophoresis and Chromatography	May 21	55
<i>Division of Local Health Services</i>		
<i>Office of Director</i>		
Use of Audio-Visual Equipment	October 29	35
Workshop on Recognized Activities and Minimum Standards	December 1-2	60
<i>Central District</i>		
Role of the Public Health Nurse in the Care of the Emotionally Disturbed	October 5-9	10
<i>Northern District</i>		
Disease in a New Decade—Seven Major Problem Areas	February 16-March 29	342
Public Health Fundamentals—Introductory Sanitation	March 16-May 18	33
Environmental Sanitation Seminars		40
<i>Southern District</i>		
Haddonfield Food Handlers Training Course	April 18, 25 and May 2	25-35 per session

<i>Activity</i>	<i>Date (s)</i>	<i>No. Participants</i>
<i>Division of Preventable Diseases</i>		
New Approaches to Prevention and Control of Tuberculosis	April 27-28	30
<i>New Jersey State Department of Health—Rutgers University</i>		
Introductory Sanitation (Northern District)	September 9-November 11	23
Inspection of Meat and Meat Products	September 9-October 28 December 2-January 27 March 9-April 27	55
Plumbing Regulation and Inspection	September 15-November 3	49
Introductory Milk Sanitation Part I	September 16-November 18	6
Mental Health Seminars (Northern District)	September 22-December 17	35
Sanitation Seminar	March 9-May 11	25
Registration of Vital Statistics	March 9-May 11	24
Basic Environmental Sanitation	Part I June 10-July 17 Part II Sept. 9-Oct. 16	34
Short Course for Sewage Plant Operators	Annually	30
Short Courses for Water Plant Operators	Spring and Fall	60

SUPERVISORY AND CLERICAL TRAINING

	<i>No. Trained</i>	<i>No. Classes</i>	<i>Total Hours</i>
Orientation—Seasonal Employees	16	1	2
Advanced Gregg Steno Course	13	9	7
English Course—Trenton	13	6	5
English Course—Southern District	4	4	5
English Course—Northern District	15	4	5
English Course—Metropolitan District	11	4	5
Principles of Supervision	16	9	27
Telephone Course	20	1	4
Head Clerks Meeting—Payroll Procedures	20	1	1½
Orientation Course	34	1	4
Gregg Steno—Advanced and Beginner	10	10	12½
Visual Aids	7	1	3
Steno Course—Advanced and Beginner			
Metropolitan and Northern	10	5	15
Rex Rotary and Ditto	16	1	1½
Sound Scribe	12	1	1
Orientation of Building Safety Representatives	13	1	3
Principles of Supervision	15	9	27
Totals	245	68	128½

Two hundred and forty-five Department employees received in-service training in 68 classroom sessions for a total of 128½ hours. Man-hours amount to 1792.

Programs in Preparation

Other workshops, institutes, and training activities which were being developed by the Training Program during this period and which will be presented during the coming fiscal year are:

1. Basic English Course—June, July, August, 1960.
2. Letter and Report Writing Course—June, July, August, 1960.
3. Refresher Mathematics Course—July, August, 1960.
4. Short-time, High Temperature Pasteurization Course—October 6-7, 1960.
5. In-service Training for Personnel of Essex County Health Departments—October, November, December, 1960.
6. Institute on Food and Beverage Vending Machines—December 7-8, 1960.
7. Workshop on Community Nursing Services—October 19-20, 1960.
8. Telephone Course—September 7, 1960.

Division of Vital Statistics and Administration

JOHN B. VAN ELLIS, *Assistant Director*

Programs:

Administrative Services	WILLIAM J. CHAMBERLAIN <i>Program Coordinator</i>
Budget and Accounts	GEORGE E. FORMAN <i>Program Coordinator</i>
Examination and Licensing	KENNETH J. CARHART <i>Program Coordinator</i>
Board of Barber Examiners	FRANK MARCHESE <i>Secretary-Treasurer of the Board and Program Coordinator</i>
Personnel	WILLIAM R. MONYER <i>Program Coordinator</i>
Public Health Statistics	ANNA P. HALKOVICH, B.A., M.B.A. <i>Program Coordinator</i>
Vital Statistics Registration	F. MERTON SAYBOLT, B.S., M.S.P.H. <i>State Registrar and Program Coordinator</i>

Division of Vital Statistics and Administration

This Division provides administrative direction and services to all operating units of the Department through the following Program activities: Administrative Services, Examination and Licensing, Budget and Accounts, Personnel, Public Health Statistics, and Vital Statistics Registration. The Board of Barber Examiners is administered through the Bureau of Examination and Licensing.

The Morbidity Collection unit of the Vital Statistics Program was transferred to the Division of Preventable Diseases on March 1, 1960.

The Distribution of Biologics activities of the Administrative Services Program was transferred and physically moved to the Division of Preventable Diseases on March 1, 1960. Warehousing, packaging, and shipment of biologics remain part of the Administrative Services Program.

Particulars regarding the various services rendered by this Division are presented in the following reports of Program Coordinators.

Administrative Services Program

Functions of the Administrative Services Program include design and production of health education materials; maintenance and display of exhibits; maintenance of audio-visual aids; warehousing and distribution of printed materials, office supplies and drugs; production of printed materials, mimeographing, addressing, and mailing services. Personnel at the end of the fiscal year totaled 17, including 1 part-time employee.

Graphic art services and consultations were rendered to several other departments of the state government, particularly with respect to their television needs.

Health Education Services

The use of existing exhibits on a loan basis to various local health departments and other civic groups continued. A total of 42 exhibit bookings were made. Several new exhibits were completed during the fiscal year.

The professional film library maintained by this Program was made available to outside professional groups as well as departmental staff. There were

178 bookings for professional films. The use of health education films for lay groups continued to increase and were seen by a minimum of 342,355 persons. The film library is deficient in several areas due to the limited funds. Lay film bookings continued to be made for the Department by the New Jersey State Museum.

Requests for addressograph and mailing services increased. There were 244 addressing jobs and 104 mass mailings, including printing, folding, addressing, stuffing and sealing.

Warehouse

Printed materials, office supplies, and nurses' field supplies were stored and distributed. Refrigerated storage of perishable drugs and biologics is maintained. A perpetual inventory is maintained.

Budget and Accounts Program

Functions of the Budget and Accounting Program include the accounting of all funds received and expended by the organizational units; processing detailed applications for purchase of departmental materials, supplies, and equipment; analyzing time studies reflecting time spent by each employee on each health program and its relation to allocation of funds; and coordination of the reassignment of surplus property. The perpetual inventory of the Department's warehouse is maintained by this Program.

During this fiscal year, moneys were appropriated for the new Meat Inspection Program. Continuing grants were received from the federal government for the continuation of the Radium Research Project and the Lymphoma Investigation Project. Two new federal grants, a Virus Research Grant and an Alcohol Education Grant—were received from the federal government. In cooperation with the Program Coordinator and/or the project investigator, the Budget and Accounting Program allocated and accounted for expenditure of moneys for this new appropriation and these federal grants.

Below is a consolidated financial statement of the Department as of June 30, 1960:

Table 1.
STATE DEPARTMENT OF HEALTH
FINANCIAL STATEMENT
FISCAL YEAR 1959-1960

Receipts

Received for Transfer to State Treasury:

Licenses and Permit Fees	\$223,850.67
Penalties	3,009.00
Certified Certificates	38,106.82
Examination Fees	10,234.00
Miscellaneous	4,128.93
	\$279,329.42

Received for Disbursements:

State Appropriations and Transfers	\$3,034,349.22
United States Department of Health, Education and Welfare—Public Health Service	612,388.73
Children's Bureau	523,145.08
Other Federal Funds	267,498.62
Milbank Research Grant (Private)	13,725.00
Crippled Children Donations (Private)	780.00
	\$4,451,886.65

DEPARTMENTAL ALLOCATIONS

DIVISION	Salaries		Other Allocations		Allocations		Total State	Total Federal	Total Private	Total All Funds
	State	Federal	State	Federal	Private					
Office of Commissioner	\$78,306.71	\$26,720.44	\$22,834.85	\$93,632.63	\$13,725.00	\$101,141.56	\$120,653.07	\$13,725.00		\$233,519.63
Vital statistics and administration	316,479.44	123,044.60	202,108.43	18,113.80		518,537.87	142,058.49			660,546.36
Environmental health	396,855.25	120,601.01	107,002.81	34,167.77		506,838.06	154,768.78			661,626.84
Preventable disease	87,511.00	70,062.60	27,351.54	77,578.40		114,892.54	142,004.91			262,303.54
Chronic illness	97,047.52	43,713.70	205,366.34	98,293.15		302,413.86	132,586.53			504,420.77
Laboratories	262,603.29	90,530.08	72,992.55	42,050.45		365,635.84	394,147.11			498,242.37
Constructive health	111,740.75	76,110.76	214,922.88	228,036.35	750.00	326,013.63	394,147.11		780.00	631,500.74
Special consultation	90,532.75	39,984.49	6,195.45	6,834.63		96,728.20	46,819.12			143,547.32
Local health service	529,643.29	143,402.63	111,794.37	68,948.79		641,437.60	212,351.42			853,789.08
Total allocations	\$2,003,780.00	\$733,070.37	\$1,030,560.22	\$667,962.06	\$14,503.00	\$3,034,340.22	\$1,403,002.43		\$14,503.00	\$4,451,880.65

DEPARTMENTAL EXPENDITURES

Office of Commissioner	\$78,306.69	\$26,420.60	\$22,744.40	\$92,308.04		\$101,051.00	\$118,737.64			\$219,788.73
Vital statistics and administration	313,434.10	124,648.35	200,061.31	17,634.14		513,525.41	142,182.40			655,707.90
Environmental health	396,898.98	116,863.64	103,529.64	27,453.80		500,428.62	144,347.44			644,776.06
Preventable disease	87,221.75	65,456.17	27,291.29	67,498.06		114,423.01	152,054.23			247,377.27
Chronic illness	106,981.27	41,011.67	264,329.75	91,848.26		361,911.02	132,830.93			494,770.95
Laboratories	292,663.29	88,402.73	72,666.06	30,328.69		365,329.35	394,147.11			490,060.22
Constructive health	109,823.08	75,857.54	213,638.53	216,244.11	\$750.00	323,701.91	202,101.65		\$780.00	616,043.56
Special consultation	90,072.02	39,935.98	6,194.42	6,373.90		90,200.44	46,200.28			142,475.72
Local health service	529,643.29	141,154.60	102,244.00	69,288.17		631,837.38	210,442.77			842,330.15
Total expenditures	\$1,995,044.47	\$719,389.73	\$1,013,539.79	\$625,770.37	\$750.00	\$3,008,554.26	\$1,345,106.30		\$780.00	\$4,354,530.56
Balances June 30, 1960	\$8,735.53	\$15,680.64	\$17,029.43	\$42,185.40	\$13,725.00	\$25,764.96	\$37,866.13		\$13,725.00	\$97,356.09

Examination and Licensing Program

Program provides services to enable certification to local authorities and agencies of qualified personnel for essential public health services.

During this period, 667 applications were processed for examinations. This is an increase of approximately 300 percent over 1951-1952, and shows the growth in a decade.

Forty-seven examinations were conducted during the year.

There were 353 licenses issued as a result of examinations; 1,305 licenses were issued on renewal basis.

The sum of \$10,234.00 was received and deposited to the credit of the General Treasury. This is \$8,574.00 greater than that deposited in fiscal year 1951-1952.

Six lectures were given to students attending Department sponsored courses preparatory to licensure examinations.

The various licensing boards, whose members provided consultative services to the state without remuneration, contributed greatly to examination activities of the Program.

Board of Barber Examiners

REVENUE STATEMENT

FISCAL YEAR ENDED JUNE 30, 1960

Cash Receipts		\$93,965.00
<i>License Fees:</i>		
8,742 Certificates Renewed @ \$5	\$43,710.00	
5 Certificates Renewed @ \$3	15.00	
495 Certificates by Examination @ \$5	2,475.00	
243 Certificates Restored @ \$10	2,430.00	
4,248 Shop License Renewals @ \$5	21,240.00	
91 Shop License Renewals @ \$10	910.00	
*377 Shop Licenses @ \$25	9,425.00	
159 Shop Removals @ \$5	795.00	
515 Apprentice Certificates @ \$3	1,545.00	
602 Examination Applications @ \$15	9,030.00	
Hearing Penalties, Assessed and Collected	2,390.00	
 Total	 \$93,965.00	
Cash Receipts Refunded		310.00
 Net Revenue Earned	 	 \$93,655.00

*377 Shop Licenses @ \$25 represents:
 143 New Shops
 234 New Owners

377 Total of New Shop Licenses Issued

FINANCIAL STATEMENT

BOARD OF BARBER EXAMINERS

FISCAL YEAR ENDED JUNE 30, 1960

Received for Disbursement:

State Appropriations		\$66,833.00
Salaries	\$57,670.00	
Household Supplies	5.00	
Motor Vehicular Supplies	870.00	
Stationery and Office Supplies	459.00	
Printing	1,012.00	
Traveling Expenses	4,849.00	
Telephone and Telegraph	500.00	
Insurance	191.00	
Subscription and Membership Dues	25.00	
Postage	850.00	
Miscellaneous Expenses	12.00	
Current Repairs—Office, Furniture, Machines and Equipment ..	28.00	
Current Repairs—Automotive Equipment	127.00	
Office Equipment	235.00	
		<hr/>
Net Appropriations		\$66,833.00

Expenditures:

Expended for Operation of Board		\$66,618.51
Salaries	\$57,645.66	
Household Supplies	4.98	
Motor Vehicular Supplies	786.89	
Stationery and Office Supplies	458.86	
Printing	1,006.58	
Traveling Expenses	4,763.95	
Telephone and Telegraph	500.00	
Insurance	191.00	
Subscription and Membership Dues	25.00	
Postage	850.00	
Miscellaneous Expenses	12.00	
Current Repairs—Office, Furniture, Machines and Equipment ..	27.45	
Current Repairs—Automotive Equipment	111.33	
Office Equipment	234.81	
		<hr/>
Total Expenditures		\$66,618.51

Unexpended Appropriation Balance as of June 30, 1960		\$214.49
--	--	----------

GENERAL SUMMARY OF WHAT HAS BEEN ACCOMPLISHED
BY THE BOARD OF BARBER EXAMINERS

Shops inspected	10,507
Special investigations	2,309
Shops found with sanitary violations	210
Reinspections	184
Hearings held	75
Shop licenses suspended as a result of a hearing	2
Persons assessed penalties by Board	65
Court Cases	1
Convictions	0
Barbers found working with expired certificates	39
Persons found working without a certificate	14
Unlicensed apprentices	3
Shops found operating with expired licenses	29
Shops operating without a license	9
Shops reported out of business	83
Complaints received from public and investigated	45
Barbers reported deceased	79
Applicants scheduled for examination	596
Applicants examined	542
Applicants passed examination	494
Applicants failed to pass examination	48
Applicants failed to appear for an examination	54
Examination days	37
Examination fees forfeited	5

Personnel

The Personnel Office is charged with the responsibility of maintaining adequate classification, recruitment, and placement plans and programs; maintaining personnel records; paying salaries; maintaining retirement, resignation, suspension, and discharge procedures; analyzing training needs; and making available appropriate training.

Besides the ever-increasing routine workload, this staff is responsible for rendering advice and consultation to the administrators of the organization in personnel matters. In addition, an effective [and] working relationship has been established with the Departments of Civil Service, Treasury and other departments in the state structure and with the United States Department of Health, Education, and Welfare. Equally effective is the relationship with other agencies outside state government. [Such liaisons contribute to the attainment of departmental objectives.]

During the fiscal year ending June 30, 1960, the Personnel Office provides services to 522 departmental employees, maintaining and processing approximately 26,000 records and forms relative to personnel actions and changes,

and training activities. This office also processed routine work such as notifying all employees of balances of sick leave and vacation credits; performance ratings; hospital and medical-surgical insurance enrollments; income and social security tax information; planning and conducting various charitable drives; savings bonds programs; salary increments; reports and surveys; and other projects, which recur annually. An exit interview program is administered through this office.

Many diversified projects are also assigned to this office. They include: employee relations and recreation programs; the safety program; and coordination of payroll procedures with IBM accounting system.

On-campus recruitment of employees was conducted at several colleges and universities in the eastern part of the United States by staff personnel.

Members of this office served on committees of the State Personnel Council and devoted much time on various projects and in preparation of formal reports.

During the fiscal year, 24 specifications of classifications were reviewed and revised.

This office was responsible for preparing the 10 payrolls for the 26 pay periods covering all employees.

At the beginning of the fiscal year, there were 185 classifications in the Department; at the conclusion, 187. Of the 522 employees on the payroll at the end of the period, 87 were at the minimum step, 356 at intervening steps, and 79 at the maximum. Also, of this total, 419 employees had permanent status, 44 were temporary, 22 were in emergency positions and 37 employees in the unclassified division.

Promotions and reclassifications were made during the year. At the end of the year, there were approximately 41 vacant positions.

Public Health Statistics Program

CALENDAR YEAR, 1959

As of March 1, 1960, the Morbidity Unit was transferred by administrative action from the Public Health Statistics Program, Division of Vital Statistics and Administration, to the Division of Preventable Diseases. The Morbidity Unit, which collects illness reports on behalf of the medical programs; is now better able to serve these programs by virtue of its proximity to them.

The Public Health Statistics Program, through its Machine and Statistical Units, is responsible for providing statistical services only.

Workload of the Machine Unit during fiscal 1959-1960 required processing well over a million punch cards covering births, marriages, deaths, fetal deaths, illness reports, cumulative index of venereal disease cases, crippled

children's registrations, poliomyelitis vaccine distribution to biologic stations, barber licenses, and payroll and budget expenditure records.

The Statistics Unit, in addition to processing routine statistical data, answered 782 requests for information by persons outside the Department. Of these, 661 were by letter, 102 by telephone, and 19 were given to the applicant in person. Consultation on more than 30 statistical problems and special studies was provided to program coordinators and other users of public health statistics data.

Population: The April 1, 1960 preliminary population census count for New Jersey was 6,039,594 as against 4,835,329 in 1950. In the 10-year period, the state's gain amounted to 1,204,265 residents or 24.9 percent. Since 1880, this was the largest numerical increase experienced during an intercensal period. The next largest numerical gain was between 1920 and 1930, when the increase in population from 3,155,900 to 4,041,334 amounted to 886,434 inhabitants or 28.1 percent.

Of the 21 counties, all but one showed population increases between 1950 and 1960. Hudson County's population dropped by 6.2 percent during this 10-year period.

July 1, 1959 preliminary population estimates, based on population changes between 1950-1960, for each county and selected cities are shown in Table 2. Rates for births, marriages, and deaths, were computed on the basis of these estimates. Rates for 1955-1958 were revised since population estimates for these years were also reworked to reflect population changes between 1950-1960.

Births: In 1959 there were 130,660 resident births recorded with a rate of 22.0 per 1,000 population. The numerical increase amounted to 0.7 percent above the total for 1958 at which time there were 129,730 births and a rate of 22.3.

Each year since 1950, the number of births to New Jersey residents has continued to rise. In the past decade, there were 1,276,551 births—more than one-half as many more as were recorded during 1940-1949. There were 838,069 births during the latter decade.

Of the 130,660 births in 1959, 3.4 percent or 4,424 births were illegitimate. Comparable figures for 1958 were 3.1 percent and 4,062 illegitimate births, respectively.

The largest number of illegitimate births occurred to mothers between the ages 15-24 years. More than 74 percent or 3,293 births of the total illegitimate births, were in this age group. Of the 118 babies born to mothers 10-14 years of age, 85 were born out of wedlock.

Of the 126,583 births occurring in New Jersey during 1959, there were 542 records showing no entry for weight at birth. Therefore, only 126,041

births were used as the denominator in computing the following percentages by weight:

Table 1.

WEIGHT OF BABIES AT BIRTH		
Over 2500 grams	116,351	92.3
2001-2500 grams, incl.	6,394	5.1
1501-2000 grams, incl.	1,829	1.4
1001-1500 grams, incl.	754	0.6
1000 grams or less	713	0.6
Total with weight given	126,041	100.0

Of the 126,583 birth records on which the attendant was clearly identified, 125,599 births or 99.2 percent occurred in hospitals; 881 or 0.7 percent were attended by physicians outside hospitals; and 30 or 0.02 percent had midwives in attendance.

Marriages: A slight rise (0.7 percent) was noted in the number of marriages performed during 1959. There were 38,659 marriages with a rate of 6.5 per 1,000 population. Marriages in 1958 numbered 38,398 and resulted in a rate of 6.6.

While no males under age 15 were married, 54 females less than 15 years old became brides. Twenty-seven percent of the brides and 7 percent of the grooms were married before their 20th birthday.

Deaths: A total of 58,039 resident deaths from all causes was recorded for New Jersey in 1959. The crude death rate of 9.8 per 1,000 estimated population was but slightly lower than the rate of 9.9 in the year preceding.

Infant Mortality: Deaths of infants under 1 year of age totalled 3,201 in 1959 and resulted in a death rate of 24.5 per 1,000 live births. Comparable figures for 1958 were 3,160 infant deaths and a rate of 24.4.

Neonatal deaths (infant deaths under 28 days) numbered 2,459 in 1959 and 2,434 in 1958. The neonatal mortality rate in 1959 was 18.8 per 1,000 live births, unchanged from the preceding year.

The perinatal mortality rate in 1959 was 32.3 per 1,000 total deliveries as compared with the rate of 33.0 in 1958. The 1959 rate was based on 2,185 deaths of infants under 7 days of age, 2,109 fetal deaths and 130,660 live births.

Maternal Deaths: In 1959 the maternal deaths, numbering 51, were lower by 3 as compared with 1958. The death rate of 0.04 per 1,000 live births was the same for both years. There were 29 deaths among white mothers and 22 to nonwhite mothers in 1959. Comparable figures in 1958 were 36 and 18, respectively.

The maternal mortality rate in the last 10 years has ranged from 0.3 (1956, 1957) to 0.7 (1950, 1951) per 1,000 live births. From 1950-1959, the New

Jersey rate dropped 43 percent while that for the United States showed a 55 percent decrease in the same period.

Fetal Deaths: A slight reduction in fetal deaths and the fetal death rate were noted in 1959. There were 2,109 fetal deaths with a rate of 16.1 per 1,000 live births in 1959 as against 2,185 fetal deaths and a rate of 16.8 in 1958. The decrease of 4.3 percent was in the number of white fetal deaths, which totalled 1,676 deaths in 1959 as contrasted with 1,751 in the preceding year. Nonwhite fetal deaths equalled 423 in each of these years. Race was not stated on 10 fetal death reports in 1959 and on 11 in 1958.

Leading Causes of Death: The rank order of the leading causes of death in 1959 showed little change. Accidental falls moved into the 9th position and congenital malformations became the 10th among the selected list of leading causes of death.

Diseases of the circulatory system, 1st in order of frequency, accounted for 47 percent of the total deaths in 1959. Malignant neoplasms, 2nd highest in rank order, were responsible for an additional 18 percent of deaths from all causes. Over 70 percent of the deaths which occurred in the older age groups can be attributed to these 2 major disease groups.

Heart Disease: There were 25,315 deaths due to heart disease and a death rate of 425.5 per 100,000 population. In 1958, heart disease deaths numbered 25,038 and yielded a death rate of 429.5.

Cancer: A rise in the number of deaths and the death rate for malignant neoplasms was noted in 1959. There were 10,635 cancer deaths with a rate of 178.8 per 100,000 population recorded in 1959, as against 10,215 deaths and a rate of 175.2 in the preceding year.

Vascular Lesions: Deaths from vascular lesions affecting the central nervous system and the death rate were lower for 1959. There were 5,289 deaths as compared with 5,378 in 1958. Death rates per 100,000 population were 88.9 and 92.3, respectively.

Influenza and Pneumonia: In 1959, there were 32 influenza deaths and a death rate of 0.5 per 100,000 population. Comparable figures for 1958 were 50 deaths and a rate of 0.9. Pneumonia deaths numbered 1,643 in 1959 and 1,676 in 1958. Death rates for each of these years were 27.6 and 28.8 per 100,000 population.

Diabetes: Continuing as the 5th leading cause of death, diabetes showed a slight increase both in the number of deaths and the death rate. Deaths due to this cause totalled 1,181 in 1959 and resulted in a death rate of 19.9 per 100,000 population. In 1958 there were 1,133 diabetes deaths and a rate of 19.4.

All Accidents: If considered as a single cause of death, accidents would have been the 4th leading cause of death in 1959, accounting for 2,201 fatalities and a rate of 37.0 per 100,000 population. In 1958 there were 2,158 accidental deaths with the fatality rate the same as in 1959. Deaths due to motor vehicle accidents numbered 753 in 1959 as against 735 in 1958; death rates per 100,000 population were 12.7 and 12.6, respectively. Fatalities due to accidental falls in 1959 totalled 664 with a death rate of 11.2 per 100,000 population. Comparable figures for 1958 were 656 deaths and a rate of 11.3.

Deaths from Reportable Diseases

Tuberculosis: A continued drop in both the number and rate of tuberculosis deaths was experienced in 1959. There were 433 tuberculosis deaths and a death rate of 7.3 per 100,000 population. In 1958, there were 443 deaths and a rate of 7.6.

In addition to the 433 deaths statistically charged to tuberculosis as the primary cause of death, there were 176 deaths due to other causes with tuberculosis mentioned as a secondary cause of death. Of the 609 deaths with tuberculosis either as a primary or secondary cause of death, 219 deaths or 35.9 percent were unreported to the Department as tuberculosis cases prior to the date of death.

Other Reportable Diseases: Of the principal communicable diseases of childhood, diphtheria was responsible for 2 deaths, measles for 18 deaths, and whooping cough for 4 deaths. No deaths occurred from streptococcal sore throat, including scarlet fever.

Seven deaths from acute poliomyelitis and 5 deaths due to late effects of acute poliomyelitis occurred in 1959. Six of these were in persons under 15 years of age.

Acute infectious encephalitis claimed 42 lives and 2 additional deaths resulted from late effects of acute infectious encephalitis. Eastern encephalitis accounted for 20 of the 42 acute infectious encephalitis deaths and for 1 of the 2 deaths charged to late effects. Deaths resulting from eastern encephalitis occurred between August and December 3, 1959.

Deaths from infectious hepatitis numbered 29. Fifteen of these occurred in the age group 45-64.

There were 77 deaths from syphilis, 70 of which occurred in persons 45 years of age and over.

With the exception of tuberculosis and influenza and pneumonia, the remaining reportable infectious diseases as a group contributed 245 deaths and a death rate of 4.1 per 100,000 population. In the group of infectious diseases, tuberculosis and influenza and pneumonia are the remaining major problems. Further reduction in mortality from tuberculosis and influenza and pneumonia can be anticipated over a period of years.

DIV. OF VITAL STATISTICS & ADMINISTRATION 215

Table 2.

 PRELIMINARY MIDYEAR POPULATION ESTIMATES FOR COUNTIES AND MAJOR CITIES
 NEW JERSEY: 1959

(Based on April 1, 1960 Preliminary Census Counts)

<i>Area</i>	<i>Preliminary Census Counts April 1, 1960</i>	<i>Preliminary Pop. Estimates July 1, 1959</i>
State Total	6,039,594	5,949,000
Atlantic County	158,312	156,000
Atlantic City	57,959	58,000
Bergen County	779,156	761,000
Burlington County	224,248	218,000
Camden County	338,975	382,000
Camden City	115,363	116,000
Cape May County	47,452	47,000
Cumberland County	106,277	105,000
Essex County	919,692	919,000
Bloomfield	51,961	52,000
East Orange	76,702	77,000
Irvington	59,151	59,000
Newark	402,815	406,000
Gloucester County	134,603	131,000
Hudson County	607,250	610,000
Bayonne	73,918	74,000
Hoboken	48,103	48,000
Jersey City	274,059	276,000
Union City	51,935	52,000
Hunterdon County	53,993	53,000
Mercer County	265,766	263,000
Hamilton Twp.	64,819	63,000
Trenton	114,015	115,000
Middlesex County	431,638	419,000
Woodbridge Twp.	76,393	73,000
Monmouth County	333,235	325,000
Morris County	259,857	253,000
Ocean County	107,614	104,000
Passaic County	404,358	399,000
Clifton	81,831	81,000
Passaic City	53,770	54,000
Paterson	142,301	142,000
Salem County	58,521	58,000
Somerset County	143,152	140,000
Sussex County	49,046	48,000
Union County	503,333	495,000
Elizabeth	107,377	108,000
Union Twp.	51,502	50,000
Warren County	63,116	63,000

Note: The July 1, 1959 preliminary population estimates are based on the prorated numerical difference between the April 1, 1950 and April 1, 1960 census counts.

Vital Statistics Registration Program

CALENDAR YEAR, 1959

Historical Background

The State Registrar has custody of almost 13 million records of births, marriages, deaths, and fetal deaths. These date back to the year 1848. All records of births and marriages from 1848 to 1903, and all death certificates from 1848 through 1952, have been microfilmed. These original records are stored several miles from the State House.

Since filming the original records, about 100,000 corrections were filed pertaining to certificates of events occurring during the period 1848 through 1903. In addition, about 175,000 delayed reports of births were received, checked, and filed. These were for the years 1848 to date.

The records for the period 1848 to 1887 were collected originally by the Secretary of State and were turned over to the Bureau of Vital Statistics when it was created by an act of the Legislature during the session of 1887.

In 1954, the Bureau organized its activities into 2 Programs. One of these was the Vital Statistics Registration Program and the State Registrar became its coordinator.

Since 1954, the Program has been responsible for searching and issuing transcripts of 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 required for registering vital events. Some forms are used exclusively by the local registrar and others are distributed by him to physicians, clergymen, funeral directors or hospital administrators.

Workload and Accomplishments

During calendar year 1959, the Program received and processed 224,602 original reports of vital events, approximately 2,000 delayed reports of births, and about 6,000 corrections to current and old records. In addition, there were 9,591 office or telephone calls by persons wishing to file corrections or needing help in other registration matters.

The Program was able to allocate time and money to check and bind about 100,000 delayed reports of births which occurred during the period 1848 through 1929.

New birth records were prepared for 2,202 persons who had been adopted in 1959 or prior years. Copies of these records were sent to the respective local registrars.

The Program examined 77,320 premarital certificate forms for acceptability before detaching them from the marriage certificates forwarded by local registrars.

Almost 1,000 persons applied for searches of and transcripts from the 1905 and/or 1915 State Census Records.

The Department 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 1959, this required typing 4,632 copies, all of which were subsequently sorted by county and forwarded to the respective county supervisors of veterans' interments.

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.

The Program received 49,220 applications for searches of the records of 1 or more years. About 10 percent were from agencies requiring only a certification that the record was on file. The remainder required the preparation of certified copies or statements that the record requested could not be found.

Each month, the Program prepared and mailed to the National Office of Vital Statistics a 10 percent sample of death certificates. This amounted to an annual total of approximately 6,000 photocopies.

The Program also gave the Cancer Control Program copies of certain death records. These were used to assist in the clearance of Cancer Registers of hospitals in and outside New Jersey.

A national study of mortality of dentists, conducted by Yale University, required our help. We furnished photostatic copies of certain death records.

At the suggestion of the State Auditors, new accounting procedures were installed. Although this improves the fiscal control, it requires additional man-hours to keep such records.

Tables showing the volume of the major activities of the Program follows:

Table 1.

ORIGINAL CERTIFICATES RECEIVED, PROCESSED, AND PERMANENTLY FILED

Certificate Type	Calendar Year		
	1959	1958	1957
Birth	126,173	125,793	125,866
Fetal Death	1,941	2,015	2,016
Marriage	38,661	38,398	40,404
Remarriage	1,120	1,151	1,165
Death	56,707	56,408	56,064
Total	224,602	223,765	225,515

Table 2.

SEARCHES REQUESTED AND FEES RECEIVED

Item	Fiscal Year		
	1960	1959	1958
Searches made and/or certified copies issued for which fees were received	33,615	31,548	32,624
Searches made and/or certified copies issued for which no fees were received	19,805	16,900	16,195
Total searches	53,420	48,448	48,819
Fees received for searches and certified copies	\$38,106.82	\$36,888.31	\$34,610.56

Professional, Published Papers by Employees in the New Jersey State Department of Health

July 1, 1959—June 30, 1960

OFFICE OF THE COMMISSIONER

Division of Chronic Illness Control

BOOTH, STELLA, M.D. (Hanisch, Verna K., R.N.). "A Clinical Experience in Cancer Nursing for Public Health Nurses"—*Nursing Outlook*, March, 1960.

EDWARDS, MARGARET H., M.D. (Rathmel, T. K.). "Clinical Experience with Triethylenethiophosphoramidate (Thio-TEPA) in the Treatment of Cancer"—*Antibiotic Medicine and Clinical Therapy*, April, 1960.

EDWARDS, MARGARET H., M.D. "Relationship of Diet to Coronary Heart Disease"—*Public Health News*, March, 1959.

EDWARDS, MARGARET H., M.D. "The New Jersey Arthritis Project: A Progress Report"—*Public Health News*, January, 1960.

Division of Constructive Health

- BICE, HARRY V. "Services for Retarded Children"—*Public Health News*, September, 1959.
- BICE, HARRY V. "The Concept of Competition in the Education of the Exceptional Child"—*Exceptional Children*, March, 1960.
- BICE, HARRY V. "The Handicapped Child and His Concept of Self"—*Public Health News*, September, 1960.
- BUTLER, JOHN R. "Treatment of Alcoholism in Out-Patient Clinics of General Hospitals"—*Public Health News*, December, 1959.
- TESCH, HENRY T. "Tuberculosis and Alcoholism"—*Public Health News*, October, 1960.
- ZINDWER, RENEE, M.D. "Proceedings of the Institute for Nurses on Mental Retardation" (Introduction to Issue)—*Public Health News*, September, 1960.
- ZINDWER, RENEE, M.D. "Psychiatric Look at Children" (Introduction to Lecture Series)—*Public Health News*, June, 1959.

Division of Environmental Health

- FLETCHER, ALFRED H. "Current Problems and the Water Program of the New Jersey State Department of Health"—*Public Health News*, March, 1960.
- FLETCHER, ALFRED H. "Sewage Disposal Problems in New Jersey"—*Public Health News*, October, 1960.
- FLETCHER, ALFRED H. (Zemlansky, John). "Meeting Requirements for Garbage and Refuse in Suburban Areas" (Excerpt)—*Public Health Reports*, publication of the United States Public Health Service, March, 1960, Volume 75, No. 3, P. 220. Presented at the American Public Health Association, October, 1959.
- RUTH, MILTON. "Inspection of Meat and Poultry"—*Public Health News*, July, 1959.
- RUTH, MILTON. "Progress of Meat Inspection Program"—*Public Health News*, March, 1960.
- SHAW, ROBERT S. "Stream Pollution Control Program of the New Jersey State Department of Health"—*Public Health News*, January, 1959.
- SHAW, ROBERT S. "Current Problems and the Water Program of New Jersey State Department of Health"—*Public Health News*, March, 1960.
- SHAW, ROBERT S. "Sewage Disposal Problems in New Jersey"—*Public Health News*, October, 1960.
- SHIMER, PRESTON C. (Koppenhaven, Fred B.). "A Community Noise Control Code"—*Public Health News*, December, 1959.
- SUSSMAN, OSCAR, M.D. "Eastern Encephalitis in Pheasants and Horses in New Jersey"—*Public Health News*, April, 1960.
- VOSCEK, JANE (Mrs.) R.N. "The Role of the Industrial Nurse"—*Public Health News*, November, 1960.

Division of Local Health Services

ARONSON, JESSE B., M.D. "State Health Council Approves Minimum Standards"—*New Jersey Municipalities Magazine*, January, 1960.

ARONSON, JESSE B., M.D. "New Roles for Public Health Nurses"—*Public Health News*, April, 1959.

ARONSON, JESSE B., M.D. "Importance of Local Health Services in Controlling Encephalitis"—*Public Health News*, April, 1960.

ARONSON, JESSE B., M.D. "Superior, Supervised Public Health Services"—*Public Health News*, June, 1960.

ESTY, GEOFFREY, W., M.D. Review of 28 pamphlets on "Talks with Parents of First-Born Children"—*Public Health News*, March, 1960.

GOLDSBORO, ROBERT F., D.V.M. "The Animal's Role in Human Health"—*Public Health News*, February, 1959.

JONES, YVONNE D., M.P.H. "Sodium Restricted Diets"—*Public Health News*, December, 1959.

MAYERS, STANLEY P., M.D. "An Evaluation Schedule for Local Health Services"—*Public Health News*, June, 1960.

NICHOLSON, ANITA. "Role of Social Services"—*Public Health News*, November, 1960.

Division of Preventable Diseases

BOWSER, LUCIUS A. (Russo, Richard J., M.S.P.H.). "Role of the Retail Pharmacist in Poison Control"—*Journal of the American Pharmaceutical Association* (Practical Pharmacy Edition), March, 1960.

DOUGHERTY, WILLIAM J., M.D. "Description of the (Encephalitis) Outbreak"—*Public Health News*, April, 1960.

DOUGHERTY, WILLIAM J., M.D. "Epidemiology"—*The American Journal of Nursing*, April, 1960.

DOUGHERTY, WILLIAM J., M.D. (Culp, Curtis F., M.D.; Shepard, Adele C., M.D.). "New Jersey's Action Program to Prevent Poliomyelitis"—*Public Health Reports*, July, 1960.

DOUGHERTY, WILLIAM J., M.D. (Faro, Stanley N., M.D.). "Factors Affecting the Incidence and Severity of Poliomyelitis"—*New England Journal of Medicine*, November 5, 1959.

DOUGHERTY, WILLIAM J., M.D. (Hammond, David P.). "Syphilis Resurgence"—*The Journal of the Medical Society of New Jersey*, May, 1960.

DOUGHERTY, WILLIAM J., M.D. (Hammond, David P.). "Cluster Testing—A New Dimension in Syphilis Epidemiology"—*The Journal of the Medical Society of New Jersey*, September, 1960.

FARRER, SANFORD M., M.D. (Bavara, Camille, R.N.; Russo, Richard, M.S.P.H.; Werthamer, Seymour, M.D.). "Surveillance and Control of Staphylococcal Infections in a Maternity Unit"—*Journal of the American Medical Association*, October 24, 1959.

FOULKS, DOROTHY, R.N., M.A. (Dougherty, William J., M.D.). "Contact Investigation: A Valuable Tool in Tuberculosis Control"—*Public Health News*, July, 1960.

GROSS, MAX, M.D. (Foulks, Dorothy, R.N.; Polkowitz, Bernice, R.N.). "Contact Investigation: A Function of the Diagnostic Clinic in the Epidemiological Control"—*Public Health News*, October, 1960.

RUSSO, RICHARD J., M.S.P.H. "Poison Control in New Jersey"—*Public Health News*, November, 1959.

SHEPARD, ADELE C., M.D., M.P.H. "Health Work Among Migrants in 1958"—*Public Health News*, March, 1959.

STOLOW, ALAN J., M.D. (Dougherty, William J., M.D.; Foulks, Dorothy, R.N., M.A.; Hopper, William A., N.S.; Peterman, James E., M.D.; Stanford, Marian L., M.D.). "Mercer County Tuberculin Testing Pilot Study—1958"—*Academy of Medicine of New Jersey, Bulletin*, September, 1960.

Division of Special Consultation Services

FIORI, FLORENCE. "Arthritis Workshop Discussions"—*Public Health News*, November, 1960.

KENNEDY, JOHANNA E., R.N. "Current Preparation of the Public Health Nurse in Relation to Psychiatric Care"—*Public Health News*, March, 1960.

ZEALAND, MARGARET P., M.P.H. "Relationship of Diet to Coronary Heart Disease"—*Public Health News*, March, 1959.

Division of Laboratories

GOLDFIELD, MARTIN, M.D. "Role of the Virus Laboratory in Diagnosis of Eastern Encephalitis"—*Public Health News*, April, 1960.

GOLDFIELD, MARTIN, M.D. "Virus Laboratory: An Epidemiologic Tool that Benefits the Community"—*Public Health News*, June, 1960.

Office of the Commissioner

KANDLE, ROSCOE P., M.D. "Drainage and Health"—*Public Health News*, December, 1960.

KANDLE, ROSCOE P., M.D. "Eastern Encephalitis in New Jersey in 1959"—*Public Health News*, July, 1960.

KANDLE, ROSCOE P., M.D. "Hospitals Look at Long-Term Care"—*Public Health News*, June, 1960.

KANDLE, ROSCOE P., M.D. "Public Health Nursing in Official Health Agencies in New Jersey"—*Public Health News*, October, 1960.

KANDLE, ROSCOE P., M.D. "Role of the State Department of Health in Alcoholism Control"—*Public Health News*, March, 1960.

KANDLE, ROSCOE P., M.D. "The Role of a Voluntary Public Health Association in New Jersey"—*Public Health News*, January, 1960.

MINCHER, E. POWERS, LL.B. "Principles of Administration and Law Relating to State Departments of Health"—*Public Health News*, December, 1959.

TABLES AND CHARTS—1959

- Table A. Population of Counties by Minor Civil Divisions: April 1, 1960 Census.
- Table 1. Population Estimates and Vital Events (Numbers and Rates): 1935-1959.
- Chart 1. Birth and Death Rates per 1,000 Population, Five-Year Averages: 1880-1959.
- Table 2. Births, Infant Deaths, Neonatal Deaths, Fetal Deaths and Maternal Deaths; Numbers and Rates: 1935-1959.
- Table 3. Vital Events by Counties and Major Cities, Numbers and Rates: 1959.
- Table 4. Births, Marriages, Deaths, Fetal Deaths, Maternal Deaths, Infant Deaths and Neonatal Deaths by Counties and Municipalities: 1959. (Marriage data by place of occurrence, all other by place of residence.)
- Table 5. Births, Marriages and Deaths in New Jersey by Month of Occurrence: 1959.
- Table 6. Marriages in New Jersey by Age of Husband by Age of Wife: 1959.
- Table 7. Marriages in New Jersey by Previous Marital Status: 1959.
- Table 8a. Infant Deaths by Age and Immaturity: 1959.
- Table 8b. Infant Deaths by Cause and Age: 1959.
- Table 8c. Deaths from Certain Diseases of Early Infancy by Specific Cause and Age Group: 1959.
- Table 9. Principal Causes of Death by Specified Age Groups: 1959.
- Table 10a. Deaths from Diseases of the Circulatory System by Cause Group by Age, Sex and Color: 1959.
- Table 11a. Deaths from Neoplasms by Cause Group, by Age, Sex and Color: 1959.
- Chart 2. Cancer Death Rates per 100,000 Population, Five-Year Averages: 1880-1959.
- Table 12. Deaths from Diabetes by Age, Sex and Color: 1959.
- Table 13a. Motor Vehicle Deaths in New Jersey by Cause of Death by Age: 1959.
- Table 13b. Nontransport Accidental Deaths in New Jersey by Cause of Death by Place of Accident: 1959.
- Table 13c. Deaths Due to Accidents by Cause of Accident for Selected Age Groups, Number and Rank: 1959.
- Table 14a. Births by Legitimacy for Counties and Major Cities: 1959.
- Table 14b. Births by Legitimacy by Age of Mother: 1959.
- Table 15. Resident Births by Weight Group by Age Group of Mother: 1959.
- Table 16. Infant and Maternal Deaths by Counties and Major Cities, Numbers and Rates: 1959.

- Table 17a. Maternal Deaths by Specific Cause: 1959.
- Table 17b. Maternal Deaths by Cause, Color and Age Groups: 1959.
- Table 20. Deaths by Cause by Sex and Age Groups: 1959.
- Table 22. Deaths by Cause Groups by Sex and Age Groups: 1959. (For the State, each county, cities having estimated population of 50,000 or more, State institutions and military posts.)
- Table 23a. Cases of Reportable Diseases by County of Residence: 1959. (Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases.)
- Table 23b. Reported Cases of Central Nervous System Diseases of Viral Etiology: 1959.
- Table 23c. Incidence of Central Nervous System Diseases of Viral Etiology by Month of Onset: 1959.
- Table 24a. Deaths from Reportable Diseases by County of Residence: 1959. (Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases.)
- Table 24b. Deaths from Reported Cases of Central Nervous System Diseases of Viral Etiology: 1959.
- Table 24c. Deaths from Reportable Diseases by Sex and Age Group: 1959.
- Table 24d. Encephalitis Deaths by Month of Onset of Disease: 1959.
- Table 25. Poliomyelitis Cases and Deaths by Sex and Age Group: 1959.
- Table 26a. Reported Cases of Paralytic Poliomyelitis by Age Group by County: 1959.
- Table 26b. Reported Cases of Nonparalytic Poliomyelitis by Age Group by County: 1959.
- Table 26c. Vaccination Status of Poliomyelitis Cases by Paralytic Status by Age: 1959.
- Table 26d. Distribution of Poliomyelitis Cases by Type of Poliovirus Isolated by Paralytic and Vaccination Status: 1959.
- Table 27. Tuberculosis Cases and Deaths; Numbers, Rates and Case-Death Ratios for Counties and Major Cities: 1959.
- Table 28. Tuberculosis Cases by Clinical Status for Counties and Major Cities; 1959.
- Table 29. Active and Probably Active Tuberculosis Cases by Age Groups for Counties and Major Cities: 1959.
- Table 30. Active and Probably Active Tuberculosis Cases by Bacterial Status for Counties and Major Cities: 1959.
- Table 31. Active and Probably Active Pulmonary Tuberculosis Cases by Extent of Disease by Counties and Major Cities: 1959.
- Table 32. Syphilis and Gonorrhoea Cases for Counties and Major Cities, Numbers and Rates, New Jersey: 1959.
- Table 33. Venereal Disease Cases by Disease, by Stage (for Syphilis only) by Reporting Agency: 1957-1959.
- Table 34a. Civilian Primary and Secondary Syphilis Cases by Reporting Source, Age Group, and Sex: 1959.
- Table 34b. Civilian Cases of Gonorrhoea by Reporting Source, Age Group, and Sex: 1959.

DEPARTMENT OF HEALTH

Table A. POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: APRIL 1, 1960 CENSUS

("U" Denotes an Unincorporated Place)

County and Minor Civil Division	Population	County and Minor Civil Division	Population
Atlantic County	160,880		
Absecon City	4,320	Palisades Park Borough	11,943
Atlantic City, City	59,544	Paramus Borough	23,238
Brigantine City	4,201	Park Ridge Borough	6,389
Buena Borough	3,243	Ramsey Borough	9,527
Buena Vista Twp.	3,915	Ridgefield Borough	10,788
Corbin City, City	271	Ridgefield Park Twp.	12,701
Egg Harbor City, City	4,416	Ridgewood Twp.	25,391
Egg Harbor Twp.	5,593	River Edge Borough	13,264
Estell Manor City	496	River Vale Twp.	5,616
Folsom Borough	482	Rochelle Park Twp.	6,119
Galloway Twp.	5,634	Rockleigh Borough	430
Hamilton Twp.	6,017	Rutherford Borough	20,473
Mays Landing (U)	1,404	Saddle Brook Twp.	13,834
Hammonontown	9,554	Saddle River Borough	1,776
Linwood City	3,847	South Hackensack Twp.	1,841
Longport Borough	1,077	Tenack Twp.	42,085
Margate City, City	9,474	Tenafly Borough	14,264
Mullica Twp.	2,944	Teterboro Borough	22
Northfield City	5,849	Upper Saddle River Borough	3,570
Pleasantville City	15,172	Waldwick Borough	10,485
Port Republic City	561	Wallington Borough	9,261
Somers Point City	4,504	Washington Twp.	6,654
Ventnor City, City	8,688	Westwood Borough	9,046
Weymouth Twp.	778	Woodcliff Lake Borough	2,742
		Wood-Ridge Borough	7,964
		Wyckoff Twp.	11,205
Bergen County	780,255		
Allendale Borough	4,092	Burlington County	224,490
Alpine Borough	921	Bass River Twp.	737
Bergenfield Borough	27,203	Beverly City	3,400
Bogota Borough	7,965	Bordentown City	4,974
Carlstadt Borough	6,042	Bordentown Twp.	5,936
Cliffside Park Borough	17,642	Burlington City	12,687
Closter Borough	7,767	Burlington Twp.	6,291
Cresskill Borough	7,290	Chesterfield Twp.	2,519
Demarest Borough	4,231	Cinnaminson Twp.	8,302
Dumont Borough	18,882	Delanco Twp.	4,011
East Paterson Borough	19,344	Delran Twp.	5,327
East Rutherford Borough	7,769	Eastampton Twp.	1,402
Edgewater Borough	4,113	Edgewater Park Twp.	2,866
Emerson Borough	6,849	Fresham Twp.	4,548
Englewood City	26,957	Fieldsboro Borough	583
Englewood Cliffs Borough	2,913	Florence Twp.	8,127
Fair Lawn Borough	36,421	Florence (U)	4,215
Fairview Borough	9,399	Roebling (U)	3,272
Fort Lee Borough	21,815	Hainesport Twp.	3,271
Franklin Lakes Borough	3,816	Levittown Twp.	11,861
Garfield City	29,253	Lumberton Twp.	2,833
Glen Rock Borough	12,896	Mansfield Twp.	2,064
Hackensack City	30,521	Maple Shade Twp.	12,947
Harrington Park Borough	3,581	Medford Twp.	4,844
Hasbrouck Heights Borough	13,046	Medford (U)	1,480
Haworth Borough	3,215	Medford Lakes Borough	2,876
Hillsdale Borough	8,734	Moorestown Twp.	12,497
Hohokus Borough	3,988	Mount Holly Twp.	13,271
Leonia Borough	8,384	Mount Laurel Twp.	5,249
Little Ferry Borough	6,175	New Hanover Twp.	28,528
Lodi Borough	23,502	North Hanover Twp.	2,796
Lyndhurst Twp.	21,867	Palmyra Borough	7,036
Mahwah Twp.	7,376	Pemberton Borough	1,250
Maywood Borough	11,460	Pemberton Twp.	13,726
Midland Park Borough	7,543	Riverside Twp.	8,474
Montvale Borough	3,669	Riverton Borough	3,324
Moonachie Borough	3,052	Shamong Twp.	774
New Milford Borough	18,810	Southampton Twp.	3,166
North Arlington Borough	17,477	Springfield Twp.	1,956
Northvale Borough	2,892	Tabernacle Twp.	1,621
Norwood Borough	2,852	Washington Twp.	541
Oakland Borough	9,446	Westampton Twp.	1,114
Old Tappan Borough	2,330	Woodland Twp.	1,904
Oradell Borough	7,487	Wrightstown Borough	4,846

DIV. OF VITAL STATISTICS & ADMINISTRATION 225

Table A. POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: APRIL 1, 1960 CENSUS
 ("U" Denotes an Unincorporated Place)

County and Minor Civil Division	Population	County and Minor Civil Division	Population
Camden County	392,035	Maurice River Twp.	3,105
Audubon Borough	10,440	Millville City	19,096
Audubon Park Borough	1,713	Shiloh Borough	554
Barrington Borough	7,943	Stow Creek Twp.	1,010
Bellmawr Borough	11,853	Upper Deerfield Twp.	6,040
Berlin Borough	3,578	Seabrook Farms (U)	1,798
Berlin Twp.	3,363	Vineland City	37,655
Brooklawn Borough	2,504		
Camden City	117,159	Essex County	923,545
Chesilhurst Borough	384	Belleville Town	35,005
Clementon Borough	3,766	Bloomfield Town	51,867
Collingswood Borough	17,370	Caldwell Borough	6,942
Delaware Twp.	31,522	Caldwell Twp.	3,310
Gibbsboro Borough	2,141	Cedar Grove Twp.	14,603
Gloucester City, City	15,511	East Orange City	77,259
Gloucester Twp.	17,591	Essex Fells Borough	2,174
Haddon Twp.	17,009	Glen Ridge Borough	8,322
Haddonfield Borough	13,201	Irvington Town	39,379
Haddon Heights Borough	9,260	Livingston Twp.	23,124
Hi-Nella Borough	474	Maplewood Twp.	23,977
Laurel Springs Borough	2,028	Montclair Town	18,799
Lawnside Borough	2,155	Newark City	405,220
Lindenwold Borough	7,335	Nutley Town	4,163
Magnolia Borough	4,199	North Caldwell Borough	29,513
Merchantville Borough	4,075	Orange City	35,789
Mount Ephraim Borough	5,447	Roseland Borough	2,804
Oaklyn Borough	4,778	South Orange Village	16,175
Pennsauken Twp.	33,771	Verona Borough	13,782
Pine Hill Borough	3,939	West Caldwell Borough	8,314
Pine Valler Borough	20	West Orange Town	39,895
Runnemede Borough	8,396		
Somerdale Borough	4,839	Gloucester County	134,840
Stratford Borough	4,308	Clayton Borough	4,711
Tavistock Borough	10	Deptford Twp.	17,878
Voorhees Twp.	3,784	East Greenwich Twp.	2,722
Waterford Twp.	3,809	Elk Twp.	2,635
Winslow Twp.	9,142	Franklin Twp.	7,451
Wood-Lynne Borough	3,128	Glassboro Borough	10,253
		Greenwich Twp.	4,065
Cape May County	48,555	Gibbstown (U)	2,820
Avalon Borough	695	Harrison Twp.	2,410
Cape May City	4,477	Logan Twp.	1,924
Cape May Point Borough	263	Mantua Twp.	7,991
Dennis Twp.	2,327	Monroe Twp.	9,396
Lower Twp.	6,332	Williamstown (U)	2,722
Villas (U)	2,085	National Park Borough	3,380
Middle Twp.	6,718	Newfield Borough	1,299
Cape May Court House (U)	1,749	Paulsboro Borough	8,121
North Wildwood City	3,598	Pitman Borough	8,644
Ocean City, City	7,618	South Harrison Twp.	974
Sea Isle City, City	1,393	Swedesboro Borough	2,449
Stone Harbor Borough	834	Washington Twp.	4,923
Upper Twp.	2,539	Wenonah Borough	2,100
West Cape May Borough	1,030	West Deptford Twp.	11,152
West Wildwood Borough	207	Westville Borough	4,951
Wildwood City	4,690	Woodbury City	12,453
Wildwood Crest Borough	3,011	Woodbury Heights Borough	1,723
Woodbine Borough	2,828	Woolwich Twp.	1,235
Cumberland County	106,850	Hudson County	610,734
Bridgeton City	20,966	Bayonne City	74,215
Commercial Twp.	3,244	East Newark Borough	1,872
Port Norris (U)	1,780	Guttenberg Town	5,118
Deerfield Twp.	2,053	Harrison Town	11,743
Downe Twp.	1,870	Hoboken City	48,441
Fairfield Twp.	3,916	Jersey City, City	276,101
Greenwich Twp.	1,086	Kearny Town	37,472
Hopewell Twp.	3,586	North Bergen Twp.	42,337
Lawrence Twp.	2,639		
Cedarville (U)	1,095		

DEPARTMENT OF HEALTH

Table A. POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: APRIL 1, 1960 CENSUS

("U" Denotes an Unincorporated Place)

County and Minor Civil Division	Population	County and Minor Civil Division	Population
Seaucus Town	12,154	Sayreville Borough	22,553
Union City, City	52,180	South Amboy City	8,422
Weehawken Twp.	13,504	South Brunswick Twp.	10,278
West New York Town	35,547	South Plainfield Borough	17,879
		South River Borough	13,397
		Spotswood Borough	5,788
Hunterdon County	54,107	Woodbridge Twp.	78,846
Alexandria Twp.	1,629		
Bethlehem Twp.	1,000	Monmouth County	334,401
Bloomsbury Borough	838	Allenhurst Borough	795
Califon Borough	777	Allentown Borough	1,393
Clinton Town	1,158	Asbury Park City	17,366
Clinton Twp.	3,770	Atlantic Twp.	2,177
Delaware Twp.	2,485	Atlantic Highlands Borough	4,119
East Amwell Twp.	1,981	Avon-by-the-Sea Borough	1,707
Flemington Borough	3,232	Belmar Borough	5,190
Franklin Twp.	1,777	Bradley Beach Borough	4,204
Frenchtown Borough	1,340	Brielle Borough	2,619
Glen Gardner Borough	787	Deal Borough	1,889
Hampton Borough	1,135	Eatontown Borough	10,334
High Bridge Borough	2,148	Englishtown Borough	1,143
Holland Twp.	2,495	Fair Haven Borough	5,678
Kingwood Twp.	1,541	Farmingdale Borough	959
Lambertville City	4,269	Freehold Borough	9,140
Lebanon Borough	880	Freehold Twp.	4,779
Lebanon Twp.	2,841	Highlands Borough	3,536
Milford Borough	1,114	Holmdel Twp.	2,939
Raritan Twp.	4,545	Howell Twp.	11,153
Readington Twp.	4,545	Interlaken Borough	1,169
Stockton Borough	6,147	Keansburg Borough	6,554
Tewksbury Twp.	520	Keypoint Borough	6,440
Union Twp.	1,908	Little Silver Borough	5,202
West Amwell Twp.	1,717	Loch Arbour Village	297
	1,683	Long Branch City	26,228
		Manalapan Twp.	3,990
Mercer County	266,392	Manasquan Borough	4,022
East Windsor Twp.	2,298	Marlboro Twp.	8,038
Ewing Twp.	26,628	Matawan Borough	5,097
Hamilton Twp.	65,036	Matawan Twp.	7,359
Hightstown Borough	4,317	Middletown Twp.	39,675
Hopewell Borough	1,928	Millstone Twp.	2,550
Hopewell Twp.	7,818	Monmouth Beach Borough	1,363
Lawrence Twp.	13,665	Neptune Twp.	21,487
Pennington Borough	2,063	Neptune City Borough	4,013
Princeton Borough	11,890	New Shrewsbury Borough	7,313
Princeton Twp.	10,411	Oakhurst (U)	11,622
North Princeton (U)	4,506	Wanamassa (U)	4,374
Trenton City	114,167	Oceanport Borough	3,928
Washington Twp.	2,156	Raritan Twp.	4,937
West Windsor Twp.	4,016	Red Bank Borough	15,334
		Roosevelt Borough	12,482
Middlesex County	433,856	Rumson Borough	764
Carteret Borough	20,502	Sea Bright Borough	6,405
Cranbury Twp.	2,001	Sea Girt Borough	1,133
Cranbury (U)	1,038	Shrewsbury Borough	1,798
Dunellen Borough	6,840	Shrewsbury Twp.	3,222
East Brunswick Twp.	19,965	South Belmar Borough	1,204
Edison Twp.	44,799	Spring Lake Borough	1,537
Helmetta Borough	779	Spring Lake Heights Borough	2,922
Highland Park Borough	11,049	Union Beach Borough	3,309
Jamesburg Borough	2,853	Upper Freehold Twp.	5,862
Madison Twp.	22,772	Wall Twp.	2,363
Metuchen Borough	14,041	Blansburg (U)	11,929
Middlesex Borough	10,520	West Belmar (U)	1,702
Milltown Borough	5,435	West Long Branch Borough	2,511
Monroe Twp.	5,831		5,337
New Brunswick City	40,139		
North Brunswick Twp.	10,099	Morris County	261,620
Perth Amboy City	38,007	Boonton Town	7,981
Piscataway Twp.	19,890	Boonton Twp.	1,998
Plainsboro Twp.	1,171	Butler Borough	5,414

DIV. OF VITAL STATISTICS & ADMINISTRATION 227

Table A. POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: APRIL 1, 1960 CENSUS
 ("U" Denotes an Unincorporated Place)

County and Minor Civil Division	Population	County and Minor Civil Division	Population
Chatham Borough	9,517	Plumsted Twp.	3,281
Chatham Twp.	5,931	New Egypt (U)	1,737
Chester Borough	1,074	Point Pleasant Borough	10,182
Chester Twp.	2,107	Point Pleasant Beach Borough	3,873
Denville Twp.	10,632	Seaside Heights Borough	954
Dover Town	13,034	Seaside Park Borough	1,054
East Hanover Twp.	4,379	Ship Bottom Borough	717
Florham Park Borough	7,222	South Toms River Borough	1,603
Hanover Twp.	9,329	Stafford Twp.	1,930
Harding Twp.	2,683	Surf City Borough	419
Jefferson Twp.	6,884	Tuckerton Borough	1,536
Espanong (U)	1,107	Union Twp.	1,270
Kinnelon Borough	4,431		
Lincoln Park Borough	6,048	Passaic County	406,618
Madison Borough	13,122	Bloomington Borough	5,293
Mendham Borough	2,371	Clifton City	82,084
Mendham Twp.	2,256	Haledon Borough	6,161
Mine Hill Twp.	3,362	Hawthorne Borough	17,735
Montville Twp.	6,772	Little Falls Twp.	9,730
Morris Twp.	12,092	North Haledon Borough	6,026
Morris Plains Borough	4,703	Passaic City	53,993
Morristown Town	17,712	Paterson City	143,663
Mountain Lakes Borough	4,037	Pompton Lakes Borough	9,445
Mount Arlington Borough	1,246	Prospect Park Borough	5,201
Mount Olive Twp.	3,807	Ringwood Borough	4,182
Budd Lake (U)	1,520	Totowa Borough	10,897
Netcong Borough	2,763	Wanaque Borough	7,126
Parsippany-Troy Hills Twp.	23,557	Wayne Twp.	29,353
Passaic Twp.	5,537	West Milford Twp.	8,157
Millington (U)	1,182	West Paterson Borough	7,602
Stirling (U)	1,382		
Pequannock Twp.	10,553	Salem County	58,711
Randolph Twp.	7,295	Alloway Twp.	2,226
Mount Freedom (U)	1,328	Elmer Borough	1,505
Riverdale Borough	2,596	Elsinboro Twp.	1,220
Rockaway Borough	5,413	Lower Alloways Creek Twp.	1,293
Rockaway Twp.	10,356	Lower Penns Neck Twp.	10,417
Roxbury Twp.	9,933	Mannington Twp.	2,024
Shore Hills (U)	1,068	Oldmans Twp.	2,913
Victory Gardens Borough	1,085	Penns Grove Borough	6,176
Washington Twp.	3,330	Pilesgrove Twp.	2,519
Long Valley (U)	1,220	Pittsgrove Twp.	3,785
Wharton Borough	5,006	Quinton Twp.	2,440
		Salem City	8,941
Ocean County	108,241	Upper Penns Neck Twp.	7,596
Barnegat Light Borough	287	Upper Pittsgrove Twp.	2,715
Bay Head Borough	824	Woodstown Borough	2,942
Beach Haven Borough	1,041		
Beachwood Borough	2,765	Somerset County	143,913
Berkeley Twp.	4,272	Bedminster Twp.	2,322
Frick Twp.	16,299	Bernards Twp.	9,018
Erton Woods (U)	1,292	Basking Ridge (U)	2,438
Cedarwood Park (U)	1,052	Bernardsville Borough	5,515
Dover Twp.	17,414	Bound Brook Borough	10,263
Gilford Park (U)	1,560	Branchburg Twp.	3,741
Toms River (U)	6,062	Branchburg Park (U)	1,468
Eagleswood Twp.	766	Bridgewater Twp.	15,789
Harvey Cedars Borough	134	Far Hills Borough	702
Island Heights Borough	1,150	Franklin Twp.	19,858
Jackson Twp.	5,939	Green Brook Twp.	3,622
Lacey Twp.	1,940	Hillsborough Twp.	7,584
Lakehurst Borough	2,780	Manville Borough	10,995
Lakewood Twp.	16,020	Millstone Borough	409
Lakewood (U)	13,004	Montgomery Twp.	3,851
Lavallette Borough	832	North Plainfield Borough	16,993
Little Egg Harbor Twp.	847	Peapack-Gladstone Borough	1,804
Long Beach Twp.	1,561	Raritan Borough	6,137
Manchester Twp.	3,779	Rocky Hill Borough	528
Mantoloking Borough	160	Somerville Borough	12,458
Ocean Twp.	921	South Bound Brook Borough	3,626
Ocean Gate Borough	706		
Pine Beach Borough	985		

DEPARTMENT OF HEALTH

Table A. POPULATION OF COUNTIES BY MINOR CIVIL DIVISIONS: APRIL 1, 1960 CENSUS

("U" Denotes an Unincorporated Place)

County and Minor Civil Division	Population	County and Minor Civil Division	Population
Warren Twp.	5,388	Kenilworth Borough	8,379
Watching Borough	3,312	Linden City	39,931
		Mountainside Borough	6,325
		New Providence Borough	10,243
Sussex County	49,255	Plainfield City	45,330
Andover Borough	734	Rahway City	27,890
Andover Twp.	2,177	Roselle Borough	21,062
Branchville Borough	963	Roselle Park Borough	12,546
Eyram Twp.	1,616	Scotch Plains Twp.	18,491
Frankford Twp.	2,170	Springfield Twp.	14,467
Franklin Borough	3,624	Summit City	23,677
Fredon Twp.	804	Union Twp.	51,499
Green Twp.	854	Westfield Twp.	31,447
Hamburg Borough	1,532	Winfield Twp.	2,458
Hampton Twp.	1,174		
Hardyston Twp.	2,206	Warren County	63,220
Hopatecong Borough	3,391	Allamuchy Twp.	973
Lafayette Twp.	1,100	Alpha Borough	2,406
Montague Twp.	879	Belvidere Twp.	2,636
		Blairstown Twp.	1,797
Newton Town	6,563	Franklin Twp.	1,729
Ogdensburg Borough	1,212	Frelinghuysen Twp.	845
Sandyston Twp.	1,019	Greenwich Twp.	1,397
Sparta Twp.	6,717	Hackettstown Town	5,276
Lake Mohawk (U)	4,647	Hardwick Twp.	370
Stanhope Borough	1,814	Harmony Twp.	2,039
Stillwater Twp.	1,339	Hope Twp.	833
Sussex Borough	1,656	Independence Twp.	1,500
Vernon Twp.	2,155	Knowlton Twp.	1,442
Walpack Twp.	248	Liberty Twp.	760
Wantage Twp.	3,308	Lopatcong Twp.	2,703
		Hillcrest (U)	1,922
Union County	504,255	Mansfield Twp.	2,130
Berkeley Heights Twp.	8,721	Oxford Twp.	1,657
Clark Twp.	12,195	Pahaquarry Twp.	63
Cranford Twp.	26,424	Phillipsburg Town	18,502
Elizabeth City	107,693	Pohatcong Twp.	3,543
Fanwood Borough	7,963	Huntington (U)	1,870
Garwood Borough	5,426	Washington Borough	5,723
Hillside Twp.	22,304	Washington Twp.	3,053
		White Twp.	1,832

Table 1. POPULATION ESTIMATES AND VITAL EVENTS: 1935-1959

(Numbers and Rates)

YEAR	Estimated Population As of July 1	BIRTHS		MARRIAGES		DEATHS	
		Number	Rate	Number	Rate	Number	Rate
1935	4,103,700	55,059	13.4	20,724	7.2	43,267	10.5
1936	4,115,600	54,145	13.2	32,771	8.0	44,659	10.9
1937	4,127,500	53,197	13.4	36,190	8.8	45,312	11.0
1938	4,139,400	56,602	13.7	31,006	7.5	44,045	10.6
1939	4,151,300	56,859	13.7	31,895	7.7	43,837	10.6
1940	4,163,100	59,328	14.3	41,059	9.9	45,206	10.9
1941	4,199,900	67,104	16.0	46,538	11.1	45,971	10.9
1942	4,226,426	80,812	19.1	50,498	11.9	46,270	10.9
1943	4,235,233	82,356	19.4	41,045	9.7	49,781	11.8
1944	4,167,840	75,652	18.2	36,084	8.7	47,340	11.4
1945	4,200,941	76,995	18.3	39,711	9.5	47,633	11.3
1946	4,304,261	95,044	22.1	61,020	14.2	46,261	10.7
1947	4,435,000	106,086	23.9	55,802	12.6	48,276	10.9
1948	4,729,000	97,278	20.6	51,913	11.0	48,107	10.2
1949	4,786,000	97,414	20.4	44,469	9.3	47,706	10.0
1950	4,832,000	97,734	20.2	46,291	9.6	48,837	10.1
1951	4,900,000	105,218	21.1	44,564	8.9	50,098	10.0
1952	5,113,000	110,215	21.6	41,125	8.0	51,430	10.1
1953	5,236,000	112,522	21.5	40,886	7.8	52,794	10.1
1954	5,339,000	118,252	22.1	39,744	7.4	51,203	9.6
1955	5,482,000	120,969	22.1	40,327	7.4	54,035	9.9
1956	5,605,000	124,580	22.2	41,152	7.3	54,418	9.7
1957	5,728,000	129,257	22.6	40,307	7.0	57,171	10.0
1958	5,831,000	129,730	22.2	38,398	6.6	57,552	9.8
1959	5,974,000	130,660	21.9	38,639	6.5	58,039	9.7

Note: Rates are per 1,000 population.

Marriage data are by place of occurrence.

For similar data for the period 1921 through 1934, see Table 1 of the Annual Report for any year from 1935 through 1959; for the years 1879 through 1920, see Table 1 of the Report for any year from 1921 through 1950.

DEPARTMENT OF HEALTH

TABLE 2. BIRTHS, INFANT DEATHS, NEONATAL DEATHS, FETAL DEATHS AND MATERNAL DEATHS
NUMBERS AND RATES: 1935-1959

Year	Births		Infant Deaths		Neonatal Deaths*		Fetal Deaths		Maternal Deaths	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1935	55,059	46.1	2,539	46.1	1,560	28.3	1,905	34.6	249	4.5
1936	54,145	44.0	2,383	44.0	1,449	26.8	1,840	34.1	202	3.7
1937	55,197	39.3	2,170	39.3	1,327	24.0	1,731	31.4	187	3.2
1938	56,602	2.228	2,228	39.3	1,365	24.1	1,704	30.1	191	3.3
1939	56,859	38.3	2,180	38.3	1,412	24.8	1,609	28.3	166	2.9
1940	59,328	35.3	2,094	35.3	1,422	24.0	1,543	26.0	172	2.9
1941	67,104	35.6	2,392	35.6	1,651	24.6	1,732	25.8	106	2.3
1942	80,812	31.4	2,535	31.4	1,821	22.5	2,006	24.8	132	1.9
1943	82,356	33.8	2,782	33.8	1,892	23.0	1,978	24.0	151	1.8
1944	75,652	33.9	2,567	33.9	1,756	23.2	1,744	23.1	119	1.6
1945	76,995	32.1	2,470	32.1	1,680	21.8	1,827	23.7	118	1.5
1946	95,044	28.5	2,705	28.5	2,020	21.3	2,127	22.4	119	1.3
1947	106,086	27.9	2,959	27.9	2,217	20.9	2,265	21.4	105	1.0
1948	97,278	26.6	2,589	26.6	1,961	20.2	1,964	20.2	76	0.8
1949	97,414	25.9	2,521	25.9	1,910	19.6	1,972	20.2	72	0.7
1950	97,784	25.0	2,445	25.0	1,875	19.2	1,845	18.9	70	0.7
1951	105,218	23.0	2,516	23.0	1,917	19.2	1,998	18.9	69	0.7
1952	110,215	23.9	2,633	23.9	1,903	17.8	2,002	18.2	70	0.6
1953	112,522	23.0	2,654	23.0	2,043	18.2	2,046	18.2	55	0.5
1954	118,252	23.6	2,789	23.6	2,078	17.6	1,938	16.3	59	0.5
1955	120,960	24.4	2,954	24.4	2,211	18.3	2,115	17.5	64	0.5
1956	124,589	24.5	3,050	24.5	2,324	18.7	2,110	16.9	39	0.3
1957	129,237	24.5	3,161	24.5	2,430	18.8	2,148	16.6	44	0.3
1958	129,730	24.4	3,160	24.4	2,434	18.8	2,185	16.8	54	0.4
1959	130,660	24.5	3,201	24.5	2,459	18.8	2,109	16.1	51	0.4

Note: Rates are per 1,000 live births.

* Beginning with 1951, neonatal deaths include only deaths under 28 days of age.

Chart I.
BIRTH AND DEATH RATES
 per 1,000 population
 (Based on Five-Year Averages of Events and Population)
1880-1959

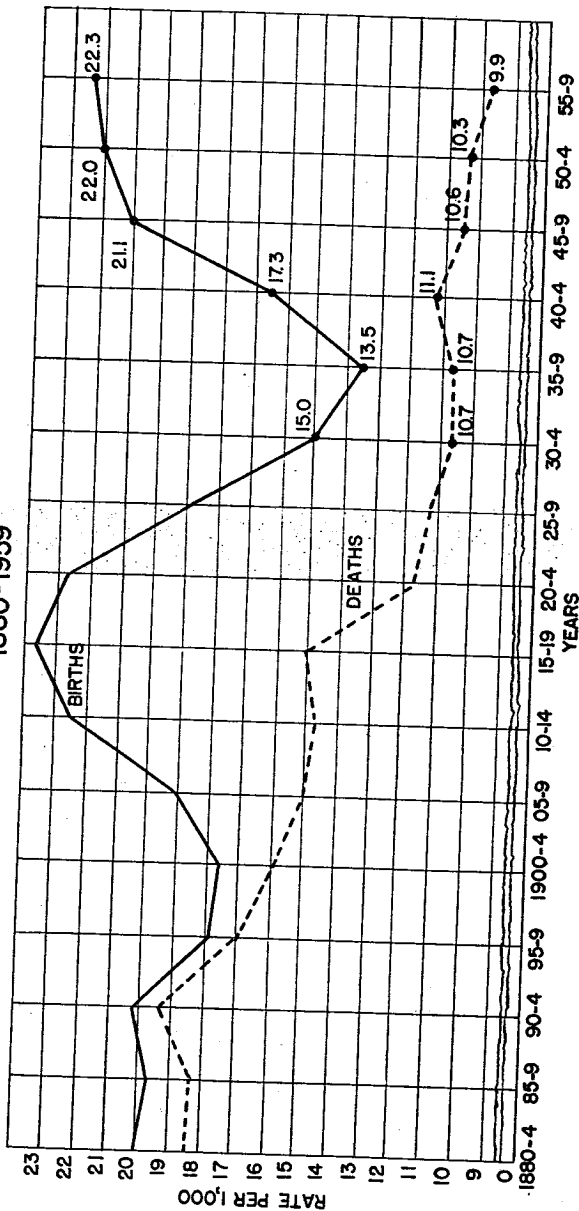


Table 3. VITAL EVENTS BY COUNTIES AND MAJOR CITIES: 1959
(Numbers and Rates)

Area*	July 1 Estimated Population	Births		Marriages†		Deaths	
		Number	Rate‡	Number	Rate‡	Number	Rate‡
STATE TOTAL	5,974,000	130,660	21.9	38,659	6.5	58,039	9.7
Atlantic County	159,000	2,929	18.4	1,137	7.2	2,024	12.7
Atlantic City	60,000	960	16.0	512	8.5	1,012	16.9
Bergen County	762,000	15,285	20.1	4,143	5.4	6,171	8.1
Burlington County	218,000	4,831	22.2	1,127	5.2	1,527	7.0
Camden County	385,000	8,929	23.2	2,625	6.8	3,656	9.5
Camden City	118,000	3,014	25.5	1,208	10.2	1,303	11.8
Cape May County	48,000	970	20.2	333	6.9	759	15.8
Cumberland County	103,000	2,434	23.2	750	7.1	1,089	10.4
Essex County	922,000	20,003	21.7	7,422	8.0	10,387	11.3
East Orange	77,000	1,589	20.6	536	7.0	1,001	13.0
Irvington	59,000	1,069	18.0	402	6.8	671	11.4
Newark	408,000	10,560	25.9	4,082	10.0	5,182	12.7
Gloucester County	132,000	3,130	23.7	812	6.2	1,166	8.8
Hudson County	614,000	13,302	21.7	4,780	7.8	7,360	12.0
Bayonne	74,000	1,525	20.6	450	6.1	866	11.7
Hoboken	49,000	1,112	22.7	449	9.2	550	11.8
Jersey City	278,000	6,432	23.1	2,339	8.5	3,429	12.3
Union City	52,000	1,123	21.6	503	9.7	688	13.2
Hunterdon County	53,000	1,075	20.3	279	5.3	607	11.5
Mercer County	264,000	5,678	21.5	1,767	6.7	2,615	9.9
Trenton	115,000	2,532	22.2	1,036	9.0	1,463	12.7
Middlesex County	421,000	9,861	23.4	2,191	5.2	3,035	7.2
Monmouth County	326,000	7,704	23.6	1,851	5.7	3,233	9.9
Morris County	254,000	5,813	22.9	1,290	5.1	2,100	8.3
Ocean County	104,000	2,589	24.9	620	6.0	1,121	10.8
Passaic County	401,000	8,638	21.5	2,626	6.5	3,859	9.6
Clifton	81,000	1,660	20.5	332	4.1	651	8.0
Passaic City	54,000	1,093	18.6	574	10.6	604	11.2
Paterson	143,000	3,305	23.1	1,194	8.3	1,691	11.8
Salem County	58,000	1,307	22.5	375	6.5	571	9.8
Somerset County	141,000	3,171	22.5	709	5.0	1,119	7.9
Sussex County	48,000	1,115	23.2	304	6.3	490	10.2
Union County	496,000	10,123	20.4	2,852	5.8	4,337	8.7
Elizabeth	108,000	2,408	22.3	807	7.5	1,254	11.6
Warren County	63,000	1,304	20.7	385	6.1	758	12.0
State Institutions	§	23	¶			30	¶
Military Posts	§	446	¶	281	¶	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.

DIV. OF VITAL STATISTICS & ADMINISTRATION 233

Table 4. BIRTHS, MARRIAGES, DEATHS, FETAL DEATHS, MATERNAL DEATHS, INFANT DEATHS AND NEONATAL DEATHS BY COUNTIES AND MUNICIPALITIES: 1959
(Marriage data by place of occurrence, all other by place of residence)

ATLANTIC COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Absecon City	118	24	50	1	...	4	4
Atlantic City	960	512	1012	12	...	42	36
Brigantine City	71	13	31	2	...	2	1
Buena Borough	48	23	23	...	...	1	...
Buena Vista Township	88	12	23	2	...	4	4
Corbin City	5	...	...	1	...	...	...
Egg Harbor City	132	60	56	2	...	2	2
Egg Harbor Township	64	17	61	...	...	3	2
Estell Manor City	6	2	4	...	...	1	1
Folsom Borough	14	3	3	1	...	...	...
Galloway Township	69	22	63	1	...	1	...
Hamilton Township	137	41	46	3	...	2	2
Hammonton Town	232	66	86	5	...	4	4
Linwood City	74	26	46	3	...	2	2
Longport Borough	15	9	21	...	...	...	...
Margate City	131	26	101	2	...	4	4
Mullica Township	37	5	20	1	...	1	1
Northfield City	131	14	37	1	...	2	2
Pleasantville City	374	137	166	2	...	14	11
Port Republic City	9	6	8	...	...	...	...
Somers Point City	99	34	38	2	...	...	...
Ventnor City	106	84	118	1	...	2	2
Weymouth Township	9	1	11	...	...	...	...
Total	2929	1137	2024	42	...	91	78

BERGEN COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Allendale Borough	70	22	31	2	...	4	3
Alpine Borough	23	...	10	2	...	...	2
Bergenfield Borough	564	124	184	11	...	13	12
Bogota Borough	133	68	89	2	...	3	3
Carlstadt Borough	113	14	68	2	...	2	...
Cliffside Park Borough	312	80	166	5	...	5	4
Closter Borough	164	26	51	1	...	2	2
Cresskill Borough	139	31	47	2	...	2	2
Demarest Borough	59	14	28	2	...	1	1
Dumont Borough	337	83	134	9	...	4	4
East Paterson Borough	412	67	187	3	...	11	9
East Rutherford Borough	161	42	80	...	...	7	5
Edgewater Borough	85	33	61	1	...	2	1
Emerson Borough	163	12	24	5	...	1	...
Englewood City	508	318	279	10	...	12	6
Englewood Cliffs Borough	43	5	23	...	...	3	2
Fair Lawn Borough	609	142	204	10	...	8	8
Fairview Borough	182	128	95	1	1	2	1
Fort Lee Borough	544	162	199	11	...	10	9
Franklin Lakes Borough	63	11	24	...	...	...	...
Garfield Borough	592	163	259	7	...	10	8
Glen Rock Borough	181	57	113	2	...	3	3
Hackensack City	652	322	366	8	...	13	12
Harrington Park Borough	62	20	26	1	1	6	5
Hasbrouck Heights Borough	236	74	105	3	...	2	...
Haworth Borough	40	13	25	1	...	2	2
Hillsdale Borough	171	34	72	2	...	4	2
Hobokus Borough	51	44	36	2	...	3	3
Leonia Borough	140	39	72	2	...	3	3
Little Ferry Borough	138	34	53	...	...	5	5
Lodi Borough	637	94	154	12	...	14	11
Lyndhurst Township	491	125	223	5	...	13	10
Mahwah Township	138	34	44	1	...	5	3
Maywood Borough	221	57	81	7	...	4	3
Midland Park Borough	180	38	58	4	...	10	9
Montvale Borough	79	13	24	2	...	4	3
Moonachie Borough	85	8	16	1	...	4	4
New Milford Borough	561	78	104	4	...	10	10
North Arlington Borough	405	88	154	8	...	11	10
Northvale Borough	74	12	11	...	...	...	...

DEPARTMENT OF HEALTH

BERGEN COUNTY—Continued

CIVIL DIVISION	Births	Mar- riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Norwood Borough	58	15	18	...	...	1	...
Oakland Borough	267	9	45	4	...	4	4
Old Tappan Borough	51	9	14	...	...	1	1
Oradell Borough	124	11	54	...	...	2	2
Palisades Interstate Park	...	...	...	1	...	...	...
Palisades Park Borough	236	84	106	2	...	5	5
Paramus Borough	493	104	107	8	...	10	8
Park Ridge Borough	132	42	42	6	...	3	2
Ramsey Borough	180	55	69	3	...	3	3
Ridgefield Borough	233	78	101	3	...	10	8
Ridgefield Park Township	272	66	127	2	...	3	3
Ridgewood Village	321	114	220	6	...	6	4
River Edge Borough	234	51	72	5	...	4	2
River Vale Township	115	2	29	2	...	2	2
Rochelle Park Township	101	16	46	2	...	1	1
Rockleigh Borough	3	...	1	...	...	...	...
Rutherford Borough	375	106	202	4	...	5	3
Saddle River Borough	18	22	7	...	...	...	...
Saddle Brook Township	277	36	64	2	...	7	6
South Hackensack Township	40	1	13	...	...	3	3
Teaneck Township	575	229	335	16	1	16	16
Tenafly Borough	154	95	118	2	...	5	4
Teterboro Borough	...	...	...	...	...	...	...
Upper Saddle River Borough	50	7	20	1	1	1	...
Waldwick Borough	248	14	57	8	...	3	3
Wallington Borough	197	52	75	3	...	4	4
Washington Township	165	5	36	2	...	7	7
Westwood Borough	186	86	91	6	...	3	3
Woodcliff Lake Borough	38	...	28	...	...	2	...
Wood Ridge Borough	118	52	75	5	...	3	3
Wyckoff Township	206	53	69	5	...	2	2
Total	15285	4143	6171	247	4	334	280

BURLINGTON COUNTY - 1959

CIVIL DIVISION	Births	Mar- riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bass River Township	11	4	14	...	...	...	...
Beverly City	146	29	51	1	...	4	4
Bordentown City	108	60	67	3	...	3	3
Bordentown Township	186	3	28	2	...	4	2
Burlington City	336	118	157	6	...	16	14
Burlington Township	114	14	35	...	...	1	1
Chesterfield Township	27	17	15	1	...	2	1
Cinnaminson Township	60	25	30	1	...	2	2
Delanco Township	78	12	44	...	...	6	5
Delran Township	46	9	26	...	...	...	...
Eastampton Township	19	1	6	...	...	...	...
Edgewater Park Township	25	20	20	...	...	...	...
Evesham Township	141	9	33	1	...	3	3
Fieldsboro Borough	12	13	9	...	...	...	...
Florence Township	156	60	73	2	...	4	4
Hainesport Township	66	12	22	...	...	3	1
Lumberton Township	62	1	16	2	...	1	1
Mansfield Township	36	9	19	1	...	2	1
Maple Shade Township	303	103	93	5	...	8	7
Medford Lakes Borough	60	23	14	...	...	2	1
Medford Township	109	21	47	6	...	3	2
Moorestown Township	291	50	112	4	...	4	4
Mount Holly Township	503	99	127	6	...	18	15
Mount Laurel Township	112	4	24	2	...	1	1
New Hanover Township	72	1	7	1	...	1	1
North Hanover Township	29	70	16	...	...	2	1
Palmyra Borough	170	42	77	1	...	5	5
Pemberton Borough	116	19	9	...	...	1	1
Pemberton Township	380	61	68	6	...	4	2
Riverside Township	273	80	103	1	...	14	11
Riverton Borough	161	46	40	1	...	...	...
Shamong Township	16	...	5	1	...	...	...
Southampton Township	118	21	30	...	...	4	3
Springfield Township	47	8	23	2	...	2	2
Tabernacle Township	23	9	14	...	...	1	1
Washington Township	3	10	4	...	...	...	...
Westampton Township	27	6	8	1	...	1	1
Willingsboro Township	263	7	20	4	...	3	1
Woodland Township	15	...	8	...	...	1	1
Wrightstown Borough	101	1	8	...	...	2	2
Total	4831	1127	1527	61	...	128	104

CAMDEN COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Audubon Borough	179	55	137	3		4	3
Audubon Park Borough	23	1	16	1			
Barrington Borough	178	30	35	2	1		
Bellmawr Borough	328	27	62			5	5
Berlin Borough	108	72	26	6		3	3
Berlin Township	115	12	19			1	1
Brooklawn Borough	57	12	22	1		1	
Camden City	3014	1208	1393	46		85	57
Chesilhurst Borough	9	1	3				
Clementon Borough	94	4	36	2			
Collingswood Borough	398	119	246	4			
Delaware Township	264	54	120	3		8	6
Gibbsboro Borough	64	5	10	1			3
Gloucester City	241	123	177	8		9	9
Haddonfield Borough	393	37	96	2		9	8
Haddon Heights Borough	688	108	212	9		10	6
Haddon Township	140	95	83	1		2	1
Hi Nella Borough	174	47	113	3		3	2
Laurel Springs Borough	9		2			1	1
Lawnside Borough	38	6	14	1			
Lindenwold Borough	45	8	12			1	
Magnolia Borough	203	43	40	3		1	
Merchantville Borough	129	21	36			3	2
Mount Ephraim Borough	254	101	99	4		5	5
Oaklyn Borough	85	46	39	5		2	2
Pennsauken Township	96	32	64	3		2	2
Pine Hill Borough	688	107	248	10		17	16
Pine Valley Borough	82	46	42	1		3	1
Runnemede Borough			1				
Somerdale Borough	201	67	60			8	8
Stratford Borough	126	25	29		1	1	
Tavistock Borough	85	22	18	1		3	3
Voorhees Township							
Waterford Township	34	8	15	1			
Winslow Township	87	28	37	1		1	1
Wood Lynne Borough	135	35	53	1		3	2
Wood Lynne Borough	65	15	41	1		2	2
Total	8929	2625	3656	125	2	196	149

CAPE MAY COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Avalon Borough	23	3	17				
Cape May City	93	39	66	3		1	
Cape May Point Borough	3		5				
Dennis Township	41	16	42	2		3	2
Lower Township	136	36	83	2		6	4
Middle Township	147	43	103	4		5	3
North Wildwood City	49	5	43	1		2	2
Ocean City	143	56	132	2		1	1
Sea Isle City	25	17	24			1	1
Stone Harbor Borough	12	8	18			1	1
Upper Township	60	9	45	1		1	1
West Cape May Borough	23	2	14	1		1	1
West Wildwood Borough	2	1	5				
Wildwood City	116	75	98	1			
Wildwood Crest Borough	43	13	35	3		2	1
Wildwood Crest Borough	49	10	26	4		2	2
Woodbine Borough							
Total	970	333	759	24		25	17

CUMBERLAND COUNTY

CIVIL DIVISION	Births	Mar- riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bridgeton City	611	240	241	8	...	18	15
Commercial Township	96	29	51	2	...	5	4
Deerfield Township	89	12	23	1	...	2	2
Downe Township	37	11	34	2	...	1	1
Fairfield Township	100	16	34	...	...	1	1
Greenwich Township	26	1	7	1	...	1	...
Hopewell Township	54	6	33	...	...	4	3
Lawrence Township	71	31	44	4	...	2	1
Maurice River Township	62	14	40	2	...	...	...
Millville City	398	134	216	3	...	16	11
Shiloh Borough	13	2	6	...	...	1	...
Stow Creek Township	81	...	10	...	...	3	2
Upper Deerfield Township	68	20	39	2	...	...	...
Vinland City	778	234	311	15	...	29	14
Total	2434	750	1089	40	...	74	54

ESSEX COUNTY

CIVIL DIVISION	Births	Mar- riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Belleville Town	748	195	313	10	...	9	7
Bloomfield Town	1058	279	499	13	...	18	18
Caldwell Borough	118	58	86	...	1	5	4
Caldwell Township	74	10	31	1	...	...	...
Cedar Grove Township	249	32	61	1	...	6	4
East Orange City	1589	536	1001	22	...	48	42
Essex Fells Borough	22	11	14	...	...	...	...
Glen Ridge Borough	115	39	80	...	...	2	...
Irvington Town	1060	492	671	13	1	22	17
Livingston Township	408	48	108	7	...	4	2
Maplewood Township	281	223	250	4	...	3	1
Millburn Township	260	146	145	1	...	7	6
Montclair Town	751	331	533	9	...	20	16
Newark City	10560	4082	5182	257	14	429	305
North Caldwell Borough	47	8	26	2	...	3	3
Nutley Town	472	197	265	5	...	8	6
Orange City	876	381	431	23	2	17	16
Roseland Borough	46	16	23	1	...	1	1
South Orange Village	172	165	178	3	...	4	4
Verona Borough	227	83	105	4	...	3	3
West Caldwell Borough	103	7	56	1	...	...	...
West Orange Town	767	168	329	7	...	25	22
Total	20003	7422	10387	384	18	634	477

GLOUCESTER COUNTY

CIVIL DIVISION	Births	Mar- riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Clayton Borough	107	43	53	2	...	3	3
Deptford Township	199	72	86	2	...	3	1
East Greenwich Township	64	9	18	...	...	1	1
Elk Township	38	12	22	...	...	...	...
Franklin Township	138	41	67	5	...	4	3
Glassboro Borough	270	61	103	6	...	12	8
Greenwich Township	89	22	30	...	...	5	5
Harrison Township	73	16	39	1	...	2	2
Logan Township	27	1	14	...	...	...	...
Mantua Township	216	49	59	4	...	6	4
Monroe Township	221	49	87	4	...	7	4
National Park Borough	94	30	27	...	...	1	1
Newfield Borough	47	13	22	1	...	1	1
Paulsboro Borough	225	79	100	5	...	3	1
Pitman Borough	175	62	95	2	1	3	3
South Harrison Township	15	1	2	...	...	1	...
Swedesboro Borough	112	34	30	2	...	...	...
Washington Township	46	11	32	1	...	2	2
Wenonah Borough	113	10	29	4	...	...	...
West Deptford Township	138	19	47	4	...	6	2
Westville Borough	118	51	64	2	...	2	1
Woodbury City	547	126	129	6	...	7	5
Woodbury Heights Borough	47	1	15	1	...	1	1
Woolwich Township	11	...	5	...	...	...	...
Total	3130	812	1166	52	1	70	48

DIV. OF VITAL STATISTICS & ADMINISTRATION 237

HUDSON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bayonne City	1525	450	866	20	...	39	29
East Newark Borough	38	22	24	...	...	1	...
Guttenberg Town	91	33	67	3	...	1	1
Harrison Town	232	83	152	7	...	4	3
Hoboken City	1112	449	580	16	1	25	19
Jersey City	6432	2359	3429	122	4	197	155
Kearny Town	763	225	439	11	...	17	13
North Bergen Township	816	134	432	5	...	12	10
Secaucus Town	152	47	89	5	...	5	4
Union City	1123	503	688	14	...	40	23
Weehawken Township	244	74	189	6	1	7	7
West New York Town	774	401	405	19	...	10	8
Total	13302	4780	7360	231	6	358	272

HUNTERDON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Alexandria Township	39	2	8	...	...	2	2
Bethlehem Township	23	5	9	...	...	...	...
Bloomsbury Borough	22	1	8	...	...	...	...
Califon Borough	19	9	16	...	...	...	...
Clinton Town	26	11	17	...	...	1	...
Clinton Township	66	8	29	1	...	1	1
Delaware Township	29	9	27	1	...	2	1
East Amwell Township	34	3	21	...	...	1	1
Flemington Borough	70	54	39	1	...	1	...
Franklin Township	43	6	17	...	...	2	2
Frenchtown Borough	26	7	17	1	...	...	...
Glen Gardner Borough	25	2	19	...	...	1	...
Hampton Borough	26	10	16	1	...	...	1
High Bridge Borough	41	20	21	...	...	...	...
Holland Township	29	7	12	1	...	...	...
Kingwood Township	32	6	25	...	...	2	2
Lambertville City	107	38	78	...	...	3	3
Lebanon Borough	16	7	16	...	...	1	...
Lebanon Township	53	6	37	...	...	2	...
Milford Borough	24	15	10	...	...	1	1
Raritan Township	93	3	53	2	...	4	4
Readington Township	123	26	61	1	...	2	1
Stockton Borough	21	10	5	...	...	...	...
Tewksbury Township	35	6	15	...	...	1	...
Union Township	26	4	15	...	...	1	1
West Amwell Township	27	4	16	...	...	3	1
Total	1075	279	607	9	...	30	21

MERCER COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
East Windsor Township	50	3	16	1	...	1	1
Ewing Township	542	81	189	3	1	10	10
Hamilton Township	1441	296	471	25	...	31	24
Highstown Borough	99	34	51	3	...	2	1
Hopewell Borough	30	19	22	1	...	...	...
Hopewell Township	142	20	61	2	...	5	2
Lawrence Township	229	61	97	6	...	3	1
Pennington Borough	47	22	25	1	...	1	...
Princeton Borough	195	154	107	4	...	3	3
Princeton Township	213	20	61	2	...	1	...
Trenton City	2532	1036	1463	49	3	65	48
Washington Township	44	12	20	1	...	1	1
West Windsor Township	94	9	26	...	...	1	1
Total	5678	1767	2615	98	4	124	92

DEPARTMENT OF HEALTH

MIDDLESEX COUNTY

CIVIL DIVISION	Births	Mar- riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Carteret Borough	485	110	161	10	...	11	9
Cranbury Township	55	21	18	...	...	2	2
Dunellen Borough	159	66	78	...	...	2	2
East Brunswick Township	544	12	72	4	...	9	7
Edison Township	831	168	194	11	1	13	8
Helmetta Borough	18	8	6	...	...	...	...
Highland Park Borough	216	78	103	3	...	...	...
Jamesburg Borough	99	50	31	2	...	1	1
Madison Township	354	48	90	5	...	1	1
Metuchen Borough	514	85	121	10	...	8	7
Middlesex Borough	242	37	72	...	...	9	5
Milltown Borough	148	31	45	1	...	3	2
Monroe Township	56	9	39	4	...	2	...
New Brunswick City	920	420	389	16	...	25	22
North Brunswick Township	210	14	55	2	...	4	4
Perth Amboy City	741	365	429	13	1	22	15
Piscataway Township	426	68	86	6	...	9	6
Plainsboro Township	29	3	10	...	...	1	1
Sayreville Borough	593	47	136	4	...	14	10
South Amboy City	254	106	117	2	...	6	5
South Brunswick Township	262	19	59	2	...	4	4
South Plainfield Borough	462	66	103	7	1	7	6
South River Borough	273	113	127	5	...	6	5
Spotswood Borough	197	25	33	...	...	5	5
Woodbridge Township	1773	222	461	36	...	32	25
Total	9861	2191	3035	143	3	196	152

MONMOUTH COUNTY

CIVIL DIVISION	Births	Mar- riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Allenhurst Borough	13	4	10	...	...	...	...
Allentown Borough	43	11	12	...	...	1	...
Asbury Park City	409	246	262	9	...	9	4
Atlantic Highlands Borough	106	33	51	3	...	3	3
Atlantic Township	43	4	20	...	...	...	...
Avon-by-the-Sea Borough	26	22	32	1	...	...	...
Belmar Borough	110	51	86	2	...	6	5
Bradley Beach Borough	91	43	52	1	...	3	3
Brielle Borough	55	6	31	...	...	1	1
Deal Borough	33	25	24	...	...	...	...
Eatontown Borough	308	30	46	2	1	8	8
Englishtown Borough	47	30	20	1	...	3	1
Fair Haven Borough	113	20	39	...	...	2	1
Farmingdale Borough	39	20	25	...	...	...	...
Freehold Borough	244	83	106	1	...	...	...
Freehold Township	121	11	45	2	...	3	...
Highlands Borough	84	17	47	...	...	5	4
Holmdel Township	43	3	18	...	...	3	1
Howell Township	191	49	87	3	...	...	...
Interlaken Borough	13	1	16	...	...	5	4
Keansburg Borough	178	78	95	1	...	1	1
Keyport Borough	189	99	91	3	...	5	2
Little Silver Borough	89	6	41	...	...	6	5
Long Branch City	732	161	261	9	2	3	2
Manalapan Township	104	4	34	2	...	14	11
Manasquan Borough	63	56	56	2	...	8	4
Marlboro Township	63	18	41	...	...	1	1
Matawan Borough	192	34	58	2	...	1	...
Matawan Township	172	20	44	2	...	4	4
Middletown Township	873	105	262	12	...	4	4
Millstone Township	47	16	22	...	...	16	15
Monmouth Beach Borough	27	10	12	1	...	...	...
Neptune City Borough	502	34	296	6	...	1	...
Neptanā Township	91	14	49	2	...	9	6
Oceanport Borough	79	22	28	...	...	1	1
New Shrewsbury Borough	118	10	38	2	...	...	...

MONMOUTH COUNTY—Continued

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Ocean Township	227	28	69	2	...	4	3
Raritan Township	497	14	57	3	...	6	3
Red Bank Borough	301	189	205	5	1	8	5
Roosevelt Borough	9	3	15	...	...	2	2
Rumson Borough	110	30	64	2	...	1	1
Sea Bright Borough	18	6	20	1	...	...	...
Sea Girt Borough	25	17	27	1	...	...	...
Shrewsbury Borough	65	9	24	2	...	2	2
Shrewsbury Township	70	2	5	...	...	2	1
South Belmar Borough	35	3	20	...	...	...	...
Spring Lake Borough	57	43	38	...	...	1	1
Spring Lake Heights Borough	86	14	37	1	...	1	...
Union Beach Borough	139	28	51	1	...	4	4
Upper Freehold Township	87	12	23	...	...	1	...
Wall Township	223	24	93	3	...	3	1
West Long Branch Borough	96	33	28	2	...	1	1
Total	7704	1851	3233	92	4	167	120

MORRIS COUNTY - 1959

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Boonton Town	162	61	83	3	...	1	...
Boonton Township	55	11	19	1	...	2	...
Butler Borough	139	51	49	4	...	3	2
Chatham Borough	180	42	78	1	...	5	3
Chatham Township	113	9	33	...	...	2	1
Chester Borough	29	13	8	1	...	1	1
Chester Township	49	...	13	...	...	1	...
Denville Township	236	45	74	1	...	1	1
Dover Town	359	126	164	5	...	7	6
East Hanover Township	46	28	29	...	...	...	...
Florham Park Borough	170	14	52	1	...	1	1
Hanover Township	256	25	64	6	...	4	4
Harding Township	33	9	14	...	...	1	1
Jefferson Township	155	25	49	1	...	4	4
Kinnelon Borough	78	3	19	...	...	2	2
Lincoln Park Borough	148	22	38	...	...	3	1
Madison Borough	332	83	118	3	...	6	3
Mendham Borough	39	15	30	...	...	...	...
Mendham Township	47	4	18	...	...	1	1
Mine Hill Township	80	22	26	...	...	1	1
Montville Township	146	31	71	1	...	2	2
Morris Plains Borough	104	29	54	1	...	4	4
Morristown Town	485	176	242	10	...	11	10
Morris Township	170	59	86	...	...	5	5
Mount Arlington Borough	36	13	10	1	...	1	...
Mountain Lakes Borough	40	33	33	2	...	2	2
Mount Olive Township	84	15	32	1	...	4	3
Netcong Borough	59	42	29	3	...	...	...
Parsippany-Troy Hills Township	498	55	119	6	...	12	10
Passaic Township	144	31	46	2	1	4	3
Pequanock Township	254	34	54	3	...	5	3
Randolph Township	191	20	53	2	...	4	2
Riverdale Borough	53	1	22	2	...	2	2
Rockaway Borough	132	29	48	2	...	7	7
Rockaway Township	246	21	59	3	1	3	2
Roxbury Township	237	45	70	6	...	5	4
Victory Gardens	24	...	1	...	...	...	...
Washington Township	73	8	36	1	...	1	...
Wharton Borough	131	40	57	2	...	3	1
Total	5813	1290	2100	75	2	121	92

OCEAN COUNTY - 1959

CIVIL DIVISION	Births	Mar- riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Barnegat Light Borough	6	...	5	...	...	...	...
Bay Head Borough	14	14	14	...	...	...	...
Beach Haven Borough	28	12	22	...	...	1	1
Beachwood Borough	70	7	31	...	...	1	1
Berkeley Township	96	25	33	1	...	2	2
Brick Township	383	33	126	5	...	4	3
Dover Township	441	122	166	5	...	10	6
Eagleswood Township	14	8	5	...	...	...	...
Harvey Cedars Borough	3	2	2	...	...	...	...
Island Beach Borough	...	...	...	...	...	...	...
Island Heights Borough	26	12	15	1	...	...	...
Jackson Township	103	22	46	1	...	1	1
Lacey Township	44	7	22	2	...	...	...
Lakehurst Borough	160	13	18	1	...	4	1
Lakewood Township	384	134	192	10	...	7	6
Lavallette Borough	17	12	16	1	...	...	...
Little Egg Harbor Township	4	...	10	...	...	...	...
Long Beach Township	23	14	13	...	...	...	...
Manchester Township	74	5	15	...	...	3	2
Mantoloking Borough	1	...	3	...	...	...	...
Ocean Gate Borough	12	4	5	...	...	...	...
Ocean Township	11	2	13	1	...	...	...
Pine Beach Borough	21	...	12	...	...	1	...
Plumstead Township	192	29	37	3	...	9	9
Point Pleasant Borough	238	33	123	6	...	6	5
Point Pleasant Beach Borough	49	57	51	...	...	1	1
Seaside Heights Borough	17	8	20	...	...	...	...
Seaside Park Borough	11	7	17	...	...	...	...
Ship Bottom Borough	13	2	10	...	...	...	...
South Toms River Borough	26	...	5	...	...	...	...
Stafford Township	46	9	24	...	...	...	...
Surf City Borough	5	1	7	...	...	...	...
Tuckerton Borough	33	9	30	1	...	1	1
Union Township	24	17	13	...	...	1	...
Total	2589	620	1121	33	...	53	39

PASSAIC COUNTY

CIVIL DIVISION	Births	Mar- riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bloomington Borough	122	17	36	3	...	2	2
Clifton City	1660	332	651	22	1	24	21
Haledon Borough	105	39	73	3	...	5	5
Hawthorne Borough	306	96	151	10	...	6	5
Little Falls Township	180	52	59	4	...	3	3
North Haledon Borough	108	15	47	...	...	3	3
Passaic City	1003	574	604	19	...	20	16
Paterson City	3305	1194	1691	77	1	106	72
Pompton Lakes Borough	203	81	69	5	...	4	3
Prospect Park Borough	110	33	64	1	...	1	1
Ringwood Borough	86	10	10	4	...	2	2
Totowa Borough	196	45	62	2	1	2	1
Wanaque Borough	194	22	59	5	...	2	2
Wayne Township	661	68	175	14	...	9	5
West Milford Township	225	40	66	2	...	13	12
West Paterson Borough	174	8	42	3	...	3	3
Total	8638	2626	3859	174	3	208	153

DIV. OF VITAL STATISTICS & ADMINISTRATION 241

SALEM COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Alloway Township	48	15	19	...	...	...	...
Elmer Borough	29	16	31	...	...	1	1
Elsinboro Township	29	1	2	...	...	...	2
Lower Alloway Creek Township	27	6	17	...	...	2	2
Lower Penns Neck Township	253	50	81	2	...	4	2
Mannington Township	45	4	17	2	...	3	3
Oldmans Township	39	4	18	3	...	...	...
Penns Grove Borough	155	82	70	2	...	11	7
Pilesgrove Township	76	17	19	...	...	2	1
Pittsgrove Township	93	10	33	...	...	3	...
Quinton Township	56	18	23	1	...	1	1
Salem City	241	74	123	2	1	11	7
Upper Penns Neck Township	122	37	55	5	...	5	6
Upper Pittsgrove Township	35	11	21	2	...	...	...
Woodstown Borough	59	30	42	...	...	4	3
Total	1307	375	571	19	1	47	32

SOMERSET COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bedminster Township	36	21	19	...	...	1	1
Bernards Township	102	23	47	2	...	1	1
Bernardsville Borough	85	39	51	1	...	...	...
Bound Brook Borough	277	75	101	6	...	10	8
Branchburg Township	80	2	26	2	...	1	...
Bridgewater Township	276	33	122	6	...	7	5
Far Hills Borough	15	4	5	...	...	...	...
Franklin Township	468	50	128	6	...	4	2
Green Brook Township	73	1	18	...	...	4	1
Hillsborough Township	201	21	40	1	...	3	2
Manville Borough	319	73	71	5	...	5	5
Millstone Borough	7	2	7	...	...	...	...
Montgomery Township	50	13	19	1	...	...	...
North Plainfield Borough	348	95	154	3	...	4	1
Peapack Gladstone Borough	31	16	21	...	...	4	4
Raritan Borough	159	48	62	2	...	4	3
Rocky Hill Borough	14	5	4	...	...	...	...
Somerville Borough	356	120	134	7	...	11	10
South Bound Brook Borough	106	24	27	2	...	4	4
Warren Township	100	22	30	3	...	3	3
Watchung Borough	67	22	33	2	...	3	3
Total	3171	709	1119	49	...	69	63

DEPARTMENT OF HEALTH

SUSSEX COUNTY

1959

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Andover Borough	23	11	5	...	...	...	...
Andover Township	48	7	19	...	...	...	...
Branchville Borough	30	13	14	...	...	1	1
Byram Township	35	1	10	1	...	...	...
Frankford Township	46	8	27	3	...	...	...
Franklin Borough	75	30	34	4	...	3	2
Fredon Township	22	3	7	...	...	...	...
Green Township	22	12	2	...	...	...	...
Hamburg Borough	41	18	19	...	...	1	1
Hampton Township	22	4	11	...	...	...	...
Hardyston Township	51	7	22	1	...	1	1
Hopatcong Borough	65	11	28	1	...	1	1
Lafayette Township	29	6	17	...	...	1	1
Montague Township	13	1	10	...	...	...	...
Newton Town	166	58	87	...	...	6	3
Ogdensburg Borough	21	13	10	1	...	...	...
Sandryton Township	17	2	18	...	...	...	...
Sparta Township	145	28	55	2	...	...	...
Stanhope Borough	55	9	20	...	...	1	1
Stillwater Township	34	4	9	...	...	1	1
Sussex Borough	41	43	23	1	...	1	1
Vernon Township	36	10	13	...	...	...	...
Walpack Township	3	1	1	...	...	...	...
Wantage Township	75	4	29	...	...	...	...
Total	1115	304	490	14	...	20	16

UNION COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Berkeley Heights Twp.	185	24	33	2	...	4	3
Clark Township	248	63	62	4	...	6	4
Cranford Township	522	110	198	8	...	9	6
Elizabeth City	2408	807	1254	47	1	76	64
Fanwood Borough	170	18	30	1	...	...	...
Garwood Borough	124	36	48	3	...	4	3
Hillside Township	320	90	202	6	...	5	5
Kenilworth Borough	167	39	50	4	...	1	1
Linden City	794	172	316	10	...	14	10
Mountainside Borough	101	16	31	...	...	1	1
New Providence Borough	287	33	45	3	...	5	3
Plainfield City	1126	321	488	15	...	35	30
Rahway City	597	163	233	12	...	6	4
Roselle Borough	467	106	170	9	1	5	5
Roselle Park Borough	239	57	122	3	...	2	2
Scotch Plains Township	376	61	107	10	...	12	10
Springfield Township	234	67	98	3	...	2	2
Summit City	392	187	243	6	...	9	9
Union Township	836	323	392	8	...	15	10
Westfield Town	483	159	206	9	...	8	6
Winfield Township	47	...	9	...	...	1	1
Total	10123	2852	4337	163	2	220	179

WARREN COUNTY

CIVIL DIVISION	Births	Mar- riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Allamuchy Township	14	...	8	...	...	1	1
Alpha Borough	53	17	28	...	...	1	1
Belvidere Town	63	29	41	1	1	1	1
Blairtown Township	47	11	29	...	...	2	2
Franklin Township	35	12	14	...	...	1	1
Frelinghuysen Township	13	4	9	...	...	...	...
Greenwich Township	34	13	16	1	...	...	...
Hackettstown Town	98	29	65	6	...	2	2
Hardwick Township	5	2	4	1	...	...	...
Harmony Township	35	13	23	1	...	...	...
Hope Township	15	5	7	...	...	...	...
Independence Township	30	10	15	...	...	1	1
Knowlton Township	27	12	14	...	...	...	...
Liberty Township	14	1	3	...	...	...	...
Lopatcong Township	13	10	13	...	...	...	...
Mansfield Township	24	2	19	...	...	1	1
Oxford Township	34	11	19	1	...	2	1
Pahaquarry Township	1	...	1	...	...	...	...
Phillipsburg Town	466	130	275	9	...	7	6
Pohatcong Township	35	5	30	...	...	1	1
Washington Borough	150	57	88	1	...	5	4
Washington Township	65	5	20	2	...	...	...
White Township	31	7	17	...	...	...	...
Total	1304	385	758	23	1	25	22
STATE INSTITUTIONS	23	...	30	1	...	1	1
MILITARY POSTS	446	281	25	5	...	10	6

TABLE 5. BIRTHS, MARRIAGES AND DEATHS IN NEW JERSEY
BY MONTH OF OCCURRENCE: 1959

Month	Births	Marriages	Deaths
Total	126,583	38,659	56,707
January	10,448	2,497	5,194
February	9,689	2,386	4,348
March	10,955	1,748	5,053
April	9,933	3,347	4,964
May	10,331	3,418	4,752
June	10,306	5,086	4,558
July	11,185	2,944	4,430
August	11,065	3,680	4,806
September	11,098	4,197	4,385
October	10,738	3,781	4,534
November	10,259	3,121	4,648
December	10,576	2,454	5,035

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.

DEPARTMENT OF HEALTH

Table 6. MARRIAGES IN NEW JERSEY BY AGE OF HUSBAND BY AGE OF WIFE: 1959

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	38,030	2,805	10,041	8,484	3,706	2,176	1,433	1,100	846	652	574	416	328
<15	54	29	21	4	...	...	...	...	...	...	...	...	...
15-19	10,511	2,451	6,764	1,063	172	42	10	6	...	...	...	...	...
20-24	15,113	306	8,600	4,780	1,987	241	70	24	0	5	1	...	...
25-29	4,441	18	550	1,902	1,163	495	163	58	10	7	4	1	...
30-34	2,589	1	87	310	861	472	334	108	40	13	4	1	...
35-39	1,781	1	15	133	314	521	333	233	129	60	13	4	...
40-44	1,206	...	2	21	85	227	323	275	214	93	13	4	...
45-49	1,020	...	3	6	19	69	144	205	207	154	37	13	...
50-54	717	...	1	1	5	14	35	93	138	168	80	36	...
55-59	474	...	1	1	...	5	8	34	40	107	146	64	...
60-64	351	...	...	...	...	...	2	6	14	32	136	100	...
65-69	225	...	...	...	...	...	...	3	5	12	113	94	...
70+	87	...	...	...	...	...	...	1	1	...	52	83	...
											5	15	63

Note: No males under 15 years of age were married in New Jersey in 1959.

TABLE 7. MARRIAGES IN NEW JERSEY BY PREVIOUS MARITAL STATUS: 1959

<i>Wife's Status</i>	<i>Husband's Status</i>				
	<i>Total</i>	<i>Single</i>	<i>Widowed</i>	<i>Divorced</i>	<i>Unknown</i>
Total	38,659	31,675	2,182	4,518	284
Single	32,026	29,066	587	2,194	179
Widowed	2,289	627	1,086	545	31
Divorced	4,176	1,937	472	1,732	35
Unknown	168	45	37	47	39

INFANT DEATHS BY CAUSE AND AGE: 1959

In 1959, deaths of infants under 1 year of age numbered 3,201 and resulted in an infant mortality rate of 24.5 per 1,000 live births. Live births to residents of New Jersey, during the same year, totalled 130,660.

The accompanying table presents the 3,201 infant deaths by cause and age group. The list of causes of death, as in the case of most such listings, is based on arbitrary selection and combination of causes. To an extent, the causes selected are diseases under broad section headings referred to as major groupings of the International Statistical Classification of Diseases, Injuries and Causes of Death (7th Revision). Sub-groups for Neoplasms (Major Group II) and for Certain Diseases of Early Infancy (Major Group XV) are shown. Detailed causes of death are presented under each of the 2 sub-groups which comprise Certain Diseases of Early Infancy. Individual causes of death and combinations of related, single causes are used under Accidents, a part of Major Group XVII (Accidents, Poisonings and Violence).

The individual cause to which the greatest number of deaths was attributed was postnatal asphyxia and atelectasis. There were 689 deaths, or 22 percent of all deaths under 1 year, assigned to this cause. More than one-half of the infants whose deaths were charged to this cause were under 1 day old and a total of 645, or almost 94 percent, were less than 1 week old. Immaturity was indicated on 72 percent, or 495 of the 689 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 1959. Infant deaths assigned to this category totalled 593 or 19 percent of all deaths under 1 year. Over two-thirds of these deaths (397) occurred to infants less than 1 day old, and 166 deaths were in infants who were 1 to 6 days old.

As a result of congenital malformations, 475 infants died. This represents 15 percent of all deaths under 1 year of age. Over one-half of these deaths occurred to infants less than 1 week old.

Approximately 12 percent of the infant deaths were charged to diseases of the respiratory system and pneumonia of the newborn. The combined total of 376 deaths places this group of diseases, if considered as a single cause, as the 4th most important cause of death. There were 270 deaths due to diseases of the respiratory system and 106 deaths charged to pneumonia of the newborn.

Almost 9 percent of all infant deaths in 1959 were charged to birth injuries. There were 279 deaths due to this cause. Of these, 183 deaths were for babies under 1 day old and 83 were for babies from 1 through 6 days old.

In 1959, accidents accounted for 126 infant deaths, most of which occurred to infants who were 28 days old and over. Slightly less than 78 percent of these fatalities were attributable to the following 2 groups of causes:

- a. Inhalation and ingestion of food or other objects causing obstruction or suffocation (47 deaths).
- b. Accidental mechanical suffocation in bed or cradle (51 deaths).

Most of the infant deaths occurred very early in the first year of life. Of the 3,201 deaths, 1,306 or 41 percent were for infants less than 1 day old. Neonatal deaths (deaths of infants under 28 days old) numbered 2,459 and comprised 77 percent of the total deaths under 1 year of age. Immaturity was indicated on the death certificates of 1,486 of these 2,459 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 deaths from causes which gave no opportunity for an immaturity classification were counted in the group labeled "Immaturity Not Indicated."

TABLE 8a. INFANT DEATHS BY AGE AND IMMATURITY: 1959

Age	Total		Immaturity Indicated on Death Certificate		Immaturity Not Indicated on Death Certificate	
	Number	Percent	Number	Percent	Number	Percent
< 1 day	1,306	40.8	893	59.6	413	24.3
< 1 week	2,185	68.3	1,389	92.7	796	46.8
< 28 days	2,459	76.8	1,486	99.1	973	57.2
< 1 year	3,201	100.0	1,499	100.0	1,702	100.0

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

Table 8b. INFANT DEATHS BY CAUSE AND AGE: 1959

Cause of Death Showing International List (7th Revision) Code Numbers	Total	Less than			Age at Death		
		1 Day			1 Week		
		1 Day			1 Week		
		1 Day	1 Week	28 Days	1 Day	1 Week	28 Days
ALL CAUSES (001-E999)	2201	879	274	742			
Infective and parasitic diseases (001-138)	20			28			
Neoplasms	16			13			
Malignant neoplasms (140-205)	12			11			
Benign neoplasms (210-239)	3			1			
Unspecified neoplasms (230-239)	1						
Allergic, endocrine system, metabolic and nutritional diseases (240-289)	7			1			
Diseases of blood and blood-forming organs (290-299)	43			12			
Diseases of the nervous system and sense organs (300-398)	370			35			
Diseases of the digestive system (470-527)	105			207			
Diseases of the respiratory system (530-587)	475			67			
Congenital malformations (730-739)	124			144			
Certain diseases of early infancy (760-776)	2081			33			
Birth injuries, asphyxia, and infections of newborn (760-769)	1114			114			
Birth injuries (760, 761)	279			13			
Postnatal asphyxia and atelectasis (762)	689			11			
Pneumonia of newborn (763)	106						
Diarrhea of newborn (764)	11						
Ophthalmia neonatorum (765)	0						
Other infections of the newborn (760-769)	29						
Hemolytic disease of early infancy (770-779)	907			2			
Hemorrhagic disease of the newborn (770)	101			21			
Nutritional readjustment (771)	19			2			
Ill-defined diseases of early infancy (772)	8						
Ill-defined diseases of early infancy (773)	233			4			
Immaturity with mention of any other subsidiary condition (774)	13			11			
Immaturity, unqualified (775)	503			3			
Symptoms, senility and ill-defined conditions (780-789)	7			1			
Accidents (E800-E962)	126			3			
Inhalation and ingestion of food or other objects causing obstruction or suffocation (E921, E922)	47			5			
Accidental mechanical suffocation in bed or cradle (E924)	51			2			
All other accidental causes (E800-E920, E923, E925-E962)	28			2			
All other causes	29			2			

TABLE 8c. DEATHS FROM CERTAIN DISEASES OF EARLY INFANCY
BY SPECIFIC CAUSE AND AGE GROUP: 1959

Cause of Death Showing International List (7th Revision) Code Numbers	Total	Age at Death				
		Less Than 1 Day	1 Day But <1 Week	1 Week But <28 Days	28 Days But <1 Year	
Total, Certain Diseases of Early Infancy (760-776)	2,081	1,153	716	178	34	
Without immaturity indicated (760-773 with .0-.4)	582	260	220	81	21	
With immaturity indicated (760-733 with .5-.9 and 774-776)	1,499	893	496	97	13	
Birth injuries (760, 761)	279	183	83	13	...	
Without immaturity indicated	121	68	47	6	...	
With immaturity indicated	158	115	36	7	...	
Postnatal asphyxia and atelectasis (762)	689	375	270	33	11	
Without immaturity indicated	194	94	83	11	6	
With immaturity indicated	495	281	187	22	5	
Pneumonia of newborn (763)	106	10	42	54	...	
Without immaturity indicated	78	7	30	41	...	
With immaturity indicated	28	3	12	13	...	
Diarrhea of newborn (764)	11	1	1	9	...	
Without immaturity indicated	9	1	...	8	...	
With immaturity indicated	2	...	1	1	...	
Other infections of the newborn (766-769)	29	9	13	5	2	
Without immaturity indicated	14	3	7	2	2	
With immaturity indicated	15	6	6	3	...	

TABLE 8c. DEATHS FROM CERTAIN DISEASES OF EARLY INFANCY
BY SPECIFIC CAUSE AND AGE GROUP: 1959

(Continued)

Cause of Death Showing International List (7th Revision) Code Numbers	Total	Age at Death				
		Less Than 1 Day	1 Day But <1 Week	1 Week But <28 Days	28 Days But <1 Year	
Hemolytic disease of the newborn (770)	101	64	27	8	2	
Without immaturity indicated	86	57	21	6	2	
With immaturity indicated	15	7	6	2	...	
Hemorrhagic disease of the newborn (771)	19	7	10	2	...	
Without immaturity indicated	10	5	3	2	...	
With immaturity indicated	9	2	7	...	...
Nutritional maladjustment (772)	8	1	...	3	4	
Without immaturity indicated	8	1	...	3	4	
With immaturity indicated	...	...	...	...	...
Ill-defined diseases of early infancy (773)	233	98	102	22	11	
Without immaturity indicated	62	24	29	2	7	
With immaturity indicated	171	74	73	20	4	
Immaturity, unqualified (774-776)	606	405	168	29	4	

DEPARTMENT OF HEALTH

Table 9. PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS: 1959
(Number and Rates)

ALL AGES

Rank	Cause and Code Numbers	Number of Deaths	Rate per 100,000 Estimated Population	Percent of Total Deaths
	TOTAL DEATHS	58,039	971.5	100.0
1	Diseases of the circulatory system (400-468)	27,363	458.0	47.2
2	Malignant neoplasms (140-205)	10,635	178.0	18.3
3	Vascular lesions affecting the central nervous system (320-334)	5,289	88.5	9.1
4	Influenza, pneumonia and bronchitis (480-502)	1,785	29.9	3.1
5	Diabetes mellitus (260)	1,181	19.8	2.0
6	Cirrhosis of liver (581)	895	15.0	1.6
7	Motor vehicle accidents (E810-E835)	753	12.6	1.3
8	Postnatal asphyxia and atelectasis (762)	642	11.5	1.2
9	Accidental falls (E900-E904)	664	11.1	1.1
10	Congenital malformations (750-759)	642	10.7	1.1
11	Immaturity (774, 776)*	606	10.1	1.0
12	Suicide (E970-E979)	529	8.9	0.9
	All other causes	7,068	117.3	12.1

* An additional 893 infant deaths were reported in 1959, 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.

1-4 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Percent of Total
	TOTAL DEATHS	494	100.0
1	Influenza, pneumonia and bronchitis (480-502)	92	18.6
2	Malignant neoplasms (140-205)	67	13.6
3	Congenital malformations (750-759)	52	10.5
4	Motor vehicle accidents (E810-E835)	27	5.5
5	Accidents caused by fire and explosion of combustible materials (E910)	24	4.9
6	Accidental falls (E900-E904)	15	3.0
7	Accidental drowning and submersion (E929)	14	2.8
8	Gastritis, duodenitis, enteritis and colitis (543, 571, 572)	13	2.6
9	Acute infectious encephalitis (082)	11	2.2
	All other causes	179	36.3

5-14 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Percent of Total
	TOTAL DEATHS	439	100.0
1	Malignant neoplasms (140-205)	93	21.2
2	Motor vehicle accidents (E810-E835)	57	13.0
3	Influenza, pneumonia and bronchitis (480-502)	37	8.4
4	Accidental drowning and submersion (E929)	28	6.4
5	Congenital malformations (750-759)	25	5.7
6	Accidents caused by fire and explosion of combustible materials (E910)	23	5.2
7	Diseases of the circulatory system (400-468)	14	3.2
8	Acute infectious encephalitis (082)	11	2.5
9	Nephritis and nephrosis (590-594)	8	1.8
	All other causes	143	32.6

DIV. OF VITAL STATISTICS & ADMINISTRATION 251

 Table 9. PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS: 1959—Continued
 (Number and Rates)

15-24 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Percent of Total
	TOTAL DEATHS	566	100.0
1	Motor vehicle accidents (E810-E835)	141	24.9
2	Malignant neoplasms (140-205)	68	12.0
3	Diseases of the circulatory system (400-468)	40	7.1
4	Accidental drowning and submerision (E929)	27	4.8
5	Suicide (E970-E979)	26	4.6
6	Homicide (E980-E983)	25	4.4
7	Influenza, pneumonia and bronchitis (480-502)	22	3.9
8	Vascular lesions affecting the central nervous system (330-334) ..	19	3.4
9	Nephritis and nephrosis (590-594)	16	2.8
10	Congenital malformations (750-759)	15	2.6
11	Pregnancy, childbirth and the puerperium (640-689)	12	2.1
	All other causes	153	27.4

25-44 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Percent of Total
	TOTAL DEATHS	3,329	100.0
1	Diseases of the circulatory system (400-468)	941	28.3
2	Malignant neoplasms (140-205)	724	21.7
3	Motor vehicle accidents (E810-E835)	193	5.8
4	Suicide (E970-E979)	142	4.3
5	Cirrhosis of liver (581)	135	4.0
6	Vascular lesions affecting the central nervous system (330-334) ..	131	3.9
7	Influenza, pneumonia and bronchitis (480-502)	97	2.9
8	Tuberculosis (001-010)	72	2.2
9	Nephritis and nephrosis (590-594)	72	2.2
10	Homicide (E980-E983)	60	1.8
11	Diabetes mellitus (260)	46	1.4
	All other causes	716	21.5

Table 9. PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS: 1959—Continued
(Number and Rates)

45-64 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Percent of Total
	TOTAL DEATHS	15,971	100.0
1	Diseases of the circulatory system (400-468)	7,289	45.6
2	Malignant neoplasms (140-205)	4,114	25.8
3	Vascular lesions affecting the central nervous system (330-334) ..	1,042	6.5
4	Cirrhosis of liver (581)	475	3.0
5	Diabetes mellitus (260)	371	2.3
6	Influenza, pneumonia and bronchitis (480-502)	320	2.0
7	Suicide (E970-E979)	222	1.4
8	Motor vehicle accidents (E810-E835)	184	1.2
9	Tuberculosis (091-019)	183	1.2
10	Ulcer of stomach and duodenum (540, 541)	150	0.9
11	Accidental falls (E900-E904)	128	0.8
12	Nephritis and nephrosis (590-594)	116	0.7
	All other causes	1,377	8.6

65 YEARS AND OVER

Rank	Cause and Code Numbers	Number of Deaths	Percent of Total
	TOTAL DEATHS	34,939	100.0
1	Diseases of the circulatory system (400-468)	19,072	56.0
2	Malignant neoplasms (140-205)	5,557	16.3
3	Vascular lesions affecting the central nervous system (330-334) ..	4,080	12.0
4	Influenza, pneumonia and bronchitis (480-502)	972	2.9
5	Diabetes mellitus (260)	752	2.2
6	Accidental falls (E900-E904)	462	1.4
7	Cirrhosis of liver (581)	276	0.8
8	Intestinal obstruction and hernia (560, 561, 570)	198	0.6
9	Ulcer of stomach and duodenum (540, 541)	196	0.6
10	Nephritis and nephrosis (590-594)	176	0.5
11	Tuberculosis (001-019)	164	0.5
12	Motor vehicle accidents (E810-E835)	150	0.4
	All other causes	1,954	5.8

Table 10a. DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM BY CAUSE GROUP
BY AGE, SEX AND COLOR: 1959

Age in Years and 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 With Mention of Heart (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)
ALL AGES	27,363	28	775	21,567	555	2,418	414	1,200	290	17
Under 1	2	1	1	1	2	1	1	1	1	1
1-4	5	1	1	1	1	1	1	1	1	1
5-9	9	1	1	1	1	1	1	1	1	1
10-14	9	1	1	1	1	1	1	1	1	1
15-19	14	1	1	1	1	1	1	1	1	1
20-24	14	1	1	1	1	1	1	1	1	1
25-29	37	1	1	1	1	1	1	1	1	1
30-34	26	1	1	1	1	1	1	1	1	1
35-39	118	1	1	1	1	1	1	1	1	1
40-44	262	1	1	1	1	1	1	1	1	1
45-49	524	1	1	1	1	1	1	1	1	1
50-54	981	1	1	1	1	1	1	1	1	1
55-59	1,440	1	1	1	1	1	1	1	1	1
60-64	2,000	1	1	1	1	1	1	1	1	1
65-69	2,980	1	1	1	1	1	1	1	1	1
70-74	3,704	1	1	1	1	1	1	1	1	1
75 and over	4,263	1	1	1	1	1	1	1	1	1
	11,105	1	1	1	1	1	1	1	1	1
Sex										
Male	15,108	15	360	12,500	312	940	186	650	140	5
Female	12,105	13	415	9,067	243	1,478	228	640	150	12
Color										
White	25,648	22	728	20,801	512	2,154	361	1,220	270	11
Nonwhite	1,715	6	47	1,206	43	264	53	61	20	6

Note: Numbers following descriptive titles refer to International List (7th Revision) Codes.

DEPARTMENT OF HEALTH

TABLE 11a. DEATHS FROM NEOPLASMS BY CAUSE GROUP, BY AGE, SEX AND COLOR: 1959

Age, Sex and Color	All Neoplasms (140-205) (210-239)	Malignant							Benign or Unspecified Total (210-239)
		Total (140-205)	Buccal Cavity and Pharynx* (140-148)	Digestive and Peritoneum (150-159)	Respiratory (160-165)	Breast and Genitourinary (170-181)	Other and Unspecified (190-199)	Lymph and Blood (200-205)	
Age in years	10,788	249	3,990	1,731	2,853	926	886	153	
All Ages	16	0	1	0	4	2	5	4	
Under 1	68	1	2	0	5	16	43	1	
1-4	63	0	2	1	6	20	32	2	
5-9	36	0	0	1	2	16	13	4	
10-14	38	0	1	0	2	14	20	1	
15-19	35	0	4	1	1	7	18	4	
20-24	48	0	3	0	7	11	24	3	
25-29	129	1	21	10	34	32	27	4	
30-34	216	3	35	23	75	34	41	5	
35-39	354	9	73	41	131	42	47	11	
40-44	619	21	161	106	208	53	54	16	
45-49	833	25	251	150	257	75	61	14	
50-54	1,216	31	420	255	305	107	84	14	
55-59	1,490	32	546	333	366	115	98	18	
60-64	1,707	42	674	353	388	121	109	20	
65-69	1,554	29	698	232	378	104	99	14	
70-74	2,348	55	1,098	225	684	157	111	18	
75 and over									
Sex									
Male	5,854	196	2,183	1,496	876	520	511	72	
Female	4,934	53	1,807	235	1,977	406	375	81	
Color									
White	10,094	237	3,730	1,612	2,655	883	835	142	
Nonwhite	694	12	260	119	198	43	51	11	

Note: Number following descriptive titles refer to International List (7th Revision) Codes.

Chart 2.

CANCER DEATH RATES

per 100,000 population

(Based on Five-Year Averages of Deaths and Population)

1880-1959

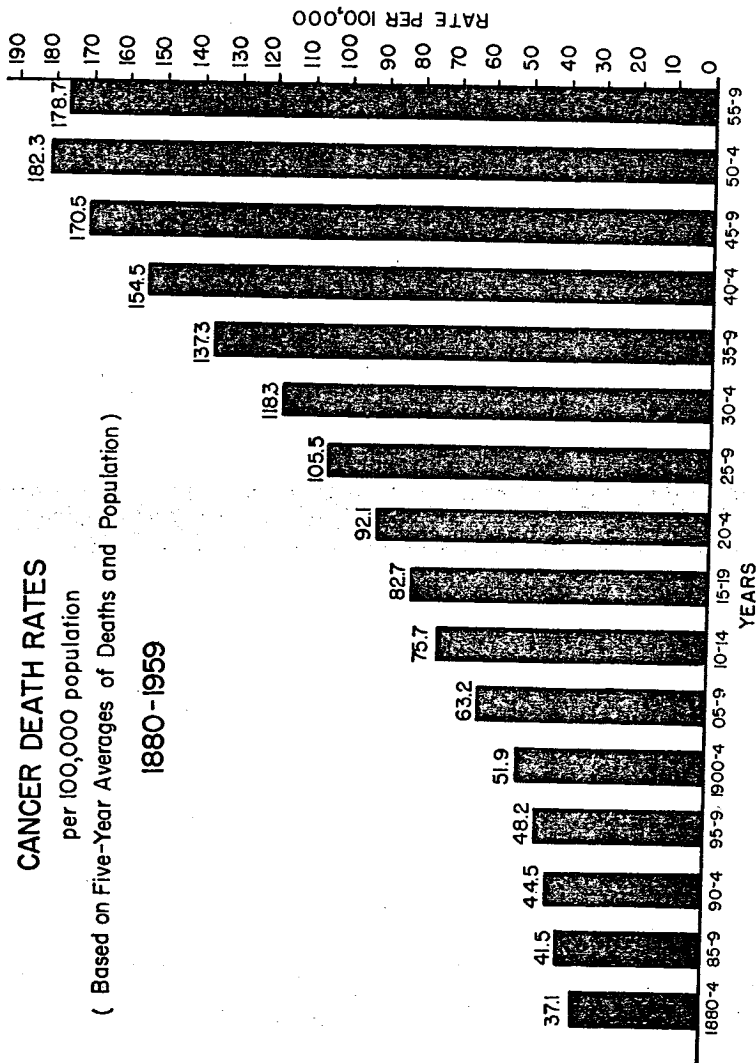


TABLE 12. DEATHS FROM DIABETES BY AGE, SEX AND COLOR: 1959

<i>Age, Sex and Color</i>	<i>Number</i>
<i>Age in Years</i>	
ALL AGES	1,181
Under 1	1
1-4	1
5-9	1
10-14	3
15-19	4
20-24	2
25-29	8
30-34	13
35-39	9
40-44	16
45-49	37
50-54	63
55-59	106
60-64	165
65-69	202
70-74	218
75 and over	332
<i>Sex</i>	
Male	442
Female	739
<i>Color</i>	
White	1,083
Nonwhite	98

Table 13b. NONTRANSPORT ACCIDENTAL DEATHS IN NEW JERSEY BY CAUSE OF DEATH BY PLACE OF ACCIDENT: 1959

Primary Cause	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
TOTAL	E870-E950	1366	774	11	7	93	17	75	41	141	112	95
Poisoning by solid and liquid substances	E961-E992	33	22	.....	.....	1	.....	.....	.....	1	.....	9
Poisoning by gases and vapors	E870-E888	35	27	.....	.....	1	.....	.....	.....	.....	.....	.....
Falls	E890-E905	664	409	2	.....	31	1	54	24	106	4	26
Fire and explosion of combustible material	E910-E928	168	135	.....	.....	11	.....	2	5	10	4	1
Mechanical suffocation in bed or cradle	E929	52	50	.....	.....	.....	.....	.....	.....	.....	.....	.....
Drowning	E929	121	10	3	3	3	11	1	.....	.....	81	2
Other causes	E910-E915 E917-E923 E925-E928 E930-E936 E940-E946 E950-E959 E961-E992	203	121	6	4	46	5	16	11	21	15	48

TABLE 13c. DEATHS DUE TO ACCIDENTS BY CAUSE OF ACCIDENT FOR SELECTED AGE GROUPS; NUMBER AND RANKS 1959

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)	121	All accidental deaths (E800-E962)	147	All accidental deaths (E800-E962)	220
	Motor vehicle accidents (E810-E835)	27	Motor vehicle accidents (E810-E835)	57	Motor vehicle accidents (E810-E835)	141
2	Accidents caused by fire and explosion of combustible material and other accidental burns and scalds (E916, E917)	27*	Accidents caused by fire and explosion of combustible material and other accidental burns and scalds (E916, E917)	28	Accidents caused by fire and explosion of combustible material and other accidental burns and scalds (E916, E917)	27
3	Accidental falls (E900-E904)	15	Accidental falls (E900-E904)	23*	Accidents caused by firearms (E919)	6
4	Accidental poisoning by solid and liquid substances (E870-E895)	15	Accidents caused by firearms (E919)	6	Accidental falls (E900-E904)	7
5	Accidental drowning and submersion (E929)	14	Accidental falls (E900-E904)	5	Accidental falls (E900-E904)	7
	All other accidents	23	All other accidents	28	All other accidents	28

* In the age group 1-4 years there were included 3 deaths to "Accident caused by hot substance, corrosive liquid and steam," International List Code E917. There were no deaths due to this cause in the age groups 5-14 and 15-24.

TABLE 14a. BIRTHS BY LEGITIMACY FOR COUNTIES AND MAJOR CITIES: 1959

<i>Area</i>	<i>Total Births</i>	<i>Total Legitimate</i>	<i>Total Illegitimate</i>
State Total	130,660	126,236	4,424
Atlantic County	2,929	2,725	204
Atlantic City	960	800	160
Bergen County	15,285	15,113	172
Burlington County	4,831	4,728	103
Camden County	8,929	8,587	342
Camden City	3,014	2,726	288
Cape May County	970	921	49
Cumberland County	2,434	2,258	176
Essex County	20,003	18,615	1,388
East Orange	1,589	1,527	62
Irvington	1,060	1,056	4
Newark	10,560	9,342	1,218
Gloucester County	3,130	3,012	118
Hudson County	13,302	12,853	449
Bayonne	1,525	1,514	11
Hoboken	1,112	1,074	38
Jersey City	6,432	6,066	366
Union City	1,123	1,109	14
Hunterdon County	1,075	1,061	14
Mercer County	5,678	5,407	271
Trenton	2,552	2,400	152
Middlesex County	9,861	9,705	156
Monmouth County	7,704	7,512	192
Morris County	5,813	5,759	54
Ocean County	2,589	2,543	46
Passaic County	8,638	8,372	266
Clifton	1,660	1,657	3
Passaic City	1,003	958	45
Paterson	3,305	3,103	202
Salem County	1,307	1,200	107
Somerset County	3,171	3,147	24
Sussex County	1,115	1,097	18
Union County	10,123	9,880	243
Elizabeth	2,408	2,307	101
Warren County	1,304	1,275	29
State Institutions	23	23	
Military Posts	446	443	3

TABLE 14b. BIRTHS BY LEGITIMACY BY AGE OF MOTHER: 1959

<i>Age of Mother</i>	<i>Live Births</i>					
	<i>Total</i>		<i>Legitimate</i>		<i>Illegitimate</i>	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
All Ages	130,660	100.0	126,236	100.0	4,424	100.0
10-14	118	0.1	33	<0.1	85	1.9
15-19	10,895	8.4	9,104	7.2	1,791	40.5
20-24	38,414	29.4	36,912	29.2	1,502	34.0
25-29	38,588	29.5	38,034	30.1	554	12.5
30-34	26,310	20.1	25,999	20.6	311	7.0
35-39	13,301	10.2	13,167	10.4	134	3.0
40-44	2,920	2.2	2,874	2.3	46	1.0
45-49	111	0.1	110	0.1	1	<0.1
50-54	..	..	..	..	..	..
55-59	1	0.0	1	0.0	..	..
Unknown	2	0.0	2	0.0	..	..

TABLE 15. RESIDENT BIRTHS BY WEIGHT GROUP BY AGE GROUP OF MOTHER: 1959

Age in Years	Total	Birth Weight Group						Weight Not Stated
		5 lbs. 9 oss. and over	4 lbs. 7 oss. to 5 lbs. 8 oss.	3 lbs. 5 oss. to 4 lbs. 6 oss.	2 lbs. 3 oss. to 3 lbs. 4 oss.	less than 2 lbs. 3 oss.	Under 1001 Grams	
		over 2500 Grams	2001-2500 Grams	1501-2000 Grams	1001-1500 Grams	Grams		
All Ages	130,660	120,112	6,589	1,875	722	736	576	
10-14	118	98	11	1	6	0	2	
15-19	10,895	9,640	757	240	111	84	63	
20-24	38,414	35,322	1,941	530	236	210	175	
25-29	38,588	35,836	1,733	485	177	201	156	
30-34	26,310	24,220	1,341	350	143	149	107	
35-39	13,301	12,241	635	211	79	79	56	
40-44	2,920	2,652	163	57	19	13	16	
45-49	111	101	8	1	1	0	0	
50-54	0	0	0	0	0	0	0	
55-59	1	1	0	0	0	0	0	
Unknown	2	1	0	0	0	0	1	

TABLE 16. INFANT AND MATERNAL DEATHS BY COUNTIES AND MAJOR CITIES
 NUMBERS AND RATES: 1959

Area	Births	Infant Deaths		Maternal Deaths	
		Number	Rate	Number	Rate
State Total	130,660	3,201	24.5	51	0.4
Atlantic County	2,929	91	31.1	..	..
Atlantic City	960	42	43.8	..	..
Bergen County	15,285	334	21.9	4	0.3
Burlington County	4,831	128	26.5	..	..
Camden County	3,014	196	22.0	2	0.2
Camden City	8,929	85	28.2	..	..
Cape May County	970	25	25.8	..	..
Cumberland County	2,434	74	30.4	..	..
Essex County	20,003	634	31.7	18	0.9
East Orange	1,589	48	30.2	..	..
Irvington	1,060	22	20.8	1	0.9
Newark	10,560	429	40.6	14	1.3
Gloucester County	3,130	70	22.4	1	0.3
Hudson County	13,302	358	26.9	6	0.5
Bayonne	1,525	39	25.6	..	..
Hoboken	1,112	25	22.5	1	0.9
Jersey City	6,432	197	30.6	4	0.6
Union City	1,123	40	35.6	..	..
Hunterdon County	1,075	30	27.9	..	..
Mercer County	5,678	124	21.8	4	0.7
Trenton	2,552	65	25.5	3	1.2
Middlesex County	9,861	196	19.9	3	0.3
Monmouth County	7,704	167	21.7	4	0.5
Morris County	5,813	121	20.8	2	0.3
Ocean County	2,589	53	20.5	..	..
Passaic County	8,638	208	24.1	3	0.3
Clifton	1,660	24	14.5	1	0.6
Passaic City	1,003	20	19.9	..	..
Paterson	3,305	106	32.1	1	0.3
Salem County	1,307	47	36.0	1	0.8
Somerset County	3,171	69	21.8	..	..
Sussex County	1,115	20	17.9	..	..
Union County	10,123	220	21.7	2	0.2
Elizabeth	2,408	76	31.6	1	0.4
Warren County	1,304	25	19.2	1	0.8
State Institutions	23	1	43.5	..	..
Military Posts	446	10	22.4	..	..

Note: Rates are per 1,000 live births.

Table 17a. MATERNAL DEATHS BY SPECIFIC CAUSE: 1959

TOTAL MATERNAL DEATHS	51
Total complications of pregnancy (640-649)	15
Toxemias of pregnancy (642)	9
Other hemorrhage of pregnancy (644)	1
Ectopic pregnancy (645)	5
Total abortions (650-652)	10
Abortion without mention of sepsis or toxemia (650)	3
Abortion with sepsis (651)	7
Total deliveries with specified complications (670-678)	21
Delivery complicated by placenta previa or antepartum hemorrhage (670)	4
Delivery complicated by other postpartum hemorrhage (672)	6
Delivery complicated by disproportion or malposition of fetus (674)	1
Delivery complicated by prolonged labor of other origin (675)	2
Delivery with other trauma (677)	4
Delivery with other complications of childbirth (678)	4
Total complications of the puerperium (680-689)	5
Puerperal phlebitis and thrombosis (682)	1
Puerperal pulmonary embolism (684)	2
Other forms of puerperal toxemia (686)	2

Note: Cause numbers are those of International List, 7th Revision.

TABLE 17b. MATERNAL DEATHS BY CAUSE, COLOR AND AGE GROUPS: 1959

<i>Cause and Color</i>	<i>Age Group</i>		
	<i>All Ages</i>	<i>15-24</i>	<i>25-44</i>
All Causes (640-689)	51	12	39
White	29	4	25
Nonwhite	22	8	14
Complications of Pregnancy (640-649)	15	4	11
White	7	1	6
Nonwhite	8	3	5
Abortion (650-652)	10	3	7
White	3	1	2
Nonwhite	7	2	5
Delivery with specified complication (670-678)	21	4	17
White	15	1	14
Nonwhite	6	3	3
Complications of the puerperium (680-689)	5	1	4
White	4	1	3
Nonwhite	1	..	1

Note: Cause numbers are those of International List, 7th Revision.

101.	Malignant neoplasm of larynx.....	110	102	8	.....	.....	.....	2	46	62
102.	Malignant neoplasm of bronchus, and of lung specified as primary.....	573	536	57	.....	.....	.....	20	275	272
103.	Malignant neoplasm of lung, unspecified as to whether primary or secondary.....	1000	845	155	.....	.....	2	41	503	454
104.	Malignant neoplasm of mediastinum.....	0	0	8	.....	.....	.....	.....	4	3
105.	Malignant neoplasm of thoracic organs (secondary).....	13	0	4	.....	.....	.....	.....	1	4
106.	Malignant neoplasm of breast.....	1019	8	101	.....	.....	.....	125	480	304
107.	Malignant neoplasm of cervix uteri.....	212	8	101	.....	.....	.....	41	103	08
108.	Malignant neoplasm of corpus uteri.....	34	.....	212	.....	.....	.....	.....	16	17
109.	Malignant neoplasm of other parts of uterus, including chordo-omepheloma.....	1	.....	34	.....	.....	.....	.....	.....	.....
110.	Malignant neoplasm of uterus, unspecified.....	205	.....	1	.....	.....	.....	.....	.....	.....
111.	Malignant neoplasm of ovary, Fallopian tube, and broad ligament.....	323	.....	205	.....	.....	.....	.....	.....	.....
112.	Malignant neoplasm of other and unspecified female genital organs.....	28	.....	323	.....	.....	.....	.....	.....	.....
113.	Malignant neoplasm of prostate.....	457	.....	28	.....	.....	.....	.....	.....	.....
114.	Malignant neoplasm of testis.....	28	.....	457	.....	.....	.....	.....	.....	.....
115.	Malignant neoplasm of other and unspecified male genital organs.....	14	.....	28	.....	.....	.....	.....	.....	.....
116.	Malignant neoplasm of kidney.....	184	.....	14	.....	.....	.....	.....	.....	.....
117.	Malignant neoplasm of bladder and other urinary organs.....	348	.....	184	.....	.....	.....	.....	.....	.....
118.	Malignant melanoma of skin.....	71	.....	348	.....	.....	.....	.....	.....	.....
119.	Other malignant neoplasm of skin.....	41	.....	71	.....	.....	.....	.....	.....	.....
120.	Malignant neoplasm of eye.....	0	.....	41	.....	.....	.....	.....	.....	.....
121.	Malignant neoplasm of brain and other parts of nervous system.....	236	.....	0	.....	.....	.....	.....	.....	.....
122.	Malignant neoplasm of thyroid gland.....	13	.....	236	.....	.....	.....	.....	.....	.....
123.	Malignant neoplasm of other endocrine glands.....	29	.....	13	.....	.....	.....	.....	.....	.....
124.	Malignant neoplasm of bone (including jaw bone).....	65	.....	29	.....	.....	.....	.....	.....	.....
125.	Malignant neoplasm of connective tissue.....	27	.....	65	.....	.....	.....	.....	.....	.....
126.	Secondary and unspecified malignant neoplasm of lymph nodes.....	18	.....	27	.....	.....	.....	.....	.....	.....
127.	Lymphosarcoma and reticulosarcoma.....	393	.....	18	.....	.....	.....	.....	.....	.....
128.	Hodgkin's disease.....	215	.....	393	.....	.....	.....	.....	.....	.....
129.	Other forms of lymphoma (plasmocytosis).....	134	.....	215	.....	.....	.....	.....	.....	.....
130.	Multiple myeloma (plasmocytoma).....	81	.....	134	.....	.....	.....	.....	.....	.....
131.	Leukemia and leukemia.....	76	.....	81	.....	.....	.....	.....	.....	.....
132.	Mycosis fungoides.....	440	.....	76	.....	.....	.....	.....	.....	.....
133.	Benign neoplasm of buccal cavity and pharynx.....	2	.....	440	.....	.....	.....	.....	.....	.....
134.	Benign neoplasm of other parts of digestive system.....	10	.....	2	.....	.....	.....	.....	.....	.....
135.	Benign neoplasm of respiratory system.....	3	.....	10	.....	.....	.....	.....	.....	.....
136.	Benign neoplasm of breast.....	12	.....	3	.....	.....	.....	.....	.....	.....
137.	Uterine fibromyoma.....	0	.....	12	.....	.....	.....	.....	.....	.....
138.	Other benign neoplasm of uterus.....	1	.....	0	.....	.....	.....	.....	.....	.....
139.	Benign neoplasm of ovary.....	4	.....	1	.....	.....	.....	.....	.....	.....
140.	Benign neoplasm of other female genital organs.....	3	.....	4	.....	.....	.....	.....	.....	.....
141.	Benign neoplasm of male genital organs.....	5	.....	3	.....	.....	.....	.....	.....	.....
142.	Benign neoplasm of kidney and other urinary organs.....	3	.....	5	.....	.....	.....	.....	.....	.....
143.	Pilonidal cyst.....	40	.....	3	.....	.....	.....	.....	.....	.....
144.	Other benign neoplasm of skin.....	6	.....	40	.....	.....	.....	.....	.....	.....
145.	Benign neoplasm of brain and other parts of nervous system.....	1	.....	6	.....	.....	.....	.....	.....	.....
146.	Benign neoplasm of endocrine glands.....	1	.....	1	.....	.....	.....	.....	.....	.....
147.	Benign neoplasm of bone and cartilage.....	1	.....	1	.....	.....	.....	.....	.....	.....
148.	Lipoma.....	3	.....	1	.....	.....	.....	.....	.....	.....
149.	Other benign neoplasm of muscular and connective tissue.....	3	.....	3	.....	.....	.....	.....	.....	.....
150.	Hemangioma and lymphangioma.....	3	.....	3	.....	.....	.....	.....	.....	.....

Table 20. DEATHS BY CAUSE BY SEX AND AGE GROUPS, NEW JERSEY, 1959.—Continued
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE OF DEATH	Total	Age Groups by Years					Female	Male	Unknown
			Age Groups by Years							
			<1	1-4	5-14	15-24	25-44				45-64	65+
229.	Benign neoplasm of other and unspecified organs and tissues	8	4	4	0	0	0	0	0	0
230.	Neoplasm of unspecified nature of digestive organs	8	5	3	0	0	0	0	0	0
231.	Neoplasm of unspecified nature of respiratory organs	8	5	3	0	0	0	0	0	0
232.	Neoplasm of unspecified nature of breast	8	5	3	0	0	0	0	0	0
233.	Neoplasm of unspecified nature of uterus	8	5	3	0	0	0	0	0	0
234.	Neoplasm of unspecified nature of ovary	8	5	3	0	0	0	0	0	0
235.	Neoplasm of unspecified nature of other female genital organs	8	5	3	0	0	0	0	0	0
236.	Neoplasm of unspecified nature of other female-urinary organs	8	5	3	0	0	0	0	0	0
237.	Neoplasm of unspecified nature of brain and other parts of nervous system	8	5	3	0	0	0	0	0	0
238.	Neoplasm of unspecified nature of skin and musculoskeletal system	38	24	14	1	4	1	5	17	9
239.	Neoplasm of unspecified nature of other and unspecified organs	4	1	3	0	0	0	1	1	2
240.	Hay fever	4	1	3	0	0	0	1	1	2
241.	Asthma	102	102	60	3	2	17	63	74	0
242.	Angioneurotic edema	2	2	0	0	0	0	0	0	0
243.	Urticaria	2	2	0	0	0	0	0	0	0
244.	Allergic eczema	2	2	0	0	0	0	0	0	0
245.	Other allergic disorders	2	2	0	0	0	0	0	0	0
250.	Simple goitre	2	2	0	0	0	0	0	0	0
251.	Nontoxic nodular goitre	2	2	0	0	0	0	0	0	0
252.	Thyrotoxicosis with or without goitre	19	3	16	1	0	8	9	6	0
253.	Myxedema and cretinism	3	1	2	0	0	2	1	0	0
254.	Other diseases of thyroid gland	1	1	0	0	0	0	0	0	0
260.	Diabetes mellitus	442	442	739	1	1	4	6	371	752
270.	Disorders of pancreatic internal secretion other than diabetes mellitus	1181	1181	739	1	1	4	6	371	752
271.	Diseases of parathyroid gland	0	0	0	0	0	0	0	0	0
272.	Diseases of pituitary gland	0	0	0	0	0	0	0	0	0
273.	Diseases of thymus gland	8	4	4	0	0	1	1	3	0
274.	Diseases of adrenal glands	10	4	6	0	0	0	0	0	0
275.	Ovarian dysfunction	0	0	0	0	0	0	0	0	0
276.	Testicular dysfunction	0	0	0	0	0	0	0	0	0
277.	Hypogonadism and other diseases of endocrine glands	3	0	0	0	0	0	0	0	0
280.	Beriberi	0	0	0	0	0	0	0	0	0
281.	Foalagra	0	0	0	0	0	0	0	0	0
282.	Scurvy	0	0	0	0	0	0	0	0	0
283.	Active rickets	0	0	0	0	0	0	0	0	0
284.	Late effects of rickets	0	0	0	0	0	0	0	0	0
285.	Osteomalacia	1	0	0	0	0	0	0	0	0
286.	Other avitaminoses and nutritional deficiency states	32	16	16	0	0	0	0	0	0
287.	Obesity, not specified as of endocrine origin	0	0	0	0	0	0	0	0	0
288.	Gout	2	2	0	0	0	0	0	0	0
289.	Other metabolic diseases	14	7	7	0	0	0	0	0	0
290.	Fernicious and other hyperchromic anemias	18	6	12	0	0	0	0	0	0
291.	Iron deficiency anemias (hypoehromic anemias)	2	1	1	0	0	0	0	0	0

282. Other anemias of specified type	40	23	17	1	3	5	1	6	9	13
283. Anemia of unspecified type	14	5	9	1	3	5	1	1	2	8
284. Polycythemia	12	7	6					1	4	7
285. Hemophilia	3	3	1				2			
286. Purpura and other hemorrhagic conditions	23	8	16	3	1	1		1	6	12
287. Agranulocytosis	3	1	2						3	3
288. Diseases of spleen	6	3	3					3	3	3
289. Other diseases of blood and blood-forming organs	3	5	1						1	2
300. Schizophrenic disorders (dementia praecox)	6	5	6	2	1			2	4	1
301. Manic-depressive reaction	7	2								
302. Involutional melancholia										
303. Paranoid and paranoid states										
304. Semile psychosis	3	1	2							3
305. Presenile psychosis	1	1	1						1	
306. Psychosis with cerebral arteriosclerosis										
307. Alcoholic psychosis	41	30	2					20	18	3
308. Psychosis of other demonstrable etiology										
309. Other and unspecified psychoses	5	1	4						8	2
310. Anxiety reaction without mention of somatic symptoms										
311. Hysterical reaction without mention of anxiety reaction										
312. Phobic reaction										
313. Obsessive-compulsive reaction										
314. Neurotic-depressive reaction										
315. Psychoneurosis with somatic symptoms (somatization reaction) affecting circulatory system										
316. Psychoneurosis with somatic symptoms (somatization reaction) affecting digestive system										
317. Psychoneurosis with somatic symptoms (somatization reactions) affecting other systems										
318. Psychoneurotic disorders, other, mixed and unspecified types	1	1								1
320. Pathological personality	1		1							
321. Immature personality										
322. Alcoholism	47	39	8					15	22	9
323. Other drug addiction	1	1								
324. Primary alcoholism										
325. Mental subnormal behaviour disorders	13	7	6	5	4	5		1		
326. Mental deficiency										
328. Other and unspecified character, behaviour and intelligence disorders.	168	66	100	2	2	1	0	38	79	35
329. Subarachnoid hemorrhage	2947	1340	1607	4	1	5	1	78	671	2181
331. Cerebral hemorrhage	1809	828	981				1	8	248	1532
332. Cerebral embolism and thrombosis										
333. Stenosis of cerebral arteries										
334. Other and ill-defined vascular lesions affecting central nervous system										
340. Meningitis, except meningococcal and tuberculous	307	162	205	1	1	2	1	11	44	306
341. Phlebitis and thrombophlebitis of intracranial venous sinuses	68	45	23	22	0	3	2	8	16	11
342. Intracranial and intraspinal abscess	1	1								
343. Encephalitis, myelitis and encephalomyelitis (except acute infectious)	12	5	4				1	2	3	3
344. Late effects of intracranial abscess or pyogenic infection	10	5	5	2	2	2		1	3	2
346. Multiple sclerosis	29	10	10	12	7					
350. Paralysis agitans	50	21	20					12	80	7
351. Cerebral spastic infantile paralysis	135	71	64				1	22	112	1
352. Other cerebral paralysis	10	6	6	1	10	2		2	1	0
353. Epilepsy	11	5	5							
354. Migraine	53	31	22	3	5	9	20	12	4	4

410.	Diseases of mitral valve	291	82	186	1	60	113	47
411.	Diseases of aortic valve specified as rheumatic	67	52	15	1	14	37	15
412.	Diseases of tricuspid valve	..	..	..	..	..	..	..
413.	Diseases of pulmonary valve specified as rheumatic	..	..	..	..	..	..	..
414.	Other endocarditis specified as rheumatic	28	15	13	1	5	14	8
415.	Other heart disease specified as rheumatic	10	3	7	..	2	4	..
420.	Arteriosclerotic heart disease, including coronary disease	449	208	241	2	14	100	251
421.	Chronic endocarditis not specified as rheumatic	18919	7651	11268	1	4	545	6392
422.	Other myocardial degeneration	102	91	71	..	..	8	98
430.	Acute and subacute endocarditis	2486	1201	1285	5	43	325	2113
431.	Acute myocarditis not specified as rheumatic	40	13	7	1	2	5	8
432.	Acute pericarditis specified as nonrheumatic	9	5	4	..	..	1	1
433.	Functional disease of heart	2	2	..	..	..	1	1
434.	Other and unspecified diseases of heart	112	45	67	1	2	3	1
440.	Essential benign hypertension with heart disease	412	247	165	1	32	114	262
441.	Essential malignant hypertension with heart disease	1	..	..	1	1	..	..
442.	Hypertensive heart disease with arterio- sclerosis	23	12	11	..	7	6	6
443.	Other and unspecified hypertensive heart disease	488	208	285	1	1	..	..
444.	Essential benign hypertension	1908	725	1181	..	33	504	1300
445.	Essential malignant hypertension	108	41	67	..	81	..	..
446.	Hypertension with arterio- sclerosis	72	36	36	1	20	33	18
447.	Other hypertensive disease without mention of heart	225	107	119	..	4	47	178
450.	General arteriosclerosis	8	2	6	..	..	1	1
451.	Aortic aneurysm specified as nonsyphilitic and dissecting aneurysm	970	442	628	..	..	87	913
452.	Other aneurysm, except of heart and aorta	254	177	77	..	8	72	174
453.	Peripheral vascular disease	7	5	2	..	1	3	3
454.	Arterial embolism and thrombosis	1	1	2	..	1	..	..
455.	Gangrene of unspecified cause	25	17	8	..	..	12	15
456.	Other diseases of arteries	2	1	1	..	..	1	2
460.	Varicose veins of lower extremities	29	7	22	1	3	10	12
461.	Hemorrhoids	11	3	8	..	..	5	6
462.	Varicose veins of other specified sites	1	..	..	..	1	1	1
463.	Phlebitis and thrombophlebitis of lower extremities	6	3	3	..	..	1	1
464.	Phlebitis and thrombophlebitis of other sites	33	14	19	..	4	10	19
465.	Pulmonary embolism and infarction	29	12	17	..	4	12	19
466.	Other venous embolism and thrombosis	172	83	89	..	12	82	104
467.	Other diseases of circulatory system	47	24	23	2	4	19	24
468.	Certain diseases of lymph nodes and lymph channels	14	5	8	1	1	6	9
470.	Acute sinusitis	3	1	3	..	..	2	1
471.	Acute pharyngitis	1	..	..	..	..	..	..
472.	Acute tonsillitis	2	2	..	..	..	..	..
473.	Acute tonsillitis	..	..	..	1	..	..	..
474.	Acute laryngitis and tracheitis	4	4	..	..	..	..	..
475.	Acute upper respiratory infection of multiple or unspecified sites	13	6	8	1	3	7	1
480.	Influenza with pneumonia	10	2	8	1	1	..	4
481.	Influenza with other respiratory manifestations and influenza unqualified	10	2	8	1	1	..	7
482.	Influenza with digestive manifestations, but without respiratory symptoms	16	10	6	1	2	6	6
483.	Influenza with nervous manifestations, but without digestive or respiratory symptoms	3	3	3	..	..	1	2
490.	Lobar pneumonia	5	2	1	..	..	..	..
491.	Bronchopneumonia	283	163	120	1	3	98	154
		1162	669	498	172	59	186	661

DEPARTMENT OF HEALTH

Table 20. DEATHS BY CAUSE BY SEX AND AGE GROUPS, NEW JERSEY: 1958—Continued
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE OF DEATH	Total	Age Groups by Years		65+	Unknown				
			Age Groups by Years							
			<1	1-4			5-14	15-24	25-44	45-64
Male	Female	1-4	5-14	15-24	25-44	45-64	65+	Unknown		
762.	Postnatal asphyxia and atelectasis	689	300	289						
763.	Pneumonia of newborn	106	70	36						
764.	Diarrhea of newborn	11	8	3						
765.	Ophthalmia neonatorum	1		1						
766.	Periapical neonatorum	1		1						
767.	Umbilical sepsis	1		1						
768.	Other sepsis of newborn	13	6	7						
769.	Neonatal disorders arising from certain diseases of the mother during pregnancy	15	8	7						
770.	Hemolytic disease of newborn (erythroblastosis)	101	53	48						
771.	Nutritional maladjustment	19	14	6						
772.	Ill-defined diseases peculiar to early infancy	8	7	1						
773.	Immaturity with mention of any other subsidiary condition	233	133	100						
774.	Immaturity subsidiary to some other cause	13	6	7						
775.	Immaturity unqualified	593	320	267						
776.	Certain symptoms referable to nervous system and special senses	1	1	1						
777.	Other symptoms referable to nervous system and special senses	1	1	1						
778.	Symptoms referable to cardiovascular and lymphatic system	10	6	4						
779.	Symptoms referable to respiratory system	6	4	2						
780.	Symptoms referable to upper gastro-intestinal tract	12	5	7						
781.	Symptoms referable to abdomen and lower gastro-intestinal tract	1	1							
782.	Symptoms referable to genito-urinary system	4	4							
783.	Other general symptoms	2	1	1						
784.	Abnormal urinary constituents of unspecified cause	2	1	1						
785.	Nervousness and debility	4	4							
786.	Hemiparesis	4	4							
787.	Uremia	4	4							
788.	Observation, without need for further medical care	4	4							
789.	Senility without mention of psychosis	40	10	21						
790.	Ill-defined and unknown causes of morbidity and mortality	62	41	21						
E900.	Railway accident involving railroad employee	2	2							
E801.	Railway accident involving passenger	1	1							
E802.	Railway accident involving other and unspecified person	10	15	5						
E810.	Motor vehicle traffic accident involving collision with railway train	17	12	5						
E811.	Motor vehicle traffic accident involving collision with street car	231	162	72						
E812.	Motor vehicle traffic accident to pedestrian	12	12							
E813.	Motor vehicle traffic accident to pedal cyclist	12	12							
E814.	Motor vehicle traffic accident to rider or passenger of motorcycle. In collision with nonmotor vehicle or object	9	8	1						
E815.	Motor vehicle traffic accident to rider or passenger of motorcycle. In collision with other motor vehicle	232	157	75						
E816.	Other motor vehicle traffic accident involving two or more motor vehicles	1	2	0						
E817.	Motor vehicle traffic accident to occupant of motor vehicle in collision with pedestrian or pedal cycle	41	70	50						

470-527	Diseases of the respiratory system	154	59	22	14	76	412	790
480-483	Influenza	3	1	1	1	1	3	5
484-489	Pneumonia	156	49	12	9	51	206	487
500-502	Bronchitis	6	4	3	4	4	16	40
530-537	Residual (470-476, 510-527)	74	6	4	4	20	187	284
540-541	Diseases of the digestive system	496	5	6	4	12	162	570
542-543	Ulcer of stomach and duodenum	1824	60	15	9	27	118	140
550-553	Appendicitis	288	1	1	3	2	4	14
560-561, 570	Intestinal obstruction and hernia	35	1	1	1	2	7	34
543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	171	27	4	1	2	83	302
581	Cirrhosis of liver	111	24	6	1	12	24	44
582-587	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	577	1	1	2	83	302	187
590-637	Diseases of the genito-urinary system	242	7	2	3	6	29	84
590-594	Nephritis and nephrosis	381	6	3	4	11	63	148
610	Hyperplasia of prostate	239	1	2	4	8	45	79
640-689	Residual (600-609, 611-617, 620-626, 630-637)	182	5	1	3	18	50	183
690-716	Pregnancy, childbirth and the puerperium	210	5	1	3	2	7	13
720-749	Diseases of the skin and cellular tissue	25	3	1	1	3	5	21
750-759	Congenital malformations	48	1	1	3	5	21	14
760-776	Certain diseases of early infancy	333	26	12	9	14	12	6
780-782	Birth injuries, postnatal asphyxia and atelectasis	1193	80	73	115	220	442	658
783-788	Infections of the newborn	562	562	13	42	105	143	140
789-776	Other diseases peculiar to early infancy and immaturity unqualified	84	84	..	..	..	..	..
780-795	Symptoms, senility and ill-defined conditions	547	547	..	..	..	..	..
ES00-ES99	Accidents, poisonings and violence	86	4	1	3	4	12	22
ES10-ES33	Motor vehicle accidents	1951	80	73	115	220	442	658
ES34-ES95	All other accidents except falls	624	13	42	105	143	140	91
ES96-ES99	Falls	580	75	47	67	68	124	133
ES00-ES04	Suicide	345	5	10	2	7	31	106
ES05-ES08	Homicide	389	6	3	18	104	166	98
ES09-ES99	Police intervention, execution and operations of war	99	3	1	20	38	23	8
ES94-ES99		4	..	2	2	2	..	..

Table 22. FEMALE DEATHS BY CAUSE GROUPS AND AGE GROUPS, NEW JERSEY: 1959
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Age Groups by Years							
			<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
001-0999	ALL CAUSES	23903	1376	219	163	177	1362	5774	10890	....
001-138	Infective and parasitic diseases	250	15	10	11	58	72	63	....	....
001-008	Tuberculosis of respiratory system	98	..	..	2	34	36	20	....	....
010-019	Tuberculosis, other forms	11	2	2	1	2	2	1	....	....
020-029	Syphilis and its sequelae	23	1	..	..	3	6	13	....	....
040	Typhoid fever .....	..	..	..	..	..	..	..	....	....
048	Cholera .....	..	..	..	..	..	..	..	....	....
045-048	Dysentery, all forms	2	..	..	..	..	..	2	....	....
050, 051	Scarlet fever and streptococcal sore throat .....	..	..	..	..	..	..	..	....	....
055	Diphtheria	1	..	..	..	..	..	..	....	....
056	Whooping cough	4	2	2	1	..	..	..	....	....
057	Meningococcal infections	15	3	2	1	..	..	5	4	..
058	Plague .....	..	..	..	..	..	..	..	..	..
080	Acute poliomyelitis	2	..	..	1	..	..	..	..	..
084	Smallpox .....	..	..	..	..	..	..	..	..	..
085	Measles	13	3	2	3	..	..	4	1	..
100-108	Typhus and other rickettsial diseases .....	..	..	..	..	..	..	..	..	..
110-117	Malaria .....	..	..	..	..	..	..	..	..	..
	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138)	81	4	0	5	7	15	22	10	..
140-239	Neoplasms	4024	0	24	41	10	438	1946	2457	..
140-205	Malignant neoplasms	4633	7	23	40	17	421	1915	2430	..
210-239	Benign and unspecified neoplasms	81	2	1	1	2	17	31	27	..
240-289	Allergic, endocrine system, metabolic and nutritional diseases	803	5	7	0	5	36	202	542	..
280	Diabetes mellitus	739	..	1	3	5	17	214	499	..
290-299	Residual (240-245, 250-254, 270-277, 280-289)	124	5	6	3	10	48	43	..	..
290-203	Diseases of the blood and blood-forming organs	66	3	1	5	1	0	14	36	..
300-320	Anemias	39	1	1	4	1	4	6	22	..
300-320	Residual (294-299)	57	2	2	1	1	2	8	14	..
330-398	Mental, psychoneurotic and personality disorders	29	2	3	..	..	..	..	..	..
330-398	Diseases of the nervous system and sense organs	3093	17	12	10	91	548	2389	..	..
330-334	Vascular lesions affecting central nervous system	2803	1	3	3	12	70	501	2303	..
340	Nonmeningococcal meningitis	23	9	1	1	1	3	3	5	..
400-468	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	177	7	13	8	0	18	44	81	..
400-102	Diseases of the circulatory system	12193	1	2	4	10	313	2148	9717	..
410-410	Rheumatic fever	13	..	..	2	..	5	2	4	..
410-110	Chronic rheumatic heart disease	417	..	..	4	100	204	107	..	..
420-422	Arteriosclerotic and degenerative heart disease	9007	..	..	1	129	1484	7423	..	..
430-434	Other diseases of heart	943	1	1	1	2	17	55	168	..
440-443	Hypertension with heart disease	1473	..	..	1	1	270	1180	..	..
444-447	Hypertension without mention of heart	928	..	..	1	14	52	102	..	..
	Residual (400-406, 400-468)	811	..	1	1	2	27	106	675	..

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, ATLANTIC COUNTY: 1969
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
					<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
001-E999	ALL CAUSES	2024	1102	922	91	11	17	13	81	558	1253	...
001-138	Infective and parasitic diseases	24	15	9		2	2		3	7	10	...
001-008	Tuberculosis of respiratory system	9	3	6					2	1	6	...
010-019	Tuberculosis, other forms	1		1		1						...
020-029	Syphilis and its sequelae	4	3	1						2	2	...
040	Typhoid fever .....											...
043	Cholera .....											...
045-048	Dysentery, all forms .....											...
050-051	Scarlet fever and streptococcal sore throat .....											...
055	Diphtheria .....											...
058	Whooping cough .....											...
059	Meningococcal infections .....											...
060	Plague .....											...
063	Acute poliomyelitis .....											...
080	Smallpox .....											...
084	Measles .....											...
085	Typhus and other rickettsial diseases .....											...
100-108	Malaria .....											...
110-117	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138)	10	4	6								...
140-239	Neoplasms	327	170	157	1	1	2	1	16	113	193	2
140-205	Malignant neoplasms	323	168	157	1	1	2	1	16	113	192	2
210-239	Benign and unspecified neoplasms	2	2									...
240-289	Allergic, endocrine system, metabolic and nutritional diseases	54	25	29					1	16	33	...
260	Diabetes mellitus	46	19	27					1	16	29	...
290-299	Residual (240-245, 250-254, 270-277, 280-289)	8	6	2					1		4	...
290-203	Diseases of the blood and blood-forming organs	8	5	3					2	2	3	...
	Anemias	4	3	1					2	2	1	...
	Residual (204-290)	4	1	3					1	1	2	...
300-326	Mental, psychoneurotic and personality disorders	5	5						1	4	...	...
330-338	Diseases of the nervous system and sense organs	200	99	101					3	1	37	150
330-334	Vascular lesions affecting central nervous system	187	92	95					2	34	151	...
340	Nonmeningococcal meningitis	1	1						1			...
	Residual (341-345, 350-357, 360-369, 370-399, 390-398)	12	6	6					1	3	7	...
400-468	Diseases of the circulatory system	1028	569	459					2	21	286	720
400-402	Rheumatic fever	2	1	1					1	1	1	...
410-416	Chronic rheumatic heart disease	24	12	12					2	17	6	...
420-422	Arteriosclerotic and degenerative heart disease	837	482	355					16	223	598	...
430-434	Other diseases of heart	28	13	15					1	6	19	...
440-443	Hypertension with heart disease	70	27	43						22	48	...
444-447	Hypertension without mention of heart	15	6	9					1	6	9	...
	Residual (450-499, 490-498)	54	28	26					1	11	41	...

470-527	Diseases of the respiratory system	69	42	27	7	1	2	1	1	16	41
480-483	Influenza	1		1						1	
490-493	Pneumonia	46	26	20	5	1	1			11	27
500-502	Bronchitis	20		2	2					5	14
	Residual (470-475, 510-527)	2	16	4			1			36	32
530-537	Diseases of the digestive system	81	42	39	1			2	10	5	2
540, 541	Ulcer of stomach and duodenum	9	4	6					2	5	2
550-553	Appendicitis	9	4	6					1	5	8
560, 561, 570	Intestinal obstruction and hernia	14	6	8					1	5	8
543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	9	4	5	1				1	1	6
581	Cirrhosis of liver	31	16	15				1	3	20	7
	Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)	18	12	6				1	3	5	9
590-637	Diseases of the genito-urinary system	34	20	14					4	9	24
590-594	Nephritis and nephrosis	16	7	8					3	6	5
610	Hyperplasia of prostate	7	7	6					1	1	10
640-689	Residual (600-609, 611-617, 626-628, 630-637)	12	6	6					1	1	10
690-699	Pregnancy, childbirth and the puerperium	6	2	4						1	5
700-716	Diseases of the skin and cellular tissue	2	2	4					1	1	5
720-749	Diseases of the bones and organs of movement	17	8	9	9	1	1	1	2	2	1
750-759	Congenital malformations	64	35	29	64						
760-776	Certain diseases of early infancy	26	13	13	20						
760-762	Birth injuries, postnatal asphyxia and atelectasis	9	5	4							
763-768	Infections of the newborn	9	5	4							
769-776	Other diseases peculiar to early infancy and imma- turity unqualified	29	17	12	29						
780-795	Symptoms, senility and ill-defined conditions	6	4	2	1				2	1	
E800-E900	Accidents, poisonings and violence	95	59	36	6	3	7	3	16	29	31
E810-E835	Motor vehicle accidents	25	16	9			1	1	0	7	9
E840-E895	All other accidents except falls	25	14	11		5	1	4	2	7	3
E900-E904	Falls	25	14	11		1					
E970-E979	Suicide	13	11	2					2	8	16
E980-E983	Homicide	7	4	3					1	4	1
E984-E989	Police intervention, execution and operations of war	7		3							

470-527	Diseases of the respiratory system	31	10	4	1	8	18
480-483	Influenza	1	1	1	1	1	8
490-493	Pneumonia	21	13	3	1	5	13
500-502	Bronchitis	1	6	1	1	3	5
530-537	Residual (470-476, 510-527)	8	10	1	8	14	20
540-541	Diseases of the digestive system	45	2	26	1	1	2
550-563	Ulcer of stomach and duodenum	5	2	3	1	1	2
560, 561, 570	Intestinal obstruction and hernia	8	2	0	1	2	5
543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	6	1	5	1	1	4
581	Cirrhosis of liver	10	9	7	3	10	8
590-597	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	10	5	7	1	1	4
590-597	Diseases of the genito-urinary system	10	5	6	1	1	6
590-594	Nephritis and nephrosis	20	11	6	1	7	10
610	Hypertrophy of prostate	9	4	5	2	1	3
640-659	Residual (600-609, 611-617, 620-628, 630-637)	7	4	4	1	1	5
630-716	Pregnancy, childbirth and the puerperium	3	3	3	1	1	3
720-740	Diseases of the skin and cellular tissue	3	1	2	1	1	3
750-759	Diseases of the bones and organs of movement	2	1	2	1	1	3
760-776	Congenital malformations	31	10	31	6	11	15
780-782	Certain diseases of early infancy	11	6	6	1	6	11
783-798	Birth injuries, postnatal asphyxia and atelectasis	11	6	11	1	6	11
799-798	Infections of the newborn	6	2	3	1	5	6
780-795	Other diseases peculiar to early infancy and immaturity unqualified	15	8	15	2	7	8
E800-E899	Symptoms, senility and ill-defined conditions	42	2	14	2	6	14
E910-E935	Accidents, poisonings and violence	41	27	3	1	14	18
E940-E999	Motor vehicle accidents	7	5	2	1	1	4
E910-E999	All other accidents except falls	12	6	2	1	5	1
E900-E905	Falls	14	10	1	1	6	6
E970-E974	Suicide	4	3	1	1	3	1
E980-E985	Homicide	4	3	1	1	3	1
E984-E999	Police intervention, execution and operations of war	4	3	1	1	3	1

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, BERGEN COUNTY: 1989
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Age Groups by Years									
			Male		Female		85+ Unknown					
			<1	1-4	5-14	15-24	25-44	45-64				
001-E999	ALL CAUSES	6171	3892	2809	384	45	31	56	326	1749	3090	....
001-188	Infective and parasitic diseases	85	36	19	2	1	1	1	4	27	19	....
001-008	Tuberculosis of respiratory system	32	21	11	1	1	1	1	2	15	14	....
010-019	Tuberculosis, other forms	1	1	1	1	1	1	1	1	1	1	....
020-029	Syphilis and its sequelae	1	6	1	1	1	1	1	1	4	3	....
040	Typhoid fever	1	1	1	1	1	1	1	1	1	1	....
043	Cholera	1	1	1	1	1	1	1	1	1	1	....
045-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	....
050, 051	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	....
055	Diphtheria	1	1	1	1	1	1	1	1	1	1	....
056	Whooping cough	1	1	1	1	1	1	1	1	1	1	....
057	Meningococcal infections	1	1	1	1	1	1	1	1	1	1	....
058	Plague	1	1	1	1	1	1	1	1	1	1	....
063	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	....
080	Smallpox	1	1	1	1	1	1	1	1	1	1	....
085	Measles	1	1	1	1	1	1	1	1	1	1	....
100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	....
110-117	Malaria	1	1	1	1	1	1	1	1	1	1	....
140-289	Residual (030-039, 041, 042, 044, 048, 052-054, 059-074, 081-083, 086-086, 120-138)	8	3	5	1	1	1	1	1	1	1	....
140-205	Neoplasms	1315	672	643	2	10	9	6	86	544	689	....
210-239	Malignant neoplasms	1302	684	638	2	10	9	6	84	537	654	....
240-289	Benign and unspecified neoplasms	13	8	5	1	1	1	1	1	1	1	....
260	Allergic, endocrine system, metabolic and nutritional diseases	127	45	82	3	2	2	1	3	20	89	....
200-209	Diabetes mellitus	106	33	72	1	1	1	1	1	1	1	....
200-203	Residual (240-245, 250-254, 270-277, 280-289)	22	12	10	3	1	1	2	2	3	7	....
300-308	Diseases of the blood and blood-forming organs	10	4	4	1	1	1	1	1	1	1	....
300-304	Arteriosclerosis	5	1	4	1	1	1	1	1	1	1	....
340	Residual (294-299)	5	3	2	1	1	1	1	1	1	1	....
400-405	Mental, psychoneurotic and personality disorders	13	10	3	1	1	1	1	3	3	3	....
400-402	Diseases of the nervous system and sense organs	588	325	263	2	2	2	1	20	130	432	....
420-422	Vascular lesions affecting central nervous system	533	228	305	2	2	1	1	13	114	405	....
430-434	Nonmeningitic meningitis	3	3	3	1	1	1	1	1	1	1	....
440-443	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	50	32	18	2	2	1	1	6	14	27	....
444-447	Diseases of the circulatory system	2876	1635	1241	1	1	1	3	94	702	2016	....
400-408	Rheumatic fever	2	1	1	1	1	1	1	1	1	1	....
410-416	Chronic rheumatic heart disease	101	53	48	1	1	1	1	24	47	28	....
420-422	Arteriosclerotic and degenerative heart disease	2906	1384	981	1	1	1	1	51	617	1596	....
430-434	Other diseases of heart	61	23	18	1	1	1	1	6	4	9	....
440-443	Hypertension with heart disease	223	95	126	1	1	1	1	4	42	176	....
444-447	Hypertension without mention of heart	30	19	17	1	1	1	1	2	8	28	....
	Residual (450-456, 460-468)	208	110	98	1	1	1	1	6	36	168	....

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, BURLINGTON COUNTY: 1959
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
					<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
001-0999	ALL CAUSES	1327	856	671	128	14	13	17	87	376	892	...
001-133	Infective and parasitic diseases	26	17	9	2	...	1	1	4	4	14	...
001-008	Tuberculosis of respiratory system	10	8	2	...	...	...	3	2	5	...	...
010-019	Tuberculosis, other forms	4	4	...	...	...	...	...	2	3	...	...
020-029	Syphilis and its sequelae .....	...	...	...	...	...	...	...	...	...	...	...
030	Typhoid fever .....	...	...	...	...	...	...	...	...	...	...	...
043	Cholera .....	...	...	...	...	...	...	...	...	...	...	...
045-048	Dysentery, all forms .....	...	...	...	...	...	...	...	...	...	...	...
050, 051	Scarlet fever and streptococcal sore throat .....	...	...	...	...	...	...	...	...	...	...	...
055	Diphtheria .....	...	...	...	...	...	...	...	...	...	...	...
056	Whooping cough .....	...	...	...	...	...	...	...	...	...	...	...
057	Meningococcal infections .....	...	...	...	...	...	...	...	...	...	...	...
058	Plague .....	...	...	...	...	...	...	...	...	...	...	...
080	Acute poliomyelitis .....	...	...	...	...	...	...	...	...	...	...	...
084	Smallpox .....	...	...	...	...	...	...	...	...	...	...	...
085	Measles .....	...	...	...	...	...	...	...	...	...	...	...
100-108	Typhus and other rickettsial diseases .....	...	...	...	...	...	...	...	...	...	...	...
110-117	Malaria .....	...	...	...	...	...	...	...	...	...	...	...
140-289	Residual (030-039, 041, 042, 044, 046, 052-054, 059-074, 081-088, 089-090, 120-138)	12	5	7	2	...	1	1	1	1	7	...
140-290	Neoplasms	252	135	117	...	...	2	1	27	97	124	...
140-305	Malignant neoplasms	251	135	116	...	...	2	1	26	97	124	...
210-239	Benign and unspecified neoplasms	1	...	1	...	...	...	...	1	...	...	...
240-289	Allergic, endocrine system, metabolic and nutritional diseases	31	12	19	...	...	1	...	7	23	...	...
290	Diabetes mellitus	22	8	14	...	...	1	...	5	16	...	...
290-209	Residual (240-243, 250-254, 270-277, 280-289)	9	4	5	...	...	...	...	2	7	...	...
290-203	Diseases of the blood and blood-forming organs	5	4	1	...	...	1	...	1	1	...	...
300-326	Anemias	3	2	1	...	...	...	...	1	1	...	...
300-326	Residual (294-299)	2	2	...	...	...	...	...	1	1	...	...
330-398	Mental, psychoneurotic and personality disorders	2	2	...	...	...	...	...	...	...	...	...
330-398	Diseases of the nervous system and sense organs	156	65	97	3	2	...	1	1	38	111	...
330-334	Vascular lesions affecting central nervous system	140	49	91	1	...	...	...	1	32	106	...
340	Nonmeningococcal meningitis	6	5	1	...	...	2	...	2	1	...	...
400-468	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	10	5	5	1	...	1	...	1	2	4	...
400-402	Diseases of the circulatory system	702	390	312	...	...	1	...	28	170	503	...
410-416	Rheumatic fever	17	6	11	...	...	...	...	2	12	3	...
420-422	Chronic rheumatic heart disease	558	388	225	...	...	...	...	20	137	401	...
430-434	Arteriosclerotic and degenerative heart disease	20	13	7	...	...	1	...	4	4	14	...
440-443	Other diseases of heart	51	14	37	...	...	...	...	1	11	40	...
444-447	Hypertension with heart disease	12	5	7	...	...	...	...	1	1	11	...
444-447	Hypertension without mention of heart	44	19	25	...	...	...	...	2	8	34	...
444-447	Residual (450-456, 460-468)	12	5	7	...	...	...	...	1	1	11	...

470-527	Diseases of the respiratory system	71	51	20	0	3	19	37
480-483	Influenza	1	1	1	0	3	11	27
490-493	Pneumonia	53	36	17	6	8	8	2
500-502	Bronchitis	2	2	2				
530-537	Residual (470-476, 510-527)	15	15				8	7
540-541	Diseases of the digestive system	52	32	20	1	4	16	30
550-553	Ulcer of stomach and duodenum	7	6	1			1	6
560, 561, 570	Appendicitis	2	2				1	1
543, 571, 572	Intestinal obstruction and hernia	9	4	6			1	1
	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	22	15	7			2	11
581	Cirrhosis of liver	12	15	7			2	9
590-597	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	18	14	7			2	6
600-604	Diseases of the genito-urinary system	7	14	4	1	1	2	11
610	Nephritis and nephrosis	3	3	3		2	3	2
	Hyperplasia of prostate	8	1					3
610-630	Residual (600-609, 611-617, 620-626, 630-637)	8	1	1	1		1	6
640-680	Pregnancy, childbirth and the puerperium	8	2	1			1	2
690-716	Diseases of the skin and cellular tissue	3	2	1			1	1
720-749	Diseases of the bones and organs of movement	30	22	8			1	1
750-759	Congenital malformations	85	50	35	27	1		
760-778	Certain diseases of early infancy	44	21	23	44			
780-782	Birth injuries, postnatal asphyxia and atelectasis	7	5	2	1			
793-798	Infections of the newborn	34	24	10	34			
799-799	Other diseases peculiar to early infancy and immaturity unqualified	4	4	4				
800-899	Symptoms, senility and ill-defined conditions	87	60	27	2	4	17	30
900-904	Accidents, poisonings and violence	27	20	7		1	6	9
910-935	Motor vehicle accidents	24	10	8	2	2	4	7
940-959	All other accidents except falls	10	10	9	1	1	3	15
960-994	Falls	12	11	1			4	4
970-970	Suicide	6	6	2			2	3
980-983	Homicide							
984-9599	Police intervention, execution and operations of war							

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, ESSEX COUNTY: 1959
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years						
					<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
001-E090	ALL CAUSES	10887	5669	4718	634	88	59	90	628	2991	5807
001-138	Infective and parasitic diseases	119	73	46	5	4	2	3	30	41	84
001-008	Tuberculosis of respiratory system	62	46	16	1	1	1	1	15	26	19
010-018	Tuberculosis, other forms	14	9	5	1	1	1	1	1	5	7
020-029	Syphilis and its sequelae	11	6	5	1	1	1	1	2	4	5
040	Typhoid fever	1	1	1	1	1	1	1	1	1	1
043	Cholera	1	1	1	1	1	1	1	1	1	1
045-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1
050, 051	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1
055	Diphtheria	1	1	1	1	1	1	1	1	1	1
056	Whooping cough	1	1	1	1	1	1	1	1	1	1
057	Meningococcal infections	4	2	2	1	1	1	1	1	1	1
063	Plague	1	1	1	1	1	1	1	1	1	1
068	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1
080	Smallpox	1	1	1	1	1	1	1	1	1	1
084	Measles	7	2	5	1	1	1	1	1	1	1
085	Mumps	1	1	1	1	1	1	1	1	1	1
100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1
110-117	Malaria	1	1	1	1	1	1	1	1	1	1
140-239	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-085, 086-096, 120-138)	18	8	10	1	1	1	1	5	4	7
140-205	Neoplasms	1843	904	849	2	5	15	6	120	771	924
210-239	Malignant neoplasms	1800	978	831	1	5	15	6	112	753	917
240-289	Benign and unspecified neoplasms	34	16	18	1	1	1	1	8	18	7
290	Allergic, endocrine system, metabolic and nutritional diseases	283	115	168	1	3	2	2	19	100	156
290-299	Diabetes mellitus	254	92	142	1	1	2	1	12	78	141
290-293	Residual (240-245, 250-254, 270-277, 280-289)	49	23	26	1	3	2	1	7	22	15
300-326	Diseases of the blood and blood-forming organs	23	11	18	1	1	1	1	1	8	14
300-334	Anemias	18	5	13	1	1	1	1	1	6	8
340	Residual (304-309)	11	6	5	1	1	1	1	1	3	6
380-398	Mental, psychoneurotic and personality disorders	27	22	5	1	1	1	1	8	12	8
380-394	Diseases of the nervous system and sense organs	940	406	534	7	9	4	5	34	228	633
380-393	Vascular lesions affecting central nervous system	856	387	489	1	2	3	3	20	205	625
390-405	Nonmeningococcal meningitis	4	4	1	1	1	1	1	1	1	1
400-405	Residual (391-395, 396-397, 398-399, 370-389, 390-398)	75	35	40	1	3	2	1	13	20	28
400-402	Diseases of the circulatory system	4890	2073	2217	2	2	7	192	1323	3364	186
410-416	Rheumatic fever	3	1	2	1	1	1	1	1	1	1
420-422	Chronic rheumatic heart disease	147	71	76	1	1	1	1	5	33	81
430-434	Arteriosclerotic and degenerative heart disease	3898	2259	1689	1	1	1	1	128	1077	2696
440-443	Other diseases of heart	145	87	58	1	1	1	1	9	37	68
440-443	Hypertension with heart disease	385	144	241	1	1	1	1	11	84	260
444-447	Hypertension without mention of heart	85	39	46	1	1	1	1	9	13	62
	Residual (450-456, 460-463)	237	102	125	1	1	1	1	5	35	186

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, NEWARK: 1959
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Age Groups by Years											
			Male		Female		<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
	ALL CAUSES	5182	2941	2241	429	58	29	54	398	1597	2617	...	...
001-E999	Infective and parasitic diseases	83	51	32	5	3	1	3	25	27	19	...	...
001-138	Tuberculosis of respiratory system	45	32	13	1	1	1	1	13	19	11	...	...
001-008	Tuberculosis, other forms	13	8	5	1	1	1	1	6	4	1	...	...
010-019	Syphilis and its sequelae	0	4	2	0	0	0	0	2	2	2	...	...
020-029	Typhoid fever	0	4	2	0	0	0	0	2	2	2	...	...
040	Cholera	0	0	0	0	0	0	0	0	0	0	...	...
043	Dysentery, all forms	0	0	0	0	0	0	0	0	0	0	...	...
045-048	Scarlet fever and streptococcal sore throat	0	0	0	0	0	0	0	0	0	0	...	...
050, 051	Diphtheria	1	1	1	1	1	1	1	1	1	1	...	...
055	Whooping cough	1	1	1	1	1	1	1	1	1	1	...	...
056	Meningococcal infections	4	2	2	0	0	0	0	0	0	0	...	...
057	Plague	1	1	1	1	1	1	1	1	1	1	...	...
058	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	...	...
080	Smallpox	0	0	0	0	0	0	0	0	0	0	...	...
084	Measles	3	1	2	3	3	3	3	3	3	3	...	...
085	Typhus and other rickettsial diseases	0	0	0	0	0	0	0	0	0	0	...	...
100-108	Malaria	0	0	0	0	0	0	0	0	0	0	...	...
110-117	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-090, 120-183)	10	4	6	1	1	1	1	3	1	4	...	...
140-239	Neoplasms	864	493	371	0	2	6	4	63	378	469	...	...
140-205	Malignant neoplasms	848	486	362	0	2	6	4	61	371	404	...	...
210-239	Benign and unspecified neoplasms	16	7	9	0	0	0	0	2	7	5	...	...
240-289	Allergic, endocrine system, metabolic and nutritional diseases	144	56	88	1	2	1	1	13	52	75	...	...
200	Diabetes mellitus	117	42	75	1	1	1	1	8	40	68	...	...
290-200	Residual (240-243, 250-254, 270-277, 290-289)	27	14	13	1	2	1	1	5	12	7	...	...
290-200	Diseases of the blood and blood-forming organs	13	7	6	3	3	3	3	1	2	4	...	...
290-203	Anemias	0	4	5	1	3	1	1	1	1	1	...	...
290-203	Residual (231-239)	4	3	1	2	2	1	1	1	1	1	...	...
300-323	Mental, psychoneurotic and personality disorders	20	16	4	0	0	1	1	8	8	2	...	...
300-308	Diseases of the nervous system and sense organs	425	195	230	7	0	1	3	21	133	255	...	...
330-334	Vascular lesions affecting central nervous system	380	172	208	1	1	1	1	11	123	243	...	...
340	Nonmeningococcal meningitis	6	2	4	4	4	4	4	2	2	2	...	...
400-468	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	39	21	18	2	5	2	5	10	8	12	...	...
400-402	Diseases of the circulatory system	2381	1339	1042	2	2	2	2	123	727	1522	...	...
400-402	Rheumatic fever	2	1	1	0	0	0	0	1	1	1	...	...
410-416	Chronic rheumatic heart disease	66	30	36	0	0	0	0	3	18	36	...	...
420-422	Arteriosclerotic and degenerative heart disease	1892	1119	773	1	1	1	1	1	80	590	...	...
430-434	Other diseases of heart	103	62	43	1	1	1	1	5	30	69	...	...
440-443	Hypertension with heart disease	179	68	108	4	4	4	4	8	45	123	...	...
444-447	Hypertension without mention of heart	44	18	26	0	0	0	0	1	7	8	...	...
	Residual (450-456, 460-468)	96	41	55	1	1	1	1	4	18	73	...	...

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, HUDSON COUNTY: 1959
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
					<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
001-2999	ALL CAUSES	7360	4158	3202	358	59	40	55	426	2285	4128	....
001-138	Infective and parasitic diseases	122	86	36	4	7	1	3	18	56	83	....
001-008	Tuberculosis of respiratory system	82	67	15	1	1	1	1	13	46	23	....
010-019	Tuberculosis, other forms	3	2	1	1	1	1	1	1	2	1	....
020-029	Syphilis and its sequelae	4	2	2	1	1	1	1	1	2	2	....
040	Typhoid fever	1	1	1	1	1	1	1	1	1	1	....
043	Cholera	1	1	1	1	1	1	1	1	1	1	....
045-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	....
050, 051	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	....
055	Diphtheria	2	1	1	1	1	1	1	1	1	1	....
056	Whooping cough	1	1	1	1	1	1	1	1	1	1	....
057	Measles	1	1	1	1	1	1	1	1	1	1	....
058	Meningococcal infections	1	1	1	1	1	1	1	1	1	1	....
059	Plague	1	1	1	1	1	1	1	1	1	1	....
060	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	....
084	Smallpox	1	1	1	1	1	1	1	1	1	1	....
085	Measles	1	1	1	1	1	1	1	1	1	1	....
100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	....
110-117	Malaria	1	1	1	1	1	1	1	1	1	1	....
140-239	Residual (030-039, 041, 042, 044, 046, 052-054, 059-074, 081-083, 086-096, 120-138)	23	11	12	2	1	1	3	4	5	6	....
140-205	Neoplasms	1374	793	581	2	7	14	6	78	597	870	....
210-239	Malignant neoplasms	1347	783	564	1	7	11	5	75	588	890	....
240-289	Benign and unspecified neoplasms	27	10	17	1	1	3	1	3	9	10	....
260	Allergic, endocrine system, metabolic and nutritional diseases	189	79	110	2	2	1	1	8	68	110	....
290-299	Diabetes mellitus	140	57	83	1	1	1	1	3	54	90	....
290-293	Diseases (240-245, 250-254, 270-277, 280-289)	40	22	18	2	1	1	1	5	12	20	....
300-326	Diseases of the blood and blood-forming organs	12	6	6	1	1	1	1	1	1	4	....
330-334	Anemias	6	3	3	1	1	1	1	1	1	3	....
340	Residual (294-299)	11	7	4	1	1	1	1	4	4	2	....
400-468	Mental, psychoneurotic and personality disorders	650	318	332	4	3	2	2	33	155	451	....
470-416	Diseases of the nervous system and sense organs	606	295	310	1	1	1	2	27	140	434	....
420-422	Vascular lesions affecting central nervous system	4	2	2	1	1	1	1	1	1	1	....
430-434	Nonmeningococcal meningitis	1	1	1	1	1	1	1	1	1	1	....
440-443	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	3527	1064	1573	2	3	1	7	133	1042	2344	....
444-447	Rheumatic fever	1	1	1	1	1	1	1	1	1	1	....
450-402	Chronic rheumatic heart disease	99	37	62	1	1	1	1	20	54	14	....
460-416	Arteriosclerotic and degenerative heart disease	2837	1068	1771	1	1	1	1	83	813	1940	....
470-416	Other diseases of heart	86	40	46	1	1	1	1	4	20	66	....
480-434	Hypertension with heart disease	312	125	187	1	1	1	1	9	103	200	....
490-443	Hypertension without mention of heart	44	17	27	1	1	1	1	3	18	23	....
444-447	Residual (450-456, 460-468)	148	68	80	1	1	1	2	7	28	111	....

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, BAYONNE, 1939
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
					<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
001-2999	ALL CAUSES	866	496	367	39	6	5	4	66	265	481	.....
001-138	Infective and parasitic diseases	8	5	3	1	1	.....	.....	2	2	2	.....
001-008	Tuberculosis of respiratory system	4	4	.....	.....	.....	.....	.....	1	1	2	.....
010-018	Tuberculosis, other forms	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
020-028	Syphilis and its sequelae .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
040	Typhoid fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
040	Cholera .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
045-048	Dysentery, all forms .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
050, 061	Scarlet fever and streptococcal sore throat .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
055	Diphtheria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
055	Whooping cough .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
067	Meningococcal infections .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
083	Flague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
080	Acute poliomyelitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
084	Smallpox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
085	Measles .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
100-108	Typhus and other rickettsial diseases .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
110-117	Malaria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
140-239	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 080-096, 120-138)	8	1	2	.....	1	.....	.....	1	1	.....	.....
140-205	Neoplasms	173	98	77	.....	2	.....	.....	13	63	93	.....
210-239	Malignant neoplasms	171	95	76	.....	2	.....	.....	12	63	92	.....
240-289	Benign and unspecified neoplasms	2	1	1	.....	.....	.....	.....	1	.....	1	.....
290	Allergic, endocrine system, metabolic and nutritional diseases	28	10	10	.....	.....	.....	.....	1	11	14	.....
290-200	Diabetes mellitus	25	10	15	.....	.....	.....	.....	1	10	14	.....
290-293	Residual (240-245, 250-254, 270-277, 280-289)	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
300-320	Diseases of the blood and blood-forming organs .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
300-320	Anemias .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
300-320	Residual (294-299) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
330-398	Mental, psychoneurotic and personality disorders	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
330-324	Diseases of the nervous system and sense organs	82	45	37	.....	.....	.....	.....	1	18	57	.....
340	Vascular lesions affecting central nervous system	77	42	35	.....	.....	.....	.....	1	18	54	.....
340	Nonmeningococcal meningitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
400-468	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	5	3	2	.....	.....	.....	.....	.....	.....	.....	.....
400-402	Diseases of the circulatory system	431	248	188	.....	.....	.....	.....	1	19	135	.....
410-416	Rheumatic fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
420-422	Chronic rheumatic heart disease	11	3	8	.....	.....	.....	.....	.....	.....	.....	.....
430-434	Arteriosclerotic and degenerative heart disease	350	216	134	.....	.....	.....	.....	1	14	104	.....
440-443	Other diseases of heart	8	2	1	.....	.....	.....	.....	.....	.....	.....	.....
440-443	Hypertension with heart disease	52	20	32	.....	.....	.....	.....	1	1	1	.....
444-447	Hypertension without mention of heart	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
.....	Residual (450-456, 460-463)	13	5	8	.....	.....	.....	.....	1	2	10	.....

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, HUNTERDON COUNTY: 1959
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
					<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
001-EP999	ALL CAUSES	607	329	278	30	4	5	6	29	124	409	...
001-138	Infective and parasitic diseases	7	4	3	...	...	1	...	...	8	...	...
001-008	Tuberculosis of respiratory system	4	2	2	...	...	...	...	...	1	3	...
010-019	Tuberculosis, other forms .....	...	...	...	...	...	...	...	...	...	...	...
020-029	Syphilis and its sequelae	1	1	...	...	...	...	...	...	...	...	...
040	Typhoid fever .....	...	...	...	...	...	...	...	...	...	...	...
043	Cholera .....	...	...	...	...	...	...	...	...	...	...	...
045-048	Dysentery, all forms .....	...	...	...	...	...	...	...	...	...	...	...
050, 051	Scarlet fever and streptococcal sore throat .....	...	...	...	...	...	...	...	...	...	...	...
055	Diphtheria .....	...	...	...	...	...	...	...	...	...	...	...
059	Whooping cough .....	...	...	...	...	...	...	...	...	...	...	...
057	Meningococcal infections .....	...	...	...	...	...	...	...	...	...	...	...
053	Plague .....	...	...	...	...	...	...	...	...	...	...	...
080	Acute poliomyelitis .....	...	...	...	...	...	...	...	...	...	...	...
084	Smallpox .....	...	...	...	...	...	...	...	...	...	...	...
085	Measles .....	...	...	...	...	...	...	...	...	...	...	...
100-108	Typhus and other rickettsial diseases .....	...	...	...	...	...	...	...	...	...	...	...
110-117	Malaria .....	...	...	...	...	...	...	...	...	...	...	...
	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-090, 120-138)	2	1	1	...	...	...	...	...	1	...	...
140-230	Neoplasms	107	50	40	...	...	...	...	...	7	31	64
140-205	Malignant neoplasms	103	50	46	...	...	...	...	...	7	31	64
210-239	Benign and unspecified neoplasms .....	...	...	...	...	...	...	...	...	...	...	...
240-259	Allergic, endocrine system, metabolic and nutritional diseases	13	8	5	...	...	...	...	...	1	4	8
260	Diabetes mellitus	11	6	5	...	...	...	...	...	1	4	6
290-299	Residual (240-245, 250-254, 270-277, 280-289)	2	1	1	...	...	...	...	...	...	...	...
290-293	Diseases of the blood and blood-forming organs	1	1	...	...	...	...	...	...	...	...	...
300-320	Anemias	1	1	...	...	...	...	...	...	...	...	...
300-320	Residual (294-299)	1	...	...	...	...	...	...	...	...	...	...
380-398	Mental, psychoneurotic and personality disorders	4	3	1	...	...	...	...	...	...	...	...
380-398	Diseases of the nervous system and sense organs	70	34	42	...	...	...	...	...	1	8	65
320-334	Vascular lesions affecting central nervous system	61	27	37	...	...	...	...	...	1	5	57
340	Nonmeningococcal meningitis	1	1	...	...	...	...	...	...	...	...	...
	Residual (341-345, 350-357, 300-360, 370-389, 390-398)	11	6	5	...	...	...	...	...	2	1	7
400-468	Diseases of the circulatory system	280	139	141	...	...	...	...	...	6	50	218
400-402	Rheumatic fever .....	...	...	...	...	...	...	...	...	...	...	...
410-416	Chronic rheumatic heart disease .....	...	...	...	...	...	...	...	...	...	...	...
420-422	Arteriosclerotic and degenerative heart disease	220	111	109	...	...	...	...	...	8	1	1
430-434	Other diseases of heart	2	1	1	...	...	...	...	...	2	45	173
440-443	Hypertension with heart disease	20	12	14	...	...	...	...	...	7	10	...
444-447	Hypertension without mention of heart disease	4	3	...	...	...	...	...	...	...	...	...
	Residual (450-460, 460-468)	21	14	0	...	...	...	...	...	1	3	10

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, MERCER COUNTY, 1959
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
					<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
001-2999	ALL CAUSES	2615	1481	1134	124	13	21	23	172	699	1563	...
001-138	Infective and parasitic diseases	58	42	11	1	1	1	8	17	20	20	...
001-008	Tuberculosis of respiratory system	42	35	7	1	1	1	6	13	23	20	...
010-019	Syphilis and its sequelae	7	4	3	1	1	1	1	1	4	3	...
020-029	Typhoid fever	1	1	0	1	1	1	1	1	1	1	...
040	Cholera	1	1	0	1	1	1	1	1	1	1	...
043	Dysentery, all forms	1	1	0	1	1	1	1	1	1	1	...
045-048	Scarlet fever and streptococcal sore throat	1	1	0	1	1	1	1	1	1	1	...
050, 051	Diphtheria	1	1	0	1	1	1	1	1	1	1	...
055	Whooping cough	1	1	0	1	1	1	1	1	1	1	...
056	Meningococcal infections	1	1	0	1	1	1	1	1	1	1	...
058	Acute poliomyelitis	1	1	0	1	1	1	1	1	1	1	...
059	Smallpox	1	1	0	1	1	1	1	1	1	1	...
061	Measles	1	1	0	1	1	1	1	1	1	1	...
084	Typhus and other rickettsial diseases	1	1	0	1	1	1	1	1	1	1	...
100-108	Malaria	1	1	0	1	1	1	1	1	1	1	...
110-117	iceanuni (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-089, 086-096, 120-138)	2	1	1	1	1	1	1	1	1	1	...
140-289	Neoplasms	465	240	210	1	1	1	1	2	175	248	...
140-205	Malignant neoplasms	460	243	217	1	1	1	1	36	173	243	...
210-259	Benign and unspecified neoplasms	5	3	2	1	1	1	1	1	2	3	...
240-289	Allergic, endocrine system, metabolic and nutritional diseases	75	39	36	1	1	1	1	7	32	35	...
280	Diabetes mellitus	63	32	31	1	1	1	1	6	26	31	...
290-299	Residual (240-245, 280-284, 270-277, 280-289)	19	7	5	1	1	1	1	1	0	4	...
290-200	Diseases of the blood and blood-forming organs	7	3	4	1	1	1	1	1	1	1	...
290-203	Anemias	4	2	2	1	1	1	1	1	1	1	...
300-326	Residual (204-209)	3	1	2	1	1	1	1	1	1	1	...
300-326	Mental, psychoneurotic and personality disorders	1	1	0	1	1	1	1	1	1	1	...
380-398	Diseases of the nervous system and sense organs	236	129	136	2	1	1	1	10	45	158	...
330-334	Vascular lesions affecting central nervous system	236	111	125	1	1	1	1	4	30	192	...
340	Nonmeningococcal meningitis	17	6	11	1	1	1	1	2	2	6	...
400-408	Residual (341-345, 350-357, 300-309, 370-389, 390-398)	122	68	53	1	1	1	1	3	42	306	808
400-408	Rheumatic fever	4	2	2	1	1	1	1	1	1	1	...
410-416	Chronic rheumatic and degenerative heart disease	22	11	11	1	1	1	1	1	1	1	...
420-422	Arteriosclerotic and degenerative heart disease	984	551	383	1	1	1	1	25	222	680	...
430-434	Other diseases of heart	23	20	3	1	1	1	1	3	5	17	...
440-443	Hypertension with heart disease	16	41	64	1	1	1	1	2	31	72	...
444-447	Hypertension without mention of heart	22	8	14	1	1	1	1	1	9	12	...
	Residual (450-466, 460-468)	104	56	48	1	1	1	1	4	22	78	...

Table 23. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, MIDDLESEX COUNTY: 1959
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
					<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
001-E000	ALL CAUSES	3035	1745	1290	106	35	38	30	292	840	1004	...
001-198	Infective and parasitic diseases	45	31	14	2	3	3	1	8	20	13	...
001-008	Tuberculosis of respiratory system	23	16	7					2	14	6	...
010-019	Tuberculosis, other forms	2	2							1	1	...
020-029	Syphilis and its sequelae	5	5							2	3	...
040	Typhoid fever .....											...
043	Cholera .....											...
045-048	Dysentery, all forms .....											...
050-051	Scarlet fever and streptococcal sore throat	1		1							1	...
055	Diphtheria .....											...
056	Whooping cough	1										...
057	Meningococcal infections	2	2									...
058	Plague .....											...
080	Acute poliomyelitis .....											...
084	Smallpox .....											...
085	Measles .....											...
100-108	Typhus and other rickettsial diseases	1										...
110-117	Malaria .....											...
	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-098, 120-138)	10	6	4	1	1	2	3	69	1	8	2
140-230	Neoplasms	602	348	254					5	219	306	...
140-205	Malignant neoplasms	505	345	250					2	158	215	305
210-239	Benign and unspecified neoplasms	7	3	4					1	1	4	1
240-259	Allergic, endocrine system, metabolic and nutritional diseases .....											...
260	Diabetes mellitus	85	56	29					2	8	23	51
290-299	Residual (240-245, 250-254, 270-277, 280-289)	11	24	50					2	6	18	40
290-203	Diseases of the blood and blood-forming organs	7	5	6					1	2	5	2
	Anemias		1	1					1	1	1	4
300-326	Residual (294-299)	1	1	1								...
330-308	Mental, psychoneurotic and personality disorders	12	10	2					4	6	2	...
330-308	Diseases of the nervous system and sense organs	347	199	151					2	15	74	251
330-334	Vascular lesions affecting central nervous system	318	147	171					1	11	97	239
340	Nonmeningococcal meningitis	6	4	2					1	1	4	...
400-468	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	23	15	8					2	4	6	8
400-402	Diseases of the circulatory system	1271	765	506					1	2	64	350
410-416	Rheumatic fever	3	3						2	1	1	...
420-422	Chronic rheumatic heart disease	85	22	63					1	1	18	6
430-434	Arterio- and degenerative heart disease	1025	641	384					6	11	18	6
440-443	Other diseases of heart	26	20	6					1	4	260	692
444-447	Hypertension with heart disease	115	52	63					1	4	8	12
	Hypertension without mention of heart	4	4							1	20	8
	Residual (450-456, 460-463)	53	26	27						1	5	4

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, OCEAN COUNTY: 1989
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years								
					<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
	ALL CAUSES	1121	635	486	53	14	11	13	48	303	670		
001-R999	Infective and parasitic diseases	17	11	6	0	1	2	3	2	4	5		
001-135	Tuberculosis of respiratory system	8	2	1					1	1	1		
001-008	Tuberculosis, other forms												
010-019	Syphilis and its sequelae	3	3										
020-029	Typhoid fever												
040	Cholera												
043	Dysentery, all forms												
043-048	Shigellosis												
060, 051	Scarlet fever and streptococcal sore throat												
055	Diphtheria												
056	Whooping cough												
057	Meningococcal infections	1	1										
058	Plague												
080	Acute poliomyelitis	1	1										
084	Smallpox												
085	Measles	2											
100-108	Typhus and other rickettsial diseases												
110-117	Malaria												
	Residual (050-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 088-096, 120-193)	7	5	2					1	2	1		
140-239	Neoplasms	201	115	86					1	1	2		
140-205	Malignant neoplasms	200	114	86					2	12	64	119	
210-259	Benign and unspecified neoplasms	1	1						2	12	64	118	
240-289	Allergic, endocrine system, metabolic and nutritional diseases												
260	Diabetes mellitus	31	18	13						1	11	18	
290-290	Residual (240-245, 250-251, 270-277, 280-289)	21	11	10						6	15		
290-293	Diseases of the blood and blood-forming organs	10	7	3						1	5		
300-320	Residual (294-299)												
300-320	Mental, psychoneurotic and personality disorders												
330-308	Diseases of the nervous system and sense organs	1	1										
330-334	Vascular lesions affecting central nervous system	124	66	58						2	26	92	
340	Nonmeningococcal meningitis	114	61	53						2	24	87	
	Residual (841-345, 350-357, 360-366, 370-389, 390-398)	2	1	1									
400-468	Diseases of the circulatory system	544	312	232						3	12	144	385
400-402	Rheumatic fever	3	2	1									
410-416	Chronic rheumatic heart disease	10	1	9						1	4	5	
420-422	Arteriosclerotic and degenerative heart disease	431	259	172						5	116	310	
430-434	Other diseases of heart	7	5	2						1	4	2	
440-443	Hypertension with heart disease	44	18	26						6	6	34	
444-447	Hypertension without mention of heart disease	5	1	4						1	2	3	
	Residual (450-456, 460-468)	83	20	63						1	1	5	28

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, PASSAIC COUNTY: 1969
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years								
					<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
	A.L.I. CAUSES	3859	2129	1730	208	37	24	34	227	1040	2280		
001-1999	Infective and parasitic diseases	32	20	12	1	3	3	1	5	11	8		
001-134	Tuberculosis of respiratory system	14	12	2					4	5	5		
001-008	Tuberculosis, other forms	2		2									
010-019	Syphilis and its sequelae	6	3	3					1	2	3		
020-029	Typhoid fever												
040	Cholera												
048	Dysentery, all forms	1	1										
045-048	Scarlet fever and streptococcal sore throat												
050, 051	Diphtheria												
055	Whooping cough												
056	Meningococcal infections												
057	Plague	1	1										
083	Acute poliomyelitis												
084	Smallpox												
085	Measles												
100-108	Typhus and other rickettsial diseases												
110-117	Malaria												
	Residual (330-339, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-128)	8	3	5						4			
140-239	Neoplasms	751	409	342		2	1	1	53	277	407		
140-205	Malignant neoplasms	733	400	333	1	7	2	3	49	272	399		
210-239	Benign and unspecified neoplasms	18	9	9		1			4	5	8		
240-289	Allergic, endocrine system, metabolic and nutritional diseases	120	47	73		2		1	3	37	77		
290	Diabetes mellitus	100	36	64				1	2	30	67		
290-299	Residual (240-245, 250-254, 270-277, 280-289)	20	11	9		2			1	7	10		
290-203	Diseases of the blood and blood-forming organs	8	5	3									
	Anemia	4	2	2									
	Residual (294-299)	4	3	1									
300-326	Mental, psychoneurotic and personality disorders	3	3										
330-398	Diseases of the nervous system and sense organs	401	174	227		6	0	1	2	11	71	305	
350-374	Vascular lesions affecting central nervous system	377	162	215		1	1	1	1	6	67	298	
380-384	Nonmeningococcal meningitis	2	1	1									
340	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	22	11	11		3	5	2	4	61	480	1219	
400-468	Diseases of the circulatory system	1766	983	783									
400-402	Rheumatic fever	2	1	1									
410-416	Chronic rheumatic heart disease	62	27	35				1	6	15	37		
420-422	Arteriosclerotic and degenerative heart disease	1498	822	586				1	1	38	306	990	
430-434	Other diseases of heart	13	8	5									
440-443	Hypertension with heart disease	148	52	96					1	15	49	94	
444-447	Hypertension without mention of heart	34	20	14					1	11	22		
	Residual (450-456, 460-463)	99	53	46						11	11	88	

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, CLIFTON: 1959
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Age Groups by Years								
			Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
001-2399	ALL CAUSES	651	371	280	24	2	2	2	38	186	307
001-138	Infective and parasitic diseases	2	2	2	..	..	..	..	..	..	..
001-008	Tuberculosis of respiratory system	1	1	..	..	..	..	..	..	..	2
010-010	Tuberculosis, other forms .....	..	..	..	..	..	..	..	..	..	1
020-029	Syphilis and its sequelae	1	1	..	..	..	..	..	..	..	1
040	Typhoid fever .....	..	..	..	..	..	..	..	..	..	..
043	Cholera .....	..	..	..	..	..	..	..	..	..	..
043-048	Dysentery, all forms .....	..	..	..	..	..	..	..	..	..	..
050, 051	Scarlet fever and streptococcal sore throat .....	..	..	..	..	..	..	..	..	..	..
055	Diphtheria .....	..	..	..	..	..	..	..	..	..	..
056	Whooping cough .....	..	..	..	..	..	..	..	..	..	..
057	Meningococcal infections .....	..	..	..	..	..	..	..	..	..	..
058	Pilarie .....	..	..	..	..	..	..	..	..	..	..
080	Acute poliomyelitis .....	..	..	..	..	..	..	..	..	..	..
084	Smallpox .....	..	..	..	..	..	..	..	..	..	..
085	Measles .....	..	..	..	..	..	..	..	..	..	..
100-108	Typhus and other rickettsial diseases .....	..	..	..	..	..	..	..	..	..	..
110-117	Malaria .....	..	..	..	..	..	..	..	..	..	..
140-230	Ascidini (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-090, 120-138) .....	..	..	..	..	..	..	..	..	..	..
140-230	Neoplasms	136	70	66	..	..	..	..	8	52	75
140-206	Malignant neoplasms	134	69	65	..	..	..	..	7	51	75
210-239	Benign and unspecified neoplasms	2	1	1	..	..	..	..	1	1	..
240-289	Allergic, endocrine system, metabolic and nutritional diseases	23	9	14	..	..	..	..	..	7	10
290	Diabetes mellitus	22	9	13	..	..	..	..	..	7	15
290-290	Residual (240-245, 250-254, 270-277, 280-289)	1	1	..	..	..	..	..	..	..	..
290-293	Diseases of the blood and blood-forming organs	2	1	1	..	..	..	..	..	..	..
300-326	Anemias	9	1	1	..	..	..	..	..	..	..
300-326	Residual (294-299)	9	1	1	..	..	..	..	..	..	..
330-358	Mental, psychoneurotic and personality disorders	73	31	42	..	..	..	..	4	15	52
330-354	Diseases of the nervous system and sense organs	69	28	41	..	..	..	..	4	13	52
340	Vascular lesions affecting central nervous system	1	1	..	..	..	..	..	..	..	..
340	Nonmeningococcal meningitis	3	3	..	..	..	..	..	..	..	..
400-468	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	311	184	127	..	..	..	..	11	88	212
400-468	Diseases of the circulatory system	11	2	9	..	..	..	..	3	6	2
400-402	Rheumatic fever	255	152	103	..	..	..	..	8	70	177
410-416	Chronic rheumatic heart disease	17	9	8	..	..	..	..	1	5	12
420-422	Arteriosclerotic and degenerative heart disease	8	5	3	..	..	..	..	1	4	4
430-434	Other diseases of heart	19	15	4	..	..	..	..	..	..	..
440-443	Hypertension with heart disease .....	..	..	..	..	..	..	..	..	..	..
444-447	Hypertension without mention of heart .....	..	..	..	..	..	..	..	..	..	..
..	Residual (450-456, 460-468)	19	15	4	..	..	..	..	..	..	..

470-527	Diseases of the respiratory system	13	0	4	1	1	4	8
480-483	Influenza	8	6	2	1	1	2	4
490-493	Pneumonia	1	1	1	1	1	1	3
500-502	Bronchitis	4	3	1	1	1	1	4
530-537	Residual (470-475, 510-527)	31	22	9	3	6	13	9
540-541	Diseases of the digestive system	3	3	1	1	1	1	2
550-553	Ulcer of stomach and duodenum	1	1	1	1	1	1	2
560, 561, 570	Appendicitis	1	1	1	1	1	1	2
560, 561, 570	Intestinal obstruction and hernia	8	5	3	2	2	2	2
543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	3	3	1	1	1	1	1
581	Chirrhosis of liver	18	8	6	1	1	8	5
590-597	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	3	2	1	1	2	2	1
600-637	Diseases of the genito-urinary system	15	12	3	1	2	2	1
640-689	Nephritis and nephrosis	7	7	1	1	2	2	1
690-716	Hyperplasia of prostate	4	4	1	1	1	1	12
720-749	Residual (600-609, 611-617, 620-629, 630-637)	4	1	3	1	2	2	5
750-759	Pregnancy, childbirth and the puerperium	1	1	1	1	1	1	3
760-776	Diseases of the skin and cellular tissue	1	1	1	1	1	1	4
780-786	Diseases of the bones and organs of movement	1	1	1	1	1	1	4
790-796	Congenital malformations	6	6	4	1	1	1	1
790-796	Certain diseases of early infancy	14	11	3	14	1	1	2
790-796	Birth injuries, postnatal asphyxia and atelectasis	6	5	1	6	1	1	1
790-796	Infections of the newborn	2	1	1	2	1	1	1
790-796	Other diseases peculiar to early infancy and immaturity unqualified	6	5	1	6	1	1	1
790-796	Symptoms, senility and ill-defined conditions	21	10	3	1	2	5	0
ES10-ES33	Accidents, poisonings and violence	6	5	1	1	2	1	1
ES40-ES65	Motor vehicle accidents	5	4	1	1	1	1	1
ES70-ES93	All other accidents except falls	5	4	1	1	1	2	1
ES100-ES104	Falls	4	3	1	1	1	2	1
ES105-ES109	Suicide	4	0	1	1	1	1	3
ES110-ES113	Homicide	0	4	1	1	1	2	1
ES114-ES119	Police intervention, execution and operations of war	0	0	1	1	1	1	1

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, PATTERSON: 1969
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
					<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
					106	21	8	18	90	462	986	...
001-EB999	ALL CAUSES	1691	920	762	106	21	8	18	90	462	986	...
001-138	Infective and parasitic diseases	18	8	10	1	2	1	1	3	6	4	...
001-008	Tuberculosis of respiratory system	8	6	2	1	1	1	2	2	3	3	...
010-019	Tuberculosis, other forms	2	1	1	1	1	1	1	1	1	1	...
020-029	Syphilis and its sequelae	3	1	2	1	1	1	1	1	1	1	...
040	Typhoid fever	1	1	1	1	1	1	1	1	1	1	...
043	Cholera	1	1	1	1	1	1	1	1	1	1	...
043-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	...
060, 051	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	...
055	Diphtheria	1	1	1	1	1	1	1	1	1	1	...
056	Whooping cough	1	1	1	1	1	1	1	1	1	1	...
057	Meningococcal infections	1	1	1	1	1	1	1	1	1	1	...
058	Plague	1	1	1	1	1	1	1	1	1	1	...
080	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	...
084	Smallpox	1	1	1	1	1	1	1	1	1	1	...
085	Measles	1	1	1	1	1	1	1	1	1	1	...
100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	...
110-117	Malaria	1	1	1	1	1	1	1	1	1	1	...
	Residual (080-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-090, 120-138)	5	1	4	1	1	1	1	1	2	153	...
140-239	Neoplasms	292	170	122	3	3	1	2	21	112	153	...
140-205	Malignant neoplasms	284	165	119	2	2	1	2	20	109	150	...
210-239	Benign and unspecified neoplasms	8	5	3	1	1	1	1	1	3	3	...
240-289	Allergic, endocrine system, metabolic and nutritional diseases	48	20	28	2	2	2	2	1	13	32	...
290	Diabetes mellitus	37	14	23	1	1	1	1	1	9	27	...
200-290	Diseases of the blood and blood-forming organs	11	6	5	2	2	2	2	4	4	4	...
200-203	Anemias	2	1	1	1	1	1	1	1	1	1	...
	Residual (234-239)	2	1	1	1	1	1	1	1	1	1	...
300-320	Mental, psychoneurotic and personality disorders	1	1	1	1	1	1	1	1	1	1	...
300-308	Diseases of the nervous system and sense organs	179	77	102	2	4	2	2	4	31	136	...
330-334	Vascular lesions affecting central nervous system	169	71	98	1	1	1	1	3	31	132	...
340	Nonmeningococcal meningitis	1	1	1	1	1	1	1	1	1	1	...
400-402	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	9	5	4	1	3	1	2	25	219	331	...
400-402	Diseases of the circulatory system	778	429	349	1	3	1	2	25	219	331	...
400-408	Rheumatic fever	25	13	12	1	1	1	1	4	17	403	...
410-416	Chronic rheumatic heart disease	611	352	259	1	1	1	1	15	161	493	...
420-422	Atherosclerotic and degenerative heart disease	78	4	74	1	1	1	1	1	2	5	...
430-434	Other diseases of heart	8	3	5	1	1	1	1	1	2	4	...
440-443	Hypertension with heart disease	12	6	6	1	1	1	1	1	28	41	...
444-447	Hypertension without mention of heart	49	22	27	1	1	1	1	1	4	7	...
	Residual (450-456, 460-468)	49	22	27	1	1	1	1	1	4	7	...

470-527	Diseases of the respiratory system	98	04	34	0	3	1	4	13	61
480-483	Influenza	1		1				1	1	
490-493	Pharyngitis	69	42	27	8	3	1	3	10	43
500-502	Bronchitis	5	2	8				1	7	4
530-537	Residual (470-475, 510-527)	23	20	44	6	1	3	8	38	35
540-541	Diseases of the digestive system	91	47	5				1	5	5
540-541	Ulcer of stomach and duodenum	12	7	5				1	1	2
550-553	Appendicitis	2	1	1				1	1	2
560, 561, 570	Intestinal obstruction and hernia	10	4	6				1	1	4
543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	11	4	7				1	2	6
581	Cirrhosis of liver	37	21	16				1	5	10
582-587	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	19	10	9				1	7	10
590-597	Diseases of the genito-urinary system	27	18	9				1	5	13
590-594	Nephritis and nephrosis	9	6	3				3	3	3
610	Hyperplasia of prostate	3	3					2	4	8
640-650	Residual (600-609, 611-617, 620-626, 630-637)	15	9	6				1	1	1
690-716	Pregnancy, childbirth and the puerperium	1	1	1				1	1	1
720-749	Diseases of the skin and cellular tissue	2	1	1				1	1	1
750-759	Diseases of the bones and organs of movement	15	6	9				1	14	1
760-776	Congenital malformations	63	36	27	14			1	63	1
780-782	Certain diseases of early infancy	33	18	15	33				15	33
763-768	Birth injuries, postnatal asphyxia and atelectasis	2	2	2					2	2
709-778	Other diseases peculiar to early infancy and infancy unqualified	26	18	10	28				1	2
780-785	Symptoms, senility and ill-defined conditions	4	3	1					1	2
8300-8369	Accidents, poisonings and violence	71	48	23	10	6	3	15	15	16
8300-8302	Motor vehicle accidents	14	6	8		2	1	5	1	2
8340-8395	All other accidents except falls	28	20	8	0	4	2	4	5	4
8300-8369	Falls	12	7	5				3	2	8
8300-8304	Suicide	10	9	1				1	3	2
8300-8307	Homicide	6	5	1				1	2	3
8300-8353	Police intervention, execution and operations of war	1	1					1		

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, SOMERSET COUNTY: 1959
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Male	Female	Age Groups by Years							
					< 1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
001-2399	ALL CAUSES	1110	631	488	69	6	7	9	71	303	654	.....
001-188	Infective and parasitic diseases	11	8	5	1	1	1	2	1	0	1	.....
001-008	Tuberculosis of respiratory system	4	3	1	1	1	1	1	1	3	1	.....
010-019	Tuberculosis, other forms	2	1	1	1	1	1	1	1	1	1	.....
020-029	Syphilis and its sequelae	1	1	1	1	1	1	1	1	1	1	.....
040	Typhoid fever	1	1	1	1	1	1	1	1	1	1	.....
048	Cholera .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
045-048	Dysentery, all forms .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
070-081	Scarlet fever and streptococcal sore throat .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
085	Diphtheria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
086	Whooping cough .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
087	Meningococcal infections .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
088	Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
080	Acute poliomyelitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
084	Smallpox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
085	Measles .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
100-108	Typhus and other rickettsial diseases .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
110-117	Malaria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Residual (030-089, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138)	5	3	2	1	1	1	1	1	1	1	.....
140-239	Neoplasms	224	130	94	1	2	2	1	25	80	108	.....
140-205	Malignant neoplasms	223	130	93	1	2	2	1	25	80	107	.....
210-239	Benign and unspecified neoplasms	1	1	1	1	1	1	1	1	1	1	.....
240-289	Allergic, endocrine system, metabolic and nutritional diseases .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
260	Diabetes mellitus	21	5	16	.....	.....	.....	.....	2	0	13	.....
200-209	Residual (240-245, 250-254, 270-277, 280-289)	18	8	10	.....	.....	.....	.....	2	4	12	.....
200-203	Diseases of the blood and blood-forming organs	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
200-203	Anemias	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
300-320	Residual (294-299)	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
300-320	Mental, psychoneurotic and personality disorders	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
300-308	Diseases of the nervous system and sense organs	197	70	57	1	1	1	1	2	21	96	.....
330-334	Vascular lesions affecting central nervous system	150	64	50	1	1	1	1	6	19	94	.....
340	Nonmeningococcal meningitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
400-468	Residual (341-345, 350-357, 360-369, 370-380, 390-398)	4	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
400-468	Diseases of the circulatory system	500	273	220	1	1	1	1	15	137	350	.....
404-407	Rheumatic fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
410-416	Chronic rheumatic heart disease	15	7	8	.....	.....	.....	.....	.....	.....	.....	.....
420-422	Arteriosclerotic and degenerative heart disease	402	291	171	.....	.....	.....	.....	10	13	2	.....
430-434	Other diseases of heart	6	4	2	.....	.....	.....	.....	1	2	2	.....
440-443	Hypertension with heart disease	30	13	23	.....	.....	.....	.....	1	2	0	.....
444-447	Hypertension without mention of heart	15	8	7	.....	.....	.....	.....	2	3	10	.....
444-447	Residual (450-456, 460-468)	28	10	18	.....	.....	.....	.....	2	0	20	.....

Table with 15 columns and multiple rows. Rows include medical conditions like 'Diseases of the respiratory system', 'Influenza', 'Pneumonia', 'Bronchitis', 'Residual (470-475, 510-527)', 'Diseases of the digestive system', 'Ulcer of stomach and duodenum', 'Appendicitis', 'Gastrointestinal obstruction and hernia', 'Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn', 'Cirrhosis of liver', 'Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)', 'Diseases of the genito-urinary system', 'Nephritis and nephrosis', 'Hyperplasia of prostate', 'Residual (600-609, 611-617, 620-626, 630-637)', 'Pregnancy, childbirth and the puerperium', 'Diseases of the skin and cellular tissue', 'Diseases of the bones and organs of movement', 'Congenital malformations', 'Certain diseases of early infancy', 'Birth injuries, postnatal asphyxia and atelectasis', 'Infections of the newborn', 'Other diseases peculiar to early infancy and immaturely unqualified', 'Symptoms, senility and ill-defined conditions', 'Accidents, poisonings and violence', 'Motor vehicle accidents', 'All other accidents except falls', 'Falls', 'Suicide', 'Homicide', and 'Police intervention, execution and operations of war'. Columns contain numerical counts for each category.

DEPARTMENT OF HEALTH

Table 23a. CASES OF REPORTABLE DISEASES BY COUNTY OF RESIDENCE: 1959
(Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases)

COUNTY	Amebiasis	Anthrax	Brucellosis	Diarthen of Newborn	Diphtheria	Epilepsy	Food Poisoning	Hepatitis, Infectious	Influenza	Malaria	Measles	Meningococcal Meningitis
State total	217	2	5	2	10	81	10	320	115	1	33,021	71
Atlantic	0	0	0	0	0	0	0	5	1	0	90	1
Bergen	0	0	0	0	0	0	0	16	2	0	2,641	13
Burlington	0	0	0	0	0	0	0	16	2	0	869	5
Camden	1	1	0	0	1	0	0	21	7	0	1,776	2
Cape May	0	0	0	0	0	0	0	0	0	0	50	0
Cumberland	0	0	0	0	0	0	0	0	0	0	56	2
Essex	0	0	1	0	0	58	1	5	3	0	13,733	10
Gloucester	0	0	0	0	1	0	0	67	49	1	144	3
Hudson	2	0	0	0	4	0	0	4	4	0	841	3
Hunterdon	0	0	0	0	8	0	2	23	1	0	0	0
Mercer	0	0	0	0	0	0	0	2	0	0	3	0
Middlesex	1	0	1	0	0	3	4	17	3	0	782	5
Monmouth	50	0	0	0	0	1	0	3	0	0	297	4
Morris	10	0	0	0	0	0	1	23	3	0	1,565	4
Morris	0	0	0	0	0	0	0	16	12	0	787	4
Ocean	0	0	0	0	0	0	0	0	0	0	59	0
Passaic	0	0	0	0	0	0	0	1	0	0	0	0
Salem	0	0	0	0	0	0	2	5	14	0	2,162	2
Somerset	15	1	0	0	0	0	0	11	1	0	30	1
Sussex	0	0	0	0	0	0	0	1	1	0	415	0
Union	0	0	0	0	0	0	0	2	1	0	131	0
Warren	3	0	0	0	0	2	0	19	10	0	6,849	2
State Institutions	135	0	0	0	0	0	0	0	1	0	44	0
Military Posts	0	0	0	0	0	16	0	44	0	0	130	0
								26	0	0	42	4

Table 23a. CASES OF REPORTABLE DISEASES BY COUNTY OF RESIDENCE: 1959—Continued
(Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases)

COUNTY	Ophthalmia Neonatorum	Pneumonia	Poliomyelitis	Rocky Mountain Spotted Fever	Salmonellosis	Shigellosis	Streptococcal Sore Throat Including Scarlet Fever	Tetanus	Trichinosis	Tularemia	Typhoid Fever	Whooping Cough
State total	4	3,967	106	3	63	35	6,455	4	24	2	11	582
Atlantic	0	6	3	0	2	0	63	0	1	0	1	6
Bergen	0	33	23	0	11	0	767	0	1	0	0	77
Burlington	0	32	9	0	2	1	49	1	0	1	1	4
Camden	1	135	1	0	1	0	457	0	0	0	2	27
Cape May	0	2	0	1	0	0	52	0	0	0	1	0
Cumberland	0	5	1	0	0	0	31	1	0	0	1	6
Essex	3	1,267	10	0	3	10	930	0	7	1	0	173
Gloucester	0	23	10	0	3	10	451	0	1	0	0	6
Hudson	0	85	12	0	8	14	208	0	0	0	1	29
Hunterdon	0	6	2	0	0	0	5	0	0	0	0	4
Mercer	0	211	1	0	7	3	162	1	0	0	1	14
Middlesex	0	82	2	0	6	1	179	0	0	0	0	1
Monmouth	0	38	11	0	6	1	351	0	0	0	0	12
Morris	0	18	4	0	0	3	221	0	0	0	0	5
Ocean	0	6	2	0	1	0	23	0	0	0	0	0
Passaic	0	34	11	0	7	0	1,150	0	11	0	0	125
Salem	0	2	0	0	0	0	21	0	0	0	0	1
Somerset	0	12	1	0	1	0	40	0	1	0	0	6
Sussex	0	12	0	0	1	0	44	0	0	0	0	1
Union	0	12	0	0	0	2	375	1	1	0	1	84
Warren	0	154	6	0	4	0	27	0	0	0	0	3
State Institutions	0	25	0	1	0	0	12	0	0	0	0	0
Military Posts	0	1,747	0	1	0	0	747	0	0	0	0	0

Note: There were no reported cases of Botulism, Cholera, Dengue, Glanders, Leprosy, Leptospirosis, Mental Dementia, Plague, Psittacosis, Q Fever, Rabies (human), Smallpox, Trachoma, Typhus Fever, or Yellow Fever.

DEPARTMENT OF HEALTH

Table 28b. REPORTED CASES OF CENTRAL NERVOUS SYSTEM DISEASES OF VIRAL ETIOLOGY
NEW JERSEY: 1969

COUNTY	Total	Polymyeltis		Aseptic Meningitides						Encephalitides				Suspect CNS Disease
		Para.	Non-Para.	Coxsackie	Echo	LCM	Unk. Etiol.	Mumps	Measles	Varicella	Arbor Viruses	Influenza		
													87	
New Jersey	373	87	19	59	19	0	71	19	15	8	33	0	48	
Atlantic	18	3	0	2	3	0	2	0	0	0	0	0	2	
Bergen	55	19	4	13	2	0	9	1	3	0	6	0	0	
Burlington	22	9	0	1	0	0	6	1	0	0	0	0	4	
Camden	26	1	0	4	3	0	7	5	2	0	3	0	2	
Cape May	4	0	0	0	1	0	0	0	0	0	1	0	3	
Cumberland	15	1	0	0	2	0	4	0	0	0	2	0	1	
Essex	34	9	1	4	0	0	9	0	5	0	0	0	4	
Gloucester	9	0	0	1	1	0	0	1	2	0	0	0	7	
Hudson	19	11	1	0	1	0	2	1	0	0	0	0	0	
Hunterdon	5	2	0	1	0	0	1	1	0	0	0	0	3	
Mercer	8	1	0	1	1	0	4	1	0	1	0	0	0	
Middlesex	12	2	0	4	1	0	2	1	0	0	0	0	2	
Monmouth	21	7	0	3	0	0	4	0	0	0	0	0	0	
Morris	22	4	0	8	1	0	4	1	0	0	0	0	3	
Ocean	21	2	0	1	1	0	0	0	0	0	17	0	4	
Passaic	28	9	2	8	1	0	0	2	0	2	0	0	0	
Salmon	4	1	0	2	1	0	0	1	0	0	0	0	4	
Somerset	8	0	1	2	1	0	1	0	3	0	1	0	0	
Sussex	1	0	1	0	0	0	1	1	0	0	0	0	0	
Union	18	4	2	9	0	0	0	0	0	0	0	0	0	
Warren	23	3	4	3	1	0	10	0	0	0	10	0	7	

Table 28c. INCIDENCE OF CENTRAL NERVOUS SYSTEM DISEASES OF VIRAL ETIOLOGY
BY MONTH OF ONSET: 1969

MONTH OF ONSET	Polioomyelitis			Aseptic Meningitides						Encephalitides					
	Total	Para.	Non-Para.	Total	Coxsackie	Echo	Unk. Etiol.	Mumps	Total	Measles	Varicella	Arbor	Unk. Etiol.	Total	
														48	33
Total	109	87	19	168	59	19	71	19	99	12	3	33	48	12	33
January	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
February	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
March	0	0	0	1	0	0	1	0	2	3	0	0	0	0	0
April	2	2	0	1	0	0	1	1	5	2	0	0	0	0	0
May	0	0	0	1	0	0	1	0	6	1	1	0	0	0	0
June	3	2	1	10	4	0	3	3	7	4	1	0	0	0	0
July	11	9	2	16	4	1	4	4	8	2	1	0	0	0	0
August	32	27	2	49	19	4	25	1	12	2	1	0	0	0	0
September	41	33	8	38	13	6	17	2	56	0	0	23	11	0	0
October	10	9	1	28	11	8	9	0	11	0	0	6	5	0	0
November	5	5	0	8	3	0	3	3	4	0	0	1	1	0	0
December	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0

Table 24a. DEATHS FROM REPORTABLE DISEASIS BY COUNTY OF RESIDENCE: 1939
(Exclusive of Cerebral Palsy, Tuberculosis and Venereal Diseases)

COUNTY	Amebiasis (046)	Diarrhea of Newborn (764)	Diphtheria (053)	Epilepsy (353)	Infectious Encephalitis (082, 083)	Infectious Hepatitis (092)	Influenza (480-483)	Measles (085)	Meningococcal Meningitis (087,0)	Mental Deficiency (325)	Pneumonia (490-493)	Polymyelitis (080, 081)	Shigellosis (045)	Whooping Cough (036)
State total	3	11	2	53	44	29	32	18	10	13	1,043	12	1	4
Atlantic	0	2	0	1	4	2	1	0	0	0	46	0	0	0
Bergen	1	0	0	5	1	5	5	1	2	1	198	0	0	0
Burlington	0	0	0	1	5	0	1	0	0	0	53	2	0	0
Camden	0	0	0	5	1	4	5	1	0	0	105	1	0	0
Cape May	0	0	0	1	3	0	0	0	0	0	12	0	0	0
Cumberland	0	1	0	1	1	0	2	0	1	0	24	1	0	0
Essex	0	4	0	14	1	6	6	1	5	3	208	1	0	0
Gloucester	0	1	0	1	0	0	0	0	0	0	26	0	0	0
Hudson	0	0	0	4	3	3	4	1	3	0	253	1	0	1
Hunterdon	0	0	0	0	1	0	0	0	0	1	22	0	0	0
Mercer	0	1	0	2	0	1	0	1	1	1	79	0	0	0
Middlesex	1	0	0	4	1	4	2	1	1	1	82	0	0	0
Monmouth	0	0	0	1	1	0	0	1	0	2	87	1	0	1
Morris	0	0	0	2	1	0	0	0	1	0	86	1	0	0
Ocean	0	1	0	0	6	0	0	2	1	0	13	1	0	0
Passaic	0	0	0	3	3	3	2	0	0	0	124	1	1	0
Salem	0	0	0	0	1	0	0	0	0	0	32	1	0	0
Somerset	0	0	0	0	0	0	0	0	0	1	44	1	0	1
Sussex	0	0	0	0	0	0	1	1	0	0	15	0	0	0
Union	1	1	0	3	0	1	3	1	0	0	88	0	0	0
Warren	0	0	0	0	1	0	0	0	0	0	10	0	0	0
State Institutions	0	0	0	2	0	0	0	0	0	0	2	0	0	0
Military Posts	0	0	0	0	0	0	0	0	0	0	2	0	0	0

Note: There were no deaths from Anthrax, Botulism, Brucellosis, Cholera, Dengue, Food Poisonings (staphylococcal or unscrubbed), Glanders, Leprosy, Leptospirosis, Malaria, Ophthalmia Neonatorum, Plague, Psittacosis, Q Fever, Rabies (human), Rocky Mountain Spotted Fever, Salmonellosis, Smallpox, Streptococcal Sore Throat, including Scarlet Fever, Tetanus, Trachoma, Trichinosis, Tularemia, Typhoid fever, Typhus fever, or Yellow Fever.

Table 24c. DEATHS FROM REPORTABLE DISEAS BY SEX AND AGE GROUP: 1959

International List No.	Disease and Sex	Total	Age Group in Years																	
			<1	1-4	5-14	15-24	25-44	45-64	65+											
001-019	Tuberculosis—																			
	Male	324	1	3		2	2	36	145	137										
	Female	109	2	2	1	3	36	38	27											
020-029	Syphilis—																			
	Male	54	1					3	24	27										
	Female	23						3	6	13										
042	Shigellosis—																			
	Male	1																		
	Female																			
046	Amebiasis—																			
	Male	2																		
	Female	1																		
055	Diphtheria—																			
	Male	1		1																
	Female	1		1																
056	Whooping Cough—																			
	Male	4		2																
	Female																			
057.0	Meningococcal Meningitis—																			
	Male	7	2	1	1			1	3	4										
	Female	12	2	1	1				4											
080, 081	Poliomyelitis—																			
	Male	9		1	4			3												
	Female	3		1				1												
082, 083	Infectious Encephalitis—																			
	Male	23	2	7	8	2	1	2	1	2	1									
	Female	21	2	4	3	3	3	5	2	2										
085	Measles—																			
	Male	5	1	2	1	1	1													
	Female	13	3	2	3			4	1											
092	Infectious Hepatitis—																			
	Male	12	1					1	1	7	2									
	Female	17		2				3	4											
325	Mental Deficiency—																			
	Male	7	3	1	3															
	Female	6	2	3																
353	Epilepsy—																			
	Male	31		1				6	15	6	3									
	Female	22		2				3	5	6	1									
450-453	Influenza—																			
	Male	14	3	1	1			3	3	5	10									
	Female	18		1	1			3	3	3	5									
490-493	Pneumonia—																			
	Male	949	135	49	12	9	51	206	487											
	Female	934	92	34	20	12	35	300	410											
764	Diarrhea of Newborn—																			
	Male	8																		
	Female	3																		

Note: There were no deaths from Anthrax, Botulism, Brucellosis, Cholera, Dengue, Food Poisonings (staphylococcal or unspecified), Glanders, Leprosy, Leptospirosis, Malaria, Ophthalmia Neonatorum, Plague, Psittacosis, Q Fever, Rabies (human), Rocky Mountain Spotted Fever, Salmonellosis, Smallpox, Streptococcal Sore Throat, including Scarlet Fever, Tetanus, Trachoma, Trichinosis, Tularemia, Typhoid Fever, Typhus Fever, or Yellow Fever.

Table 24d. ENCEPHALITIS DEATHS BY MONTH OF ONSET OF DISEASE: 1959

<i>Month of Onset of Disease</i>	<i>Total</i>	<i>Measles</i>	<i>Varicella</i>	<i>Eastern Encephalitis</i>	<i>Unknown Etiology</i>
Total	40	2	1	21	16
January	...	...	...	...	...
February	...	...	...	...	...
March	1	...	...	...	1
April	...	...	...	...	...
May	...	...	...	...	...
June	1	...	...	...	1
July	3	...	1	...	2
August	10	2	...	1	7
September	21	...	...	18	3
October	3	...	...	2	1
November	1	...	...	...	1
December	...	...	...	...	...

Note: The total of encephalitis deaths in this table differs from the total shown in Table 24a. Diagnoses on death certificates show that 44 persons died of encephalitis, 2 of whom died due to late effects. Epidemiologic investigation and results of laboratory analysis show that 40 persons died due to this cause. These findings are not always reflected in the medical certification of the death certificate.

Table 25. POLIOMYELITIS CASES AND DEATHS BY SEX AND AGE GROUP: 1959

<i>Age Group</i>	<i>Total</i>		<i>Male</i>		<i>Female</i>	
	<i>Cases</i>	<i>Deaths</i>	<i>Cases</i>	<i>Deaths</i>	<i>Cases</i>	<i>Deaths</i>
ALL AGES	106	12	60	9	46	3
Under 1 year	3	...	3	...	...	...
1-4 years	25	2	9	1	16	1
5-14 years	44	4	30	4	14	...
15-24 years	17	2	7	1	10	1
25-44 years	17	3	11	3	6	...
45-64 years	...	1	...	...	...	1
65 years and over	...	...	...	...	...	...
Unknown	...	...	...	...	...	...

Table 26c. VACCINATION STATUS OF POLIOMYELITIS CASES BY PARALYTIC STATUS
BY AGE: 1959

Age	Paralytic						Nonparalytic					
	Vaccination Status				Total	% 3 or More Doses	Vaccination Status				Total	% 3 or More Doses
	0	1	2	3+			0	1	2	3+		
Total	41	5	15	26	87	29.9	10	1	1	7	19	36.8
< 1	3	0	0	0	3	0.0	0	0	0	0	0	0.0
1	1	0	2	1	4	25.0	0	0	0	0	0	0.0
2	1	1	3	4	9	44.4	0	0	0	0	0	0.0
3	1	0	1	4	6	66.7	0	0	0	0	0	0.0
4	1	0	2	2	5	40.0	1	0	0	0	1	0.0
5-9	8	1	5	8	22	36.4	3	1	1	0	5	0.0
10-14	5	1	1	4	11	36.4	0	0	0	6	6	100.0
15-19	3	1	0	1	5	20.0	3	0	0	0	3	0.0
20-29	11	1	1	1	14	7.1	2	0	0	0	2	0.0
30-39	5	0	0	1	6	16.7	1	0	0	0	1	0.0
40+	2	0	0	0	2	0.0	0	0	0	1	1	100.0

Table 26d. DISTRIBUTION OF POLIOMYELITIS CASES BY TYPE OF POLIOVIRUS
ISOLATED BY PARALYTIC AND VACCINATION STATUS: 1959

Paralytic and Vaccine Status	Total Cases	Test Status of Cases		Type Poliovirus Isolated		
		Tested	Not Tested	I	III	Neg.
Paralytic and Nonparalytic	106	95	11	62	9	24
Doses of Vaccine						
0	51	45	6	31	7	7
1	6	6	0	5	1	3
2	16	15	1	11	1	3
3+	33	29	4	15	0	14
Paralytic	87	80	7	54	9	17
Doses of Vaccine						
0	41	37	4	25	7	5
1	5	5	0	4	1	0
2	15	14	1	10	1	3
3+	26	24	2	15	0	9
Nonparalytic	19	15	4	8	0	7
Doses of Vaccine						
0	10	8	2	6	0	2
1	1	1	0	1	0	0
2	1	1	0	1	0	0
3+	7	5	2	0	0	5

DEPARTMENT OF HEALTH

Table 27. TUBERCULOSIS CASES AND DEATHS; NUMBERS, RATES AND CASE-DEATH RATIOS FOR COUNTIES AND MAJOR CITIES: 1959

AREA	Deaths		All Cases		Active and Probably Active Cases		Case-Death Ratio†
	Number	Rate*	Number	Rate*	Number	Rate*	
New Jersey	433	7.2	2,906	48.7	1,676	28.1	3.9
Atlantic County	10	6.3	84	52.8	33	20.8	3.3
Atlantic City	5	8.3	53	88.3	25	41.7	5.0
Bergen County	33	4.3	472	61.9	81	10.6	2.5
Burlington County	10	4.6	53	24.3	42	19.3	4.2
Camden County	32	8.3	165	42.9	131	34.0	4.1
Camden City	19	16.1	93	78.8	76	64.4	4.0
Cape May County	2	4.2	18	37.5	6	12.5	3.0
Cumberland County	7	6.7	54	51.4	35	33.3	5.0
Essex County	76	8.2	522	56.6	425	46.1	5.6
East Orange	3	3.9	36	46.8	21	27.3	7.0
Irrington	2	3.4	11	18.6	5	8.5	2.5
Newark	58	14.2	398	97.5	342	83.8	5.9
Gloucester County	5	3.8	38	28.8	26	19.7	5.2
Hudson County	85	13.8	349	56.8	221	36.0	2.6
Bayonne	5	6.8	31	41.9	20	27.0	4.0
Hoboken	12	24.5	34	69.4	25	51.0	2.1
Jersey City	56	20.1	187	67.3	121	43.5	2.2
Union City	2	3.8	20	38.5	14	26.9	7.0
Hunterdon County	4	7.5	22	41.5	16	30.2	4.0
Mercer County	42	15.9	146	55.3	89	33.7	2.1
Trenton	30	26.1	88	76.5	53	46.1	1.8
Middlesex County	25	5.9	151	35.9	97	23.0	3.9
Monmouth County	14	4.3	88	27.0	68	20.9	4.9
Morris County	13	5.1	82	32.3	54	21.3	4.2
Ocean County	3	2.9	59	56.7	27	26.0	9.0
Passaic County	16	4.0	253	63.1	109	27.2	6.8
Clifton	1	1.2	32	39.5	7	8.6	7.0
Passaic City	3	5.6	43	79.6	15	27.8	5.0
Paterson	10	7.0	126	88.1	72	50.3	7.2
Salem County	1	1.7	14	24.1	13	22.4	13.0
Somerset County	6	4.3	39	27.7	21	14.9	3.5
Sussex County	4	8.3	9	18.8	9	18.8	2.3
Union County	40	8.1	142	28.6	112	22.6	2.8
Elizabeth	17	15.7	57	52.8	46	42.6	2.7
Warren County	3	4.8	15	23.8	12	19.0	4.0
Institutions	2	†	36	†	28	†	14.0
Military Posts .....	..	..	14	†	11	†	..
Aliens .....	..	..	84	†	10	†	..

* Rate per 100,000 estimated population.

† Number of active and probably active cases reported per death reported.

‡ Rates not computed due to lack of population base.

Table 28. TUBERCULOSIS CASES BY CLINICAL STATUS FOR COUNTIES AND MAJOR CITIES: 1959

AREA	Total	Clinical Status				
		Active	Inactive	Probably Active	Probably Inactive	Not Stated
New Jersey	2,909	1,619	1,130	57	60	43
Atlantic County	84	32	49	1	1	1
Atlantic City	53	25	27	..	1	..
Bergen County	472	74	374	7	16	1
Burlington County	53	42	9	..	1	1
Camden County	165	124	30	7	2	2
Camden City	93	70	16	6	..	1
Cape May County	18	6	12	..	..	..
Cumberland County	54	35	17	..	..	2
Essex County	522	416	55	9	7	5
East Orange	36	21	13	..	2	..
Irvington	11	4	5	1	..	1
Newark	398	338	49	4	3	4
Gloucester County	38	25	11	1	..	1
Hudson County	349	214	114	7	11	3
Bayonne	31	18	10	2	1	..
Hoboken	34	23	7	2	2	..
Jersey City	187	120	63	1	2	1
Union City	20	13	6	1	..	..
Hunterdon County	22	15	6	1	..	..
Mercer County	146	87	54	2	2	1
Trenton	88	51	32	2	2	1
Middlesex County	151	95	50	2	2	2
Monmouth County	88	66	17	2	3	..
Morris County	82	52	23	2	2	3
Ocean County	59	27	30	..	1	1
Passaic County	253	105	142	4	..	2
Clifton	32	7	24	..	..	1
Passaic City	43	14	28	1	..	..
Paterson	126	70	53	2	..	1
Salem County	14	13	1	..	..	..
Somerset County	39	17	13	4	3	2
Sussex County	9	8	..	1	..	..
Union County	142	109	29	3	..	1
Elizabeth	57	44	10	2	..	1
Warren County	15	12	2	..	1	..
Institutions	36	26	7	2	..	1
Military Posts	14	9	2	2	1	..
Aliens	84	10	53	..	7	14

Notes: (1) Newly reported tuberculosis cases.

(2) Alien cases—aliens admitted to the United States during the calendar year with pulmonary tuberculosis and hospitalized or placed under medical supervision on arrival in New Jersey.

DEPARTMENT OF HEALTH

Table 29. ACTIVE AND PROBABLY ACTIVE TUBERCULOSIS CASES BY AGE GROUPS FOR COUNTIES AND MAJOR CITIES: 1959

AREA	Age Group										
	All Ages	Under 1 Year	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65+	Not Stated
New Jersey	1,676	13	84	64	177	270	333	262	222	250	1
Atlantic County	53		1		3	7	6	5	7	4	
Atlantic City	25		1		3	7	3	2	5	4	
Bergen County	81		5	2	4	10	19	18	11	12	
Burlington County	42		1	1		7	12	6	4	11	
Camden County	131	2	7	2	13	16	20	26	23	22	
Camden City	76	1	5	2	9	10	11	14	14	10	
Cape May County	6						2	1	2	1	
Cumberland County	35		6	5	3	4	11	2	2	2	
Essex County	425	4	23	27	59	84	86	54	43	45	
East Orange	21		2	1	4	4	3	1	2	4	
Irrington	5		1	1			1	1		2	
Newark	342	4	19	23	48	67	74	43	37	27	
Gloucester County	26		3	3		3	3	5	1	8	
Hudson County	221	2	8	6	19	39	42	42	32	31	
Bayonne	20	2	1			2	4	4	3	4	
Hoboken	25				3	6	3	5	4	4	
Jersey City	121		6	5	15	25	23	23	14	10	
Union City	14		1	1		2	1	3	4	2	
Hunterdon County	16				2		4	4	3	3	
Mercer County	89		5	3	9	14	17	10	12	19	
Trenton	53		2	2	7	8	9	8	6	11	
Middlesex County	97		3	2	10	12	20	21	12	17	
Monmouth County	68	1	7	3	8	5	17	8	11	8	
Morris County	54	1	1	2	4	11	7	8	8	12	
Ocean County	27		5		3	3	2	5	7	2	
Passaic County	100	3	3	2	15	16	29	14	15	12	
Clifton	7					3	2	1	1		
Passaic City	15	1	1		1	1	4	1	3	3	
Paterson	72	2	2	2	11	10	19	10	10	6	
Salem County	13			1	2	3	4	1		1	1
Somerset County	21				1	4	4	4	2	6	
Sussex County	9			1	1	1	2		1	3	
Union County	112		6	3	12	15	22	20	17	17	
Elizabeth	46		1	2	4	7	14	4	9	5	
Warren County	12				1	2		3	3	3	
Institutions	28				3	6	2	3	4	10	
Military Posts	11				4	5		1		1	
Aliens	10			1	1	3	2	1	2		

Notes: (1) Newly reported tuberculosis cases.

(2) Alien cases—aliens admitted to the United States during the calendar year with pulmonary tuberculosis and hospitalized or placed under medical supervision on arrival in New Jersey.

Table 30. ACTIVE AND PROBABLY ACTIVE TUBERCULOSIS CASES BY BACTERIAL STATUS FOR COUNTIES AND MAJOR CITIES: 1959

AREA	Total	Bacterial Status		
		Negative	Positive	Pending or Not Done
New Jersey	1,676	729	323	624
Atlantic County	33	18	3	12
Atlantic City	25	13	3	9
Bergen County	81	34	30	17
Burlington County	42	14	7	21
Camden County	131	76	16	39
Camden City	76	41	6	29
Cape May County	6	2	..	4
Cumberland County	35	9	7	19
Essex County	425	256	85	84
East Orange	21	10	4	7
Irvington	5	2	1	2
Newark	342	216	65	61
Gloucester County	26	11	5	10
Hudson County	221	60	25	136
Bayonne	20	6	1	13
Hoboken	25	4	1	20
Jersey City	121	29	18	74
Union City	14	6	..	8
Hunterdon County	16	4	9	3
Mercer County	89	32	14	43
Trenton	53	16	10	27
Middlesex County	97	7	3	87
Monmouth County	68	35	7	26
Morris County	54	19	8	27
Ocean County	27	13	4	10
Passaic County	109	48	15	46
Clifton	7	4	1	2
Passaic City	15	6	3	6
Paterson	72	35	7	30
Salem County	13	6	7	..
Somerset County	21	10	5	6
Sussex County	9	4	3	2
Union County	112	45	55	12
Elizabeth	43	20	21	5
Warren County	12	2	8	2
Institutions	28	17	2	9
Military Posts	11	5	1	5
Allens	10	2	4	4

Notes: (1) Newly reported tuberculosis cases.

(2) Alien cases—aliens admitted to the United States during the calendar year with pulmonary tuberculosis and hospitalized or placed under medical supervision on arrival in New Jersey.

DEPARTMENT OF HEALTH

Table 31. ACTIVE AND PROBABLY ACTIVE PULMONARY TUBERCULOSIS CASES
BY EXTENT OF DISEASE BY COUNTIES AND MAJOR CITIES: 1959

AREA	Total	Extent of Disease			
		Minimal	Moderately Advanced	Far Advanced	Primary and Not Stated
New Jersey	1,559	222	601	610	96
Atlantic County	31	1	12	17	1
Atlantic City	23	..	10	12	1
Bergen County	77	9	39	20	9
Burlington County	39	4	10	23	2
Camden County	125	21	53	48	3
Camden City	74	13	26	33	2
Cape May County	6	1	1	4	..
Cumberland County	34	..	13	12	9
Essex County	386	62	133	169	22
East Orange	19	6	5	5	3
Irrington	5	..	3	2	..
Newark	312	47	107	142	16
Gloucester County	25	3	8	9	5
Hudson County	210	29	90	80	11
Bayonne	19	..	7	8	4
Hoboken	25	3	13	9	..
Jersey City	111	16	40	49	6
Union City	14	3	7	3	1
Hunterdon County	15	4	6	4	1
Mercer County	82	11	34	34	3
Trenton	48	7	21	19	1
Middlesex County	90	12	44	30	4
Monmouth County	63	6	22	26	9
Morris County	48	6	21	20	1
Ocean County	24	1	4	14	5
Passaic County	99	11	46	26	6
Clifton	6	1	2	2	1
Passaic City	15	..	9	4	2
Paterson	63	7	25	27	3
Salem County	12	1	2	9	..
Somerset County	20	3	7	10	..
Sussex County	9	1	2	4	2
Union County	107	18	28	59	2
Elizabeth	45	6	12	25	2
Warren County	11	5	4	2	..
Institutions	25	3	13	8	1
Military Posts	11	7	4	..	..
Allens	10	3	5	2	..

Notes: (1) Newly reported tuberculosis cases.

(2) Alien cases—aliens admitted to the United States during the calendar year with pulmonary tuberculosis and hospitalized or placed under medical supervision on arrival in New Jersey.

Table 32. SYPHILIS AND GONORRHEA CASES FOR COUNTIES AND MAJOR CITIES, NUMBERS AND RATES, NEW JERSEY: 1959

AREA	Syphilis				Gonorrhea*	
	All Stages		Primary and Secondary		Number	Rate†
	Number	Rate‡	Number	Rate‡		
New Jersey	4,874	81.6	312	5.2	4,984	83.4
Atlantic County	372	234.0	12	7.5	147	92.5
Atlantic City	280	466.7	8	13.3	142	236.7
Bergen County	158	20.7	17	2.2	109	14.3
Burlington County	93	42.7	3	1.4	48	22.0
Camden County	296	76.9	8	2.1	116	30.1
Camden City	169	143.2	4	3.4	86	72.9
Cape May County	37	77.1	..	..	9	18.8
Cumberland County	219	208.6	..	..	90	85.7
Essex County	1,171	127.0	144	15.6	2,079	225.5
East Orange	74	96.1	3	3.9	69	89.6
Irington	17	28.8	2	3.4	4	6.8
Newark	945	231.6	124	30.4	1,926	472.1
Gloucester County	180	136.4	..	..	45	34.1
Hudson County	356	58.0	21	3.4	483	78.7
Bayonne	19	23.7	..	..	6	8.1
Hoboken	40	81.6	3	6.1	15	30.6
Jersey City	238	83.6	15	5.4	439	157.9
Union City	20	38.5	1	1.9	8	15.4
Hunterdon County	19	35.8	..	..	3	5.7
Mercer County	549	208.0	8	3.0	528	200.0
Trenton	420	365.2	6	5.2	499	433.9
Middlesex County	282	67.0	10	2.4	159	37.8
Monmouth County	430	131.9	19	5.8	194	59.5
Morris County	65	25.6	4	1.6	50	19.7
Ocean County	59	56.7	3	2.9	23	22.1
Passaic County	210	52.4	24	6.0	254	63.3
Clifton	13	16.0	1	1.9	8	9.9
Passaic City	31	57.4	1	1.9	18	33.3
Paterson	145	101.4	20	14.0	223	155.9
Salem County	88	131.7	2	3.4	33	56.9
Somerset County	36	25.5	..	..	21	14.9
Sussex County	13	27.1	1	2.1	12	25.0
Union County	204	41.1	26	5.2	226	45.6
Elizabeth	76	70.4	15	13.9	133	123.1
Warren County	14	22.2	..	..	8	12.7
State Institutions	12	†	..	..	5	†
Military Posts	11	†	10	†	342	†

* Includes 1,049 cases reported as having epidemiologic treatment for gonorrhea.
 † Rates expressed per 100,000 estimated population.
 ‡ Rates not computed due to lack of population base.

DEPARTMENT OF HEALTH

Table 28. VENEREAL DISEASE CASES BY DISEASE, BY STAGE (FOR SYPHILIS ONLY) BY REPORTING AGENCY: 1957-1959

DISEASE	1959				1958				1957			
	Total*	Private Doctor	Clinics and Others†	Military	Total*	Private Doctor	Clinics and Others†	Military	Total*	Private Doctor	Clinics and Others†	Military
	Syphilis (All Stages)	4,874	2,287	2,570	11	6,077	2,515	3,540	22	5,444	2,404	3,025	15
Primary and Secondary	312	146	156	10	183	88	82	13	121	43	71	7
Early Latent	610	281	328	1	643	274	364	5	467	173	287	5
Late and Late Latent	3,729	1,720	2,000	..	5,039	2,026	3,000	4	4,601	2,081	2,577	3
Congenital	223	140	83	..	213	121	94	..	181	101	80	0
Not Stated	0	0	0	0	0	0	0	..	14	4	10	0
Gonorrhea	4,084	1,517	3,000	338	5,852	1,307	3,890	359	5,276	1,445	3,344	487
Chancroid	15	5	10	0	13	..	8	3	28	0	7	31
Granuloma Inguinale	5	3	2	0	6	..	0	..	4	1	3	0
Lymphogranuloma Venereum	0	4	5	0	5	3	2	..	9	3	5	1

* Includes all military cases, 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 34a. CIVILIAN PRIMARY AND SECONDARY SYPHILIS CASES BY REPORTING SOURCE, AGE GROUP, AND SEX: 1959

Age Groups	Total All Sources	Private Physicians			Clinics, Hospitals, and Other Institutions		
		Total	Male	Female	Total	Male	Female
All ages	302	146	112	34	156	109	47
Under 15	2				2		2
15-24	125	52	38	14	73	48	25
25-44	154	77	62	15	77	58	19
45 and over and unknown	21	17	12	5	4	3	1

Table 34b. CIVILIAN CASES OF GONORRHEA BY REPORTING SOURCE, AGE GROUP, AND SEX: 1959

Age Groups	Total All Sources	Private Physicians			Clinics, Hospitals, and Other Institutions		
		Total	Male	Female	Total	Male	Female
All ages	4,646	1,547	1,218	329	3,099	1,999	1,100
Under 15	103	31	9	22	72	14	58
15-24	2,350	643	468	175	1,707	1,028	679
25-44	1,911	692	585	107	1,219	892	327
45 and over and unknown	282	181	156	25	101	65	36

INDEX

A

	PAGE
Accidental deaths	214, 258, 259
Activities of Divisions, Bureaus and Programs	
Divisions:	
Chronic Illness	9
Constructive Health	53
Environmental Health	79
Laboratories	115
Local Health Services	131
Preventable Diseases	155
Special Consultation Services	177
Vital Statistics and Administration	201
Bureaus and Programs:	
Acute Communicable Diseases	157
Administrative Services	203
Air Sanitation	107
Alcoholism Control	16
Bacteriology	118
Budget and Accounts	204
Cardiovascular Disease	44
Cancer Control	21
Chemistry	123
Chronic Diseases	9
Crippled Children	55
Dental Health	63
Diabetes—Endocrine and Metabolic Disorders	34
Examination and Licensing	207
Food and Drugs	82
Grants-in-Aid	12, 148
Health Education	179
Heart Diseases	44
Housing	98
Maternal and Child Health	69
Meat	87
Milk and Milk Products	90
Nutrition Program	183
Occupational Health	99
Pathology	126

	PAGE
Personnel	209
Potable Water	93
Public Health Engineering	94
Public Health Nursing	189
Public Health Social Work	193
Public Health Statistics	210
Radiological Health	102
Ragweed and Poison Ivy Program	97
Research and Development	111
Serology	128
Shellfish	92
Solid Wastes Program	96
Stream Pollution Control	94
Training	195
Tuberculosis	162
Veneral Disease Control	170
Veterinary Public Health	112
Virology	129
Vital Statistics Registration	216
Administrative Services, Bureau of	203
Health Education Services	203
Warehouse	204
Air Pollution Control Code	107
Alcoholism Control, Bureau of	16
Atmospheric Pollution	107

B

Bacteriology Program	118
Barber Examiners Board	207
Bathing	98
Biologicals, distribution of	162
Births	211, 230
By counties and major cities: 1959	232
By counties and municipalities: 1959	233
By months	243
By weight group by age group of mother: 1959	262
Legitimacy by age of mother: 1959	261
Legitimacy for counties and major cities	260
Illegitimate	211, 261
Infants: 1935-1959	230
Numbers and Rates	211
Rates, five-year average, 1880-1959	231
Stillbirths	230
Weight of babies at birth	212
Budget and Accounts	204

C

	PAGE
Camps and Bathing Places	98
Cancer	21
Death Rates	213
Death Rates—five-year average 1880-1959	255
Cancer Control, Bureau of	21
Charts and Tables, vital statistics	222
Chemistry, Bureau of	123
Chest X-ray Surveys	163
Chronic Illness Control	9
Alcoholism Control	16
Arthritis and Allied Disorders	19
Cancer Control	21
Diabetes—Endocrine and Metabolic Disorders	34
Disease of the Nervous System and Special Senses	41
Glaucoma	43
Hearing and Speech	43
Heart and Circulatory Disease Program	44
Homemaker Services	48
Restorative Services	50
Communicable Disease Control Program	157
Constructive Health, Division of	53
Council, Public Health	4
Crippled Children Program	55
Appliance Services	57
Cardiac Surgery	58
Cerebral Palsy	56
Cleft Palate	57
Financial Assistance	54
Hospitalization	56
Nursing Services	57
Physical Therapy	58
Psychological Services	57
Register	56
Cardiovascular Disease Control	44
Chemistry Program	123
Chronic Illness Control	9
Crippled Children	55

D

Deaths	212
Accidents	214
Age Groups	282
By Months	243
Causes	250
Age Groups	250, 266
Age Groups and Sex	266

Age Groups, Number and Percentages	250
Fetal Deaths	213, 230
Heart Disease	213
Tuberculosis	214
Vascular Lesions	213
Cancer	213, 255
Circulatory System	253
Counties and Major Cities: 1959	232
Counties and Municipalities	233
Diabetes	213, 256
Encephalitis Deaths by Month of Onset of Disease: 1959	369
From other reportable diseases	214
From Reported Cases of Central Nervous System Diseases of Viral Etiology: 1959	367
From Reportable Diseases by County of Residence	366
From Reportable Diseases by Sex and Age Group: 1959	368
Infants	212, 230, 246
By Age and Immaturity: 1959	246
By Cause and Age: 1959	245, 247
By Counties and Major Cities: 1959	263
Diseases of Early Infancy: 1959	248, 249
Influenza and pneumonia	213
Leading Causes	212, 230
Maternal	257
Motor Vehicle	230
Neonatal	254
Neoplasms	159, 369
Poliomyelitis	229
Population—Estimates and Vital Events: 1935-1959	231
Rates, Five-year average, 1880-1959	213
Vascular Lesions	63
Dental Health Program	63
Educational Activities	64
Fluoridation	64
Research and Evaluation	64
Treatment Program	63
Diabetes	34, 256
Diphtheria	159, 214
Dogs Licensed and Vaccinated	113

E

Eastern Encephalitis	157
Environmental Sanitation:	
Division of	79
Examination and Licensing, Bureau of	207

F

	PAGE
Fetal Deaths	230
Fluoridation of Communal Water Supplies	64
Food and Drugs	82
Drugs, Devices and Cosmetics	85
Food Program	82
Inspections of establishments	85
Meat Inspection	87
Milk Control Program	90
Revenue, Licenses and Permits	82
Shellfish Program	92

G

Glaucoma	43
Grants-in-Aid, Contracts	12, 148
Gonorrhoea Cases for Counties and Major Cities	171, 377

H

Health Council	4
Health Education Program	179
Heart Diseases	44
Hepatitis	159, 161
Homemakers Services	48
Hospital Consultation Services	69
Housing	98

I

Infants:	
Births	211
Deaths	212
Deaths by age and immaturity	246
Deaths by cause and age	245, 247
Due to Certain Diseases of early infancy	248, 249
Infant and Maternal deaths and rates	212
Illegitimate Births	211

K

Kolmer Tests	128
--------------------	-----

L

Laboratories:	
Approved	122
Division of	115
Leptospirosis	114

	PAGE
Local Health Services, Division of	131
Civil Defense Medical and Health Services	151
Districts	137
Grants-in-Aid	148
M	
Malaria	362
Marriages	212
By age groups	244
By counties and Major Cities: 1959	232
By counties and municipalities: 1959	233
By months	243
Number and rates	212
Population Estimates and Vital Events 1935-1959	229
Previous marital status	245
Maternal and Child Health Program	69
Field Activities	76
Health Education	73
Hospital Consultation Services	69
Maternal Deaths	74, 230, 233, 263, 265
Mental Retardation	74
Midwives	69
Migrant Health	71
Poison Control Service	74
Professional Educational Activities	71
Unattended Births	70
Maternal Deaths	230, 233
By Cause, Color and Age Groups: 1959	265
By Counties and Major Cities	263
By Specific Cause	264
Measles	159
Reported cases and deaths, with rates	362, 366
Meat Inspection	87
Meningitis, Meningococcal	362, 366
Midwives	69
Migrant Health	71
Milk:	
Control Program	90
Motor Vehicle Fatalities	257
N	
Neoplasms:	
Deaths—Sex, color and age group	254
Nursing Program	189
Nutrition Program	183

INDEX

387

O

	PAGE
Occupational Health	99

P

Pathology Program	126
Personnel Program	209
Pneumonia :	
Reported cases by counties	363
Reported deaths by counties	366
Poison Control Service	74
Poliomyelitis :	
Distribution of Cases by Type of Poliovirus Isolated by Paralytic and Vaccination Status: 1959	371
Poliomyelitis cases and deaths by sex and age group: 1959	369
Reported cases of paralytic poliomyelitis by age group, by county: 1959	370
Reported cases of nonparalytic poliomyelitis by age group, by county: 1959	370
Vaccination Status of Cases by Paralytic Status by age: 1959	371
Surveillance of Cases	139
Potable Water	93
Population	211, 224
Estimates and Vital Events: 1935-1959	229
Of counties by Minor Civil Divisions: April 1, 1960 census	224
Preliminary Mid-year estimates for Counties and Major Cities	215
Poultry Inspection	87
Preventable Diseases, Division of	155
Professional Papers by Employees	218
Public Health Council	4
Public Health Nursing Program	189
Public Health Social Work	193
Public Health Statistics Program	210

Q

Q Fever	114
---------------	-----

R

Rabies	112, 121
Radiological Health	102
Ragweed and Poison Ivy	97
Rehabilitation Treatment	17

	PAGE
Reportable Diseases:	
Cases of Central Nervous System Diseases of Viral Etiology	364
Cases of Notifiable Diseases by County	362
Cases and Deaths by County	362, 366
Incidence of Central Nervous System Diseases of Viral Etiology by month of onset: 1960	365
S	
Salmonellosis	120
Serology Program	128
Shellfish	92
Shigellosis:	
Reported Cases and Deaths by Counties	366
Solid Waste Disposal	96
Special Consultation Services, Division of	177
Specimens Examined in Laboratory	119
Staphylococcus Phage Typing	120
State Health Districts	137
Statistical Tables and Charts	222
Statistics, Public Health	210
Stillbirths	230
Stream Pollution Control	94
Streptococcal Sore Throat:	
Reported Cases	353
Syphilis	170
Blood Tests	129
Cases	171, 377
Mortality	171
T	
Tables:	
Vital Statistics	222
Tetanus	159
Reported Cases by Counties	363
Trichinosis	114
Tuberculosis	114, 162
Active and Probably Active Cases by Age groups for Counties and Major Cities: 1959	374
Active and Probably Active Cases by Bacterial Status for Counties and Major Cities: 1959	375
Active and Probably Active Pulmonary Cases by Extent of Disease by Counties and Major Cities	376
Cases and Deaths, Numbers and Rates, 1955-1959	163
Cases and Deaths: Numbers, Rates and Case-Death Ratios for Counties and Major Cities: 1959	372
Clinical Status for Counties and Major Cities: 1959	373

	PAGE
Clinics	167
Hospitals Admission Screening	164
Morbidity, Mortality and Trends	162
Registers	166
Specimens examined	120
Tuberculin Test	164
X-ray Surveys	164
Typhoid Fever	159
Reported cases by counties	363

V

Venereal Disease Control:	
Bureau of	170
Case-finding projects	172
Cases and rates 1949-1959	171, 174
Cluster Testing	173
Contact Interviewing and Investigation	172
Epidemiologic activities	174
Gonorrhoea	171
Morbidity, Mortality and Trends	170
Mortality	171
Serologic surveys	176
Syphilis	170
Veterinary Public Health	112
Vital Events 1935-1959	229
Vital Statistics:	
Certificates Permanently filed	218
Certified Copies and Searches	218
Public Health Statistics Program	210
Vital Statistics Registration Program	216
Examination and Licensing	207
Tables and Charts	222
Vital Statistics and Administration, Division of	201
Historical Background	216

W

Warehouse	204
Waste Disposal	96
Water:	
Potable	93
Weed Control	97
Whooping Cough:	
Reported cases by counties	363

X

X-rays:	
Chest	169