

EIGHTY-FOURTH ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1961



STATE OF NEW JERSEY

DEPARTMENT OF HEALTH

TRENTON, N. J., July 1, 1961

To His Excellency Governor Robert B. Meyner:

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

LADIES AND GENTLEMEN:

There is submitted herewith the detailed Annual Report of the Department of Health for the fiscal year ending June 30, 1961.

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

Respectfully submitted,

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

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

Fiscal Year 1960-1961

KATHLEEN SLETTELAND, <i>Chairman</i>	Ridgewood
C. BYRON BLAISDELL, M.D., <i>Vice-Chairman</i>	Deal
ERMA T. DILKES, <i>Secretary</i>	Sewell
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
HARRY J. ROBINSON, M.D.	Union

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

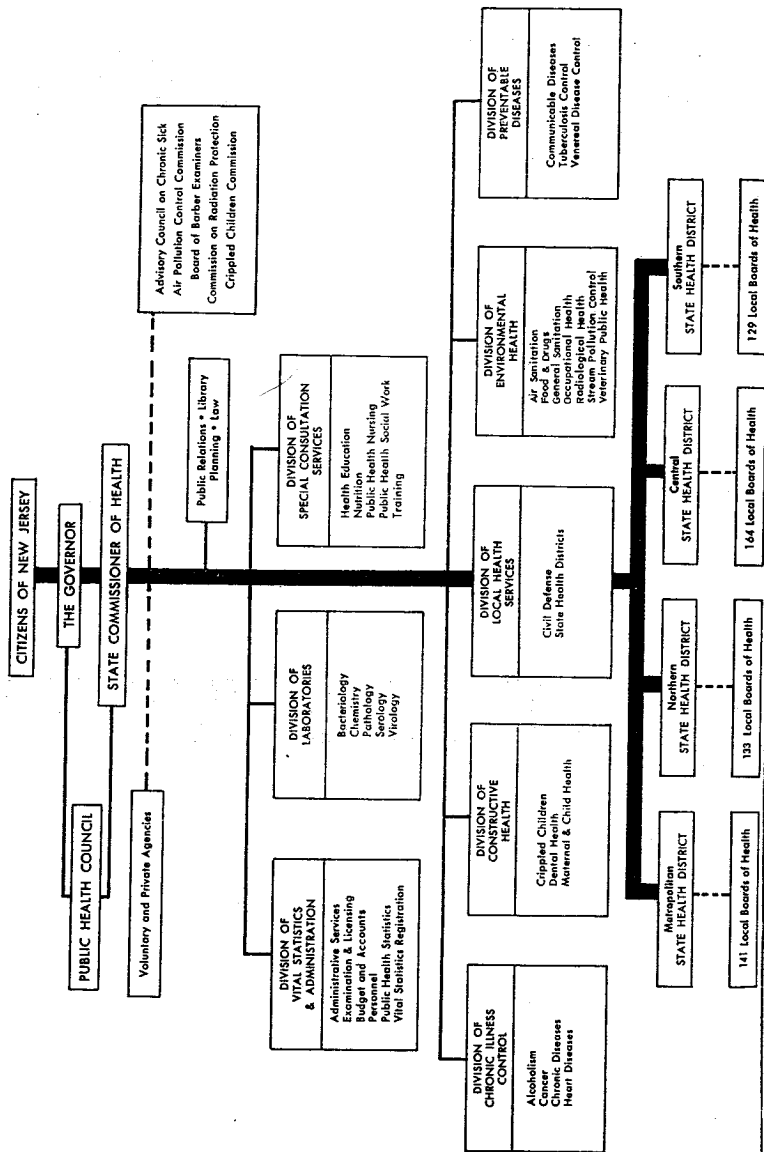
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OF THE STATE OF NEW JERSEY, 1961

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In the text, tables are numbered according to Program.

NEW JERSEY STATE DEPARTMENT OF HEALTH



Annual Meeting Public Health Council

The annual meeting of the Public Health Council was held on July 11, 1960. The following officers were elected for the fiscal year 1960-1961: Mrs. Kathleen Sletteland, Chairman; C. Byron Blaisdell, M.D., Vice-Chairman; Mrs. Erma T. Dilkes, Secretary.

The membership of the Public Health Council is as follows:

	<i>Address</i>	<i>Term Expires</i>
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
Mrs. Erma T. Dilkes*	Sewell	June 30, 1967

* Nominated by the Governor to succeed herself, and confirmed by the Senate on September 12, 1960; sworn in on October 10, 1960.

Division of Chronic Illness Control

ROSCOE P. KANDLE, M.D., *Acting Director*

Programs:

Alcoholism Control WILLIAM J. HARRIS, M.P.H.
Program Coordinator

Arthritis and Allied Disorders MARGARET H. EDWARDS, M.D.
Program Coordinator

Cancer Control STELLA BOOTH, M.D.
Program Coordinator

Diabetes-Endocrine and Metabolic
Disorders ARTHUR KROSINICK, M.D.
Program Coordinator

Diseases of Nervous System and
Special Senses MARGARET H. EDWARDS, M.D.
Program Coordinator

Heart and Circulatory Diseases ALVIN A. FLORIN, M.D.
Program Coordinator

Public Health Nurse Consultants:

(Assigned from Public Health Nursing
Program, Division of Special Consul-
tation Services)

..... VERNA K. HANISCH, R.N.
..... PATRICIA E. HANNA, R.N.
..... ELIZABETH T. HARRIS, R.N.

Division of Chronic Illness Control

As in the past, the Division of Chronic Illness Control has endeavored to stimulate the development of dynamic, comprehensive and integrated programs for the "prevention, early detection and control of chronic illness and the rehabilitation of the chronic sick" (Chronic Illness Law 26: 1A-92). For the most part, activities have been centered in demonstration, case-finding, coordination and consultation services, educational programs and evaluation studies.

Cooperative Community Projects

Primary objectives of the Division have been to initiate and strengthen chronic illness programs in community hospitals and other local agencies. During the past year, grant-in-aid assistance was provided to 21 community hospitals, 12 visiting homemaker agencies, and 6 other organizations in a total amount of approximately \$400,000 (Table 1, page 13). The grants helped local agencies to develop or expand programs for rehabilitation of alcoholics, evaluation of hearing and speech defects, provision of comprehensive restorative services and home care, diagnostic services for convulsive disorders, early detection of glaucoma and low vision rehabilitation, screening tests for early detection of diabetes, early detection of pulmonary disease by routine chest x-ray examinations of hospital patients, specialized techniques in connection with diagnosis and treatment of cancer and cardiovascular disease, provision of homemaker services, and special studies in arthritis, glaucoma, and heart disease.

In re-negotiating these contracts for the year 1961-1962, approximately 14 percent of the total amount was assumed by the local agencies, thus releasing this amount of money for the promotion of other chronic illness programs or similar programs in other geographical areas.

Aging

A series of health programs was conducted at the Newark Day Center for Senior Citizens, October through March. The District Consultant, Medical Social Rehabilitation, a member of the planning committee acted as coordinator. The programs were sponsored by the American Red Cross, Newark Chapter; the Newark Day Center; and the State Department of Health, Metropolitan District. Lectures included: (1) Your Health Department at Work; (2) You and Your Heart; (3) Early Signs of Arthritis and What's

DEPARTMENT OF HEALTH

Being Done; (4) Tuberculosis Not Only for the Young; (5) Your Precious Eye Sight; (6) Diabetes; (7) Growing Older Safely; (8) Tumors and Cancer; and, (9) Emotions and Health. The average attendance was 45.

There has been increasing interest in Senior Health Conference Clinics for the elderly. Requests for assistance in planning such facilities came from (1) Edgewater Senior Center, (2) East Rutherford Health Department, (3) Newark Housing Authority, (4) St. Mary's Hospital, Hoboken. In this whole question, screening techniques are by far the easier part of the problem. Referrals, follow-up and adequate facilities for further diagnosis and treatment are knottier problems for community planning.

Table 1.

GRANT-IN-AID CONTRACTS: 1960-1961

(Name of Agency and Type of Service)

- ALL SOULS HOSPITAL, MORRISTOWN:
Rehabilitation service for alcoholics.
- ATLANTIC CITY HOSPITAL:
Cancer control.
- VISITING HOMEMAKER SERVICE OF ATLANTIC COUNTY:
Homemaker program.
- BERGEN PINES COUNTY HOSPITAL, PARAMUS:
Rehabilitation service for alcoholics.
- VISITING HOMEMAKER SERVICE OF BURLINGTON COUNTY:
Homemaker program.
- HOMEMAKER SERVICE DEPARTMENT OF FAMILY COUNSELLING SERVICE OF CAMDEN COUNTY:
Homemaker program.
- CHR-ILL HOMEMAKER SERVICE, ESSEX COUNTY:
Resident homemaker service.
- DONNELLY MEMORIAL HOSPITAL, TRENTON:
Rehabilitation service for alcoholics.
Comprehensive restorative services program.
- EAST ORANGE HEALTH DEPARTMENT:
Study of latex fixation serologic test for detection of rheumatoid arthritis.
Cytology program.
- ESSEX COUNTY BOARD OF FREEHOLDERS:
Comprehensive restorative services program at Essex County Hospital, Belleville.

DIVISION OF CHRONIC ILLNESS CONTROL

- VISITING HOMEMAKER SERVICE OF HUDSON COUNTY:
Homemaker program.
- VISITING HOMEMAKER SERVICE OF HUNTERDON COUNTY:
Homemaker program.
- HUNTERDON MEDICAL CENTER:
Routine chest x-ray of in-patients, out-patients and hospital personnel.
Screening tests for cancer.
Cytology teaching center
Geriatric study
- JERSEY CAPE VISITING HOMEMAKER SERVICE (Cape May):
Homemaker program.
- MERCER COUNTY CHILD GUIDANCE CENTER:
Juvenile diabetic study.
- VISITING HOMEMAKER SERVICE OF MIDDLESEX COUNTY:
Homemaker program.
- MIDDLESEX GENERAL HOSPITAL, NEW BRUNSWICK:
Cardio-pulmonary function laboratory.
Screening tests for diabetes.
- VISITING HOMEMAKER SERVICE OF MORRIS COUNTY:
Homemaker program.
- MORRISTOWN MEMORIAL HOSPITAL:
Rehabilitation service for alcoholics.
- MOUNTAINSIDE HOSPITAL:
Rehabilitation service for alcoholics.
- NEWARK BETH ISRAEL:
Home care program.
Chemotherapeutic perfusion method applied to selected brain tumors.
- NEWARK EYE AND EAR INFIRMARY:
Evaluation and correction of hearing and speech defects.
Glaucoma detection and research.
- NEWCOMB HOSPITAL, VINELAND:
Rural cardiology service.
Cytology program.
- NEW JERSEY DIABETES LEAGUE:
Summer camp for diabetic children.
- HOSPITAL CENTER AT ORANGE:
Comprehensive restorative services.
Home care program.
Cardio-pulmonary function laboratory.

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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.
- Chemotherapeutic perfusion method applied to selected head and neck tumors.
- Diagnostic and consultation service for convulsive disorders.
- Study project of presymptomatic failure in congenital and acquired heart disease.

ROOSEVELT HOSPITAL, METUCHEN:

- Rehabilitation service for alcoholics.

RUTGERS UNIVERSITY:

- Homemaker training courses.
- Field work training for medical social work students.

SAGE* VISITING HOMEMAKER SERVICE:

- Homemaker program.

ST. FRANCIS HOSPITAL, TRENTON:

- Evaluation and correction of hearing and speech defects.

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 UNIVERSITY:

- Rehabilitation service for alcoholics.
- Scientific studies in field of arthritis.
- Chromosome laboratory services.
- Diagnostic tests for cancer of gastro-intestinal system.

HOMEMAKER SERVICE OF SOMERSET COUNTY:

- Homemaker program.

SOMERSET HOSPITAL, SOMERVILLE:

- Comprehensive restorative services program.

VISITING HOMEMAKER ASSOCIATION OF NEW JERSEY:

- State-wide homemaker program.

* SAGE stands for Summit Association for Gerontological Endeavor.

DIVISION OF CHRONIC ILLNESS CONTROL

VISITING NURSE ASSOCIATION OF CAMDEN COUNTY:

- Stroke program.

WEST JERSEY HOSPITAL, CAMDEN:

- Rehabilitation service for alcoholics.
- Cardio-pulmonary function laboratory.
- Stroke program.

Alcoholism Control

Alcoholism continues to be one of the most prevalent diseases in the United States. It directly affects an estimated 5,203,200 individuals, and indirectly affects at least 5 times this number. In New Jersey, there are an estimated 244,000 alcoholics. (The rates of alcoholism in 1955 were projected on 1960 population estimates to arrive at these figures.)

Rehabilitation Services

During this year, 2 additional out-patient centers for the treatment of alcoholics were opened. Mountainside Hospital in Montclair is a new program which began on September 15, 1960. The center at Bergen Pines Hospital was reactivated when a full-time social worker was employed on October 1, 1960.

Discussions continue with representatives of the Monmouth Medical Center, Monmouth County Mental Health Association, and the Monmouth County Organization for Social Service toward the development of an out-patient treatment service at the Medical Center in Long Branch.

A clinical psychologist and psychiatric social worker were added to the staff of the Alcoholism Program at Seton Hall College of Medicine. The addition of these 2 workers enabled the college to expand its program, in the Department of Psychiatry, to out-patients.

During the year, the following studies pertaining to alcohol and alcoholism were being conducted at Seton Hall Medical School: Personality Factors Relating to Alcoholism and Liver Disease; Delirium Tremens Behavior Rating Scale; the Cause of Low Serum Transaminase in Acute Alcoholic Cirrhosis; Effect of Ethonal on Subcellular Structure of the Liver; Effect of Ethonal on Vitamin Balance; Effect of Ethonal on Pancreatic Function; Effect of Ethonal on Free Fatty Acid Metabolism; and the Biochemical Mechanism of Delirium Tremens.

There were 3,082 patients served during the past fiscal year. Of these, 2,304 were seen in the 9 out-patient clinics, of which 1,552 were first admissions. There were 778 persons who attended weekly group sessions in 4

tuberculosis hospitals, 1 county workhouse, a county jail, and the in-patient alcoholic unit at the Neuro-Psychiatric Institute.

Educational Activities

There were 189 individuals who received training in alcoholism and alcohol education at workshops in New Jersey and the Yale Summer School of Alcohol Studies. Seventy-two teachers and school nurse teachers attended 2 2-week workshops on alcohol education at Trenton and Montclair State Colleges. The course offered 2 semester hour credits. Including this year, 142 persons have attended these workshops. Efforts are made to limit the enrollment to 25 in each course, but this year the number was exceeded at both colleges. A third workshop at Glassboro State College is planned for next year. There were 110 probation officers, wardens, correction officers, parole officers, social workers, nurses, and sheriffs who attended a 1-day workshop on "The Chronic Alcoholic Offender—Can We Stop the Revolving Door?" The program was sponsored with the New Jersey Wardens' Association. Seven individuals were awarded scholarships to attend the nineteenth Annual Session of Yale Summer School of Alcohol Studies at Yale University. Included in the group were a teacher, social worker, nurse, chaplain, 2 parole officers, and a member of a local alcoholism committee. Fifty-four persons from New Jersey have attended the course, during the past 9 years, on scholarships from this Department.

Each person attending these workshops and courses adds to the number of those prepared to help the alcoholic, or to promote programs and disseminate information on alcohol and alcoholism.

During the year, there were 512 film showings with 23,104 persons in attendance. Fifty-two lectures were given by Program personnel and, in some instances, a film was a part of the program.

Program Emphasis

Emphasis during the coming year will continue on strengthening existing clinics with trainees or qualified social workers. Broadening the program in Middlesex County to strengthen the service at the Workhouse will be continued in conjunction with a committee established by the Freeholders.

The educational aspects of the program, particularly the teachers' workshops and workshops for other specific professional groups, will be continued with emphasis on developing a third workshop at Glassboro State College.

Arthritis and Allied Disorders

Origin and Development of Program

The Arthritis Program was initiated in March, 1958, when representatives of 44 state-wide agencies met and formed the New Jersey Arthritis Project, a body of persons in the professions and organizations, official and voluntary, concerned with problems of arthritis. This group drew up a list of major objectives and activities, which formed the basis for the Arthritis Program.

During the next 2 years, the Program sponsored 2 workshops on arthritis, designed to bring together persons of related fields to focus on the common problems of the arthritic from the standpoint of needs and resources. The success of these workshops led to their becoming a permanent program activity.

Seton Hall College of Medicine in Jersey City was given assistance in 1959 in developing its Arthritis Unit by means of special laboratory equipment and the salary of a trained laboratory technician. Laboratory tests were done on patients with various kinds of arthritis, rheumatic and collagen disorders as aids in diagnosis and specific management.

In April, 1960, a research project dealing with the application of the Hyland slide test for the Rheumatoid Factor in human sera was initiated in the laboratory of the East Orange Health Department. It was planned to apply this test to at least 5,000 sera to evaluate its usefulness as a screening procedure for rheumatoid arthritis.

A Comprehensive Rehabilitation Service initiated in 1958 at the Hospital Center at Orange was planned to assist in the care of persons with 3 long-term chronic diseases, namely, arthritics, hemiplegics, and amputees. In the ensuing years, this program has expanded to include a broad spectrum of chronic disease entities, among which arthritis has continued to form a sizeable portion.

In March, 1961, the New Jersey Arthritis Project met to re-define its function, and to appoint from its members a 9-man group to serve as Advisory Council to the Arthritis Program. The Council held its first meeting in July, 1961, and reviewed the Program's budget request for the next fiscal year.

Activities:

1. Workshops:
 - a. On December 1, 1960, a workshop on "Arthritis and the Community" was held at Children's Seashore House for Invalid Children in Atlantic City. Participants were selected from the 6 counties in the Southern State Health District, and the program was planned and carried out with the assistance of the District Office.

Seventy-two physicians, nurses, hospital administrators, educators, rehabilitation counsellors, health officers, and others engaged in community activities observed case presentations and took part in the work-group discussions. The emphasis was on strengthening community resources to assist the arthritic with his multiple problems.

- b. The successful December workshop led to a similarly planned activity on May 24, 1961, at Cooper Hospital in Camden, for participants from Camden County. Ninety-three persons observed case demonstrations and heard a discussion on the question, "How Can Our Community Help the Physician and His Arthritic Patients?" by representatives of 8 community agencies, including the County Welfare Board, New Jersey Rehabilitation Commission, Goodwill Industries, the Society for Prevention of Cruelty to Children, the American Red Cross, the Family Counselling Service, the Department of Education, and the South Jersey Medical Research Foundation. Proceedings of these Workshops were prepared and distributed to the participants, and are available to persons interested in similar activities.

2. Educational Activities:

- a. The Program co-sponsored a 2-day Postgraduate Seminar on "Arthritis and Allied Disorders" held November 4 and 5, 1960, at Seton Hall College of Medicine in Jersey City. More than 150 physicians, many from neighboring states, attended presentations by 14 outstanding speakers.
- b. A panel discussion on "The Socio-Cultural Aspects of Arthritis" for physicians and members of interested professions was presented March 30, 1961, at the Seton Hall College of Medicine in Jersey City, and was attended by 56 persons. The discussants included a rheumatologist, anthropologist, geneticist, sociologist, and psychologist.

Proceedings of the program were prepared and distributed to the participants and were later made available to the members of the American Rheumatism Association at its annual meeting.

- c. With the assistance of the Arthritis and Rheumatism Foundation, the National Foundation, and other agencies, a mimeographed bibliography of pamphlets, booklets, and leaflets relating to Arthritis was prepared for distribution to public health personnel and other interested workers.

- d. Copies of the booklet, "Strike Back at Arthritis", prepared by the United States Public Health Service and the Arthritis and Rheumatism Foundation, were purchased and distributed to key persons in official and professional agencies and organizations for suggestions as to the best use of this educational material. The physicians in New Jersey were sent an announcement of the availability of a copy of this booklet for their use with patients, and a descriptive brochure entitled, "An Aid to Preventing Deformities in Arthritis."
- e. Papers on "The Arthritides" and "Home Care Programs" were prepared and presented at 8 sessions of the courses for graduate nurses on "Rehabilitation of the Chronic Disease Patient" conducted at the Hospital Center at Orange, and co-sponsored by this Division.

3. Clinical and Laboratory Services:

The Arthritis Unit at Seton Hall carried out, with assistance of equipment and personnel from this Program, 4,435 special types of laboratory tests on 1,384 patients with various kind of arthritis and rheumatic or collagen disorders. These may be summarized as follows:

Table 1. TYPES OF TESTS PERFORMED:

Joint fluid analysis	168
Rheumatoid Factor tests	1,067
Rheumatology research tests	3,200
Total	4,435

Table 2. CLINICAL CATEGORIES OF PATIENTS TESTED:

Rheumatoid arthritis	893
Degenerative joint diseases	143
Rheumatic fever	96
Gout	128
Other	124
Total	1,384

4. Research:

- a. The Rheumatoid Factor study initiated in the laboratory of the East Orange Health Department in January, 1959, was completed in September, 1960, with the addition of 370 tests performed in the first quarter of the fiscal year. This study was the subject of a paper presented at the annual meeting of the American Rheumatism Association in New York on June 23, 1961, entitled, "Serologic Screening for the Rheumatoid Factor in a Health Department Laboratory." The

study detected that 38 individuals had reactive sera in a total of 5,086 screened, an incidence of 0.74 percent. Factors of age, sex, and race of this laboratory population sample were analyzed and compared to the population of East Orange, and of New Jersey as a whole. The proportion of reactive sera was higher in females, non-whites, and increased with age. The Rheumatoid Factor is not specific for rheumatoid arthritis, however, and is not positive early in joint disease. Routine application of this procedure as a screening test is not, therefore, practical, although its use in selected population samples would be justified. Its main value remains in the differential diagnosis of polyarthritis.

- b. With the cooperation of Departmental personnel and the staff of the Arthritis Unit of the Department of Medicine at Seton Hall College of Medicine, a study to determine the information and attitudes concerning arthritis held by patients was begun in the Arthritis Clinic of the Jersey City Medical Center. Questionnaires were devised for both patients and their attending physicians, and are to be correlated with the results of both standard and specially devised personality surveys. Thirty patients have been interviewed since the study was initiated in May, 1961.

5. Outlook:

The pattern for the Arthritis Program is still developing. With the assistance of the Advisory Council and by periodic reports to the New Jersey Arthritis Project members, it is expected that present activities will be under constant scrutiny by detached observers, so their value will not be static or on a presumptive basis only. The direction of Program policy will be governed both by developments in the medical and related sciences, and by needs felt and expressed, as they are observed and reported.

Specific activities for the near future include extension of workshops and educational programs, the completion of a Directory of Arthritis Services, and assistance with provision of direct services in limited areas. The socio-cultural and economic aspects of arthritis will form the basis of continued study and planning.

Cancer Control

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

Medical care programs for the elderly in some form will be enacted in the very near future. This behooves public health cancer control program personnel to consider seriously the problems that this aid will present to medicine, private or public health.

How can this aid be mobilized so that it will be utilized for active treatment and care and not just terminal care? This question cannot be easily decided. Policies about treatment and care for cancer of the aged should be formulated now.

Various types of cancer have a significant spread amongst all age groups from 0-16 onwards.

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 groups, 65 and upwards.

Lung Cancer and Smoking

Data confirm the correlations of lung cancer and smoking as one of the etiological factors. 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.

Whether one can change the habits of individuals who have been smoking for 20 years or more is debatable. But there is growing concern about the education of present day teenagers and young adults who should be so convinced of this relationship that they will not acquire the habit or break the habit if already established.

Smoking is not only related to lung cancer but to other medical illnesses including heart disease, and this aspect should be emphasized as well as the cancer angle.

A concentrated educational program should be undertaken by the family physician, voluntary and governmental agencies, and an all-out effort made to educate young persons so they will not start smoking and if they already have, to discontinue. Families, teachers, athletic coaches, ministers and priests, as well as physicians have a real educational challenge ahead of them.

The youngster gets confused. He is told not to smoke. He finds that many who tell him not to smoke are themselves smokers.

Hospital and Medical Trends

The specialization now needed to diagnose and treat cancer and the ever increasing costs of this specialization are bringing changes in approach.

These changes will not reduce the importance of the family physician in relation to this disease. He will be more important than ever. They will, however, change the position of the small community hospital. These hospitals as well as the physicians' offices are still the first lines of attack. But treatment will have to be done in fewer places and by those best equipped for all phases of treatment, including surgery, radiation, and chemotherapy.

Follow-up and continued care to the end will be the province of the family physician and the community hospital. Hospitals will have to pool resources, including medical resources. This is also true for heart and other diseases. If one studies the end results, he can see the differences between the larger centers and the smaller community hospitals. These conclusions are easily verified by a careful scrutiny of scientifically compiled statistics.

Program Activities

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

Cytology

Equipment for Cytology. A microscope was placed in the East Orange Hospital under a lend-lease contract from this Department.

Fluorescent equipment purchased previously is now functioning in three centers:

Hunterdon Medical Center, Flemington

Pollak Hospital, Jersey City

Presbyterian Hospital of the United Hospitals of Newark

Training Program. Training of cyto-technicians, which takes place at the Presbyterian Hospital of the United Hospitals, Newark, is an annual project. Six technicians are sent to the course by 5 hospital pathologists in the state.

Programs for Early Detection and Special Study. Cytology smears are made on hospitalized patients upon admission. The conventional Papanicolaou techniques and Papanicolaou's classification for diagnostic purposes are utilized. See Tables 1, 2, and 3.

Table 1. CYTOLOGICAL SMEARS

1960-1961

Hunterdon Medical Center, Flemington

Vaginal Smears

Number of patients	2,544
Class I & II	2,517
Class III	19
Class IV	3
Class V	5
Number of slides	5,100

Table 2. CYTOLOGICAL SMEARS

Sputa

1960-1961

*Pollak Hospital, Jersey City**SPUTA*

Total Number of patients	721
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>
649—patients had 1 series	7,788
46—patients had 2 series	1,104
12—patients had 3 series	432
11—patients had 4 series	528
3—patients had 5 series	180
721	10,032

Breakdown as to classification

Total	Negative Class I, II, II-III	Suspicious III	Positive III-IV, IV, IV-V, V		
721	417	110	63	84	36 11
			194		

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, classical for malignancy and in abundance.

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Table 3. CYTOLOGICAL SMEARS
POLLAK HOSPITAL, JERSEY CITY
1960-1961
Miscellaneous Specimens

Total Slides	Specimen	Total No. Patients	Negative I, II, II-III	Suspicious III	Positive III-IV, IV, IV-V, V
524	Bronchial	121	61	24	11 15 7 3
408	Chest fluid	97	34	15	9 17 14 8
72	Ascitic fluid	14	7	2	1 1 2 1
8	Esophagus	2	0	1	1 1 0 0
2	Urine	1	0	1	0 0 0 0
1,014		235			

GRAND TOTAL OF SLIDES: (Tables 2 and 3)

Sputum 10,032

Other specimens ... 1,014

11,046

Class description: See Table 2. for explanation.

Table 4. VAGINAL AND CERVICAL CYTOLOGY SPECIMENS
SAINT ELIZABETH HOSPITAL, ELIZABETH

No. patients	127
No. slides	387
No. negative	378
No. suspicious	9
No. positive	0

Table 5. OTHER CYTOLOGY SPECIMENS

Total Slides	Specimens	Number Patients
57	Sputum	19
6	Bronchial	2
36	Pleural	12
6	Gastric	2
27	Body Fluid	9
6	Kidney	2
138		46

DIVISION OF CHRONIC ILLNESS CONTROL

Radiobiology and Nuclear Medicine

The Radiobiology Department of the Presbyterian Hospital of the United Hospitals, Newark, is supported in part by the Cancer Program of the State Department of Health. 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 6.)

Table 6. CLINIC LOAD, PRESBYTERIAN HOSPITAL, NEWARK
1960-1961

Presbyterian Hospital of the United Hospitals, Newark
(Including Black-Stevenson Clinic)

	Number Patients	Number Treatments	Number Clinic Visits
Presbyterian Hospital Case Load			
<i>Diagnosis</i>			
Evaluations for cancer	2,009		
Malignant	1,458		
Non-malignant	551		
Black-Stevenson Clinic			
Clinic visits—follow up			2,094
<i>Radiation Treatment</i>			
* Patients receiving radiation therapy	670		
* Number of therapy treatments		13,000	

* 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 the 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.

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Table 7. WORK LOAD IN ISOTOPES
At Community Hospitals where Cancer Program has Projects
1960-1961

Hospital	Type of Material Used	Purpose of Procedure	Number of Patients
Presbyterian Newark	I131 AS74 Triolein Oleic Acid Co ⁶⁰ , B ¹² RISA	<i>Diagnosis:</i>	
		Hyper thyroid	44
		Hypo thyroid	73
		Eu thyroid	61
		Cardiac	9
		Thyroiditis	2
		Brain Scan for tumor localization	34
		Fatmalabsorption	47
		Fatmalabsorption	8
		Pernicious anemia	27
		Blood volume	4
	309		
	I131 P-32 P-32	<i>Therapy:</i>	
		For hyper thyroidism	27
		For polycythemia	6
		For bone metastases (from Breast cancer)	4
		37	
West Jersey Camden	I131	<i>Diagnosis:</i>	
		Uptakes	97
		97	
	I131 P-32 Au ¹⁹⁸ .Gold	<i>Therapy:</i>	
		Hyperthyroidism	7
		Cardiac therapy	2
		Polycythemia	1
		Carcinomatosis	1
	11		
Saint Barnabas Newark	I131 RISA	<i>Diagnosis:</i>	
		Uptakes	48
		Blood volumes	14
			62
	I131 P-32 Co ⁶⁰ , B ¹²	<i>Therapy:</i>	
		Hyperthyroidism	2
		Polycythemia	2
		Pernicious anemia	1
		5	
	Au ¹⁹⁸ .Gold	<i>Palliation:</i>	
		Pleural effusion	1
			1

DIVISION OF CHRONIC ILLNESS CONTROL

Table 8. RADIOLOGICAL HEALTH PROGRAM IN CANCER
Presbyterian Hospital of the United Hospitals, Newark—1960-1961
Monitoring of Equipment and Personnel

Equipment	Number of Tests	Personnel	Number of Persons
Calibration for X-ray Machine	6	X-ray with Badge	12 Monthly
Stray Radiation Surveys:		Cobalt and X-ray Therapy with Badge	12 Monthly
Diagnostic X-ray Machine	2	Babies Hospital Unit with Badge	3 Monthly
Cardiac Catheterization Room	1	Radioisotope with Badge	4 Monthly
Standardized Survey Instruments for Gamma Radiation	7	Operating Room Staff with Badge	4 Monthly
Standardized Survey Instruments for X-rays	6	Anesthesia with Badge	2 Monthly
Standard Victoreen Chamber	1	Cardiac Catheterization with Badge	10 Monthly
		Radiation Therapy and Radioisotope with Pocket Dosimeters	10 Monthly

Table 9. RADIOLOGICAL HEALTH PROGRAM IN CANCER
Monitoring of Equipment and Personnel

Hospital	Machines Monitored	Personnel Monitored
West Jersey Camden	Machines—monthly Counter area—weekly	2 continuously
Saint Barnabas Newark	Isotopes laboratory working area and all equipment surveyed	Personnel checked No number given

Seton Hall College of Medicine and Dentistry, Jersey City

Grant-in-aid funds are provided for the organization and provision of chromosome laboratory services, covering the instruction of trainees (physicians). This laboratory is located in Pollak Hospital.

Grant-in-aid funds are provided for technician services in the gastroenterology laboratory. This program provides for diagnosis and detection tests for cancer of the stomach, pancreas, gall bladder, etc.

Nursing Activities

The program for the year's clinical observation at Black-Stevenson Clinic and Presbyterian Hospital, Newark, was planned and organized by the Public

Health Nurse Consultant. She participated in 29 of the 34 sessions, which were attended by 117 nurses. The consultant activities included coordinating the program and conducting conferences to emphasize special aspects related to nursing.

The Public Health Nurse Consultant visited 11 hospitals in different areas of the state. These visits were helpful in determining the extent of services available to cancer patients.

East Orange Study

The Public Health Nurse Consultant developed forms and guides for nursing activities in the East Orange Study and oriented the public health nursing staff in the local health department to this program.

Institute on Cancer Nursing

The major responsibility for planning and organizing an institute on cancer nursing for all nurses in the Central State Health District was assumed by the Public Health Nurse Consultant. The New Jersey Division of the American Cancer Society cooperated on this project, which was attended by 208 nurses.

In-service Education

The Public Health Nurse Consultant conducted 16 in-service programs on cancer for 174 public health nurses from official and voluntary agencies. One program was presented to the public health nurse consultants and district chief public health nurses. Other sessions included discussion and demonstrations of nursing techniques to visiting nurse association and health department nurses. The plastic torso purchased by the Cancer Program has proven to be an excellent teaching tool.

Participation in Meetings

The Public Health Nurse Consultant discussed cancer nursing at the annual meeting of the Cape May County Nurses Association, Wildwood.

Senior Citizens Group of Newark was another meeting in which the Public Health Nurse Consultant participated. She led a discussion on some of the public health aspects of cancer control.

Staff Education

The Public Health Nurse Consultant spent 3 days at the National Cancer Institute, Bethesda, Maryland.

Lymphoma-Leukemia Study—U. S. Public Health Service

The Lymphoma-leukemia study on children 0-16 years of age, known as the National Cooperative Child Health Study, has been completed. (See Table 10.) This study in New Jersey is part of a national study in 14 centers in the United States.

The data obtained by the interviewer from the mother, as shown on the questionnaire on each case and control, were verified by departmental physicians. The physicians checked the data on the records in hospitals and physicians' offices. The completed questionnaires, both index and control, have been forwarded to the U. S. Public Health Service in Washington for analysis.

Further verification of diagnoses was accomplished by the collection of diagnostic slides. Slides have been collected on 39 index cases and will be sent to the Public Health Service to complete this study. (See Table 11.)

In New Jersey, we attached to the questionnaires a page on a "pet" history. This was done in order to determine whether the index and control cases would have sufficient information about their pets, so that a specific study of this kind could be carried out at some later date.

Table 10. NATIONAL CHILD HEALTH STUDY—PUBLIC HEALTH SERVICE
LEUKEMIA-LYMPHOMA STUDY
March 1, 1959 - April 30, 1961

Total cases referred to study	244
Cases referred by physicians	51
Cases referred by death certificates from Public Health Statistics Program, N. J. State Dept. of Health	193
Cases interviewed and completed	60
Cases not interviewed—for following reasons:	184
<p>Died out of state. Diagnosed prior to Jan. 1, 1951 (starting date). Not investigated—lack of personnel and time. Drs. did not give authorization for interview. Families did not give authorization for interview. Questionable diagnoses.</p>	

Table 11. NATIONAL CHILD HEALTH STUDY—PUBLIC HEALTH SERVICE

LEUKEMIA-LYMPHOMA STUDY	
March 1, 1959 - April 30, 1961	
<i>Slide Collection</i>	
Total index cases in study	60
Index cases with slides	48
Index cases on which no slides known available for following reasons:	12
Not kept.	
Lost.	
Will not relinquish.	

Table 12. PUBLIC HEALTH SERVICE ANNUAL REPORT ON CANCER ACTIVITIES

1960-1961

Since July 1, 1960, this has become a regular annual report.

Number hospitals in New Jersey circularized (Including State institutions and small hospitals)	120
Number hospitals that returned reports	62
Number hospitals that did not fill out reports	58

Chemotherapy Projects

The following use infusion techniques to the affected areas:

UNITED HOSPITALS OF NEWARK

- Presbyterian Hospital—"terminal" cases with tumors of head and neck.
Newark Beth Israel —tumors of the brain.

Cytology

1. Cytology Study is in progress at the Newcomb Hospital, Vineland, on a special age group; females 18-30, using Papanicolaou techniques and criteria for diagnosis.
2. A pilot study in cytology is in operation in cooperation with a local health department (East Orange Health Department), a local community hospital (East Orange Hospital), the District State Health Office and the Cancer Control Program.

Cancer Registry Activities

A meeting was held with the following to discuss basic educational problems involving cancer registries: president of the New Jersey Association of Medical Record Librarians; Executive Director, New Jersey Hospital Association; State Commissioner of Health; former Director, Division of

Chronic Illness Control; and Program Coordinator, Cancer Control Program, State Department of Health.

The discussion centered around the appointment of a State Consultant who would evaluate each registry and train the cancer registry secretaries. The importance of these registries for diseases other than cancer, for example, heart, was also stressed.

Registries are the only efficient method of maintaining proper follow-up on patients. It is hoped that accreditation by the College of Surgeons will be contingent upon the proper professional maintenance of these hospital cancer registries.

Death Certificates: The Program Coordinator acts as liaison between hospitals and the Public Health Statistics Program in furnishing copies of death certificates from cancer. There were 392 photocopies 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. In at least 72 cases extensive searches were made without being able to locate a certificate.

Pathological Tissue Service

Cancer funds support pathological tissue laboratory in Department.

Table 13. PATHOLOGY LABORATORY WORK

Item	1960-1961	Number
Slides processed		8,477
Specimens—special stains		721
Specimens—contributed		254
Slides distributed throughout state		6,075

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

Specimens from dogs processed	38
Slides made from above specimens	194 (estimated)

Professional Education

Symposia: Dr. Mancel Lederman of the Radiotherapy Department, the Royal Marsden (Cancer) Hospital, London, England, and Dr. Charles M. Norris of the Chevalier Jackson Clinic, Temple University, Philadelphia, were the speakers at a symposium—"Surgical and Radio-Therapeutic Approaches to the Management of Cancer of the Larynx."

Another symposium was conducted on "Management of Cancers in Children Up to 16 Years of Age."

Staff Education

Program Coordinator attended approximately 30 sessions to keep up to date on current scientific knowledge and experience in cancer. Program Coordinator also made approximately 50 visits to hospitals and agencies for possible future development of cancer programs.

Program Coordinator attended a Head and Neck Clinic at New York University, where demonstration of chemotherapy with surgery and perfusion and infusion techniques are combined with radiation therapy.

Public Education

The Mercer County Medical Society and its Auxiliary cooperated with the Mercer County Chapter, American Cancer Society and the State Department of Health in sponsoring a Cancer Program at Lit's Department Store, Trenton.

Local physicians participated in the question period following the showing of 2 films "Breast Self-Examination" and "Time and Two Women." Attendance was 200 women at 5 sessions.

Film Showings

During the year, the State Museum cooperated with this Department in 308 film showings of 9 films on Cancer, with 13,058 persons in attendance.

Distribution of Pamphlets

Requests for pamphlets, especially those on Smoking and Lung Cancer, continue to increase. Over 18,000 pamphlets have been distributed to medical and non-medical persons.

Consultations

Program Coordinator was a source person at a Cancer Registry Workshop sponsored by the American College of Surgeons at Temple University.

Program Coordinator spoke at a meeting of the New Jersey Society of Medical Record Technologists.

Program Coordinator was a member of the list of professional participants in a World Health Organization Conference of Research Workers on Comparative Studies in the Lymphoma-leukemia group of diseases—bovine, canine, and human.

Program Coordinator is cooperating with surgeons in doing an "End Result Study" on all patients from Black-Stevenson Clinic from 1953-1960.

Publications

Cytology Manual by Ruth Winston in cooperation with Program Coordinator.

Diabetes1. *Case-Finding Activities*

- a. The Eighth Annual State-wide Diabetes Detection Drive was observed during November 13-19, 1960. This was a joint effort of the Medical Society of New Jersey, New Jersey Diabetes Association, and the State Department of Health. The 21 county medical societies organized Diabetes Detection and Education Committees. The theme of this project was "The Costs of Undiagnosed Diabetes." A pamphlet based on this theme was prepared and mailed to all New Jersey physicians. Although a considerable number of Drey-paks were distributed this year, this device will be discontinued as a mass screening method in the future. The returns are not adequate to justify their use. Once again, the attempt to emphasize blood screening was made. All techniques of community education, including radio, television, newspapers 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. Blood tests for diabetes were offered to State employees through the newly organized multiple screening phase of the State Employees Health Program. (See Table 3.)
- c. The Diabetes Detection Unit at the Middlesex General Hospital continue to operate well. The populations screened now include in-patients and out-patients of the Middlesex General Hospital, as well as community groups such as industrial employees, service clubs, etc. In addition, an arrangement has been made with St. Peter's Hospital to have blood samples screened at Middlesex General Hospital. (See Table 3.)
- d. The Diabetes Detection Unit at the East Orange Health Department has continued to use the Clinitron for blood screening. (See Table 3.)
- e. Mercer County nursing agencies performed a limited number of urine tests on home visits, utilizing glucose oxidase test sticks. (See Table 2.)

- f. The Bureau of Chemistry, Division of Laboratories processed blood and urine samples during the year.
- g. In accordance with our standard procedure, the follow-up for final diagnosis is done by personal physicians. In many instances, physicians requested the assistance of the State Department of Health in this activity.

2. Educational Activities

a. Professional Education

(1) Films

The film called "Diabetes and Its Long Range Control," sponsored by the State Department of Health, was completed. The film reorients the profession to modern diabetes control. Included are case-finding and early detection, professional and patient education, epidemiology and classification of diabetes, normal and pathologic physiology of diabetes, treatment with diet, insulin and oral hypoglycemic drugs, and complications including recognition and treatment of hypoglycemia, diabetic acidosis, retinopathy, etc. The film represents a good balance between public health, medical, and clinical aspects of diabetes control. The preview of the film was held at the American Diabetes Association Convention at the Hotel Commodore, New York City on Saturday, June 24, 1961. The film was shown as a part of the teaching classes on diabetes at the American Medical Association Convention at the Coliseum in New York City, on June 26-30, 1961. Prints of the film will be available for viewing by professional audiences in New Jersey. The United States Public Health Service, and other health education organizations have ordered a number of prints of "Diabetes and Its Long Range Control" for showing throughout the United States.

The Diabetes Control Program and the Middlesex General Hospital Diabetes Detention Unit participated in a new film on diabetes called "Diabetics Unknown," co-sponsored by The Public Affairs Committee, Inc., and the Conference of State and Territorial Directors of Public Health Education.

This black and white film runs 22½ minutes and is suitable for non-professional audiences, including commercial and educational television. One sequence of the film, which is narrated by Francis D. W. Lukens, M.D., visualizes the mass blood screening technique used at Middlesex General Hospital. Dr. Gabriel Pickar, Mrs. Joan Gush and Mrs. Susan Rinar of the Middlesex General Hospital, and Dr. Arthur Krosnick and Mrs. Irma Chewning of this Program, appear in the film. At the end of the film, a 6½ minute filmed panel discussion is included. This film will be used by the Diabetes Control Program for loan throughout New Jersey as a means of public education.

(2) Symposia and Training Conferences

On October 11, 1960, 100 personnel of the Northern State Health District in conjunction with the Diabetes Control Program, participated in a training conference in Hackettstown. On November 2, 1960, 400 persons in the Metropolitan State Health District attended a training conference on diabetes. The meeting included demonstration of blood screening methods.

On October 26, 1960, the Eighth Annual Symposium on "Diabetes Research: Methodology and Application" was held at the Veterans Administration Hospital in Lyons, New Jersey. Prominent educators from Joslin Clinic, National Institutes of Health, Brookhaven National Laboratory, and the University of Pennsylvania addressed approximately 100 physicians and nurses.

The Diabetes Control Program and the Dental Health Program co-sponsored an unusually successful symposium with 150 in attendance on "The Interrelationship of Oral and Metabolic Disease." The meeting was held at the Jersey City Medical Center. It was designed to bring the dentist and physician closer together as a working team.

The Third Annual Spring Symposium attracted 125 physicians on "Kidney and Diabetes," sponsored by the New Jersey Diabetes Association and the New Jersey State Department

of Health. It was held on May 3, 1961. This was one of the best meetings of its type. The Moderator was Harold J. Jeghers, M.D., Professor and Director, Department of Medicine, Seton Hall College of Medicine and Dentistry.

In summary, approximately 4,525 man-hours of training time was experienced by professional persons in New Jersey, who attended diabetes symposia and training conferences. The Training Conference papers were published in the April, 1961 issue of Public Health News entitled "Long Range Control of Diabetes." The United States Public Health Service, Diabetes and Arthritis Program in Washington requested and distributed 500 copies of this issue nationally. Many out-of-state requests for copies of this booklet have been received.

A Scientific Exhibit sponsored by the Diabetes Control Program in conjunction with the Diabetes Detection Unit of the Middlesex General Hospital was presented at the 195th Annual Meeting of the Medical Society of New Jersey. The meeting was held in Atlantic City from May 13-17, 1961. The exhibit, "Diabetes Screening in the Hospital, Physician's Office and Community," consisted of active demonstration of rapid blood sugar analysis by current recommended methods. Seventy-two persons availed themselves of the tests, which were offered to physicians and other guests who visited the exhibit. Of those tested, 1 was positive and has been referred to his personal physician for follow-up; 1 other was a known diabetic. The exhibit was staffed by personnel from the hospital and this Department.

(3) Research

The first phase of the research project on the psychodynamic evaluation of juvenile diabetics implemented by the Diabetes Control Program and the Child Guidance Center of Mercer County was largely completed. The second phase, which primarily includes the medical evaluation of the diabetic condition, will be completed in the coming year.

Table I. WORKLOAD DATA
(All Data are on a Fiscal Year Basis)

Description of Workload Data	1959-1960 Actual	1960-1961 Actual	1961-1962 Estimated	1962-1963 Forecast
DREYPAKS				
Number Distributed	107,231	134,187	10,000	0
Number Returned for Testing**	8,105	14,103	1,000	0
Number Positives	90	689	50	0
BLOOD SCREENING				
Number Sheppard Tubes Distributed	5,773	5,140	15,000	20,000
Number Reagent Tablets Distributed	41,500	26,100	75,000	100,000
Number of tests performed	7,768	6,969	10-15,000	15-20,000
Number of positives	124	151	450-650	500-700
Number State Employees Tested	3,670	4,326		
Number of positives	80	35		
MERCER COUNTY VISITING NURSE ASSOCIATION PROJECT				
Uristix (125 strips-bottle) distributed	81	15	—	—
Number of tests performed	931	312	—	—
Number of positives	13	6	—	—
EDUCATIONAL MATERIALS DISTRIBUTED				
Professional	25,633	39,911	40,000	50,000
Lay Public	187,906	108,879	200,000	200,000
Posters	4,510	2,606	5,000	5,000
Miscellaneous	1,542	1,600	2,000	2,000
REPORTS AND FOLLOW-UP LETTERS AND QUESTIONNAIRES				
	14,121	21,897	25,000	50,000
REQUESTS FOR PUBLIC HEALTH NURSE FOLLOW-UP VISITS				
	14	32	—	—

** These figures are not referable to the number distributed since they include only those Dreyapak 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.

DEPARTMENT OF HEALTH

Table 2. RESULTS OF DREYPAKS TESTED*
Fiscal 1960-1961

	Number Dist'd	Number Returned	Positive Reactors	Newly Diagnosed Diabetics	Known Diabetics	Potential Diabetics	Diagnosis Not Determined**	Negative	Follow-up Incomplete
Southern District	25,900	2,093	65	11	9	6	12	25	2
Northern District	25,150	1,079	46	6	9	6	9	13	3
Central District	18,762	874	35	8	5	7	4	11	0
Metro. District	41,375	2,990	92	10	21	14	26	20	1
Western Electric Kearney, N. J.	8,000	7,081	452	...	...	...	...	...	452***
Bergen Co. TB & Health Assn.	15,000	...	...	...	...	...	...	...	...
Totals	134,187	14,117	690	35	44	33	51	69	458

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

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

*** Follow-up by personal physicians; no diagnoses available.

DIVISION OF CHRONIC ILLNESS CONTROL

Table 3. RESULTS OF URISTIX TESTING—MERCER COUNTY
Fiscal Year 1960-1961

	Number Tested	Positive Reactors	Newly Diagnosed Diabetics	Known Diabetics	Potential Diabetics	Diagnosis Not Determined	Negative	Follow-up Incomplete
Mercer County Visiting Nurse Associations	312	6	4	...	...	...	1	1

Table 4. RESULTS OF BLOOD SCREENING
Fiscal Year 1960-1961

	Number Tested	Positive Reactors	Newly Diagnosed Diabetics	Known Diabetics	Potential Diabetics	Diagnosis Not Determined*	Negative	Follow-up Incomplete
GENERAL PUBLIC								
MCOSS Hobby Show	133	6	3	1	...	...	1	1
Gloucester Co. (Woodbury Hosp.)	223	31	4	9	2	1	7	8
Newark, Diabetes D. D.	1,029	45	...	...	...	...	...	45**
East Orange Health Dept.	620	35	3	2	...	...	...	30**
N. J. Medical Society Conv.	72	1	...	...	...	...	1	...
HOSPITALS								
Middlesex General Hospital	4,892	33	6	19	...	...	2	6
STATE EMPLOYEES HEALTH PROGRAM	4,326	35	5	5	2	...	3	20
Totals	11,295	186	21	36	4	1	14	110

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

** Follow-up by personal physicians; no diagnoses available.

Diseases of Nervous System and Special Senses

Neurological Disorders

Origin and Development of Program

From 1953 to 1959, activities of the Division regarding neurologic disorders were focused on epilepsy, through participation with other agencies in a joint program of services known as the New Jersey Consultation Service for Convulsive Disorders. Seventeen electroencephalograph machines were placed by the Division in community hospitals during this period, and were available to the Consultation Service which held weekly sessions in 5 communities. Educational materials and an exhibit were prepared for the Consultation Service by this Program, and the Program Coordinator serves on its Advisory Council and participates in training programs for public health personnel.

In the 1959 Program revision, the scope of the Program was broadened to include other chronic neurologic disorders as well as disorders of the special senses.

Activities

Electroencephalography: The electroencephalograph machines placed in 17 community hospitals continue to assist in early and accurate diagnosis of chronic neurologic disorders. A total of 5,002 examinations on 4,926 patients were reported in 1961, an increase of 5 percent in the number of examinations since 1960. 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
Convulsive Disorder	1,926	39
Trauma	274	6
Tumor	258	5
Cerebrovascular Disorder	181	4
Other neurological disorder	938	19
No neurological disorder	1,349	27
Total	4,926	100

Table 2. INTERPRETATION OF ELECTROENCEPHALOGRAPH EXAMINATIONS

	Number	Percent
Normal	2,731	54
Abnormal	2,271	46
Focal	686	
Diffuse	959	
Compatible with convulsive disorder	1,155	23

The Consultation Service for Convulsive Disorders referred for electroencephalograph examinations 204 of its clients. A comparison was made of the electroencephalograph services of the 17 hospitals. A bar graph indicating the relative standing of each institution was mailed to the hospital administrators, and drew comments from 10. A graph for the current year will be similarly utilized. (Table 3.)

Visits were made to the 17 hospitals to evaluate their electroencephalograph services. A special form was devised for standardizing this activity, based on factors regarding personnel, physical facilities, the keeping of reports and records, and services of the electroencephalograph unit. There are presently no uniform standards for these activities, and variations in procedural systems make evaluation difficult.

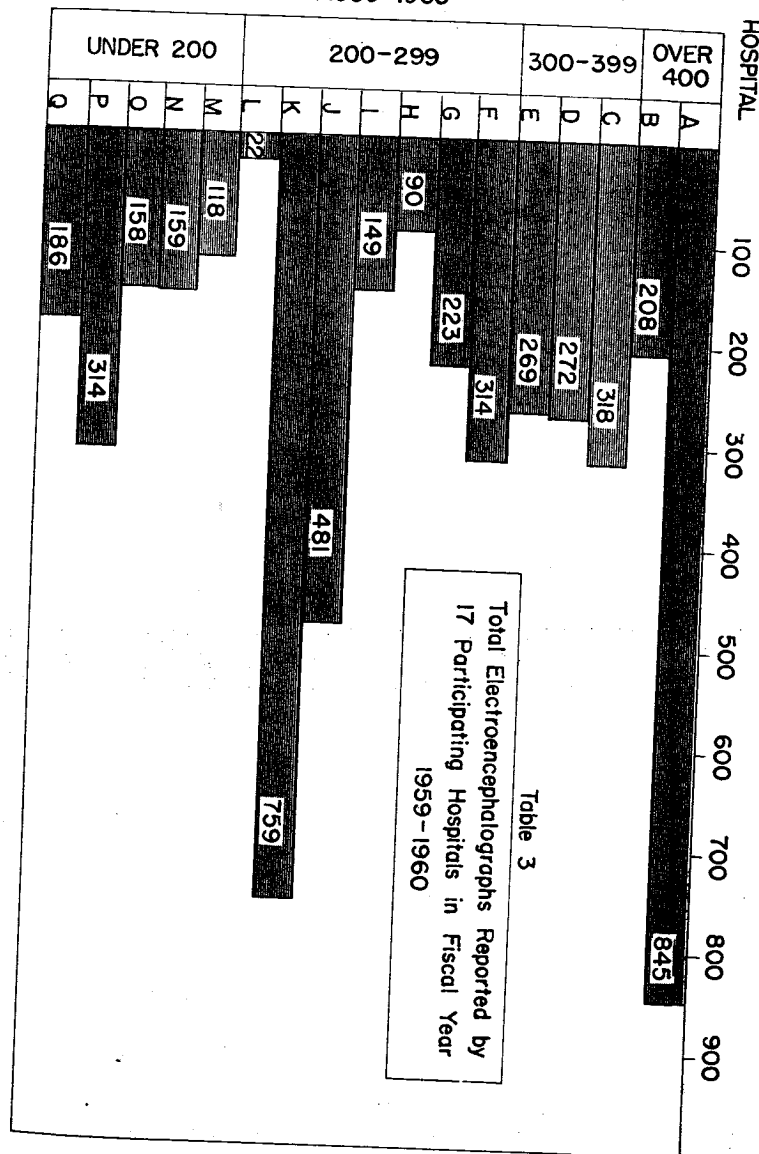
Motor Vehicle Liaison. As a result of cooperative planning with the Consultation Service for Convulsive Disorders, the Division of Motor Vehicles has adopted a procedure planned by this Program for the issuance of motor vehicle licenses to persons with well-controlled convulsive disorders, after an appropriate investigation and medical evaluation, administered by the Motor Vehicle Division. This has resulted in licensure of 21 of 44 applicants with seizures in 1961, denial of 2, while 21 are pending. Licenses were issued to 3 new applicants, indicating the willingness of new drivers to comply with the regulation.

The Division of Preventable Diseases has submitted to this Program the names of 74 persons reported to the State Department of Health during 1961 as having epilepsy. This disorder has been reportable in New Jersey since 1911, when it was made mandatory to report to the Department of Health all cases of mental deficiency and epilepsy.

Educational Activities

The second all-day symposium on electroencephalography for physicians and technicians was held November 2, 1960, at the New Jersey Neuro-Psychiatric Institute in Princeton. There were 110 physicians and technicians who heard clinical presentations by outstanding speakers, and a panel dis-

BED CAPACITY OF 17 PARTICIPATING HOSPITALS
As recorded in Membership Directory, Medical Society of New Jersey,
1959-1960



cussion on the subject "The Medico-Legal Aspects of Epilepsy." Proceedings of the symposium were prepared and distributed to the participants and made available to physicians and interested persons.

With the cooperation of official and voluntary agencies, a loose-leaf, mimeographed bibliography of pamphlets, booklets and leaflets relating to neurological disorders was prepared for distribution to public health personnel and other interested medical workers. Eleven voluntary agencies submitted material for inclusion in this bibliography.

Pamphlets relating to the New Jersey Consultation Service for Convulsive Disorders were prepared for distribution by this agency to interested persons announcing the availability of the service and the location of the 5 clinics.

Outlook

Plans for this Program in the immediate future include completion of a Directory of Services for Epilepsy, continuation of symposia on electroencephalography, and establishment of a series of case-conferences on neurologic disorders in selected community hospitals. With the Department of Neurology of the Seton Hall College of Medicine, a program of social work services is planned. Long-term objectives include the specific provision of services to persons with specific chronic neurologic disorders, namely, Parkinson's disease and multiple sclerosis.

Glaucoma

An estimated 30,000 persons in New Jersey have undetected glaucoma and may lose their sight if untreated. Failure to detect glaucoma in its early stages is particularly disastrous in this disease process, where vision once lost, cannot be restored. If detected early, effective treatment can preserve vision for the lifetime of the individual.

During the year, the Department of Visual Rehabilitation of the Newark Eye and Ear Infirmary, with grant-in-aid assistance from this Division, rendered services to 114 in-patients. Out-patient services included 2,659 patient visits, an analysis of which follows: Visual fields 130; Low vision 31; Glaucoma 1,691; Tonometry 140; Orthoptic evaluation 293; Orthoptic therapy 374. The Infirmary conducts occasional sessions of a "glaucoma club" for patient education and as an aid for case holding through its friendly, social atmosphere. It is an outstanding success with standing room only attendance.

The Public Health Nurse Supervisor of Sussex County assisted the Eye Health Screening Program of the New Jersey Commission for the Blind for the purpose of detecting unsuspected glaucoma patients.

Heart and Circulatory Disease Program

Morbidity and Mortality Aspects

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

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

Table 1. DEATHS IN NEW JERSEY 1959-1960

	1959	1960
From all causes	58,039	59,330
From diseases of the circulatory system	27,363	28,451
From vascular lesions affecting the central nervous system	5,289	5,194
From congenital malformations of the circulatory system	324	337*
Total deaths from heart and circulatory diseases	32,976	33,982

* estimated

These causes represent 57 percent of all deaths.

Diseases of the circulatory system are responsible for approximately 30 percent of the deaths in the age group 25-44 and almost 50 percent in the age group 45-64.

Heart disease continues to kill more men in their most productive period of life than any other disease. Of the total deaths from diseases of the circulatory system, the large majority, 21,748, are caused by arteriosclerotic heart disease. It continues to be true that there is a minimum of 4 to 5 times as many annual cases of heart attacks as deaths each year. Clinical reports indicate a 15 percent to 25 percent mortality at the time of the first coronary insult.

One patient in 6 in chronic disease institutions suffers residuals 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 becomes a staggering 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 to cause a delay in the age of onset.

Administrative Aspects

The staff consists of a part-time Program Coordinator physician, one part-time clinical physician, and a full-time public health nurse consultant with special training in cardiology. Less than one-half of the budget was spent

for direct administrative costs including education, medical and public educational materials. The remainder was given as grants-in-aid to New Jersey hospitals, health departments, voluntary public health nursing agencies, and chronic disease institutions to help finance the following:

1. Provide or improve facilities for the diagnosis and treatment of heart disease.
2. Research projects in the prevention of coronary heart disease.
3. Initiate and maintain demonstration and study projects in the newer techniques of diagnosis and therapeutics in cardio-vascular and secondary diseases particularly cerebrovascular accidents.

Highlights of Program Activities

The atherosclerotic research project (The Anti-Coronary Club) was continued, and received a research grant of \$33,175 yearly for a period of 7 years from the National Institutes of Health (The National Heart Institute). The project is studying a group of men 20 to 50 years of age who have experienced heart attacks. The full complement of 100 men has been reached in the past year and approximately 40 percent of the men have been in the project 1 year or longer. This research project is studying 2 hypotheses—the first that the serum cholesterol in the circulating blood can be decreased by dietary supervision and counselling without resorting to drugs; and second, that given a reduction in the level of serum cholesterol, the morbidity and mortality from coronary heart disease in these individuals will be decreased. In order to test this latter hypothesis, a group of matched controls is being solicited from private industry. To date, some 40 men are being studied in similar fashion as the study group, except that no dietary counselling is to be given.

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, totaling \$32,000, to help finance in part or in total, cardiac physiologists (2 of these being physicians especially 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 referred to these centers for accurate diagnostic evaluation has increased markedly in the past year.

The Crippled Children Program of the State Department of Health continues to provide assistance in financing a limited number of cases requiring cardiac surgery for whom other financial arrangements could not be made.

A program in the control of the effects of stroke has started in Camden as a demonstration project to do the following:

1. Advocate the concept of the continuity of care as a physician, hospital and community responsibility.
2. Promote the training of physicians, public health nurses and auxiliary personnel in the early treatment of stroke patients.
3. Help to provide rehabilitative and restorative services for the stroke patient.

The project comprised 50 stroke patients admitted to 2 general hospitals in the City of Camden. Evaluation of the disabilities is to be made by a qualified physiatrist. After evaluation, intensive physical therapy will be supplied the patient while he is still in the acute stage of his illness. During the period of hospitalization, the community resources will be providing for the return of the patient to his home. He will be followed and assisted in the home, nursing home or chronic disease institution by existing community services including public health nursing, homemaker, occupational and speech therapy, under the direction of the physiatrist who is to act as team director. The purpose is to demonstrate that it is economically sounder to provide a battery of services in the early stages of the disease than to maintain the patient in a chronic disease institution after crippling disabilities and deformities have complicated the picture.

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

In joint planning with the Program Coordinator of Restorative Services, a program was developed to provide for the use of hospital and community resources for follow-up of cardiovascular patients discharged from a general hospital to a home-care program. Provision is made to supply medical consultations when needed as well as the usual battery of auxiliary services such as physical therapy, home nursing visits, and assistance of welfare organizations.

The practicing physicians of the state were circularized requesting suggestions for changes in the New Jersey Diet Manual. Reprints of individual diet sheets for weight reduction and low fat intake to help prevent coronary

heart disease are to be sent to interested physicians. The latter "prudent diet" stressed lower fat intake with emphasis on higher amounts of polyunsaturated components.

A demonstration project in Camden County utilizing the services of a full-time nutritionist to provide diet counselling has been started.

A special grant was requested and received from the United States Public Health Service for a study of the pre-symptomatic stage of congestive heart failure for a heart institute in Newark. The study is designed to help develop some indices of the early pre-clinical signs and symptoms of congestive heart failure by studying patients in various stages of heart disease.

A state-wide 2-day workshop on the continuity of care of patients with a stroke and with congestive heart failure was conducted in Trenton for medical and auxiliary professional personnel at policy-making levels. Plans were initiated for 4 regional workshops of a similar nature to be held in each of the State Health Districts of the state.

Streptococcal control program—fluorescent antibody

Because of physician interest in throat culturing in New Brunswick and Cranford, when the fluorescent antibody technique became available, a cooperative streptococcal control project for the primary prevention of rheumatic fever involving private physicians in these communities, Middlesex General Hospital in New Brunswick, and local and state health departments was initiated in September, 1960. The initial goal was to gain experience with the fluorescent antibody technique at the State Laboratory level and to determine the degree of competency with which it could be performed. The ultimate aim is primary rheumatic fever prophylaxis by rapidly and accurately identifying and treating in an accepted manner group A beta hemolytic streptococcal infections.

The plan of the project is as follows. Physicians obtain throat cultures on all patients whom they see under the age of 18 who have signs and symptoms of acute pharyngitis. The swabs are mailed to Trenton where both the fluorescent antibody tests and the conventional culture method are applied. Results of the fluorescent antibody tests are relayed to the physician usually on the day the specimen is received. Follow-up throat cultures are taken 2 to 3 weeks later.

Through June 30, over 3,000 specimens have been evaluated by both methods. The primary results from a representative sample reveal a 95 percent agreement when comparing the fluorescent antibody method to the conventional culture. Thirty-four percent of a group of selected specimens were positive for group A beta hemolytic streptococci. The highest incidence

of positivity occurred in the 6-year old age group. Where the physician's clinical diagnosis was streptococcal in etiology, this judgment was confirmed by the laboratory in 45 percent of cases. Where the clinical diagnosis was viral in etiology, group A beta hemolytic streptococci were cultured in 6 percent of these cases. Follow-up cultures were obtained on 70 percent of positive cases. After treatment, 6.3 percent remained positive.

The present direction of the project is to set up a similar program at a purely cost basis in New Brunswick based at the local hospital in the department of pathology.

Public Health Nurse Consultant Activities

In the activities of the Public Health Nurse Consultant assigned to the Heart Program, the major emphasis continues to be in educational projects, in planning meetings, institutes or lecture series for nurses sponsored by the New Jersey Heart Association. Nurses are interested in learning new concepts and practices in heart disease control. The Public Health Nurse Consultant has met with smaller groups in official and voluntary public health nursing agencies for case discussion, film showings, and other in-service programs. Another activity has been participation in planning and implementation of the Workshops on Continuity of Care for multidiscipline groups at State and District levels. A Guide Sheet for public health nursing follow-up of rheumatic fever prophylaxis patients has been prepared for state-wide distribution and addition to the Public Health Nursing Service Guide.

During the past year, a survey was started in 3 voluntary public health nursing agencies. This relates to socio-economic, diagnostic, treatment and nursing services data on 450 patients with diagnosis of heart disease. The collection of data has been accomplished; tabulation and analysis will be done in the near future. It is expected that the findings will provide significant information for use in planning programs of education and service for effective nursing in heart disease control.

Plans for the Coming Year

To expand the education of physicians and auxiliary personnel in the early treatment of the acute cerebrovascular accident, utilizing the demonstration project in Camden County as the focal point.

To continue with assistance and development of home care programs in order to provide better patient care for the cardiovascular and circulatory disease patient.

To enlarge the program of rapid identification of hemolytic streptococcus through fluorescent antibody technique as a tool in the early diagnosis and antibiotic treatment of primary and secondary rheumatic fever.

To initiate and stimulate a research project in the use of anti-clotting agents in the early treatment of coronary and cerebrovascular accidents.

To participate actively in the atherosclerotic research program and continue to solicit industry for controls.

To participate actively in the research project for the early detection of congestive heart failure.

To initiate and conduct 4 2-day workshops (2 in the fall and 2 in the spring) on a regional level for medical and auxiliary personnel on the continuity of care of the stroke patient and the patient with coronary heart failure.

Visiting Homemaker Services

Realization of the goal of making homemaker services available in all parts of the state has been advanced during this fiscal year with the establishment of a homemaker service in Camden County. This brings the total of functioning Homemaker Services in New Jersey to 17, serving the needs of 15 counties with services available to two-thirds of the population. During the year, these agencies provided 291,103 hours of service to 4,265 families.

Grant-in-aid assistance was provided to 10 of these Services to demonstrate the importance of a full-time, qualified director. The other 7 Services were supported entirely by local agencies.

In cooperation with personnel of the District Office, intensive efforts are being made to develop Homemaker Services in those counties now lacking these resources and to extend services of established agencies. In Middlesex County, the demand for service in the outlying areas of the county indicated the need for a branch office which soon will be in operation. This is the first such undertaking in the state.

A demonstration project in a new avenue of homemaker service was initiated during the year by the Chr-III Homemaker Service, Inc., with financial aid from this Division. This agency is developing a Resident Homemaker Service which will provide 24 hour service on a 7-day a week basis for selected families. During the first 6 months of operation, 89 requests for live-in service were received. After careful screening, 8 of these were provided 24 hour service and 19 received extended hourly service. It is anticipated that this pilot project will yield valuable data for the evaluation of needs and resources in other areas for the extension of homemaker services.

The Training Course for Homemakers, conducted by the Extension Division of Rutgers University, and subsidized by this Division, was given 15

times during the year and attended by 276 Homemakers. More than 1,200 women have participated in these courses since they were initiated 7 years ago.

The first training program for executive personnel of homemaker agencies was held this spring. This resident training institute, sponsored by the Visiting Homemaker Association of New Jersey, Inc., Rutgers University, and the State Department of Health, in cooperation with the Public Health Service, was attended by 35 representatives of homemaker agency administration including 6 persons from out-of-state. The proceedings of this seminar have been published and distributed.

A full-time executive director of the Visiting Homemaker Association of New Jersey, Inc. was appointed on December 1, 1960, with grant-in-aid assistance from the Division. This Association was organized and incorporated as a non-profit organization in order to coordinate facilities, stimulate local interest, and maintain standards of local homemaker services.

The motion picture entitled "Home Again," which was initiated by this Division and produced by the Mental Health Film Board, in cooperation with other agencies, has been shown 36 times during the year.

Mental Health

Consultations and meetings were held in reference to planning mental health programs and facilities with the following groups:

Seton Hall Medical School, Department of Psychiatry and Psychiatric Social Work expresses interest in developing a Home Care Program for mentally ill persons.

Several meetings were held with the Union County Association for Mental Health in reference to evaluating its 1-year demonstration of a "Resocialization Service." This service was discontinued because so few persons were taking advantage of the program.

At the request of the health officer of Hoboken, attempts were made to simplify the procedure for referral of patients from St. Mary's Hospital, Hoboken to the Hudson County Diagnostic Center. The Diagnostic Center admits patients for a 7-day in-patient work-up upon referral of any practicing physician. The Hudson County Out-Patient Psychiatric Clinic is housed at St. Mary's Hospital and is not coordinated with any of the hospital's services; the intern and resident staff cannot make referrals to the Diagnostic Center since they are not licensed to practice medicine. For disturbed or emergency patients (indigent, welfare, or assistance cases), the problem has been solved temporarily by having the police physician of Hoboken on call for transfer of cases.

Planning has continued at East Orange General Hospital in reference to the establishment of an in-patient department for psychiatric patients.

Screening in Hospitals

Chronic illnesses are characterized by a long latent period when the existence of the disease usually is unknown to its victim. However, this is the period when screening procedures, in many instances, can unmask the disease so that treatment may be initiated early. The development and expansion of screening programs for the detection of incipient chronic disease as a basic preventive measure have been encouraged during the year. Utilizing chest x-ray equipment on loan from the Division, 10 community hospitals are routinely screening in-patients, out-patients and hospital personnel for the detection of pulmonary pathology. Among 31,618 persons x-rayed, 15 percent had presumptive positive findings as follows:

Table 1. FINDINGS IN X-RAY SCREENING

<i>Disease</i>	<i>Percent</i>
Cardiovascular disease	38
Tuberculosis	4
Tumor	6
Other pulmonary	52

Social Work

The Graduate School of Social Work of Rutgers University, with grant-in-aid assistance from this Division, conducted a Summer Experience in Social Work Programs to aid in the recruitment of scarce health personnel. This training program provided students with an interest in social work as a career an opportunity to try out their interest by working in one of New Jersey's social agencies or institutions. The participating students attended a 2-day institute held in June to learn about the purpose of social work, gain some information about its method, meet other students who share their interests in this field, talk to professional social workers from various settings, and get some preparation for the work aspect that they would be responsible for during the summer. Thirty students from more than 20 colleges and universities attended the Institute.

State Employees Health Program

In cooperation with the State Personnel Council, blood tests for diabetes and serology and Mantoux tests for tuberculosis were made available to State employees. 4,774 employees participated in the blood testing program of whom 35 were presumptive positive for diabetes.

Follow-up of these individuals indicated the following: Newly diagnosed diabetics, 7; potential diabetics, 3; known diabetics, 7; not diabetic, 5; follow-up incomplete, 13. Fifty-one persons were reactive for serology. Re-testing of 19 of these individuals indicated 5 positive and 14 negative.

There were 3,325 persons who participated in the Mantoux testing of whom 1,150 were reactors. X-ray examination of these reactors indicated 16 primary inactive tuberculosis and 1 cardiac enlargement.

Division of Constructive Health

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

Crippled Children Program CURTIS F. CULP, M.D., M.S.
Program Coordinator

Dental Health Program DAVID R. WALLACE, D.D.S., M.P.H.
Program Coordinator

Maternal and Child Health Program RENEE ZINDWER, M.D., M.P.H.
Program Coordinator

Restorative Services Program CURTIS F. CULP, M.D., M.S.
Program Coordinator

Division of Constructive Health

Introductory Statement

The Programs of the Division of Constructive Health, in their objectives, share the basic concepts of prevention, early diagnosis, and provision of rehabilitation services.

In attempting to fulfill these missions, it has been demonstrated that the activities of the Program must be closely coordinated and there must be combined effort on the part of all governmental, private, philanthropic, and professional groups throughout the state to meet the needs of those requiring such services.

Crippled Children Program

General Statement

The objective of the Crippled Children Program is to provide recommended medical rehabilitation services to the physically handicapped, whose disabilities may be corrected or alleviated. Maximum accomplishment of this objective is attained through cooperation with state, county, and municipal representatives of hospitals, rehabilitation facilities, private, philanthropic, and professional groups.

Table 1. CRIPPLED CHILDREN ON STATE REGISTER, CALENDAR YEAR 1960

On Register as of January 1, 1960	19,135
Placed on Register during calendar year	1,982
Total Entered on Register	21,117
Removed from Register for specified reasons	1,603
Reached age of 21	609
Dead	132
Cured	248
Residence established in another state	170
Ineligible for service	16
Registration in error	18
Maximum recovery	410
On Register at end of year December 31, 1960	19,514

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 19,514 children registered with the Program at the end of the year. There was a readjustment of the numbers of cases on the register as of December 31, 1959, in review and assignment of new diagnostic codes.

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 18 diagnostic and follow-up clinics, which were open to all children in the state referred by physicians desiring such services. These clinics were held in Newton, Jersey City, Trenton, and Long Branch.

This service was provided through 5 physicians specially trained in the field of cerebral palsy.

In addition, there were 2 state-sponsored consultation clinics for follow-up study of such cases.

Hospitalization and Convalescent Care

The Program assisted in underwriting 13,146 hospital bed days for 436 children, and 19,360 convalescent bed days for 141 children. The total expenditure for these services was \$355,812.38.

Of this amount, state and federal contributions were \$148,650.03; contributions by the County Boards of Chosen Freeholders were \$177,672.20; and contributions on behalf of parents, private, and philanthropic agencies were \$29,488.15.

Prosthetic Devices, Bracing, and Appliances

Such services were provided for 584 children through the purchase of 1,426 such appliances at a total cost of \$79,441.82. State and federal contributions amounted to \$32,241.05 and contributions on behalf of the County Boards of Chosen Freeholders \$35,898.58. Contributions on the part of parents, private and philanthropic agencies amounted to \$11,302.19.

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 8,146 nursing visits to crippled children registered with the Program at a total cost of \$27,594.21. Reimbursement for the cost of this service was made entirely on behalf of the Crippled Children Program and such reimbursement was made on a cost per visit basis or based on the charges made by the agency for comparable nursing services within the community.

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 35 handicapped children.

The Program Psychologist participated in 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 deformities.

Financial support was afforded a total of 55 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 566 speech therapy sessions for 24 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 three hospitals in 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.

DEPARTMENT OF HEALTH

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 through this facility.

Similarly, the Program has assisted in providing services, on a limited basis, through the facilities of Warren Hospital, Phillipsburg. As a result of this project, 104 children were afforded approximately 3,167 physical therapy treatments.

Table 2. CASE NUMBER AND PAYMENT OF HOSPITAL, CONVALESCENT HOME AND APPLIANCE SERVICES FOR CALENDAR YEAR 1960

<i>Hospital, Convalescent Care</i> —Total Number of Children	577	
Total Bed Days	32,506	
<i>In-Patient</i>		
Number of children receiving hospital services	436	
Number of bed days	13,146	
<i>Convalescent Home</i>		
Number of children receiving convalescent services	141	
Number of bed days	19,360	
<i>Payment of Bed Days (Hospital and Convalescent Home)</i>		
Total	\$355,812.38	
State and Federal Funds	\$148,652.03	
County Boards of Chosen Freeholders	177,672.20	
Total payments from tax sources	\$326,324.23	
<i>Private Contributions</i>		
Local Chapters of Polio Foundations	\$10,733.75	
Parents	14,276.10	
Elks Lodges	134.70	
Insurance	4,151.60	
Others	192.00	
Total Contributions	\$29,488.15	
<i>Appliances</i> —Total Number of Children	584	
Total Numbered Purchased	1,426	
Total Payments	\$79,441.82	
State and Federal Funds	\$32,241.05	
County Boards of Chosen Freeholders	35,898.58	
Total payments from tax sources	\$68,139.63	

DIVISION OF CONSTRUCTIVE HEALTH

Private Contributions

Parents	\$6,438.29
Local Chapters of Polio Foundations	2,936.11
Elks Lodges	1,180.59
Miscellaneous	747.20
Total payments from private sources	\$11,302.19

Table 3.
CALENDAR YEAR 1960

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	6,016	13,923 Visits
Hospital	435	13,146 Days
Convalescent	141	19,360 Days
Duplicated Count of Children and Services	6,593	46,429 Units
Unduplicated Count of Children	6,578	

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

Total Number of Children		6,578	
<i>County</i>	<i>Number of Children</i>	<i>County</i>	<i>Number of Children</i>
Atlantic	16	Middlesex	459
Bergen	795	Monmouth	485
Burlington	127	Morris	290
Camden	456	Ocean	46
Cape May	12	Passaic	106
Cumberland	18	Salem	37
Essex	1,644	Somerset	205
Gloucester	108	Sussex	31
Hudson	561	Union	687
Hunterdon	12	Warren	65
Mercer	418	Military	3

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

<i>Number Race</i>	<i>Age in Years</i>				
	<i>Children Under 1</i>	<i>1-4</i>	<i>5-14</i>	<i>15-20</i>	<i>Unknown</i>
Total	6,578	271	1,697	3,501	1,109
White	5,392	205	1,305	2,921	961
Other	1,186	66	392	580	148
Number who received physician's services for the first time	1,562	271	649	531	111
Number who had received physician's services in previous years	5,016		1,048	2,970	998

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

Report Group Code No.	Diagnosis Group	Sex		Age in Years				Unknown	
		Total	Male	Female	Under 1	1-4	5-14		15-20
Total		6,578	3,589	2,989	272	1,696	3,501	1,109	...
0120	Tuberculosis of bones and joints	1	...	1	...	...	1	...	...
0130	Late effects of tuberculosis of bones and joints	21	14	7	...	2	7	12	...
0199	Other tuberculosis, except respiratory	1	1	...	...	...	...	1	...
0809	Poliomyelitis, acute	...	...	...	...	...	...	...	...
0818	Late effects of acute poliomyelitis	827	479	348	1	40	538	248	...
2830	Rickets, active	...	...	...	...	...	...	...	...
2840	Late effects of rickets	10	5	5	...	3	4	3	...
3510	Cerebral Palsy	1,447	794	653	3	262	914	268	...
3530	Epilepsy	...	...	...	...	...	...	...	...
3590	Other diseases of the nervous system and sense organs, except eye, ear, and mental disorders	54	23	31	11	14	21	8	...
3899	Other diseases of the eye, except congenital or diabetic cataract	...	...	...	...	...	...	...	...
3999	Other diseases and conditions of the ear and mastoid process	1	1	...	...	...	1	...	...
4090	Rheumatic fever, acute	99	47	52	...	...	78	21	...
4100	Chronic rheumatic heart disease	...	...	...	...	...	...	...	...
4300	Other diseases of the heart, except congenital malformations	...	...	...	...	...	...	...	...
7200	Arthritis and rheumatism except rheumatic fever	35	15	20	...	5	18	12	...
7309	Osteomyelitis and periostitis, except tuberculous	30	15	15	...	8	17	5	...

Report Group Code No.	Diagnosis Group	Sex		Age in Years				Unknown	
		Total	Male	Female	Under 1	1-4	5-14		15-20
7459	Curvature of spine, except congenital or late effect of poliomyelitis or tuberculosis	126	31	95	...	1	63	62	...
7469	Flat Foot acquired or unspecified	1	1	...	...	...	...	1	...
7499	Other diseases of the bones and organs of movement, except congenital malformations	335	234	101	2	30	208	95	...
7510	Spina bifida and meningocele	191	93	98	19	55	89	28	...
7530	Congenital malformations of the circulatory system	216	108	108	19	67	102	28	...
7540	Cleft palate and hare-lip	565	304	261	41	177	283	64	...
7571	Congenital dislocation of hip	148	40	108	3	61	72	12	...
7584	Clubfoot, congenital or unspecified	1,073	598	475	107	469	438	59	...
7585	Flatfoot, congenital	35	26	9	2	12	17	4	...
7599	Other congenital malformations	1,006	560	446	51	416	465	74	...
7609	Injuries at birth, intracranial and spinal, except cerebral palsy and epilepsy	8	5	3	1	6	1	...	...
7619	Other injuries at birth except cerebral palsy and epilepsy	116	61	55	9	36	48	23	...
9400	Burns	81	46	35	1	14	44	22	...
9980	Other morbid conditions due to accidents, poisonings, and violence	92	58	34	...	6	44	42	...
9991	Other diagnosed diseases, injuries, or handicapping conditions, except provisional or deferred diagnoses	59	30	29	2	12	28	17	...

Dental Health Program

Introduction

Strong, well functioning community dental health programs will help solve the mounting dental needs of our population. The Dental Health Program has used this approach to help combat the dental ills of the people in New Jersey. Programs of dental health education, dental treatment, and prevention have been instituted and carried out in many communities. Programs of research have been carried out so as to bring into focus more clearly the needs of the senior citizens and the handicapped.

The areas of program activity might well be classed under dental health education, dental treatment, prevention, and research.

Dental Health Education

The Dental Health Program, in cooperation with the local dentists, conducted dental inspections for the pre-school children in 4 counties during the past year, namely, Gloucester, Warren, Ocean, and Passaic. In each of these programs, the child and the parent were instructed on good dental health practices (Table 2).

The Dental Health Program cooperated with the New Jersey State Dental Society in having published the booklet entitled "Essentials in Dental Health for Nurses." The booklet was distributed to all state dental directors and deans of the dental schools throughout the country. It has created a great deal of interest.

The Dental Health Program participated in several training courses for nurses from health departments and other agencies.

The Dental Health Program, in cooperation with the 2 dental schools in New Jersey and other agencies, carried out postgraduate courses and symposia in various fields of interest in dentistry. "Dental Health Education and Preventive Dentistry" was one of these courses conducted at Fairleigh Dickinson University School of Dentistry. Its objective was to encourage the dentists to engage in public health activities and preventive practices with their own patients as well as community programs. Another course, "Dentistry for Handicapped Children," was held at Seton Hall College of Dentistry. Its purpose was to encourage and demonstrate to practicing dentists the management of dental problems in handicapped children, and how the children can be cared for in private dental offices and institutions. Two symposia were held, one "Dental Care for the Geriatric Patient" in cooperation with the New Jersey State Division on Aging; the other, "The Interrelationship of Oral and

Metabolic Disease," in cooperation with the Diabetes Control Program of the State Department of Health.

The dental health education program in the Phillipsburg schools continued during the past year.

Dental Treatment

The Dental Health Program assisted in providing treatment services for school children in 19 counties by using the services of 64 dentists in their private offices, 13 dentists in dental clinics, and 7 dentists in mobile clinics and dental trailers. In all of these, the treatment services came about as a cooperative effort of the community and the Dental Health Program (Table 1).

Through the interest of the people of Phillipsburg, a treatment program was conducted in connection with the dental health educational program.

Preventive Programs

The prevention of dental disease was emphasized throughout the treatment and educational programs sponsored by the Dental Health Program.

Prevention of malpositioning of the teeth is one of the reasons for providing space maintainers as a part of the treatment program. This appliance will enable the unerupted teeth to come into their proper position in the jaw, thereby preventing a series of unfavorable circumstances from developing.

Cooperating with the New Jersey State Dental Society's Special Committee on Fluoridation, the Dental Health Program has continued its efforts to promote fluoridation of public water supplies as a method of reducing tooth decay.

Dental Health Research

A survey of the patients in 21 nursing homes to ascertain the dental needs of the patients was conducted with the cooperation of the Monmouth County Dental Society. The findings of this survey will serve as a basis for planning a program to meet the needs of this group of citizens. To help the program become a reality, the Dental Health Program was assisted by the Division on Aging in the purchase of essential equipment for the program.

The Crippled Children Program and the Dental Health Program made a survey of the hospital dental facilities and dental staffs to determine areas in which dental treatment programs could be planned for providing dental care for handicapped children.

The Dental Health Program assisted the team from the National Health Survey in planning for the dental survey in New Jersey.

DEPARTMENT OF HEALTH

Cooperation with Other Agencies

The Dental Health Program cooperates with the Crippled Children Program in providing rehabilitation services for patients with cleft palates and in providing complete dental services for handicapped children.

The Dental Health Program cooperated with the Division of Chronic Illness by participating in training courses for nurses.

The Dental Health Program cooperated with the Maternal and Child Health Program, the Division of Preventable Diseases, the Department of Education, and the Department of Labor and Industry in providing a dental treatment program for children of migrant workers.

The Dental Health Program cooperated with the Diabetes Control Program in a symposium, "The Interrelationship of Oral and Metabolic Disease," for dentists and physicians.

The Dental Health Program cooperated with the Division on Aging and the Monmouth County Dental Society in conducting a dental survey of nursing homes in Monmouth County.

The Dental Health Program cooperated with the Division on Aging in conducting a symposium on "Dental Care for the Geriatric Patient."

The Dental Health Program continued the established liaison with the Dental Director in the Department of Institutions and Agencies to coordinate efforts of the 2 programs.

The Dental Health Program cooperated with Fairleigh Dickinson University School of Dentistry and Seton Hall College of Dentistry in providing courses in areas of special interest in Dental Health.

Statistical Data

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

DIVISION OF CONSTRUCTIVE HEALTH

Table 1. TREATMENT PROGRAM STATISTICAL DATA
July 1, 1960 to June 30, 1961

Programs by Counties and Communities	Program Initiated	Present Type of Program	Dentists	School Districts	Total Hours	Examinations	Visits	Total Operations	Children Treated	Cases Completed	Percentage of Cases Completed
Atlantic	1947	Mo. Cl.	1	1	610	414	1,482	8,485	248	116	40
Bergen	1943	P. O.	3	3	291	2,414	1,482	3,485	348	116	33
North Arlington	1943	Cl.	1	1	625	1,656	2,271	1,835	165	68	65
Rutherford	1948	P. O.	1	1	156	2,121	1,066	424	43	43	100
Burlington	1943	Cl.	1	1	221	1,186	461	976	102	74	46
City of Burlington	1943	Cl.	2	1	801	4,321	1,627	1,336	107	62	49
Camden	1944	Mo. Cl.	1	1	47	27	1,765	4,253	727	690	95
Laysville	1944	P. O.	1	1	47	27	1,765	4,253	727	690	95
Cape May	1943	Mo. Cl.	8	16	486	511	892	1,027	284	168	52
Cumberland	1944	P. O.	1	0	830	1,063	1,207	1,360	745	281	35
East Orange	1942	P. O.	2	0	708	1,166	961	2,620	171	147	86
Elizabeth	1947	Mo. Cl.	1	4	339	3,374	983	2,075	674	511	94
Hudson	1940	Cl.	1	25	339	534	368	1,033	116	115	37
Middlesex	1942	P. O.	4	3	293	114	486	1,033	116	115	37
Kiwanis Keep-Well Camp	1942	P. O.	1	1	90	369	768	1,918	200	101	50
South Brunswick	1945	Cl.	1	1	87	1,507	88	100	35	14	40
Manvel	1941	P. O.	13	13	87	1,507	88	100	35	14	40
Union Beach	1946	Cl.	2	1	207	1,942	1,426	3,683	444	283	64
Coaler Foundation	1945	Cl.	1	1	158	1,390	305	542	103	121	81
Occident	1945	Cl.	1	1	105	661	105	127	65	53	32
Trainer	1944	P. O.	17	32	47	29	551	4,001	614	356	65
Parsippany-Bloomfield	1946	P. O.	1	1	792	337	1,370	6,254	118	118	100
Salem	1945	Cl.	1	7	198	80	409	602	374	283	69
Somerset	1945	Cl.	1	1	96	845	174	585	177	32	40
Sussex	1942	P. O.	1	8	674	1,024	3,361	2,000	420	317	74
Union	1942	P. O.	7	18	77	395	1,900	3,362	565	256	79
Warren	1947	P. O. Cl.	1	1	836	1,403	947	3,005	220	131	65
Phillipsburg	1954	Cl.	2	1	528	68	66	414	63	40	87
TOTALS (19 Counties)			91	194	18,182	89,980	22,796	51,791	7,841	4,515	62

* Code for Type of Program: P. O.—Private Office; Cl.—Clinic; Mo. Cl.—Motorized Mobile Clinic with dental equipment; Tr.—Non-motorized Mobile Clinic with dental equipment; Tr. Cl.—Stationary trailer type clinic.

Table 2. PRE-SCHOOL DENTAL INSPECTION PROGRAM

Counties	Number of School Districts	Number Examined	Number Requiring Treatment	Percent Requiring Treatment	Number of def Per Child	Number of Dentists
Gloucester	17	1,852	945	51	1.7	17
Warren	20	810	504	62	3.8	10
*Ocean	7	210	127	60	2.8	3
**Passaic						
Bloomingdale	1	50	23	46	4.1	1
Ringwood	1	62	38	61	4.3	1

*Ocean County—Only seven communities participated because of fall round-ups conducted by the individual schools.

**Passaic County—Only two communities participated in the Pilot Pre-School Dental Inspection Program.

Table 3. TREATMENT PROGRAM SUMMARY

July 1, 1951 to June 30, 1961

Year	Number of Dentists	School Districts	Number of Examinations	Number of Visits	Total Operations	Number of Children Treated	Percentage of Completed Cases
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
1960-61	91	194	39,990	22,796	51,791	7,341	62

TYPES OF PROGRAM

1944-1955 Clinics, Private Offices, two Non-motorized Mobile Units and four Motorized Mobile Units.

1955-1961 Clinics, Private Offices, three Non-motorized Mobile Units and four Motorized Mobile Units.

Table 4. FINANCIAL SUMMARY

July 1, 1951 to June 30, 1961

Year	Federal and State		Local		Total		Status of Grant-in-Aid (Initiated 1954)
	Amount Budgeted	%	Amount Budgeted	%	Amount Budgeted	%	
1951-52	\$91,107	58	\$66,033	42	\$157,140	100	...
1952-53	87,858	54	76,165	46	164,023	100	...
1953-54	91,902	58	65,371	42	157,273	100	...
1954-55	107,929	60	72,426	40	180,355	100	\$1,500
1955-56	101,713	54	88,296	46	190,009	100	3,075
1956-57	101,327	53	90,935	47	192,262	100	4,650
1957-58	97,339	52	91,153	48	188,492	100	8,350
1958-59	102,984	53	91,168	47	194,152	100	33,345
1959-60	126,547	58	90,497	42	217,044	100	34,239
1960-61	155,792	60	104,460	40	260,252	100	33,739

Maternal and Child Health Program

Hospital Consultation Services

Maternity and Newborn Services

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

This service was initiated in 1955 and has been very well received since its inception. All hospitals in New Jersey with a maternity and newborn unit, except military installations, have been covered by this service. Initial consultation visits are followed up by periodic re-visits to hospitals. Requests for additional consultation services are continuously being received from hospitals.

In addition, consultation visits were made to Maternity Homes, which do not actually have a delivery service, but provide prenatal care.

Pediatric Services

In December, 1960, the extension of our hospital consultation services to pediatric units was announced to all hospitals with such a unit. Letters were sent to the Administrator, Director of Nurses, and Chief of Pediatrics of each hospital. Similarly, all state organizations with pertinent interests were notified of this extended service.

Twenty-three hospitals were rendered pediatric consultation services during the report year.

Midwives

In 1960, there were 72 licensed midwives registered to practice in the state. This number remained the same as in the preceding year. Ten midwives were active in 1960 as compared to 12 in 1959. The total number of infants delivered was 16. These midwife deliveries represented 0.01 percent of the 127,580 births occurring in New Jersey during 1960.

Midwife activities by the State Health Districts were as follows:

Table 1. NUMBER OF MIDWIVES AND INFANTS DELIVERED

State Health District	Number of Active Midwives	Number of Infants Delivered by Midwives
Central	4	5
Metropolitan	3	9
Northern	1	1
Southern	2	4
Totals	10	16

The decrease in midwife activities over the past 11 years can be seen from the following table:

Table 2. MIDWIVES AND THEIR DELIVERIES OVER 11 YEARS

Year	Number of Active Midwives	Number of Midwife Deliveries
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
1960	12	16

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

Table 3. UNATTENDED LIVE BIRTHS, 1960

District	Total Number Unattended Births	Maternal Status		Mother's Age						Report From District		Report Rec'd.		Prenatal Care			Deaths		Reasons Given for No Medical Care*									
		M	S	Under 15	15-19	20-24	25-29	30-34	35-Over	Yes	No	Complete	Incomplete	Yes	No	Not Stated	Neonatal	Maternal	Precipitate	Premature	Placental	Religious	O. W.	Miscellaneous	Not Stated			
Central	21	15	6	1	3	5	5	4	4	21	20	1	13	7	1	1	1	1	4	2	1	3	2	2	2	2	2	
Metropolitan	76	45	31	1	14	20	17	11	13	70	61	15	27	34	12	8	82	3	2	13	14	18						
Northern	3	3		1				2		3	2	1		2	1													
Southern	27	25	2	2	6	5	6	8		27	24	3	11	15	1							4	7	1	3	3		
Grand Total	127	88	39	1	20	31	27	21	27	127	107	20	51	58	15	9	55	7	8	8	17	10	23					

* Several reasons may apply to a given case and in some instances reasons may not be recorded.

Unattended Births

The problem of births, unattended by licensed physicians or midwives, is increasing and of serious concern, because an unattended birth presents a hazard to both mother and child. In 1960, there were 127 unattended births to New Jersey residents registered on birth certificates, as compared to 73 such births in 1959, 83 such births in 1958. Most of the increase occurred in Essex County.

The problem of unattended births appears to be considerably larger than would be indicated by the above figures. The knowledge of the problem is incomplete without the knowledge of unattended stillbirths. The information, however, cannot be obtained from the fetal death certificates, because these must be signed by a physician. Furthermore, we have indications that many more unattended births occur in transit to a hospital, the birth certificate being signed by a physician upon arrival at the hospital. All unattended births coming to the attention of the Department through birth certificates are being investigated. The preceding table is a summary of the findings by State Health Districts.

*Maternal and Child Health Activities**Affecting Migrant Health*

Four pediatric clinics for children of agricultural migratory workers were set up in conjunction with the school programs for these children at Freehold, Cranbury, Fairton, and Woodstown, 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 consisted of complete physical examinations of all children attending 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 for protective immunizations against diphtheria, pertussis, tetanus, and poliomyelitis, as indicated. Dental services were also provided, but are reported elsewhere. Referrals for further medical care were made, as needed.

Additional maternal and child health services were provided to families of agricultural migratory workers through the following Public Health Nursing Organizations: Monmouth County Organization for Social Service, Burlington County Public Health Nurse Association, and the Visiting Nurse Association of Middlesex County. Monmouth County Organization for Social Service, in addition to rendering public health nursing services, provided

prenatal clinic services to these people. These services were rendered on basis of contract with the Department.

A fully qualified public health nurse was appointed for 8 weeks, during July and August, to assist in evaluating health needs of migrant workers and problems encountered in meeting these needs. She also provided direct public health nursing services in some instances, and, after evaluation of needs, initiated referrals to appropriate local health agencies. The majority of cases encountered during this experience were in the maternal and child health category, with the single largest category being prenatal patients.

Professional Educational Activities

1. An Institute for Social Workers on "Mental Retardation" was held in cooperation with Rutgers University's Extension Service and School of Social Work. The attendance was 78. The Institute was received with great interest.
 2. A successful seminar for physicians on "Perinatal Mortality" was conducted, with 106 in attendance. This seminar was co-sponsored by the following medical groups: The Medical Society of New Jersey; the New Jersey Chapter of the American Academy of Pediatrics; the New Jersey Obstetrical and Gynecological Society; the New Jersey State Society of Anesthesiologists; and the New Jersey Society of Pathologists.
 3. The Maternal and Child Health Program participated with the Division of Chronic Illness in post-graduate institutes for physicians held at Newton Memorial Hospital and at Newcomb Hospital, Vineland, by underwriting 5 lectures on the following subjects: "Tumors in Childhood," "The Diagnosis and Management of Hematologic Problems in Pregnancy," "Maternal Health and its Influence on Gestation," "Management of Common Allergies in Childhood" and "Current Concepts in Toxemia of Pregnancy."
 4. Program personnel conducted 3 in-service training sessions for the Somerset Valley Visiting Nurse Association. Subjects discussed were: "Examination of the Newborn," "Infant and Pre-school Child," and "Priorities in Maternal and Child Health."
- A session on "Adolescence" for a group of public health nurses (Hamilton Township, Princeton, and Trenton Health Departments) was conducted by the Public Health Nurse Consultant, Pediatrics.

5. Program personnel also participated in a maternal and child health in-service training program of the Burlington County Visiting Nurse Association.
6. A "Clinic" on "Child Health Conferences" was held at the Annual Conference of State and Local Health Officials.
7. Program personnel participated in a regional conference, called by United States Children's Bureau, and reported on the Pediatric Hospital Consultation Service and a Survey of Homemaker Services during the Maternity Cycle (see below).
8. The Public Health Nurse Consultant for Hospitals attended a 3-week course: "Epidemiology for Nurses," given at the Communicable Disease Center, Atlanta, Georgia.
9. Program Coordinator lectured to medical students at Seton Hall Medical School on "Pediatrics in the Community" and to public health nursing students at Rutgers University on the general aspects of maternal and child health.

The following professional materials were prepared and published during the report year:

1. The August, 1960 issue of *Public Health News* carried the papers presented at the 1960 Symposium on Accidental Poisoning. It was in considerable demand.
2. The September, 1960 issue of *Public Health News*, entitled "Proceedings of the Institute for Nurses on Mental Retardation," carried the papers presented at the Institute held in the spring of 1959. One thousand and five hundred copies, beyond the usual circulation of the publication, were distributed throughout the United States and Canada, in addition to wide distribution in New Jersey.

Health Education

Health education is an important function of the Maternal and Child Health Program. A variety of health education activities for other than professional health workers took place during the report year. District personnel assisted visiting nurses 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 maternal and

child care and on sex education. 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.

Pamphlets distributed	90,748
Film prints made available through Museum ..	119
No. of Film Showings	3,392
Total attendance	165,000

Several of the materials, provided by the Program previously in English, were also printed this year in Spanish.

The American Academy of Pediatrics' "Accident Leaflets" were reprinted in quantity. This was a cooperative effort between the Academy and this Department.

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 a study of deaths occurring in women during pregnancy, delivery or the puerperium. Fifty-seven such deaths were studied. In some of these, the cause of death was unrelated to the maternity cycle. These studies reveal, however, 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 1960 maternal death rate of .03 per 1,000 live births was 0.1 per 1,000 lower than in the preceding 2 years and is based, as in previous years, upon those deaths which are, according to statistical coding rules, counted as maternal deaths. The number of these was 44. For further information, please refer to the Public Health Statistics portion of this report.

Homemaker Services during the Maternity Cycle

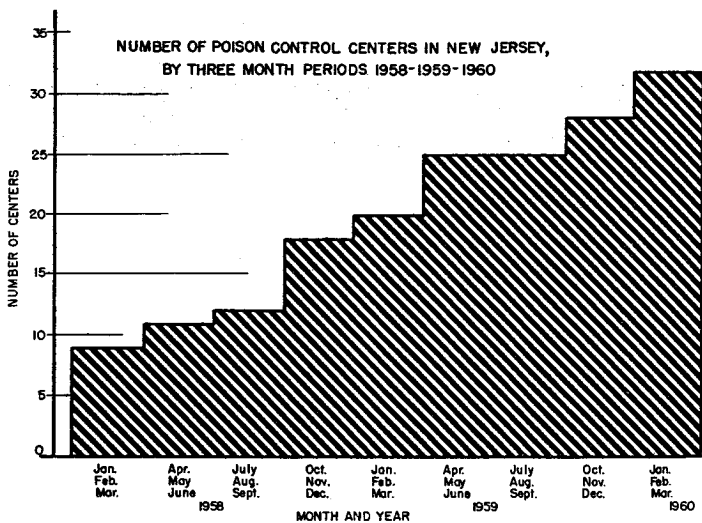
A survey of homemaker services rendered to families because of pregnancy, delivery or puerperium in 1960 was undertaken in cooperation with the Visiting Homemaker Association of New Jersey. Fourteen individual Homemaker Services participated in the survey. A total of 1,139 families were thus ascertained. A schedule was prepared for each family, providing information as to family life, age of children, source and reason of referral, etc. This information has been coded for machine processing. A detailed report will be prepared as soon as statistical processing is completed.

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 and began functioning in September, 1959, operated during the report 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, and a psychologist. Limited public health nursing services were also provided. Other medical consultation services in a variety of specialties and necessary laboratory facilities are available at the hospital. During the report year, 114 children were evaluated. The evaluation of 104 of these children was underwritten in toto or in part by the Maternal and Child Health Program, compared to 23 in the preceding year. In addition, 38 children were in the process of being evaluated and 30 children were on the waiting list at the end of the fiscal year, 1960-1961.

Poison Control Service

The Poison Control Service, established in February, 1958 in the Maternal and Child Health Program, was transferred in October, 1960 to the Division of Preventable Diseases. While still under the Maternal and Child Health



Program, the aforementioned issue of Public Health News, containing the papers presented at the 1959 Poison Control Symposium, was published. A Poison Exhibit was prepared and arrangements made for showings at the New Jersey State Fair, the United Fund Showcase of Elizabeth, the New Jersey First Aid Council Convention, and at a State Parent-Teacher Association meeting. At the time of transfer of the Poison Control Service, 32 active Poison Control Centers were in existence throughout the state and regularly sending case reports to the Service.

Field Activities on Local Level

The operation and administration of Department-sponsored and supervised maternal and child health activities on local level is the responsibility of the 4 State Health Districts. During the report year, the Department supervised the work done at 69 Child Health Stations, rendering services to 8,860 children. During the report year, the financial contributions of the State Department of Health to the Child Health Stations, previously consisting of direct payment of physicians' services, were all placed on contract basis with the local communities in which the stations are located. Forty-eight of the local boards of health, to which offers were made, accepted and signed the contracts, 8 declined to accept contracts. The work of the District Consultant Pediatricians, appointed in the preceding year and assigned to the 4 State Health Districts, has resulted in considerable improvement of the quality of services rendered at the various Child Health Stations.

A statement of Departmental policy regarding Child Health Stations was issued in October, 1960 and widely distributed. The statement made reference to content of services to be rendered, uniformity of standards and principles of procedures, consultation services available from the Department to all agencies rendering Child Health Conference services, financial assistance available from the Department and expansion of Child Health Conference services.

Pediatric consultation services have been given to a number of Child Health Stations other than those under contract with the Department. Further extension of these consultation services throughout the state is anticipated for the forthcoming year. Nursing consultation to Child Health Stations has been provided through the supervisory nursing staff of the State Health Districts as well as the Public Health Nursing Consultant, Maternal and Child Health.

Consultation regarding maternal and child health nursing activities has been provided to health departments and nursing agencies in the state by the nursing staffs of the 4 State Health Districts and the Public Health 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 level. The nurses, thus supervised, provided Public Health Nursing Services to 22,512 women during the maternity cycle and to 58,622 children.

Statistics

Statistical material, also of great importance and concern to the Maternal and Child Health Program, is included in that portion of the Department Annual Report which deals with the activities of the Public Health Statistics Program.

RESTORATIVE SERVICES PROGRAM

Hospital of Organization	Services We are Underwriting
F. W. Donnelly Memorial Hospitals, Trenton \$24,980	Director, Medical Social Service Supervisor, Physical Therapy Supervisor, Occupational Therapy Rehabilitation Nurse Senior Clerk
Essex County Board of Freeholders \$2,975	Supervisor, Physical Therapy Senior Occupational Therapist Clerical Services
Hospital Center at Orange \$16,000	Medical Social Work Services Supervisor, Rehabilitation Nursing Occupational Therapy Services Clerical Services
Hunterdon Medical Center, Flemington \$16,978	Restorative Services through a comprehensive Home Care Program
Monmouth Medical Center \$2,400	Dental diagnostic evaluation and restorative services
Monmouth Medical Center \$10,762.50	Restorative Services through a comprehensive Home Care Program
Newark Beth Israel Hospital \$5,000	Medical Coordinator—Home Care Program
St. Francis Hospital, Trenton \$1,275	Hearing and Speech Therapist
St. Michael's Hospital, Newark \$10,200	Supervisor, Physical Therapy Supervisor, Occupational Therapy Supervisor, Physical Therapy Services Administrative Director, Services
Somerset Hospital, Somerville \$1,050	
United Hospitals of Newark— Eye and Ear Infirmary \$5,000	
Visiting Nurse Association of Camden, Inc. \$2,500	Restorative nursing services
Visiting Nurse Association of Middlesex County \$1,200	Consultation and restorative nursing services
Visiting Nurse Association of Newark \$1,200	Consultation and restorative nursing services
Visiting Nurse Association of the Oranges and Maplewood, Inc. \$1,200	Consultation and restorative nursing services

Division of Environmental Health

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

Programs:

Food and Drugs	MILTON RUTH, <i>Chief</i>
Food	FRANCIS A. TIMKO <i>Program Coordinator</i>
Drug, Device and Cosmetic	HOWARD C. SAYRE, Ph.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>
Stream Pollution	ROBERT S. SHAW <i>Program Coordinator</i> ERNEST R. SEGESSER <i>Supervising Engineer</i>
General Sanitation	ALFRED H. FLETCHER <i>Acting Supervising Engineer</i>
Camp and Bathing	ANTHONY T. LEAHEY <i>Program Coordinator</i>
Potable Water	JOHN WILFORD <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>
Housing	NORMAN SILVESTER <i>Program Coordinator</i>
Air Sanitation	WILLIAM A. MUNROE <i>Program Coordinator</i>
Occupational Health	E. LYNN SCHALL, M.P.H. <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>Chief</i>

* Deceased: May 19, 1961.

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.

In order to strengthen the stream pollution control program and to effect more engineering influence in the field of general sanitation, the following administrative actions were taken October 1, 1960: The Bureau of Public Health Engineering was abolished. The activities formerly assigned to that Bureau were divided between 2 units as follows: (a) Stream Pollution Control Program and (b) General Sanitation Unit. The Stream Pollution Control Program is administered on a streamlined, partially decentralized basis. The General Sanitation Unit embraces the programs of Camp and Bathing, Housing, Potable Water, Ragweed and Poison Ivy and Solid Waste Disposal. The activities under General Sanitation include work in relation to plumbing, cross-connections, school sanitation, individual water and sewerage facilities and such other activities in relation to general sanitation, not specifically identified with stream pollution control, as may be assigned from time to time.

The Division is currently organized into 2 Bureaus: Food and Drugs and Veterinary Public Health, and 5 other major units or Programs as follows: Occupational Health, Air Sanitation, Radiological Health, Stream Pollution, and General Sanitation. The activities are grouped into the following Programs and activities:

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

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	Vending Machines

Two codes are being prepared:

Housing*
Coin-Operated Dry Cleaning Machines

*Being drafted in cooperation with the State Department of Conservation and Economic Development.

Food and Drugs

Programs designed to protect health and to prevent the adulteration and misbranding of food, drugs and cosmetics are carried out under the guidance and direction of the Bureau of Food and Drugs. In addition, special laws and regulations are enforced pertaining to the operation and licensing of plants where milk, ice cream and other milk products, non-alcoholic beverages and bottled water and shellfish are prepared and processed or where eggs are broken, or refrigerated food is stored or narcotic drugs are manufactured and handled wholesale.

The following tabulation shows the number of licenses, permits and certificates issued for the period and the revenue derived from that activity:

Table 1. LICENSES ISSUED AND REVENUE COLLECTED

Establishment	Licenses	Permits	Certificates	Revenue
Ice cream plants	1,447	...	...	\$12,015.00
Goat milk plants	...	21	...	205.83
Milk plants	...	489	...	12,225.00
Refrigerated warehouses and/or locker plants	82	...	...	4,225.00
Narcotic drug manf. and whsle.	85	...	...	560.00
Creamery and/or pasteurizing plants	46	...	...	no fee
Egg-breaking plants	30	...	...	no fee
Non-alcoholic beverage bottling plants	174	...	...	no fee
Shellfish shipping establishments	...	...	201	no fee
Slaughterhouses	325	...	...	no fee
Totals	2,189	510	201	\$29,230.83

In addition, \$3,674 in penalties and court costs were collected for violations of our laws and regulations.

New Legislation

New Rules and Regulations relating to handling of shellfish were promulgated and made effective on January 1, 1961. The revisions were made to conform with new requirements in the United States Public Health Service Recommended Manual for the Sanitary Control of the Shellfish Industry and for purposes of uniformity with other states' shellfish control requirements. Copies are available on request.

Following discussion with local health officials and members of industry revised rules and regulations governing non-alcoholic beverages were filed with the Secretary of State and made effective on February 15, 1961. Copies of the new rules and regulations are available on request.

Food Program

The licensing of egg-breaking, non-alcoholic beverage bottling and bottled water plants, and refrigerated warehouses and locker plants is administered by the Food Program. In addition, enforcement of sanitary requirements in such licensed establishments and all other places where food is produced, prepared, stored or offered for sale, is coordinated and supervised. In connection with this, 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 are also reviewed for completeness and accuracy and for statements which may mislead or deceive the consumer. Over 600 results of analyses of samples of food, other than milk and shellfish, were reviewed for compliance. New and revised labels, submitted by industry and State and local health officials were also reviewed and comments offered regarding compliance with applicable laws and regulations.

Continuing the campaign initiated last year, District personnel made 1,369 field examinations of ground meats to determine adulteration by the addition of sodium sulphite or sodium bisulphite, substances specifically prohibited by law in meats. The screening test is made by using Malachite Green Stain on small quantities of the meat. In cases where suspicious results are obtained, legal samples are collected and forwarded to the laboratory for confirmation. Although there was a 25 percent increase in tests over last year's numbers, there was a 50 percent reduction in the number of adulterated meat samples collected. The field testing procedure not only resulted in a considerable reduction in laboratory work but apparently was an effective deterrent in curbing the practice of adding this chemical substance to meats. This belief is substantiated by the fact that not a single person previously penalized for

violation of this section of the law was found to be a repeat violator during 1960-1961.

Surveillance of the business of breaking eggs was also continued in an effort to rid food channels of filthy, decomposed incubator reject eggs which certain unscrupulous operators attempt to foist on unwary food processors. One such large scale operation was uncovered in East Hanover Township, Morris County, through the combined efforts of this office, the New Jersey State Police, the Attorney General's office, and the New York District office of the United States Food and Drug Administration. The illicit operation had been installed in a decrepit barn on an unused farm and employed at least 15 egg candlers and breakers operating under primitive conditions. Over 700 30-pound cans of frozen broken eggs and more than 27,000 dozen of incubator reject eggs in the shell were embargoed and subsequently destroyed at the above establishment. Also destroyed were 7 100-pound bags of sugar, a drum of powdered egg white, and small quantities of gelatin and other miscellaneous ingredients used in the eggs. In addition, a fine of \$1,000 and \$48.27 in court costs were imposed on the operator for operating without an egg-breaking license and other infractions of the food laws. The operator also signed a consent decree to sell his equipment.

In other areas of the state, 4 unlicensed egg-breakers were tracked down and licensed after they installed the required handling facilities, or were put out of business. One firm paid a penalty of \$50 for its operation without a license. Other activities of representatives of the Department in this field resulted in the destruction of 368 30-pound cans of frozen whole eggs, egg whites, egg yolks and ova out of a lot consisting of 760 cans. These egg products were found to be adulterated due either to faulty handling of the eggs or improper freezing practices. Also voluntarily destroyed by the owners were 105 30-pound cans and 18 30-pound cans, found to be adulterated. Retail value of the unfit eggs removed from human food channels is estimated at \$16,000.

During the year, representatives of the Department continued the collection of fresh fruits and vegetables offered for sale in New Jersey 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 91 samples analyzed exceeded tolerances for the various substances permitted for use on agricultural products. A special collection of raw cranberries offered for sale in the state was included in the program to determine if the use of Aminotriazole, a cancer producing weed killer, had been discontinued. None of the samples analyzed were found to bear the substance.

In addition to the Department's activities in this field, the Food and Drug Administration reported that 142 samples of fresh vegetables were collected

in New Jersey for such examinations. Two out of 24 samples of lettuce examined were found to contain excessive amounts of residues of DDT. The Food and Drug Administration took appropriate follow-up action on both samples.

Agents of the Department continued to cooperate with Federal, State, and local agencies by making special or joint 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 seizure of the articles was effected 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 the wholesomeness of food and plant sanitation.

A Bureau representative served as chairman of a state-wide advisory committee of local health officers charged with drafting a cooperative program for the supervision of caterers. The committee devised a program whereby interested municipalities having licensed inspection personnel would forward to the Department a list of "General Caterers" located within their municipality, whom they were willing to inspect and report certain pertinent information on forms provided for that purpose. The Department assumed responsibility for operation of a registry of such persons, from which information is to be supplied to any official agency upon request. The Department also agreed to assume responsibility for providing training of municipal personnel when requested to do so.

Another advisory committee, composed of local board of health and Department representatives, appointed to draft a recommended code governing "Vending of Food and Beverages" completed its work during the year. Following approval by the Legislative and Food and Drug Committees of the New Jersey Health Officers' Association and the Commissioner, the Code was distributed to all local boards of health and recommended for adoption by reference.

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

Table 2. ESTABLISHMENTS INSPECTED FOR SANITATION

Eating establishments	12
Egg-breaking plants	52
Non-alcoholic beverage and water bottling plants	137
Refrigerated warehouses and locker plants	64
Miscellaneous	472
Total	737

Drug, Device and Cosmetic Program

During the year, 37 inspections were made of plants, warehouses, and research laboratories holding narcotic drug licenses issued by this Department, and other drug and cosmetic plants not required to be licensed by this Department. Emphasis was placed on safeguards for stocks of narcotic drugs to prevent illegal diversion, burglary and pilferage. In addition, over 200 samples of vitamins, drugs and perfume were collected during special investigations of counterfeiting, misbranding and adulteration. 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.

Considerable time was expended by the Program Coordinator and other bureau personnel during the year, completing special investigations of counterfeiting and illegal distribution of ethical drug products. These investigations were made with the assistance of the Attorney General's office, State Police, and United States Narcotic and Food and Drug personnel during 1959-1960. Pursuant to a court order, Departmental representatives supervised the destruction of 5 truckloads of adulterated tablets, granulations, powders, and other bulk ingredients used in fabricating the drugs. Bureau personnel devoted at least 22 man-days testifying in various courts, and before the Hudson and Union County Grand Juries in connection with actions against persons involved in counterfeiting and distribution of counterfeit drugs. At least 7 persons were indicted as a result of these investigations.

Nationwide publicity, support of the entire drug industry, and recommendations in a presentation of the Hudson County Grand Jury caused introduction* in the Legislature of an act to regulate the drug wholesale and manufacturing business in New Jersey by requiring registration, establishing minimum sanitary requirements and increase of penalties for violations.

Other special investigations conducted during the year included the following:

1. Examination and embargo of all drugs in the possession of a South Jersey physician suspected of causing hepatitis among large numbers of patients treated by him.
2. Embargo of large quantities of counterfeit perfume being prepared in 2 Monmouth County establishments by 2 persons who were subsequently jailed and released under bond pending trial.
3. Participating in investigations of a group of persons engaged in the business of collecting unusued physicians' samples from various sources,

* Enacted after close of fiscal year.

repacking the samples in large containers, and reselling them to pharmacies and other buyers at reduced prices. The investigation disclosed that many of the preparations had lost their original identities, were improperly labelled, and were outdated and unsafe for use. Discussions are being held with personnel from industry, Federal Food and Drug Administration, Attorney General's office, and other interested agencies to formulate plans to eliminate this type of unethical operation. Positive action on the State and Federal level is anticipated with full support of the organized drug industry during the ensuing year.

Bureau personnel conferred with industry and regulatory groups on the following problems:

1. Legislation covering the sale of chemically treated seed as food.
2. Legislation governing the labeling and sale of hazardous substances in New Jersey.
3. Revision of narcotic legislation to achieve uniformity with Federal narcotic requirements.

Because of the anticipated passage of new registration legislation, and the need for closer surveillance of certain phases of drug manufacturing and wholesaling, funds were provided for employment of an additional person to assist the Drug Program Coordinator. Death of the Program Coordinator necessitated a halt in field work until training of a replacement was completed. During this period, excellent cooperation and assistance were received from personnel in the Internal Revenue Department, Narcotic Control Unit, and from personnel of the New York District office of the United States Food and Drug Administration.

Program personnel continued to cooperate with local boards of health and other State and Federal agencies by joint investigations of matters of mutual concern by the exchange of information affecting the participating agencies.

The Department issued 193 certificates of inspection covering drug products manufactured in New Jersey intended for export to foreign governments. This service to industry is furnished free of charge to permit firms to export drugs 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.

Meat Inspection Program

During the year, 90 red meat and 235 poultry slaughterhouses were licensed by the Department. All were inspected by District personnel to determine if they were in compliance with the laws and regulations enforced by the Department.

This was the first complete year under the "Regulation Concerning Construction, Operation, Maintenance and Licensing of Slaughterhouses and Inspection and Labeling of Animals Slaughtered for Food" that became effective July 8, 1959.

Reports from the Districts indicate that all slaughtering establishments have been located and are under license and inspection by this Department.

In a period of less than 2 years, an orderly transition from nonlicensed to licensed status has been obtained without undue hardship to the industry.

In connection with the regular inspection program, the Department again cooperated with the New Jersey Department of Agriculture in the State Seal of Quality Program for turkeys. This Program requires meat inspection as part of their quality requirements and permits the use of the official State Seal of Quality on carcasses meeting the Program requirements.

The Department subsidized the meat inspection course given by Rutgers University. This resulted in a substantial increase in the number of licensed meat inspection personnel available to the industry.

Standardizing ratings have been conducted by the Program to promote uniformity in inspection by District personnel.

The following tables shows the number of inspections and applications received covering the Program licensing period:

Table 1. STATUS OF APPLICATIONS OF SLAUGHTERHOUSES

Poultry

Applications received	253
Licenses issued	235
Inspections made	494
Applications denied or pending at year's end	18
Out-of-business	12

Red Meat

Applications received	93
Licenses issued	90
Inspections made	126
Denied or pending at year's end	3
Out-of-business	7

A comparison of original sanitation compliance ratings of poultry slaughterhouses (75.35%) against current ratings (87.9%) reflects the great improvement that has been made by the industry, resulting in a more wholesome food product for the consuming public.

The statistics and tables which follow show how many red meat and poultry animals were slaughtered in New Jersey.

Red Meat

A total of 237,982 red meat animals were slaughtered in establishments under State supervision and license compared to 3,447,936 animals slaughtered in Federally supervised plants also licensed by this Department.

Poultry

There were 3,555,232 poultry animals slaughtered in 212 establishments operating under State Health Department supervision. This is in comparison to 84,648 poultry carcasses slaughtered in 178 establishments during the first 6 months of the operation of the new Meat Inspection Program.

This is a significant increase in the amount of poultry offered for sale in New Jersey which is being processed in establishments supervised by this Department.

Table 2. ANTE AND POSTMORTEM INSPECTION FOR ALL CLASSES OF ANIMALS

Kind of animal	ANTEMORTEM INSPECTION				POSTMORTEM INSPECTION		
	Passed	Suspected	Condemned	Total	Passed	Condemned	Total
Cattle	344,674	94	6	344,704	344,625	69	344,698
Calves	321,359	43	36	321,430	321,229	130	321,359
Swine	1,794,825	327	38	1,795,167	1,790,849	4,080	1,795,129
Sheep	1,227,065	26	24	1,227,095	1,226,597	474	1,227,071
Poultry	3,005,159	8	37,755	3,043,858	2,929,432	65,727	3,005,159
Total	6,693,082	498	37,859	6,732,254	5,612,736	70,480	6,693,416

Percent of Condemnation N. J. State Inspection		Percent Condemnation Federal Inspection (all states)		Percent Condemnation N. J. Federal Plants	
Cattle	.3	Cattle	.30	Cattle	.006
Calves	.1	Calves	.40	Calves	.010
Sheep	.11	Sheep	.054	Sheep	.031
Swine	.023	Swine	.13	Swine	.25
Poultry	.97	Poultry	5.3	Poultry	5.4
		Exempt	.90		

DEPARTMENT OF HEALTH

Table 3. INSPECTION OF CATTLE

	Total	Passed	Suspect	Condemned
<i>Cattle—Antemortem</i>				
State	13,686	13,658	24	4
Federal	330,273	330,273	70	0
Exempt	745	743	0	2
	344,704	344,674	94	6
<i>Cattle—Postmortem</i>				
State	13,682	13,634		48
Federal	330,273	330,253		20
Exempt	743	742		1
	344,698	344,629		69

Major causes of condemnation of parts: Liver abscesses
Abscesses
Actinomyces
Injuries
Pericarditis

Major diseases and conditions resulting in carcass condemnation:
Mastitis
Pericarditis
Septicemia
Abscesses
Toxemia

Table 4. INSPECTION OF CALVES

	Total	Passed	Suspect	Condemned
<i>Calves—Antemortem</i>				
State	100,598	100,535	35	28
Federal	220,586	220,578	8	8
Exempt	246	246	0	0
	321,430	321,359	43	36
<i>Calves—Postmortem</i>				
State	100,535	100,420		115
Federal	220,578	220,563		15
Exempt	246	246		0
	321,359	321,229		130

Major causes for condemnation of parts: Liver abscesses
Immaturity
Injuries

Major diseases and conditions resulting in carcass condemnation:
Immaturity
Abscesses
Injuries
Pneumonia
Enteritis

DIVISION OF ENVIRONMENTAL HEALTH

Table 5. INSPECTION OF SWINE

	Total	Passed	Suspect	Condemned
<i>Swine—Antemortem</i>				
State	112,352	112,036	304	12
Federal	1,681,521	1,681,498	23	23
Exempt	1,294	1,291	0	3
	1,795,167	1,794,825	327	38
<i>Swine—Postmortem</i>				
State	112,340	112,325		15
Federal	1,681,498	1,677,234		4,264
Exempt	1,291	1,290		1
	1,795,129	1,790,849		4,280

Major causes for condemnation of parts: Parasitic livers
Heads (T.B. and abscesses)
Pericarditis
Bruises
Arthritis

Major diseases and conditions resulting in carcass condemnation:
Toxemia
Septicemia
Pneumonia
Enteritis
Polyarthritis

Table 6. INSPECTION OF SHEEP

	Total	Passed	Suspect	Condemned
<i>Sheep—Antemortem</i>				
State	11,346	11,337	6	3
Federal	1,215,557	1,215,537	20	20
Exempt	192	191	0	1
	1,227,095	1,227,065	26	24
<i>Sheep—Postmortem</i>				
State	11,343	11,333		10
Federal	1,215,537	1,215,073		464
Exempt	191	191		0
	1,227,071	1,226,597		474

Major causes for condemnation of parts: Livers
Lungs—pneumonia
Abscesses
Parasites
Bruises

Major diseases and conditions resulting in carcass condemnation:
Immaturity
Septicemia
Pneumonia
Caseous Lymphadenitis
Enteritis

Table 7. INSPECTION OF POULTRY

<i>Poultry—Postmortem</i>	<i>Total</i>	<i>Passed</i>	<i>Suspect</i>	<i>Condemned</i>
State	66,332	66,028	0	304
Federal	1,688,616	1,659,261	0	29,355
Exempt	1,288,910	1,279,870	8	8,096
	<u>3,043,858</u>	<u>3,005,159</u>	<u>8</u>	<u>37,755</u>
<i>Poultry—Antemortem</i>				
State	66,028	65,688		340
Federal	1,659,261	1,596,841		62,420
Exempt	1,279,870	1,266,903		2,967
	<u>3,005,159</u>	<u>2,929,432</u>		<u>65,727</u>

Major causes for condemnation of parts: Bruises

Pyemia
Leucosis
Overscald

Major diseases and conditions resulting in carcass condemnation:

Infectious diseases
Contamination
Degenerative and dropsical conditions
Overscald

Milk Program

The Reciprocal Milk Plant Inspection Program, in which 5 official agencies cooperate with this Department by exchanging inspection information based on uniform requirements and interpretations, resulted in 455 reports of inspections of milk plants and their supplies being submitted to this office by those agencies. This practically eliminates the amount of duplication of effort and expense spent in this supervisory activity by those agencies.

In expanding the idea of reciprocal action by official agencies, a Reciprocal Milk Sampling Program was inaugurated in January, 1961 after agreement was reached with representatives of local boards of health on the procedures and responsibilities for carrying out the program. Nine official laboratories were evaluated and found acceptable for performing analyses of milk and milk products. Their reports, together with those from our laboratory, are collated and evaluated and all local boards of health are advised of the status of the milk supply being served to New Jersey consumers. It is estimated that this program can save over \$100,000 in laboratory costs alone and will provide for greater uniformity in procedures and interpretation of data.

Personnel participated in a training program of the United States Public Health Service for local and State health personnel, the Annual Conference of State Milk Sanitation Survey Officers, and in the Basic Environmental Sanitation Course given by Rutgers University. Training of milk industry representatives in developing good quality control programs and inspection services continued, with evaluations being made after completion of training to determine acceptability of work performed.

In cooperation with the United States Public Health Service, Departmental personnel approved as Milk Sanitation Survey Officers made inspections of milk plants and ice cream plants for listing as approved sources of supply for interstate carriers.

The Department was represented on working committees of the New Jersey Health Officers' Association, the New York State Association of Milk Sanitarians, and the Northeastern Dairy Labeling Council. These committees work to develop uniform requirements and enforcement procedures within the state and throughout our milk shed on such problems as mastitis control, farm bulk milk pickup and transportation, labeling of dairy products, milk house specifications and facilities, sediment testing, and other problems related to control of milk and milk products.

Licensing data show a continuing trend toward fewer but larger units with a net loss of 14 milk plants in the state during the year, primarily due to economic reasons. The number of out-of-state milk plants holding New Jersey permits remained approximately the same. However, a trend toward consolidation of supplies and the movement of milk and milk products from greater distances is evident. More personnel are required to maintain supervision over those supplies which are principally located in New York, Pennsylvania, Maryland and Delaware, with some scattered plants in Ohio, Connecticut, Wisconsin and Washington, D. C. At the same time, there were over 100 more ice cream plant licenses issued primarily to small mobile over-the-counter type of establishments.

The possibility of developing self-inspection, by qualified industry personnel, and reciprocal inspection of ice cream plants is being explored. Preliminary discussions have been held in anticipation of starting trial programs in each field of activity during the coming year.

The following table shows the work performed by Departmental personnel in the routine activities of the Program.

Table 1. INSPECTIONS AND SAMPLES COLLECTED

Inspections	
Milk Plants	415
Dairy Farms	4,269
Ice Cream Plants	1,384
Samples collected	
Milk and milk products	1,532

Shellfish Program

Inspection of shellfish growing areas, sanitary control of the harvesting, handling and sale of shellfish, and patrol of areas condemned for the harvesting of shellfish are the primary functions of the Program.

In addition to our New Jersey laws, all phases of the Program must meet the requirements set forth in the Public Health Service Manual of Recommended Practice for the Sanitary Control of the Shellfish Industry in order that the State Program may be endorsed by the United States Public Health Service, permitting the names of New Jersey shellfish firms to appear on the list of certified shippers for interstate commerce.

Investigations of shellfish growing areas were carried on including water sampling, shellfish sampling, sanitary surveys, and float studies. Sanitary inspections of certified shellfish shippers and shuckers were continued. Patrol of areas condemned for the taking of shellfish was carried out on land and by boat by Departmental personnel. Patrol activities were supplemented with the assistance of the Department of Conservation and Economic Development, Division of Shellfisheries, and by local police departments.

On March 1, 1961, a revision of Rules and Regulations outlining areas condemned for the harvesting of shellfish was made effective and circulated throughout the state.

About the middle of April, reports showed a significant rise in cases of infectious hepatitis. Epidemiological investigations were inaugurated immediately by the Division of Preventable Diseases with the aid of personnel from other Departmental Programs, and as the cases were checked, certain evidence caused the epidemiologists to cast suspicion on raw clams.

On May 2, 1961, as a public health safety measure, an amendment to Rules and Regulations was issued closing all of Raritan and Lower Bays, Sandy Hook Bay, Navesink River and Shrewsbury River for the harvesting of shellfish. These areas were implicated in the epidemiological investigation of the hepatitis outbreak as sources of polluted clams. Following this action, all shellfish water sampling data accumulated since 1955 in areas of the state approved for the harvesting of shellfish were carefully reviewed. This included approximately 825 sampling stations from which almost 12,000 water samples had been collected. Based on these results as well as reports from field personnel, special sampling programs and float studies and advice from the Division of Preventable Diseases that hepatitis cases were no longer associated with shellfish from Sandy Hook Bay, a portion of Sandy Hook Bay was reopened for the harvesting of shellfish. On June 1, 1961, after additional study of the aforementioned data, another amendment to Rules and Regulations was issued opening a portion of the Navesink River for the harvesting of

shellfish and closing some other areas. All amendments were clarified on June 12, 1961 when a complete revision of Rules and Regulations was issued. Work was begun immediately to revise completely the condemned area charts, which show graphically the areas in which shellfish may and may not be harvested. Distribution of the charts to all interested persons will be made upon completion of the revisions.

Patrol activities were strengthened by the use of Division of Fish and Game personnel, boats and cars and Bureau of Navigation boats within the Department of Conservation and Economic Development as well as United States Coast Guard patrol boats and helicopters and the New Jersey State Police.

A principal sanitarian was assigned to the Program to coordinate and assist with administration of activities, and a summer field representative was hired to aid in the expanded Shellfish Program. Plans were made to shift emphasis from routine water sampling to conducting complete sanitary surveys of all shellfish waters of the state over a 3-year period. Such surveys include an examination of all the surrounding land areas for possible pollution sources; float studies to be made wherever necessary to determine flow patterns of those waters of questionable or poor quality and the effluent from sewage treatment plants or other waste disposal plants affecting shellfish waters; and sampling of the waters proper and the shellfish therein. Also planned was the relocation of some water sampling stations and the addition of new stations to give a better picture of water quality in selected areas. Special sampling programs were initiated in some areas where no survey could be immediately scheduled but where conditions were questionable, and additional information was needed.

Posting of all newly condemned areas was scheduled as well as the reposting of previously condemned areas so that the public would be aware of the danger of taking shellfish from these waters.

Specific survey type work accomplished during the fiscal year included:

1. A complete sanitary survey of Lakes Bay and Scull Bay in Atlantic County during July and August, 1960.
2. Float studies and complete inspections of sewage treatment plants affecting Absecon Bay and adjacent waters, Atlantic County in May, 1961.
3. Float studies and complete inspections of sewage treatment plants affecting Great Egg Harbor Bay and adjacent waters, Atlantic and Cape May Counties in May, 1961.
4. Float studies and complete inspections of sewage treatment plants affecting the Navesink River, Monmouth County in May, 1961. A

sanitary survey was made of the Navesink River in addition to the other studies.

5. A special investigation of a group of houses polluting the condemned area of Jenkins Sound, Cape May County during June, 1961, with a full sanitary survey scheduled for later in the summer.
6. In accordance with plans made during the previous fall, special sampling program in Raritan Bay made in conjunction with the New York State Department of Conservation during April and May, 1961. Special shellfish samples were taken from dealers in the Raritan Bay area in conjunction with the United States Public Health Service and the New York State Department of Conservation in April, 1961. Special samples of shellfish and their native waters were taken from Raritan Bay in June, 1961 with additional sampling scheduled for later in the summer.
7. A special sampling program was carried out in Sandy Hook Bay during May, 1961 with float studies and sewage treatment plant inspections being made in June.
8. A complete sanitary survey was begun in the Shrewsbury River, Monmouth County during June, 1961.

Numerous meetings were held with representatives of the shellfish industry, local health departments and other interested local, State, and Federal agencies to stimulate local action towards abatement of existing pollution and prevention of new sources of pollution.

The following table shows the number of sanitary inspections made, the number of samples collected for bacteriological analyses, and the number of shellfish certificates issued:

Table 1. SUMMARY OF PATROLLING

Number of patrol hours (State Department of Health)	958½
Number of water samples	3,560
Number of shellfish samples:	575
Shell oysters	61
Shucked oysters	81
Shell hard clams	425
Shell soft clams	28
Number of sanitary inspections:	433
Shipping plants	417
Shucking plants	16
Number of certificates issued:	201
Interstate	145
Intrastate	56
Number of certificate applications received	217
Number of certificates not issued	6

Stream Pollution Control Program

In order to strengthen stream pollution control, a new and separate administrative unit was established in the Division of Environmental Health. Executive Notice No. 20 was issued by the Commissioner on September 19, 1960, effective October 1, 1960. The effect was to abolish the Bureau of Public Health Engineering and to establish the Stream Pollution Control Program as a separate unit. The other Programs formerly administered under the Bureau of Public Health Engineering were combined in a new administrative unit known as the General Sanitation Unit.

The Stream Pollution Control Program is administered on a stream-lined, partially decentralized basis. The central office staff of the Program is directed by the Program Coordinator and supervised by the Supervising Engineer. The Supervising Engineer also assists the Program Coordinator in planning and evaluating the Program in each District and for the state as a whole. He represents the Program Coordinator as assigned. The Assistant Director of the Division is Program Coordinator.

One engineer is assigned to each District office to work exclusively on the Stream Pollution Control Program. These engineers are members of the District staffs.

Central office activities of the Program include the following:

1. Program planning.
2. Development of technical materials, procedures, standards, forms, etc.
3. Relations with other agencies such as the Division of Water Policy and Supply; Division of Fish and Game; Incodel; the Interstate Sanitation Commission; agencies responsible for planning, developing and operating county or other large multi-municipal sewerage facilities; and the New Jersey Water Pollution Control Association and its technical committees.
4. Examination of engineering data for sewerage and industrial waste projects.
5. Examination of applications for permits to establish "factories" on potable watersheds.
6. Preparation of reports and recommendations for legal facets of the Program; preparation of legal orders; representing the Department in conferences and other legal procedures with the office of the Attorney General.

7. Planning, direction and conduct of extensive investigations or surveys of sewerage or valley problems, with or without participation by District personnel.
8. Training in cooperation with Training Program.
9. Technical guidance to District personnel.
10. Program review and evaluation (both central office and District activities).
11. Preparation of Program reports, budgets, etc.
12. Other work as indicated.

The State Health Districts are responsible for routine field operations and ordinary community relations under this Program. The central office staff, particularly the Program Coordinator and the Supervising Engineer, are responsible for community relations such as in 3. above and in such other special circumstances as may be indicated.

During this fiscal year, plans, specifications and other engineering data were examined and permits issued for the construction and operation of 240 sewerage projects at an estimated cost of approximately \$42,000,000.

Nineteen permits were issued to permit factories or workshops to locate or establish on potable watersheds.

Orders of Necessity were issued to 27 municipalities to permit them to exceed their bonded indebtedness in order to construct necessary sewerage projects.

Fifteen formal Orders were issued to municipalities and industries requiring abatement of pollution of waters of this state.

Forty-nine new sewage or industrial waste treatment plants were completed and placed in operation.

Some 570 field investigations involving special inspections and investigations were made. This activity included investigations of odor complaints, fish kills, stream pollution, thorough inspections of municipal and industrial waste treatment plants, and other investigatory measures as may have been required. In addition, some 600 stream samples were obtained from most of the major New Jersey streams and their tributaries. The Federal construction grant program continued with aid from Federal sources amounting to \$1,116,000 for 15 sewerage projects.

The Stream Pollution Program referred 3 cases of water pollution statute violations to the office of the Attorney General for appropriate legal action. Most of the objectives of the Program are carried out without resort to court procedure.

Comprehensive sanitary surveys of shellfish waters are a major activity of the Program. Several such surveys were completed and others are still in process. The Stream Pollution Program works closely with the Shellfish Control Program in carrying out these surveys.

Camp and Bathing Program

Lake Bathing

Fifty-three lake bathing places, an increase of 6 over the previous year, were issued certificates of compliance in connection with this Department's certification program. Certification is evidence that a lake bathing place has complied with minimum standards pertaining to safety, sanitation, and water quality. Additionally, each certificate holder was issued a sign to be posted on the premises alerting the public to the fact that his place had been found to be acceptable by the State Department of Health. Several press releases naming the places certified supplemented the certificates and signs. Participation in this program is voluntary on the part of owners and operators of lake bathing places.

A committee composed of local health officers and a representative of this Department prepared a bulletin entitled "A Guide to Purchasers of Family Swimming Pools." This bulletin was distributed to all local boards of health and other interested parties.

Camps

There were 237 camps inspected, of which 202 received Departmental certificates of approval. These figures represent increases of 10 and 9, respectively, over the previous year.

An advisory committee, made up of persons active in the field of camping and representatives of this Department, drafted new "Requirements for Certificate of Approval for Summer Camps."

Potable Water Program

The continued increase in population and the industrial expansion which are taking place in New Jersey require that public water supplies provide greater volumes of bacteriologically safe and chemically acceptable water for domestic, potable, and manufacturing purposes. There is an impetus (actively supported by this Department), toward the establishment of new public water supply systems for existing communities and new realty developments. Fifteen such new comprehensive water supply systems were approved during the year. Cesspools and septic tanks constitute a pollution threat to wells.

Routine inspections of public supplies have been maintained with appropriate sampling and chlorinated school supplies. Vessel, railroad, and airline watering points were also inspected. Several surveys were made of pollution of individual wells in various areas, and cooperation was extended to local boards of health in matters relating to private and semipublic water supplies.

During the past year, greater emphasis has been placed on the supervision of "problem" water supply systems in order to bring them up to modern standards. Stress has been made to assure that the delivered water is palatable and clear in addition to being bacteriologically safe. This is being accomplished by requiring the installation of equipment for iron removal and pH adjustment, etc. where applicable. More inspections and investigations have been made to determine if water supply systems are adequate in pressure, volume and storage, in addition to the usual criterion of chemical and bacteriological quality.

Close cooperation has continued with the Division of Water Policy and Supply of the Department of Conservation and Economic Development and the Public Utilities Commission in the supervision of public water supplies.

The Department continues to promote the benefits of the fluoride adjustment of public water supplies for control of tooth decay in children. As of June 30, 1961, the water supplies of 32 municipalities and all major military installations in the state received artificially adjusted fluoridation. The water supplies of several municipalities in southern New Jersey contain a natural fluoride content equal to or slightly above the accepted optimum concentration of 1.0 to 1.4 parts per million. Fluoridation was commenced at only one public water supply during the year.

An important contribution to assuring the safety and quality of public water supplies is the requirement that plans and engineering data for the construction of new supplies, water treatment plants, and additions and alterations thereto shall be submitted to this Department for detailed examination and formal approval before such works are constructed. Seventy-seven permits were issued for 123 separate water supply projects during the past year, with an estimated total construction cost of over \$9,000,000. Forty-seven of these projects were for new sources of water supply; 38 were for new treatment plants; 21 for storage units; and 17 were for general additions and alterations to existing facilities.

Table 1 shows other statistical data applicable to water supplies.

Table 1. SUMMARY OF WORK ON WATER SUPPLIES

Original physical (cross) connection permits issued	12
Renewal physical (cross) connection permits issued	234
Orders issued	9
Field inspections of public water supplies	431
Field inspections and contacts relative to private and semi-public water supplies	594
Monthly water treatment plant operating reports reviewed	4,773
Bacteriological water sample results interpreted	11,701
Chemical water sample results interpreted	1,462

Solid Waste Program

An aggressive effort to control disposal of garbage and refuse resulted in a great improvement in such operations. On July 1, 1960, there were 141 sanitary landfill sites with average rating of 85 percent or more serving 294 municipalities or 54 percent of the state's population. Seventeen incinerators are serving 18 municipalities or 13 percent of the population. The remaining 256 municipalities are using landfills with ratings varying from 0 to 84 percent, serving the remaining 33 percent of the population.

One municipality has purchased and erected a burner to conserve and prolong the life of its sanitary landfill site. This burner reduces the volume of the burnable wastes, such as tree stumps, trunks of trees, demolition wastes from buildings or urban renewal projects as well as large volumes of paper, wooden boxes, palletes and other items which are difficult to crush by a bulldozer.

Seven operators of landfills were referred to the Attorney General's office for legal action. Three dump operators were summoned into Superior Court. One case proceeded to trial and the Court ordered the operator to comply with Chapter VIII of the State Sanitary Code and Section 4 of the Standards. This resulted in the preparation of a consent judgment. The two other operators were also requested to sign consent judgments in order to comply with the provisions of Chapter VIII of the State Sanitary Code and the Standards. All other operators, a total of 11 in the Hackensack meadow area, will be brought before the Superior Court during the next fiscal year, if necessary, to obtain compliance.

Progressive improvement in the proper operation of a refuse disposal area is being made through an educational process of rating refuse disposal areas. The use of the rating method measures the transitional stages of a refuse disposal area from a dump to a landfill and ultimately to a sanitary landfill operation with a high rating.

Use of a rating system has stepped up progress in sanitary landfill development. Refuse disposal areas are progressively improved by frequent inspections and appropriate field conferences on the site.

Ragweed and Poison Ivy Program

Twenty-one pollen collecting stations throughout the state reported ragweed pollen counts for the 1960 growing season. The average pollen count per square centimeter for the 21 stations is 10. This is an increase of 2 pollen grains per square centimeter over last year's average. The highest pollen count of 170 pollen grains per square centimeter occurred in Red Bank on August 22, 1960. The highest average pollen count of 28 per square centimeter also occurred in Red Bank. The lowest average pollen count of 1 per square centimeter occurred in McGuire Air Force Base. The following municipalities had an average of 7 or less pollen grains per square centimeter: Asbury Park, East Orange, Jersey City, Madison, McGuire Air Force Base, Paterson, Summit, and Westfield.

Many municipalities effectively control ragweed by centrally directed spraying programs for public and vacant areas. Practically all municipalities engage in the usually wasteful and ineffective programs of forcing property owners to cut weeds if complaints are received. The New Jersey State Highway Department increased its herbicide spraying program to control ragweed, poison ivy, and other broad leaf plants on both sides of 1,015 miles of state highways. Warren County and Morris County are controlling ragweed, poison ivy, and other broad leaf plants by herbicide spraying on both sides of roadsides. The total mileage in each case is 225 and 236 respectively. The herbicides used are 2,4-D and 2,4,5-T. The cost per mile for 3 sprayings each year is reported as \$19.89 per linear mile. The cost varies with specifications as to the herbicide and the width of the area sprayed on the roadside.

A number of aquatic weed problems on recreational waters located on potable watersheds were investigated under the supervision of potable water purveyors and the State Department of Health. Water milfoil and other aquatic weeds were successfully treated with herbicides. One well of a water purveyor serving the residents of an area situated adjacent to a treated lake developed a medicinal taste. Tests of this well water did not reveal the presence of phenolics or chlorophenols which would be expected because they are active ingredients in the aquatic herbicides used. Tests by a consulting chemist employed by the local water purveyor revealed the presence of iodine in the well water. Additional treatment of the well water removed the medicinal taste. This is the first time that iodine has been recovered from this well water.

Secaucus Piggeries

As the result of action initiated in 1950 by this Department and consistently pressed for 10 years, including 6 years of action by the Attorney General's office and in the courts, all pig farmers in the Secaucus area have moved to other locations or have gone out of business.

Housing Program

A Model Housing Code was approved by a Citizens Housing Code Advisory Committee. The Interdepartmental Committee on Housing reviewed and approved the Code with some changes to prevent duplication or protect other existing codes.

Two suggested adopting ordinances have been prepared. The 2 suggested ordinances and the housing standards will be ready to recommend to municipalities for adoption by reference in the new fiscal year.

Particular emphasis has been placed on enforcement of Chapter 199, P. L. 1954, involving new school construction. The Department, through the District offices, reviews plans and specifications for sub-surface sewage disposal facilities and private water supplies. District offices certify to the State Board of Education that the proposed facilities meet the requirements of the statute before final approval is given to commence construction.

A housing survey in the "Shellpile," now officially known as South Port Norris, in Commercial Township, was made. Using the data obtained, substantial improvements have been effected.

The Department has also been actively involved with housing problems in Fairfield Township, Cumberland County and in the City of Camden.

A great deal of effort was made to assist and support local boards of health in Millstone, Upper Freehold, and Manalapan Townships in Monmouth County to improve housing conditions to meet the standards called for by their own codes.

Air Sanitation Program

The New Jersey Air Pollution Control Commission has been directing its attention to the development of codes for the control of dust, vapors, gases, and mists; investigation of problems associated with motor vehicle exhausts; agricultural injury caused by air pollution; and problems associated with administration of the New Jersey Air Pollution Control Act.

Drafts of a code proposal based upon unique concepts were discussed in detail with representatives of industrial organizations, control equipment

manufacturers, and specialists in the field of meteorology and air pollution control. The Agriculture Committee, 1 of 3 standing committees of the Commission, increased its technical capability by creating an advisory council.

Members of the New Jersey Air Pollution Commission and their affiliations are, as of June 30, 1961:

<i>Members</i>	<i>Representing</i>
WILLIAM R. BRADLEY, <i>Chairman</i>	New Jersey Manufacturers Association
VERNON C. WINN	New Jersey Society of Professional Engineers
DENNIS J. SULLIVAN	New Jersey Health Officers Association
NORMAN G. WHITE	New Jersey Section, American Industrial Hygiene Association
LOUIS A. WINKELMAN	New Jersey State Chamber of Commerce
JOHN P. BRADY	Public at large
WILLIAM C. LYNN	Secretary of Agriculture
RICHARD J. SULLIVAN	Commissioner of Labor and Industry
ROSCOE P. KANDLE	Himself as State Commissioner of Health

Code Enforcement

During this year, 424 new violators and 172 repeat violators were cited for open burning as prohibited by Chapter II of the New Jersey Air Pollution Control Code. One hundred and forty-eight informal hearings were held and 318 violations were corrected.

Under Chapter IV, 191 new violators and 79 repeat violators were cited for excessive smoke emissions. Twenty-three informal hearings were held with a subsequent 18 violations abated. More attention was given to motor vehicles. Over 100 of the violations pertained to smoking trucks, tractors, buses, etc.

Under Chapter V, regulating fly ash from large solid fuel burning operations, delinquent registrations were pursued and successfully obtained. Three conferences were held with known or suspected violators. For the first time, stack tests were conducted primarily for the purpose of preparing evidence for a formal hearing.

Chapter VI, prohibiting air pollution by definition, which became effective on January 1, 1961, has enabled the Department to take action in many types of air pollution problems not previously subject to state regulation. Investigations resulted in 5 informal hearings to effect the desired control of emissions. Dusts and odors were the principal offenders.

During this year, 19 formal hearings were held, all resulting in Department Orders being issued. Eighteen referred to open burning in violation of Chapter II; the remaining one was heard for Chapter VI violations. Of the 18 open burning actions, 15 concerned salvage operations.

It was necessary to refer only one case to the Attorney General's office. In summary, continuing attention has been placed on salvage operations by open burning and new emphasis has been placed on excessively smoking vehicles. Chapter VI has been found to be a valuable and effective tool for dealing with a great variety of localized air pollution problems.

Research and Development

Research and development have continued to be important phases of the Air Sanitation Program.

Projects undertaken during the period covered by this report include:

1. *State-Wide Air Pollution Survey (Smoke Index).*

As the result of a research effort completed in 1956, modifications were made to 40 air sampling devices to be installed at approximately 35 test sites throughout the state. A unique laboratory instrument for the automatic evaluation of air samples collected on filter paper tape was designed and constructed. About October 1, 1961, this project will be set in motion and will collect samples at the 35 locations 24 hours per day, 365 days per year with the ultimate objective of evaluating smoke levels throughout the state. The data will have a variety of applications.

2. *Development of Emission Standards.*

A one and one-half year effort was devoted to the development of emission standards for all forms of dusts, vapors, gases, and mists by application of atmospheric dispersion formulae. A 90-page technical report, containing theory, equations, and calculations, was completed and a code proposal in study form has been developed on the basis of this report.

3. *Sulfur Dioxide, Oxides of Nitrogen and Oxidant Sampling Project.*

A 1-year daily sampling of air at 3 test sites in the state was completed in February, 1961. Samples were collected and analyzed for sulfur dioxide, oxides of nitrogen, and oxidants in an effort to assemble data on air contaminants which may have an effect on agriculture.

4. *Development of Mobile Air Sampling Laboratories.*

Two mobile air sampling laboratories were procured and have been undergoing continuous modification for application in air sampling studies. With the adoption of Chapter VI of the New Jersey Air Pollution Control Code, these laboratories became tools for law enforcement.

5. *Automatic Directional Air Sampler.*

The lack of commercially available air sampling equipment for pinpointing sources of air pollution has made it necessary for the Air Sanitation Program to attempt to design and construct such facilities. Several years of effort on a part-time basis have been devoted to this project. At the time of this report, it appears that an effective device has been completed and is ready for field testing.

6. *Manuals of Procedures.*

The adoption of new chapters of the Code by the Commission necessitated an almost continuous development of manuals of procedures and experimentation with new technical and administrative procedures.

7. *Air Pollution Monitoring and Alert System.*

Preliminary plans were made for a long-range project to design and operate an air pollution monitoring and alert system in critical areas.

Occupational Health Program

General

New Jersey's national position in major industrial manufacturing classifications has been maintained by continuing construction of new plants and an expansion of facilities.

The statistical summary for the fiscal year shows an activity increase of more than 50 percent in the number of industrial establishments visited and a corresponding increase in the other services offered.

Several factors combined to make this increase possible, such as:

1. The addition to the staff of a full-time industrial hygienist; a part-time occupational health nurse; and a full-time student trainee from Drexel Institute of Technology, Cooperative Program.
2. The concentration of activity in 4 community-wide surveys and studies, with reduced travel time, in Ewing Township; Hamilton Township; Edison Township; and Woodbridge Township.
3. The use of newly acquired, direct reading field-analytical equipment.

Community Surveys

These surveys were initiated by local health officials in an attempt to meet the requirements of the Minimum Standards of Performance for Local

Health Departments. Except for emergencies, industrial hygienists of this Program were accompanied on all industrial plant visits by a member of the local health department. This has provided local health personnel with experience in industrial hygiene survey work. The value of this activity may be judged by a discussion of one survey.

Englewood Community Occupational Health Survey

Statistics have been compiled of a survey and study of 60 industrial plants in this community with small selected industries.

The largest industry employs only 150 persons and medical programs are rare. Dependence is upon "on-call" physicians. Preplacement physical examinations were not conducted in 50 of the 60 industries studied. A lesser number, 37, have 16 physicians on call, none of whom are members of the New Jersey Industrial Medical Association, although one physician serves 6 industries and another, 4 industries. An educational program was imperative.

Most frequently encountered exposures were to noise and solvents with a toxic potential. Revisits were made to 16 industries for a thorough study of exposures. In all work places, the studies were justified, but in 5, the exposure to solvents exceeded the threshold limits sufficiently to require immediate correction.

Table 1. COMMUNITY OCCUPATIONAL HEALTH SURVEY

ENGLEWOOD, NEW JERSEY	
STATISTICAL REPORT	
Total	
Number of industries surveyed	60
Industries employing over 100	5
Industries employing 50 to 99	13
Industries employing 20 to 49	24
Industries employing less than 20	18
Number of industries having a physician	0
Number of industries having a nurse	1
Number of industries having a physician on-call	37
Number of industries conducting pre-placement physical examinations	8
Number of industries conducting periodic physical examinations	2
Number of industries conducting terminal physical examinations	0
Number of industries not conducting physical examinations	50
Number of industries with exposures to dust	7
Number of industries with exposures to solvents	17
Number of industries with exposures to noise	16
Number of industries with exposures to metals	5
Number of revisits for technical studies of hazards	16
Number of physicians serving as on call	16

Each industry visited received a comprehensive report which contained a statement of conditions found with a discussion of potential occupational health hazards, recommendations for an adequate medical program, and engineering recommendations designed to protect the health of the employees and improve the working environment.

A copy of each report was sent to the local health department and the Department of Labor and Industry of the State of New Jersey.

Occupational Health Bulletins

These bulletins continued to be of interest to 621 individuals who requested issues during the fiscal year. Twenty of these requests were from countries as far away as Australia, China, and Malaya. Two new bulletins, *Guidebook for Industrial Nurses* and *Industrial Radiography*, increasing the number of available titles to 46, were mailed to approximately 1,600 persons of whom 90 percent are industrial plant personnel located in New Jersey.

Special Laboratory Activities

The United States Public Health Service requested the Occupational Health Laboratory to collaborate in a program to test new or suggested methods for lead-blood analysis.

Nearly 150 samples of blood and urine have been analyzed for lead content from children suspected as having lead poisoning.

The total work load of the laboratory increased 49 percent during this fiscal year. An increase of 67 percent in the number of analyses classified as research is due to the oxidant concentration study by the Air Sanitation Program at 4 locations in the state.

Noise Performance Code

Health department personnel in municipalities throughout the state have need for a numerical standard, in decibels, as an evaluation tool for neighborhood noise. Reluctance to adopt a code is partially due to the question of enforcement. Most boards of health prefer the code to be part of the zoning ordinances. Of 5 communities known to have noise regulations, 3 are under zoning and 2 are under the health department. Ten other communities have been given the information and assistance necessary to prepare a code.

Occupational Loss of Hearing

Program personnel have vigorously pursued a plan of procedure designed to prevent occupational loss of hearing. The presence of noise in a manu-

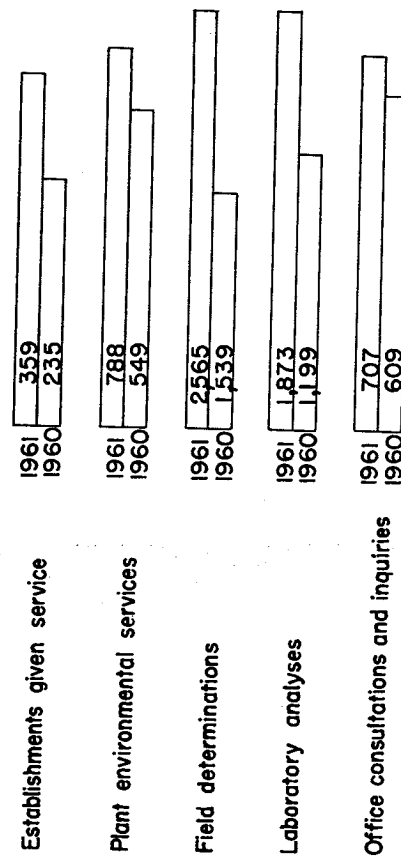
facturing plant is carefully assessed and management made aware of the implications, both psychological and as a compensatory disease. Recommendations are made to management to abate noise proved to exist in intensities greater than that recommended by the Committee on Noise in Industry of the American Academy of Ophthalmology and Otolaryngology, the Air Force Regulation 160-3, and some large industrial organizations in this state.

Coin Operated Dry Cleaning Machines

A new public health problem was created during this fiscal year with the introduction of coin operated automatic dry cleaning machines. With the use of these machines, the general public, rather than the operator alone, may be exposed to toxic solvent vapors. Studies at 12 installations of 4 makes of machines indicate that such equipment can be installed and operated so that only a trace of solvent odor is noticeable in either the store or the clothing. A code designed to insure such performance is under preparation by an advisory committee of local health officers.

Table 2. SUMMARY OF ACTIVITIES 1960-1961 WITH PERCENT CHANGE

<i>Field Activities</i>	1961	1960	Change	<i>Percent Increase or Decrease</i>
Number of industrial establishments given service	359	235	+ 124	+ 52.7
Number of employees in establishments visited	80,222	88,593	-8,371	- 9.4
Number of workers affected by services	60,737	45,650	+5,087	+ 11.1
Number of other places and areas visited	36	56	- 20	- 35.8
<i>Plant Environmental Services</i>				
Introductory visits	282	178	+ 104	+ 58.5
Industrial hygiene surveys	282	141	+ 141	+100
Technical studies of hazards	162	169	- 7	- 4.14
Noise and vibration	47	41	+ 6	+ 14.6
Consultation only (advisory)	9	10	- 1	-10.0
Follow-up on recommendations	5	10	- 5	- 50.0
Total	788	549	+ 239	+ 43.5
<i>Environmental Recommendations</i>				
Number made	1,244	589	+ 655	+111.
<i>Field Determinations</i>				
Atmospheric contaminants	757	549	+ 208	+ 37.9
Physical conditions	1,808	990	+ 818	+ 82.6
Total	2,565	1,539	+1,026	+ 66.7
<i>Laboratory Analyses</i>				
Routine	290	225	+ 65	+ 28.8
Diagnostic	165	131	+ 34	+ 25.1
Research	1,418	843	+ 565	+ 67.1
Total	1,873	1,199	+ 674	+ 56.2
<i>Worker Health Services</i>				
Promotion of plant health programs	44	36	+ 8	+ 22.2
Consultation on medical aspects	25	35	- 10	- 28.5
Consultation on nursing aspects	27	38	- 11	- 29.0
Consultation with local health dept. on plant health services	4	11	- 7	- 63.5
Other	9		+ 9	
Total	106	120	- 14	- 11.6
Occupational diseases investigated	19	105	- 86	- 81.7
Occupational diseases reported	418	447	- 29	- 6.58
Meetings attended	104	84	+ 20	+ 23.8
Publications	3	6	- 3	- 50.0
Lectures and Demonstrations	25	32	- 8	- 25.0
Attendance at above	1,780	1,445	+ 335	+ 23.1
Office consultations and inquiries	707	609	+ 98	+ 16.1

Table 3
Condensed Summary of Activities for Fiscal 1961
Compared with Fiscal 1960

Radiological Health Program*New Jersey Commission on Radiation Protection**Legal Authority and Membership*

Organization of the Commission on Radiation Protection in the New Jersey State Department of Health was authorized by Chapter 116, Public Laws of 1958, known as the Radiation Protection Act. The Commission was organized October 6, 1958 and has been actively engaged in discharging its duties and responsibilities since that time. The Department has rendered administrative support to the Commission as provided for in the Radiation Protection Act.

Members of the New Jersey Radiation Protection Commission as of June 30, 1961:

FRANK G. DUNNINGTON, PH.D., *Chairman*

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

RICHARD J. SULLIVAN, M.P.H., *New Jersey State Department of Labor and Industry*

PHILIP D. GILBERT, M.D.

JAMES F. BLACK, PH.D.

BENJAMIN P. SONNENBLICK, M.D.

EGON E. LOEBNER, PH.D.

Commission Activities and the New Jersey Radiation Protection Code

Pursuant to the provisions of the "Radiation Protection Act" (Chapter 116, Public Laws of 1958), on September 21, 1960 the New Jersey Commission on Radiation Protection held a public hearing on a proposed Chapter I—General Requirements—New Jersey Radiation Protection Code. Held at the War Memorial Building in Trenton, the meeting provided an opportunity for interested persons to make comments and objections to any part of the proposed Chapter I. On November 11, 1960, the Commission adopted and promulgated Chapter I to become effective February 1, 1961. February 1, 1961 marks the first time comprehensive regulations in code form for the control of radiation were legally in effect in New Jersey.

The Commission has been actively engaged in formulating a Chapter II—Special Requirements—New Jersey Radiation Protection Code. A public hearing was scheduled for September 22, 1961* on this proposed Chapter II

*and held.

and also certain amendments to Chapter I, New Jersey Radiation Protection Code.

Proposed Radioactive Materials Licensing

Public Law 86-373 authorizes the United States Atomic Energy Commission to conclude agreements separately with state governments whereby the Atomic Energy Commission will relinquish and the states assume certain licensing and regulatory activities that would pertain to radioisotopes and quantities of special nuclear material not to exceed a critical mass.

The Department has been negotiating for this purpose with the Atomic Energy Commission. Suitable enabling legislation empowering the Governor of New Jersey to enter into such agreements has been prepared cooperatively with the Governor's office. This bill (A511) has passed the Assembly and is currently in committee in the Senate. Early passage is anticipated.

The 1962-1963 budget request for the Radiological Health Program includes request for funds to cover the estimated cost of handling those licensing and regulatory activities to be taken over from the Atomic Energy Commission.

Registration of Radiation Producing Machines

The first registration of radiation producing machines was initiated in November, 1959. A total of 6,814 machines was registered as of June 30, 1961, giving an increase for the year in machine registrations of 601. The number of radiation machines registered by type of registrant is given in Table 1.

Table 1. NUMBER OF RADIATION PRODUCING MACHINES REGISTERED

<i>Types of Registration</i>	<i>Fiscal 1961</i>	<i>Total as of June 30, 1961</i>
Dentists	175	2,975
Physicians	68	1,817
Hospitals and Institutions	30	793
Industries	294	674
Chiropractors	18	191
Chiropodists	5	177
Veterinarians	4	119
Colleges and Schools	7	51
Shoe Stores	0	17
Total	601	6,814

Plans originally called for biennial registration, alternately radiation producing machines and radioactive materials. It was decided, however, to

attempt to get as complete a registration of machines and materials as possible before attempting reregistration.

During the year, business machine cards for those machines registered as of November 30, 1960 were key punched and sent to the Radiological Health Program from Washington, D. C. This service was generously provided by the Program Operations Branch, Division of Radiological Health, Public Health Service, to enable a rapid and early start in analysis of registration data. The cards have since been kept up to date by the Public Health Statistics Program of this Department.

Registration of Radioactive Materials

Registration of radioactive materials was started in April, 1960. A total of 295 registrations was processed as of June 30, 1961, giving an increase for the year in radioactive materials registrations of 110. The number of persons registered to possess radioactive materials by type of registrant is given in Table 2.

Table 2. NUMBER OF REGISTRANTS OF RADIOACTIVE MATERIALS

<i>Type of Registration</i>	<i>Fiscal 1961</i>	<i>Total as of June 30, 1961</i>
Industries	75	177
Hospitals and Institutions	13	51
Medical Doctors	14	48
Civil Defense Agencies	2	6
State and Federal Agencies	4	8
Colleges	2	5
Total	110	295

Data obtained from the registration of radioactive materials are about 80 percent complete. Copies of licenses issued by the United States Atomic Energy Commission to persons allowing possession of radioactive materials have proved helpful.

Field Inspections and Surveys

Four hundred seventy-one surveys and inspections were made to determine the presence of unnecessary radiation at various types of radiation installations throughout the state. The number of surveys made during fiscal year 1961 compared with those made during fiscal year 1960 is given in Table 3.

Table 3. FIELD INSPECTIONS PERFORMED

<i>Type of Radiation Installation</i>	<i>Inspections Fiscal 1960</i>	<i>Inspections Fiscal 1961</i>
Radiation Producing Machines		
Radiographic Units		
Medical	59	43
Dental	135	370
Veterinary	22	0
Industrial	2	0
Fluoroscopic Units	35	6
Therapeutic Units	11	3
Radioactive Materials	21	49
Total	285	471

The field inspection activities of the Program have increased 65 percent in the past fiscal year.

Technical Conferences

Forty-one technical conferences were held with representatives of industry and governmental agencies.

Educational Activities

Personnel have attended various courses in Radiological Health. These courses were sponsored by the Public Health Service, the Atomic Energy Commission, or Civil Defense. In all, 48 man-days of training were completed.

A series of courses was given to State Police trainees pertaining to the handling of accidents involving shipments of radioactive materials and to acquaint them with the use of radiation detection devices. This is now a part of the regular State Police training program.

A total of 19 lectures and talks was also delivered during the past year and 65 meetings attended.

Copies of the New Jersey Radiation Protection Code, Chapter I, were distributed to interested parties. Also, lists of firms licensed by United States Atomic Energy Commission to receive and dispose of radioactive waste materials and lists of qualified individuals and firms engaged in radiation protection surveys were distributed.

Civil Defense Activities

The Program Chief addressed the New Jersey Civil Defense Association on "Accidents Involving Nuclear Material."

The Program Chief and 8 staff members provided Radiation Defense (RADEF) services to the Division of Civil Defense during the conduct of the national exercise OPAL 61, April 28 and 29.

The Program Chief and a staff member worked with the Special Administrator, Civil Defense Medical and Health Services, regarding maintenance requirements of Civil Defense radiological instruments. A total of 29 Civil Defense drills was held.

Tour of NS Savannah

The Program Chief and 3 staff members attended a tour of the NS Savannah at Camden, New Jersey. The tour included a briefing on crew training and environmental surveillance equipment and operations of the New York Shipbuilding Corporation

Environmental Samples and Radiological Health Laboratory Activities

The Department again assisted in the Atomic Energy Commission determination of fallout levels and in the Public Health Service's Radiation Surveillance Network.

Samples of water, soil, silt, vegetation, and air were obtained routinely and also for special projects by Program personnel or public water supply operators. The number of various types of samples collected and analyzed are given in Table 4.

Table 4. ENVIRONMENTAL SAMPLES COLLECTED

<i>Water Samples</i>			
Municipal Supplies	Surface Water	78	
	Surface Silt	46	
	Ground Water	7	
State-wide Streams	Water	74	
	Silt	48	
<i>Air Samples</i>		201	
Special Environmental Samples	Water	141	
	Silt	115	
	Vegetation	139	
	Soil	141	
	Milk	2	
	Ore	1	
	Soil	1	
Total		994	

Special Investigations

The Program Chief and 2 staff members spent a total of 26 man-hours giving assistance to Hamilton Township during a scare involving some radium. The radium was removed to a safe location.

Residents of Ewing and Hamilton Townships in Mercer County were assured that no radiological danger existed from a number of white rats, used in laboratory work, that had been set free in these areas.

A shipment of radioactive iodine was dropped and crushed at Newark Airport. The incident produced no hazard because the material was properly packaged. The manufacturer reclaimed the shipment and turned it over to a waste disposal company for safe handling.

Veterinary Public Health

The Program of Veterinary Public Health functions as an administrative coordinating, consultant, and research unit within the Division of Environmental Health. Activities are conducted by personnel assigned to the Program with the cooperation of personnel assigned to other units of the Department, particularly the Public Health Veterinarians and Rabies Control Wardens who are assigned to the State Health Districts.

Eastern Encephalitis Research

The Arbor Virus Transmission Pattern Study, with special emphasis on Eastern Encephalitis, continued through this fiscal year.

In addition to the Mays Landing Study Area in Atlantic County, where research work on this problem has been conducted for several years, study areas were established at Great Bay, Atlantic County; Forked River, Ocean County; and Great Swamp, Morris County.

The Veterinary Public Health Program assigned a Senior Public Health Veterinarian, an entomologist, and 7 seasonal Field Representatives to the study. The Department of Conservation and Economic Development attached a Junior Wildlife Manager to this Program as a Wildlife Research Assistant. An Assistant District Agent of Predator and Rodent Control Branch, United States Department of the Interior, spent some time on the small mammal aspect of the study. The Chairman of Biological Sciences of Rutgers University, in association with this Program, conducted radar studies of bird populations.

Wild birds were netted 4 days per week at each study area; blood specimens were drawn; the birds were banded and released; recaptures were noted.

Mosquitoes were trapped for one light trap day and one resting-box trap day per study area per week. Chicken blood specimens were collected on a bi-weekly basis from locations near each study area. All specimens were submitted to the Department Virology Laboratory.

Rabies Control

New Jersey became the 30th state to report rabies in bats. The Division of Laboratories disclosed positive findings in 2 bats, 1 from Hillsborough township, Somerset County in September, 1960, the other from Moorestown, June, 1961.

The Veterinary Public Health Program arranged an informal lecture on bat taxonomy and ecology at the American Museum of Natural History in New York City. In addition to veterinary public health personnel, the lecture was attended by District Public Health Veterinarians and Rabies Control Wardens. The Museum identified several bat specimens collected in New Jersey.

Program and District personnel collected bat specimens from various sections of the state. The Division of Laboratories examined the brains for evidence of rabies.

Rabies was not disclosed in any other animal, probably due, in part, to the work of the Program initiated in 1949.

The following table indicates that rabies continues to be endemic in surrounding states.

Table 1. CASES OF RABIES IN BATS AND ANIMALS BY YEARS AND STATES

Calendar year	New York	Pennsylvania	Delaware	New Jersey
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	1	0
1960	455	18	0	1

Work was continued on a research project to determine the capacity of pheasant families to develop genetic resistance to Eastern Encephalitis virus.

Epidemiology of Zoonoses

Epidemiological investigations were conducted by personnel of this Program, or were augmented through consultation by personnel of this Program. Data on these epidemiological investigations and other reports were evaluated on a continuing basis in order to be aware of the possibility of the spread of zoonoses and related diseases. In the course of these investigations, approximately 400 animals were examined and sampled.

Arthropod and Rodent Control

In cooperation with the State Health District offices, a one-day arthropod and rodent control institute was conducted in each of the 4 State Health Districts. A total of over 200 local and State health personnel attended the institute.

In addition to the research activities in connection with the Arbor Virus Transmission Pattern Study, entomological consultation service was provided to State Health District offices, local health departments, and private citizens.

General

This Program participated in a Principles of Epidemiology Course, sponsored by this Department, the Veterinary Medical Association of New Jersey, and the United States Public Health Service. Students included 42 private practicing veterinarians, 23 local health officials, and 19 Departmental employees.

For comparative purposes, some of the essential rabies control figures are given in the table below:

Table 2. REVENUES RECEIVED, DOGS LICENSED AND VACCINATED

Fiscal Year	Revenue Received	Number of Dogs Licensed	Number of Dogs Vaccinated
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	95,513.25	382,053	66,300
1957-1958	96,942.60	387,770	69,000
1958-1959	99,740.10	398,960	88,000
1959-1960	99,602.10	398,408	104,953
1960-1961	101,216.50	404,866	106,000

Division of Laboratories

ELMER L. SHAFFER, PH.D., *Director*
MARTIN GOLDFIELD, M.D., *Assistant Director*

Bacteriology Program JOHN H. SPOONER
Program Coordinator

Chemistry Program JOHN J. NELSON, M.S.
Program Coordinator

Pathology Program E. L. SHAFFER, PH.D.
Acting Program Coordinator

Serology Program ELEANOR E. THOMAS
Program Coordinator

Virology Program J. NORMAN WELSH, M.S.
Program Coordinator

Division of Laboratories

Director's Report

The executive, administrative, and Program personnel were requested to participate actively in the planning of our new laboratory building. Much time and effort were expended by all in planning of space, equipment, and utilities. We were conscious of the responsibilities placed upon us for furnishing the data needed by architects and engineers to build a functional, modern laboratory plant to serve now and in the future. It is anticipated that before long we shall see the fruits of our labor and the long awaited new laboratory building, in which we and future generations of laboratorians shall serve.

Beyond the traditional service of the laboratory to the public through physicians, health officers and Department programs, as detailed in the program reports, increased emphasis and participation were developed in the areas of (1) research, (2) quality control, and (3) evaluation of performance of laboratories throughout the state. Our point-of-view, stated some years ago, is being made clearer, namely, that the service elements of our programs *must* be utilized as a fertile field for research; that only in this way can effectiveness and efficiency of services be fully achieved and that greater contributions to the control and eradication of disease do directly result.

Chapter 177, P. L. 1947, Article V, 37g, states that the laboratories shall have facilities to engage in "original investigations and research in matters affecting public health." The mandate is clear and we have already embarked on several important research projects supported by generous Federal grants. These research elements must be extended in all programs where there is competence to undertake this statutory obligation.

Of increasing importance and recognition is the role of the State Laboratory in professional education and training of all laboratory scientists and technologists. This is part of an effort to develop a system of quality control and evaluation of performance in public and private institutions where laboratory data are required for medical care and health study. Public expressions of lack of confidence in state-wide laboratory performance have frequently been made, and with some justification. This will be a growing responsibility of the Division and may well occupy a leading function of our operations.

There is need for some personnel to be sent to training centers for refresher courses in new and advanced techniques. Qualified, selected personnel should be supported in this effort which has proven of great benefit to the Department in the past. On the other hand, on numerous occasions in the past year, per-

sonnel from local laboratories have been brought to the state laboratories for training in special subjects with many expressions of satisfaction.

The finding of a few bats with rabies virus indicates that this virus is present in the state and is a potential source of spread. This calls for constant surveillance to maintain the fine record of New Jersey in regard to control of this disease.

We have cooperated with the Department of Law and Public Safety in setting up an accreditation system of laboratories volunteering to serve in the study of the alcohol factor in automobile deaths. Evaluation of these laboratories is being carried out on a continuing basis.

At the request of the Blood Bank Commission of New Jersey, we have continued the program of voluntary evaluation of blood banks. There has been considerable discussion on the question of legislation governing the operation of blood banks in this state. While the pros and cons on this matter are being considered, the data support the need for some regulatory measures.

No laboratory director can fail to have a feeling of frustration in the lack of specific diagnostic tests for infectious hepatitis. In the face of the occurrence of this disease on a large scale in this and other states, the laboratories have played a relatively minor role in its study and surveillance.

Trichinosis rears its ugly head on occasions, demonstrating the need for constant awareness and the utilization of laboratory services in its early diagnosis. A simple serological test has proven of excellent screening value.

The Director and Assistant Director have been invited, on many occasions throughout the year, as speakers at state and county medical and technological meetings. These occasions have been used to integrate the public health laboratory problems with those of medical care in the pursuit of epidemiological study of diseases as they affect the community.

Relationships with local and institutional laboratories have been maintained at a high level of cooperative endeavor.

New laboratories planned for will offer more effective opportunity to contribute to control and eventual eradication of many diseases.

Bacteriology Program

Highlights

This fiscal year, the demand for certain services increased and for some others there was considerable decrease resulting in an over-all workload picture of fewer specimens and fewer examinations. The loss in numbers was compensated for by almost double the number of specimens for rabies, a time-consuming laboratory examination; increases in water samples, streptococcus

identification by fluorescent antibody technique, a new activity; nose and throat specimens, and mycology specimens.

The heavy increase in all types of animal heads for rabies examinations was due to finding positive for rabies a bat that had bitten a Ringoes boy in September, 1960. No other cases were discovered until May, 1961, when a bat from Moorestown that had bitten a girl on the foot was found positive. Both positives were confirmed by animal inoculations. These cases were the first found in New Jersey in any type of animal since 1956.

The identification of streptococcus by fluorescent antibody technique started moderately in September, 1960, with specimens being submitted from certain physicians in New Brunswick. The Heart Program extended its area to Cranford in January. The service became immediately popular with increasing numbers of specimens being submitted. We were fortunate to receive complete fluorescing equipment in February which proved much more efficient than the old method of preparing the specimens here and reading them on the virology scope.

One of our bacteriologists attended a 2-day refresher and evaluation course in Dallas in December. The United States Public Health Service requested that all personnel in state laboratories doing streptococcus identification by fluorescent antibody technique attend.

From April 18 to May 5 of 1961, a joint sanitary survey of the Raritan Bay near the Middlesex County Authority Sewerage outfall was planned and carried out by New York and New Jersey. The laboratory work was performed jointly by personnel from New York and New Jersey at the Sewerage Authority Laboratory. All media used were supplied by New Jersey. Dilution water, Eosin Methylene Blue plates, collection bottles, and chemistry work were supplied and performed by New York. This was done to eliminate all possible variables. Seventeen runs were made from 14 established sampling points. The joint findings gave valuable information as to the sanitary condition of that part of Raritan Bay. Collection data warranted closing Raritan Bay to the taking of shellfish.

During November, the Program Coordinator attended a 5-day course on Epidemiology and Control of Food-Borne Diseases given by the Communicable Disease Center at New York City. This study also included lectures in techniques for laboratory investigation of food-borne disease outbreaks and advanced methods for solving problems of this nature.

On April 11 and 12, the Milk and Water Laboratory was again evaluated for methods and equipment for accordance with requirements of Standard Methods, 11th edition. A representative from the Public Health Service Taft Engineering Laboratory at Cincinnati, Ohio, Dr. A. Richard Bragis, made a full and complete survey with satisfactory results. In his report, he

commended the personnel "for their interest in analytical methods and their strict adherence to Standard Methods."

Trend

Indications are that workloads in certain categories will increase.

	Bacteriological Specimens		Bacteriological Examinations	
	1959-60	1960-61	1959-60	1960-61
Total:	67,043	64,653	236,737	199,184

(These include branches at Bivalve and Tuckerton)

Numerical Summary

Total specimens refers to the number of specimens received in various categories; the total of examinations is given to show more clearly the volume of work involved. For instance, all tuberculosis specimens are subjected to a microscopic spread examination and also culture; these figures are added as separate examinations. All animal brains for rabies are examined microscopically for rabies, but all those that have been exposed to persons receive mice inoculations intracerebrally; these are counted as separate examinations.

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

M. Tuberculosis Identification

Stained spreads of sputa and other secretions and excretions:

Total	Positive	Negative	Unsatisfactory
13,237	622 (4.75%)	12,345	273

<i>M. tuberculosis</i>	Specimens	Examinations
	13,237	28,295

Cultures: 13,193

Guinea Pig Inoculations (Raw or Treated Specimens): 906

Enteric Diseases

	Total Specimens	Total Examinations
Enteric Bacteriology (Feces and Urine)	8,709	8,709
		7,682

This work includes the more complete identification of Salmonellae into their respective group and *S. typhi* types. The Program now also identifies Salmonellae into their specific species. The assistance of the United States Public Health Service, Communicable Disease Center at Atlanta, Georgia, is sought on questionable results.

Salmonellae

Salmonellae Group A (1)	Salmonellae Group B (42)	Salmonellae Group C ₂ (18)
Salmonellae Group C ₁ (15)	Salmonellae Group D (34)	Salmonellae Group E ₄ (8)
Salmonellae Group G (1)		

Shigella

Shigella Group D (8)	Shigella Group B (1)
<i>E. coli</i> (2)	Arizona (2)

Staphylococcus Phage Typing

This activity showed a decrease in specimens, resulting in 38,000 less examinations made during the fiscal year. Some hospitals are doing their own phage typing and others are realizing the findings are of epidemiological value only.

Total Specimens	Total Examinations
3,775	100,032

The Identification of Streptococcus Group by Fluorescent Antibody Titration

Specimens were received with the following results:

Total	Examinations	Percent Positive	New Brunswick		Cranford	
			Total	Positive	Total	Positive
2,861	5,722	22.16	1,492	302	1,369	332

Blood Agglutinations (febrile)

Total Specimens	Total Examinations
3,877	6,306

Nose and Throat Cultures

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

Total Specimens	Total Examinations
8,009	9,420

Gonorrhoea Spreads

Total Specimens	Total Examinations
4,074	4,679

Rabies

This year two bats, one from Ringoes in September, and one from Moorestown in May, were found positive for rabies. (See Highlights.) The last laboratory identified case of rabies in New Jersey was in 1956. The one case in 1956 was the first since 1952. Finding positive cases of bat rabies resulted in greatly increased demand for examination of animal brains.

	<i>Total</i>			
<i>Total</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>Examinations</i>
749	2	722	25	2,810

The State Sanitary Code requires, under Chap. IV. Reg. 6(e) that: "Animal brains examined for rabies and found to be Negri-negative shall have a suitable portion thereof inoculated into mice in those circumstances where there is record of a bite or intimate human or animal contact." This has been routine procedure in the Bacteriology Program for years. Every local, private or hospital laboratory making this type of examination should follow the requirements of the Sanitary Code or, if unable to do so, submit suitable brain portions carefully refrigerated to the Division of Laboratories with all information and data with request for animal inoculation.

Animal brain examinations were made on the following number and species of animals: bats, 216; dogs, 148; cats, 79; squirrels, 58; hamsters, 67; rats, 36; mice, 48; rabbits, 23; monkeys, 12; raccoons, 7; chipmunks, 7; muskrats, 11; moles, 12; and others, including sheep, groundhogs, chinchillas, skunks, foxes, and shrew, 25.

Swiss mice, 18 days old, are inoculated on all suspected or unsatisfactory animal brains where the animal has bitten or had intimate contact with humans. There were approximately 2,061 such follow-up inoculations made on 749 of the above specimens.

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

	<i>Total Specimens</i>	<i>Total Examinations</i>
	18,230	32,059
Waters	11,701	18,868
Dairy Products	2,297	4,116
Shellfish and Shellfish Waters ..	4,232	9,075

Central Laboratory Water Specimens and Examinations

<i>Total Specimens</i>	<i>Total Examinations</i>
11,701	18,868

Central Laboratory Dairy Products

<i>Total Specimens</i>	<i>Total Standardized</i>	<i>Below Standard</i>	<i>Average Percent Below Standard</i>	<i>Total Examinations</i>
2,297	1,590	213	13.4	4,116

Again during this last fiscal year fewer samples were analyzed for milk products, but a greater percentage of below standard samples were found. This is probably due to more selective sampling of various, possibly less desirable, suppliers.

Laboratory Approval

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

In addition to the New Jersey State Department of Health Laboratories there are now 128 laboratories approved by the New Jersey State Department of Health. Included in this total are 66 hospital laboratories, 50 private laboratories, 4 county hospital laboratories, and 6 municipal laboratories.

Three laboratories were approved after evaluation during the year. They consisted of 2 hospital laboratories and 1 private laboratory.

Mailing Cases

255,921 mailing cases for the collection and transmission of specimens by mail were supplied to physicians, District State Health offices, and local health departments.

8,148 liters of various kinds of media were produced and supplied during the year.

Table 1. SUMMARIZED STATISTICS, 1960-1951

<i>Character of Samples</i>	<i>Number of Samples</i>	<i>Number of Determinations</i>
Milk and Dairy Products	1,260	2,950
Other Foods	597	1,321
Drugs	47	198
Waters and Wastewaters	4,324	26,573
Blood Sugars (Clinitron)	4,421	4,421
Urine Sugars (Dreypak)	6,797	6,797
*Miscellaneous	772	1,191
Totals	18,218	43,451

* Includes methods development, evaluation specimens, collaborative studies, other urinalyses and research.

Character and Trend of Workload

The total numerical workload, which has been subject to more than normal fluctuations over the past several years, increased during 1960-1961. The number of samples processed increased by almost 9 percent; the number of determinations conducted by about 2 percent.

Chemistry Program

Table 2. FIVE-YEAR COMPARISONS

<i>Fiscal Year</i>	<i>Total Number of Samples</i>	<i>Total Number of Determinations</i>
1956-57	17,999	43,585
1957-58	14,795	44,665
1958-59	18,373	50,440
1959-60	16,741	42,590
1960-61	18,218	43,451

The rise in numerical workload experienced this year was not as significant as it might first appear. The basic increase was due to an additional 2,800 blood sugar analyses but these determinations, conducted through automation (Clinitron), are of relatively minor importance in terms of man hours and supplies.

Of greater significance and interest was the fact that an increase of over 200 potable water samples were processed without a relative increase in the number of determinations. This was possible as a result of reviewing and revising the lists of determinations performed routinely on potable waters, in collaboration with our engineering personnel. Those analyses deemed to be of minor importance were relegated to a biennial status.

Three elements of the routine workload increased over last year, while 3 decreased. The relative importance of these changes, in terms of the most realistic parameter, number of determinations, is noted in the following tabulation:

Milk and Dairy Products	— 14%
Other Foods	+ 18%
Drugs	+ 37%
Waters and Wastewaters	— 5%
Blood Sugars	+180%
Urine Sugars	— 13%

Greater activity in the surveillance of foods for pesticide residuals was largely responsible for the 18 percent increase in determinations on foods.

Three more chlorinated hydrocarbon pesticides were added to the original 11 in the routine screening procedures applied to milks and foods. Additional equipment and shortened techniques made the absorption of this increased element of the total workload possible. Chromatographic screening procedures for the organophosphate types of insecticides are now under study.

Highlights

This program is cooperating with the Department of Law and Public Safety in the New Jersey Program for Alcohol Determinations in Traffic Fatalities.

Some 40 clinical laboratories are evaluated quarterly via a mailing program, to establish their proficiencies in determining alcohol concentrations in body fluids. Laboratories which submit satisfactory findings are accredited to the Bureau of Traffic Safety.

Training Extended

A senior sanitarian from the Metropolitan State Health District office was given instruction in the use of the Clinitron for blood sugar determinations.

The director of a private clinical laboratory and the assistant director of a hospital laboratory were instructed in the Modified Cavett Procedure for Determining Ethanol (alcohol) in Body Fluids.

Two members of the Department of Conservation and Economic Development were instructed in the Aminoantipyrene Method for Phenols so that this frequently requested determination might be performed by them in their new Lebanon laboratory.

Collaborative Studies

Collaborative studies with federal and other official agencies are always encouraged since they provide a means of monitoring our own procedures and assist in the improvement of old, or the establishment of new, analytical methods.

Three such studies were completed during 1960-1961:

1. Differential Phosphatase Test; Reactivated vs. Residual Phosphatase (Association of Official Agricultural Chemists).
2. Phosphatase Determinations on Split Milk Samples; An Evaluation (U.S.P.H.S.).
3. An Evaluation of Mineral Analyses on Water; Analytical Reference Sample No. 3 (U.S.P.H.S.). Included were procedures for calcium, magnesium, total hardness, total alkalinity, chloride, sulfate, potassium, sodium and nitrite, and nitrate nitrogen.

MILK AND MILK PRODUCTS EXAMINED

	Above Standard	Below Standard	Total	Determinations
Milks	1,214	46	1,260	2,950

Pathology Program

Table 1. TWO-YEAR COMPARISON

Histology	1959-60	1960-61
Contributions to tumor registry	364	254
Consultation cases received	209	139
Tissues processed	1,067	810
Slides prepared	10,605	8,477
Slides stained H & E	9,443	8,237
Requests for special stains	88	38
Slides stained with special stains	1,367	721
Special stains used	22	17
Slides distributed	8,684	6,075
Pollen count slides	199	183

Highlights

The Tenth Annual Slide Seminar, sponsored by the New Jersey Society of Pathologists and the New Jersey State Department of Health, was held on December 3, 1960, at the Essex House, Newark, N. J. Slides for this meeting were prepared in the Bureau of Pathology.

In keeping with our short term objectives, 760 follow-up data forms were distributed. Of 273 forms returned, 211 had additional information which has been recorded.

In cooperation with the Virology Program, 15 specimens were received all of which have been processed. H & E and special stain slides were made.

In cooperation with the Cancer Control Program, 43 cases were processed for the dog lymphoma project. H & E and special stain slides were made on each case.

Pollen counts were completed on 183 slides for the Division of Environmental Health.

April, 1961 marked the beginning of the Slide of the Month project. Approximately 128 slides per month were distributed during April, May, and June. This service will be resumed in September. This activity has had an enthusiastic acceptance and will be continued as a part of our efforts in the field of professional education.

Specimens were processed and slides distributed to the Essex County Anatomical and Pathological Society Monthly slide seminars. H & E and special stain slides were made.

Serology Program

One hundred twenty-five hospital and private laboratories approved for syphilis serology participated in the Evaluation-Assistance survey. The Camden Branch Laboratory prepared, packaged, and sent out 13,750 serum specimens to the participating laboratories, 10 unknowns plus a control, each month for a period of 10 months. Satisfactory performance consisted of no greater than 10 percent deviation from the control laboratory in sensitivity (percent of reactive sera reported as reactive) and 2 percent in specificity (percent of nonreactive sera reported as nonreactive). One hundred seven (87.0%) laboratories reported satisfactory results in one or more tests. Eleven laboratory technicians from 5 hospitals visited the serology laboratory to observe and carry out procedures under supervision. This assistance was requested by their pathologists because of unsatisfactory results in a particular monthly evaluation. Seventy-eight of the 125 laboratories approved for syphilis serology were visited during 1960-1961 by the field representative of the Bacteriology Program. His reports were discussed with the Chief Serologist and interpretations of the evaluation results were made in light of his observations.

We have been cooperating with the Blood Bank Commission of New Jersey in evaluating, on a voluntary basis, the Rh and blood grouping procedures of blood banks by sending out unknown specimens. This year, 3 specimens were sent to the 51 laboratories participating in the evaluation (153 specimens).

When the program was initiated to screen the State employees for diabetes by means of blood sugar determinations, the opportunity was seized to include a blood serology on the same specimens. The V.D.R.L. (Venereal Disease Research Laboratory) test cannot be performed on plasma. The rapid plasma reagin test (RPR), which is highly sensitive, is a suitable procedure when plasma is needed for multiple testing. The 4,774 blood specimens were tested by the RPR test and reported to the Chronic Illness Program. Where a reaction occurred, a second specimen was drawn without an anticoagulant and the serum was tested by the V.D.R.L. and Kolmer tests.

The possibility of linking the *Leptospira canicola*, icterohemorrhagiae or pomona strains, to illnesses of nervous system involvement promoted a study on 315 specimens sent from the Virology laboratory. Less than 1 percent reactivity was noted in that selected group.

One room was acquired (Room 309). With the consequent shifting, the Rh program was moved from the office of the Principal Serologist. Thus, laboratory work space was enlarged and the office became less noisy and was better organized.

Mass surveys are no longer considered productive in finding infectious syphilis. This year, 4,948 specimens were tested by the Serology Program for the Venereal Disease Program on small selective groups, as against 12,092 specimens tested at our laboratory last year in a Newark survey alone. The Kolmer test, employing the Reiter Protein (KRP), is requested in increasing numbers, there being a 50 percent increase in tests performed.

The slight increase in the premarital-prenatal specimens, on closer examination, shows that the premarital serologies increased by 2,300, while the prenatal specimens decreased by 4,000. Antistreptolysin titer (AST) requests decreased by 50 percent but they appeared to be from a more select group since the number with significant titers was higher than previous years.

One hundred sixty-three tests for trichinosis were performed. Ten of these gave significantly high titers to be reported to the Veterinary Program for investigation. The epidemiological evidence indicated that the Suessenguth-Kline agglutination test is specific for trichinosis.

Table 1. STATISTICS (1960-1961)

Total Specimens	205,074
Total Tests	224,102
Premarital Specimens	49,915
Prenatal Specimens	39,436
Rh and Blood Grouping	49,915
Total Protein	864
Cold Agglutinins	151
Antistreptolysin Titers	212
Heterophile Antibody Tests	2,408
Kolmer using Reiter Protein Antigen (KRP) ..	3,145
Leptospirosis	945
Trichinosis	163
Q Fever	200
Rapid Plasma Reagin Test (RPR)	4,676
C. F. Tests for Psittacosis and Rickettsia	460

Virology Program

While the number of specimens remained at the level reached the preceding year because of the eastern encephalitis outbreak, the workload increased 70 percent. This increase was due to expanded diagnostic testing and continued investigative work on EE (eastern encephalitis) survey specimens obtained during and after the incident.

A considerable amount of information has been gathered on this disease. It has been shown, for example, that about one of every 18 persons infected with EE develop encephalitis. It is now definitely established that EE has occurred in humans in New Jersey on many occasions during the last 50 years,

and that a significant number of residents of the shore counties are immune to it. Enough data have been gathered to write several scientific articles. These are in process of preparation. A long-term integrated study of the occurrence of EE in birds, mosquitoes and man has been organized in cooperation with the Veterinary Public Health Program under the direction of Drs. Martin Goldfield and Oscar Sussman.

The Virology Program, with Dr. Goldfield as principal investigator, has been performing virologic studies since September, 1959 with the assistance of a 3-year grant of \$50,272 from the National Institutes of Health and has just been awarded an additional research grant by this same agency of \$157,550 for a period of 3 years from May 1, 1961. It is being considered for a third grant of \$174,113.

In November, at the San Francisco American Public Health Association Laboratory meeting, Dr. Martin Goldfield, Assistant Director of Laboratories, presented a paper describing the New Jersey EE outbreak and the investigative work related to it. This paper was judged the best of those presented at the meeting and was given the newly inaugurated annual Laboratory Section Scientific Award, an award of \$500 and an expense paid trip to the 1961 American Public Health Association convention in Detroit. J. Norman Welsh, Chief Virologist, and Dr. Dighton Rowan, Principal Virologist, participated in the laboratory studies supporting the above investigations and shared in the award.

Virus diagnostic services are reflected in the statistical portion of this report below. However, it must be again pointed out that the quantitative data does not wholly reflect the extensive type of time-consuming tests that "routine" specimens are given. Frequently, such investigations of routine specimens elicit important epidemiological data to identify outbreaks that may be otherwise unrecognized.

From the public health point-of-view, this is the most desirable use of budget funds.

Table 1. THREE-YEAR COMPARISON

	1958-59	1959-60	1960-61
Specimens Received	2,742	4,618	4,398
Tests Performed	21,984	43,738	75,807
Type of Test			
Virus Isolation and Identification	8,968	18,298	18,757
Serologic	13,016	25,540	57,050
Consultations	25	110	150

Division of Local Health Services

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

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

STATE HEALTH DISTRICTS

Central	STANLEY P. MAYERS, JR., M.D., M.P.H. <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, B.S. <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 is responsible for assuring the well-being of the residents of and visitors to this state by stimulating the development and maintenance of effective local health services in all areas of the state. Such local services are intended to prevent disease and to provide the possibility for optimum health. The Director of the Division works through the staffs of the 4 State Health Districts. The staff of the Division presently consists of 90 professional and 39 office staff members. Its major functions are:

1. 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. On April 1, 1961, the Recognized Public Health Activities and Minimum Standards of Performance for local health departments became effective. Focusing public attention on these standards and securing compliance with them will require special effort and additional activities. In particular, it will be necessary to conduct surveys of municipal health activities to determine the degree of compliance with the standards.
2. 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. Intensive activities are carried out in cooperation with the New Jersey Health Officers Association and the New Jersey Public Health Association.
3. The development of concepts and methods to stimulate the development and maintenance of effective local public health services in a state whose local government organization is exceedingly complex and varies from municipality to municipality.
4. 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. State aid has been a major source of stimulation to initiate improved and extended health services in local communities. The further development of the grant-in-aid method and the maximum integration of state aid projects as they apply to local areas should be a major tool carrying out the objectives of this Division.

5. Maintaining a competent staff of professionally trained workers in the several public health disciplines for guidance and consultation to communities.

6. Carrying out the programs of the State Department of Health by performing field activities required by these programs, and integrating the activities of the several programs in terms of the problems, needs, and priorities within any specific area of the state.

During the past fiscal year, we have witnessed extraordinary progress in not only securing public acceptance of the need for basic health services on a local community level meeting recognized standards of performance but a readiness on the part of local officials to make necessary budget provisions and to organize such services. This progress has not been confined to a small part of the state or to a particular kind of rural or urban community. The cities of Trenton, Camden, and Paterson have recently employed full-time well qualified public health officers and are in the process of reorganizing and modernizing their health services. County governments in Atlantic, Bergen, Cape May, Cumberland, and Ocean Counties have organized or are in the process of organizing county health agencies prepared to supply health services to small municipalities on a contract basis. Municipal and county officials, together with interested citizens, are working out plans to provide needed services in every part of the state. This progress will necessarily be cut off abruptly in the absence of a significant appropriation of State aid on a continuing basis. The property tax as the sole source of support for local health services is totally inadequate in poorer communities—those with the greatest and most critical health service needs.

As a major unsolved problem in public health today, chronic illness control activities require a maximum of staff activity. The public health nursing, medical social work, nutrition, and community organization consultants on the District staff are all involved in this effort, directing their efforts toward effectively coordinating these activities among the medical and allied health professions, hospitals, and other health agencies in the community. Special efforts are being made to develop new programs of community health services for chronic diseases and the aged that may participate in assistance available through recent federal legislation. These activities are limited only by the staff time available. This limitation is particularly a factor in the Metropolitan District.

The mounting problem of sewage disposal occasioned by the rapid development of both residential and industrial areas has resulted in an acute staffing problem. The engineering staff geared to the normal surveillance of established water plants and sewage treatment plants is overwhelmed by these

increased needs. The staff made available through federal stream pollution monies partially fills this gap.

District Activities

The 4 State Health Districts are responsible for State Health Department activities in the communities within the counties making up their areas of operation. Their staffs are charged with 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 citizens.

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

<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
Senior Public Health Engineer	5	1	1	2	1
Principal Sanitarian	4	1	1	1	1
Senior Sanitarian	5	1	2	1	1
Sanitarian	7	3	vacant	2	2
Assistant Sanitarian	4	1	2	1	vacant
Public Health Veterinarian	3	1	1	1	vacant

<i>Title</i>	<i>Total</i>	<i>Central</i>	<i>Metropolitan</i>	<i>Northern</i>	<i>Southern</i>
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	3	1	1	vacant	1
District Chief Public Health Nurse	3	1	vacant	1	1
Public Health Nurse Supervisor	15	1	5(1 vacant)	4	5
Public Health Nurse	1	1	..	..	..
Senior Public Health Physician	1	..	1	..	..
Physical Therapist	1	1	..	..	..
Industrial Hygienist	1	..	1	..	..
Assistant Industrial Hygienist	1	..	1	..	..

The areas of operation of the Districts and the percentage of the state's population in each District is as follows:

<i>Central 22.5%</i>	<i>Metropolitan 53.1%</i>	<i>Northern 9.4%</i>	<i>Southern 14.8%</i>
Burlington	Bergen	Hunterdon	Atlantic
Mercer	Essex	Morris	Camden
Middlesex	Hudson	Somerset	Cape May
Monmouth	Passaic	Sussex	Cumberland
Ocean	Union	Warren	Gloucester
			Salem

The Districts carry out activities as part of the various Departmental programs. These activities and their accomplishments are recounted in the sections of the Annual Report reserved for these programs. District activities noted in this section of the Annual Report relate to the major efforts to develop community health services.

Southern State Health District

The year was characterized by intense interest in the Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments. This interest was shown by municipal and county officials, as well as by voluntary health organizations. In several cases, the interest and discussion were followed by definitive action aimed at setting up local health units.

Health officer coverage showed promise of substantial improvement. At the beginning of the fiscal year, only 13 of the District's 129 municipalities had the services of a full-time health officer, covering only 49,448 people, or

about 5.5 percent of the population. A year later, 2 new county positions had been created. It is significant that in all counties of the District, the first formal action in support of the Minimum Standards was taken by a small municipality whose leaders realized that it could not obtain the basic health services independently.

Promotional efforts not only involved public meetings but also many contacts with the press. Many newspaper editors, particularly of the weeklies, were interviewed by the District Consultant in Community Health Organization. In addition to the resulting newspaper articles, District staff participated in broadcasts over local radio stations.

Atlantic County

In October, a delegation from the Council of Community Services and representatives of the Atlantic County Medical Society and the Greater Atlantic City Chamber of Commerce appeared before the Board of Chosen Freeholders. The delegation urged that the Freeholders make provision in the 1961 budget so that individual municipalities could contract with the county for the services of a full-time health officer and sanitary inspector. In February, the former Director of the Board of Chosen Freeholders presented a proposed budget of \$40,000 for a county health unit at meetings of municipal officials and board of health members. The cost was to be prorated on the basis of population among each of the participating municipalities. In March, the Freeholders passed a resolution creating the position of County Public Health Coordinator, making Atlantic the third county to take such action. Their action was supported by formal resolutions from a number of individual boards of health and governing bodies.

Camden County

Following discussions with Department representatives, the Mayor of Camden named a committee of citizens to survey the city's public health services and needs. The committee began its work in September, with the District State Health Officer serving as its consultant. In March, the survey report was submitted to the Mayor, who then asked the District State Health Officer for his views. In May, the Director of the Division of Local Health Services and the District State Health Officer met with the Mayor to discuss the need for employing a full-time health officer after the new governing body took office on July first. The Mayor indicated his interest and his intention to bring the matter before the new City Council immediately after the beginning of the new city administration on July first.

In February, the Camden County Mayors' Association discussed the Minimum Standards. The following month, at their invitation, the Director

of the Division of Local Health Services spoke at their regular meeting. He clarified various points of the Minimum Standards concerning which there had been some misunderstanding. The Public Health Services Committee of the Health and Welfare Council of Camden County planned a meeting of all boards of health. This meeting, jointly sponsored by the Council, the District, the Board of Chosen Freeholders, and the Camden County Mayors' Association, was held in May. Thirty-one of the county's 37 municipalities were represented. The Director of the Division of Local Health Services and the District State Health Officer discussed the Minimum Standards, and representatives of the Freeholders indicated their interest. In June, the Runnemed Board of Health wrote to the Freeholders urging them to set up a county health unit.

Cape May County

In September, the Freeholders employed a full-time sanitarian to work under the County Public Health Coordinator. This action was facilitated by a grant-in-aid contract from the Department. In November, the Board of Health of Wildwood Crest signed a contract with the Freeholders for the services of the Coordinator and his staff. Similar action was taken in April by Cape May City, thus making 14 of the 16 municipalities in the county and about 75 percent of the population covered by the county health unit.

Cumberland County

In February, representatives of several of the township boards of health met at the invitation of the Upper Deerfield Township Board to discuss compliance with the Minimum Standards with District staff members. They decided to call a county-wide meeting, which took place the following month. Representatives of the small municipalities were all in favor of asking the Freeholders to set up a county health unit. This action was confirmed by official representatives of 9 municipalities in a subsequent meeting with a group of Freeholders.

In May, the Freeholders formally considered the matter and instructed their Finance Committee to study the matter further. At their June meeting, the Freeholders passed resolutions creating a county health unit with the position of Public Health Coordinator, and a budget of \$23,000. The unit was planned to provide basic health services for over 69,000 people in 13 municipalities—that is all of the county except Vineland, which has its own health officer. Cumberland County thus became the third county in the Southern State Health District to officially set up the position of Public Health Coordinator.

Gloucester County

The Wenonah Board of Health, realizing that independent compliance with the Minimum Standards is not feasible for a small community, called a meeting of all 24 boards of health in March. The District State Health officer discussed the Minimum Standards and means for compliance. An ad hoc health committee of the Board of Chosen Freeholders reported its interest, and indicated a willingness on the part of the Freeholders to consider helping the municipalities if help were wanted. Later, several Freeholders conferred with the Director of the Cape May County Board of Chosen Freeholders, to learn details of Cape May's county health unit. In June, the Cape May Director spoke to another county-wide meeting of local officials and Freeholders in Gloucester County. A tentative budget for a county health unit was presented. By the end of June, boards of health or governing bodies of eight municipalities had sent resolutions or letters to the Freeholders urging the creation of a county health unit.

Salem County

In July, the Elmer Board of Health voted to ask the Salem County Council for Local Public Health Services to call a meeting of all boards of health to consider the common problem of meeting the Minimum Standards. District representatives attended such a meeting of board of health members in October to explain the various ways available for meeting the Standards. At a meeting the following month, it was voted to ask the Freeholders to set up a county health unit. In December, a spokesman for the 15 boards of health presented a proposed budget to the Freeholders, calling for the employment of a public health coordinator and a sanitarian. In February, the Director of the Division of Local Health Services and District staff members met with several Freeholders, the county solicitor, and representatives of local boards of health and governing bodies. The financing of the proposed county health unit was discussed, including possible state aid. Fourteen of the county's 15 municipalities took official action requesting the Freeholders to set up a county health unit similar to the one in Cape May County.

Northern State Health District

Hunterdon County

A county health committee met bi-monthly from October through February. During that time, it endorsed a proposal for a county health officer employed by the Freeholders and had held several open meetings for discussion of the proposal by all of the municipalities in the county. Representatives of the committee attended local board of health meetings to interpret the proposal.

By February, five of the municipalities in the county had sent resolutions to the Freeholders requesting the establishment of a county service.

The League of Women Voters in this county had undertaken a study of the Minimum Standards as a project for the year and were given guidance by the District staff. A survey form was devised, a workshop planned and held in February, and League members visited each municipality to collect the pertinent data. Data collection was completed by the end of May and analysis of the material continued through the end of the fiscal year. The group tentatively plans to utilize the materials with the assistance of the local officials for support of health services.

Morris County

Individual assistance was given to 21 out of the 39 municipalities in Morris County regarding the Minimum Standards. Several of these were given assistance in evaluating their programs by means of the Evaluation Schedule or other modified evaluation forms.

A joint evaluation study was made in March by the District staff and the Rockaway Township Board of Health which resulted in the 44-point step-wise action program recommendation. Action was then taken by this local board in terms of the recommendations for: provision of full-time sanitary inspection service, review and coordination of communicable disease reporting and follow-up procedures, as well as study of ways to provide for public health nursing services.

Somerset County

A health committee consisting of 21 of 85 participants of a county-wide meeting met from November 30 through February. Though the proposal for a county coordinator was discussed in detail, the committee itself was not in complete agreement as to its endorsement.

The Somerset County Parent-Teacher Association and the County Medical Society began planning in February for spring meetings devoted to public health and county health services respectively.

The Parent-Teacher Association meeting was held in April for local health chairmen and a full day's program related to the Minimum Standards and other public health topics was provided. District staff members participated in the program.

A public meeting sponsored by the Medical Society was held in May. A panel of speakers, including the president of the Medical Society, a representative from industry, a Cape May County Freeholder, and the Director of the Division of Local Health Services, discussed county health services. This meeting resulted in a recommendation that the County Board of Chosen Free-

holders appoint a committee to study Somerset County's health problems and needs and recommend a solution.

The County Board of Chosen Freeholders appointed a seven-member committee early in June, 1961 to study whether the office of Health Coordinator should be added to the county government. Assistance was given to members of the study committee and to the Freeholders in the initial compilation and interpretation of data. A report of this committee is anticipated by November of 1961.

The Somerest County League of Women Voters began in June to prepare a booklet about the county, one chapter of which is devoted to health and recommended methods for administering health services. Assistance was given by the District in the preparation of this chapter. Copies of the chapter will be given to each of the members of the county study committee.

Sussex County

A total of 20 of the 24 local boards of health in Sussex County were visited during the summer of 1960 and the county meeting was held in September. Five representatives of this group volunteered to serve as a study committee. This committee met from November through February and endorsed a plan for a county coordinator. Thereafter, they requested local officials of other municipalities and the Freeholders to participate in their meetings. Copies of the recommendation of the committee, as well as proposed budget data, were sent to all of the boards during the middle of April. It became evident to the committee that more of the mayors and township committeemen needed to be involved in the planning for health services and also that such planning needed to include comprehensive public health nursing services.

With the merger of the Sussex County and Morris County Tuberculosis and Health Associations, the Freeholders made plans for assumption of the total responsibility for tuberculosis control in the county as of January 1, 1961. This also initiated over-all planning for county-wide public health nursing services by the Freeholders on a step-wise basis as money and qualified personnel become available.

Warren County

A county-wide meeting was held in December and a representative voluntary study committee began meeting in February. By March, the committee recommended joint planning and provision of health services through a regional health commission composed of all of the municipalities in the county except Phillipsburg. Budget data and other materials were prepared for a May meeting at which the State Commissioner of Health was requested to

speaking regarding the Minimum Standards. As a result of the May meeting, three sub-committees were appointed to work on the organization and by-laws and budget of a regional commission for the county. These sub-committees have agreed to work throughout the summer of 1961 and to report back to the total county groups in September.

Central State Health District

In order to increase public understanding of the importance and use of the Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments, numerous meetings were held with local health officials, local governing bodies, county officials and interested citizens' groups. County-wide meetings with the above groups were held in Monmouth, Middlesex, Ocean, and Burlington Counties. Meetings were held with the local board of health and health officials of almost every municipality in Mercer County concerning these Minimum Standards. As a result of the wide publicity given to the Minimum Standards, there has been a great deal of interest manifested by all of the above groups. This has been demonstrated by the requests that have come in to the District office for speakers to appear at meetings to explain the Minimum Standards.

Mercer County

Under the direction of their health officer, the Bureau of Health of the City of Trenton has been reorganized. The division of sanitary inspection has conducted courses for sanitarians in general sanitation and in housing. These courses were provided through the State Department of Health. The nursing service is being reorganized and as of July 1, 1961, the specialized nursing groups will be combined into a generalized nursing service.

Discussions have been held with the Boards of Health of Princeton Borough, Princeton Township, and West Windsor Township, and a combined health agency is under consideration.

Middlesex County

The survey of nursing services by the Public Health Nursing Survey Committee for Middlesex County, begun over a year ago, has continued through the past year. The committee met at regular intervals during the year to prepare a report of its findings and recommendations for improvement. The final report was prepared in a tentative form but has had to be revised considerably and consequently its official release has been delayed until the coming fall.

As a result of the very successful conference held in Bloomfield on "Our Neighbors—The Puerto Rican Family," a similar conference was developed by Central State Health District personnel in cooperation with various community agencies and groups in Middlesex County. The conference, which was held in Perth Amboy on April 20, 1961, was a highly successful one.

Monmouth County

As a result of the Recognized Public Health Activities and Minimum Standards, a number of municipalities in the southeastern part of Monmouth County requested information about ways in which they could join together to provide health services meeting these standards. District personnel met with members of the boards of health involved to explain the ways in which this could be done. The representatives of these boards of health decided that the formation of a regional health commission would be the best way for them to do this. The municipalities which it is hoped would be involved are Wall Township, Spring Lake Heights Borough, Belmar Borough, South Belmar Borough, Spring Lake Borough, and Manasquan Borough. If all of these would join such a commission, it would serve a population of almost 30,000 in a contiguous area. Several of these municipalities hope to be able to get started in a regional health commission by January, 1962.

Ocean County

As a result of the annual meeting of Parent-Teacher Association County Health Chairmen with District personnel, the Health Chairman of the Ocean County Parent-Teacher Association Council became interested in developing county-wide health services which would meet the Recognized Public Health Activities and Minimum Standards. This plan was presented to the Ocean County Parent-Teacher Association Council and accepted by that organization as a project for the year. The District agreed to provide speakers at local parent-teacher association meetings to explain the Minimum Standards and the county public health coordinator method of providing these services. During the year, these meetings were held throughout the county. At a number of these meetings, members of the County Medical Society also spoke favorably of the plan. Many of the parent-teacher associations adopted resolutions calling for the County Board of Freeholders to establish such a program. The Board of Freeholders has indicated an interest in such a proposal and is now exploring the need for such services by employing a part-time sanitary inspector.

Metropolitan State Health District

The opportunity to meet on a conference level with local boards of health and discuss the Recognized Public Health Activities and Minimum Standards proved to be an educational experience for the health officer, the board, the Mayor, the civic leader and the District staff. Discussions in answer to such statements as "we do not need health services in this community"; "we have no problems"; or, "our people provide for their own health services" opened the way for facts regarding the changing concept in public health today, including such programs as Chronic Illness Control, Preventable Disease, Maternal and Child Health, Nutrition, Social Work, and Health Education. With this exchange of information, local communities were encouraged to take the initiative in evaluating their own programs in order to determine to what extent health services are being provided for local citizens. Several such surveys are now under way. Fanwood, Rahway, Montclair, Bloomfield, Summit, Montvale, Nutley, Springfield, and West Caldwell have completed evaluation surveys determining the adequacy of their health services.

The outcome of the direct work with more than 30 boards of health, health officers associations, civic groups, medical societies, and area meetings will be a better understanding of basic public health and a closer working relationship between all agencies concerned with providing such activities required in meeting the Minimum Standards of Performance. Much effort has been put into helping local boards of health to realize their responsibility for the basic health services prescribed in the Minimum Standards and in planning activities to enable them to meet these requirements.

Passaic County

Representatives of 7 municipalities attending a meeting of boards of health of Upper Passaic County were advised that methods for obtaining full coverage of health services are available through law. The position of the District is to keep communities fully informed of these resources. They were further advised that the selection of the technique is entirely a local matter. When the choice is made, staff from the District would be available to assist.

Bergen County

The plan for expanded health services designed and approved by the Bergen County Board of Chosen Freeholders became a reality with the establishment of a Division of Public Health and Preventive Medicine at the Bergen Pines County Hospital. Significant features in the plan are the incorporation of public health services within the hospital framework. These

may be purchased on a cost based contract. The Director of the new division began duties in November. He serves as administrator of the division under the general direction of the Medical Superintendent of the Hospital. His duties include supervision of staff personnel, public health consultation to local health departments, officials and other health agency personnel. He is also available as municipal health officer. The District staff has met with approximately 17 separate boards of health and emphasis has been placed on services available through the Division of Public Health and Preventive Medicine at Bergen Pines County Hospital. Other facilities such as the Regional Health Commission No. 1 and the Northwest Bergen Regional Health Commission have been explored with surrounding communities.

Union County

Twenty-five persons representing health and welfare agencies voted to form a permanent committee on patient care following the 1960 Workshop on Continuity of Patient Care. A special committee discussed the 2 proposals: (1) The advisability of functioning as a sub-committee of already organized groups, or (2) The possibilities of an independent committee with individual and organizational memberships.

The Community Welfare Council of Eastern Union County for the present is providing the committee with secretarial assistance. Miss Mary C. Kanane, a Union County Freeholder, is the new chairman. Two projects being studied are: (1) The effect of the closing of the Social Service Exchange on agency services; (2) The best way of securing better referral services in the county.

Union Township, with a population of 51,000, requested assistance from the Metropolitan State Health District regarding its public health nursing service. Generalized nursing service, including bedside nursing care, was purchased from the local visiting nurse association. The municipality considered organizing its own nursing service. The District nursing staff prepared estimated expenditures based on National League for Nursing criteria. The figures indicated that the cost of operating its own service would be more than twice as much as the amount being paid to the Visiting Nurse Association by the municipality. It also was doubtful if as comprehensive a nursing service could be maintained as that being provided by the Visiting Nurse Association.

Hudson County

Work has continued in the plan to organize a public health nursing service in the North Hudson area. Through the work of the staff and board of the Hudson County Tuberculosis and Health League and the District staff, a public meeting in the interest of public health nursing was held in Weehawken.

The next step was the formation of a steering committee for the purpose of selecting a board of directors for the new organization. Several members have been chosen for the board of directors. Plans for the future include final appointment of the board of directors, a method of financing the new agency, housing accommodations, and selection of staff.

District-wide Activities

The 5 major health conferences sponsored by the Metropolitan District during the past fiscal year have provided the opportunity for very profitable discussions on issues and problems related to public health. The District staff has been greatly encouraged by the enthusiasm and support exhibited by the leadership of various health and welfare agencies in each of the projects. Registrations have always exceeded plans and expectations.

The large number of newcomers from Puerto Rico, particularly in the Metropolitan area, created a need among staff workers in local health departments and nursing agencies for more knowledge and understanding of the Puerto Rican family culture. In plans designed to meet this need, the Department and the District presented a one-day conference on "Our Neighbors—The Puerto Rican Family" at Bloomfield on September 15. The conference was attended by more than 200 representatives from health, welfare, and religious groups. The success of the conference was due to the help of many persons, including a planning committee, the Commonwealth of Puerto Rico, Fordham University, the New York City Health Department, Passaic County Tuberculosis League, Health and Hospital Council of Newark and Vicinity, Public Health Nursing Agencies, St. Michael's Hospital, and the Newark and Bloomfield Departments of Health. The conference has stimulated agencies and institutions to continue plans for working more closely with Puerto Ricans. The District has continued to answer many requests for educational materials and leadership assistance on the local level.

Other conferences conducted include: Diabetes Training Conference, November 2; Child Health Conference, May 15; Cause of Death Coding and Training Course, May 17, 18, 19; Conference on Restorative Services, June 28. Details are described in other sections of the Annual Report.

Grants-in-Aid

Following the pattern of previous years, use was made in the year ending June 30, 1961, of limited funds available for grants-in-aid to implement local health services.

In the fall of 1960, the Department decided to discontinue making direct payments to physicians for services rendered in child health conferences con-

ducted by 51 local boards of health. In lieu thereof, the Department offered these boards grant-in-aid contracts covering such services for a one-year term beginning on January 1, 1961. Such contracts provided for 2 annual renewals at reductions of one-third and two-thirds of the original amounts. Forty-three of the local boards accepted the contracts as offered. The other eight decided to assume full financial responsibility for the conduct of the child health conferences in their municipalities. The total amount expended by the Department for support of such conferences during the year was \$9,232.

At the beginning of the fiscal year, July 1, 1960, there were 5 grant-in-aid contracts in operation. These contracts had been signed in the previous fiscal year. Four were for public health nursing services (Boards of Health of Alpha and Blairstown, Somerset Valley Visiting Nurse Association, and Board of Freeholders of Burlington County) and the fifth for a county public health coordinator (Board of Freeholders of Cape May County).

On July 1, 1960, renewal contracts were effected with a local board of health (Washington Township, Warren County), a county public health association (Hunterdon) and a county visiting nurse association (Middlesex), all for public health nursing services and all for reduced amounts. On the same date, renewal contracts were also signed with a local board of health for health officer services (Phillipsburg) and with Rutgers, the State University, for conducting courses in public health. Later in the year, renewal contracts were also entered into with a county board of freeholders (Cape May) for a public health coordinator, with a regional health commission (Northwest Bergen) for sanitation services, and with a visiting nurse association (Somerset Valley) for public health nursing services.

Four new contracts were consummated during the year, exclusive of grants made for child health conference services. These were with a local health department (East Orange) for a public health educator, with a Red Cross County Chapter (Camden) for a nutritionist, and with a county board of freeholders (Cape May) for a sanitarian and a clerk for the office of the County Public Health Coordinator.

Six contracts terminated during the year. Four were for public health nursing services (Boards of Health of Alpha and Blairstown, Board of Freeholders of Burlington County, and the Visiting Nurse Association in Middlesex County), one for health officer services (Phillipsburg), and one for sanitation services (Northwest Bergen Regional Health Commission). All 6 grantees had received their 3 years of grants with annual reductions in amounts.

The amount expended for grants-in-aid through the division of Local Health Services for the year ending June 30, 1961, was \$48,834.69. The allocation of this amount by categories was as follows:

DEPARTMENT OF HEALTH

Table 1. GRANTS-IN-AID BY TYPE OF SERVICE

For	Amount
Public Health Nursing Services	\$19,309.30
Local Health Officer Services	606.00
County Health Services	10,468.20
Regional Health Commission	500.00
Public Health Courses	1,500.00
Child Health Conferences	9,232.00
Migrant Labor	215.50
Public Health Education	2,950.00
Public Health Nutritionist	4,053.69
Total	\$48,834.69

Table 2, which follows, shows the number of contracts in effect during the fiscal year by type of receiving agency, and Table 3 shows the amount paid to each grantee.

Table 2. GRANTS-IN-AID BY TYPE OF RECEIVING AGENCY

Agency	No. of Contracts	Amount Paid
Boards of Health	46	\$12,701.88
Boards of Freeholders	2	11,223.70
Regional Health Commission	1	500.00
Visiting Nurse Associations	2	8,235.42
County Public Health Association	1	9,300.00
County Organization for Social Service	1	190.00
County Chapter, Red Cross	1	4,053.69
University	1	1,500.00
Municipal Governing Bodies	2	1,130.00
Total		\$48,834.69

DIVISION OF LOCAL HEALTH SERVICES

Table 3. AMOUNTS PAID TO GRANTEE—YEAR ENDING JUNE 30, 1961

Name of Grantee	Amount Paid	Name of Grantee	Amount Paid
A. For Public Health Nursing		F. For Child Health Conferences	
Bd. of Health—Alpha Boro	\$126.96	Bd. of Health—	
Bd. of Health—Blairstown Twp. ...	240.96	Alloway Twp.	\$72.00
Bd. of Health—Washington Twp. ...	675.96	Atlantic City	588.00
Burlington Co. Bd. of Freeholders ..	755.50	Bellmawr	276.00
Hunterdon Public Health Assn.	9,300.00	Boonton	120.00
V. N. A. in Middlesex County	1,207.92	Bridgeton	144.00
Somerset Valley V.N.A.	7,002.00	Burlington City	338.00
Total	\$19,309.30	Butler	120.00
B. For County and Local Health Administration		Clayton	144.00
Cape May Co. Bd. of Freeholders:		East Paterson	264.00
Public Health Coordinator	\$5,380.22	East Rutherford	72.00
Sanitarian	4,637.98	Edison Twp.	756.00
Clerical Services	450.00	Englewood	1,460.00
Bd. of Health—Phillipsburg:		Ewing Twp.	132.00
Health Officer Services	606.00	Gibbsboro	72.00
Northwest Bergen Regional Health		Gloucester City	288.00
Commission:		Gloucester Twp.	96.00
Sanitation Services	500.00	Hamilton Twp.	128.00
Bd. of Health—East Orange:		Harrison	144.00
Public Health Educator	2,950.00	Hawthorne	144.00
Total	\$14,524.20	Hillsdale	72.00
C. For Migrant Labor		Kearny	504.00
Monmouth County Organization for		Lawnsdale	72.00
Social Service	\$190.00	Lawrence Twp.	80.00
V.N.A. in Middlesex County	25.50	Lodi	276.00
Total	\$215.50	Millville	132.00
D. For Public Health Nutritionist		Monroe Twp.	120.00
Camden County—Red Cross	\$4,053.69	Mt. Holly Twp.	374.00
E. For Public Health Courses		New Milford	324.00
Rutgers—State University	\$1,500.00	North Arlington	144.00
		Phillipsburg	408.00
		Prospect Park	60.00
		Riverdale	72.00
		River Edge	196.00
		Riverside Twp.	72.00
		Runnemedede	144.00
		Rutherford	108.00
		South Hackensack ..	72.00
		Wallington	36.00
		Washington Boro ..	132.00
		Washington Twp.	68.00
		Winslow Twp.	276.00
		Woodbine	60.00
		Wood Ridge	72.00
		Total	\$9,232.00
		Grand Total	\$48,834.69

Civil Defense Medical and Health and Special Weapons Services

Training Program

Further progress was made in the State Medical and Health and Special Weapons Training Program with major interest and participation by educational and medical institutions. Assistance in the organization of and participation as lecturers was given at (1) the biennial civil defense program at School of Dentistry, Fairleigh Dickinson University; (2) semi-annual program at School of Nursing, Seton Hall University; (3) 1-day Training 322d General Hospital, 2nd Army Corps of the First Army; (4) in-service training for U. S. Army officers at Ft. Monmouth and for National Guard officers at Sea Girt; (5) training for hospital personnel at Middlesex Hospital, St. Francis Hospital, Cooper Hospital, and Ridgefield Park; (6) adult education at Nutley, Dutch Neck, and Lakewood; and (7) semi-annual orientation program at State Police Academy.

A 1-week exhibit of 200-Bed Emergency Hospital was co-sponsored with Trenton Civil Defense Council and Trenton Board of Health.

Orientation on radiological defense and the role of women's clubs in shelter and home preparation was presented at civil defense session of the New Jersey Federation of Women's Clubs.

So as to permit a continuity of training in unpacking and setting up the 200-Bed Emergency Hospital unit, an additional 200-Bed Emergency Hospital unit was stationed for the southern counties at Pemberton, and another unit was skeletonized for ease in transportation. One unit is already located at State-Essex County Training Center for the northern counties. Handout material and training slides were made available.

National and State Tests

Key persons of the State Department of Health participated at the control center exercise of national operation alert OPAL '61. Such participation served as a "refresher" on inter-service relationships and on control center procedures. Resource manuals for medical and health control center operations were brought up to date from data obtained from professional organizations and licensing boards as well as from departments of state government.

Our personnel formed part of the state team that reviewed the control center operations of the various services of each county during the required annual State-County exercises—Local OPAL.

Special Projects

A manual for use by the public on "Precautions Before, During, and After a Hurricane" was prepared for consideration by Office of the Commissioner.

There is a recognized need for such information for use by the public and the public information media.

Assistance was also given for the revision of the Medical and Health Preparedness Plan and for the Basic Civil Defense Manual for Nurses. These are to be reviewed by pertinent professional organizations.

Conferences were held with representatives from the State Bureau of Construction and with environmental health staff of the State Department of Institutions and Agencies regarding the use of existing and new structures for fallout shelters.

Liaison Activities

The Disaster Medical Organization and the role of the State Civil Defense Medical and Health Services in civilian protection was explored with representatives of Ft. Monmouth.

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

Sites for prepositioning of an additional 14 200-Bed Emergency Hospital units were inspected along with representatives from the United States Public Health Service and State-Regional Civil Defense Coordinators.

Preliminary informational material and questionnaire for use by county and municipal civil defense organizations in the setting up of contractual relations for the 1,800 monitoring stations were prepared. Guidance and assistance were given the radiological consultant of the State Office of Civil Defense and representative of the national office in the implementation of the state's portion of the National Monitoring Network.

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.

Division of Preventable Diseases

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Division of Preventable Diseases

Communicable Disease Control Program

Morbidity, Mortality and Trends of Notifiable Diseases

The period, July 1, 1960 to June 30, 1961 was remarkable for a high incidence viral hepatitis in New Jersey. A number of discrete outbreaks came to attention, including outbreaks of serum hepatitis in the practice of a physician, infectious hepatitis in the Camden area, serum hepatitis due to dried irradiated plasma, and an extensive clam transmitted outbreak traced to the Raritan Bay.

The outbreak of serum hepatitis occurred in a physician's practice which numbered approximately 332 persons during 1960. Among them were 41 cases of hepatitis, an attack rate of 12.3 percent. In this outbreak, 15 persons died, a case fatality rate of 37 percent, one of the most severe outbreaks of hepatitis recorded. The epidemic curve, showing cases and deaths, presented 2 significant peaks in July and October, 1960.

The contact outbreak in Camden involved 20 persons, including a number of children living in the area known as Cramer Hills, a middle income area in which the families are rather large. This area is served by municipal water and sewage systems. The children attended 4 different schools, the Sharp, Washington, Dudley, and Veterans Junior High Schools. The outbreak had its origin in May and extended until January, 1961.

The plasma outbreak came to attention in the course of a hepatitis surveillance program. Three cases of hepatitis reported from a hospital were observed. Investigation revealed that they had received irradiated dry plasma at about the same time. Investigation of irradiated dried plasma and patients exposed to it between October, 1960 and February, 1961 revealed that there were 37 persons who had received dried irradiated plasma. Twelve persons died within the incubation period of serum hepatitis. Among the surviving 25 were 17 who did not develop symptoms of hepatitis. Eight developed clinical hepatitis consistent with the diagnosis of serum hepatitis.

Between October 3 and October 31, 11 persons received a single lot of dried plasma, 8 in conjunction with blood, and 3 plasma only. Five of the patients who received plasma and blood developed serum hepatitis. Two of those who received only plasma developed serum hepatitis. These illnesses traced to one specific lot of dried plasma led to further studies by the U. S. Public Health Service to determine the incidence of hepatitis associated with 258 units of plasma of this individual lot.

Apart from the rather discrete outbreaks of hepatitis, a dramatic rise of infection was observed during December, 1960 and January, 1961. Within a very short time, the numbers of cases of hepatitis exceeded the numbers reported in the entire preceding year. Cases were distributed widely throughout the state and seemed to reflect extensive contact spread. It became apparent, however, that 80 percent of cases were among adults and over 60 percent of cases were males. Surveillance procedures initiated in January indicated that large numbers of patients were serviced by municipal water supplies and sewage facilities and that the extent and frequency with which suspected routes of transmission, such as blood transfusions, injection therapy, dental care, etc., could not account for this outbreak. The frequency with which the history of contact with a known case of hepatitis could be obtained placed grave doubt upon the premise that the outbreak was due to contact spread.

A series of patient interviews in Woodbridge Township led to the impression that infectious hepatitis was occurring more frequently among men in the upper socio-economic group who consumed raw clams. This impression was confirmed by a survey in the City of Newark where among adult patients a history of ingestion of raw clams was obtained in over 50 percent. Control studies were initiated in Newark, Woodbridge, and in Monmouth County, to determine the clam eating habits of persons who were not ill with hepatitis. Among adults who did not have hepatitis, not more than 15 percent ate raw clams.

Extensive surveillance was initiated on cases of hepatitis reported during January, February, March, and April. It was found that approximately 50 percent of adults with the disease gave a history of eating raw clams. An extensive investigation of the source of raw clams led back initially to single sources derived from Raritan Bay. As the investigation proceeded, it became apparent that the movement of raw clams in the market was complicated and many sources were involved. Four hundred sixty cases were investigated. 87.2 percent of these cases were traced to a source consistent with Raritan Bay.

Raritan Bay was closed to clamming on May 1. In subsequent months, a noticeable diminution in the percentage of clam related cases of hepatitis was observed.

Polio

The 76 cases of poliomyelitis in New Jersey in 1960 and the 3 deaths due to this disease represented a decline in incidence from the year 1959. One-third of the cases reported were under 5 years of age and another 21 were under 10. Forty-three of the cases of illness had not received Salk vaccine. Fifty-two isolations of poliomyelitis virus were reported, 45 type 1 and 7 type 3. Cases were concentrated in Hudson, Essex, Passaic, and Middlesex Counties, with

moderate numbers in the large cities, Jersey City, Newark, Perth Amboy, and Hoboken.

In preparation for the poliomyelitis season, an effort was undertaken in the spring of 1960 to ascertain the extent to which the childhood population of large cities and communities throughout the state was immunized. This activity was completed in mid-July and revealed among 243 schools, having an enrollment of 205,000 children, that 80 percent of the children had received 3 or more inoculations of Salk vaccine. In addition, a survey conducted by 100 local boards of health, numbering 4,700 children between the ages of 1 and 2, revealed that 71 percent were triply immunized.

The surveillance program initiated early in the summer permitted an early recognition of a cluster of cases in Hoboken and Jersey City. By reference to immunization surveys conducted in both cities, it became apparent that approximately 60 percent of the school children in the area had received 3 or more inoculations. This rate was considerably lower than that found in other areas of the state. The figure of triple immunization among the children 1 year of age was also lower in this area than throughout the state. On the basis of these observations, it was felt that the areas in which polio was occurring in Jersey City and Hoboken were not adequately protected against paralytic polio.

With the assistance of local health officers, county medical societies, and governing officials, an extensive poliomyelitis immunization program was conducted. It reached over 10,000 persons, half of whom received their first inoculation of Salk vaccine in this program. There were 2,500 children under 4 years of age and 60 percent of these children received their first inoculation in the mass campaign.

The important breakthrough is reflected in the follow-up conducted after this crash program. Among the children under 5 who received inoculations during the program, it is estimated that about 85 percent received their second inoculation. This program was conducted in the low socio-economic areas of Jersey City and Hoboken where large numbers of participants were from among the Spanish speaking population of Puerto Ricans. The success of the program reflects the importance of person to person visible public health service.

The effectiveness of the survey technique in stimulating poliomyelitis immunization led to the development of a program in the early spring of 1961. This program, designed to reach children between 1 and 2 years of age, was conducted by 165 local boards of health and reached 7,749 children, of whom 6,790 had received 3 or more inoculations of Salk vaccine. This survey indicated that approximately 87 percent of children between 1 and 2 years of age had received 3 or more inoculations of Salk vaccine.

A separate survey conducted by the Newark Board of Health in the spring of 1961 among children living in the major housing projects of the city indicated that in the lower socio-economic groups 60 percent of children between 1 and 5 had received 3 or more inoculations of Salk vaccine and that this percentage increased with age from 42 percent at age 1 to 81 percent at age 3.

The survey among children attending child health conferences in the City of Newark revealed that approximately 50 percent had received 3 or more inoculations by the time they had reached the first year of life. This sample again was among the lower socio-economic group and reflects the need for vigorous immunization programs among the very young, particularly in the lower socio-economic area.

Other Viral Infections of the Central Nervous System

Increasing attention was paid to the diagnosis of aseptic meningitis. Two hundred two cases were reported during 1960. Twenty were due to Coxsackie virus, 15 were due to ECHO virus, and 79 cases were reported due to mumps. Increasing activity was noted in the collection of specimens from cases of aseptic meningitis. This permitted more precise diagnosis of this syndrome.

There were 20 cases of encephalitis reported in 1960, 10 due to measles and 8 due to varicella. There were no cases of eastern encephalitis in 1960.

In 1960, there were 10,559 cases of measles. Heavy concentrations of cases occurred in Bergen, Essex, Hudson, Passaic, and Union Counties. There were over 3,000 cases of streptococcal sore throat, including scarlet fever. Heavy concentrations were noted in Bergen, Camden, Essex, Hudson, Middlesex, Morris, Passaic, and Union Counties.

Pertussis

In 1959, there were 582 cases of pertussis (whooping cough). In 1960 there were only 226. Only 1 case of diphtheria occurred in the state during 1960. There were 6 cases of typhoid fever, 4 in Essex County, 1 in Hudson County and 1 in Morris County. The Department files listed 60 typhoid fever carriers at the end of the year.

Other Diseases

No cases of botulism, cholera, denga, glanders, leprosy, plague, psittacosis, Q fever, human rabies, smallpox, trachoma, typhus fever, or yellow fever were reported during the year.

Three of the cases of typhoid fever reported in Essex County developed in 1 family and involved 2 children age 3½ and 7½ and their 9 year old cousin. The illness became apparent in July of 1960 in a 3½ year old child

and was confirmed by laboratory examination. The other 2 children became ill later. The families of the patients in this outbreak were followed by the local health department with periodic stool cultures. Investigation as to the source of infection determined that the children frequently played in a small portable swimming pool in the back yard. This pool was chlorinated but on a day when it was not chlorinated, it was contaminated by the 3½ year old child who was just beginning to be ill. The other children were exposed on this day and developed their illness within a consistent incubation period. The source of the initial infection in the 3½ year old child was not determined.

An outbreak of severe gastrointestinal disease was reported to the State Department of Health on August 16, 1960 from a children's camp in Hunterdon County. The camp was owned by a church group and rented to another church group who arrived there on the afternoon of August 14. The campers partook of their evening meal at the camp. Approximately 24 hours after arrival, the first wave of illness occurred and new cases of illness continued to appear for the next 72 hours.

Of the 62 persons in the camp, 49 had been taken ill by the time the camp was closed on August 15. Subsequent investigation revealed that a number of campers became ill after leaving the camp, so that the attack rate for this outbreak was approximately 90 percent. Intensive investigation of the foods failed to reveal the significant source. It was ascertained that the camping group which preceded the ill group had suffered diarrheal disease also. The water supply was found to have a high coliform count. Cultures taken from the ill revealed the presence of *Shigella sonnei*.

An outbreak of gastroenteric disease involving 79 persons in a private school at Princeton was investigated by the Central State Health District. Although no etiologic agent was isolated or specific food was incriminated, the investigation disclosed a number of food handling practices which were amenable to correction.

Eighty cases of meningococcal meningitis were reported in the state. One of the cases occurred in an institution in Jamesburg. There 55 boys residing in the cottage in which the case occurred were placed on sulfadiazine prophylaxis and no further cases were reported.

A small and localized outbreak of pyoderma, characterized by furuncles and acute paronychias, involving principally the hands, was investigated by the Southern State Health District. It involved a food market employing approximately 58 persons, 13 of whom worked in the meat department. Of the 13 employees in this department, 5 had lesions from which staphylococci were isolated. Eight other positive isolations were made among other personnel in the store. An investigation of the premises indicated that hand washing facilities were inadequate.

An outbreak of acute respiratory disease was reported at the U. S. Coast Guard Receiving Station at Cape May, N. J. The disease occurred among recruits during the period of February through April, 1961. The average population of recruits at that time is estimated to be between 1,300 and 1,500 persons. During this time, 139 persons were taken ill with fever, sore throat, cough, muscle ache, and choryza. Eight of the patients developed evidence of pneumonitis. Antibiotics were not effective in this outbreak. All of the patients had received influenza vaccine in 1961. Laboratory studies revealed the presence of adenovirus type 4 in 6 of 20 throat washings. No other viral agent was isolated. Two of 7 patients showed a fourfold rise of complement fixing antibody to adenovirus. No serologic evidence could be found to other respiratory agents.

The United States Public Health Service, in cooperation with the Veterinary Medical Association of New Jersey and the Department conducted a course on the principles of epidemiology. Eighty persons from the veterinary profession, local health departments and the Department attended the course, which was very well received.

The Department through its Biological Distributing Stations has distributed the following doses of medications for people who could not afford to pay for them July 1, 1960 to June 30, 1961.

Diphtheria Toxoid	2,915 cc
Smallpox Vaccine	158,915 pts.
Diphtheria-Pertussis-Tetanus (fluid)	21,010 cc
Diphtheria-Pertussis-Tetanus (adsorbed)	154,837 cc
Typhoid-Paratyphoid Vaccine	8,275 cc
Gamma Globulin	53,022 cc
Polio Vaccine	456,139 cc
Influenza Vaccine (Polyvalent)	10,680 cc
Tetanus and Diphtheria Toxoid	1,115 cc
Rocky Mountain Spotted Fever Vaccine	756 cc
Antirabies Serum	2,000 units
Duck Embryo Rabies Vaccine	1,519 doses

Tuberculosis Control Program

Morbidity, Mortality and Trends of Tuberculosis

A substantial decrease in deaths from tuberculosis occurred in 1960 without any appreciable decline in the number of new active cases reported. There were reported 2,928 total cases including 1,601 new active cases and 50 probably active cases; 354 deaths due to tuberculosis, and 204 tuberculosis patients dying from other causes. 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, 1956-1960

Year	Estimated Population ¹	Deaths		Total Cases ²		Active Cases ²	
		Number	Rate ³	Number	Rate ³	Number	Rate ³
1956	5,605,000	522	9.3	3,354	59.8	1,888	33.7
1957	5,748,000	519	9.1	3,543	61.9	1,806	31.5
1958	5,851,000	443	7.6	2,790	47.7	1,622	27.7
1959	5,974,000	433	7.2	2,909	48.7	1,619	27.1
1960	6,098,000	354	5.8	2,928	48.0	1,601	26.3

¹ Estimated population based on final 1960 Census count.

² Newly reported cases only shown for each year.

³ Rate per 100,000 estimated population.

The tuberculosis death rate of 5.8 per 100,000 population shows a drop of 19 percent over the preceding year. This decline is significantly greater than the average annual decrease of 13 percent over the past 10 years. Tuberculosis accounted for 53.7 percent of all deaths due to reportable infectious diseases excluding pneumonia. Tuberculosis ranked eighth in leading causes of death for the age group 25-44 years, tenth for the age group 45-64 years, and fifteenth for persons of all ages.

Over 42 percent of new active tuberculosis was reported from the 6 larger and older cities having 19 percent of the state's population. Approximately 80 percent of tuberculous infection is contained within the 9 most populous and urbanized counties.

Of the total 2,928 cases in 1960, 2,749, or 94 percent, are pulmonary tuberculosis, showing the great predominance of the pulmonary form of the disease. In addition, small numbers of highly serious tuberculosis of central nervous system, bones and joints, genito-urinary system, and disseminated tuberculosis are noted.

CASEFINDING

Selective X-ray Surveys Under Department Auspices

There was a total of 35,338 screening X-rays taken. Twenty-three cases of active tuberculosis were discovered and 121 cases of inactive disease found. A summary of state sponsored surveys is shown in Table 2.

Table 2. X-RAY SURVEYS—FOLLOW-UP AND DIAGNOSIS SUMMARY, 1960

Location	Persons X-rayed	Suspects Referred		Suspects With Positive Tuberculin Diagnosis		Tuberculosis Prevalence Rate/10,000 X-rayed		Cases of Tuberculosis Unprepared	Established Diagnosis							Diagnosis Not Established			
		No.	Per Cent	No.	Per Cent	All Cases	Active Cases		Total	Active	Inactive	Undet.	Cardiaca	Neoplasia	Other Path.		No Disease		
New Jersey	35,338	1,200	3.4	850	70.8	41.9	0.5	40	27.0	148	23	121	4	37	10	185	500	349	
State Health Districts																			
Central	9,070	372	4.1	314	92.5	58.4	0.0	0	0.0	63	6	47	0	13	8	63	202	23	
Metropolitan	19,090	565	3.0	343	60.7	32.5	0.3	22	35.5	62	12	49	1	9	0	62	210	221	
Southern	7,199	263	3.7	163	62.0	45.3	0.9	18	54.5	33	5	25	3	10	2	30	88	100	
Counties																			
Atlantic	4,229	155	3.7	90	58.1	37.7	4.7	7	43.8	16	2	13	1	7	1	22	44	05	
Camden	2,900	108	3.6	73	67.6	57.4	10.1	11	64.7	17	3	12	2	3	1	8	44	35	
Essex	19,090	565	3.0	343	60.7	32.5	0.3	22	35.5	62	12	49	1	9	0	62	210	221	
Mercer	8,226	339	4.1	315	93.2	68.1	7.3	0	0.0	52	6	46	0	18	7	53	150	23	
Monmouth	843	34	4.0	29	85.3	11.9	0.0	0	0.0	1	0	1	0	0	1	5	22	5	

Community X-ray Surveys by Other Agencies

The New Jersey Tuberculosis and Health Association reported 133,849 screening X-rays taken in the fiscal year ending March 31, 1961 by their county affiliate associations and collaborating health agencies. There were 2,075 persons referred for follow-up among whom 40 new active cases of tuberculosis were discovered.

Hospital Admission Screening

From 12 general hospitals, 45,618 screening X-rays were reported in 1960. Persons showing suspected pathology in the chest numbered 7,029 (15.4 percent) including 359 individuals showing X-ray shadows suggestive of tuberculosis. Data were not available from 6 or more other hospitals conducting X-ray screening programs.

State owned X-ray equipment for admission screening currently on loan to general hospitals numbers 8 units from the Tuberculosis Program, and 10 units from other Programs within the Department. The Tuberculosis Control Program provides X-ray screening film to 1 hospital utilizing its own X-ray equipment.

Tuberculin Testing

During fiscal year 1961, the Tuberculosis Control Program undertook a major effort to stimulate wider use of the intradermal tuberculin test. Twenty-eight projects in schools, industry, and specialized groups were undertaken—nearly 48,000 persons were tested—4,780 reactors were found.

Three thousand, two hundred and fifty-three reactors were followed. Sixteen cases of primary active tuberculosis and 25 cases of reinfection active tuberculosis were found. The prevalence of active diseases among the 3,253 reactors, who were followed to diagnosis, is 126 per 10,000 reactors.

The principal group contributing to the discovery rates is the chest clinics. Here 3,749 persons, contacts of active cases or persons referred without symptoms when tested resulted in 851 contacts. Seven hundred and thirteen were followed to diagnosis and 30 cases of active disease were revealed.

One other project conducted as part of the epidemiologic investigation of a case of active disease revealed 221 reactors among 527 men and resulted in 3 cases of active tuberculosis and 4 cases of inactive disease.

In several instances, the associates of reactors were elicited, 1,054 were named, 625 were brought to examination and 4 cases of reinfection active tuberculosis were found—a prevalence rate of 64 per 10,000 associates. The high case prevalence uncovered among tuberculin reactors and associates of reactors exceeds by many times that found by community mass chest X-ray examination.

Table 3. RESULTS OF TUBERCULIN TESTING OF ALL TUBERCULIN PROJECTS

July 1, 1950—June 30, 1951

Project	Number of Persons												
	Tested	Reactors	Percent Reactors	Reactors Followed	Results						Other Disease	No Disease	
					Active		Inactive		Reinfect	Primary			Reinfect
					Primary	Reinfect	Primary	Reinfect					
Total All Projects	47,001	4,780	10.0	3,253	16	25	122	44	3,046	...	...
Atlantic City Schools	1,043	52	5.0	32	1	1	1	1	82	...	...
Atlantic Co. Jail	606	10	1.6	10	1	1	1	1	8	...	...
Atlantic Co. Schools	4,081	286	7.0	261	2	1	37	10	212	...	...
Atlantic Co. Schools	10,812	162	1.5	146	2	1	1	1	142	...	...
Atlantic City Schools	404	20	5.0	20	1	1	1	1	19	...	...
Atlantic City Schools	404	87	21.5	78	1	1	1	1	76	...	...
E. Orange Health Dept.	2,715	87	3.2	78	1	1	1	1	76	...	...
Elizabeth Schools	2,635	55	2.1	55	1	1	1	1	54	...	...
Elizabeth Regional High School	2,016	87	4.3	77	1	1	1	1	76	...	...
Elizabeth Regional High School	38	0	0.0	0	1	1	1	1	0	...	...
Elizabeth Regional High School	38	30	78.9	30	1	1	1	1	29	...	...
Elizabeth Regional High School	1,051	80	7.6	65	1	1	3	2	62	...	...
Elizabeth Regional High School	1,512	158	10.4	102	1	1	1	1	100	...	...
Migrant Agricultural Lab.	162	8	4.9	8	1	1	1	1	7	...	...
Migrant School Program	199	40	20.1	32	1	1	1	1	31	...	...
Newark House to House College	1,171	10	0.9	10	1	1	1	1	9	...	...
New Jersey State Employees	3,702	1,340	36.2	1,188	1	1	14	0	1,187	...	...
Newark City Schools	5,302	67	1.2	61	1	1	2	1	60	...	...
N. J. Edison Garstone Child Health	12	1	8.3	1	1	1	1	1	0	...	...
Orange, Parochial Schools	800	10	1.2	0	1	1	1	1	9	...	...
Orange, Parochial Schools	28	8	28.6	8	1	1	1	1	7	...	...
Pharmacia, Elizabeth	28	8	28.6	8	1	1	1	1	7	...	...
Probyterian Hospital	856	82	9.6	50	1	1	1	1	49	...	...
Probyterian Hospital	1,614	22	1.3	22	1	1	1	1	21	...	...
Udel Bank Schools	3,439	251	7.3	227	1	1	17	1	226	...	...
Udel Bank Schools	1,521	251	16.5	213	1	1	1	1	212	...	...
Udel Bank Schools	1,918	100	5.2	114	1	1	1	1	113	...	...
Warren Co. Schools	4,451	48	1.1	41	1	1	4	1	40	...	...
N. J. Neuro-Psychiatric Institute	680	296	43.5	296	1	1	1	1	295	...	...
N. J. State Hospital	1,603	775	48.3	775	1	1	1	1	774	...	...

CASE ACCOUNTING

Case Reporting

The eradication of tuberculosis has long been hampered by delay in discovery and reporting of the infectious case. Of the 558 deaths in 1960 attributable to tuberculosis as primary or secondary cause, 40.1 percent were reported within 1 month of death, after death, or not at all. Comparison with similar studies in previous years revealed no improvement in reporting for the past 10 years. Reporting inadequacies in fatal cases are shown in Table 4.

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, 1960

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	558	100.0	354	100.0	204	100.0
Not Reported as Cases	123	22.0	71	20.1	52	25.5
After Death	58	10.0	45	12.7	11	5.4
Within 1 Month Before Death	45	8.1	34	9.6	11	5.4
1 Month to <1 Year Before Death	77	13.8	46	13.0	31	15.2
1-4 Years Before Death	126	22.6	78	22.0	48	23.5
5-9 Years Before Death	70	12.6	45	12.7	25	12.3
10 Years or More Before Death	61	10.9	35	9.9	26	12.7

Delay in case reporting and in case discovery are also demonstrated by the high proportion of active pulmonary cases first reported with moderately or far advanced disease. A total of 1,532 new active and probably active pulmonary cases in 1960 included 647 (42.2 percent) far advanced, 607 (39.6 percent) moderately advanced, 192 (12.5 percent) minimal, 74 (4.8 percent) primary, and 12 cases with extent not stated.

Tuberculosis mortality and morbidity tabulations included in report of the Division of Vital Statistics and Administration show deaths and death rates, cases and case rates, extent of disease, clinical status, bacterial status, and age distribution.

Case Registers

Analysis of tuberculosis case register reports from 12 counties in New Jersey reveals that on June 30th there were 11,228 tuberculosis patients under registration. Of this number, 1,263 were hospitalized; 710 in local sanatoria,

and 553 in Veterans Administration Hospitals and sanatoria in other states. There were 9,965 residing in communities of the state; 670 were recorded as having active disease.

Local clinics and private physicians carry an equal portion of the total case load supervising over 4,000 patients each. Over 800 patients are recorded for whom there is no known medical supervision. Good practice requires that a patient with tuberculosis report at regular intervals to a physician or clinic. Those who do not and are not regularly observed may develop more severe disease with spread to others.

Three hundred and ninety-eight of the 670 nonhospitalized active cases have had studies to determine the presence of germs in their respiratory discharges within the 12 month period, July 1, 1960 to June 30, 1961. This is a real step forward over previous reports. About 25 percent of patients with active disease have not had a sputum study every 6 months.

Over one-half of the nonhospitalized patients with active disease were current in their attendance at clinic or physicians' offices. There were 128 patients who failed to keep examination appointments for periods from 3 months to 1 year. Follow-up of 200 patients is rendered difficult because clinics and physicians have not assigned examination dates. These 2 groups of patients constitute a real challenge to public health workers since the severity of their disease is poorly understood and they may spread it to others. These patients deserve and receive priority efforts.

The extensive nature of the problems of tuberculosis control would be difficult to cope with were it not for the effective work of the tuberculosis case registers. They localize problems of tuberculosis control, public health supervision and medical care in such a way that they may be solved.

The many voluntary and official organizations contributing to the success of the register system are to be commended for their efforts.

Diagnostic and Curative Services

Clinics

Diagnostic, treatment, and consultation services are available in more than 60 clinics in all 21 counties under sponsorship of health departments, sanatoria, general hospitals, county governments, and tuberculosis associations. Clinics render important service in the diagnosis and control of tuberculosis cases, and examination of contacts, suspects, and tuberculin reactors not receiving medical supervision or examination from private physicians. A total of 115,090 clinic visits were made by 66,671 individuals. Of this number, 18,565 persons made 29,178 visits to 18 clinics where clinicians' services are provided by the Tuberculosis Control Program. Clinic attendance in 1959 and 1960 is shown in Table 5.

Table 5. CHEST CLINIC ATTENDANCE 1959-1960

	*State Clinics		All Clinics	
	1959	1960	1959	1960
Number of Persons				
New to Clinic	10,068	12,467	39,368	37,741
Previously Known to Clinic	7,112	6,098	25,846	28,930
Number of Clinic Visits	19,015	29,178	118,877	115,090

* Clinics served by clinicians from Tuberculosis Control Program.

The Tuberculosis Control Program lends support to clinics without sufficient local resources. Modern X-ray units were installed on long term lease in the Hammonton and Mt. Holly Clinics, and a partial unit in the Mays Landing Clinic. New X-ray units purchased by local agencies were installed in the Toms River and Phillipsburg Clinics to replace antiquated State owned equipment. The Program is currently providing the services of a clinician to 17 clinics, and a technician to 3 clinics; also, X-ray equipment to 7 clinics and X-ray supplies to 3 clinics.

Tuberculosis Drugs Provided

Isoniazid (INH) and Para-aminosalicylic acid (PAS) became available on January 30, 1961 to tuberculous patients who are unable to afford their cost. These drugs are provided to private patients by prescription of their physician on presentation to 1 of the 66 biologic stations. Clinic patients receive their drugs directly from the clinic where they attend. Each drug is packaged to contain approximately a month's supply.

Provision of drugs by the State Department of Health was recommended by the New Jersey Conference on Chemotherapy of Tuberculosis held at Princeton on October 6, 1960, and was supported by budgeted funds. The Conference drafted recommendations for dosage and administration of the drugs which were mailed to all physicians in the state by the New Jersey Tuberculosis and Health Association. The State Commissioner of Health by letter of January 25, 1961 notified the physicians of New Jersey that the drugs were available for their patients.

In the period February 1, to June 30, 1961, 3,884 bottles of INH and 1,576 bottles of PAS, (each bottle contains a month's supply), were dispensed to tuberculosis patients.

This program has been well received by private practitioners, clinics, welfare directors, and tuberculosis sanatoria as an effective arm in tuberculosis control and prevention. Approximately one-fourth of the INH provided has been used for prophylactic medication of children under the age of 5 with recently

diagnosed primary tuberculosis. This method of drug administration has also improved general morbidity reporting by about 25 percent.

Progressive Action

The Princeton Conference

A milestone in tuberculosis control in New Jersey was the Princeton Conference on October 6, 1960 under the joint sponsorship of the New Jersey Tuberculosis and Health Association, the Medical Society of New Jersey, and the New Jersey State Department of Health. Cross section representation from among individuals and agencies concerned with tuberculosis were invited to determine ways and means to implement the major recommendation, TREATMENT IS THE TOOL, coming from the important national Arden House Conference of the previous year.

The conferees agreed upon 2 major recommendations in the area of tuberculosis treatment.

1. Minimum standards of chemotherapy as a guide to physicians.
2. Anti-tuberculosis drugs be made available by the State Department of Health to nonhospitalized patients.

Tuberculosis Council Organized

Early in 1961, the State Commissioner of Health called together 13 individuals to organize the Tuberculosis Council of New Jersey. The membership of the Council is representative of the New Jersey Health Officers Association, county tuberculosis associations, nursing agencies, tuberculosis hospitals, and the State Departments of Education, Health, and Institutions and Agencies.

The Council was organized for the following purposes:

1. To determine future courses of action in control of tuberculosis.
2. To coordinate the efforts of member agencies in attainment of objectives.

Goals and Standards

The Arden House Conference concluded that it was practicable to set as a long-term goal the elimination of tuberculosis as a public health problem in the United States. Recognizing that this objective was not achievable for the nation as a whole within the next 10 years, the Conference called for establishment of intermediate goals en route to the end goal.

The Public Health Service Tuberculosis Program called together a committee to formulate goals and standards for the United States.

The Tuberculosis Council of New Jersey applied the goals and standards reported by this committee to our state. The Council set for itself 2 intermediate goals:

1. A new active case rate for New Jersey, by 1970, of not more than 10.2 per 100,000 population.
This envisions an annual decline of 9 percent from the active case rate of 26.3 in 1960 which is almost double the present average annual decline of 5 percent.
2. For the community, control of the spread of infection to the point where not more than 1 percent of the 14-year-olds react to tuberculin.
An infection rate of less than 1 percent among 14-year-olds is an indicator of a high degree of success in controlling the spread of tubercle bacilli.

The Council also set 6 program performance standards applicable to New Jersey which are practical indices for the measurement of case detection activities and services to patients with active tuberculosis.

- A. A satisfactory status report of at least 80 percent of the referred tuberculosis suspects within 6 months after the end of the initial screening operations.
- B. Ninety percent of tuberculin reactors X-rayed within 2 months of the end of a tuberculin survey.
- C. Follow-up within 3 months of 90 percent of the close contacts of new active cases.
- D. Conversion of sputum status of at least 75 percent of newly reported sputum positive cases within 6 months of report.
- E. Ninety percent of known active cases in hospital or under drug treatment at any time.
- F. At least 80 percent of all active cases at home should have had a bacteriological examination and report within the preceding 6 months.

Hospitalization of Tuberculosis Patients

On December 1, 1960, a joint letter from the Commissioner of Institutions and Agencies and the Commissioner of Health was directed to local boards of health, health officers, tuberculosis associations, chest clinics, sanatorium directors, and county adjusters. This letter advises that sound medical and public health practice requires early isolation of patients with infectious tuber-

culosis in order to assure maximum protection of the community health. One means by which isolation can be achieved is through prompt hospitalization.

Persons with infectious tuberculosis may be admitted without delay to the State Sanatorium at Glen Gardner, with determination of residence status, cost of patient care, or transfer to another facility to be determined after admission.

Health officers were requested to judiciously initiate commitment proceedings for recalcitrant active cases which cause serious public health hazards in the community. Special facilities at the New Jersey State Hospital at Trenton have been designated for the commitment of infectious and uncooperative tuberculosis patients who refuse to remain voluntarily or by commitment in other institutions.

Venereal Disease Control Program

I. TRENDS, MORBIDITY AND MORTALITY

The incidence of primary-secondary syphilis in New Jersey increased 122 percent from 1959 to 1960 (302 to 670 cases). This is a continuation and acceleration of a trend that began in 1957. Primary-secondary syphilis incidence in the group 15-19 years of age increased about 85 percent from 1959 to 1960 (38 to 69). Early latent syphilis cases increased from 610 in 1959 to 755 in 1960. Forty-three percent of the early syphilis in 1961 was reported by private physicians. The 1960 ratio of primary-secondary cases to early latent cases was closer to 1:1 than in any other year for which data are recorded in New Jersey. This decrease represents in great measure the results achieved by efficient and rapid epidemiology.

A. Syphilis

Total syphilis increased in 1960 to 5,273 cases, 399 cases more than were reported in 1959. The increase was in the number of primary-secondary and early latent cases. There were 179 cases of congenital syphilis reported in 1960, a slight decrease from the number reported last year. Of these cases 13 were under one year of age.

Table 1. REPORTED CASES OF SYPHILIS
NEW JERSEY: 1958-1960

Syphilis by Stage	1958	1959	1960
Primary and Secondary	183	312	670
Early Latent	643	610	755
Late and Late Latent	5,030	3,729	3,669
Congenital	215	223	179
Not Stated	6	...	...
Total Syphilis	6,077	4,874	5,273

There is a drop in the "Late and Late Latent" category due to discontinuation of serologic surveys which have proved to be unproductive as a casefinding technique in uncovering early infectious syphilis.

Table 2. AREAS EXPERIENCING INCREASES IN PRIMARY-SECONDARY SYPHILIS

Area	1959		1960		% Increase
	Number	Rate/100,000	Number	Rate/100,000	
Atlantic City	8	13.3	23	14.2	188
Camden County	8	2.1	42	10.7	425
Essex County	20	3.9	25	4.8	25
(excluding Newark)					
Newark	124	30.4	308	76.0	149
Mercer County	8	3.0	15	5.6	88
Passaic County	24	6.0	118	28.9	391

These areas account for 79.2 percent or 531 cases of the primary-secondary syphilis reported in New Jersey in 1960.

The Metropolitan State Health District accounted for 527 cases of primary-secondary syphilis.

B. Gonorrhea

During 1960, 5,181 cases of gonorrhea were reported, an increase of 197 cases over the number of cases reported in 1958. Essex County accounted for 39.5 percent of the total gonorrhea morbidity.

Less emphasis has been placed on gonorrhea epidemiology due to the demands placed on the Program staff by the increased incidence of early infectious syphilis.

C. Mortality

During 1960, there were 76 deaths reported in the state as a result of syphilis. This report is in accordance with the trend established during the past several years.

II. General Activities

A. Contact Interviewing and Investigation

1. Interviewing

With the increased incidence of early syphilis, additional efforts were made to improve interviewing. A total of 2,364 cases of infectious venereal diseases were interviewed, from which 4,164

contacts were obtained. During 1960, 622 or 92.8 percent of the primary and secondary syphilis cases were interviewed, producing 1,546 contacts; 314 cases of early latent syphilis produced 796 contacts.

The table which follows is a comparison of contact indices obtained by the New Jersey program personnel, and national indices:

Table 3. CONTACT INDICES, NEW JERSEY AND THE UNITED STATES
FISCAL 1960

Diagnosis of Patient	Diagnostic Source	Contact Index	
		N.J.	U.S.
Primary-secondary Syphilis	Private Physicians	2.80	2.49
	Clinics and Institutions	2.82	3.95
Early Latent Syphilis	Private Physicians	2.77	1.83
	Clinics and Institutions	2.59	2.79
Gonorrhea	Private Physicians	1.14	.81
	Clinics and Institutions	1.29	1.21

2. Investigation

A total of 10,796 venereal disease contacts and suspects were assigned for investigation. Of 670 primary-secondary and 755 early latent cases reported during calendar 1960, 45 percent or 302 of the primary-secondary cases and 31 percent or 234 of the early latent cases were brought to treatment as a result of investigative efforts. Of the 7,785 contacts and suspects brought to medical examination (72.1 percent of the number assigned for investigation), 1,816 were brought or returned to treatment, and an additional 997 received epidemiologic treatment.

3. Cluster Testing

Continued expansion of the cluster testing program has resulted in the application of this process to 130 cases of primary and secondary syphilis. These cases produced 640 cluster suspects in addition to sexual contacts.

Investigation of these suspects and an additional 134 cluster suspects and associates reported from New Jersey and other states resulted in 39 persons being brought or returned to treatment for venereal diseases, 23 being diagnosed as early infectious syphilis. These cases would not have been uncovered had the standard interview been limited to sex contacts.

B. Selective Serologic Screening

Less emphasis has been placed in this area than in previous years. These surveys are directed toward high incidence groups, agricultural migrants, selected communities, and jail inmates. A total of 23,123 specimens were processed, of which 1,844 or 8 percent were reactive, and 610 of these reactors were brought or returned to treatment.

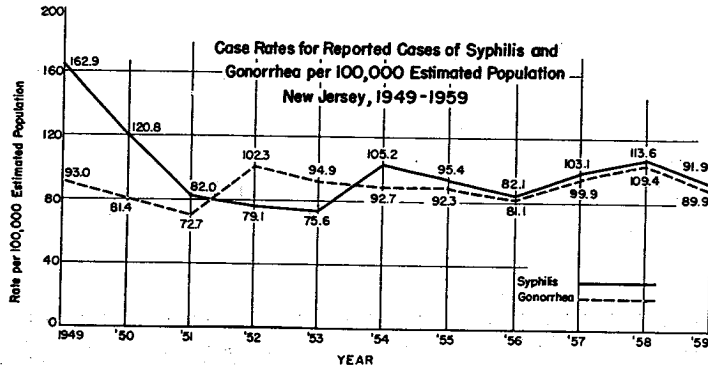
C. Program Development Activities

1. Completion of follow-up of the door-to-door community survey in the City of Newark was accomplished early in Fiscal 1961. Of the 1,077 reactive serologies, 13.4 percent were brought or returned to treatment.
2. An additional interviewer-investigator in Paterson, and a hospital record analyst to supplement the laboratory program in Newark, were assigned to the Venereal Disease Control Program. Jersey City and Hudson County are now actively participating in the Venereal Disease Control Program. The program sponsored 10 lectures on the diagnosis and management of syphilis. Each county medical society in the state was contacted and lecture services made available to the organizations.
3. Blood testing in jails was continued, with 11 county jails, 2 county workhouses, and 1 juvenile detention home participating. A total of 9,905 inmates were tested, of whom 525 or 5.3 percent were reactive. Of these reactors, 224 were brought or returned to treatment. From year to year, less productivity indicates that this program is of less value as a casefinding technique.
4. Continued efforts to bring about more complete reporting of reactive serologic tests by approved laboratories throughout the state resulted in an increase in the number of reactors reported from 25 percent in 1958 to 56 percent in 1960.
5. Venereal disease control services rendered by local health departments, emergency rooms, and emergency treatment by private physicians are coordinated by the Venereal Disease Control Program. The major functions of the Program are to support the venereal disease clinics and coordinate the casefinding activities and treatment of venereal disease patients and contacts. Private physicians and laboratories are visited to offer program services and to encourage reporting of cases.

III. Training

Field staff meetings are held periodically to review problems and procedures which concern the application of epidemiologic, record keeping, and program development techniques, and to provide training in the latest developments in casefinding activities.

Nine members of the field staff attended a training course on darkfield microscopy covering the detection and identification of the *Treponema Pallidum*. A 2-week training course covering the clinical and control aspects of venereal disease was attended by 6 members of the field staff. Both courses were offered by the Public Health Service in Atlanta.



Health Activities Among Migrants

The health activities among migrant workers undertaken in the 1960 season were directed toward 2 objectives:

1. The first to render services customarily provided.
2. The second to examine the health needs of the agricultural worker and the manner in which they are met.

The services customarily provided include: venereal disease and tuberculosis screening, school health services, including physical inspection, immunization, tuberculin testing, and dental health services.

One thousand five hundred and thirty persons received serologic tests for syphilis, 242 persons were found to be reactors, 240 were brought to examina-

tion, and 183 were either treated for syphilis or gonorrhea or returned to treatment for syphilis. No cases of primary secondary syphilis were found in the group studied.

Tuberculosis screening was conducted in the camps 3 nights each week. Over 500 persons were tuberculin tested and 158 reactors were found. A portable X-ray unit was provided to X-ray reactors. One hundred and two were examined. No cases of tuberculosis were found in the group studied. It is of interest to note that early in the summer, 1 case of open active tuberculosis was discovered in a camp by the public health nurse and a medical student. This patient was first admitted as an emergency patient at Bridgeton Hospital and later transferred to the State Sanatorium at Glen Gardner. A survey of all persons in the camp failed to reveal additional cases of tuberculosis.

Tuberculin testing of 156 students in the school program resulted in discovery of 8 reactors, 7 of whom were examined; 1 was found to have evidence of primary inactive tuberculosis. The families of all reactive children were tuberculin tested and X-rayed when necessary. Twenty-one associates were studied without evidence of tuberculosis. The family interviews conducted indicate that in the course of camp life, reactive children experience so many exposures that the sources of the infection are difficult to pinpoint.

One hundred and ninety-nine children were observed in the school health program. These children received a total of 519 visits. One hundred and fifty children received their first immunization shot for diphtheria, pertussis, and tetanus. A total of 272 inoculations were given against these diseases. A total of 247 doses of poliomyelitis vaccine were given. One hundred children received their first poliomyelitis inoculation this summer.

Dental examinations were provided for 206 children; 153 or 74 percent required treatment. One hundred and thirty-two children were treated. Three hundred and thirty-six fillings and 176 extractions were completed.

The study of the health needs of the agricultural worker was undertaken in 3 ways: a questionnaire survey administered by medical students, direct service functions carried out by a public health nurse, and interviews with hospital administrators.

The study of health needs conducted by the medical students provides a crude sampling of the agricultural workers and their problems. The students interviewed 92 men and 45 women. The majority of the persons interviewed were over 25 years of age, and 58 percent had been coming to New Jersey for 3 or more years. Nearly two-thirds of the persons interviewed indicated an intention to return to New Jersey next year.

Thirty-four of the informants indicated that there had been either personal or family need for physician or hospital care while in New Jersey. Twelve had need for hospital care.

Thirteen prenatal cases were discovered, half of whom had been to a physician. With one exception, all indicated an intention of going to a hospital for delivery.

Five informants indicated that members of the family had suffered accidental injury in the preceding 6 months. Four persons indicated that they had been injured in farm accidents in New Jersey in previous years.

Illness and death had affected the family group of 37 informants in the preceding 6 months to a year.

It would appear that about 20 percent of family groups have need for medical or hospital care during their stay in New Jersey. This may be provided by clinic services for general health problems and prenatal care and by hospitalization for obstetrics and acute surgical and accident needs.

Ninety-one of the informants were associated with family groups varying in size from 1 to 9 dependents. Interviews elicited information on 358 persons, 41 percent of whom were under 15 years of age. Answers to questions related to immunizations indicate that 54 percent have received smallpox vaccination, 70.5 percent have received diphtheria, pertussis and tetanus shots, and just over 100 persons have received inoculations of polio vaccine.

In assessing medical care needs, a listing of patients who had required hospital service was obtained. Visits or calls were made to the hospitals concerned and information elicited concerning the diagnosis and the financial aspects of the illness. Twelve patients were found; 2 appeared to have been cared for outside of New Jersey, leaving only 10 for study. However, one additional patient was included because he was discovered by the field team. The 11 patients studied contracted a total debt of \$2,516.85. At the time of the follow-up study, \$1,611.85 remained unpaid.

The Migrant Labor Board authorized a conference on the subject of migrant agricultural labor. This conference was entitled "Seeds of Progress" and was held on February 23, 1961 at the Cherry Hill Inn outside Camden. Here community leaders from the major farm areas of the state met and discussed the varying problems facing their communities and the migrant agricultural workers. Two hundred ninety persons participated in this conference which did a great deal to awaken interest in the social problems facing agricultural workers in New Jersey.

Division of Special Consultation Services

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RALPH T. FISHER, M.P.H., *Director*
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Programs:

Health Education	FLORENCE B. FIORI, M.A. <i>Program Coordinator</i>
Nutrition	MARGARET P. ZEALAND, M.S. <i>Program Coordinator</i>
Public Health Nursing	JOHANNA E. KENNEDY, M.A. <i>Program Coordinator</i>
Public Health Social Work	ADRIANE V. DUFFY, M.S. <i>Program Coordinator</i>
Training	JULE M. ERDIE, B.S. <i>Principal Training Advisor</i>

Division of Special Consultation Services

The work of this Division during the past year reflects 3 important trends in public health: the continued and rapidly increasing activities in the area of chronic disease control and development of restorative services; the growing number of projects and activities which require a multi-discipline team; and the increased need for in-service training of public health and allied personnel.

Evidence of these trends appears in the annual reports of the 5 programs which constitute this Division: Health Education, Public Health Nursing, Nutrition, Public Health Social Work, and Training. Since these programs are service programs, they must be especially sensitive and responsive to the developmental trends in public health. They constitute a functional team of specialized skills and knowledge providing service to Department programs and Districts, to other State agencies, to local health departments, local nursing agencies, hospitals, and other local health agencies; to civic groups, professional organizations, and to other interested persons.

Health Education Program

Education is a vital part of all Health Department Programs. As disease control has become increasingly an individual concern and responsibility, there has been a corresponding increase in the need to provide information about the nature of existing health problems and to encourage the development of individual and community attitudes and action required for their solution.

During the past year, the District Consultants, Community Health Organization, and the State Consultant, Community Health Organization, have supplied technical guidance in educational methods and techniques in relation to a wide variety of health problems. The nature of their activities has varied according to existing needs as expressed by other Departmental Programs and community groups. These activities have included planning, consultation, community organization, and the preparation and use of a wide variety of educational materials. They were developed cooperatively with other interested professional and non-professional personnel. The following report summarizes the highlights of the major Health Education Program activities.

Promotion of Careers in the Health Fields

Critical shortages of health manpower have been indicated in recent nationwide surveys. In New Jersey, a similar situation is reflected in reports of the

New Jersey Hospital Association, the Division of Employment Security, State Department of Labor and Industry, as well as information received from agencies and organizations concerning difficulties in recruiting adequately trained personnel to fill vacant positions. Considerable Health Education time and effort were devoted to creating an awareness of this situation and to informing interested individuals, particularly students at the secondary school level, of the wide variety of career opportunities in the health field. The Health Education Program participated fully in the activities of the New Jersey Health Careers Service. This included assistance in the preparation and distribution of informational materials for guidance counselors, the development of promotional meetings and conferences, the coordination of many activities of professional organizations, participation in workshops and conferences, and the planning of numerous related activities. In the Districts, assistance was provided to schools, hospitals, and many other interested individuals and organizations in the promotion of local health career activities.

Smoking and Lung Cancer Project

As a result of a state-wide meeting with representatives of the Cancer Control Program, the State Department of Education, the American Cancer Society-New Jersey Division, and the New Jersey Congress of Parents and Teachers, plans were initiated for development of a Source Unit for Teachers on Smoking and Lung Cancer. A preliminary draft of the Source Unit was prepared and will be distributed for pre-test purposes to a selected group of secondary school teachers during the 1961-1962 school year. This project, as well as the promotional efforts of the New Jersey Division-American Cancer Society, resulted in the development of a number of related activities including local surveys of student smoking habits and concentrated efforts at parent education under the auspices of the New Jersey Congress of Parents and Teachers.

Interpretation of Community Nursing Services

As a first step in the development of a comprehensive educational approach to the interpretation of community nursing services, an exhibit and related printed material covering Departmental nursing consultation service were prepared. Assistance was provided the New Jersey Health Careers Service in the preparation of a special issue of its newsletter for guidance counselors on careers in the field of nursing. Health Education Program personnel also participated in the planning and conduct of the 2-day resident workshop for full-time local health officers which is described in the report of the Public Health Nursing Program.

Cooperation with the New Jersey Congress of Parents and Teachers

The existing working relationship with the New Jersey Congress of Parents and Teachers was strengthened and expanded through the annual District conferences with county PTA health chairmen and through a series of regional health workshops. Health Education personnel participated fully in these activities, as well as numerous related, follow-up contacts. The effectiveness of these efforts was demonstrated repeatedly throughout the year by the increasing involvement of PTA in state, county, and local health activities. During the 1960-1961 school year, PTA attention was focused particularly upon continuing health supervision of the child, polio immunization, fluoridation, venereal disease education, and nutrition.

Joint Conferences with Extension Service Personnel

Meetings between County Extension Service personnel and personnel of the various State Health Districts were initiated by the Division of Local Health Services. The basic function of these meetings was to exchange information about the structure and activities of Extension Service in Health Department programs and to consider opportunities for cooperative effort. As a result of these preliminary discussions, plans have been developed for follow-up activities related to specific health services such as environmental sanitation, nutrition, veterinary public health, and health career promotion.

Promotion of Minimum Standards

Within the 4 State Health Districts, Community Organization activities related to the promotion of the Recognized Activities and Minimum Standards of Performance for Local Health Departments continued to consume the major portion of the District Consultants, Community Health Organization, staff time. These activities were focused upon contacts with members of local boards of health and municipal governing bodies, but also included a wide variety of interpretive meetings with civic, social, and other interested organizations. The nature and impact of these efforts are more fully covered in the report of the Division of Local Health Services.

Promotion of Services for Spanish-Speaking Population Groups

Puerto Rican families are increasing in various areas of the state and the desire to provide these families with acceptable health information and services led to the development of 2 conferences, covering the Northern, Metropolitan, and Central State Health Districts. These conferences, planned and organized

by personnel of the Metropolitan and Central State Health Districts, focused attention upon cultural factors which influenced the attitudes and behavior of Puerto Ricans toward health problems and services and the New Jersey people with respect to their new neighbors. Participants in the conferences were primarily local public health nursing and sanitation personnel. Individuals from other community health facilities, such as hospitals and clinics, as well as civic and social organizations, also attended. Excellent cooperation and support were received from the offices of the Commonwealth of Puerto Rico and the New York City Department of Health.

Spanish language publications were prepared and distributed in conjunction with the above-mentioned conferences. In addition, a variety of pamphlet material principally related to communicable disease control was prepared during the year. Similar localized materials were prepared and distributed in quantity by Metropolitan State Health District personnel as part of the mass polio immunization program, which resulted from the polio outbreak in August of 1960 in the Hoboken-Jersey City area.

Development of Working Relationships with County Vocational-Technical High Schools

Within the Northern and Metropolitan State Health Districts, cooperative programs were developed with county vocational and technical school personnel for the training of local health department staff members in teaching methods and materials. These program developments were an outgrowth of a recognized need to increase the effectiveness of training programs for food service personnel. An initial program was prepared and completed by the staff of the Northern State Health District in cooperation with the Somerset County Vocational and Technical Board of Education. Preliminary plans were developed by the staff of the Metropolitan State Health District for a similar program in Essex County. Each of these activities involved extensive cooperation and support of local health department personnel.

Related to these developments, arrangements were completed through the Division of Environmental Health and the Food Control Program for purchase of a series of selected films and film strips for use in local food service personnel training programs. Recommendations for purchase and preliminary preview of these materials were made by the Health Education Committee of the New Jersey Health Officers Association. A plan for distribution and use of the materials is being developed and a guide containing detailed descriptions of the films is in preparation.

Consultation to Departmental Personnel

In addition to the above-mentioned activities, consultation was provided to numerous Departmental programs at both State and District level. Of par-

ticular note were the 2 conferences on Arthritis held in the Southern State Health District, the Continuity of Care Institute held in the Metropolitan State Health District, a series of in-service training activities for local public health nursing and sanitation personnel held in the Northern State Health District, and the Cancer Control Institute for public health nurses planned and developed by personnel of the Central State Health District. At State level, major activities were related to a Workshop on Stroke and Congestive Heart Failure, an Institute on Mental Retardation, a state-wide conference on aging, developed in conjunction with the Division of Aging of the Department of State, a Workshop on Migrant Health Services, and a variety of institutes and workshops planned and conducted in cooperation with the Training Program and the Health Education Committee of the New Jersey Health Officers Association.

Development and Use of Health Education Materials

In cooperation with personnel of the Administrative Services Program, several new educational materials were developed. In addition to the items on public health nursing in the Spanish language publications referred to above, exhibits and related printed materials were prepared for the Diabetes Control Program, the State Employees Health Services Program, the Visiting Homemaker Association of New Jersey, and the New Jersey Health Careers Service. Consultation was provided to the Division of Local Health Services and the Veterinary Public Health Program in the preparation of materials for specific aspects of their program activities. Plans were initiated for the development of exhibits on Heart Disease Control, Restorative Services, and Arthritis.

During the year, a new exhibit catalog and a multi-use portable exhibit frame were designed and produced by Administrative Services Program personnel.

Exhibits were scheduled and displayed at state and local meetings. Included among these were the Annual Conference of State and Local Health Officials, the annual conference of the New Jersey Welfare Council, the annual meeting of the New Jersey Public Health Association, the annual convention of the New Jersey Congress of Parents and Teachers, the annual meeting of the Medical Society of New Jersey, and the annual convention of the Mid-Atlantic States Hospital Association Auxiliary.

Departmental film services were reviewed and updated. Comprehensive analyses of venereal disease and dental health films were undertaken in cooperation with the respective Program Coordinators. Out-dated material was withdrawn from circulation. Previews of new film materials were arranged for and completed in cooperation with the Administrative Services Program and

personnel of the related categorical Programs. As a result, several new films were purchased and placed for statewide distribution in the film library of the State Museum.

Developments within the Health Education Program

During the past year, various approaches to the strengthening of health education services throughout the state have been explored. An initial grant-in-aid to a local health department for employment of trained health education personnel was provided by the Division of Local Health Services to the East Orange Department of Health. Program personnel participated in the recruitment and screening of applicants for this position. A highly qualified health educator was secured and a continuing working relationship with this individual has been maintained, both through the District and through the Health Education Program.

Throughout the year, there have been continuing contacts with health education personnel of the U. S. Public Health Service. The Health Education Consultant assigned to the regional office in New York City has participated in Program staff conferences and completed a series of field visits to each of the 4 District offices. Opportunity for follow-up field visits and detailed discussion related to specific health education activities were developed. As part of the Health Education Program staff conference activities, a series of seminar sessions was initiated. These seminars have as their objective the continuing professional growth and development of health education personnel and the provision of opportunities to meet and work with representatives of related professional disciplines. During the past year, seminar sessions were held with Dr. William Schott, Director, Somerset County Vocational-Technical Board of Education, and Dr. Edward Wellin, anthropologist on the staff of the American Public Health Association.

Nutrition Program

The shifting focus and enlarging scope of our health programs to meet today's changing health needs offered new challenges to the Nutrition Program. Among the highlights of 1960-1961 were the following:

1. Appointment of Nutrition Consultant and establishment of the First Diet Counseling Project, Camden County, in October.
2. The State Consultant and the Project Nutritionist of the Anti-Coronary Club were invited to represent the State Department of Health and Anti-Coronary Club at the 2-week workshop on "Dietary Surveys and Appraisal in Epidemiologic Research" at the University of Min-

nesota School of Public Health. A cooperative project for the Anti-Coronary Club, Montclair, with the Home Economics Department of the College of St. Elizabeth, Convent Station, was established.

3. Participation in national study to develop and test a short and valid questionnaire for Food Service Evaluation in Nursing Homes.
4. Participation in training professional personnel in Rehabilitation, Diabetes, Continuity of Care, and Homemaker Service.
5. Four special diet pads prepared for distribution to private physicians.
6. Participation in conferences on Puerto Rican families in the Metropolitan and Central State Health Districts.
7. Inservice education and consultation services have been provided to the Division of Chronic Illness Control Programs concerned with heart and circulatory diseases, diabetes, cancer, arthritis, and restorative services. Significant help was given to the Maternal and Child Health Program.

Community Diet Counseling Service

A community diet counseling service was established in Camden County in October of this year. The diet counselor is employed by the Camden County American Red Cross Chapter on a grant-in-aid from the State Department of Health. This service provides diet counseling to patients on special diets who are under medical supervision. Consideration is given to the patients' social and economic situation as well as therapeutic needs. The service is offered on the physician's written prescription especially for expectant mothers and patients in the following categories: diabetes, obesity, cardiovascular disease. The diet counselor is under the supervision of the District Consultant, Public Health Nutrition, Southern State Health District and works under the guidance of an advisory nutrition committee. As a result of extensive publicity by the Southern State Health District, 34 physicians have referred 44 patients requiring 145 consultations. There has been an interest in establishing additional dietary services in other areas of the state. Impetus for such service and details of carrying them out may vary but the main objective of diet counseling services will be the same—to help each patient achieve and maintain the diet prescribed by his physician which best meets his needs, with the least difficulty for patient and family.

Diet Manual

In cooperation with the Heart Program of the Division of Chronic Illness Control, an evaluation questionnaire was mailed to all physicians who had re-

requested copies of the *New Jersey Diet Manual*. Three thousand evaluation forms were mailed and 1,000 returned. Physicians were generous in making comments on the usefulness of the manual and in offering suggestions. As a result of the requests from physicians for diet pads from the manual, 4 diets have been developed in pad form for the bland low calorie, and 2 calorie levels of fat restricted diets. A supplement to the manual for hospital use in emergency feeding situations has also been prepared in cooperation with the Civil Defense Disaster Committee of the New Jersey Dietetic Association and the Diet Manual Committee.

Hospital Consultations

District Consultants have continued to offer consultation to local hospitals in their areas as a follow-up of the Dietary Consultant Project which terminated last year.

Anti-Coronary Club

The State Consultant, Public Health Nutrition has worked closely with the project personnel of the Anti-Coronary Club in Montclair. Arrangements were made by the State Consultant, Public Health Nutrition, and the staff of the Anti-Coronary Club for a cooperative project with the Home Economics Department of the College of St. Elizabeth, Convent Station. Under the direct supervision of the project nutritionists, low fat recipes were prepared for chemical analysis and palatability testing and sent frozen air express to the Massachusetts Institute of Technology for analysis. Diet therapy majors in the College Food Laboratory participated in the study and a student from the group is working full time at the Anti-Coronary Club during the summer as part of her field experience requirement.

Food Service Evaluation in Nursing Homes

New Jersey was one of 23 states selected to participate in a project of the Operational Research Section of United States Public Health Service, to develop and test a short and valid questionnaire for Food Service Evaluation in Nursing Homes. This project was set up in this state through the cooperation of the Licensing Bureau of the State Department of Institutions and Agencies and the Division of Constructive Health.

Arthritis Project

The State Consultant and District Consultant, Public Health Nutrition, Southern State Health District office participated in the 2 Arthritis Projects held in the Southern State Health District. The District Consultant of the

Metropolitan State Health District office was requested to give some direct service to the Arthritis Project at the Jersey City Medical Center. After evaluating their needs, she was able to make arrangements for a member of the dietary staff of the hospital to give direct service to the project.

New Jersey Homemaker Association

The State Consultant has continued to contribute to the in-service training of homemakers. As the result of a conference with the Executive Director of the New Jersey Homemakers Association, Nutrition Director, Newark Chapter of the American Red Cross and the Home Economics Consultant of the State Department of Institutions and Agencies, nutrition resource kits for the directors of local homemaker services throughout the state will be made available.

Maternal and Child Health

Two new teenage leaflets have been printed and distributed. A Spanish version of the leaflets will be made available in the near future.

Many varied activities were undertaken in the area of maternal and child health throughout the state by program personnel. Two District Consultants discussed "Nutrition for Mental Retardation" before a County Association for Mental Retardation. Several county PTA Health Chairmen requested help in presenting Nutrition Programs in their counties.

Special Projects

The District Consultant, Public Health Nutrition and the Dietary Consultant of Camden County have both taken an active part in the Camden County Stroke Project.

The District Consultant Public Health Nutrition, Metropolitan State Health District was a component in the training program in Rehabilitation Nursing conducted at the Orange Orthopaedic Hospital.

Public Health Nursing Program

This has been a banner year for the Public Health Nursing Program. It was a year of greatly increased activity in existing service areas as well as in new undertakings to meet the nursing needs of New Jersey's residents. New ventures have closely involved personnel of other branches of State government and in all instances, wholehearted support and cooperation have been received. The crossing of Departmental boundary lines, in planning and im-

plementing nursing services to insure continuity of care, has become standard operating procedure.

New program developments and accomplishments of particular significance are as follows:

Mental Health

A series of meetings of a state-wide committee concerned with public health nursing participation in mental health services resulted in, (a) the development of material outlining the scope of public health nursing in follow-up services for the mentally ill; (b) a statement of procedure for public health nurse follow-up service; (c) a directory of psychiatric resources; (d) a directory of public health nursing resources; and (e) the beginning of a state-wide in-service education program for public health nurses. The staff of the Mental Health Division, Department of Institutions and Agencies, and members of this Department worked hand in hand to set up the administrative policies for inaugurating the follow-up nursing services. The plans have been accepted well by the local agencies.

Rehabilitation Nursing

Lack of nurses with special training in rehabilitation nursing has been one of the greatest unmet needs within the state. Consequently, effort was directed toward establishing a training program within the state. As an outcome of consultation from this Program, Seton Hall University obtained a Federal Short-Term Traineeship grant for conducting 2 3-week Rehabilitation Nursing courses, with clinical practice, in the Rehabilitation Unit at the Hospital Center at Orange. Fifteen hospital nurses, 5 public health nurses, and a nurse employed in a nursing home took this course.

In addition, the availability of federal funds for improving patient care in nursing homes made it possible for 29 nurses employed in nursing homes and 3 public health nurses to take a special 2-week course in Rehabilitation Nursing, given at the Hospital Center at Orange and underwritten by this Department. Thus, 53 nurses have experienced a formal program in rehabilitation nursing during the year and reports indicate that their enthusiasm for putting their new knowledge into practice is having a far-reaching influence on improved patient care wherever they are employed.

Nursing Home Project

In addition to the training program established for nurses in nursing homes, a special Nursing Home Project was set up, utilizing the services of a nurse especially trained in rehabilitation and 3 local visiting nurse associations to

teach rehabilitation nursing techniques to nursing home personnel. Four proprietary nursing homes and a chronic disease institution were included in this project. Evaluation of the accomplishments led to continuation of the program in newly selected nursing homes for the coming year. Close cooperation has been obtained from the Bureau of Community Institutions, Division of Institutions and Agencies, and planning has been shared with the Division of Aging and the office of Vocational Rehabilitation.

Pediatrics

Pediatric nursing consultation was initiated January 1, 1961, by reassignment of a consultant nurse with special preparation in pediatrics. The immediate response from hospitals to request this service was gratifying. Fourteen hospitals received 1-day consultation visits and 9 received extended visits for a total of 36 days.

Migrant Health

The employment of a well-prepared public health nurse to ascertain, follow-up and report on health needs of migrant workers made a valuable contribution toward better understanding of problems encountered by migrants in securing needed health services. The nurse's summary report and recommendations have served as a basis for future planning.

Regional Planning for In-Service Education

The various official and non-official nursing agencies, hospitals, and voluntary health agencies in the Southern State Health District have formed a regional committee to plan in-service education programs on a District-wide basis. This has been done to eliminate the large numbers of individual agency programs which were held in various counties on specific diseases, such as previously sponsored by individual county tuberculosis, heart, and cancer associations. It is anticipated that the regional planning will greatly enrich the programs that will evolve.

Survey of Public Health Nursing Service to Patient with Heart Disease

A survey, conducted by the Newark Visiting Nurse Association, West Essex Public Health Nursing Service, and the Visiting Nurse Association of the Oranges and Maplewood (all in Essex County), to determine public health nursing service given to 450 patients with heart disease, is nearing completion. These agencies were reimbursed by the Department for furnishing essential data.

Financing of Public Health Nursing Services

This became an area of major concern, especially when sound, well administered nursing agencies reported that they had to cut back nursing staff because of lack of funds. The State Commissioner of Health discussed the need for contracts and reimbursement at agency cost at a special meeting of the Department of Public Health Nursing and the Citizens Participation Committee of the New Jersey League for Nursing.

Sample contract forms have been prepared in cooperation with the Director, Division of Local Health Services, for use by District and Program nursing staff in work with local agencies.

The fee schedule for reimbursing nursing agencies under contract with this Department for the Crippled Children's Program has been accepted by the Department of Institutions and Agencies for services to welfare clients and for the follow-up program in mental health. Thus for the first time, the various branches of State government are using a uniform reimbursement schedule, based on actual cost figures, in purchasing public health nursing service.

Community Nursing Services

The state-wide promotion of Recognized Public Health Activities and Minimum Standards of Performance has resulted in increased interest in public health nursing by many local boards of health and citizen groups. The following are examples of progress made, primarily through District activities, in the development and maintenance of effective local public health nursing services:

1. A steering committee has been set up to implement plans for the formation of a comprehensive public health nursing service in the North Hudson area of Hudson County. Negotiations for financial support for the new agency are well under way.
2. Arrangements have been made to provide public health nursing service to previously uncovered areas in the southern part of Camden County, with financial assistance from this Department.
3. The Family Nursing Service of Hunterdon County has shown steady growth during the second year of its operation. Grant-in-aid assistance was continued, on a decreasing basis.
4. Numerous conferences with local groups and authorities in Sussex County have resulted in a request for grant-in-aid assistance for the establishment of a county-wide public health nursing agency. Warren and Cape May counties are also moving in this direction.

5. New contracts for public health nursing services were negotiated by 3 boards of health with the adjacent visiting nurse associations, 2 in Morris County and 1 in Union County.
6. Grant-in-aid funds have been requested to assist in the merger of the voluntary and official agency in Nutley, Essex County. A generalized program with qualified nursing supervision is planned.
7. A survey of public health nursing needs in Middlesex County has been completed. The survey report is in the process of final revision. Exploratory discussions by members of the survey committee with responsible leaders in the county indicate that the recommendations will be acted upon.

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 75 educational meetings, which were attended by 1,480 nurses. It was gratifying to note that nurses in hospitals and voluntary agencies participated to a greater degree than heretofore.

Public Health Nurse Consultant visits increased 41 percent during the year, with the most marked increase in service to hospitals, as shown below.

Table 1. CONSULTANTS' VISITS BY AGENCIES, 1959-1961

<i>Agencies</i>	<i>No. of Visits 1958-59</i>	<i>No. of Visits 1959-60</i>	<i>No. of Visits 1960-61</i>
Hospitals	79	134	247
District Health Offices	81	49	61
Local Boards of Health	68	56	88
Non-Official Agencies	76	118	138
Other State Agencies	11	37	30
Industrial	20	44	58
Other	9	13	15
Total Visits	344	451	637

Special Projects

1. An exhibit on nursing consultation available from the Department and a small descriptive flyer were prepared and used.

2. A 2-day Workshop on Public Health Nursing for Full-Time Health Officers was held in Lakewood. The meeting afforded an opportunity for interpretation of public health nursing services and administrative practices of official and voluntary agencies. Miss Margaret Arnstein, Chief, Division of

Nursing, U. S. Public Health Service, was the keynote speaker and nursing consultation was provided by nursing staff of the Department, nursing directors of 3 local agencies, a representative of the National League for Nursing, and the nursing consultant from the Regional Office, U. S. Public Health Service. All participants in the workshop concluded that the time had been well spent and the health officers requested that another similar conference be planned.

3. The Pediatric Nursing Consultant presented a brief resumé of the pediatric consultation service given to hospitals in this state, at the Childrens Bureau Regional Conference in New York City.

4. The Public Health Nurse Consultant, Heart, arranged for a month's orientation to cardiac services in St. Peter's Hospital, New Brunswick, for a nurse from the Virgin Islands. This was a Public Health Service request.

Program Administration

Two District Chief Public Health Nurses completed graduate study during the past year.

The following administrative changes have been made:

1. The position of Assistant Chief Public Health Nurse, with primary responsibility for nursing education, was filled on June 26, 1961 through civil service promotional examination.
2. The vacancy created by the retirement of a Public Health Nurse Consultant, Maternal and Child Health, was filled promptly by a temporary appointment, pending examination, of a well prepared nurse.
3. The vacancy created by the promotion of the Public Health Nurse Consultant, Cancer, to the Assistant Chief Public Health Nurse position, is being filled by a nurse on special project status until the examination is held.

The public health nursing staff of the Department consists of the following:

Chief Public Health Nurse	1
Assistant 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	9
Public Health Nurse Supervisors (one assigned to Family Nursing Service of Hunterdon County, one assigned to Survey Team re Minimum Standards)	15
Public Health Nurse (assigned to Burlington County Public Health Nursing Association)	1
Total	32

The re-assignment of one Public Health Nurse Supervisor is consistent with the Department's philosophy that direct nursing services, including availability of day by day supervision, should be provided locally.

The reduction in State responsibility for supervision is evident on the following table:

Table 2. NUMBER OF NURSES UNDER STATE SUPERVISION

	1959-60	1960-61	Estimated 1961-62
Central State Health District	9	11	11
Metropolitan State Health Dist.	64 + 1 grant-in-aid	64	64
Northern State Health District	34 + 7 grant-in-aid	28 + 1 grant-in-aid	26
Southern State Health District	60 + 5 grant-in-aid	51	40

Public Health Social Work Program

The Public Health Social Work Program has provided increased services to individuals and to health and welfare agencies at State, District, and community levels this year. Evaluation of recurrent social or community problems and needs, through participation in community planning, have frequently resulted in development of new community resources. An increasing number of requests for services from health and welfare agencies outside the state, as well as from private citizens, about available Departmental services and community resources, have been resolved.

On State and District level, there has been increased use of social work consultation in program planning within the Department. Public Health Social Work Program personnel have contributed significant data related to a wide range of public health problems. This service had a 3-fold purpose: it provided a means of demonstration and consultation; it provided professional services in a limited number of instances on a demonstration and consultation basis where a community service was not available; and it provided a source of definitive information of gaps and lacks in community services.

The Program Coordinator and the 4 District Consultants have contributed to the many projects and services supported by the Division of Chronic Illness Control. Community interest and support in comprehensive programs of restorative services, home care, and services to the home-bound designed to meet the specific needs of the chronically ill and disabled have been promoted with notable results in continuity of services in many of our 21 counties.

Program personnel have contributed to the educational programs of the Department through planning and developing program content and through active participation in workshops, seminars, and group meetings.

Community hospitals have demonstrated an increasing interest in employment of professional staff for social service departments. A professionally qualified social worker, with experience in psychiatric and medical social work, was recently appointed as the first Director of Social Service at St. Peter's Hospital, New Brunswick. Assistance and consultation were given to hospital administrators in recruiting qualified social work personnel.

Educational Activities

For many years, the critical shortage of professionally qualified social workers in hospitals and health related agencies in New Jersey has resulted in a lack of field work training opportunities for graduate students enrolled in schools of social work. This field work training program correlates classroom theory with practical work experience in the medical setting under qualified supervision.

To meet this need, a unique grant-in-aid contract was developed between the Graduate School of Social Work at Rutgers—The State University, and the State Department of Health, Division of Chronic Illness Control. Co-operative planning between the Dean of the Graduate School of Social Work and the Program Coordinator, Public Health Social Work Program, resulted in the recruitment of a well-qualified field work instructor at the faculty level of Associate Professor.

A Field Work Training Unit was established at St. Michael's Hospital, Newark in 1960. Five students trained in medical social work gave approximately 2,800 hours of case work service to hospital patients and their families during the academic year. Medical social services were made available to chronically ill patients in the Restorative Services Program. These included patients with heart disease, diabetes, arthritis, and children of all ages with multiple handicaps.

Expansion of this student training program will enable more social work students to secure this specialized training during the coming year. Upon graduation, persons trained under this program will be qualified for employment in hospital social service departments and other official or voluntary health and welfare agencies.

Recruitment Activities

Support from the Division of Chronic Illness Control enabled the Public Health Social Work Program to participate in a new type of recruitment program, the "New Jersey Committee for Summer Experience in Social Work." The Program Coordinator served as a discussion leader at a 2-day

Orientation and Training Institute, held under the auspices of the Graduate School of Social Work, Rutgers, the State University, for 42 undergraduate students enrolled in 20 colleges and universities.

Professional social workers representing the State Department of Health, the State Department of Institutions and Agencies, State Department of Education, and the Graduate School of Social Work, acted as resource consultants with 6 public and voluntary social agency representatives. A film strip on medical social work, "Member of the Team," was shown to illustrate the contribution of the medical social worker in the hospital.

These 42 students were employed by 17 different social agencies during the 8-week summer period. The practical work experience helped them to learn the purposes of social work, gain information about method, and obtain preparation for work activities they would be responsible for during summer employment.

Medical Social Services

With grant-in-aid assistance from the Department, St. Clare's Hospital, Denville, employed a qualified social worker for the first time. Major emphasis will be placed upon medical social services to the chronically ill of all ages.

Visiting Homemaker Services

Because of the important role the Visiting Homemaker Service plays in the plan for total care of the home-bound patient, emphasis has been given to the promotion and expansion of this service.

The Program Coordinator participated in planning and developing the first Executive Development Seminar for Directors of Visiting Homemaker Services. The proceedings from this pioneer effort, published as a supplement to the July, 1961 *Public Health News*, has been in demand by agencies from all parts of the country.

Training Program

Technological changes and advances, new programs and methods, new research results, and increased consumer demand for services provide a challenge to public health. As with any profession, we must meet these challenges and to do this, training must be provided.

The primary objective of the Training Program is to train public health workers to function skillfully, appropriately, quickly, and effectively. The Training Program, in cooperation with other programs of the Department, provides training and education for public health workers in New Jersey in basic and advanced subject areas. During this fiscal year, the Department was

involved in 76 training and educational activities. Approximately 4,581 participants spent 288 days in these sessions.

Significant Activities

Sanitation Field Training Center: This center established at the East Orange Health Department will provide field training for recently employed full-time sanitarians holding a sanitary inspector license of the first Grade. This 6-week, full-time course will serve to supplement academic training and give these new sanitarians a substantial grounding in field inspection methods and techniques at a time when they are beginning a career in environmental health.

Trenton Housing Conference: Upon the request of the City of Trenton, the Training Program, in cooperation with the Department's Division of Environmental Health developed, planned and coordinated a 2-day conference on Trenton housing problems. Experts in this field from other cities and the Federal government, provided the answers to many of the housing problems which the city faced.

Health Officer Workshops and Institutes: One resident workshop on "Community Nursing Services" and a 2-day institute on "Application of Public Health Law" were planned and conducted in cooperation with the Health Officers Association.

These projects serve to keep the local health officers and sanitarians aware of newer concepts and procedures in health matters.

Epidemiology Course: Because veterinarians in private and public practice are keenly interested in and provide essential health services to the community, a course in the principles of epidemiology was conducted by the New Jersey Veterinary Association, the United States Public Health Service, Rutgers University, and the State Department of Health. Seventy-seven persons completed the course.

Rutgers University Extension Courses: During this fiscal year, 7 public health courses were planned and conducted in cooperation with Rutgers University Extension Division. These courses included instruction on basic environmental health principles, meat and meat products, plumbing regulations and inspection, vital statistics and food service sanitation. Approximately 235 students successfully completed these courses.

Table 1. PROFESSIONAL TRAINING ACTIVITIES

Number of applications received and processed 1960-1961	61
Number of applicants for M.P.H. degree 1961-1962	2
Number of M.P.H. degrees received during 1960-1961	4
Number of other master's degrees received during 1960-1961	1
Number of applicants for other degrees	4

Table 2. EDUCATIONAL AND TRAINING ACTIVITIES—FISCAL YEAR 1960-1961

Activity	Date (s)	No. Participants
<i>Division of Chronic Illness Control</i>		
Alcohol Education Workshop	June 20-30	20
	June 22-July 7	20
The Chronic Alcoholic Offender	May 9	130
Postgraduate Lectures for Physicians		
(a) Newton Series	March-April (6 sessions)	84
	November thru February	
(b) Vineland Series	(6 sessions)	140
Cancer Nursing Institute (Central District)	May 3	300
The Socio-Cultural Aspects of Arthritis	March 30	56
Management of Cancers in Children up to 16 Years of Age	November 17	100
Second Symposium on Electroencephalography	November 2	110
Postgraduate Seminar in Arthritis and Related Diseases	November 4-5	150
Arthritis and the Community (Southern District)	December 1	72
Camden County Arthritis Symposium	May 24	93
Conference on Aging	December 15	55
Diabetes Training Conference (Metropolitan District)	November 2	200
Diabetes Research: Methodology and Application (Eighth Annual Symposium)	October 26	150
Diabetes Institute (Northern District)	November 9	87
The Interrelationship of Oral and Metabolic Disease (Dental Health Program)	March 22	150
Kidney and Diabetes (Third Annual Spring Symposium)	May 3	200
Executive Development Seminar for Directors of Homemaker Service	April 10-11-12	50
Breast—Self Examination	April 27	200
Surgical and Radio-therapeutic Approaches to the Management of Cancer of the Larynx	April 29	50
Continuity of Care Workshops for Patients with Stroke and Congestive Heart Failure	April 12-19	100

Activity	Date (s)	No. Participants
<i>Division of Constructive Health</i>		
Dental Health Education and Preventable Dentistry	March 27-30	15
Dentistry for the Handicapped Children	May 24, 31; June 7	27
Dental Care for the Geriatric Patient	June 14	75
Physicians Institute on Perinatal Mortality	June 7	106
Institute on Mental Retardation for Social Workers	March 29	78
Staff Education Burlington Co. P.H. Nursing Service (7 sessions)	Sept.-Mar.	14
Maternal and Child Health	June 2, 9, 14	36
Morris County Dental Health Conference (Northern District)	May 3	250
Rehabilitation Aspects of Nursing Home Care	May 17	107
Restorative Services in Nursing Homes	Weeks of January 16 and 23	10 each
	Weeks of February 6 and 13	course
Restorative Services in Nursing Homes (a 2-week course)	May 15-26	12
<i>Division of Environmental Health</i>		
Insect and Rodent Control Institute (all State Districts)	March 3, 10, 17, 24	210
Principles of Epidemiology	February 15; March 1, 8, 15, 29	75
Arbor Virus Transmission Pattern Study	June 5	12
Short-time, High-temperature Pasteurization Course	October 6-7	35
Meat Inspection Institute (Northern District)	October 13	100
Smoke Observation Training and Qualification Course	October 10, 11, 13	20
Trenton Sanitation Seminars	February 20, March 6, 10, 17, 24 30, April 14, 21	20
Trenton Housing Conference	April 18-19	25
Application of Public Health Law Institute	May 17-18	77
<i>Division of Laboratories</i>		
Application of Fluorescent Antibody Technique	June 13	100
Electrophoresis and Chromatography	June 14	75
Slide Seminar in Tumors of Brain	December 3	150
<i>Division of Local Health Services</i>		
<i>Office of Director</i>		
Community Nursing Services Workshop	October 19-20	35
Annual Conference of State and Local Health Officials	April 6-7	400

Activity	Date (s)	No. Participants
<i>Northern District</i>		
Teaching Skills and Techniques in Relation to Food Sanitation (5 sessions)	December 1-February 16	13
In-service Training for Nurses	Monthly	266
<i>Southern District</i>		
In-service Training for Nurses	Monthly	240
<i>Metropolitan District</i>		
Conference on Restorative Services for the Chronically Ill	June 28	115
Our Neighbors—The Puerto Rican Family	September 15	200
Child Health Conference	May 15	100
In-service Training for Nurses	Monthly	380
<i>Central District</i>		
In-service Training for Nurses	Monthly	259
<i>Division of Preventable Diseases</i>		
Seeds of Progress	February 23	300
Lectures on Modern Diagnosis and Treatment of Syphilis	March 17-June 23	120
Third Annual Symposium on Accidental Poisoning	May 31	125
<i>Division of Special Consultation Services</i>		
Training Officers Council	Each month	10 each month
In-service Training Course for Essex County Health Department (Metropolitan District)	October 5-December 12 (10 sessions)	15
<i>Division of Vital Statistics and Administration</i>		
Cause-of-death Coding Session (Metropolitan District)	May 17, 18, 19	32
Registrar Training Course	October 18	13
<i>Personnel Program</i>		
Orientation for Seasonal Employees	July 7, 1960	25
	June 28, 1961	25
Orientation Course—In-service	February 14 and 24	75
Orientation Course—Fort Dix Personnel	April 20	5
Orientation Course—Other	June 28	12
Letter and Report Writing	July 18-August 15	25

<i>Activity</i>	<i>Date (s)</i>	<i>No. Participants</i>
English and Grammar	July 18-August 15	25
Refresher Math Course	July 13-August 24	5
Telephone Course	September 7	13
Stenography Course	March-April	20
Interviewing and Investigating Techniques	May 25-June 8	15
Safety Course	March 27	13
<i>New Jersey State Department of Health—Rutgers University (Co-sponsors)</i>		
Basic Environmental Sanitation	Part I June 7-July 14	
	Part II Sept. 6-Oct. 13	55
Inspection of Meat and Meat Products	September 7-October 26	15
	March 1-May 31	35
Plumbing Regulation and Inspection	Sept. 13-Nov. 15	51
Registration of Vital Statistics	Sept. 21-Nov. 23	11
Food Service Sanitation	Sept. 13-Nov. 15	26
Introductory Sanitation	March 9-May 11	28
Sanitation Seminars (Northern District)	April 4-Sept. 20	90

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>
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 guidance and service 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.

Particulars regarding the various services rendered by this Division are presented in the following reports of program coordinators.

Preliminary plans were approved for construction of new facilities to house all units of the Departments of Health and Agriculture. Authorized through enactment of Chapter 44, P. L. 1960, the project will consist of 2 structures: an 8-story office building and a 5-story laboratory building, to be located in the redeveloped area of Trenton known as "John Fitch Way."

Final layouts for office and laboratory requirements are currently being refined.

This Division, with assistance from the Division of Laboratories, is charged with the coordination of the project for the Department of Health.

Administrative Services Program

As one of the service Programs of the Department, the basic functions of the Administrative Services Program include the design and production of health education materials; the maintenance, delivery, and erection of exhibits; the maintenance of audio-visual aids; the booking of exhibits and audio-visual aids, including films; the warehousing and distribution of printed materials, office supplies, and drugs; the production of printed materials by the offset process, including vari-typing; mechanical layout and plate making; and provision of mimeographing, addressographing, and mailing services. Personnel at the end of the fiscal year totaled 17, including 1 part-time employee for custodial services.

Graphic art services and consultation were rendered to several other Departments and the Governor's office, particularly with respect to their television needs.

The coordination of the writing of Program Plans and short-term objectives has been assigned to the Program.

All operations showed increased activity averaging about 20 percent over the previous year.

Health Education Services

Working closely with the Health Education Program, this Program continued the development and production of new exhibits and printed materials. Existing and new exhibits were displayed at 48 meetings and conferences as requested by other programs, local health departments, and civic groups. Planning and construction of new exhibits continue.

The professional film library continues to be available to outside professional groups in addition to the Departmental staff. There were 151 bookings for professional films.

The use of health education films for lay groups continues to be a popular service. These films were seen by more than 300,000 persons. Because of limitation of funds, many good films are not available or not available in sufficient quantities to meet the need adequately. Lay film bookings continue to be made for the Department by the New Jersey State Museum.

A total of 196 addressing jobs and 103 mass mailings, including folding, addressographing, stuffing, and sealing, was completed. The number of pieces of mail processed increased from 305,211 to over 333,296.

Warehousing

Printed materials, office supplies, and nurses' field supplies were stored and distributed. Refrigerated storage of perishable drugs and biologics is maintained. Periodic inventories are conducted in cooperation with the Budget and Accounts Program.

Budget and Accounts Program

The major activities of the Budget and Accounting Program include: maintenance of Departmental fiscal records; accounting of all funds received and expended; preparation and revision of budgets for both State and Federal monies; preparation of expenditure reports; processing detailed applications for all purchases; and analysis of time studies and their relation to allocation of funds. Stock inventories and inventories of permanent equipment are also maintained by this Program.

In addition to the Public Health Service and Children's Bureau Federal Grants-in-aid, other Federal grants were received to continue the Virus Research Project, the Leukemia Study Project, and the Radiation Research Project. Five new Federal grants were received for a Rheumatic Fever

DIVISION	Salaries		Other Allocations		Federal		Total State	Total Federal		Total Private	Total All Funds
	State	Federal	State	Federal	State	Private		State	Private		
DEPARTMENTAL ALLOCATIONS											
Office of Commissioner	\$76,877.00	\$115,743.30	\$19,835.00	\$18,237.18	\$18,725.00	\$18,725.00	\$36,512.00	\$168,980.48	\$18,725.00	\$274,217.48	
Vital statistics and administration	34,262.00	115,777.00	76,111.00	23,024.72	.....	.....	424,501.00	138,501.72	.....	563,002.72
Preventable disease	85,042.00	93,231.00	101,315.00	61,869.05	.....	.....	194,457.00	135,887.05	.....	330,344.05
Chronic illness	88,418.00	73,263.80	265,295.68	181,820.75	.....	.....	379,113.68	291,324.04	.....	670,437.72
Laboratories	309,184.00	89,831.67	76,369.11	39,274.86	.....	.....	386,583.11	129,076.58	.....	515,659.69
Constructive health	112,000.00	124,118.08	258,802.34	201,406.93	.....	.....	351,247.34	388,525.61	.....	739,772.95
Special administration	10,000.00	12,000.00	.....	27,700.00	.....	.....	.....	.....	.....	39,700.00
Local health services	536,725.00	401,384.00	131,929.48	27,700.00	.....	.....	668,652.48	180,084.00	.....	848,736.48
Total allocations	\$2,196,709.00	\$393,895.54	\$1,065,377.00	\$696,206.13	\$18,725.00	\$18,725.00	\$3,232,376.00	\$1,030,074.07	\$18,725.00	\$4,271,175.07	
DEPARTMENTAL EXPENDITURES											
Office of Commissioner	\$76,801.34	\$114,970.72	\$19,244.56	\$18,860.46	\$18,492.35	\$18,492.35	\$36,145.00	\$161,851.18	\$18,492.35	\$274,489.43	
Vital statistics and administration	32,076.90	116,022.51	75,219.83	22,333.67	.....	.....	406,329.73	137,056.18	.....	543,385.91
Preventable disease	85,048.46	93,034.25	102,179.71	57,984.54	.....	.....	194,164.25	137,115.09	.....	331,279.34
Chronic illness	87,694.73	71,834.77	291,081.70	180,217.52	.....	.....	384,791.24	252,062.29	.....	636,853.53
Laboratories	308,691.73	88,080.75	70,069.51	32,206.37	.....	.....	384,791.24	121,887.12	.....	506,678.36
Constructive health	103,051.85	117,784.42	296,068.70	197,029.88	.....	.....	310,350.55	315,465.40	.....	625,815.95
Special administration	10,000.00	12,000.00	.....	27,700.00	.....	.....	.....	.....	.....	39,700.00
Local health services	530,226.41	157,402.37	125,929.47	27,366.38	.....	.....	660,149.88	181,789.10	.....	841,938.98
Total expenditures	\$2,089,747.84	\$915,355.19	\$1,018,339.67	\$696,088.61	\$18,492.35	\$18,492.35	\$3,107,087.51	\$1,021,438.80	\$18,492.35	\$4,147,018.01	
Balance June 30, 1961	\$73,051.16	\$15,460.35	\$52,237.33	\$90,185.52	232.65	232.65	\$125,288.49	\$108,035.87	232.65	\$234,167.01	

DEPARTMENT OF HEALTH

Study Project, an Arteriosclerosis Study Project, a Coronary Heart Disease Research Project, Continuity of Care Study for Stroke and Heart Patients, and for a Homemakers Executive Development Project. In cooperation with the Program Coordinator and/or the project investigator, the Budget and Accounting Program allocated and accounted for expenditures of money for these Federal grants.

Below is a consolidated financial statement of the Department as of June 30, 1961:

STATE DEPARTMENT OF HEALTH
FINANCIAL STATEMENT
FISCAL YEAR 1960-1961

Receipts

Received for Transfer to State Treasury:

Licenses and Permit Fees	\$228,712.58
Penalties	3,640.00
Certified Certificates	39,067.00
Examination Fees	11,767.00
Miscellaneous	4,203.42
Net Total	\$287,390.00

Received for Disbursements:

State Appropriations and Transfers	\$3,232,376.00
United States Department of Health, Education and Welfare—Public Health Service	823,419.16
Children's Bureau	591,898.61
Other Federal Funds	214,756.90
Milbank Research Grant (Private)	13,725.00
Net Total	\$4,876,175.67

Examination and Licensing Program

This Program licenses qualified personnel for essential public health services for employment by local authorities and agencies.

During this period, 766 applications were processed for examinations. This is an increase of 300 percent over 1951-1952, and shows the growth in a decade.

Forty-five examinations were conducted during the year.

There were 409 licenses issued as a result of examinations; 1,308 renewal licenses were issued.

The sum of \$11,767 was received and deposited to the credit of the General Treasury. This is \$10,107 greater than that deposited in fiscal year 1951-1952.

Six lectures were given to students attending Department sponsored courses preparatory to licensure examinations.

The Program initiated an improved examination service by doubling number of examinations to be conducted in fiscal year 1961-1962.

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

Gerald La Torraca, chairman; Andrew Fohl; Thomas J. Frinzi; and Frank Marchese, secretary-treasurer.

REVENUE STATEMENT

FISCAL YEAR ENDED JUNE 30, 1961

Cash Receipts	\$96,073.00
<i>License Fees:</i>	
8,811 Certificates Renewed @ \$5	\$44,055.00
3 Certificates Renewed @ \$3	9.00
522 Certificates By Examination @ \$5	2,610.00
311 Certificates Restored @ \$10	3,110.00
4,236 Shop License Renewals @ \$5	21,180.00
109 Shop License Renewals @ \$10	1,090.00
*362 Shop Licenses @ \$25	9,050.00
171 Shop Removals @ \$5	855.00
523 Apprentice Certificates @ \$3	1,569.00
678 Examination Applications @ \$15	10,170.00
Hearing Penalties, Assessed and Collected	2,375.00
Total	\$96,073.00
Cash Receipts Refunded	378.00
Net Revenue Earned	\$95,695.00
*362 Shop Licenses @ \$25 represents:	
149 New Shops	
213 New Owners	
362 Total of New Shop Licenses Issued	

FISCAL STATEMENT

FISCAL YEAR ENDED JUNE 30, 1961

Received for Disbursement:

State Appropriations	\$68,226.00
Salaries	\$58,743.00
Vehicular	950.00
Office	380.00

DEPARTMENT OF HEALTH

Printing	1,110.00
Travel	4,500.00
Telephone	500.00
Insurance	140.00
Subscription	25.00
Postage	935.00
All Other	60.00
Office Equipment Normal	75.00
Vehicular Equipment	450.00
Office Equipment, Special	202.00
Office Equipment, New	156.00
Net Appropriations	\$68,226.00

Expenditures:

Salaries	\$56,264.71
Vehicular	948.56
Office	339.89
Printing	1,023.68
Travel	4,499.96
Telephone	500.00
Insurance	140.00
Subscription	25.00
Postage	935.00
All Other	59.60
Office Equipment Normal	56.41
Vehicular Equipment	420.92
Office Equipment, Special	190.25
Office Equipment	99.56
Total Expenditures	\$65,503.54
Unexpended Appropriation Balance as of June 30, 1961	\$2,722.46

GENERAL SUMMARY OF ACTIVITIES

Shops inspected	10,213
Special investigations	2,407
Shops found with sanitary violations	281
Reinspections	281
Hearings held	103
Shop licenses suspended as a result of a hearing	0
Persons assessed penalties by Board	74
Court Cases	0
Convictions	0
Barbers found working with expired certificates	20
Persons found working without a certificate	16
Unlicensed apprentices	2
Shops found operating with expired licenses	22
Shops found operating without a license	11

DIV. OF VITAL STATISTICS & ADMINISTRATION 215

Shops reported out of business	66
Complaints received from public and investigated	63
Barbers reported deceased	76
Applicants scheduled for examination	709
Applicants examined	602
Applicants passed examination	524
Applicants failed to pass examination	78
Applicants failed to appear for an examination	107
Examination days	42
Examination fees forfeited	13

Personnel Program

The Personnel Office has responsibility to recruit qualified applicants, to meet the various clerical, technical, and professional needs of the Department; to maintain adequate classification of positions; to process Departmental payrolls; to maintain accurate personnel records for Departmental employees; and to provide in-service training courses.

These responsibilities require effective working relationships with other Departmental units, with other State agencies, and with the United States Department of Health, Education, and Welfare.

An Employee Handbook has been prepared for new employees to assist them in learning important facts and policies about the Department.

This Program provides consultation services to Departmental supervisors and employees concerning personnel actions, employment policies, and questions pertaining thereto.

This Program has conducted evaluations of a number of Departmental positions and recommended changes in classifications to meet needs.

Exit interviews are routinely conducted.

During the fiscal year, 15 job specifications were reviewed and revised.

The Personnel Office provided services to 579 Departmental employees requiring the processing of approximately 28,000 records, forms, etc. relative to personnel actions, changes, etc. for the fiscal year.

Service award pins were presented to 60 Departmental employees.

Organizational charts for each Departmental program were reviewed and revised.

At the beginning of the fiscal year, there were 187 classifications in the Department; 182 at the end. Of the 579 employees on the payroll at the end of this period, 332 were at the minimum step of their salary range, 204 at intervening steps, and 43 at their maximum. As of June 30, 1961, there were 593 budgeted positions, of which 456 were filled by persons with permanent civil service status; 93 by persons with temporary civil service status; and 30

by persons in emergency positions. In addition to the regular staff of the Department, a number of professional workers such as physicians, dentists, nurses, etc., were hired during the year on a per hour or per diem basis.

At the end of the year, there were 44 vacant positions. Most of these positions require persons with a specialized professional background. There are shortages of such personnel throughout the country.

Vital Statistics Registration Program

CALENDAR YEAR, 1960

Historical Background

The State Registrar has custody of almost 13,000,000 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. Approximately 100,000 of these records for the period 1848 through 1929 have been checked for alphabetic sequence and bound.

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. The other is the Public Health Statistics Program.

Since 1954, the Vital Statistics Registration 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.

During calendar year 1960, the Program received and processed 228,334 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 8,878 office or telephone calls by persons wishing to file corrections or needing help in other registration matters.

New birth records were prepared for 2,219 persons who had been adopted in 1960 or prior years. Copies of these records were sent to the respective local registrars.

The Program examined 79,640 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 1960, this required typing 4,909 copies, all of which were subsequently sorted by county and forwarded to the respective county supervisors of veterans' interments.

A daily average of 350 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 56,837 applications for searches of the records of 1 or more years. This was a 15 percent increase over the previous calendar year. About 10 percent of our applications 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.

In addition, beginning with January, 1960, the Program prepared and sent 1,969 photocopies (a 5 percent sample) of marriage certificates to the National Office of Vital Statistics.

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 of New Jersey.

At the suggestion of the State Auditors, pilot studies were made on new procedures for handling and accounting of fees. These studies have been continued at certain intervals during the year.

The much needed Instruction Manual for Local Registrars was printed and distributed. Local Registrars have enthusiastically endorsed the Manual in which the Program has tried to answer registration questions most commonly asked.

The Program assisted with new projects of the National Office of Vital Statistics. One project involved sampling 1960 divorce records for certain sociologic data. Arrangements were made with all officers of the Courts of New Jersey to supply the samples.

The second project involved searching for and microfilming birth and death records for babies born in 1960 who died before becoming 1 year old. An average of 450 images were supplied monthly.

Two 10 weeks' training courses on Vital Statistics Registration were conducted during the year. One course was held at Rutgers University, New Brunswick, with an enrollment of 24 local registrars, deputy registrars, and other interested persons. The other was held at Rutgers University, Camden, with an enrollment of 12 persons. In addition, a training session of 1 day was held in Cape May County with 14 persons attending.

Delivery of 2 microfilm reader-printers has assisted the Program in eliminating a backlog of requests for certified copies of records on microfilm.

The volume of the major activities of the Program is shown in the following two tables:

Table 1. ORIGINAL CERTIFICATES RECEIVED, PROCESSED, AND PERMANENTLY FILED

Certificate Type	Calendar Year		
	1960	1959	1958
Birth	127,580	126,173	125,793
Fetal Death	1,994	1,941	2,015
Marriage	39,820	38,661	38,398
Remarriage	1,079	1,120	1,151
Death	57,861	56,707	56,408
Total	228,334	224,602	223,765

Table 2. SEARCHES REQUESTED AND FEES RECEIVED

Item	Fiscal Year		
	1961	1960	1959
Searches made and/or certified copies issued for which fees were received	34,668	33,615	31,548
Searches made and/or certified copies issued for which no fees were received	22,136	19,805	16,900
Total searches	56,804	53,420	48,448
Fees received for searches and certified copies	\$39,067.28	\$38,106.82	\$36,888.31

Public Health Statistics Program

An increase in the demand for services from the Public Health Statistics Program was noted during 1960-1961.

The Machine Unit processed a larger volume of punch cards since there were increases in the number of vital events registered. Special studies, undertaken by Department Programs, necessitated additional machine services, thus increasing the total workload of the Unit.

Around the Federal Census year, additional statistical tables must be prepared to reflect the population changes which occurred during the intercensal period. In addition to the release showing census counts of population for counties and municipalities, tables showing revised midyear population estimates and revised natality, mortality, and morbidity rates for the 10-year period were prepared.

During fiscal 1960-1961, the Statistical Unit handled a total of 1,341 requests as against 782 in fiscal 1959-1960. Of the total requests, 1,172 were answered by correspondence, 154 by telephone, and 15 were supplied to applicants who appeared in person. Consultations on special studies and statistical problems numbered well over 40 and were given to program coordinators and other users of public health statistics.

Population: New Jersey's July 1, 1960 population estimate was 6,098,000. Of this total, 51 percent or 3,110,000 were females and 49 percent or 2,988,000 were males. The 1960 midyear estimate of those under 18 years of age was 2,018,000 (33.1%) and persons 65 years of age and over numbered 561,000 (9.2%).

Of interest will be the distribution of the State's population, by age groups, as of April 1, 1960 (Census count) and July 1, 1960 (midyear estimate) shown in Table A of the statistical section of the annual report.

July 1, 1960 population estimates by counties and major cities appear in Table 3 of the annual report. These estimates were computed by obtaining the excess of births over deaths from the date of the Census to the date of the estimate. The excess, representing the natural rate of growth, was added to the April 1, 1960 Census count and the total was rounded off to the nearest thousand.

Births: Added to the State's population in 1960 was a bumper crop of 132,594 babies. Though there was a numerical increase of 1.5 percent in resident births, the 1960 crude birth rate of 21.7 per 1,000 estimated population was slightly lower than the rate of 22.0 recorded in 1959. Resident births in 1959 totalled 130,660.

Of the 132,594 births in 1960, 3.6 percent or 4,801 births were shown as being born out of wedlock. In 1959, there were 4,424 illegitimate births recorded or 3.4 percent of total live births.

As might be expected, the largest number of illegitimate births occurred to mothers 15 through 24 years of age. Slightly more than 73 percent or 3,507 births of the total illegitimate births were in this age group. Of the 140 babies born to mothers 10 through 14 years of age, 107 were born out of wedlock.

In 1960, there were 127,580 births which occurred in New Jersey. Birth weight was stated on all but 443 birth certificates. In computing the following percentages for each birth weight group, only those births for which birth weight was known were used as the denominator.

Weight Group	Number	Percent
Over 2500 grams	117,138	92.1
2001-2500 grams, incl.	6,599	5.2
1501-2000 grams, incl.	1,852	1.5
1001-1500 grams, incl.	815	0.6
1000 grams or less	733	0.6
Total with weight given	127,137	100.0

Of the 127,580 births in New Jersey, 126,655 or 99.3 percent occurred in hospitals; 779 or 0.6 percent were attended by physicians outside of hospitals; and 17 births or 0.01 had midwives in attendance.

Marriages: An increase of 2.9 percent was noted in the number of marriages performed in 1960. In that year, there were 39,820 marriages as against 38,659 in 1959. The marriage rate of 6.5 per 1,000 population maintained in both years.

One male and 68 females married prior to reaching age 15. Between the ages 15 through 19 years, there were 11,173 brides and 2,979 grooms. Approximately, 28 percent of the brides and 7.5 percent of the grooms were married before their twentieth birthday.

In 1960, there were 324 females and 783 males who were 65 years or over at the time of marriage.

Deaths: While the 1960 death rate of 9.7 per 1,000 population was slightly lower than that of 9.8 in 1959, there were more resident deaths recorded in 1960 than in the year preceding. There were 59,330 deaths in 1960 and 58,039 in 1959.

Of the 57,861 deaths which occurred in New Jersey, 5,770 or approximately 10 percent were deaths of veterans. There were 3,057 World War I

veterans; 2,024 were World War II veterans; and 86 were veterans of both wars. Spanish-American War veterans accounted for 129 deaths and an additional 2 persons who died were veterans of the Spanish-American War and the First World War. Veterans of the United Nations Forces accounted for 196 deaths and an additional 3 decedents were veterans of other wars. Of the remaining 273 death certificates, military service was indicated but no war was specified.

Except where otherwise stated in the text or tables, all deaths were allocated to the usual place of residence of the deceased.

Infant Mortality: Although there was a slight numerical rise in infant deaths the infant mortality rate of 24.5 per 1,000 live births remained the same as in 1959. There were 3,248 deaths under 1 year in 1960 and 3,201 in 1959.

Neonatal deaths (infant deaths under 28 days) accounted for 2,453 deaths or three-fourths of the total deaths under 1 year. The neonatal mortality rate per 1,000 live births was 18.5 in 1960. In this same age group, there were 2,459 infants who died in 1959 and the neonatal death rate was 18.8.

Perinatal deaths, which consist of deaths of infants less than 7 days old plus fetal deaths, numbered 4,411 in 1960 as compared with 4,294 in 1959. The perinatal mortality rates were 32.7 and 32.3, respectively, per 1,000 total births (live births and fetal deaths). The perinatal mortality rate supplements the infant mortality rate and measures pregnancy wastage from the twentieth week of gestation through the first 6 days following delivery.

Maternal Deaths: A drop in maternal deaths from 51 in 1959 to 44 in 1960 was noted. The maternal mortality rate of 0.3 per 1,000 live births in 1960 was slightly lower than the preceding year's rate of 0.4.

New Jersey's maternal mortality rate has not been known to fall below 0.3. This rate was first recorded in 1956 and again in 1957.

Fetal Deaths: Fetal deaths numbered 2,201 and resulted in a rate of 16.6 per 1,000 live births in 1960. Both the total and rate were higher than the 2,109 fetal deaths and the rate of 16.1 which prevailed in 1959. The lowest fetal death rates recorded in the past 25-year period were 16.1 in 1959 and 16.6 in 1957 and 1960.

Leading Causes of Death: The first 7 leading causes or groups of causes of death, in descending order of frequency, follow: The percent of total deaths for which each was responsible is shown in parentheses after each cause or group.

1. Diseases of the circulatory system (48.0%)
2. Malignant neoplasms (18.0%)
3. Vascular lesions affecting the central nervous system (8.8%)

4. Influenza, pneumonia, and bronchitis	(3.3%)
5. Diabetes mellitus	(2.1%)
6. Cirrhosis of liver	(1.5%)
7. Motor vehicle accidents	(1.3%)

While the same rank order for these diseases prevailed in 1960 as in 1959, lower death rates in 1960 were noted for cancer, vascular lesions, and motor vehicle accidents. Higher death rates were posted for the remaining leading causes of death.

Heart Disease: Of the 28,451 fatalities due to diseases of the circulatory system, heart disease was responsible for 26,187 deaths. The death rate per 100,000 population was 429.4. Comparable figures for 1959 were 25,315 heart disease deaths and a rate of 423.8.

Cancer: Though cancer deaths were slightly higher in 1960, the death rate dropped from 178.0 per 100,000 population in 1959 to 174.7. There were 10,655 cancer deaths in 1960 as against 10,635 deaths in the preceding year.

Vascular Lesions: Deaths from vascular lesions affecting the central nervous system totalled 5,194 and resulted in a rate of 85.2 per 100,000 population. In 1959 there were 5,289 deaths and a rate of 88.5.

Influenza, Pneumonia, and Bronchitis: In 1960 influenza, pneumonia, and bronchitis were responsible for 1,980 deaths and a rate of 32.5 per 100,000 population. Figures for 1959 were 1,785 deaths and a rate of 29.9.

Pneumonia deaths numbered 1,795 as against 1,643 deaths in 1959. Death rates per 100,000 population for each of these years were 29.4 and 27.5, respectively.

There were 45 influenza deaths with a rate of 0.7 per 100,000 population in 1960 and 32 deaths with a rate of 0.5 in 1959.

Diabetes: With 1,238 deaths and a death rate of 20.3 per 100,000 population, diabetes continued its upward trend. In 1959, diabetes accounted for 1,181 fatalities and a rate of 19.8.

All Accidents: Accidents, as a group, accounted for 2,214 fatalities and a rate of 36.3 per 100,000 population. In 1959, there were 2,201 deaths due to accidents and a fatality rate of 36.8. Motor vehicle accidents were responsible for about as many deaths in 1960 as in 1959. There were 754 fatalities and a rate of 12.4 per 100,000 population in 1960 as against 753 deaths and a rate of 12.6 in the preceding year. Fatalities due to accidental falls totalled 676 in 1960 and 664 in 1959; the death rate of 11.1 per 100,000 population was the same in both years.

Deaths from Reportable Diseases

Tuberculosis: The 1960 total of 354 tuberculosis deaths and the death rate of 5.8 per 100,000 population were the lowest ever to be recorded for New Jersey. There were 433 tuberculosis deaths with a death rate of 7.2 per 100,000 population in 1959. An 18.2 percent decrease in the number of deaths occurred between 1959 and 1960.

In addition to the 354 deaths statistically charged to tuberculosis as the primary cause of death, there were 204 deaths due to other causes with tuberculosis mentioned as a secondary cause of death. Of the 558 deaths with tuberculosis appearing either as a primary or secondary cause of death, 179 deaths or 32 percent were unreported to the Department as tuberculosis cases prior to the date of death. Comparable figures for 1959 were a total of 609 deaths, with tuberculosis as primary or secondary cause, and 219 deaths or 35.9 percent unreported as cases.

Other Reportable Diseases: During 1960 there were 6 deaths due to measles, 2 deaths from whooping cough, 1 from streptococcal sore throat, including scarlet fever and no deaths from diphtheria. These childhood diseases continue to account for fewer deaths and may eventually disappear as primary causes of death.

Acute poliomyelitis was responsible for 5 deaths and 3 deaths were due to late effects of poliomyelitis.

In 1960 acute infectious encephalitis claimed 14 lives and 1 additional death resulted from late effects of acute infectious encephalitis.

There were 29 deaths from infectious hepatitis. Twenty of these occurred in the age group 45-64.

Syphilis deaths numbered 76. Of these, 5 occurred in the age group 25-44 and 71 deaths were of persons 45 years of age and over.

Reference should be made to the annual reports of the medical programs for further discussion of reportable diseases, infant and maternal deaths, and chronic illnesses. Specifically, these Programs are Communicable Disease Control, Tuberculosis Control, Venereal Disease Control, Maternal and Child Health, Cancer Control, Diabetes Control, and Heart and Circulatory Disease.

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TABLE A. MIDYEAR POPULATION ESTIMATES BY AGE GROUP AND SEX
APRIL AND JULY 1, 1960

<i>Age + Sex</i> <i>Characteristic</i>	<i>April 1, 1960</i>		<i>Population</i> <i>Estimate</i>
	<i>Census Count</i>	<i>Percent of Total</i>	<i>July 1, 1960</i>
<i>Age</i>			
Total	6,066,782	100.0	6,098,000
Under 1	127,768	2.1	128,000
1-4	514,429	8.5	518,000
5-9	582,212	9.6	585,000
10-14	524,380	8.6	525,000
15-19	396,363	6.5	396,000
20-24	321,054	5.3	323,000
25-29	362,373	6.0	366,000
30-34	435,080	7.2	439,000
35-39	472,429	7.8	476,000
40-44	446,139	7.4	451,000
45-49	406,721	6.7	409,000
50-54	350,531	5.8	354,000
55-59	304,112	5.0	305,000
60-64	262,777	4.3	262,000
65 and over	560,414	9.2	561,000
<i>Sex</i>			
Male	2,971,991	49.0	2,988,000
Female	3,094,791	51.0	3,110,000

Note: Midyear population estimates were computed by applying the percent of population in each age and sex group as of April 1, 1960 to the New Jersey total population estimate for 1960. Population estimates were rounded off to the nearest thousand.

To be included in the report on midyear population

Table 1. POPULATION ESTIMATES AND VITAL EVENTS: 1936-1960
(Numbers and Rates)

YEAR	Estimated Population As of July 1	BIRTHS		MARRIAGES		DEATHS	
		Number	Rate	Number	Rate	Number	Rate
1936	4,113,600	54,145	13.2	32,771	8.0	44,539	10.9
1937	4,127,500	55,197	13.4	36,190	8.8	45,312	11.0
1938	4,139,400	56,602	13.7	31,906	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	41,039	9.9	45,206	10.9
1941	4,199,900	67,104	16.0	46,533	11.1	45,971	10.9
1942	4,228,426	80,812	19.1	50,498	11.9	46,270	10.9
1943	4,235,233	82,356	19.4	41,045	9.7	40,751	11.3
1944	4,167,840	75,632	18.2	36,054	8.7	47,340	11.4
1945	4,200,941	76,695	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	55,902	12.6	48,276	10.9
1948	4,729,000	97,273	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	4,999,000	105,218	21.1	44,564	8.9	50,098	10.0
1952	5,112,000	110,213	21.6	41,125	8.0	51,430	10.1
1953	5,236,000	112,522	21.5	40,856	7.8	52,794	10.1
1954	5,359,000	118,232	22.1	39,744	7.4	51,203	9.6
1955	5,482,000	120,969	22.1	40,327	7.4	54,055	9.9
1956	5,605,000	124,350	22.2	41,132	7.3	54,418	9.7
1957	5,728,000	129,257	22.6	40,367	7.0	57,171	10.0
1958	5,851,000	129,730	22.2	38,398	6.6	57,552	9.8
1959	5,974,000	130,660	21.9	38,659	6.5	58,039	9.7
1960	6,098,000	132,591	21.7	39,820	6.5	59,330	9.7

Note: Rates are per 1,000 population.
Marriage data are by place of occurrence.
For similar data for the period 1921 through 1935, see Table I of the Annual Report for any year from 1936 through 1960; for the years 1919 through 1920, see Table I of the Report for any year from 1921 through 1950.

Chart 1.
BIRTH AND DEATH RATES
per 1,000 population
(Based on Five-Year Averages of Events and Population)
1880-1959

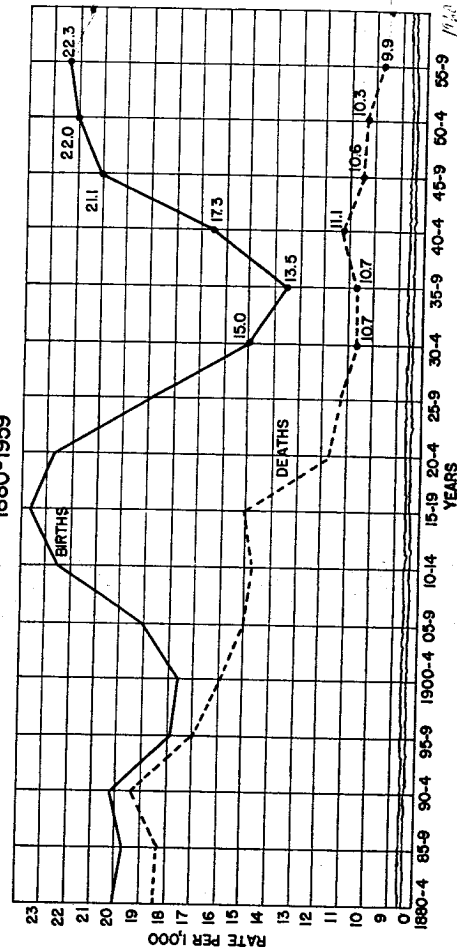


TABLE 2. BIRTHS, INFANT DEATHS, NEONATAL DEATHS, FETAL DEATHS, PERINATAL DEATHS AND MATERNAL DEATHS
NUMBERS AND RATES: 1936-1960

Year	Births		Infant Deaths		Neonatal Deaths*		Fetal Deaths		Perinatal Death†		Maternal Deaths	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1936	54,145	44.0	2,383	26.8	1,449	26.8	1,840	31.1	...	...	902	9.7
1937	55,197	39.3	2,170	24.0	1,327	24.0	1,731	31.4	...	...	182	3.2
1938	56,602	39.3	1,935	24.1	1,305	24.1	1,704	30.1	...	...	191	3.3
1939	56,859	38.3	1,412	24.3	1,412	24.3	1,809	28.3	...	...	106	2.9
1940	59,328	35.3	1,422	24.0	1,422	24.0	1,543	28.0	...	...	172	2.9
1941	67,104	35.6	1,651	24.6	1,651	24.6	1,732	28.3	...	...	168	2.5
1942	80,812	31.4	1,821	22.5	1,821	22.5	2,006	24.8	...	...	163	1.9
1943	72,582	33.8	1,592	25.0	1,592	25.0	1,978	24.0	...	...	151	1.8
1944	75,082	33.9	1,706	25.2	1,706	25.2	1,744	25.1	...	...	119	1.6
1945	70,095	32.1	1,680	21.8	1,680	21.8	1,827	23.7	...	...	118	1.5
1946	65,044	28.5	2,020	21.3	2,020	21.3	2,127	25.4	...	...	115	1.3
1947	65,044	27.9	2,217	20.9	2,217	20.9	2,265	21.4	...	...	116	1.0
1948	67,430	25.0	1,916	19.6	1,916	19.6	1,994	20.2	...	...	78	0.8
1949	97,414	25.0	1,910	19.6	1,910	19.6	1,972	20.2	...	...	36,553	36.8
1950	97,734	25.0	1,875	19.2	1,875	19.2	1,845	18.9	...	...	72	0.7
1951	100,950	23.9	1,917	18.2	1,917	18.2	1,993	18.9	...	...	70	0.7
1952	110,215	23.6	2,221	18.7	2,221	18.7	2,002	18.2	...	...	69	0.6
1953	112,522	23.6	2,043	16.9	2,043	16.9	2,002	18.2	...	...	3,739	33.3
1954	118,252	23.6	2,078	17.6	2,078	17.6	1,933	16.3	...	...	3,797	31.3
1955	120,950	24.4	2,211	18.3	2,211	18.3	2,115	17.5	...	...	64	0.5
1956	129,257	24.4	2,261	18.7	2,261	18.7	2,110	16.9	...	...	59	0.3
1957	139,730	24.4	2,434	18.8	2,434	18.8	2,185	16.8	...	...	32.8	0.3
1958	139,600	24.5	2,453	18.8	2,453	18.8	2,109	16.1	...	...	44	0.3
1959	182,594	24.5	2,453	18.5	2,453	18.5	2,301	16.6	...	...	54	0.4
1960	...	...	...	...	...	...	...	...	...	...	44	0.3

Note: Rates are per 1,000 live births except the perinatal death rate which represents the number of infant deaths under 7 days plus fetal deaths per thousand live births plus fetal deaths.
 * Rates are per 1,000 estimated population.
 † Perinatal deaths are available prior to 1947.

Table 3. VITAL EVENTS BY COUNTIES AND MAJOR CITIES: 1960
(Numbers and Rates)

Area*	July 1 Estimated Population	Births		Marriages*		Deaths	
		Number	Rate†	Number	Rate†	Number	Rate†
STATE TOTAL	6,098,000	132,594	21.7	39,820	6.5	59,330	9.7
Atlantic County	162,000	3,050	18.8	1,221	7.5	2,187	13.2
Atlantic City	60,000	960	16.0	524	8.7	1,047	17.5
Bergen County	786,000	15,298	19.5	4,208	5.4	6,280	8.0
Burlington County	227,000	5,197	22.9	1,100	4.8	1,573	6.9
Camden County	394,000	9,363	23.8	2,705	6.9	3,714	9.4
Camden City	117,000	2,999	25.6	1,152	9.8	1,393	11.9
Cape May County	49,000	919	18.8	395	8.1	791	16.1
Cumberland County	107,000	2,491	23.3	753	7.0	1,093	10.2
Essex County	924,000	19,860	21.5	7,443	8.1	10,480	11.3
Bloomfield	52,000	1,077	20.7	268	5.2	832	16.6
East Orange	77,000	1,634	21.2	508	6.6	1,052	13.7
Irrington	59,000	1,054	17.9	388	6.6	710	12.0
Newark	405,000	10,334	25.5	4,207	10.4	5,033	12.4
Gloucester County	130,000	3,315	24.4	852	6.3	1,295	9.5
Hudson County	610,000	13,109	21.5	4,744	7.8	7,300	12.0
Bayonne	74,000	1,415	19.1	439	5.9	812	11.0
Hoboken	48,000	1,053	21.9	428	8.9	638	13.3
Jersey City	276,000	6,521	23.6	2,353	8.5	3,478	12.6
Union City	52,000	1,091	21.0	515	9.9	669	12.9
Hunterdon County	54,000	1,074	20.0	333	6.2	560	10.4
Mercer County	298,000	5,610	20.9	1,822	6.3	2,583	9.6
Hamilton Township	66,000	1,477	22.4	306	4.6	510	7.7
Trenton	114,000	2,509	22.0	1,067	9.4	1,420	12.5
Middlesex County	438,000	10,343	23.6	2,290	5.2	3,281	7.5
Woodbridge Township	80,000	1,780	22.3	280	3.3	499	6.2
Monmouth County	337,000	8,002	23.7	1,967	5.8	3,368	10.0
Morris County	264,000	5,830	22.1	1,397	5.3	2,092	7.9
Ocean County	110,000	2,668	24.3	649	5.9	1,239	11.3
Passaic County	408,000	8,680	21.3	2,685	6.5	4,046	9.9
Clifton	53,000	1,573	29.0	337	4.1	674	8.1
Passaic City	54,000	933	17.4	540	10.0	620	11.5
Pateron	144,000	3,453	24.0	1,149	8.0	1,736	12.4
Salem County	59,000	1,327	22.5	411	7.0	559	9.5
Somerset County	145,000	3,375	23.3	748	5.2	1,072	7.4
Sussex County	50,000	1,123	22.6	352	7.0	490	9.8
Union County	507,000	10,189	20.1	3,008	5.9	4,569	9.0
Elizabeth	108,000	2,477	22.9	820	7.6	1,275	11.8
Union Township	52,000	819	15.8	276	5.3	403	7.8
Warren County	63,000	1,234	19.6	445	7.1	739	11.7
State Institutions	...	31	†	1	†	37	†
Military Posts	...	501	†	321	†	33	†

* By place of occurrence.
 † Rates are per 1,000 estimated population.
 ‡ Rates not computed due to lack of population base.

Table 4. BIRTHS, MARRIAGES, DEATHS, FETAL DEATHS, MATERNAL DEATHS, INFANT DEATHS AND NEONATAL DEATHS BY COUNTIES AND MUNICIPALITIES: 1960
(Marriage data by place of occurrence, all other by place of residence)

ATLANTIC COUNTY								BERGEN COUNTY								BURLINGTON COUNTY							
CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths	CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths	CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Atlantic City	990	524	1047	17	3	38	27	Alpine Borough	21	3	5					Beverly City	132	23	60				
Brigantine City	79	18	36					Bergenfield Borough	542	106	203	13		6	5	Bordentown City	135	53	78				
Buena Borough	39	36	26	1				Bogota Borough	149	63	77	2		2	2	Bordentown Township	115	6	34	6	1	4	4
Buena Vista Township	95	15	25	1				Carlstadt Borough	153	11	62			2	2	Burlington City	339	99	153	4		11	8
Carlin City	3	2	2					Chiffside Park Borough	312	88	173	3		2	2	Burlington Township	133	13	42			5	3
Egg Harbor City	131	61	49	1		2	2	Closter Borough	168	22	54	2				Chesterfield Township	27	24	15			1	1
Egg Harbor Township	73	16	74	3				Creskill Borough	135	20	50			2	2	Cinnaminson Township	99	16	29			2	2
Estell Manor City	8	4	5					Demarest Borough	13	21	31			1		Delanco Township	103	16	42			1	1
Folsom Borough	16	4	8	1			1	Dumont Borough	394	82	150	7		5	3	Deltan Township	37	1	36				
Galloway Township	79	33	51			5	4	East Paterson Borough	379	60	118	2		8	6	Eastampton Township	63	5	36			1	1
Hamilton Township	116	41	54			1	1	East Rutherford Borough	140	70	79	1		1	1	Edgewater Park Township	37	1	2				
Hammonctown	253	68	78	5		1	3	Edgewater Borough	93	39	40	1				Evesham Township	161	14	39			2	2
Linwood City	89	25	28	3		1	1	Emerson Borough	166	29	39	3		2	16	Florence Township	13	10	6				
Longport Borough	19	5	20					Englewood City	467	282	278	10		22	16	Hainesport Township	162	46	64	4		5	4
Margate City	139	47	97	4			1	Englewood Cliffs Borough	51	7	27	2		2	2	Littletown Township	620	15	29	3		1	1
Mullica Township	3	3	30					Fair Lawn Borough	546	187	229	9	1	10	8	Lumberton Township	48	11	20		1	14	9
Northfield City	132	12	54			5	3	Fort Lee Borough	184	109	85	4		3	3	Maple Shade Township	59	12	17			3	3
Pleasantville City	358	126	192	3	1	10	9	Franklin Lakes Borough	569	191	189	17		6	5	Medford Lakes Borough	74	103	44			11	7
Port Republic City	6	3	3					Garfield Borough	605	173	250	5		15	10	Medford Township	118	18	45	3		3	3
Somers Point City	8	3	3					Hackensack City	169	55	106	2		6	4	Mount Holly Township	262	91	122	2		2	2
Ventnor City	125	95	153				3	Harrington Park Borough	635	288	326	10		19	16	Mount Laurel Township	459	102	95	4		9	7
Weymouth Township	15	1	7	1		1	1	Hasbrouck Heights Borough	235	71	111	2		8	6	New Hanover Township	66	1	9			1	1
Total	3,050	1221	2137	47	4	77	59	Hasbrouck Heights Borough	235	71	111	2		8	6	North Hanover Township	21	96	12			1	
								Haworth Borough	169	55	106	2		6	4	Osnyra Borough	4	2	9				
								Hillsdale Borough	100	11	70	2		2	2	Penberton Borough	202	46	77	2		4	3
								Hobokus Borough	141	41	35			1	1	Penberton Township	103	14	12			1	1
								Leonia Borough	145	48	77	3		5	5	Riverside Township	250	97	96	1		15	11
								Little Ferry Borough	122	32	61			4	3	Riverton Borough	6	61	1			2	2
								Lodi Borough	625	85	134	10	1	13	10	Shanong Township	141	28	41			3	2
								Lyndhurst Township	636	288	326	6		10	7	Southampton Township	102	39	30	3		2	2
								Mahwah Township	139	33	51	2		4	3	Springfield Township	40	6	14			3	2
								Marwood Borough	214	70	101	2		4	3	Taherme Township	32	6	13	1			
								Midland Park Borough	161	42	74			1	1	Washington Township	32	2	6			1	1
								Montvale Borough	100	3	25	1		3	3	Westampton Township	6	2	6			1	1
								Moanachie Borough	80	3	20	2		3	3	Woodland Township	22		11			1	1
								New Milford Borough	537	90	118	6		4	2	Wrightstown Borough	95	2	10	3		2	1
								North Arlington Borough	393	94	147	11		3	1	Total	5197	1100	1573	62	2	124	93
								Northvale Borough	74	10	25	1		4	2								

CAMDEN COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Audubon Borough	204	75	103	1	..	8	7
Audubon Park Borough	24	2	14	1	..	1	..
Barrington Borough	174	30	47	4	1	..	..
Bellmawr Borough	374	35	65	4	..	10	9
Berlin Borough	123	62	83	..	..	2	2
Berlin Township	82	8	14	2	..	..	..
Brooklawn Borough	66	8	24	1	..	1	..
Camden City	2999	1152	1393	53	2	92	69
Cheshlhurst Borough	8	2	9	..	..	1	1
Clementon Borough	102	7	50	3	..	2	1
Collingswood Borough	428	128	224	8	..	14	13
Delaware Township	371	96	124	4	1	12	10
Gibbsboro Borough	68	8	12	1	..	1	1
Gloucester City	347	96	165	7	..	7	5
Gloucester Township	427	44	119	6	..	10	10
Haddonfield Borough	645	118	184	4	..	8	6
Haddon Heights Borough	146	102	83	6	..	1	1
Haddon Township	201	56	131	1	..	6	5
Hi Nella Borough	10	4	4	1	..	1	1
Laurel Springs Borough	44	9	21	1	..	..	..
Lawnside Borough	43	12	31	1	..	2	1
Lindenwald Borough	217	53	57	5	..	10	5
Magnolia Borough	123	23	41	3	..	4	4
Merchantville Borough	231	106	92	6	7	4	..
Mount Ephraim Borough	121	36	39	3	..	..	..
Oaklyn Borough	114	37	96	1	..	2	2
Pennsauken Township	766	140	276	7	..	14	13
Pine Hill Borough	93	31	29	2	..	1	..
Pine Valley Borough	..	..	..	..	..	..	..
Runnemede Borough	180	92	50	3	..	3	3
Somerdale Borough	149	36	33	2	..	1	..
Stratford Borough	129	15	36	2	..	1	1
Voorhees Township	52	4	15	1	..	..	..
Waterford Township	115	35	38	1	..	..	..
Winslow Township	126	31	47	2	..	8	2
Wood Lyane Borough	60	14	37	1	..	..	..
Total	9363	2705	3714	152	4	232	177

CAPE MAY COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Avalon Borough	13	2	14	..	..	..	..
Cape May City	162	46	51	2	..	..	..
Cape May Point Borough	2	..	3	..	..	..	..
Dennis Township	38	27	45	1	..	..	..
Lower Township	137	33	88	2	..	1	1
Middle Township	157	51	112	4	..	8	4
North Wildwood City	48	7	75	2	..	2	2
Ocean City	90	56	157	2	..	1	1
Sea Isle City	27	12	15	1	..	..	..
Stone Harbor Borough	17	10	8	..	..	..	..
Upper Township	66	8	41	2	..	3	3
West Cape May Borough	21	..	19	..	..	..	..
West Wildwood Borough	3	..	..	..	..	..	..
Wildwood City	103	98	91	3	..	1	1
Wildwood Crest Borough	50	13	47	..	..	2	2
Woodbine Borough	48	12	22	1	..	2	2
Total	919	395	791	20	..	22	16

CUMBERLAND COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bridgeton City	573	221	234	13	1	28	15
Commercial Township	86	21	55	2	..	5	4
Deerfield Township	75	9	18	2	..	4	2
Dowry Township	32	7	29	..	..	4	3
Fairfield Township	89	22	27	1	..	1	1
Greenwich Township	32	2	7	1	..	2	2
Hopewell Township	65	5	31	2	..	1	1
Lawrence Township	75	25	29	2	..	1	..
Maurice River Township	2	15	43	3	..	3	1
Millville City	422	168	229	8	..	15	12
Shiloh Borough	11	4	4	..	..	..	..
Stow Creek Township	23	..	7	1	..	3	2
Upper Deerfield Township	94	24	41	2	..	4	4
Vineland City	824	230	336	8	..	15	9
Total	2491	753	1093	45	1	84	55

ESSEX COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bellerive Town	749	189	317	11	..	12	11
Bloomfield Town	1077	268	552	19	1	16	14
Caldwell Borough	123	78	79	..	..	1	1
Caldwell Township	92	10	26	1	..	3	2
Cadara Grove Township	237	33	63	2	..	5	1
East Orange City	1634	508	1052	22	1	38	33
Essex Fells Borough	20	20	20	..	..	..	..
Glen Ridge Borough	119	33	100	..	..	3	3
Irrington Town	1054	388	710	15	1	21	17
Livingston Township	436	60	138	2	..	7	7
Maplewood Township	331	194	285	..	..	6	6
Millburn Township	224	161	147	7	..	7	5
Montclair Town	759	330	539	13	..	13	9
Newark City	10334	4297	5033	230	8	396	235
North Caldwell Borough	43	19	1	..	..	1	1
Nutley Town	532	199	258	12	..	15	12
Orange City	799	324	451	16	1	24	21
Roseland Borough	43	11	13	1	..	1	..
Roseland Village	170	162	149	6	..	3	2
South Orange Village	230	89	113	2	..	9	7
Verona Borough	137	7	58	2	..	4	3
West Caldwell Borough	724	172	353	13	1	15	15
West Orange Town	..	..	..	..	..	..	..
Total	19,860	7443	10480	381	13	600	425

GLOUCESTER COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Clayton Borough	101	38	47	1	..	2	2
Deptford Township	334	88	104	5	..	4	2
East Greenwich Township	51	11	35	..	..	1	1
Elk Township	29	11	20	1	..	..	..
Franklin Township	163	39	62	2	..	..	..
Glassboro Borough	261	65	95	3	..	10	7
Greenwich Township	86	17	32	2	..	..	..
Harrison Township	70	22	26	..	..	..	..
Logan Township	31	7	17	1	..	..	..
Mantua Township	233	43	73	1	..	11	7
Monroe Township	231	50	111	3	..	8	6
National Park Borough	102	30	36	2	..	3	3
Newfield Borough	23	15	18	..	..	..	..
Paulsboro Borough	268	85	81	5	..	4	3
Pitman Borough	175	61	111	3	..	7	5
South Harrison Township	17	4	13	..	..	2	1
Swedesboro Borough	80	24	31	4	..	4	2
Washington Township	49	13	47	2	..	6	6
Wenonah Borough	127	11	28	..	..	4	1
West Deptford Township	149	16	59	..	..	1	..
Westville Borough	136	46	62	3	..	1	..
Woodbury City	514	147	169	5	..	11	8
Woodbury Heights Borough	38	6	11	..	..	..	..
Woolwich Township	15	..	7	..	..	1	..
Total	3,315	852	1293	43	..	82	53

HUDSON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bayonne City	1415	439	812	24	1	25	21
East Newark Borough	30	31	26	1	.....	.....	.....
Guttenberg Town	102	18	73	.....	.....	2	2
Harrison Town	292	58	141	.....	.....	2	2
Hoboken City	1053	428	598	28	1	20	14
Jersey City	6521	2353	3478	112	1	202	159
Keany Town	728	248	406	18	.....	14	11
North Bergen Township	781	128	440	13	.....	16	10
Secaucus Town	200	50	87	1	.....	6	5
Union City	1091	515	669	23	.....	34	25
Weehawken Township	230	68	160	4	.....	5	4
West New York Town	753	383	410	17	.....	16	13
Total	13109	4744	7300	242	3	342	266

HUNTERDON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Alexandria Township	29	1	10	1	.....	.....	.....
Bethlehem Township	14	12	6	.....	.....	.....	.....
Bloomburg Borough	22	8	9	.....	.....	.....	.....
Callfon Borough	26	11	10	2	.....	.....	1
Clinton Town	19	23	20	.....	.....	.....	.....
Clinton Township	73	11	30	1	.....	2	2
Delaware Township	41	10	17	1	.....	3	2
East Amwell Township	49	7	21	.....	.....	.....	.....
Flemington Borough	57	53	40	1	.....	.....	1
Franklin Township	36	4	18	1	.....	1	1
Frenchtown Borough	26	11	18	.....	.....	.....	1
Glen Gardner Borough	16	1	13	1	.....	4	4
Hampton Borough	24	15	19	.....	.....	1	1
High Bridge Borough	43	18	27	.....	.....	.....	.....
Holland Township	40	1	14	.....	.....	2	2
Kingwood Township	35	11	26	1	.....	1	1
Lambertville City	117	47	65	2	.....	3	3
Lebanon Borough	17	10	6	2	.....	.....	.....
Lebanon Township	55	3	26	.....	.....	3	3
Milford Borough	33	14	6	.....	.....	.....	.....
Raritan Township	99	7	44	.....	.....	3	2
Readington Township	108	37	58	3	.....	3	1
Stockton Borough	18	4	12	.....	.....	1	1
Tewksbury Township	30	9	21	1	.....	3	3
Union Township	23	4	11	.....	.....	2	1
West Amwell Township	30	1	13	.....	.....	1	1
Total	1074	333	560	17	.....	37	31

MERCER COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
East Windsor Township	48	.....	16	.....	.....	1	1
Ewing Township	503	91	163	10	.....	7	6
Hamilton Township	1477	306	510	20	.....	29	21
Hightstown Borough	104	28	59	.....	.....	2	1
Hopewell Borough	55	19	25	.....	.....	.....	.....
Hopewell Township	123	28	62	2	.....	5	4
Lawrence Township	230	75	96	.....	.....	5	3
Pennington Borough	34	33	23	.....	.....	4	4
Princeton Borough	153	140	114	4	.....	2	4
Princeton Township	217	18	46	4	.....	3	2
Trenton City	2509	1067	1420	62	1	67	52
Washington Township	58	4	24	1	.....	2	1
West Windsor Township	99	13	25	.....	.....	4	3
Total	5,610	1822	2583	105	1	133	108

MIDDLESEX COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Cartaret Borough	540	132	166	11	.....	7	6
Cranbury Township	53	17	20	.....	.....	3	1
Dunellen Borough	160	61	101	.....	.....	.....	.....
East Brunswick Township	677	23	101	.....	.....	12	11
Edison Township	935	152	208	7	.....	18	11
Helmetta Borough	17	3	8	.....	.....	.....	.....
Highland Park Borough	263	71	102	6	.....	3	3
Jamesburg Borough	123	42	44	1	.....	4	4
Madison Township	405	61	132	9	.....	14	9
Metuchen Borough	490	98	137	9	.....	13	9
Middlesex Borough	225	41	51	3	.....	5	5
Milford Borough	141	38	51	.....	.....	1	1
Monroe Township	48	2	34	.....	.....	3	1
New Brunswick City	931	404	453	15	2	29	25
North Brunswick Township	244	19	76	7	.....	2	1
Perth Amboy City	684	392	426	17	.....	14	11
Piscataway Township	520	65	100	4	.....	7	7
Plainsboro Township	28	7	9	.....	.....	1	.....
Sayreville Borough	592	62	152	10	.....	7	6
South Amboy City	269	99	110	5	.....	5	5
South Brunswick Township	294	27	61	5	.....	5	3
South Plainfield Borough	465	118	87	6	.....	14	14
South River Borough	256	117	117	6	.....	5	3
Spotswood Borough	203	21	38	2	.....	3	2
Woodbridge Township	1780	260	499	32	1	41	35
Total	10843	2280	3281	173	3	217	173

MONMOUTH COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Allenhurst Borough	12	4	19	1	.....	.....	.....
Allentown Borough	36	16	13	.....	.....	.....	.....
Asbury Park City	421	278	284	7	.....	15	8
Atlantic Highlands Borough	138	43	58	.....	.....	3	3
Atlantic Township	41	11	19	.....	.....	1	1
Avon-by-the-Sea Borough	18	20	28	.....	.....	.....	.....
Belmar Borough	114	65	80	.....	.....	2	1
Bradley Beach Borough	113	33	67	.....	.....	1	1
Brielle Borough	47	8	44	.....	1	1	1
Deal Borough	30	19	25	1	.....	1	1
Eatontown Borough	338	23	44	2	.....	4	3
Englishtown Borough	38	21	21	.....	.....	2	2
Fair Haven Borough	62	20	45	4	.....	.....	.....
Farmingdale Borough	38	25	12	.....	.....	.....	.....
Freehold Borough	213	98	117	5	.....	8	8
Freehold Township	113	7	43	2	.....	.....	.....
Highlands Borough	92	37	33	.....	.....	1	1
Holmdel Township	54	8	11	.....	.....	.....	.....
Howell Township	229	37	116	1	.....	7	2
Interlaken Borough	16	2	8	.....	.....	.....	.....
Keansburg Borough	184	70	91	.....	.....	5	4
Keyport Borough	195	89	76	3	.....	8	8
Little Silver Borough	91	10	48	.....	.....	2	2
Loch Arbour Village	2	.....	.....	.....	.....	.....	.....
Long Branch City	747	144	316	8	.....	19	12
Manalapan Township	104	8	37	.....	.....	1	1
Manasquan Borough	85	52	61	1	.....	1	1
Marlboro Township	48	24	49	2	.....	4	2
Matawan Borough	173	39	55	4	.....	5	4
Matawan Township	175	14	48	4	1	5	4
Middletown Township	915	132	275	6	.....	14	10
Millstone Township	56	9	21	2	.....	1	1
Monmouth Beach Borough	28	10	15	.....	.....	.....	.....
Neptune City Borough	83	9	55	.....	.....	3	3
Neptune Township	560	67	281	7	.....	17	13
New Shrewsbury Borough	127	13	24	3	.....	3	3

MONMOUTH COUNTY—Continued

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Ocean Township	224	30	71	5		5	3
Oceanport Borough	89	14	27			1	
Kariton Township	593	15	89	9		8	5
Red Bank Borough	329	176	180	5		9	8
Roosevelt Borough	16	3					
Rumson Borough	106	45	54	1		2	2
Sea Bright Borough	20	9	18	2		1	1
Sea Girt Borough	18	13	30				
Shrewsbury Borough	59	8	21				
Shrewsbury Township	72	3	4			1	
South Belmar Borough	25	4	44	1		1	1
Spring Lake Borough	43	47	42			2	2
Spring Lake Heights Borough	78	10	33			4	4
Union Beach Borough	143	33	33	1		4	3
Upper Freehold Township	92	12	28			4	3
Wall Township	222	32	104	4	1	4	3
West Long Branch Borough	103	26	37	2		3	3
Total	8002	1867	3368	98	3	183	138

MORRIS COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Boonton Town	125	57	84	4			
Boonton Township	82	9	20	2		1	
Butler Borough	153	49	58	1		3	3
Chatham Borough	159	67	74	3		1	1
Chatham Township	97	8	25			1	1
Chester Borough	36	16	11			1	1
Chester Township	41	3	17			4	2
Denville Township	247	30	82	1		8	6
Dover Town	357	151	143	10		3	3
East Hanover Township	47	28	24			3	3
Florham Park Borough	172	7	59	1		3	3
Hanover Township	262	25	62	5		2	2
Harding Township	45	15	14			1	1
Jefferson Township	147	46	47	4		1	
Kinnelon Borough	74	3	20	2			
Lincoln Park Borough	136	28	45	3		2	1
Madison Borough	308	82	137	6		8	3
Mendham Borough	41	18	21		1	3	3
Mendham Township	47	3	18			2	2
Mountain Hill Township	74	33	24	2		2	2
Montville Township	137	36	57	3		1	1
Morris Plains Borough	85	27	43	2		2	2
Morristown Town	469	155	201	10		16	15
Morris Township	193	71	95			2	1
Mount Arlington Borough	33	14	12				
Mountain Lakes Borough	60	33	33			1	1
Mount Olive Township	96	18	44			1	1
Netcong Borough	67	38	24	2		1	1
Passaic-Troy Hills Township	507	79	113	8		6	6
Passaic Township	120	32	58	3		5	4
Pequanock Township	243	29	66	2		2	2
Randolph Township	173	24	48	4		5	5
Riverdale Borough	67	5	18	1		1	1
Rockaway Borough	132	40	48	3		3	1
Rockaway Township	246	20	64	4		2	2
Roxbury Township	275	41	80	4		8	7
Victory Gardens	27	3	1				
Washington Township	67	14	30	1		1	1
Wharton Borough	173	43	70	2	1	2	1
Total	5830	1397	2062	92	2	110	92

OCEAN COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Barnegat Light Borough	11	2	5				
Bay Head Borough	10	11	11				
Beach Haven Borough	16	14	18	1			
Beachwood Borough	62	9	37				
Berkeley Township	117	20	53	2		9	8
Brick Township	416	35	139	4		5	5
Dover Township	503	125	172	9		18	17
Eagleswood Township	12	3	16				
Harvey Cedars Borough	2	1	3				
Island Heights Borough	20	32	14			2	2
Jackson Township	133	23	55	2		3	3
Lacey Township	37	8	27				
Lakehurst Borough	140	12	23	4			
Lakewood Township	365	140	174	9		9	6
Lakewood Township	12	9	12	2			
Little Egg Harbor Township	7	8	17	1		1	1
Long Beach Township	15	8	17	1			
Manchester Township	74	13	16	1			
Mantoloking Borough	27	1	18	1		2	2
Ocean Gate Borough	10	2	18				
Ocean Township	21		9				
Fine Beach Borough	175	20	44	1		8	8
Flumstead Township	46	52	55	2		1	1
Point Pleasant Beach Borough	256	30	133	6		6	6
Point Pleasant Borough	15	9	21				
Seaside Heights Borough	14	15	19				
Seaside Park Borough	10	1	14				
Ship Bottom Borough	44	5	14				
South Toms River Borough	41	17	27	1			
Stafford Township	5	3	12			1	
Surf City Borough	43	8	33	1		2	2
Tuckerton Borough	8	21	23	1		1	
Union Township							
Total	2668	649	1239	53		77	65

PASSAIC COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bloomingtondale Borough	157	22	55			4	4
Clifton City	1573	337	674	29		27	16
Haledon Borough	100	69	81			3	2
Hawthorne Borough	326	91	178	3		7	6
Little Falls Township	194	39	75			3	3
North Haledon Borough	116	13	41			2	2
Passaic City	939	540	620	14		1	1
Paterson City	3453	1149	1786	65	1	25	16
Pompton Lakes Borough	187	91	50			87	64
Prospect Park Borough	98	33	59			6	4
Ringwood Borough	83	18	22	2		7	4
Totowa Borough	194	51	70			2	2
Wayne Borough	213	35	50			1	1
Wyaze Township	116	105	157	7		4	2
West Milford Township	616	55	66	8		8	6
West Paterson Borough	175	17	62	4		3	3
Total	9630	2665	4046	141	1	193	138

SALEM COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Alloway Township	46	16	15	1			
Elmer Borough	29	14	11	2			
Elsinboro Township	21	1	9				
Lower Alloway Creek Township	30	9	10			2	2
Lower Penns Neck Township	259	58	65			8	5
Mannington Township	51	5	31			3	2
Oldmans Township	32	6	19			2	1
Penns Grove Borough	165	81	88	4		5	4
Pilesgrove Township	71	15	2			3	3
Pittsgrove Township	76	14	32			2	2
Quinton Township	74	15	17		1	1	
Salem City	229	111	116	3		2	2
Upper Penns Neck Township	104	33	71			4	3
Upper Pittsgrove Township	72	32	26				
Woodstown Borough	71	27	34	3		1	
Total	1327	411	559	22	1	33	24

SOMERSET COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Bedminster Township	39	19	20				
Bernards Township	142	44	42	1		3	3
Bernardsville Borough	83	43	43	2		3	3
Bound Brook Borough	294	100	88	8		4	3
Branchburg Township	83	7	24				
Bridgewater Township	290	44	96	3		8	7
Far Hills Borough	19	4	10			1	1
Franklin Township	513	53	120	5		19	16
Green Brook Township	68	4	13			2	1
Hillsborough Township	203	17	40	3		2	1
Hillsville Borough	340	72	77	4		3	2
Millstone Borough	4	6	6			1	
Montgomery Township	77	11	28			1	1
North Plainfield Borough	333	76	126	4		6	5
Peapack Gladstone Borough	46	15	21			2	1
Raritan Borough	135	51	61	2		1	
Rocky Hill Borough	11	5	4				
Somerville Borough	391	119	150	9		13	13
South Bound Brook Borough	124	12	35	3		1	1
Warren Township	103	18	40	1		3	2
Watchung Borough	57	25	23	1		2	2
Total	3375	748	1012	47		78	62

SUSSEX COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Andover Borough	22	5	16				
Andover Township	48	6	13				
Branchville Borough	14	17	13	1		2	1
Byram Township	35	2	13				
Frankford Township	49	4	33	1			
Franklin Borough	65	22	38	2		1	1
Fredon Township	24	2	3			5	3
Green Township	17	1	2			1	1
Hamburg Borough	29	21	23	1			
Hampton Township	22	8	13	2			
Hardyston Township	58	10	10	2			
Hopatcong Borough	78	21	21	2			
Lafayette Township	23	12	9			2	1
Montague Township	17	3	11	1		2	1
Newton Town	17	8	11			1	1
Ogdensburg Borough	23	14	14	1		7	5
Sandyston Township	23	4	19			1	
Sparta Township	155	89	78		1		
Stantope Borough	163	31	54	3		5	1
Stillwater Township	59	11	21	1			
Sussex Borough	21	5	17				
Vernon Township	34	49	22			3	1
Walpack Township	63	9	27			1	1
Wantage Township	4	6	1				
Total	1128	352	490	20	1	30	16

UNION COUNTY - 1960

CIVIL DIVISION	Births	Marriages	Deaths	Fetal Deaths	Maternal Deaths	Infant Deaths	Neonatal Deaths
Berkeley Heights Twp.	219	20	34	3		4	4
Clark Township	234	76	68			4	3
Cranford Township	510	121	203	9		13	13
Elizabeth City	2477	820	1275	35	2	81	85
Fanwood Borough	167	17	41	4		4	4
Garwood Borough	137	36	38	4		4	4
Hillside Township	303	124	207	4		2	2
Kearlworth Borough	146	38	67	4		4	1
Linden City	707	192	338	3		4	2
Mountainside Borough	83	16	40	16		19	16
New Providence Borough	288	27	57	3		2	2
Plainfield City	1143	375	533	26		30	23
Railway City	548	181	260	13		16	13
Roselle Borough	484	105	191	3		16	14
Roselle Park Borough	231	67	132	8		11	11
Scotch Plains Township	401	79	122	10		8	6
Springfield Township	213	58	115	3		5	5
Summit City	450	190	228	4		8	7
Union Township	819	276	403	9		12	8
Westfield Town	530	190	199	5		6	5
Winfield Township	59		12	3			
Total	10159	3008	4568	176	2	251	205

TABLE 7. MARRIAGE IN NEW JERSEY BY PREVIOUS MARITAL STATUS: 1960

Wife's Status	Husband's Status				
	Total	Single	Widowed	Divorced	Unknown
Total	39,820	32,624	2,339	4,611	246
Single	32,918	29,960	575	2,217	166
Widowed	2,457	646	1,203	569	39
Divorced	4,309	1,969	532	1,783	25
Unknown	136	49	29	42	16

INFANT DEATHS BY CAUSE AND AGE: 1960

A record number of babies were born to New Jersey residents during 1960 when 132,594 births were reported. This exceeded the previous year's figure by 1,934 and was the largest baby crop in the history of the state.

Unfortunately, 3,248 or about 24.5 out of every thousand of these newcomers failed to survive their first year of life, with more than two-thirds succumbing within the first week and three-fourths within 28 days. Compared with last year's total of 3,201 infant deaths, there was an increase of 47 in the number of deaths of infants under 1 year of age. All of the increase occurred among infants aged 28 days or older. The number dying under 28 days of age was 2,458, about the same as last year.

The losses of infants under one year of age were due mainly to diseases of early infancy of which the leading single cause was postnatal asphyxia and atelectasis. There were 657 deaths attributed to this cause in 1960 as compared with 689 in 1959. More than half of the infants who died from this cause were under 1 day of age and 95 percent were under 1 week. In decreasing order other leading causes or groupings of causes were immaturity unqualified, congenital malformations, diseases of the respiratory system and birth injuries.

Of the 606 infants whose death was attributed to immaturity unqualified, 70 percent were less than 1 day old and 97 percent were under 1 week of age at time of death. Congenital malformations caused the death of 495 infants. Slightly under half of these infants were less than a week old. Diseases of the respiratory system, other than pneumonia of newborn, accounted for 295 infant deaths. Almost all of these were between 28 days and 1 year of age. Birth injuries were the reported cause in 277 infant deaths. All except 7 were under 1 week of age.

New Jersey's over-all infant mortality experience in 1960 was somewhat better than that of the United States as a whole. New Jersey's infant mortality rate was 24.5 compared with 25.7 for the United States. For infants under 28 days of age, however, New Jersey's rate of 18.5 per 1,000 births was only slightly lower than the rate of 18.6 for the United States.

While New Jersey's infant mortality rate as a whole was lower than that for the nation, there were several causes of death for which the New Jersey

rate exceeded the national rate. Among these were postnatal asphyxia and atelectasis with 5.0 deaths per thousand births for New Jersey as compared with 4.6 for the United States; immaturity unqualified, 4.6 as against 4.5; and congenital malformations, 3.7 versus 3.5.

An analysis of the trends over the past 10 years in New Jersey reveals that while infant deaths as a whole rose steadily at about the same rate as births, deaths due to immaturity and congenital malformations, except for some year to year fluctuations, have remained at a fairly even level. Deaths from postnatal asphyxia and atelectasis rose fairly steadily from 1951 to a peak in 1957 and have declined each year since then, with a 4.6 percent drop reported between 1959 and 1960.

Rising trends have become evident in the past several years in infant deaths due to accidents and to diseases of the digestive system. Deaths attributed to ill-defined diseases peculiar to early infancy have increased noticeably since 1957. This is an area in which further study might be of value. Only a pathologic examination could yield additional information, on the basis of which a specific diagnosis could be made more frequently.

Detailed information on infant deaths appears in the accompanying tables.

With about 75 percent of the deaths occurring in the first month of life, it is important to study the relation between immaturity and death by age intervals. The following table presents such data.

In examining the table, it is necessary 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 are included in the table immediately following. The columns labeled "Immaturity Indicated on Death Certificate" pertain to infant deaths coded 760-776 with immaturity indicated on the death certificate. All other infant deaths (including the balance of deaths coded to 760-776), were counted in the group labeled "Immaturity not Indicated on Death Certificate."

TABLE 8a. INFANT DEATHS BY AGE AND IMMATURETY: 1960

Age	Total		Immaturity Indicated on Death Certificate		Immaturity Not Indicated on Death Certificate	
	Number	Percent	Number	Percent	Number	Percent
< 1 day	1,355	41.7	948	62.2	407	23.6
< 1 week	2,210	68.0	1,446	94.9	764	44.3
< 28 days	2,458	75.7	1,515	99.4	943	54.7
< 1 year	3,248	100.0	1,525	100.0	1,724	100.0

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

Table 8b. INFANT DEATHS BY CAUSE AND AGE: 1960

Cause of Death	Total	Less than 1 Day		Age at Death		28 Days but < 1 Year
		1 Day	1 Week	< 1 Week	< 28 Days	
ALL CAUSES (001-2909)	3248	1355	865	248	990	
Infective and parasitic diseases (001-138)	59	1	1	1	56	
Malignant neoplasms (140-205)	19	1	1	2	16	
Benign neoplasms (210-229)	13	1	1	1	11	
Infective neoplasms (230-239)	5	1	1	1	3	
Alleged endocrine, metabolic and nutritional diseases (240-289)	1	1	1	1	1	
Diseases of the nervous system (410-524)	44	2	3	3	38	
Diseases of the respiratory system (530-587)	295	3	6	3	283	
Concussion of the digestive system (590-597)	107	15	3	1	88	
Certain diseases of circulatory system (600-657)	995	123	114	3	755	
Birth injuries (700, 701) and infections of newborn (760-769)	1119	1200	718	78	1309	
Postnatal asphyxia and atelectasis (762)	277	170	420	108	335	
Diarrhea of newborn (763)	657	501	281	7	8	
Other diseases of newborn (764)	120	14	54	7	51	
Ophthalmia neonatorum (765)	10	1	2	6	1	
Other diseases peculiar to early infancy (766-769)	55	17	11	11	16	
Hereditary diseases of the newborn (770)	980	637	292	32	10	
Nutritional malnutrition (771)	79	49	25	2	2	
Ill-defined diseases of early infancy (772)	9	11	10	1	1	
Immaturity with mention of any other subsidiary condition (773)	231	110	92	11	9	
Immaturity, unspecified (774)	37	33	33	1	1	
Strabismus, squint and ill-defined conditions (780-785)	600	425	101	19	55	
Accidents (E900-E929) and ill-defined conditions (786-795)	110	1	1	13	102	
Inhalation and ingestion of food or other objects causing obstruction or asphyxiation (E921, E922)	42	1	1	1	39	
Accidental suffocation in bed or cradle (E923)	38	1	1	5	32	
All other accidental causes (E930-E939, E923, E925-E929)	32	1	1	7	23	
All other causes	32	1	1	1	29	

TABLE 8c. DEATHS FROM CERTAIN DISEASES OF EARLY INFANCY
BY SPECIFIC CAUSE AND AGE GROUP: 1960

Cause of Death	Total	Age at Death		28 Days but < 1 Year
		Less Than 1 Day	1 Day but < 1 Week	
Total, Certain Diseases of Early Infancy (760-776)	2,099	1,206	718	35
Without immaturity indicated (760-773 with 0-4)	575	258	220	26
With immaturity indicated (760-773 with 5-9 and 774-776)	1,524	948	498	9
Birth injuries (760, 761)	277	176	94	7
Without immaturity indicated	128	76	51	1
With immaturity indicated	149	100	43	6
Postnatal asphyxia and atelectasis (762)	657	361	261	8
Without immaturity indicated	179	86	81	4
With immaturity indicated	478	275	180	4
Pneumonia of newborn (763)	120	14	48	8
Without immaturity indicated	74	9	22	4
With immaturity indicated	46	5	26	4
Diarrhea of newborn (764)	10	1	2	2
Without immaturity indicated	8	1	2	1
With immaturity indicated	2	1	1	1
Other infections of the newborn (766-769)	55	17	21	1
Without immaturity indicated	36	10	10	6
With immaturity indicated	19	7	11	5

TABLE 8c. DEATHS FROM CERTAIN DISEASES OF EARLY INFANCY
BY SPECIFIC CAUSE AND AGE GROUP: 1960

(Continued)

Cause of Death Showing International List (7th Revision) Code Numbers	Age at Death				
	Less Than 1 Day	1 Day But <1 Week	1 Week But <28 Days	28 Days But <1 Year	Total
Hemolytic disease of the newborn (770)	49	25	...	2	76
Without immaturity indicated	43	21	...	2	66
With immaturity indicated	6	4	...	...	10
Hemorrhagic disease of the newborn (771)	11	10	...	...	21
Without immaturity indicated	7	4	...	...	11
With immaturity indicated	4	6	...	...	10
Nutritional maladjustment (772)	...	...	...	...	9
Without immaturity indicated	...	...	...	...	8
With immaturity indicated	...	...	...	...	1
Ill-defined diseases of early infancy (773)	119	92	...	...	231
Without immaturity indicated	26	29	...	...	65
With immaturity indicated	93	63	...	...	166
Immaturity, unqualified (774-776)	458	165	...	...	643

Table 9. PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS: 1959-1960

Rank		ALL AGES				
1960	1959	1960		1959		
Cause and Code Numbers		Number of Deaths	Rate per 100,000 Estimated Population	Number of Deaths	Rate per 100,000 Estimated Population	
TOTAL DEATHS		59,330	972.9	58,039	971.5	
1	1	Diseases of the circulatory system (400-468)	28,451	466.6	27,363	458.0
2	2	Malignant neoplasms (140-205)	10,655	174.7	10,033	178.0
3	3	Vascular lesions affecting the central nervous system (330-334)	5,194	85.2	5,289	88.5
4	4	Influenza, pneumonia and bronchitis (480-502)	1,936	32.5	1,785	29.9
5	5	Diabetes mellitus (260)	1,237	20.3	1,181	19.8
6	6	Cirrhosis of liver (581)	920	15.1	893	15.0
7	7	Motor vehicle accidents (E810-E835)	754	12.4	753	12.6
8	8	Accidental falls (E900-E904)	676	11.1	664	11.1
9	10	Congenital malformations (750-759)	664	10.9	642	10.7
10	8	Postnatal asphyxia and atelectasis (702)	657	10.8	689	11.5
11	11	Immaturity (774, 776)*	643	10.5	603	10.1
12	12	Suicide (E970-E979)	488	8.0	529	8.9
All other causes		7,013	115.0	7,003	117.3	

* An additional 881 infant deaths were reported in 1960, 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 a primary cause of death.

1-4 YEARS

Rank		1-4 YEARS				
1960	1959	1960		1959		
Cause and Code Numbers		Number of Deaths	Rate per 100,000 Estimated Population	Number of Deaths	Rate per 100,000 Estimated Population	
TOTAL DEATHS		490	95.8	494	97.2	
1	1	Influenza, pneumonia and bronchitis (480-502)	88	10.0	92	18.1
2	2	Malignant neoplasms (140-205)	74	14.3	67	13.2
3	3	Congenital malformations (750-759)	54	10.4	52	10.2
4	4	Motor vehicle accidents (E810-E835)	27	5.2	27	5.3
5	(a)	Inflammatory diseases of central nervous system (340-343)	24	4.6	(a)	...
6	5	Accidents caused by fire and explosion of combustible materials (E916)	21	4.1	24	4.7
7	8	Gastritis, duodenitis, enteritis and colitis (543, 571, 572)	19	3.7	13	2.6
8	7	Accidental drowning and submersion (E929)	15	2.9	14	2.8
9	6	Accidental falls (E900-E904)	12	2.3	15	3.0
All other causes		167	32.2	190	37.4	

(a) Deaths from inflammatory diseases of central nervous system numbered 16 in 1959 and were included in "All other causes". The death rate was 3.1.

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Table 9. PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS: 1959-1960

Rank		Cause and Code Numbers	1960		1959	
1960	1959		Number of Deaths	Rate per 100,000 Estimated Population	Number of Deaths	Rate per 100,000 Estimated Population
5-14 YEARS						
TOTAL DEATHS						
			406	36.6	439	40.4
1	1	Malignant neoplasms (140-205)	85	7.7	93	8.6
2	2	Motor vehicle accidents (E810-E835)	53	4.8	57	5.2
3	4	Accidental drowning and submerston (E929) ..	44	4.0	28	2.6
4	5	Congenital malformations (750-759)	28	2.3	25	2.3
5	3	Influenza, pneumonia and bronchitis (480-502) ..	25	2.3	37	3.4
6	7	Diseases of the circulatory system (400-468) ..	13	1.2	14	1.3
7	9	Nephritis and nephrosis (590-594)	12	1.1	8	0.7
8	(a)	Inflammatory diseases of central nervous system (340-345)	11	1.0	(a)	
		All other causes	137	12.3	177	16.3

(a) Deaths from inflammatory diseases of central nervous system numbered 6 in 1959 and were included in "All other causes". The death rate was 0.6.

15-24 YEARS

Rank		Cause and Code Numbers	1960		1959	
1960	1959		Number of Deaths	Rate per 100,000 Estimated Population	Number of Deaths	Rate per 100,000 Estimated Population
TOTAL DEATHS						
			585	81.4	566	80.3
1	1	Motor vehicle accidents (E810-E835)	175	24.3	141	20.0
2	4	Malignant neoplasms (140-205)	61	8.5	68	9.6
3	3	Accidental drowning and submerston (E929) ..	36	5.0	27	3.8
4	5	Diseases of the circulatory system (400-468) ..	34	4.7	40	5.7
5	5	Suicide (E970-E979)	27	3.8	26	3.7
6	10	Congenital malformations (750-759)	24	3.3	15	2.1
7	6	Homicide (E280-E283)	20	2.8	25	3.5
8	7	Influenza, pneumonia and bronchitis (480-502) ..	20	2.8	22	3.1
9	8	Vascular lesions affecting the central nervous system (330-334)	15	2.1	19	2.7
10	9	Nephritis and nephrosis (590-594)	13	1.8	16	2.3
11	11	Pregnancy, childbirth and the puerperium (640-659)	12	1.7	12	1.7
		All other causes	148	20.6	155	22.0

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Table 9. PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS: 1959-1960

Rank		Cause and Code Numbers	1960		1959	
1960	1959		Number of Deaths	Rate per 100,000 Estimated Population	Number of Deaths	Rate per 100,000 Estimated Population
25-44 YEARS						
TOTAL DEATHS						
			3,407	198.7	3,329	196.3
1	1	Diseases of the circulatory system (400-468) ..	1,008	57.9	941	55.5
2	2	Malignant neoplasms (140-205)	700	40.9	724	42.7
3	3	Motor vehicle accidents (E810-E835)	174	10.0	193	11.4
4	6	Vascular lesions affecting the central nervous system (330-334)	149	8.6	131	7.7
5	5	Cirrhosis of liver (581)	148	8.5	135	8.0
6	4	Suicide (E970-E979)	126	7.3	142	8.4
7	7	Influenza, pneumonia and bronchitis (480-502) ..	101	5.8	97	5.7
8	8	Tuberculosis (001-019)	72	4.2	72	4.2
9	10	Homicide (E280-E283)	72	4.2	60	3.5
10	9	Nephritis and nephrosis (590-594)	69	4.0	72	4.2
11	11	Diabetes mellitus (260)	55	3.2	46	2.7
12	(a)	Accidental falls (E900-E904)	49	2.8	(a)	
		All other causes	680	39.3	716	42.2

(a) Deaths from accidental falls numbered 38 in 1959 and were included in "All other causes". The death rate was 2.2.

45-64 YEARS

Rank		Cause and Code Numbers	1960		1959	
1960	1959		Number of Deaths	Rate per 100,000 Estimated Population	Number of Deaths	Rate per 100,000 Estimated Population
TOTAL DEATHS						
			16,053	1207.0	15,971	1223.7
1	1	Diseases of the circulatory system (400-468) ..	7,411	559.5	7,239	559.4
2	2	Malignant neoplasms (140-205)	4,167	313.3	4,114	315.7
3	3	Vascular lesions affecting the central nervous system (330-334)	997	75.0	1,042	80.0
4	4	Cirrhosis of liver (581)	472	35.5	475	36.5
5	6	Influenza, pneumonia and bronchitis (480-502) ..	359	27.0	320	24.6
6	5	Diabetes mellitus (260)	344	25.9	371	28.5
7	7	Suicide (E970-E979)	230	17.3	222	17.0
8	8	Motor vehicle accidents (E810-E835)	177	13.3	184	14.1
9	10	Ulcer of stomach and duodenum (540, 541) ..	145	10.9	150	11.5
10	9	Tuberculosis (001-019)	142	10.7	133	10.0
11	12	Nephritis and nephrosis (590-594)	128	9.6	116	8.9
12	11	Accidental falls (E900-E904)	122	9.2	128	9.8
		All other causes	1,329	99.9	1,377	105.7

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Table 9. PRINCIPAL CAUSES OF DEATH BY SPECIFIED AGE GROUPS: 1959-1960

65 YEARS AND OVER

Rank		Cause and Code Numbers	1960		1959	
1960	1959		Number of Deaths	Rate per 100,000 Estimated Population	Number of Deaths	Rate per 100,000 Estimated Population
TOTAL DEATHS						
		Diseases of the circulatory system (400-468)	35,135	6262.9	34,039	6188.9
		Malignant neoplasms (140-205)	19,946	3555.4	19,072	3467.6
		Vascular lesions affecting the central nervous system (330-334)	5,546	983.6	5,557	1010.4
		Influenza, pneumonia and Bronchitis (490-502)	4,013	715.3	4,080	741.8
		Diabetes mellitus (280)	1,114	193.6	972	176.7
		Accidental falls (E900-E904)	830	148.0	752	136.7
		Cirrhosis of Liver (581)	469	83.6	462	84.0
		Nephritis and nephrosis (590-594)	291	51.9	276	50.2
		Ulcer of stomach and duodenum (540, 541)	209	37.3	176	32.0
		Intestinal obstruction and hernia (560, 561, 570)	199	35.5	196	35.6
		Motor vehicle accidents (E810-E835)	188	33.5	198	36.0
		Tuberculosis (001-019)	142	25.3	150	27.3
		All other causes	128	22.8	164	29.8
			2,060	367.2	1,894	360.7

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Table 10a. DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM BY CAUSE GROUP BY AGE, SEX AND COLOR: 1949-1960

Age in Years ALL AGES Under 1 1-4 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75 and over	Total (400-468)		Rheumatic Fever (400-402)		Chronic Rheumatic Heart (410-416)		Arteriosclerotic Heart (420-422)		Other Diseases of Heart (430-434)		Hypertension with Mention (440-443)		Hypertension without Mention (444-447)		Diseases of Arteries (450-456)		Diseases of Veins (460-466)		Other Diseases of Circulatory System (467, 468)	
	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959
Total	28,451	27,963	28	30	765	775	22,562	21,567	530	555	2,340	2,418	414	414	1,442	1,290	306	200	10	17
Male	16,030	15,068	15	15	320	300	13,917	12,690	310	312	852	940	218	186	708	600	151	140	7	5
Female	12,410	12,105	13	15	445	475	9,205	9,007	220	243	1,588	1,478	249	228	734	640	155	159	3	12
White	26,967	25,948	26	28	716	728	21,985	20,381	474	512	2,097	2,154	396	361	1,372	1,220	270	270	9	11
Nonwhite	1,784	1,715	6	6	49	47	1,207	1,206	56	43	243	254	88	53	70	61	37	29	1	6

Note: Numbers following descriptive titles refer to International List (7th Revision) Code.

Table 10b. DEATH RATES FOR DISEASES OF THE CIRCULATORY SYSTEM BY CAUSE GROUP BY AGE, SEX AND COLOR: 1959-1960

Age in Years (ICHS) Under 1 1-4 5-9 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75 and over	Year																			
	Total (400-465)		Rheumatic (400-402)		Chronic Rheumatic Heart (410-416)		Arteriosclerotic Heart (420-422)		Other Diseases of Heart (430-434)		Hypertension Without Mention of Heart (440-443)		Hypertension With Mention of Heart (444-447)		Atherosclerosis of Arteries (450-456)		Diseases of Heart (460-466)		Other Diseases of Circulatory System (467, 468)	
	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959	1960	1959
Male	468.6	498.0	0.6	0.5	12.5	13.0	300.8	361.0	8.7	9.8	38.4	40.5	7.7	6.9	23.6	21.0	5.0	5.0	5.0	0.2
Female	390.2	460.2	0.7	0.5	10.7	12.3	446.7	429.1	10.4	10.7	31.9	32.1	7.3	6.4	23.7	22.0	5.1	4.8	0.2	0.2
White	470.0	470.3	0.6	0.4	12.9	13.3	362.3	373.3	8.5	8.4	37.7	39.5	7.2	6.6	24.0	21.0	5.0	5.0	5.0	0.2
Nonwhite	390.0	529.8	0.9	1.2	8.9	9.0	588.0	281.9	10.5	8.3	45.8	50.8	12.8	10.2	13.2	11.7	5.1	5.0	0.2	1.2

Note: Rates are per 100,000 estimated population and are age, sex and color specific.

TABLE 10c. DEATHS FROM HEART DISEASES BY COUNTY AND MAJOR CITIES NUMBERS AND RATES: 1959-1960

Area	1960		1959	
	Numbers ^a	Rate ^b	Numbers ^a	Rate ^b
State Total	26,187	429.4	25,315	423.8
Atlantic County	1,046	645.7	957	601.9
Atlantic City	473	788.3	473	788.3
Bergen County	2,673	340.1	2,630	345.1
Burlington County	680	299.6	646	296.3
Camden County	1,715	435.3	1,759	456.9
Camden City	610	521.4	660	559.3
Cape May County	408	832.7	363	756.3
Cumberland County	497	464.5	457	435.2
Essex County	4,596	497.4	4,575	496.2
Bloomfield	251	482.7	240	461.5
East Orange	461	598.7	449	583.1
Irvington	338	572.9	318	539.0
Newark	2,174	536.8	2,239	548.8
Gloucester County	592	435.3	540	409.1
Hudson County	3,288	539.0	3,334	543.0
Bayonne	394	532.4	416	562.2
Hoboken	299	622.9	275	561.2
Jersey City	1,496	542.0	1,435	516.2
Union City	287	551.9	307	590.4
Hunterdon County	246	455.6	253	477.4
Mercer County	1,135	423.5	1,090	412.9
Hamilton Twp.	222	336.4	191	303.2
Trenton	611	536.0	557	484.3
Middlesex County	1,359	310.3	1,201	285.3
Woodbridge Twp.	191	238.8	177	232.9
Monmouth County	1,487	441.2	1,410	432.5
Morris County	897	339.8	842	331.5
Ocean County	532	483.6	501	481.7
Passaic County	1,755	430.1	1,631	406.7
Clifton	291	350.6	284	350.6
Passaic City	258	477.8	276	511.1
Paterson	782	543.1	717	501.4
Salem County	236	400.0	224	386.2
Somerset County	449	309.7	459	325.5
Sussex County	207	414.0	186	387.5
Union County	1,994	393.3	1,880	379.0
Elizabeth	538	498.1	530	490.7
Union Twp.	188	361.5	179	358.0
Warren County	376	596.8	362	574.6
State Institutions	17	c	12	c
Military Posts	2	c	3	c

^a Includes International List Causes (410-443).
^b Rate per 100,000 estimated population.
^c Rates not computed due to lack of population base.

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Table 11a. DEATHS FROM NEOPLASMS BY CAUSE GROUP BY AGE, SEX AND COLOR: 1949-1960

Age, Sex and Color	All Neoplasms (140-205)		Malignant										Lymph and Blood (200-208)		Total (210-239)	
	Total (140-205)		Basal (140-148)		Digestive and Peritoneum (150-159)		Respiratory (160-165)		Breast and Genito-urinary (170-181)		Other and Unspecified (190-199)		Lymph and Blood (200-208)			
	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960		
Age in Years ALL AGES	10,981	10,798	10,635	214	3,930	3,090	1,750	1,731	2,860	2,863	904	926	878	896	176	163
Under 1	70	68	73	12	1	1	1	1	2	4	4	2	6	6	2	1
1-4	10	10	12	1	1	1	1	1	1	1	1	1	1	1	1	1
5-9	57	60	55	17	4	2	1	1	6	6	18	16	23	33	43	2
10-14	33	30	30	32	2	2	1	1	1	2	18	17	20	33	2	2
15-19	33	30	30	32	2	2	1	1	1	2	18	17	20	33	2	2
20-24	62	60	58	31	2	2	1	1	1	2	18	17	20	33	2	2
25-29	82	80	78	31	2	2	1	1	1	2	18	17	20	33	2	2
30-34	120	118	116	31	2	2	1	1	1	2	18	17	20	33	2	2
35-39	139	138	136	31	2	2	1	1	1	2	18	17	20	33	2	2
40-44	209	208	206	31	2	2	1	1	1	2	18	17	20	33	2	2
45-49	320	319	318	31	2	2	1	1	1	2	18	17	20	33	2	2
50-54	453	452	451	31	2	2	1	1	1	2	18	17	20	33	2	2
55-59	633	632	631	31	2	2	1	1	1	2	18	17	20	33	2	2
60-64	889	888	887	31	2	2	1	1	1	2	18	17	20	33	2	2
65-69	1,164	1,163	1,162	31	2	2	1	1	1	2	18	17	20	33	2	2
70-74	1,624	1,623	1,622	31	2	2	1	1	1	2	18	17	20	33	2	2
75 and over	1,624	1,623	1,622	31	2	2	1	1	1	2	18	17	20	33	2	2
75 and over	2,359	2,348	2,333	61	55	1,000	210	225	601	684	184	157	127	111	20	18
Sex	5,798	5,854	5,704	171	106	2,157	1,511	1,496	850	870	491	820	612	511	82	72
Male	5,015	4,934	4,921	43	53	1,832	1,807	2,005	1,977	470	406	360	376	341	94	81
Female	783	920	783	128	53	325	239	231	173	481	435	450	446	470	88	91
Color	10,983	10,994	9,950	9,952	204	3,723	3,730	1,012	2,659	902	883	826	835	826	153	142
White	748	694	725	683	10	12	206	131	204	198	62	43	62	51	23	11
Nonwhite																

Note: Numbers following descriptive titles refer to International List (7th Revision) Codes.

Table 11b. DEATH RATES FOR MALIGNANT NEOPLASMS BY CAUSE GROUP BY AGE, SEX AND COLOR: 1949-1960

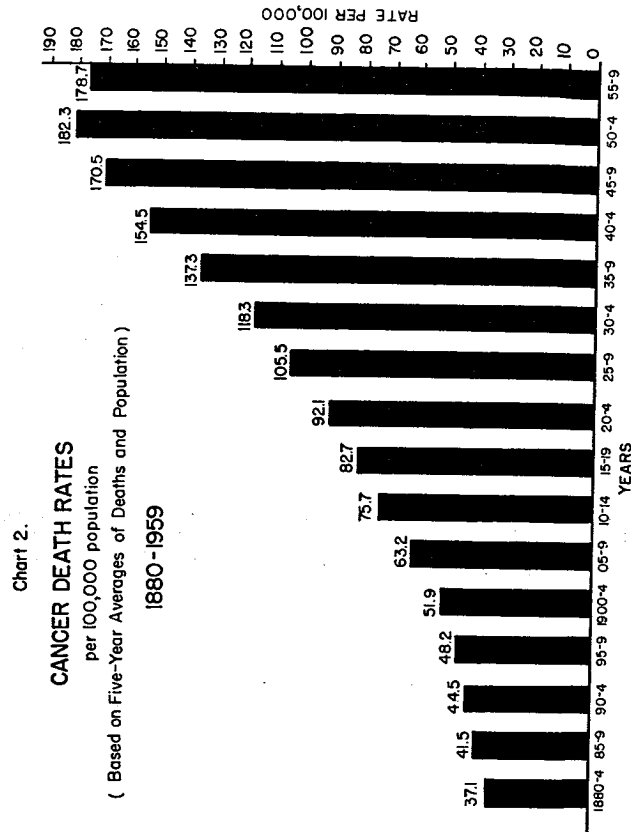
Age, Sex and Color	Total (140-205)		Basal (140-148)		Digestive and Peritoneum (150-159)		Respiratory (160-165)		Breast and Genito-urinary (170-181)		Other and Unspecified (190-199)		Lymph and Blood (200-208)	
	Total (140-205)		Basal (140-148)		Digestive and Peritoneum (150-159)		Respiratory (160-165)		Breast and Genito-urinary (170-181)		Other and Unspecified (190-199)		Lymph and Blood (200-208)	
	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960	1950	1960
Age in Years ALL AGES	174.7	178.0	3.5	4.2	65.4	69.8	25.7	29.0	46.0	47.8	15.8	15.5	14.4	14.8
Under 1	10.2	9.6	.....	0.2	0.8	0.8	0.2	0.2	2.5	3.2	3.1	1.9	4.7	4.0
1-4	14.3	13.2	.....	0.2	0.8	0.4	0.2	0.2	0.9	1.0	2.4	2.4	0.4	8.5
5-9	5.7	6.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
10-14	8.3	9.5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
15-19	8.7	10.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20-24	14.5	12.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25-29	14.5	12.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
30-34	43.9	42.1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35-39	65.9	63.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
40-44	79.8	77.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
45-49	151.8	151.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
50-54	217.2	236.0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
55-59	306.4	315.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
60-64	581.3	576.9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
65-69	746.0	784.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
70-74	896.4	850.6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
75 and over	1,181.1	1,346.8	31.5	31.8	598.9	634.7	118.6	130.1	390.4	395.4	101.0	90.8	64.2	61.2
Sex	160.0	197.5	5.7	6.7	72.9	74.0	50.6	51.1	28.7	29.9	16.5	17.8	17.1	17.5
Male	152.2	159.5	1.4	1.7	58.9	60.3	7.7	7.1	61.5	61.0	15.1	15.3	11.8	12.3
Female	178.4	182.5	3.7	4.3	60.0	68.4	20.7	22.0	47.7	48.7	16.2	16.2	14.8	15.3
Color	136.5	131.3	1.0	2.3	50.1	50.0	20.1	22.9	38.4	38.1	11.7	8.3	14.8	9.8
White														
Nonwhite														

Note: Rates are per 100,000 estimated population and are age, sex and color specific.

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TABLE 11c. DEATHS FROM MALIGNANT NEOPLASMS BY COUNTY AND MAJOR CITIES
NUMBERS AND RATES: 1959-1960

Area	1960		1959	
	Number	Rate ^a	Number	Rate ^a
State Total	10,655	174.7	10,635	178.0
Atlantic County	342	211.1	325	204.4
Atlantic City	166	276.7	163	271.7
Bergen County	1,178	149.9	1,302	170.9
Burlington County	254	111.9	251	115.1
Camden County	640	162.4	614	159.5
Camden City	230	196.6	222	188.1
Cape May County	117	238.8	128	266.7
Cumberland County	159	148.6	151	143.8
Essex County	1,879	203.4	1,809	196.2
Bloomfield	104	200.0	87	167.3
East Orange	201	261.0	163	211.7
Irvington	164	278.0	130	220.3
Newark	790	195.1	848	207.8
Gloucester County	211	155.1	199	150.8
Hudson County	1,327	217.5	1,347	219.4
Bayonne	147	198.6	171	231.1
Hoboken	84	175.0	112	228.6
Jersey City	618	223.9	612	220.1
Union City	128	246.2	137	263.5
Hunterdon County	97	179.6	105	198.1
Mercer County	427	159.3	460	174.2
Hamilton Twp.	78	118.2	92	146.0
Trenton	238	208.8	255	221.7
Middlesex County	659	150.5	595	141.3
Woodbridge Twp.	105	131.3	91	119.7
Monmouth County	594	176.3	580	177.9
Morris County	396	150.0	408	160.6
Ocean County	221	200.9	200	192.3
Passaic County	789	193.4	733	182.8
Clifton	143	172.3	134	165.4
Passaic City	127	235.2	127	235.2
Paterson	327	227.1	284	198.6
Salem County	87	147.5	99	170.7
Somerset County	222	153.1	223	158.2
Sussex County	65	130.0	87	181.3
Union County	873	172.2	864	174.2
Elizabeth	235	217.6	248	229.6
Union Twp.	85	163.5	86	172.0
Warren County	108	171.4	147	233.3
State Institutions	5	b	4	b
Military Posts	5	b	4	b

^a Rate per 100,000 estimated population.^b Rates not computed due to lack of population base.

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TABLE 12a. DEATHS FROM DIABETES BY COUNTY AND MAJOR CITIES
NUMBERS AND RATES: 1959-1960

Area	1960		1959	
	Number	Rate ^a	Number	Rate ^a
State Total	1,238	20.3	1,181	19.8
Atlantic County	42	25.9	46	28.9
Atlantic City	30	50.0	26	43.3
Bergen County	124	15.8	105	13.8
Burlington County	33	14.5	22	10.1
Camden County	67	17.0	67	17.4
Camden City	25	21.4	31	26.3
Cape May County	20	40.8	28	58.3
Cumberland County	15	14.0	28	26.7
Essex County	229	24.8	234	25.4
Bloomfield	16	30.8	8	15.4
East Orange	14	18.2	22	28.6
Irvington	13	22.0	23	39.0
Newark	127	31.4	117	28.7
Gloucester County	25	18.4	19	14.4
Hudson County	185	30.3	149	24.3
Bayonne	21	28.4	25	33.8
Hoboken	18	37.5	11	22.4
Jersey City	78	28.3	68	24.5
Union City	19	36.5	11	21.2
Hunterdon County	12	22.2	11	20.8
Mercer County	54	20.1	63	23.9
Hamilton Twp.	14	21.2	13	20.6
Trenton	29	25.4	41	35.7
Middlesex County	72	16.4	74	17.6
Woodbridge Twp.	11	13.8	14	18.4
Monmouth County	64	19.0	53	16.3
Morris County	30	11.4	32	12.6
Ocean County	35	31.8	21	20.2
Passaic County	108	26.5	100	24.9
Clifton	17	20.5	22	27.2
Passaic City	24	44.4	16	29.6
Paterson	49	34.0	37	25.9
Salem County	14	23.7	9	15.5
Somerset County	18	12.4	18	12.8
Sussex County	7	14.0	5	10.4
Union County	73	14.4	84	16.9
Elizabeth	25	23.1	18	16.7
Union Twp.	5	9.6	12	24.0
Warren County	11	17.5	13	20.6

^a Rates expressed per 100,000 estimated population.TABLE 12b. DEATHS FROM DIABETES BY AGE AND SEX
NUMBERS AND RATES: 1959-1960

Age and Sex	1960		1959	
	Number	Rate	Number	Rate
Age in years				
ALL AGES	1,238	20.3	1,181	19.8
Under 1			1	0.8
1-4	1	0.2	1	0.2
5-9			1	0.2
10-14			3	0.6
15-19	3	0.8	4	1.0
20-24	5	1.5	2	0.6
25-29	10	2.7	8	2.2
30-34	4	0.9	13	3.0
35-39	21	4.4	9	1.9
40-44	20	4.4	16	3.6
45-49	28	6.8	37	9.3
50-54	72	20.3	63	18.2
55-59	93	30.5	106	35.5
60-64	151	57.6	165	64.2
65-69	218	99.5	202	94.0
70-74	253	153.3	218	134.6
75 and over	359	202.8	332	191.9
Sex				
Male	457	15.3	442	15.1
Female	781	25.1	739	24.3

Note: Rates are per 100,000 estimated population and are age and sex specific.

Table 13a. MOTOR VEHICLE DEATHS IN NEW JERSEY BY CAUSE OF DEATH BY AGE: 1960

Primary Cause	List No.	All Ages	Age Groups						
			Under 1 Year	1-4	5-14	15-24	25-44	45-64	65 and Over
TOTAL	ES10-ES35, ES60	708	6	32	53	170	102	175	140
Collision with	ES10	8			1	1	3	2	2
Railway train	ES11								
Street car	ES12								
Pedestrian	ES13, ES1, ES31	260	2	22	34	13	31	64	90
Automobile	ES14, ES32	19		1	11	2	1	1	
Motorcycle	ES15, ES33	268	3	7	4	68	83	70	32
Other motor vehicle	ES16, ES34	33							
Horse or horse-drawn vehicle	ES17, ES35	35							
Truck	ES18, ES36	181							
Other and unspecified	ES19, ES37, ES38, ES39	9							

Table 13b. Nontransport Accidental Deaths in New Jersey by Cause of Death by Place of Accident: 1960

Primary Cause	List No.	Total	Home	Farm	Mine and Quarry	Industrial	Place and Premises	Place for Reception And Sport	Street and Highway	Public Building	Resident Institution	Other Specified Place	Place Not Specified
Poisoning by solid and liquid substances	ES71-ES92	33	24			2							5
Poisoning by gases and vapors	ES70-ES88	36	31			2							5
Falls	ES90-ES94	681	453	2		19	1	53	21	80	10	33	1
Pire and explosion of combustible material	ES74	137	137			4			15	1			
Mechanical suffocation in bed or cradle	ES74	37	37										
Drowning	ES75	168	16	6		5	0	62	1	1	120		1
Other causes	ES76-ES95	275	136	7	8	41	2	16	2	20	24		25

TABLE 13c. RESIDENT DEATHS DUE TO ACCIDENTS BY CAUSE OF ACCIDENT FOR SELECTED AGE GROUPS
NUMBER AND RANK: 1960

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)	112	All accidental deaths (E800-E962)	141	All accidental deaths (E800-E962)	265
	Motor vehicle accidents (E810-E835)	27	Motor vehicle accidents (E810-E835)	53	Motor vehicle accidents (E810-E835)	175
2	Accidents cause by fire and explosion of combustible material and other accidental burns and scalds (E916, E917)	25*	Accidents caused by fire and explosion of combustible material and other accidental burns and scalds (E916, E917)	44	Accidental drowning and submersion (E929)	36
	Accidental drowning and submersion (E929)	15	Accidents caused by fire and explosion of combustible material and other accidental burns and scalds (E916, E917)	8*	Aircraft accidents (E860-E866) ..	9
3	Accidental falls (E900-E904) ..	12	Accidental falls (E900-E904) ..	8	Accidental poisoning by solid and liquid substances (E870-E895) ..	7
	Accidental poisoning by solid and liquid substances (E870-E895) ..	9	Accidents caused by firearms (E919)	6	Accidents caused by fire and explosion of combustible material and other accidental burns and scalds (E916, E917)	6*
4	Inhalation and ingestion of food or other objects causing obstruction or suffocation (E921, E922) ..	8	Accidental poisoning by solid and liquid substances (E870-E895) ..	3	Water transport accidents (E850-E858)	6
	All other accidents	16	All other accidents	19	All other accidents	26

* Deaths due to "Accidents caused by hot substance, corrosive liquid and steam" (International List Code E917) numbered 4 in age group 1-4, 1 in 5-14 and none in 15-24.

TABLE 14a. BIRTHS BY LEGITIMACY FOR COUNTIES AND MAJOR CITIES: 1960

Area	Total Births	Total Legitimate	Total Illegitimate
State Total	132,594	127,793	4,801
Atlantic County	3,050	2,794	256
Atlantic City	960	750	210
Bergen County	15,298	15,156	142
Burlington County	5,197	5,088	109
Camden County	9,363	9,046	317
Camden City	2,999	2,769	230
Cape May County	919	873	46
Cumberland County	2,491	2,308	183
Essex County	19,860	18,441	1,419
Bloomfield	1,077	1,067	10
East Orange	1,634	1,572	62
Irvington	1,054	1,039	15
Newark	10,334	9,092	1,242
Gloucester County	3,315	3,218	97
Hudson County	13,109	12,536	573
Bayonne	1,415	1,399	16
Hoboken	1,053	1,027	26
Jersey City	6,521	6,038	483
Union City	1,091	1,072	19
Hunterdon County	1,074	1,057	17
Mercer County	5,610	5,273	337
Hamilton Twp.	1,477	1,380	97
Trenton	2,509	2,302	207
Middlesex County	10,343	10,200	143
Woodbridge Twp.	1,780	1,762	18
Monmouth County	8,002	7,798	204
Morris County	5,830	5,751	79
Ocean County	2,668	2,601	67
Passaic County	8,680	8,332	348
Clifton	1,578	1,563	15
Passaic City	938	890	48
Paterson	3,453	3,191	262
Salem County	1,327	1,215	112
Somerset County	3,375	3,335	40
Sussex County	1,128	1,106	22
Union County	10,189	9,942	247
Elizabeth	2,477	2,360	117
Union Twp.	819	810	9
Warren County	1,234	1,203	31
State Institutions	31	23	8
Military Posts	501	497	4

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TABLE 14b. BIRTHS BY LEGITIMACY BY AGE OF MOTHER: 1960

Age of Mother	Live Births					
	Total		Legitimate		Illegitimate	
	Number	Percent	Number	Percent	Number	Percent
All Ages	132,594	100.0	127,793	100.0	4,801	100.0
10-14	140	0.1	33	<0.1	107	2.2
15-19	11,496	8.7	9,600	7.5	1,896	39.5
20-24	39,704	29.9	38,093	29.8	1,611	33.6
25-29	38,265	28.9	37,604	29.4	661	13.8
30-34	26,400	19.9	26,082	20.4	318	6.6
35-39	13,470	10.2	13,308	10.4	162	3.4
40-44	2,985	2.2	2,944	2.3	41	0.8
45-49	130	0.1	126	0.1	4	0.1
Unknown	4	<0.1	3	<0.1	1	<0.1

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TABLE 15. RESIDENT BIRTHS BY WEIGHT GROUP BY AGE GROUP OF MOTHER: 1960

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.	
		over 2500 Grams	2001-2500 Grams	1501-2000 Grams	1001-1500 Grams	Under 1001 Grams	757 Grams	483				
All Ages	132,594	121,751	6,852	1,917	834	757	1	483				
10-14	140	108	18	8	2	3	1	1				
15-19	11,496	10,134	798	302	110	97	55	55				
20-24	39,704	36,503	2,032	562	239	218	150	150				
25-29	38,265	35,443	1,849	459	192	201	121	121				
30-34	26,400	24,369	1,308	324	170	145	84	84				
35-39	13,470	12,357	669	213	101	76	54	54				
40-44	2,985	2,715	174	44	18	17	17	17				
45-49	130	118	4	5	2	0	1	1				
Unknown	4	4	0	0	0	0	0	0				

TABLE 16. INFANT AND MATERNAL DEATHS BY COUNTIES AND MAJOR CITIES
NUMBERS AND RATES: 1960

Area	Births	Infant Deaths		Maternal Deaths	
		Number	Rate	Number	Rate
State Total	132,594	3,248	24.5	44	0.3
Atlantic County	3,050	77	25.2	4	1.3
Atlantic City	960	38	39.6	3	3.1
Bergen County	15,298	306	20.0	2	0.1
Burlington County	5,197	124	23.9	2	0.4
Camden County	9,363	232	24.8	4	0.4
Camden City	2,999	93	31.0	2	0.7
Cape May County	919	22	23.9	..	..
Cumberland County	2,491	84	33.7	1	0.4
Essex County	19,860	600	30.2	13	0.7
Bloomfield	1,077	16	14.9	1	0.9
East Orange	1,634	38	23.3	1	0.6
Irvington	1,054	21	19.9	1	0.9
Newark	10,334	396	38.3	8	0.8
Gloucester County	3,315	82	24.7	..	..
Hudson County	13,109	342	26.1	3	0.2
Bayonne	1,415	25	17.7	1	0.7
Hoboken	1,053	20	19.0	1	0.9
Jersey City	6,521	202	31.0	1	0.2
Union City	1,091	34	31.2	..	..
Hunterdon County	1,074	37	34.5	..	..
Mercer County	5,610	133	23.7	1	0.2
Hamilton Twp.	1,477	29	19.6	..	..
Trenton	2,509	67	26.7	1	0.4
Middlesex County	10,343	217	21.0	3	0.3
Woodbridge Twp.	1,780	41	23.0	1	0.6
Monmouth County	8,002	183	22.9	3	0.4
Morris County	5,830	110	18.9	2	0.3
Ocean County	2,668	77	28.9	..	..
Passaic County	8,680	193	22.2	1	0.1
Clifton	1,578	27	17.1	..	..
Passaic City	938	25	26.7	1	1.1
Paterson	3,453	87	25.2	..	..
Salem County	1,327	33	24.9	1	0.8
Somerset County	3,375	73	21.6	..	..
Sussex County	1,128	30	26.6	1	0.9
Union County	10,189	251	24.6	2	0.2
Elizabeth	2,477	81	32.7	2	0.8
Union Twp.	819	12	14.7	..	..
Warren County	1,234	26	21.1	1	0.8
State Institutions	31	..	..	..	..
Military Posts	501	16	31.9	..	..

Note: Rates are per 1,000 live births.

TABLE 17. MATERNAL DEATHS BY SPECIFIC CAUSE: 1960

TOTAL MATERNAL DEATHS	44
Total complications of pregnancy (640-649)	7
Toxemias of pregnancy (642)	3
Ectopic pregnancy (645)	1
Other complications arising from pregnancy (648)	3
Total abortions (650-652)	7
Abortion without mention of sepsis or toxemia (650)	4
Abortion with sepsis (651)	3
Total deliveries without mention of complications (660)	1
Delivery without mention of complication (660)	1
Total deliveries with specified complications (670-678)	17
Delivery complicated by placenta previa or antepartum hemorrhage (670)	3
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)	2
Delivery with other complications of childbirth (678)	3
Total complications of the puerperium (680-689)	12
Sepsis of childbirth and the puerperium (681)	5
Puerperal phlebitis and thrombosis (682)	2
Puerperal pulmonary embolism (684)	1
Cerebral hemorrhage in the puerperium (687)	1
Other and unspecified complications of the puerperium (688)	3

Note: Cause numbers are those of International List, 7th Revision.

Table 30. DEATHS BY CAUSE BY SEX AND AGE GROUPS, NEW JERSEY, 1900--Continued
(According to the 7th Revision of the International Classification of Diseases)

Internat'l List No.	CAUSE OF DEATH	Total	Age Groups by Years														
			<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown								
										Male	Female						
402.	Primary atypical pneumoniæ	191															
403.	Pneumonia, other and unqualified	222															
501.	Acute bronchitis	41	49	10													
502.	Chronic bronchitis	26	2	5	11	30	86										
503.	Whooping cough	19	2	8	2	1	10										
510.	Hypertrophy of tonsils and adenoids	89	8	3	3	8	14										
511.	Peritonsillar abscess (quinsy)	2															
512.	Chronic pharyngitis and nasopharyngitis	2															
513.	Chronic tonsillitis	2															
514.	Dysphagia	1															
515.	Nasal polyp	1															
516.	Chronic laryngitis	1															
517.	Chronic inflammation of larynx	1															
518.	Pharyngitis	7															
519.	Pneumonia	10	6	5	2	1	1										
520.	Spontaneous pneumothorax	7															
521.	Abscess of lung	11															
522.	Pulmonary congestion and hypostasis	7															
523.	Other pneumoniae due to silica and silicates (occupational)	28															
524.	Other pneumoniae due to silica and silicates (occupational)	34															
525.	Other pneumoniae due to silica and silicates (occupational)	38															
526.	Other chronic interstitial pneumoniæ	5															
527.	Emphysema	120															
528.	Other diseases of lung and pleural cavity	77	0	2	1	2	4	7	4	7	4	7	4	7	4	7	4
530.	Dental caries	313															
531.	Abscesses of supporting structures of teeth	205															
532.	Other inflammatory diseases of supporting structures of teeth	8															
534.	Toothache, of occlusion, eruption and tooth development	10															
535.	Other diseases of teeth and supporting structures	11															
536.	Stomatitis	8															
537.	Other diseases of salivary glands	1															
538.	Diseases of salivary glands	9															
539.	Diseases of buccal cavity	1															
540.	Ulcer of stomach	1															
541.	Diseases of esophagus	1															
542.	Ulcer of duodenum	183															
543.	Gastritis	129															
544.	Gastrointestinal ulcer	106															
545.	Disorders of function of stomach	10															
546.	Other diseases of stomach	8															
547.	Acute appendicitis	11															
548.	Other diseases of appendix and duodenum	7															
550.	Other acute unqualified	10															
552.	Other acute unqualified	8															
553.	Other diseases of appendix	1															
554.	Other diseases of appendix	1															
555.	Other diseases of appendix	1															
556.	Other diseases of appendix	1															
557.	Other diseases of appendix	1															
558.	Other diseases of appendix	1															
559.	Other diseases of appendix	1															
560.	Hernia of abdominal cavity without mention of obstruction	37	15	2	1	1	1	1	1	1	1	1	1	1	1	1	1

650.	Hernia of abdominal cavity with obstruction	77	44	1	1	1	1	1	1	1	1	1	1	1	1	1	1
670.	Intestinal obstruction, without mention of hernia	33	8	1	1	1	1	1	1	1	1	1	1	1	1	1	1
671.	Gastro-enteritis and colitis, except acute, age 4 weeks and over	184	95	10	15	13	9	12	12	12	12	12	12	12	12	12	12
672.	Gastro-enteritis and colitis, acute, age 4 weeks and over	117	40	10	15	13	9	12	12	12	12	12	12	12	12	12	12
673.	Functional disorders of intestines	133	60	1	3	6	4	2	1	1	1	1	1	1	1	1	1
674.	Abcess, abscess and fistula	1															
675.	Abcess, abscess and fistula	1															
676.	Abcess, abscess and fistula	1															
677.	Peritonitis	8	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1
678.	Peritoneal adhesions	18	12	6	6	6	6	6	6	6	6	6	6	6	6	6	6
679.	Other diseases of peritoneum and peritonæum	62	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
681.	Cholecystitis	28	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1
682.	Other diseases of gallbladder and biliary ducts	920	821	1	6	2	1	14	4	20	2						
683.	Suppurative hepatitis and liver abscess	7	4	3	1	1	1	3	7	13	7						
684.	Cholelithiasis	12	14	18	1	1	1	1	1	1	1	1	1	1	1	1	1
685.	Other diseases of gallbladder and biliary ducts	42	12	8	8	8	8	8	8	8	8	8	8	8	8	8	8
587.	Diseases of pancreas	26	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
588.	Acute pancreatitis	104	60	38	5	2	1	1	1	1	1	1	1	1	1	1	1
589.	Nephritis with edema, including nephrosis	29	14	16	1	1	1	1	1	1	1	1	1	1	1	1	1
593.	Nephritis limited as acute or chronic	314	157	157	1	1	1	1	1	1	1	1	1	1	1	1	1
594.	Other renal scleroses	63	36	27	1	1	1	1	1	1	1	1	1	1	1	1	1
600.	Infections of kidney	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
601.	Hydronephrosis	201	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
602.	Other diseases of kidney and ureter	39	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
603.	Other diseases of kidney and ureter	28	15	13	1	1	1	1	1	1	1	1	1	1	1	1	1
604.	Calculi of other parts of urinary system	19	9	10	1	1	1	1	1	1	1	1	1	1	1	1	1
605.	Cystitis	16	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1
606.	Other diseases of bladder	10	12	4	1	1	1	1	1	1	1	1	1	1	1	1	1
607.	Other diseases of bladder	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
608.	Stricture of urethra	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
609.	Other diseases of urethra	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
610.	Other diseases of urethra	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
611.	Prostatitis	153	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1
612.	Other diseases of prostate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
613.	Hyperplasia of prostate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
614.	Other diseases of prostate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
615.	Refractant prepuce and phimosis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
616.	Sterility, male	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
617.	Other diseases of male genital organs	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
621.	Acute salpingitis and oophoritis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
622.	Chronic salpingitis and oophoritis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
623.	Other diseases of uterus and ovaries	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
624.	Other diseases of breast	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
625.	Other diseases of breast	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
626.	Diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
627.	Diseases of parametrium and vulva (female)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
628.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
629.	Diseases of parametrium and vulva (female)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
630.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
631.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
632.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
633.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
634.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
635.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
636.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
637.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
638.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
639.	Other diseases of parametrium and vulva	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
640.	Other diseases of parametrium and vulva	1	1	1	1												

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, NEW JERSEY, 1960
(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
001-1000	ALL CAUSES	59330	32338	26102	3218	496	400	685	8407	16033	30135
001-138	Infective and parasitic diseases	615	419	203	20	28	15	13	100	223	216
001-008	Tuberculosis, respiratory system	333	242	142	1	1	1	4	65	139	123
010-019	Syphilis and its sequelae	21	12	9	0	0	0	2	0	0	0
020-029	Spid fever	76	61	15	0	0	0	0	0	0	0
030-039	Dysentery, all forms	1	1	0	0	0	0	0	0	0	0
040-048	Scarlet fever and streptococcal sore throat	1	1	0	0	0	0	0	0	0	0
050, 061	Diphtheria	1	1	0	0	0	0	0	0	0	0
065	Whooping cough	1	1	0	0	0	0	0	0	0	0
075	Streptococcal infections	26	16	10	0	0	0	0	0	0	0
080	Plague	5	3	2	0	0	0	0	0	0	0
084	Acute poliomyelitis	6	3	3	0	0	0	0	0	0	0
100-108	Typhoid	0	0	0	0	0	0	0	0	0	0
110-117	Malaria and other rickettsial diseases	0	0	0	0	0	0	0	0	0	0
140-200	Residual (630-639, 641, 642, 644, 646, 652-664, 693-674, 681-683, 686-696, 120-134, 049, 652-664)	147	75	72	12	12	11	8	4	20	48
200-209	Neoplasms	10821	5780	5045	19	70	80	68	700	1400	1200
210-230	Malignant neoplasms	10625	5761	4961	13	74	85	71	700	1400	1200
240-289	Benign neoplasms, metabolic and nutritional diseases	176	82	94	0	2	5	7	31	61	64
290	Diabetes mellitus	1337	620	917	14	13	18	6	19	58	430
290-209	240-243, 250-254, 270-277, 280-289	417	200	217	14	12	6	8	25	51	80
290-203	Diseases of the blood and blood-forming organs	124	65	59	2	11	9	6	3	23	26
300-309	Anemias	80	40	40	0	0	0	0	0	0	0
300-303	Residual (264-299)	44	25	19	0	0	0	0	0	0	0
300-304	Heart, psychoneurotic and personality disorders	44	25	19	0	0	0	0	0	0	0
300-305	Disorders of the nervous system and sense organs	5022	2835	3000	44	44	30	38	225	1119	4162
300-306	Disorders of the circulatory system	5194	2346	2848	0	12	9	15	139	907	4013
310	Vascular diseases affecting central nervous system	409	217	192	19	31	22	2	3	13	6
400-468	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	2848	1333	1515	10	4	13	34	106	744	1094
400-410	Chronic liver disease	765	329	437	0	0	0	0	0	0	0
400-412	Arteriosclerotic and degenerative heart disease	2252	1347	905	1	3	2	20	157	405	381
420-424	Other diseases of heart disease	530	310	220	5	3	3	0	0	0	0
430-434	Hyperextension with heart disease	247	138	109	0	0	0	0	0	0	0
440-444	Residual (430-436, 440-448)	467	248	219	0	0	0	0	0	0	0
444-447	Residual (430-436, 440-448)	1753	860	893	0	0	0	0	0	0	0

470-527	Diseases of the respiratory system	2,052	1043	1009	205	103	33	23	153	303	1010
480-483	Influenza	45	21	24	0	0	0	0	0	0	0
484-488	Pneumonia	1795	1002	793	200	74	21	20	65	315	1043
500-502	Tracheitis	140	105	35	8	0	0	0	0	32	62
530-537	Diseases of the digestive tract	672	320	352	17	10	8	3	22	201	308
540-541	Ulcer of stomach and duodenum	378	178	200	10	6	10	1	30	145	130
550-553	Appendicitis	64	37	27	2	2	2	2	0	17	25
560-561, 570	Intestinal obstruction and hernia	298	143	155	23	3	0	17	67	188	
580, 571, 672	Diarrhea of newborn	298	140	158	19	5	0	3	0	52	117
581	Proctitis of liver	620	589	331	1	5	2	1	148	472	201
590-597	Residual (530-539, 542, 544, 545, 578-578, 580, 592-597)	608	246	362	11	11	0	7	48	338	282
590-594	Nephritis and nephrosis	436	224	212	1	7	12	13	16	128	200
610	(Hyper)plasia of prostate	133	133	0	0	0	0	0	0	0	0
640-669	Residual (600-606, 611-617, 620-626, 630-637)	386	202	184	3	3	1	40	118	221	
670-719	Pregnancy, childbirth and the puerperium	44	21	23	0	0	0	12	32	0	
720-729	Diseases of the bones and cartilage	18	7	11	0	0	0	0	0	0	
730-739	Diseases of the bones and cartilage of neonates	604	311	293	6	1	0	5	10	32	
740-776	Certain diseases of early infancy	2090	1221	878	300	405	54	20	23	31	
780-782	Birth injuries, postnatal asphyxia and atelectasis	834	533	301	334	334	0	0	0	0	
780-776	Other diseases of newborn	151	83	74	107	107	0	0	0	0	
790-795	Other diseases of early infancy and neonates	1098	583	423	1008	1008	0	0	0	0	
800-809	Symptoms, senility and ill-defined conditions	119	62	57	3	2	4	10	20	55	
810-819	Verdents, poisonings and violence	1870	983	887	118	149	312	503	737	835	
820-829	Motor vehicle accidents	2,859	544	210	0	27	53	175	174	177	
830-839	All other accidents except falls	787	570	217	89	73	80	85	172	102	
840-849	Falls	670	363	307	11	12	6	5	40	122	
850-859	Intentional self-harm	485	364	121	3	3	20	230	90	9	
860-869	Intentional self-harm	157	90	67	2	3	5	20	72	40	
870-879	Police intervention, execution and operations of war	107	107	0	0	0	0	0	0	0	

Table 22. MALE DEATHS BY CAUSE GROUPS AND AGE GROUPS, NEW JERSEY: 1980
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Age Groups by Years							Total
		< 1							
		1-4	5-14	15-24	25-44	45-64	65+	Unknown	
001-3500	ALL CAUSES	1870	204	296	387	2008	10560	17808	32,838
001-138	Infective and parasitic diseases	13	16	7	3	40	108	156	412
001-068	Tuberculosis of respiratory system	1	2	1	1	3	11	17	23
001-070	Tuberculosis of other forms	1	1	1	1	3	11	17	23
001-020	Dysentery and its sequelae	1	1	1	1	3	11	17	23
040	Cholera	1	1	1	1	3	11	17	23
043-018	Dysentery, all forms	1	1	1	1	3	11	17	23
061-051	Syphilis	1	1	1	1	3	11	17	23
053	Scarlet fever and streptococcal sore throat	1	1	1	1	3	11	17	23
067	Whooping cough	1	1	1	1	3	11	17	23
068	Meningococcal infections	1	1	1	1	3	11	17	23
084	Plague	1	1	1	1	3	11	17	23
085	Acute poliomyelitis	1	1	1	1	3	11	17	23
086	Diphtheria	1	1	1	1	3	11	17	23
100-108	Malaria	1	1	1	1	3	11	17	23
100-117	Typhus and other rickettsial diseases	1	1	1	1	3	11	17	23
140-230	Residual (690-080, 041, 012, 044, 049, 052-054, 059-074, 081-085, 090-096, 120-138)	8	0	3	1	10	27	50	75
140-205	Neoplasms	6	40	62	43	204	2218	3121	5786
210-230	Malignant neoplasms	6	38	57	30	242	2187	3005	5701
240-289	Allergic, endocrine system, metabolic and nutritional diseases	2	2	5	4	12	31	26	82
290	Diseases of the circulatory system	12	1	5	5	48	189	304	629
290-290	Residual (240-243, 260-254, 270-277, 280-289)	167	12	5	5	4	34	189	457
290-293	Diseases of the blood and blood-forming organs	163	12	5	5	4	34	189	457
300-320	Anemias	163	12	5	5	4	34	189	457
300-320	Residual (294-299)	163	12	5	5	4	34	189	457
330-308	Diseases of endocrine and personality disorders	4	2	1	1	3	6	20	25
330-334	Vascular lesions affecting central nervous system	25	2	1	1	3	6	20	25
340	Neuronal lesions affecting central nervous system	86	3	2	2	30	82	134	208
400-408	Nonmeningococcal meningitis	250	21	18	15	123	692	1003	2508
400-402	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	250	21	18	15	123	692	1003	2508
410-416	Chronic rheumatic heart disease	37	1	1	1	8	7	8	27
420-422	Arteriosclerotic and degenerative heart disease	146	8	3	10	14	710	1003	1463
430-434	Other diseases of heart	329	1	1	1	8	72	176	329
440-447	Hyper tension with heart disease	310	5	2	1	2	63	167	310
440-447	Residual (450-460, 480-488)	952	1	1	1	2	20	82	952
470-527	Diseases of the respiratory system	101	63	15	11	71	401	900	1694
480-483	Influenza	102	30	10	0	54	203	64	333
500-502	Pneumonia	105	2	8	2	3	30	60	152
500-502	Residual (470-475, 510-527)	520	0	0	3	2	19	162	311
540-541	Ulcer of stomach and duodenum	178	0	18	9	1	140	578	917
550-553	Appendicitis	37	1	1	1	2	11	18	37
590-591, 570	Intestinal obstruction and hernia	143	12	2	1	3	11	18	188
543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except chronic of liver	146	62	2	2	6	36	87	353
581	Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)	690	2	2	2	8	316	100	1408
590-597	Diseases of the genito-urinary system	246	9	3	6	1	21	70	327
590-594	Residual (590-593)	559	1	4	7	10	48	130	659
610	Hypertrophy of prostate	133	4	0	0	32	10	103	282
640-680	Pregnancy, childbirth and the puerperium	202	1	1	1	1	16	55	128
690-716	Diseases of the skin and cellular tissue	27	1	1	1	2	3	9	11
700-706	Diseases of the bones and organs of movement	43	3	1	1	5	3	27	57
700-776	Certain diseases of early infancy	923	27	12	16	19	12	0	977
760-762	Birth injuries, postnatal asphyxia and atelectasis	1221	2	1	1	1	1	1	1226
763-768	Infections of the newborn	553	53	8	8	8	8	8	618
769-776	Other diseases peculiar to early infancy and immaturity	83	8	8	8	8	8	8	105
800-809	Symptoms, mental and ill-defined conditions	685	4	2	1	2	13	27	731
810-833	Accidents, poisonings and violence	1876	70	65	114	253	481	541	4022
850-852	Motor vehicle accidents	544	2	17	35	130	133	132	89
850-853	All other accidents except falls	570	60	41	66	78	134	124	67
890-894	Falls	313	7	6	2	5	35	91	363
900-904	Sticoid	351	1	1	2	22	86	165	79
920-929	Homicide	95	1	1	5	12	43	29	4
930-939	Police intervention, execution and operations of war	...	...	...	...	...	...	...	...

1000, 21 14 57 254 250 130 2000

Table 22. FEMALE DEATHS BY CAUSE GROUPE AND AGE GROUPS, NEW JERSEY: 1950
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPE	Total	Age Groups by Years						
			<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
			001-5969	20,482	1376	232	140	1081	1300	6003	17242
001-138	Infective and parasitic diseases	203	7	12	8	10	51	56	60
001-139	Tuberculosis of respiratory system	91	1	1	1	1	3	21	24
010-010	Syphilis and other forms	15	1	1	1	1	2	2	7
020-029	Typhoid fever	15	1	1	1	1	2	0	7
043	Cholera	1	1	1	1	1	1	1	1
048	Shigellosis	1	1	1	1	1	1	1	1
050-051	Diphtheria, erysipelas and streptococcal sore throat	1	1	1	1	1	1	1	1
055	Whooping cough	1	1	1	1	1	1	1	1
056	Meningococcal infections	2	2	2	2	2	2	2	2
057	Scarlet fever	7	7	7	7	7	7	7	7
080	Smallpox	3	3	3	3	3	3	3	3
084	Measles	2	2	2	2	2	2	2	2
085	Scarlet fever and streptococcal sore throat	3	3	3	3	3	3	3	3
100-105	Typhus and other tick-borne diseases	3	3	3	3	3	3	3	3
110-117	Malaria	2	2	2	2	2	2	2	2
140-230	Neoplasms (300-359, 041, 042, 044, 049, 052-054, 058-059, 060-062, 065-066, 120-138)	72	4	5	5	3	10	21	24
210-220	Malignant neoplasms	5015	11	38	35	30	449	2610	2489
230-239	All other neoplasms	4051	7	30	28	22	33	1880	2151
240-259	Alcoholism, drug addiction, and other diseases of the endocrine system, metabolic and nutritional diseases	91	4	4	4	4	4	4	4
260	Diabetes mellitus	917	2	7	3	8	40	250	600
290-299	Arteriosclerosis (240-245, 250-254, 276-277, 280-283)	781	1	1	1	1	1	1	1
290-293	Anemias of the blood and blood-forming organs	130	2	7	4	4	21	211	612
300-328	Readjustment (204-209)	70	1	1	1	1	1	1	1
330-339	Mental, psychoneurotic and personality disorders	10	1	1	1	1	1	1	1
340	Diseases of the nervous system and other diseases of the nervous system	30	4	3	5	3	4	8	17
400-468	Non-scur, lesions affecting central nervous system	3096	20	23	12	23	11	65	2530
470-472	Residual (311-315, meningitis)	2848	6	2	3	9	67	473	2259
480-482	Residual (316-318, meningitis)	192	1	4	2	1	2	6	6
480-484	Diseases of the circulatory system (300-309, 370-386, 390-398)	12116	2	1	5	20	237	2190	9013
480-485	Rheumatic fever	17	1	1	1	1	1	1	1
480-486	Rheumatic heart disease	413	1	1	1	1	1	1	1
480-487	Other diseases of the heart	329	1	1	1	1	1	1	1
480-488	Myocardial infarction	3388	1	1	1	1	1	1	1
480-489	Hypertension with heart disease	249	1	1	1	1	1	1	1
480-490	Hypertension without mention of heart disease	802	1	1	1	1	1	1	1
480-491	Residual (450-456, 460-468)	802	1	1	1	1	1	1	1

470-527	Diseases of the respiratory system	1004	134	40	18	12	50	102	652
480-483	Tracheitis	24	1	1	1	1	1	1	1
490-493	Bronchitis	723	120	39	11	11	30	112	402
500-502	Residual (470-475, 510-527)	152	8	1	5	1	13	42	82
550-557	Diseases of the digestive system	972	31	22	1	0	111	313	485
560-561	Ulcer of stomach and duodenum	100	1	1	1	1	5	38	68
560-562	Acute gastritis, duodenitis and hemorrhoids	155	1	1	1	1	2	6	7
560-561, 570	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	122	16	10	1	4	25	60	4
581	Cirrhosis of liver (500-509, 542, 544, 545, 573-575, 580, 582-587)	321	1	3	1	1	62	150	84
590-599	Diseases of the genito-urinary system	257	2	8	3	6	27	50	155
600-601	Nephritis and nephrosis	300	3	3	8	4	37	121	106
610	Hyperplasia of prostate (500-509, 530-537)	215	1	3	6	4	37	58	100
640-689	Pregnancy, childbirth and the puerperium	184	2	2	2	12	32	63	65
690-716	Diseases of the skin and cellular tissue	61	1	1	1	1	10	13	24
720-749	Diseases of the bones and organs of movement	85	3	1	1	1	5	9	38
750-759	Congenital malformations	810	252	27	14	8	12	11	6
760-762	Birth injuries, postnatal erysipels and osteomyelitis	381	381	381	381	381	381	381	381
765-768	Infections of the newborn	74	74	74	74	74	74	74	74
769-776	Other diseases peculiar to early infancy and immature children	423	423	423	423	423	423	423	423
780-785	Sturty unqualified	983	4	50	32	63	16	28	38
800-899	Accidents, poisonings and violence	210	4	10	18	30	41	46	63
890-892	Motor vehicle accidents	217	30	32	14	7	38	38	40
890-895	All other accidents except falls	808	4	6	2	1	14	31	306
890-896	Falls	131	1	1	1	1	1	1	1
890-897	Suicide	102	1	2	1	5	20	17	5
890-898	Homicide	102	1	2	1	5	20	17	5
890-899	Police intervention, execution and operations of war	102	1	2	1	5	20	17	5

DEPARTMENT OF HEALTH

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, CAMDEN CITY, 1960
(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	
001-3209	ALL CAUSES	1393	700	627	83	14	14	13	08	421	740
001-138	Infective and parasitic diseases	227	10	7	1	1	1	1	0	7	5
001-139	Tuberculosis of respiratory system	16	10	6	1	1	1	1	0	7	5
010-005	Typhoid and other forms	1	1	1	1	1	1	1	1	1	1
020-029	Syphilis, other forms	1	1	1	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
045-048	Syzeantory, all forms	1	1	1	1	1	1	1	1	1	1
050-051	Diphtheria, diphtheria fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1
060	Whooping cough	1	1	1	1	1	1	1	1	1	1
067	Meningococcal infections	1	1	1	1	1	1	1	1	1	1
080	Plague	1	1	1	1	1	1	1	1	1	1
083	Scarlet fever	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
140-289	Neoplasms	6	6	1	1	1	1	1	1	1	1
140-293	Malignant neoplasms	237	114	114	1	1	1	1	1	1	1
210-219	Benign and unspecified neoplasms	250	120	110	1	1	1	1	1	1	1
240-289	Alcic, endocrine system, metabolic and nutritional diseases	1	3	4	1	1	1	1	1	1	1
280	Diabetes mellitus	29	14	15	1	1	1	1	1	1	1
290-299	Diseases of the blood and blood-forming organs	25	12	13	2	2	2	2	2	2	2
290-293	Anemias	4	2	2	1	1	1	1	1	1	1
300-326	Mental, psychoneurotic and personality disorders	1	1	1	1	1	1	1	1	1	1
380-398	Diseases of the nervous and sensory organs	129	68	61	8	8	8	8	8	8	8
390-394	Vascular lesions affecting central nervous system	113	63	55	2	2	2	2	2	2	2
340	Nonmeningeococcal meningitis	8	4	4	1	1	1	1	1	1	1
400-408	Diseases of the circulatory system	600	301	299	1	1	1	1	1	1	1
400-402	Rheumatic fever	1	1	1	1	1	1	1	1	1	1
410-418	Chronic rheumatic heart disease	13	4	9	1	1	1	1	1	1	1
420-422	Arteriosclerotic and degenerative heart disease	520	293	215	1	1	1	1	1	1	1
430-432	Other diseases of heart	19	13	6	1	1	1	1	1	1	1
440-443	Hypertension with mention of heart	71	28	43	1	1	1	1	1	1	1
444-447	Residual (450-456, 460-468)	12	6	6	1	1	1	1	1	1	1
		37	19	18	4	4	4	4	4	4	4
470-527	Diseases of the respiratory system	78	44	34	17	2	1	1	1	1	1
480-488	Influenza	40	24	16	1	1	1	1	1	1	1
490-498	Pneumonia	7	4	3	1	1	1	1	1	1	1
500-502	Bronchitis	22	10	12	3	3	3	3	3	3	3
530-537	Residual (470-475, 510-527)	53	29	24	7	4	4	4	4	4	4
540-541	Ulcer of the digestive system	11	7	4	1	1	1	1	1	1	1
550-553	Ulcer of the stomach and duodenum	4	3	1	1	1	1	1	1	1	1
560, 561, 570	Intestinal obstruction and hernia	4	1	3	1	1	1	1	1	1	1
543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except chronic of newborn	3	1	2	1	1	1	1	1	1	1
581	Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)	12	6	6	2	2	2	2	2	2	2
590-597	Diseases of the genito-urinary system	12	5	7	1	1	1	1	1	1	1
600-601	Gonorrhea and neoplasms	27	15	12	1	1	1	1	1	1	1
610	Residual (600-600, 611-617, 620-626, 630-637)	15	6	10	1	1	1	1	1	1	1
640-689	Pregnancy, childbirth and the puerperium	4	4	2	1	1	1	1	1	1	1
690-718	Diseases of the skin and cellular tissue	2	2	2	1	1	1	1	1	1	1
720-729	Diseases of the bones and organs of movement	11	6	6	3	3	3	3	3	3	3
730-739	Certain diseases of certain infections	33	33	33	6	6	6	6	6	6	6
700-778	Certain diseases of certain infections	33	33	33	6	6	6	6	6	6	6
740-762	Birth injuries, postnatal asphyxia and stercoraria	5	4	1	1	1	1	1	1	1	1
760-768	Infections of the newborn	5	4	1	1	1	1	1	1	1	1
700-778	Other diseases peculiar to early infancy and immaturity	33	16	17	8	8	8	8	8	8	8
780-798	Strabismus, squint and ill-defined conditions	73	35	38	1	1	1	1	1	1	1
8500-8599	Accidents, poisonings and violence	29	22	7	3	3	3	3	3	3	3
8600-8699	Motor vehicle accidents	17	12	5	7	7	7	7	7	7	7
8700-8999	All other accidents except falls	9	5	4	1	1	1	1	1	1	1
9000-9004	Falls	10	11	1	1	1	1	1	1	1	1
9100-9170	Shedding	5	2	3	1	1	1	1	1	1	1
9200-9299	Police intervention, execution and operations of war	5	2	3	1	1	1	1	1	1	1

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, CAPE MAY COUNTY, 1950
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Age Groups by Years								
			Male		Female		Unknown				
			<1	1-4	5-14	15-24	25-44	45-64	65+		
001-0099	ALL CAUSES	791	441	350	22	2	4	5	22	183	351
001-138	Infective and parasitic diseases	7	5	2							
001-139	Tuberculosis of respiratory system	4	3	1							
010-019	Typhoid and other forms										
020-029	Syphilis and its sequelae										
040	Typhoid fever										
041-048	Cholera										
050-051	Scarlet fever, all forms										
052	Diphtheria, all forms and streptococcal sore throat										
053	Whooping cough										
054	Measles										
055	Scarlet fever and streptococcal sore throat										
056	Whooping cough										
057	Measles										
058	Scarlet fever and streptococcal sore throat										
059	Whooping cough										
060	Measles										
100-108	Typhus and other rickettsial diseases										
110-117	Malaria										
140-239	Neoplasms (600-609, 611, 612, 644, 648, 652-654, 659-674, 681-683, 686-696, 120-138)	2									
140-239	Neoplasms	111	69	40							
140-240	Malignant neoplasms	117	69	46							
240-249	Benign and unspecified neoplasms	1		1							
260	Diseases of the endocrine system, metabolic and nutritional	25	10	15							
290-390	Diseases of the blood and blood-forming organs	20	8	12							
290-393	Residual (240-243, 260-264, 270-277, 360-283)	5	2	3							
300-320	Diseases of the nervous system and sense organs	1		1							
330-394	Mental, psychoneurotic and personality disorders	1		1							
340	Residual (341-343, 350-359)	1		1							
400-488	Nuclear lesions affecting central nervous system	05	31	34							
400-492	Residual (341-343, 350-359)	05	30	31							
420-422	Diseases of the circulatory system (390-399, 370-389, 390-398)	4	1	3							
430-434	Chronic rheumatic heart disease	444	232	192							
440-443	Coronary thrombotic and degenerative heart disease	1		1							
444-447	Other thrombotic and degenerative heart disease	351	204	147							
450-457	Hypertension with heart disease	10	6	5							
460-466	Hypertension without mention of heart	36	17	19							
470-527	Residual (460-466, 400-408)	0	2	12							
480-488	Diseases of the respiratory system	20									
490-498	Influenza	22	14	8							
500-502	Pneumonia	1	1	0							
500-502	Residual (470-475, 510-527)	1	1	1							
530-537	Diseases of the digestive system	25	3	11							
540-541	Ulcer of stomach and duodenum	3		3							
550-561, 570	Appendicitis	2		2							
560-561, 570	Disorders of the stomach and duodenum	1		1							
513, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	1		1							
581	Diarrhoea of liver	7	1	6							
590-597	Diseases of the genito-urinary system	11	5	6							
590-594	Nephritis and nephrosis	4	4	0							
610	Hyperplasia of prostate	1	1	0							
640-689	Head and neck (600-609, 611-617, 620-626, 630-637)	6	2	4							
690-718	Diseases of the mouth and the pharynx	2		2							
720-749	Diseases of the bones and organs of movement	0		0							
750-759	Congenital malformations	10	7	3							
760-778	Certain diseases of early infancy	6	3	3							
780-785	Scabies, pediculosis, postnatal asphyxia and atelectasis	6	3	3							
785-795	Infectious diseases of newborn	1	1	0							
790-798	Other diseases peculiar to early infancy and infancy unqualified	4	1	3							
800-829	Symptoms, senility and ill-defined conditions	6	4	2							
830-839	Accidents, poisonings and violence	38	24	14							
840-849	Motor vehicle accidents	20	13	7							
850-859	All other accidents except falls	8	11	1							
860-869	Falls	3	2	1							
870-879	Police intervention, execution and operations of war	5	2	3							
880-889	Homeicide	10	6	4							
890-899	Police intervention, execution and operations of war	0	0	0							

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, EAST ORANGE: 1930
(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	
001-2000	ALL CAUSES	1032	492	500						
001-183	Infective and parasitic diseases	6	3	3						
001-008	Tuberculosis of respiratory system	3	1	2						
010-019	Tuberculosis, other forms	2	1	1						
020-029	Syphilis and its sequelae	2	2							
030-039	Cholera	1	1							
043-048	Dysentery, all forms	1	1							
060, 061	Scarlet fever and streptococcal sore throat	1	1							
065	Diphtheria	1	1							
070-079	Measles	1	1							
087	Measles complications	1	1							
083	Plague	1	1							
080	Acute poliomyelitis	1	1							
084	Smallpox	1	1							
100-108	Typhoid fever and other febrile diseases	1	1							
110-117	Malaria	1	1							
140-200	Residual (820-839, 911, 912, 944, 949, 952-954, 959-974, 981-983, 986-996, 120-138)	203	61	112	1	1	10	78	112	
200-209	Nephras	201	90	111	1	1	10	77	111	
210-239	Benign and unclassified neoplasms	2	1	1						
240-289	Allergic, endocrine system, metabolic and nutritional diseases	17	6	12						
290	Diabetes mellitus	14	4	10						
300-309	Diseases of the blood	3	1	2						
310-329	Anemias	2	2							
330-339	Residual (291-299)	1	1							
340-359	Mental, psychoneurotic and personality disorders	80	29	63	1	1	3	21	63	
360-369	Alcoholism, drug abuse, nervous system and sense organs	80	24	63	1	1	2	10	60	
370-379	Vascular lesions of central nervous system	3	3							
380-384	Nonmeningeal meningitis	1	1							
385-389	Residual (341-346, 350-357, 360-369, 370-389, 390-398)	9	2	7						
400-409	Diseases of the circulatory system	1	1							
410-416	Chronic rheumatic and degenerative heart disease	1	1							
420-422	Arteriosclerotic and dysgenetic heart disease	1	1							
430-434	Other diseases of heart	3	2	1						
440-444	Hyperextension with heart disease	4	1	3						
	Infarction of heart	10	1	9						
	Residual (450-456, 460-468)	31	13	18						

470-527	Diseases of the respiratory system	30	23	16	1	1	1	5	32	
480-483	Influenza	30	16	14	1	1		5	23	
490-499	Bronchitis	2	2							
500-502	Residual (470-475, 510-527)	7	5	2						
530-537	Diseases of the digestive system	68	30	23	1	1	6	13	33	
540-541	Ulcer of stomach and duodenum	9	5	4				2	1	
542-545	Intestinal obstruction and hernia	2	2							
550, 561, 570	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	10	4	6				1	5	
583, 571, 572	Residual (530-539, 542, 544, 545, 573-578, 580-582-837)	18	12	6	3	1	2	10	2	
581	Diseases of the genito-urinary system	10	5	5				2	1	
590-594	Nephritis and nephrosis	21	12	9	1	1	4	2	7	
610	Residual (600-609, 611-617, 620-629, 630-637)	10	2	8	1	1	3	1	15	
610-680	Pregnancy, childbirth and the puerperium	7	6	1				1	3	
690-716	Diseases of the skin and cellular tissue	1	1					1	1	
720-740	Diseases of the bones and organs of movement	4	2	2						
750-770	Certain diseases of early infancy	20	15	14	2	1	1	2	3	
780-792	Birth injuries, postnatal asphyxia and atelectasis	12	6	6	12	12		1	2	
793-798	Infections of the newborn	2	1	1						
800-804	Other diseases peculiar to early infancy and infancy	15	8	7	15	15		1	5	
805-809	Symptoms, penality and ill-defined conditions	7	3	4				1	1	
8200-8209	Accidents, poisonings and violence	60	23	37	2	1	1	10	12	
830-839	Motor vehicle accidents	8	7	1				3	2	
840-849	All other accidents except falls	12	6	6	1	1		8	5	
850-859	Falls	33	6	27	1	1	1	1	3	
860-869	Suicide	5	3	2				2	2	
870-879	Homicide	2	1	1						
880-889	Force intervention, execution and operations of war	1	1							

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, IRVINGTON: 1960
(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
001-2909	ALL CAUSES	710	407	303	21	3	4	43	214	425
001-133	Infective and parasitic diseases	4	8	1					2	2
001-008	Tuberculosis of respiratory system	2	2					1	1	
010-019	Tuberculosis, other forms	2								
020-029	Syphilis and its sequelae	4								
043	Cholera and fever	1								
045-046	Dysentery, all forms	1								
060, 061	Scarlet fever and streptococcal sore throat	1								
065	Diphtheria	1								
067	Whooping cough	1								
068	Plague	1								
070	Acute poliomyelitis	1								
080	Smallpox	1								
084	Measles	1								
100-108	Typhus and other rickettsial diseases	2	1	1					1	1
Residual (890-939, 941, 942, 944, 949, 952-954, 959-974, 981-983, 985-996, 120-133)		108	14	74				15	50	69
140-239	Neoplasms	108	14	74				15	50	69
210-205	Benign and unspecified	10	4	7				2	1	1
240-289	Allergic, endocrine system, metabolic and nutritional diseases	4	2	2				2	1	1
290	Diseases mellitus	18	10	8				4	4	14
290-299	Diseases of the blood and blood-forming organs	6	6					1	1	4
290-203	Anemias	1	1					1	1	1
300-326	Residual (204-299)	1	1							1
330-399	Neural, psychoneurotic and personality disorders	51	10	37				2	13	30
340	Vascular lesion nervous system and sense organs	48	10	32				2	11	36
400-468	Nonmeningeococcal meningitis	3	3							
400-402	Residual (341-345, 350-357, 359-369, 370-389, 390-399)	3	3							
410-416	Chronic rheumatic heart disease	309	214	146				1	15	97
420-422	Atherosclerotic and degenerative heart disease	12	4	8				1	1	8
430-432	Hypercholesterolemia	207	100	107				1	8	202
440-443	Hypertension without mention of heart disease	21	6	4				2	2	10
444-447	Residual (450-455, 460-463)	15	8	7				1	2	4

470-527	Diseases of the respiratory system	10	8	2						4	0
480-483	Diphtheria	1	1							1	
490-493	Whooping cough	8	7	1						3	5
500-502	Bronchitis	1	1							1	
Residual (470-475, 510-527)		1	1							1	
530-537	Diseases of the digestive system	33	24	9						18	11
540-543	Ulcer of stomach and duodenum	9	7	2						5	4
550-553	Intestinal obstruction and hernia	3	3							2	
560, 561, 570	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	3	3							2	
574, 571, 572	Diarrhea of newborn	3	1	2						1	2
581	Cirrhosis of liver	14	11	3						0	4
590-599	Diseases of the genito-urinary system	4	2	2						1	1
600-604	Nephritis and nephrosis	4	4							1	2
610	Hyperplasia of prostate	2	2							0	2
620-624	Residual (605-609, 61-501, 620-624, 630-637)	2	2							1	1
630-637	Pregnancy, childbirth, and the puerperium	4	3	1						2	1
640-689	Diseases of the bones and cellular tissue	1	1							1	1
720-749	Congenital malformations	4	4							1	1
750-779	Diseases of early infancy	4	4							1	1
780-782	Birth injuries, asphyxia and anaesthetics	15	10	5						8	15
783-788	Infections of the newborn	5	3	2						15	15
789-778	Other diseases peculiar to early infancy and immaturity unqualified	1	1	1						1	1
790-795	Scrub typhus, shingles and ill-defined conditions	9	7	2						0	9
800-899	Accidents and violence	30	18	12						21	10
910-935	Motor vehicle accidents	0	4	1						3	1
930-932	Other accidents except falls	0	4	1						1	1
940-955	Falls	5	4	1						3	2
960-994	Suicide	10	5	5						6	8
9970-9979	Homicide	10	5	5						3	6
9990-9993	Police intervention, execution and operations of war	0	0	0						0	1
9994-9999	Residual	0	0	0						0	0

DEPARTMENT OF HEALTH

DIV. OF VITAL STATISTICS & ADMINISTRATION

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, NEWARK, 1960
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Sex		Age Groups by Years						
			Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
ALL CAUSES											
001-2999	Infective and parasitic diseases	5038	2922	2111	396	57	20	53	393	1484	2021
001-138	Tuberculosis of any system	78	57	21	5	3	1	10	34	10	10
001-008	Tuberculosis of other forms	44	35	9	1	1	1	13	18	13	10
010-019	Syphilis and its sequelae	12	10	2	1	1	1	3	7	5	1
050-029	Typhoid fever	1	1	0	1	0	0	0	0	0	0
040	Dysentery, all forms	1	1	0	1	0	0	0	0	0	0
045-048	Scarlet fever and streptococcal sore throat	1	1	0	1	0	0	0	0	0	0
050-051	Diphtheria	1	1	0	1	0	0	0	0	0	0
055	Whooping cough	1	1	0	1	0	0	0	0	0	0
055	Wheezing cough	1	1	0	1	0	0	0	0	0	0
055	Pharyngococcal infections	1	1	0	1	0	0	0	0	0	0
060	Acute poliomyelitis	1	1	0	1	0	0	0	0	0	0
064	Smallpox	1	1	0	1	0	0	0	0	0	0
065	Measles	1	1	0	1	0	0	0	0	0	0
100-109	Malaria	1	1	0	1	0	0	0	0	0	0
110-117	Diseases and other rickettsial diseases	1	1	0	1	0	0	0	0	0	0
140-299	Residual (300-539, 041, 042, 043, 044, 049, 052-054, 059-074, 081-083, 085-096, 120-133, 144, 049, 052-054, 089-094, 096, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250)	11	6	5	3	3	3	3	3	3	3
140-239	Neoplasms	866	464	362	1	6	5	3	53	343	392
210-239	Benign neoplasms	700	434	358	1	6	5	3	50	337	338
240-289	Malignant neoplasms	166	8	8	0	0	0	0	3	6	4
290	Allergic, endocrine, metabolic and nutritional diseases	107	72	85	2	3	3	1	10	48	37
300-329	Diabetes mellitus	40	29	7	1	1	1	1	0	32	8
330-334	Residual (240-245, 250-254, 270-277, 280-289)	18	8	10	2	3	2	1	7	16	11
200-203	Anemias	13	5	8	0	0	0	1	3	4	5
300-329	Mental, psychoneurotic and personality diseases	13	5	8	0	0	0	2	2	1	1
330-334	Diseases of the nervous system and sense organs	41	13	3	1	1	1	2	1	2	1
340	Neurular lesions affecting central nervous system	308	171	194	4	4	3	6	26	114	258
340	Residual (341-344, 350-359, 360-369, 370-389, 390-398)	13	6	9	1	1	1	3	26	100	216
400-468	Diseases of the circulatory system	2310	1313	967	2	3	2	3	113	607	1351
400-402	Chronic rheumatic heart disease	4	1	3	0	0	0	0	0	0	0
400-402	Coronary atherosclerosis and degenerative heart disease	1865	1131	732	1	1	1	1	12	17	10
420-422	Other diseases of the heart	78	49	20	1	1	1	7	64	124	8
430-434	Hypertension with heart disease	191	79	112	1	1	1	1	6	28	44
440-443	Hypertension without mention of heart	11	22	18	1	1	1	1	1	1	1
444-447	Residual (450-456, 460-463)	91	40	51	1	1	1	2	8	10	27
470-527	Diseases of the respiratory system	227	154	73	34	13	1	1	15	53	112
480-483	Influenza	151	116	65	31	11	1	1	13	36	69
500-502	Pneumonia	2	2	0	1	1	1	1	0	15	10
530-537	Residual (530-537, 510-527)	43	35	8	2	1	1	1	1	17	27
540-541	Diseases of the trachea, bronchi and lungs	252	172	80	42	4	1	2	42	98	63
550-553	Ulcer of stomach and duodenum	1	1	0	1	0	0	0	1	4	19
560-561, 570	Appendicitis	3	3	0	2	1	0	0	0	1	1
580, 591, 570	Intestinal obstruction and hernia	23	17	6	2	2	0	2	2	3	11
581	Gastritis, duodenitis, enteritis and colitis, except chronic	49	33	14	37	2	0	0	0	0	4
581	Residual (580-589, 542, 544, 545, 575-578, 580-582-587)	90	60	31	1	2	1	1	30	49	17
590-597	Diseases of the genito-urinary system	41	23	18	1	2	1	1	0	15	10
600-604	Neuritis	88	61	37	1	1	1	1	14	32	21
610	Hyperplasia of prostate	46	27	19	1	1	1	0	15	21	10
640-689	Residual (600-609, 611-617, 620-625, 630-637)	37	19	18	0	0	0	0	3	12	12
700-716	Pregnancy, childbirth and the puerperium	8	4	4	1	1	1	1	1	1	1
720-716	Diseases of the skin and cellular tissue	7	3	4	1	1	1	1	1	1	1
730-739	Diseases of the eye and organs of movement	10	4	6	0	0	0	0	4	4	2
740-778	Congenital malformations and anomalies	7	3	4	1	1	1	1	1	1	1
780-782	Certain diseases of early infancy	23	14	18	53	1	2	1	1	1	3
780-782	Birth injuries, postnatal asphyxia and atelectasis	118	71	70	118	4	1	1	1	1	1
780-778	Infections of the newborn	19	11	8	19	1	1	1	1	1	1
780-778	Residual (780-778, 780-778)	97	69	35	97	0	0	0	0	0	0
790-795	Symptoms, senility and ill-defined conditions	7	5	2	1	1	1	1	2	3	2
8200-8299	Accidents, poisonings and violence	325	200	116	22	10	15	20	2	8	8
8300-8392	Motor vehicle accidents	44	34	10	1	5	10	6	11	9	9
8340-8395	All other accidents except falls	80	64	32	20	11	8	9	23	13	10
8510-8585	Falls	101	65	40	1	0	1	2	12	24	55
8600-8704	Fire	39	27	12	1	1	1	1	1	1	1
8800-8853	Homicide	40	29	16	1	1	1	1	7	18	13
8900-8900	Police intervention, execution and operations of war	40	29	16	1	1	1	1	7	18	13

DEPARTMENT OF HEALTH

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, GLOUCESTER COUNTY: 1960
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Sex		Age Groups by Years						
			Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
001-E990	ALL CAUSES	1205	748	547	82	11	8	16	101	319	700
001-138	Infective and parasitic diseases	18	10	8	1	1	1	1	1	3	10
001-139	Tuberculosis of respiratory system	9	7	2	1	1	1	1	1	2	6
010-019	Typhoid and other forms of typhoid fever	1	1	1	1	1	1	1	1	1	1
020-029	Shigellosis and other forms of bacillary dysentery	1	1	1	1	1	1	1	1	1	1
040	Cholera	1	1	1	1	1	1	1	1	1	1
043	Paratyphoid fever	1	1	1	1	1	1	1	1	1	1
050, 051	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1
063	Diphtheria, erysipelas and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1
066	Whooping cough	1	1	1	1	1	1	1	1	1	1
067	Meningococcal infections	1	1	1	1	1	1	1	1	1	1
080	Flu and influenza	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	Neoplasms (C80-C98, 041, 042, 044, 049, 052-054, 059-069, 081-085, 088-095, 120-188)	4	2	2	1	2	1	3	23	82	105
240-269	Malignant neoplasms	216	128	88	1	2	1	3	23	82	105
270-289	Benign and unspecified neoplasms	211	119	91	1	2	3	20	80	100	
290-329	Alergic, endocrine system, metabolic and nutritional diseases	83	37	16	3	1	1	1	1	10	10
330-359	Residual (240-245, 250-254, 270-277, 280-289)	25	17	15	3	1	1	1	1	1	1
360-389	Diseases of the blood and blood-forming organs	8	7	1	3	1	1	1	1	1	1
390-399	Mental, psychoneurotic and personality disorders	1	1	1	1	1	1	1	1	1	1
400-408	Diseases of the nervous system, sense organs and special senses	112	53	59	1	1	1	6	25	80	
410-402	Neuroinfectious meningitis	103	50	53	1	1	1	6	25	80	
410-402	Residual (400-408)	9	3	6	1	1	1	1	1	1	
420-422	Diseases of the circulatory system	629	346	283	1	1	3	27	157	411	
430-432	Rheumatic fever	1	1	1	1	1	1	1	1	1	
430-432	Chronic rheumatic heart disease	18	10	8	1	1	3	4	8	3	
430-434	Other rheumatic and degenerative heart disease	49	28	20	1	1	3	13	13	34	
440-443	Other diseases with heart disease	63	20	34	1	1	1	1	1	1	
444-447	Hypertension with heart disease	5	2	3	1	1	1	1	1	1	
444-447	Hypertension without mention of heart disease	51	16	15	1	1	1	1	1	1	

470-527	Diseases of the respiratory system	551	301	189	131	2	1	5	11	23
480-483	Pneumonia	32	18	13	1	1	1	2	7	9
490-502	Bronchitis	32	18	13	1	1	1	2	7	9
530-537	Residual (470-475, 510-527)	20	13	6	1	1	1	2	4	1
540-541	Diseases of the digestive system	90	50	20	1	1	1	8	13	27
550-553	Diseases of the stomach and duodenum	7	7	2	1	1	1	1	4	4
560-581, 570	Intestinal obstruction and hernia	7	4	3	1	1	1	1	1	1
582-587	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	4	2	2	1	1	1	1	1	1
588	Cholelithiasis of liver	17	11	6	1	1	1	1	1	1
582-587	Residual (580-585, 592, 544, 545, 573-578, 680, 682-687)	13	6	7	1	1	1	3	7	7
590-637	Diseases of the genito-urinary system	30	24	6	1	1	1	2	1	0
640-660	Nephritis and nephrosis	10	6	4	1	1	1	4	10	0
670-679	Hypertrophy of prostate	8	6	2	1	1	1	4	4	0
680-718	Residual (640-649, 611-617, 620-626, 630-637)	7	6	1	1	1	1	1	1	0
720-749	Diseases of the skin and the puerperium	4	1	3	1	1	1	1	1	0
750-779	Diseases of the bones and organs of movement	1	1	0	1	1	1	1	1	0
780-782	Congenital malformations	40	32	8	1	1	1	2	1	3
783-786	Birth injuries	14	14	0	1	1	1	1	1	0
787-788	Injuries, poisoning and suffocation	23	14	9	1	1	1	7	13	4
790-778	Other diseases peculiar to early infancy and immunity unqualified	2	2	0	1	1	1	1	1	0
E900-E990	Accidents, senility and ill-defined conditions	21	6	21	1	1	1	2	1	5
E910-E935	Accidents, senility and ill-defined conditions	5	0	5	1	1	1	1	1	1
E936-E992	Motor vehicle accidents	17	6	11	1	1	1	7	13	2
E937-E992	All other accidents except falls	29	24	5	1	1	1	1	1	4
E930-E935	Falls	18	6	12	1	1	1	4	5	8
E936-E939	Self-harm	14	8	6	1	1	1	1	1	1
E940-E943	Suicide	9	8	1	1	1	1	1	1	1
E944-E949	Homicide	5	4	1	1	1	1	1	1	1
E950-E958	Police intervention, execution and operations of war	5	4	1	1	1	1	1	1	1

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, HUDSON COUNTY: 1950
(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
001-8999	ALL CAUSES	7900	4143	3157	342	64	88	61	388	2221	4186
001-138	Infective and parasitic diseases	85	60	26	1	0	3	0	0	42	84
001-139	Tuberculosis of respiratory system	85	60	26	1	0	3	0	0	42	84
010-016	Diseases of other forms	4	3	1	1	1	1	1	1	1	1
020-029	Syphilis and other venereal diseases	4	3	1	1	1	1	1	1	1	1
040	Typhoid fever	7	7	0	2	1	1	1	1	0	2
043	Cholera	1	1	0	1	0	0	0	0	0	1
045-045	Dysentery, all forms	1	1	0	1	0	0	0	0	0	1
060-061	Dysentery, fever and streptococcal sore throat	1	1	0	1	0	0	0	0	0	1
066	Whooping cough	1	1	0	1	0	0	0	0	0	1
067	Measles	1	1	0	1	0	0	0	0	0	1
080	Meningococcal infections	1	1	0	1	0	0	0	0	0	1
085	Flu	1	1	0	1	0	0	0	0	0	1
086	Scarlet fever	1	1	0	1	0	0	0	0	0	1
084	Smallpox	1	1	0	1	0	0	0	0	0	1
085	Measles	4	3	1	2	2	2	2	2	2	2
100-108	Typhus and other rickettsial diseases	1	1	0	1	0	0	0	0	0	1
110-117	Bubonic typhus	1	1	0	1	0	0	0	0	0	1
130-239	Neoplasms	23	11	12	1	1	1	1	1	1	10
140-203	Malignant neoplasms	1351	708	503	1	1	1	1	1	1	10
200-203	Benign and unspecified neoplasms	1351	708	503	1	1	1	1	1	1	10
240-288	Diseases of endocrine system, metabolic and nutritional	1351	708	503	1	1	1	1	1	1	10
290	Diabetes mellitus	224	91	133	1	1	1	1	1	1	10
290-299	Residual (240-243, 250-254, 270-277, 280-289)	388	117	224	1	1	1	1	1	1	10
300-323	Diseases of the blood and blood-forming organs	17	0	11	1	1	1	1	1	1	10
324	Residual (301-306)	12	4	8	1	1	1	1	1	1	10
330-332	Mental, psychoneurotic and personality disorders	15	2	3	1	1	1	1	1	1	10
333-338	Diseases of the nervous system and sense organs	110	30	83	0	7	3	4	28	128	443
339-343	Neuronal lesions affecting central nervous system	619	210	302	1	2	1	1	10	117	431
340	Neuronal lesions affecting peripheral nervous system	571	209	362	1	1	1	1	1	1	10
344	Residual (341-343)	44	25	19	4	4	2	1	1	1	10
400-468	Diseases of the circulatory system	3188	2092	1456	2	2	5	125	1020	2336	
400-402	Chronic rheumatic heart disease	1	1	0	1	0	0	0	0	0	1
400-403	Rheumatic fever	2	2	0	2	0	0	0	0	0	2
400-404	Chronic rheumatic heart disease	89	3	63	1	1	1	1	1	1	10
400-405	Psychoneurotic and degenerative heart disease	2889	1732	1157	1	1	3	25	85	16	
430-434	Hypertension with heart disease	57	35	22	1	1	1	1	1	1	10
440-443	Hypertension without heart disease	147	96	147	1	1	1	1	1	1	10
444-447	Hypertension without mention of heart disease	32	3	14	1	1	1	1	1	1	10
448	Residual (450-456, 460-468)	130	81	79	1	1	1	1	1	1	10
470-527	Diseases of the respiratory system	308	217	151	36	16	4	4	23	87	228
480-483	Pneumonia	282	160	122	3	1	1	1	1	1	10
490-498	Bronchitis	16	12	7	3	1	2	1	1	1	10
500-502	Residual (470-475, 510-527)	81	72	16	4	3	1	1	1	1	10
510, 541	Diphtheria	344	212	132	8	3	1	2	32	153	145
530-533	Ulcer of stomach and duodenum	4	3	1	1	1	1	1	1	1	10
560, 561, 570	Intestinal obstruction and hernia	6	7	2	1	1	1	1	1	1	10
573, 571, 572	Gastritis, duodenitis, enteritis and colitis, except chronic	46	14	32	8	1	1	1	1	1	10
581	Cirrhosis of liver	25	13	12	4	2	1	20	87	41	10
580-587	Residual (530-539, 542, 544, 545, 573-575, 580-583-587)	148	100	48	4	2	1	1	1	1	10
590-599	Diseases of the genito-urinary system	68	41	27	1	1	1	1	1	1	10
600	Nephritis	44	24	20	1	1	1	1	1	1	10
610	Hyperplasia of prostate	24	18	6	1	1	1	1	1	1	10
640-689	Pregnancy, childbirth and the puerperium	3	3	0	1	1	1	1	1	1	10
690-718	Diseases of the skin and cellular tissue	9	9	0	1	1	1	1	1	1	10
720-729	Congenital malformations and anomalies	13	6	7	3	1	1	1	1	1	10
730-739	Certain diseases of early infancy	210	104	104	68	7	2	1	1	1	10
740-749	Birth injuries, postnatal asphyxia and atelectasis	72	38	34	27	2	1	1	1	1	10
750-759	Infections of the newborn	10	0	4	10	0	0	0	0	0	10
760-770	Birth injuries, postnatal asphyxia and atelectasis	128	60	68	12	4	1	1	1	1	10
780-793	Symptoms, senility and ill-defined conditions	21	14	7	1	1	1	1	1	1	10
800-809	Accidents, poisonings and violence	273	203	70	4	15	12	23	50	98	62
810-819	Motor vehicle accidents	60	49	11	1	4	13	12	12	20	10
820-829	All other accidents except falls	76	58	18	3	11	8	5	10	16	17
830-839	Falls	62	47	15	1	2	2	13	25	21	10
840-849	Intoxication	37	30	18	1	1	1	1	1	1	10
850-859	Homicide	18	10	8	1	1	1	1	1	1	10
860-869	Police intervention, execution and operations of war	1	1	0	1	1	1	1	1	1	10

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, HOBOKEN: 1960
(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
001-2999	ALL CAUSES	5988	20	12	0	4	20	101	336
001-138	Infective and parasitic diseases	7							
001-005	Tuberculosis of respiratory system	7							
010-019	Tuberculosis, other forms	4							
020-029	Diseases of the digestive system	3							
040	Typhoid fever	1							
043	Cholera	1							
043-048	Dysentery, all forms	1							
050-061	Scarlet fever and streptococcal sore throat	1							
062-069	Diphtheria	1							
069	Whooping cough	1							
067	Meningococcal infections	1							
068	Scarlet polymyositis	1							
068	Scarlet fever	1							
085	Meningitis	1							
100-108	Typhus and other rickettsial diseases	1							
110-117	Malaria	1							
140-259	Neoplasms (500-539, 611, 642, 644, 649, 652-684, 689-699)	86							
140-206	Malignant neoplasms	56							
210-239	Benign and unspecified neoplasms	30							
240-289	Allergic, endocrine system, metabolic and nutritional	91							
290	Diabetes mellitus	24							
290-299	Diseases of the blood and blood-forming organs	18							
290-288	Leukemia	2							
300-329	Mental, psychomotoric and personality disorders	2							
330-389	Diseases of the nervous system and sense organs	3							
390-399	Vascular lesions affecting central nervous system	43							
390-394	Nonmeningeococcal meningitis	41							
400-405	Diseases of the respiratory system	2							
400-402	(Pneumatic fever)	2							
410-416	Chronic rheumatic heart disease	0							
420-422	Arteriosclerotic and degenerative heart disease	0							
430-433	Diseases of heart	0							
440-443	Hypertension, essential	21							
444-447	Hypertension without mention of heart	11							
444-447	Residual (450-455, 460-468)	1							

470-527	Diseases of the respiratory system	80	17	13	0	4	7	11
480-483	Influenza	24	12	12	0	2	4	11
490-493	Pneumonia	1	1	1	0	1	1	1
500-502	Bronchitis	8	4	4	0	1	1	2
530-537	Diseases of the digestive system	9	5	4	0	1	1	9
540-541	Ulcer of stomach and duodenum	6	3	3	0	1	1	18
550-558	Appendicitis	1	1	1	0	1	1	5
560-561, 570	Intestinal obstruction and hernia	3	3	2	0	1	1	1
575, 571, 572	Diarrhea, enteritis and colitis, except infectious	2	2	1	0	1	1	3
581	Cirrhosis of liver	17	11	6	0	3	11	9
590-637	Residual (530-539, 542, 544, 545, 575-578, 580, 582-587)	6	4	2	0	2	2	8
640-680	Diseases of the genitourinary system	12	7	5	0	1	2	7
690-694	Hyperplasia of prostate	8	5	3	0	1	1	3
610	Hyperplasia of prostate	7	4	3	0	1	1	4
720-719	Pregnancy, childbirth and the puerperium	1	1	1	0	1	1	2
730-739	Diseases of the bones and organs of mesoderm	6	4	2	0	1	1	4
760-778	Congenital malformations	6	4	2	0	1	1	4
780-778	Certain diseases of early infancy	10	7	3	0	1	1	9
790-792	Birth injuries, postnatal asphyxia and atelectasis	4	2	2	0	1	1	5
790-792	Birth injuries, postnatal asphyxia and atelectasis	4	2	2	0	1	1	5
790-778	Other diseases peculiar to early infancy and infancy unqualified	1	1	1	0	1	1	1
790-795	Symptoms, senility and ill-defined conditions	5	4	1	0	1	1	2
8200-8299	Accidents, poisonings and violence	4	3	1	0	1	1	10
830-839	Motor vehicle accidents	29	10	7	2	2	2	1
850-859	All other accidents except falls	3	2	1	0	1	1	8
860-869	Falls	11	7	4	0	1	1	2
890-899	Struck by or against objects	3	3	3	0	1	1	2
900-904	Struck by or against objects	8	6	2	0	1	1	0
910-919	Falls	1	1	1	0	1	1	1
930-939	Police intervention, execution and operations of war	1	1	1	0	1	1	1
9394-9399	Police intervention, execution and operations of war	1	1	1	0	1	1	1

DEPARTMENT OF HEALTH

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, MERCER COUNTY: 1950
(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
001-2500	ALL CAUSES	2583	1457	1128	133	13	25	82	172	685	1523
001-135	Infective and parasitic diseases	40	30	10	2	1	1	6	10	20	4
001-008	Tuberculosis of respiratory system	22	18	4	4	1	1	2	6	8	12
010-010	Tuberculosis, other forms	1	1	0	1	0	0	0	0	0	0
040-029	Syphilis and its sequelae	7	6	1	1	0	0	0	0	0	0
043	Cholera fever	0	0	0	0	0	0	0	0	0	0
045-016	Dysentery, all forms	0	0	0	0	0	0	0	0	0	0
050-061	Scarlet fever and streptococcal sore throat	0	0	0	0	0	0	0	0	0	0
065	Diphtheria	0	0	0	0	0	0	0	0	0	0
067	Whooping cough	0	0	0	0	0	0	0	0	0	0
083	Measles	1	1	0	0	0	0	0	0	0	0
085	Acute poliomyelitis	0	0	0	0	0	0	0	0	0	0
100-108	Smallpox	0	0	0	0	0	0	0	0	0	0
085	Typhus and other rickettsial diseases	0	0	0	0	0	0	0	0	0	0
110-117	Malaria	0	0	0	0	0	0	0	0	0	0
140-289	Residual (500-639, 641, 642, 644, 646, 652-654, 659-674, 681-683, 688-690, 720-138)	6	4	2	2	0	0	0	0	0	0
140-205	Neoplasms	427	250	177	1	1	3	6	38	185	200
210-250	Benign neoplasms	447	220	227	1	1	2	4	35	182	203
240-259	Benign and inorganic neoplasms	13	6	7	1	1	1	2	3	3	3
260	Allergic, endocrine system, metabolic and nutritional diseases	60	32	28	1	1	1	4	10	40	4
290-299	Diseases of the circulatory system	55	34	21	0	0	0	0	0	0	0
290-293	Diseases of the heart and blood-forming organs	12	8	4	0	0	0	0	0	0	0
290-294	Anemias	7	4	3	1	1	1	1	1	1	2
300-320	Residual (291-296)	4	2	2	1	1	1	1	1	1	2
330-338	Diseases of the nervous system and sense organs	3	2	1	1	1	1	1	1	1	1
330-333	Alcoholism, psychoneurotic and personality disorders	232	113	119	1	1	4	12	88	172	2
340	Vascular lesions of central nervous system	210	100	110	1	1	2	5	33	100	8
400-402	Nonmeningococcal meningitis	15	1	14	1	1	1	1	1	1	1
400-408	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	1255	686	569	0	0	0	0	0	0	0
410-416	Chronic rheumatic heart disease	28	11	17	1	1	2	4	63	97	874
420-422	Arteriosclerotic and degenerative heart disease	978	559	417	1	1	1	1	35	211	685
430-433	Other diseases of heart	107	62	45	0	0	0	0	0	0	0
440-443	Diseases of the respiratory system with heart disease	18	10	8	0	0	0	0	0	0	0
444-447	Hypertical (450-456, 460-468)	101	50	51	0	0	0	0	0	0	0

470-527	Diseases of the respiratory system	1361	865	496	9	9	21	21	111	341	777
480-483	Influenza	60	34	26	1	1	2	6	21	49	3
480-485	Pneumonia	50	28	22	1	1	2	6	1	3	3
500-502	Residual (470-475, 510-527)	8	33	25	1	1	1	4	9	25	10
530-537	Diseases of the digestive system	114	75	39	1	1	1	1	9	37	61
540-544	Ulcer of stomach and duodenum	15	13	2	1	1	1	1	1	3	10
560-563	Appendicitis	7	3	4	1	1	1	1	1	1	7
570-571, 570-574, 574, 574, 574	Intestinal obstruction and hernia	10	9	1	1	1	1	1	1	1	7
581	Gastritis, duodenitis, enteritis and colitis, except chronic of liver	9	5	4	1	1	1	1	1	1	7
590-597	Residual (530-539, 542, 544, 545, 575-578, 580-592-597)	44	31	13	1	1	1	0	22	10	7
600-604	Diseases of the genito-urinary system	94	14	80	1	1	1	1	1	1	17
610	Residual (600-603, 605-609, 610-617, 620-629, 630-637)	52	21	31	1	1	1	1	1	1	5
640-680	Hypertrophic and other diseases of the genito-urinary system	18	13	5	0	0	0	0	4	4	10
700-716	Pregnancy, childbirth and the puerperium	6	5	1	0	0	0	0	1	1	5
750-758	Diseases of the skin and cellular tissue	9	6	3	0	0	0	0	1	1	7
760-776	Contagious diseases of animals	3	2	1	0	0	0	0	1	1	1
780-785	Certain diseases of bones and organs of movement	23	10	13	1	1	1	1	1	1	9
790-795	Birth injuries, postnatal asphyxia and other conditions	88	54	34	1	1	1	1	1	1	1
798-799	Infections of the newborn	35	20	15	0	0	0	0	2	2	10
798-799	Other diseases peculiar to early infancy and infancy	4	2	2	0	0	0	0	0	0	4
800-809	Symptoms, senility and ill-defined conditions	49	32	17	40	40	40	40	40	40	40
820-833	Accidents, poisonings and violence	33	2	1	1	1	1	1	1	1	1
840-850	Motor vehicle accidents	37	31	6	2	1	3	9	6	0	7
860-869	All other accidents except falls	40	31	9	4	7	5	0	1	9	7
870-879	Falls	20	16	4	1	1	1	1	1	1	1
880-889	Suicide	27	18	9	1	1	1	1	1	1	1
890-899	Police intervention, execution and operations of war	4	3	1	0	0	0	0	0	0	0

DEPARTMENT OF HEALTH

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, HAMILTON TOWNSHIP: 1980
(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	510	298	212	29	2	8	7	45	143	370						
001-5200	Infective and parasitic diseases	8	6	2													
001-535	Diseases of respiratory system	4	3	1													
010-019	Tuberculosis																
020-029	Syphilis and its sequelae																
040	Typhoid fever	1															
040-048	Cholera																
050-054	Scarlet fever, all forms																
050-054	Scarlet fever and streptococcal sore throat																
065	Diphtheria																
065	Whooping cough																
077	Meningococcal infections	1															
080	Acute poliomyelitis																
084	Smallpox																
085	Measles																
100-105	Typhus and other tick-bite diseases																
110-117	Residual (690-699, 701-702, 944, 949, 952-954, 959-974, 981-983, 989-996, 125-135)	2	1	1													
140-239	Neoplasms	86	41	38													
140-235	Malignant neoplasms	78	31	31													
200-299	Benign and unspecified neoplasms	2															
240-290	All diseases of the endocrine system, metabolic and nutritional																
290-299	Diabetes mellitus	15	6	9													
300-329	Diseases of the blood and blood-forming organs	1															
330-359	Diseases of the circulatory system	47	27	20													
340	Myocardial infarction	3	2	1													
340-349	Residual (341-343, 350-352, 370-389, 390-398)	14	7	7													
400-468	Mental, psychoneurotic and personality disorders	189	118	71													
400-402	Diseases of the nervous system and sense organs	6	2	4													
400-402	Non-accident lesions affecting central nervous system	1															
500-559	Diseases of the respiratory system	248	142	106													
500-557	Chronic rheumatic heart disease	6															
500-559	Rheumatic fever	189	118	71													
420-422	Other diseases of the circulatory system	1															
430-434	Other diseases of the respiratory system	21	11	11													
440-443	Hypertension with heart disease	2															
444-447	Hypertension without mention of heart disease	2	2														
	Residual (450-495, 490-498)	20	8	12													

470-527	Diseases of the respiratory system	17	12	6													
480-485	Influenza	13	9	4													
490-495	Pneumonia	2	1	1													
500-502	Bronchitis	2	1	1													
520-527	Diseases of the digestive system	27	19	8													
540-541	Ulcer of stomach and duodenum	1	1														
560-569	Appendicitis	4	4														
570	Intestinal obstruction and hernia	4	3	1													
583, 574, 575	Diarrhea of newborn, enteritis and colitis, except	2															
581	Cirrhosis of liver	11	8	3													
	Residual (590-599, 642, 644, 645, 673-678, 680, 682-687)	5	4	1													
600-637	Diseases of the genitourinary system	6	4	2													
600-604	Nephritis and nephrosis	4	3	1													
610	Hydronephrosis of prostate	1															
640-680	Diseases of the female genital tract and the puerperium	4															
680-718	Diseases of the skin and subcutaneous tissue	1															
700-749	Diseases of the bones and organs of movement	4	3	1													
750-759	Congenital malformations	21	14	7													
760-769	Brain diseases of early infancy	7	4	3													
770-782	Other diseases of early infancy	3	2	1													
783-788	Infections of the newborn, asphyxia and atelectasis	11	8	3													
790-778	Other diseases peculiar to early infancy and infancy	1															
790-795	turly unqualified	38	21	17													
ES00-ES09	Symptoms, senility and ill-defined conditions	9	7	2													
ES10-ES15	Accidents, poisoning and violence	12	7	5													
ES40-ES49	Motor vehicle accidents	7	5	2													
ES70-ES79	All other accidents except falls	5	4	1													
ES80-ES84	Falls	10	8	2													
ES90-ES99	Selficide	10	8	2													
	Homicide	1															
	Police intervention, execution and operations of war	1															

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, TRENTON: 1940
(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								1420	809	611	6	12	22	87	366	858	
001-899	Infective and parasitic diseases	236	10	7	1	1	1	1	3	2	1	1	1	1	1	1	1
001-138	Tuberculosis	15	12	3													
001-008	Tuberculosis, other forms	1	1														
010-019	Syphilis and its sequelae	5	3	2													
020-029	Cyphoid fever	1	1														
030	Dysentery, all forms	1	1														
040-048	Scarlet fever and streptococcal sore throat																
050, 061	Diphtheria																
055	Whooping cough																
065	Plague																
080	Acute poliomyelitis																
085	Plague, bubonic infections																
087	Smallpox																
084	Measles																
081	Measles and other rickettsial diseases																
100-108	Residual (690-699, 701, 052, 054, 049, 082-084, 058-074, 081-083, 086, 088, 089, 120-125)	3	2	1													
110-117	Neoplasms	5	3	2													
140-205	Malignant neoplasms	246	132	114													
210-239	Benign neoplasms	238	14	110													
240-289	Allergic, endocrine system, metabolic and nutritional diseases	8	4	4													
290	Diabetes mellitus	38	20	18													
290-299	Residual (240-245, 250-254, 270-277, 290-293)	29	19	10													
290-293	Diseases of the blood and blood-forming organs	4	2	2													
300-350	Residual (291-299)	3	2	1													
350-355	Mental, psychoneurotic and personality disorders	3	2	1													
350-358	Diseases of the nervous system and sense organs	127	6	60													
350-363	Diseases of the eye affecting central nervous system	115	51	61													
350-334	Noncommunicable diseases	2	1	1													
340	Diseases of the circulatory system	10	6	4													
400-465	Ischemic heart disease	674	378	296													
410-416	Arteriosclerosis and arterio-sclerotic heart disease	15	6	9													
420-422	Other diseases of heart disease	610	295	315													
430-434	Other diseases of heart disease	14	10	4													
440-445	Hypertension with heart disease	10	3	7													
440-442	Hypertension without mention of heart	9	4	5													
444-447	Residual (450-460, 460-468)	51	29	22													

470-527	Diseases of the respiratory system	89	64	25	6	1	2	1	1	1	2	1	1	6	2	1	1	6
480-488	Influenza	1	1	1														
490-498	Pneumonia	50	40	10														
500-502	Residual (470-477, 490-497)	6	6															
530-587	Diseases of the digestive system	23	18	5														
540, 541	Ulcer of stomach and duodenum	8	7	1														
550-583	Appendicitis	4	1	3														
580-591, 570	Intestinal obstruction and hernia	11	6	5														
583, 671, 672	Disease of the appendix, enteritis and colitis, except diarrhea	6	4	2														
581	Cirrhosis of liver	24	18	6														
590-597	Residual (630-639, 642, 644, 645, 673-675, 680, 682-687)	12	8	4														
600-604	Diseases of the genito-urinary system	21	15	6														
610	Nephritis	11	8	3														
610-689	Hypertrophy of prostate	3	3															
690-710	Pregnancy, childbirth and the puerperium	7	4	3														
720-740	Diseases of the skin and cellular tissue	2	2															
750-769	Congenital malformations and organs of movement	3	2	1														
760-778	Birth injuries, postnatal asphyxia and atelectasis	11	4	7														
780-778	Diseases of the newborn	44	27	17														
790-792	Diseases of the newborn	10	8	2														
790-778	Other diseases of the newborn	1	1															
790-795	Birth injuries, congenital to early infancy and immaturity unclassified	27	18	9														
820-826	Symptoms, senility and ill-defined conditions	14	9	5														
830-836	Accidents, poisonings and violence	87	44	43														
836-840	Motor vehicle accidents	20	18	2														
840-846	All other accidents except falls	21	14	7														
850-854	Falls	12	8	4														
850-854	Other accidents	10	6	4														
880-883	Homicide	10	6	4														
883-886	Police intervention, execution and operations of war	4	3	1														

DEPARTMENT OF HEALTH

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, MIDDLESEX COUNTY: 1960
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Age Groups by Years								
			Male		Female						
			< 1-4	5-14	15-24	25-44	45-64	65+ Unknown			
001-0099	ALL CAUSES	3293	1893	1388	217	80	26	31	280	900	1762
001-188	Infective and parasitic diseases	28	17	12	2	3	1	1	8	10	6
001-019	Tuberculosis of respiratory system	16	8	7	1	1	1	1	4	1	5
010-019	Tuberculosis of other forms	2	1	1	1	1	1	1	1	1	1
020-029	Syphilis and lues	2	2	1	1	1	1	1	1	1	1
040	Typhoid fever	3	2	1	1	1	1	1	1	1	1
045-048	Cholera	1	1	1	1	1	1	1	1	1	1
050-051	Scarlet fever, 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
065	Diphtheria	1	1	1	1	1	1	1	1	1	1
066	Whooping cough	1	1	1	1	1	1	1	1	1	1
067	Measles	1	1	1	1	1	1	1	1	1	1
080	Acute poliomyelitis	2	2	2	2	2	2	2	2	2	2
080	Acute poliomyelitis	2	2	2	2	2	2	2	2	2	2
084	Smallpox	1	1	1	1	1	1	1	1	1	1
085	Measles	1	1	1	1	1	1	1	1	1	1
100-106	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	Neoplasms (800-030, 641, 642, 644, 646, 652-654, 659-674, 681-685, 686-688, 120-138)	7	4	8	1	2	1	1	3	200	327
140-285	Malignant neoplasms	669	371	298	1	13	11	2	64	250	327
180-289	Benign and unspecified neoplasms	659	371	298	1	13	11	2	64	246	324
240-289	Neoplasms of digestive system, metabolic and nutritional	10	4	6	1	1	1	1	1	1	1
280	Diabetes mellitus	86	30	56	1	1	1	2	30	53	
290-309	Diseases of the blood and blood-forming organs	72	23	49	1	1	1	2	29	44	
290-309	Diseases of the blood and blood-forming organs	14	7	7	1	1	1	1	1	1	
300-329	Renovascular diseases	4	2	2	1	1	1	1	1	1	
300-329	Renovascular diseases	4	2	2	1	1	1	1	1	1	
330-339	Mental, psychoneurotic and personality disorders	10	8	2	1	1	1	1	1	1	
330-339	Diseases of the nervous system	10	8	2	1	1	1	1	1	1	
330-339	Diseases of the nervous system	10	8	2	1	1	1	1	1	1	
330-339	Vascular lesions affecting central nervous system	327	144	183	1	4	8	4	20	71	
330-339	Neomeningeal meningitis	300	130	170	2	3	1	3	10	21	
340-349	Diseases of the circulatory system	4	3	1	1	1	1	1	1	1	
340-349	Diseases of the circulatory system	4	3	1	1	1	1	1	1	1	
350-359	Diseases of the respiratory system	1456	879	577	1	1	1	1	80	305	
400-468	Chronic rheumatic heart disease	1	1	1	1	1	1	1	1	1	
400-402	Rheumatic heart disease	1	1	1	1	1	1	1	1	1	
400-411	Chronic rheumatic heart disease	48	28	20	1	1	1	1	1	1	
400-411	Chronic rheumatic heart disease	48	28	20	1	1	1	1	1	1	
430-444	Coronary artery disease	116	727	443	1	1	1	1	1	1	
430-444	Coronary artery disease	116	727	443	1	1	1	1	1	1	
440-443	Hypertension without infarction of heart	117	60	57	1	1	1	1	1	1	
444-447	Hypertension without infarction of heart	22	22	22	1	1	1	1	1	1	
444-447	Hypertension without infarction of heart	71	42	32	1	1	1	1	1	1	

470-527	Diseases of the respiratory system	147	85	62	21	8	1	1	1	1	1
480-483	Influenza	6	1	4	1	1	1	1	1	1	1
490-493	Pneumonia	64	37	47	18	4	1	3	5	16	37
500-502	Bronchitis	49	41	3	1	1	1	1	1	1	1
530-537	Diseases of the ear, nose and throat	46	40	6	1	1	1	1	1	1	1
540-541	Diseases of the ear, nose and throat	124	72	52	5	1	1	1	1	1	1
550-553	Ulcer of stomach and duodenum	25	16	9	1	1	1	1	1	1	1
560-569	Appendicitis	1	1	1	1	1	1	1	1	1	1
570-579	Intestinal obstruction and hernia	13	7	6	1	1	1	1	1	1	1
583, 571, 572	Gastritis, duodenitis, enteritis and colitis, except chronic	1	1	1	1	1	1	1	1	1	1
581	Cirrhosis of liver	11	4	7	8	1	1	1	1	1	1
590-597	Residual (630-539, 542, 544, 545, 575-578, 680, 682-687)	57	37	20	1	1	1	1	1	1	1
590-594	Diseases of the genito-urinary system	17	7	10	1	1	1	1	1	1	1
610	Nephritis	46	30	16	1	1	1	1	1	1	1
610	Nephritis	24	13	11	1	1	1	1	1	1	1
610	Hyperplasia of prostate	12	8	4	1	1	1	1	1	1	1
610	Residual (600-600, 611-617, 620-625, 630-637)	3	1	2	1	1	1	1	1	1	1
610	Pregnancy, childbirth and the puerperium	6	2	4	1	1	1	1	1	1	1
610	Diseases of the skin and cellular tissue	43	23	20	37	1	1	2	1	1	1
700-719	Congenital malformations and organs of movement	148	89	57	146	1	1	1	1	1	1
700-719	Congenital malformations and organs of movement	12	6	6	12	1	1	1	1	1	1
700-732	Certain diseases of early infancy	77	49	28	1	1	1	1	1	1	1
730-739	Birth injuries, postnatal asphyxia and tetanus	4	3	1	1	1	1	1	1	1	1
740-749	Infections of the newborn	12	6	6	12	1	1	1	1	1	1
750-759	Turly unqualified to early infancy and infancy	77	49	28	1	1	1	1	1	1	1
760-766	Symptoms, senility and ill-defined conditions	4	3	1	1	1	1	1	1	1	1
7800-8099	Accidents, poisonings and violence	13	13	1	3	9	7	17	53	48	42
8000-8099	Motor vehicle accidents	55	43	12	1	1	3	10	14	16	12
8240-8242	All other accidents except falls	44	36	8	2	7	4	3	10	6	4
8310-8365	Falls	38	28	10	1	1	1	1	1	1	1
8366-8369	Homicide	31	28	3	1	1	1	1	1	1	1
8370-8373	Police intervention, execution and operations of war	11	6	6	1	1	1	1	1	1	1

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, OCEAN COUNTY, 1960
(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+	
001-E880	ALL CAUSES	1238	531	77	0	0	13	50	328	763
001-188	Infective and parasitic diseases	17	4	2	1				5	9
001-908	Tuberculosis of respiratory system	10	3						5	5
002-028	Syphilis and its sequelae	4	4						4	0
040-040	Typhoid fever	4							4	0
043	Cholera									4
045-048	Dysentery, all forms									4
050-061	Scarlet fever and streptococcal sore throat									4
062	Whooping cough									4
068	Meningococcal infections	2	1							1
069	Acute poliomyelitis									1
070	Diphtheria									1
084	Measles									1
085	Typhus and other rickettsial diseases									1
100-108	Malaria									1
110-117	Residual (890-939, 041, 042, 044, 046, 052-053, 055-056, 058-059, 060-069, 120-138)									1
140-239	Neoplasms	224	101	122	1	1	15	70	124	124
140-205	Malignant neoplasms	221	99	122	1	1	15	70	123	123
240-259	Benign and unspecified neoplasms	2	2							2
260	Allergic, endocrine system, metabolic and nutritional	43	18	25	1		2	14	20	1
260-289	Diabetes mellitus	35	13	22	1		1	12	22	4
290-299	Residual (240-245, 250-254, 275, 277, 280-289)	8	5	3	1		1	2	4	1
290-253	Diseases of the blood and blood-forming organs	6	4	2						2
300-309	Anemia	4	1	1						2
300-329	Leukemia (291-299)	4	1	1						2
330-339	Diseases of the nervous and personality disorders	130	60	60	1	1	1	2	1	8
330-354	Vascular lesions affecting central and sense organs	70	30	40	1	1	1	2	16	110
340	Nonmeningeal meningitis	122	67	55			2	14	108	
400-408	Diseases of the circulatory system	8	3	5					2	4
400-102	Rheumatic fever	570	343	227	1	1	10	158	400	
410-416	Chronic rheumatic heart disease	1	1						1	
420-424	Arteriosclerotic and degenerative heart disease	9	6	3					3	1
430-432	Coronary artery disease	268	169	100			1	8	182	321
430-434	Myocardial infarction with heart disease	462	283	179			1	13	391	5
440-445	Hypertension with heart disease	54	23	31				1	13	39
444-447	Residual (450-456, 460-468)	8	3	5				1	7	1
		29	13	11				3	26	
470-527	Diseases of the respiratory system	42	14	7					10	25
480-483	Influenza	28	9	6					3	13
490-493	Pneumonia	9	11	8					2	10
500-502	Bronchitis	3	3	2					5	0
500-507	Diseases of the larynx (510-527)	16	3	2				3	20	25
530-537	Ulcer of stomach and duodenum	40	32	17				2	6	3
550-555	Appendicitis	11	10	1					1	1
560-571, 572	Intestinal obstruction and hernia	0	6	8					1	1
583, 574, 572	Cholecystitis, cholelithiasis, enteritis and colitis, except diarrhea of liver	4	4						1	3
581	Residual (550-530, 542, 544, 545, 573-578, 580, 582-587)	14	7	7					7	7
590-597	Diseases of the genitourinary system	11	5	6	1				5	6
590-594	Nephritis and nephrosis	10	11	5				3	10	5
610	Hyperplasia of prostate	7	3	4					2	3
610-619	Residual (600-609, 611-617, 624-629, 630-637)	5	4	1					1	3
620-710	Pregnancy, childbirth and the puerperium	1								1
720-740	Diseases of the female genital tract and female genital organs	1								1
750-759	Congenital malformations	10	2	8					1	3
760-769	Certain diseases of early infancy	52	30	22	6				8	3
770-785	Other diseases of the neonatal asphyxia and asclethia	18	13	5					18	3
783-785	Infections of the newborn	4	4	4					4	4
790-795	Other diseases peculiar to early infancy and infancy unqualified	30	17	13	30				19	4
E800-E899	Symptoms, senility and ill-defined conditions	21	20	2				8	20	15
E910-E935	Motor vehicle accidents	18	11	7	1	2	5	5	5	3
E940-E965	All other accidents except falls	33	20	7	2	1	6	10	7	4
E970-E979	Falls	6	3	3					1	4
E980-E983	Suicide	8	5	3					4	4
E984-E988	Homicide	5	3	3					4	4
E994-E999	Police intervention, execution and operations of war	0	0	0					2	2

Passaic County Correction: 1960

International List Number	Cause Groups	Total	Male	Female	Age Groups by Years						
					<1	1-4	5-14	15-24	25-44	45-64	65+
240-289	Allergic, endocrine system, metabolic and nutritional diseases	126	53	73		1		1	9	33	82
260	Diabetes mellitus	108	40	68					5	27	76
	Residual (240-245, 250-254, 270-277, 280-289)	18	13	5		1		1	4	6	6
290-299	Diseases of the blood and blood-forming organs	10	7	3			2		2	2	4
290-293	Anemias	6	4	2			2		1		3
	Residual (294-299)	4	3	1					1	2	1
300-326	Mental, psychoneurotic and personality disorders	9	5	4	3	1			1	4	
330-398	Diseases of the nervous system and sense organs	385	175	210	1	3	2	2	15	83	279
330-334	Vascular lesions affecting central nervous system	353	160	193			1	1	10	76	265
340	Nonmeningococcal meningitis	1	1						1		
	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	31	14	17	1	3	1	1	4	7	14
400-468	Diseases of the circulatory system	1910	1097	813			2	5	70	470	1363
400-402	Rheumatic fever	3	3				1			1	1
410-416	Chronic rheumatic heart disease	72	34	38				3	19	34	16
420-422	Arteriosclerotic and degenerative heart disease	1513	916	597				1	47	374	1091
430-434	Other diseases of heart	22	12	10						4	18
440-443	Hypertension with heart disease	148	64	84					2	31	115
444-447	Hypertension without mention of heart	47	18	29					1	11	35
	Residual (450-456, 460-468)	105	50	55			1	1	1	15	87

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, CLIFTON: 1960
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Age Groups by Years								
			Male	Female						65+	
					<1	1-4	5-14	15-24	25-44		45-64
001-2009	ALL CAUSES	674	387	287	27	7	4	5	38	102	401
001-135	Infective and parasitic diseases	3	1	2							
001-208	Tuberculosis of respiratory system	2	1	1							
001-019	Tuberculosis, other forms	2	1	1							
020-039	Typhoid and its sequelae										
040	Dysentery, all forms										
043	Cholera										
048-049	Dysentery, all forms										
050-051	Scarlet fever and streptococcal sore throat										
052	Whooping cough										
056	Whooping cough										
058	Acute poliomyelitis										
060	Acute poliomyelitis										
064	Measles										
068	Measles										
100-108	Typhus and other febrile diseases										
110-117	Malaria										
140-239	Residual (090-099, 041, 042, 044, 049, 052-063, 067, 074, 081-085, 089-096, 120-138)	1	1								
240-205	Malignant neoplasms	144	80	64							
210-239	Benign and unspecified neoplasms	143	80	63							
240-289	Allergic, endocrine system, metabolic and nutritional diseases	1	1								
290	Diseases of the blood and blood-forming organs	21	6	15							
290-299	Residual (240-245, 250-254, 257-277, 280-289)	17	4	12							
290-203	Anemias	4	3	1							
300-326	Menstrual and amenorrhoeic disorders	5	4	1							
330-334	Mental (284-299)	3	2	1							
340	Psychoneurotic and personality disorders	2	1	1							
380-386	Vascular lesions affecting cranial and sense organs	2	1	1							
390-394	Nonmeningococcal meningitis	71	37	34							
400-468	Residual (341-343, 350-357, 360-369, 370-399, 390-398)	60	34	26							
400-416	Nonmeningococcal meningitis	6	3	3							
410-418	Rheumatic fever, circulatory system	320	194	126							
420-422	Chronic rheumatic heart disease	2	2								
430-432	Rheumatic and degenerative heart diseases	8	2	6							
440-443	Arteriosclerotic and degenerative heart diseases	283	164	90							
444-447	Hypertension without mention of heart	30	13	17							
	Residual (450-456, 460-468)	7	4	3							
		20	16	4							

470-527	Diseases of the respiratory system	251	16	9	2	3	1	1	5	14	
480-483	Pneumonia	17	9	8							
500-502	Bronchitis	1	1								
550-557	Residual (470-475, 510-527)	6	6								
540-541	Diseases of the digestive system	23	13	14							
550-563	Diseases of the stomach and duodenum	1	1								
560-561, 570	Intestinal obstruction and hernia	1	1								
571, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	5	1	4							
581	Residual (580-589, 592, 594, 595, 573-578, 580, 582-587)	11	6	5							
590-597	Diseases of the genito-urinary system	4	4								
598-599	Gonorrhoea	7	4	3							
610	Vaginitis and nephritis	2	2								
640-680	Residual (600-609, 610-617, 620-625, 630-637)	1	1								
690-716	Pregnancy, childbirth and the puerperium	2	1	1							
720-729	Diseases of the skin and cellular tissue	13	9	4							
730-739	General malformations	8	4	4							
740-776	Certain congenital malformations	2	1	1							
780-782	Birth injuries, postnatal asphyxia and atelectasis	13	9	4							
783-785	Other diseases peculiar to early infancy and infancy	8	7	1							
786-787	Other diseases peculiar to early infancy and infancy	2	1	1							
780-705	Residual (780-785, 790-799, 800-809)	3	1	2							
800-859	Accidents, violence and violence	20	17	3							
860-899	Motor vehicle accidents	7	6	1							
890-899	Residual (860-889, 890-899)	13	11	2							
900-999	All other accidents except falls	8	6	2							
900-999	Falls	6	2	4							
910-919	Suicide	2	2								
920-929	Homicide	5	3	2							
930-939	Police intervention, execution and operations of war	2	2								

DEPARTMENT OF HEALTH

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, PASSAIC CITY, 1960
(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
	ALL CAUSES	920	25	1	2	6	26	100	301
001-8999	Infective and parasitic diseases	6							
001-199	Tuberculosis of respiratory system	0							
001-299	Tuberculosis of other organs	4							
010-019	Syphilis and its sequelae	4							
020-029	Typhoid fever	1							
040	Cholera	1							
043	Shigellosis								
049-049	Zyoster, all forms								
050-051	Diphtheria, erysipelas and streptococcal sore throat								
066	Whooping cough								
067	Meningococcal infections								
070	Scarlet fever								
080	Acute poliomyelitis								
084	Mumps								
086	Measles								
110-117	Typhus and other rickettsial diseases								
140-239	Residual (600-650, 674, 682, 684, 698, 662-684, 693-674, 681-683, 696-698, 720-738)	1							
200-209	Neoplasms	129							
210-219	Malignant neoplasms	129							
240-259	Altered and unspecified neoplasms	12							
260	Altered, endocrine system, metabolic and nutritional diseases	27							
280	Diabetes mellitus	27							
290-299	Residual (240-245, 250-254, 270-277, 280-289)	9							
290-293	Diseases of the blood and blood-forming organs	3							
300-309	Residual (291-299)	1							
310-319	Mental, psychoneurotic and personality diseases	1							
320-329	Diseases of the nervous system and sense organs	63							
330-339	Alcoholism	20							
340	Noncommunicable nervous system	61							
400-409	Residual (341-345, 350-357, 360-360, 370-389, 390-398)	2							
410-419	Diseases of the circulatory system	283							
420-429	Chronic ischemic heart disease	101							
430-434	Other diseases of heart disease	6							
440-443	Hypertension with heart disease	231							
444-447	Hypertension without mention of heart disease	2							
	Residual (450-456, 460-468)	11							

International List No.	DISEASES OF THE RESPIRATORY SYSTEM	Total	Age Groups by Years						
			<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
470-527	Diseases of the respiratory system	33							
480-483	Influenza	1							
490-499	Pneumonia	22							
500-502	Bronchitis	14							
530-537	Residual (470-475, 510-527)	3							
540-541	Diseases of the digestive system	15							
550-559	Ulcer of stomach and duodenum	9							
560-561, 570	Appendicitis	3							
580-581, 572	Gastrointestinal obstruction and hernia	1							
590-599	Gastroenteritis, enteritis and colitis, except diarrhoea, amoebiasis	2							
600-607	Cirrhosis of liver	9							
610	Residual (630-639, 642, 644, 646, 652-678, 680, 682-687)	9							
640-680	Diseases of the genito-urinary system	7							
690-716	Nephritis of prostate	4							
720-749	Residual (690-699, 611-617, 650-659, 630-637)	1							
750-759	Diseases of the female genitalia and the puerperium	1							
760-769	Diseases of the bones and cellular tissue	1							
770-785	Congenital malformations of movement	9							
786-789	Congenital diseases of early infancy	9							
790-799	Infectious mononucleosis	18							
800-809	Infectious hepatitis	4							
810-819	Other diseases bearing on early infancy and immune deficiency	2							
820-829	Symptoms, senility and ill-defined conditions	6							
830-839	Residual (800-809, 810-819, 820-829)	4							
840-849	Symptoms, poisoning and violence	11							
850-859	Motor vehicle accidents	3							
860-869	All other accidents except falls	8							
870-879	Falls	1							
880-889	Stings	1							
890-899	Self-inflicted injuries	5							
900-909	Homeicide	1							
910-919	Police intervention, execution and operations of war	6							

DIV. OF VITAL STATISTICS & ADMINISTRATION

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, PATERSON: 1960
(According to the 7th Revision of the International Classification of Diseases)

International List No.	CAUSE GROUPS	Total	Age Groups by Years		Female	Male	Unknown		
			<1	1-4				5-14	15-24	25-44	45-64	65+
001-2000	ALL CAUSES	1780	87	14	10	17	118	482	1058
001-134	Infective and parasitic diseases	14	6	1	1	2	3	4	3
001-008	Tuberculosis of respiratory system	6	2	1	1	2	3	4	3
001-009	Tuberculosis of other forms	1	1	1	1	1	1	1	1
020-020	Syphilis in its sequelae	3	2	1	1	1	1	1	2
040	Typhoid fever	1	1	1	1	1	1	1	1
043	Cholera	1	1	1	1	1	1	1	1
043-048	Dysentery, all forms	1	1	1	1	1	1	1	1
050-051	Bacterial fever and streptococcal sore throat	1	1	1	1	1	1	1	1
052	Diphtheria	1	1	1	1	1	1	1	1
056	Whooping cough	1	1	1	1	1	1	1	1
057	Meningococcal infections	1	1	1	1	1	1	1	1
058	Scarlet fever	1	1	1	1	1	1	1	1
061	Scarlet polyomyelitis	1	1	1	1	1	1	1	1
062	Scarlet fever	1	1	1	1	1	1	1	1
065	Measles	1	1	1	1	1	1	1	1
100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1
110-117	Malaria	1	1	1	1	1	1	1	1
140-230	Residual (890-939, 941, 942, 944, 946, 952-954)	3	2	1	1	1	1	1	1
200-200	Neoplasms	333	176	157	184	23	134	170	170
200-201	Malignant neoplasms	321	165	156	184	23	134	170	170
210-230	Benign and unspecified neoplasms	12	11	11	11	11	11	11	11
240-250	Allergic, endocrine system, metabolic and nutritional	6	6	6	6	6	6	6	6
290	Diabetes mellitus	57	28	29	29	29	29	29	29
290-290	Diabetes mellitus	49	22	27	27	27	27	27	27
290-293	Diseases of the blood and blood-forming organs	4	4	4	4	4	4	4	4
300-300	Anemia (590-599)	1	1	1	1	1	1	1	1
300-320	Myeloid, leukemic and myeloid disorders	2	2	2	2	2	2	2	2
300-306	Diseases of the nervous system and nervous disorders	15	7	8	8	8	8	8	8
300-334	Vascular lesions affecting central nervous system	145	67	78	78	78	78	78	78
340	Nonmeningococcal meningitis	1	1	1	1	1	1	1	1
400-402	Diseases of the eye	13	3	10	10	10	10	10	10
400-408	Rheumatic fever	860	480	370	370	370	370	370	370
410-410	Chronic rheumatic heart disease	34	15	19	19	19	19	19	19
420-422	Arteriosclerotic and degenerative heart disease	671	410	261	261	261	261	261	261
430-432	Coronary atherosclerosis	107	58	49	49	49	49	49	49
440-443	Hypertension of heart	10	2	8	8	8	8	8	8
444-447	Hypertension without mention of heart	107	28	79	79	79	79	79	79
	Residual (450-456, 460-488)	48	20	28	28	28	28	28	28

470-527	Diseases of the respiratory system	100	60	40	40	40	40	40	40
480-483	Influenza	76	40	36	36	36	36	36	36
490-493	Pneumonia	24	14	10	10	10	10	10	10
500-502	Bronchitis	24	14	10	10	10	10	10	10
580-587	Diseases of the digestive system	81	46	35	35	35	35	35	35
540, 541	Ulcer of stomach	7	5	2	2	2	2	2	2
560-563	Appendicitis	7	5	2	2	2	2	2	2
570-573	Intestinal obstruction and hernia	8	2	6	6	6	6	6	6
543, 574, 575	Diarrhea, duodenitis, enteritis and colitis, except diarrhea of liver born	7	3	4	4	4	4	4	4
581	Cirrhosis of liver	38	22	16	16	16	16	16	16
590-597	Residual (890-899, 942, 944, 945, 970-976, 980)	21	8	13	13	13	13	13	13
590-594	Nephritis and	22	8	14	14	14	14	14	14
610	Hypertrophy of prostate	6	3	3	3	3	3	3	3
640-650	Residual (600-609, 811-817, 820-825, 830-837)	6	3	3	3	3	3	3	3
690-716	Pregnancy, childbirth and the puerperium	6	6	6	6	6	6	6	6
720-749	Diseases of the bone and cellular tissue	9	6	3	3	3	3	3	3
750-759	Congenital malformations of organs of movement	1	1	1	1	1	1	1	1
760-762	Certain diseases of early infancy	15	9	6	6	6	6	6	6
763-768	Infections of the neonatal asphyxia and atelectasis	25	12	13	13	13	13	13	13
769-776	Other diseases peculiar to early infancy and immature	4	2	2	2	2	2	2	2
780-795	Scrophula, senility and ill-defined conditions	29	15	14	14	14	14	14	14
E900-E906	Accidents, suicides and violence	87	62	25	25	25	25	25	25
E900-E933	Motor vehicle accidents	10	13	3	3	3	3	3	3
E900-E902	Motor vehicle accidents	10	13	3	3	3	3	3	3
E910-E906	All other accidents except falls	30	21	9	9	9	9	9	9
E900-E904	Falls	18	10	8	8	8	8	8	8
E970-E970	Suicide	18	14	4	4	4	4	4	4
E980-E983	Homicide	6	4	2	2	2	2	2	2
E984-E909	Police intervention, execution and operations of war	6	4	2	2	2	2	2	2

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, SALEM COUNTY: 1960
(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
					33	9	7	9	26	140	333
001-2800	ALL CAUSES	550	330	220	33	9	7	9	26	140	333
001-188	Infective and parasitic diseases	5	2	3							
001-008	Tuberculosis of respiratory system	2		2							
001-009	Tuberculosis of other forms	2		2							
001-010	Septicemia	1		1							
020-029	Septicemia, listeric	1		1							
040	Typhoid fever	1		1							
043	Cholera										
045-048	Dysentery, all forms										
060-061	Bubonic fever and streptococcal sore throat										
066	Whooping cough										
067	Meningococcal infections										
068	Plague										
069	Scarlet fever										
084	Smallpox										
085	Measles										
100-103	Typhus and other tick-borne diseases										
110-117	Malaria (030-039, 040-049, 050-059, 060-069, 080-089, 090-099, 250-259)	1	0	1							
140-239	Neoplasms	80	49	40				2	40	47	1
140-205	Malignant neoplasms	87	48	39				2	30	40	1
210-239	Benign and unspecified neoplasms	2	1	1					1	1	
240-289	Alteic, endocrine system, metabolic and nutritional	17	8	9				1	4	11	
240	Diabetes mellitus	14	6	8				1	2	11	
290-299	Residual (240-245, 250-254, 270-277, 290-299)	3	2	1					2	1	
290-293	Residual (291-296)										
300-326	Mental, psychoneurotic and personality disorders	2		2							
330-308	Diseases of the nervous system and sense organs	59	33	26				4	2	1	5
330-334	Nervous lesions affecting central nervous system	50	28	22				1	1	5	47
340	Nervous lesions affecting peripheral nervous system	4	5	1							
400-468	Diseases of the circulatory system	254	153	90				2	1	5	68
400-402	Rheumatic fever	1	1								
410-416	Chronic rheumatic heart disease	1	1								
430-434	Coronary artery and degenerative heart disease	204	102	72					6	49	100
430-434	Other forms of heart disease	49	26	23							
440-443	Hypertension with heart disease	23	10	13							
444-447	Hypertension without mention of heart	4	3	1							
444-447	Residual (450-456, 460-468)	13	9	4							
470-527	Diseases of the respiratory system	20		7							
480-483	Pneumonia	17	12	5							
500-502	Bronchitis	2	1	1							
520-527	Residual (470-475, 510-527)	10	9	1							
540-541	Diseases of the digestive system	20	8	12							
560-563	Ulcer of stomach and duodenum	6	5	1							
560-561, 570	Intestinal obstruction and hernia	2		2							
545, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	3		3							
581	Cirrhosis of liver	2	1	1							
590-597	Diseases of the genitourinary system	7	3	4							
590-594	Nephritis and nephrosis	3	3								
610	Hydronephrosis	4	3	1							
640-669	Diseases of the skin and the pericardium	9	8	1							
730-749	Diseases of the bones and organs of movement	1	1								
750-776	Congenital malformations	1	1								
780-782	Diseases of early infancy	12	9	3							
783-788	Birth injuries	11	7	4							
789-776	Other diseases peculiar to early infancy and infancy	4	1	3							
790-795	Stuttering, mental and ill-defined conditions	8	0	2							
800-830	Accidents and violence	43	28	15							
830-852	Motor vehicle accidents	18	12	6							
850-859	All other accidents except falls	17	9	8							
860-864	Falls	4	3	1							
870-879	Suicide	4	4								
880-888	Homicide	4	3	1							
890-899	Police intervention, execution and operations of war	4	3	1							
890-899	Police intervention, execution and operations of war	4	3	1							

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, SUSSEX COUNTY, 1960
(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-E099	ALL CAUSES	400	30	6	4	10	20	113	301
001-188	Infective and parasitic diseases	1	1						1
001-189	Diseases of the respiratory system	1							1
010-019	Tuberculosis of the respiratory system								
030-020	Syphilis and its sequelae								
040	Typhoid fever								
049	Cholera								
050-058	Diseases of all forms of bacterial septicemia								
050-051	Scarlet fever								
055	Diphtheria								
063	Whooping cough								
067	Pharyngitis								
068	Pharyngotonsillitis								
080	Acute poliomyelitis								
084	Smallpox								
085	Meningitis								
100-108	Typhus and other tick-borne diseases								
110-117	Residual (600-630, 631-644, 645, 652-654, 659-674, 681-683, 688-696, 726-735)	1	1						1
140-259	Neoplasms	67	43	1	1	1	2	58	34
240-205	Malignant neoplasms	67	43	1	1	1	2	58	34
240-206	Benign neoplasms	1							1
240-209	All diseases of the endocrine system, metabolic and nutritional diseases	2							2
260	Diabetes mellitus	10	3						7
290-290	Diseases of the blood and blood-forming organs	3							3
290-293	Residual (291-299)	1							1
300-326	Mental, psychoneurotic and personality disorders	1							1
330-336	Diseases of the nervous system and sense organs	62	20						42
340-344	Neuronal lesions affecting central nervous system	59	23						36
340	Neuronal lesions affecting peripheral nervous system	3	1						2
400-408	Diseases of the circulatory system	229	146						83
410-412	Chronic heart disease	4	1						3
410-417	Ischemic heart disease	172	114						58
430-422	Arteriosclerosis and heart disease	172	114						58
430-434	Other diseases of heart	2							2
440-443	Hypertension with heart disease	24	12						12
441-447	Hypertension without mention of heart disease	4	2						2
	Residual (450-456, 460-468)	18	15						3

470-527	Diseases of the respiratory system	26	17						9
480-485	Influenza	2	1						1
490-498	Pneumonia	13	8						5
500-502	Residual (503-509)	11	6						5
530-537	Diseases of the digestive system	10	6						4
540, 541	Ulcer of the stomach	9	6						3
550	Appendicitis	1							1
560, 561, 570	Intestinal obstruction and hernia	4	2						2
575, 571, 572	Gastritis, enteritis, enteritis and colitis, except diarrhoea of liver born	3	1						2
581	Diarrhoea of liver born	11	8						3
590-597	Diseases of the genito-urinary system	6	2						4
600-584	Nephritis and pyelonephritis	7	3						4
610	Hyperplasia of prostate	6	3						3
640-589	Pregnancy, childbirth and the puerperium	1							1
650-716	Diseases of the skin and cellular tissue	2							2
720-749	Congenital malformations and organs of movement	5	4						1
750-759	Certain diseases of early infancy	17	13						4
760-768	Birth injuries, postnatal asphyxia and atelectasis	13	17						4
769-778	Other diseases of the newborn	17	13						4
780-786	Symptoms, senility and ill-defined conditions	4							4
E900-E935	Accidents, poisonings and violence	35	27						8
E940-E986	Motor vehicle accidents	12	8						4
E990-E995	All other accidents except falls	13	11						2
F000-F005	Falls	3	2						1
F070-F079	Stomach	6							6
F080-F085	Homicide	1							1
F090-F095	Police intervention, execution and operations of war	1							1

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, ELIZABETH: 1960
(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									
001-8999	ALL CAUSES	1275	695	580															
001-138	Infective and parasitic diseases	13	10	3															
001-008	Tuberculosis of respiratory system	2	2																
002-009	Tuberculosis, other forms	2	1	1															
020-029	Septicemia and septicæmic shock	1	1																
043	Typhoid fever	1	1																
045-048	Cholera																		
049-051	Dysentery, all forms																		
052-057	Scarlet fever and streptococcal sore throat																		
058	Diphtheria																		
059	Whooping cough																		
067	Meningococcal meningitis																		
088	Meningococcal infections	1	1																
089	Styphilitis																		
084	Scarlet polymyelitis																		
085	Erysipeloid																		
100-108	Malaria																		
110-117	Typhus and other rickettsial diseases																		
140-239	Neoplasms (893-939, 941, 942, 944, 949, 952-954, 959-961, 961-968, 969-990, 120-138)	1	1																
140-205	Neoplasm	257	123	134															
210-239	Malignant neoplasms	237	123	114															
240-259	Benign and unspecified neoplasms	2	1	1															
260	Alergic, endocrine system, metabolic and nutritional																		
260-269	Diabetes mellitus	29	8	21															
270-289	Residual (240-245, 250-254, 270-277, 280-289)	25	6	19															
290-295	Diseases of the blood and blood-forming organs	4	1	3															
300-320	Anemia (581-590)																		
300-320	Mental, psychoneurotic and personality disorders	1	1																
380-398	Diseases of the nervous system and nervous system	15	5	10															
399-399	Vascular lesions affecting central nervous system	137	63	74															
399-394	Nonmeningeal meningitis	137	63	74															
390	Encephalomyelitis	4	2	2															
400-402	Diseases of the eye and ear	14	11	3															
400-402	Diseases of the eye	600	328	272															
400-468	Chronic rheumatic heart disease																		
410-416	Rheumatic fever	15	7	8															
410-416	Chronic rheumatic heart disease	455	290	165															
430-434	Arteriosclerotic and degenerative heart disease	14	7	7															
430-434	Hypertension with heart disease	14	7	7															
440-443	Hypertension without mention of heart	1	1																
444-447	Residual (480-486, 490-493)	48	22	26															
470-527	Diseases of the respiratory system	529	231	298															
480-483	Influenza	29	17	12															
480-483	Pneumonia	29	17	12															
500-507	Bronchitis	1	1																
500-507	Residual (470-475, 510-527)	5	5																
540-541	Diseases of the digestive system	39	39																
540-541	Diseases of the stomach and duodenum	39	39																
560-563	Appendicitis	3	2	1															
560, 561, 570	Intestinal obstruction and hernia	6	4	2															
513, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrheal of newborn	1	1																
581	Diseases of liver	22	16	6															
582-587	Residual (530-539, 542, 544, 545, 573-575, 580)	14	8	6															
600-637	Diseases of the genito-urinary system	50	11	39															
600-604	Nephritis and nephrosis	11	5	6															
610	Hyperplasia of prostate	4	2	2															
610-650	Pregnancy (610, 611-617, 620-626, 630-637)	4	2	2															
600-716	Diseases of the skin and the puerperium	2	2																
720-749	Diseases of the bones and organs of movement	1	1																
750-759	Congenital malformations	1	1																
760-769	Diseases of early infancy	58	30	28															
760-769	Birth injuries, congenital asphyxia and anaesthetics	26	16	10															
760-768	Infections of the newborn	8	4	4															
760-776	Other diseases peculiar to early infancy and infancy	8	4	4															
760-795	Styphonia, senility and ill-defined conditions	24	17	7															
800-8999	Accidents, poisonings and violence	2	2																
8510-8535	Motor vehicle accidents	48	33	15															
8540-8598	Other accidents	12	8	4															
890-898	Police intervention, execution and operations of war	12	11	1															
890-897	Falls	13	6	7															
890-896	Other accidents	8	7	1															
890-895	Police intervention, execution and operations of war	3	2	1															

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, UNION TOWNSHIP: 1960
(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
001-0900	ALL CAUSES	408	237	171	12	3	2	4	24	140	217
001-138	Infective and parasitic diseases	2	2	1	1						
001-139	Diseases of respiratory system	1	1								
010-016	Tuberculosis	1	1								
030-029	Syphilis and its sequelae										
040	Typhoid fever										
043	Cholera										
050-061	Scarlet fever, all forms										
065	Diphtheria, diphtheria and streptococcal sore throat										
067	Whooping cough										
070	Streptococcal infections										
080	Scarlet fever										
084	Acute adenoiditis										
085	Smallpox										
090-108	Menses										
100-108	Typhus and other rickettsial diseases										
110-117	Residual (030-050, 051, 052, 054, 049, 052-054, 059-074, 081-083, 086-096, 126-128)	8	1	30	1	1	1	1	1	1	1
140-239	Neoplasms	1	1	30	1	1	1	7	30	37	
200-209	Malignant neoplasms	85	50	31	1	1	1	7	38	87	
210-239	Benign neoplasms and unspecified neoplasms	1									
240-269	Allergic, toxic, systemic, metabolic and nutritional diseases	1									
290	Diabetes mellitus	7	2	5						5	
300-328	Residual (240-245, 250-254, 270-277, 280-289)	2	2	3						2	
330-334	Diseases of the blood and blood-forming organs	1		1						1	
200-293	Anemias	1		1						1	
390-428	Mental, psychoneurotic and personality disorders	1		1						1	
330-334	Diseases of the nervous system and sense organs	30	15	21	1			1	8	30	
340	Vascular diseases affecting central nervous system	31	14	17	1			1	1	24	
340	Residual (341-345, 350-357, 360-369, 370-389, 390-396)	2		2						2	
400-468	Diseases of the circulatory system	21	13	8				10	76	128	
410-416	Chronic heart disease	2		2						2	
420-422	Ischemic heart disease	8	3	5				2	2	10	
430-434	Other diseases of heart	162	104	58				4	62	64	
440-443	Hypertension with heart disease	2	2	2						2	
441-447	Hypertension without mention of heart	8	6	9				1	3	12	
	Residual (400-456, 400-468)	10	9	7				1	1	6	

470-527	Diseases of the respiratory system	13	6	8	1	1	1	1	1	1	1
480-483	Influenza	7	3	4	1	1	1	1	1	1	1
490-493	Whooping cough	2	1	1							
500-502	Residual (470-475, 510-527)	4	2	1							
530-587	Diseases of the digestive system	22	15	8	1	1	1	1	1	1	1
510-511	Other of stomach and duodenum	1	1	2							
520-525	Intestinal diseases	3	1	2							
530, 561, 570	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	2	1	1							
581	Cirrhosis of liver	2	1	1							
582-587	Diseases of the biliary system	6	5	2							
590-637	Diseases of the genito-urinary system	6	5	1							
590-594	Nephritis and nephrosis	4	3	1							
610	Hypertrophia of prostate	2	2								
640-689	Residual (600-609, 611-617, 620-628, 630-637)	2	1	1							
690-719	Diseases of the bones and organs of movement	2	2								
720-749	Diseases of the skin and the puerperium	2	2								
750-759	Congenital malformations	2	2								
760-765	Birth in diseases of early infancy	7	3	4							
765-768	Infections of the neonatal asphyxia and atelectasis	2	2	2							
769-779	Other diseases peculiar to early infancy and infancy	2	2	2							
780-795	Scrapie, senility and ill-defined conditions	3	1	2							
8000-8090	Accidents, violence and violence	12	8	4							
8090-8092	Motor vehicle accidents	4	3	1							
8010-8090	All other accidents except falls	1	1	1							
8100-8104	Falls	4	3	1							
8170-8179	Suicide	2	1	1							
8200-8288	Homicide	1	1	1							
8289-8300	Police intervention, execution and operations of war	1	1	1							

Table 2B. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, WARREN COUNTY, 1960
(According to the 14th 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
001-5999	ALL CAUSES	739	20	2	1	0	40	100	405
001-138	Infective and parasitic diseases	493	336						
001-308	Tuberculosis of respiratory system	2	1						
001-309	Tuberculosis, other forms	2	2						
020-029	Syphilis, other forms								
010	Chancres								
013	Typhoid fever								
015-018	Cholera								
020-029	Dysentery, all forms								
030-031	Diphtheria								
037	Whooping cough								
038	Meningococcal infections								
039	Plague								
040	Smallpox								
041	Scarlet fever								
042	Measles								
100-108	Typhus and other rickettsial diseases								
110-117	Malaria								
140-239	Neoplasms	1	1						
140-205	Benign neoplasms	110	57						
140-206	Malignant neoplasms	109	52						
210-239	Alergic, endocrine system, metabolic and nutritional	2	1						
240-259	Diabetes mellitus	17	6						
260	Diseases of the blood and blood-forming organs	11	4						
300-309	Residual (240-245, 250-254, 270-277, 280-289)	1	1						
310-334	Psychic disorders	1	1						
340-359	Mental, psychoneurotic and personality disorders	68	30						
360	Diseases of the nervous system and sense organs	64	25						
400-465	Vascular lesions affecting central nervous system	4	2						
400-402	Nonmeningococcal meningitis	4	2						
400-403	Diseases of the circulatory system	418	186						
400-416	Rheumatic fever	4	2						
400-417	Chronic rheumatic heart disease	4	2						
400-418	Coronary artery disease	4	2						
400-419	Myocardial infarction	325	167						
400-425	Other circulatory diseases	5	4						
410-443	Hypertension with heart disease	42	22						
444-447	Hypertension without mention of heart	31	16						
470-527	Diseases of the respiratory system	22	9						
480-483	Influenza	18	6						
490-493	Bronchitis	16	6						
500-502	Residual (470-475, 510-527)	3	2						
530-537	Diseases of the digestive system	31	21						
540-541	Ulcer of stomach and duodenum	5	3						
550-553	Intestinal obstruction and hernia	4	3						
560-581, 570	Gastritis, duodenitis, and burns and colitis, except	3	2						
583, 571, 572	diarrhea of newborn	2	1						
581	Cirrhosis of liver	13	11						
590-637	Diseases of the genito-urinary system	6	2						
640-643	Nephritis and nephrosis	8	4						
610	Residual (600-609)	2	2						
640-689	Pregnancy, childbirth and puerperal disorders	3	3						
690-719	Diseases of the skin and cellular tissue	1	1						
720-739	Congenital anomalies	7	1						
740-779	Certain diseases of movement	14	6						
780-782	Birth injuries, postnatal asphyxia and tetanics	9	6						
790-793	Other diseases peculiar to early infancy and immature children	4	3						
780-793	Symptoms	4	3						
7900-7999	Accidents, poisonings and violence	37	20						
8000-8399	Motor vehicle accidents	15	12						
8400-8899	All other accidents except falls	8	7						
8900-8904	Falls	6	4						
8905-8909	Suicide	6	6						
8910-8919	Homicide	6	6						
8920-8929	Poisoning, execution and operations of war	6	6						
8930-8939	Poisoning, execution and operations of war	6	6						
8940-8949	Poisoning, execution and operations of war	6	6						

DEPARTMENT OF HEALTH

Table 22. DEATHS BY CAUSE GROUPS BY SEX AND AGE GROUPS, MILITARY FORTS: 1950
(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
001-8999	ALL CAUSES	83	19	14	1	1	4	0	1	5
001-138	Infective and parasitic diseases									
001-139	Diseases of the respiratory system									
010-019	Tuberculosis of any form									
020-029	Syphilis and its sequelae									
040	Typhoid fever									
048	Cholera									
055-048	Dysentery, all forms									
060-071	Whooping cough and streptococcal sore throat									
068	Diphtheria									
067	Whooping cough									
085	Meningococcal infections									
083	Scarlet fever									
084	Erysipelas									
085	Stylococcal meningitis									
084	Smallpox									
085	Measles									
100-108	Typhus and other rickettsial diseases									
110-117	Malaria									
	000-050, 041, 042, 044, 049, 052-054,									
	059-074, 081-083, 085-086, 120-125)									
140-239	Neoplasms									
140-200	Malignant neoplasms	5	0				1	1	1	4
210-239	Benign and unspecified neoplasms	5	0				1	1	1	4
240-289	Disorders of the endocrine system, metabolic and nutritional diseases									
200	Diabetes mellitus									
290-299	Residual (240-245, 250-254, 270-277, 280-289)									
200-299	Diseases of the blood and blood-forming organs									
300-320	Mental, psychoneurotic and personality disorders									
330-398	Diseases of the nervous system and sense organs									
399-400	Nonchiar lesions affecting central nervous system									
399-400	Residual (341-345, 350-357, 360-369, 370-389, 390-398)									
400-468	Diseases of the circulatory system	2	1					1	1	1
400-402	Rheumatic fever									
400-402	Chronic rheumatic heart disease									
420-435	Diseases of the heart	2	1						1	1
430-434	Other diseases of the heart									
440-443	Hypertension with heart disease									
444-447	Hypertension without mention of heart									
470-527	Diseases of the respiratory system	1								
480-483	Pneumonia	1								
500-502	Bronchitis									
590-597	Residual (470-475, 510-527)									
540-541	Ulcer of the digestive system	1								
590-593	Ulcer of stomach and duodenum									
590-591, 570	Intestinal obstruction and hernia									
545, 571, 572	Gastritis, duodenitis, enteritis and colitis, except									
581	Chronic									
590-597	Ulcers of newborn									
590-594	Residual (530-539, 542, 544, 546, 573-578, 590,									
610	582-587)									
640-689	Diseases of the genito-urinary system	1								
700-716	Gonorrhea and syphilis	1								
720-739	Hypertrophic osteoarthropathy									
750-759	Pregnancy, childbirth and the puerperium									
760-779	Diseases of the skin and cellular tissue									
780-782	Congenital anomalies	1								
780-782	Certain diseases of early infancy	13	4						9	13
780-782	Birth injuries, postnatal asphyxia and neonatal	1							1	1
780-779	Infections of the newborn									
780-779	Other congenital anomalies									
780-705	Turly causes peculiar to early infancy and imma-									
8000-8999	Symptoms, senility and ill-defined conditions	12	4						8	12
8000-8999	Accidents, poisonings and violence	9	1						1	9
8000-8999	Motor vehicle accidents	2	1						1	2
8010-8999	All other accidents except falls	7	7						2	7
8900-8994	Falls									
8900-8994	Suicide									
8900-8994	Police interference									
8900-8994	Police interference, execution and operating of war									

DEPARTMENT OF HEALTH

Table 23a. CASES OF REPORTABLE DISEASES BY COUNTY OF RESIDENCE, 1960
(Exclusive of Cerebral Palsy and Encephalitis)

COUNTY	Amebiasis	Brucellosis	Diarrhea of Newborn	Diphtheria	Epilepsy	Food Poisoning	Hepatitis Infectious	Influenza	Measles	Meningococcal Meningitis	Ophthalmia Neonatorum	Pneumonia
State total	91	3	7	1	90	22	441	297	10,556	80	6	4,146
Atlantic	0	0	0	0	0	0	1	0	1	0	0	0
Bergen	0	0	0	0	0	0	38	7	3,178	0	0	0
Burlington	0	0	0	0	0	4	14	4	25	0	0	0
Cape May	0	0	0	0	0	0	53	34	69	4	0	0
Cape May	0	0	0	0	0	0	0	1	12	0	0	0
Cumberland	0	0	0	1	0	0	8	2	4	1	0	0
Essex	0	0	0	0	53	10	79	54	3,275	14	4	1,254
Hampden	0	0	0	0	1	0	11	0	4	0	0	0
Hudson	0	0	7	0	0	0	53	4	916	3	0	0
Hunterdon	0	0	0	0	0	0	4	1	2	1	0	6
Mercer	0	0	0	0	13	1	29	18	84	7	0	317
Middlesex	26	0	0	0	0	0	0	4	148	3	0	0
Monmouth	0	0	0	0	0	0	0	4	27	0	0	0
Morris	0	0	0	0	0	0	11	2	32	0	0	0
Ocean	0	0	0	0	1	4	15	2	33	0	0	0
Passaic	0	0	0	0	1	0	17	118	0	2	0	74
Salem	1	0	0	0	0	2	11	16	1,067	1	1	31
Somerset	0	1	0	0	0	0	3	0	0	0	0	0
Sussex	0	0	0	0	0	0	0	4	38	0	0	0
Trenton	0	0	0	0	2	0	0	0	0	0	0	0
Warren	0	0	0	0	0	0	34	16	1,300	7	0	200
Warren	0	0	0	0	0	0	1	0	57	0	0	10
State Institutions	55	0	0	0	0	0	9	0	1	0	0	73
Military Posts	0	0	0	0	14	0	22	0	32	4	0	1,656

DIV. OF VITAL STATISTICS & ADMINISTRATION

Table 23a. CASES OF REPORTABLE DISEASES BY COUNTY OF RESIDENCE, 1960—Continued

COUNTY	Polymyositis	Rocky Mountain Spotted Fever	Salmonellosis	Shigellosis	Streptococcal Sore Throat Including Scarlet Fever	Tetanus	Trauma	Trichinosis	Tuberculosis	Typhoid Fever	Veneral Diseases	Whooping Cough
State total	368	7	52	53	3,505	5	1	10	2,928	0	10,487	352
Atlantic	8	0	4	1	426	0	0	0	124	0	0	0
Bergen	12	0	0	0	426	0	0	0	364	0	0	457
Burlington	0	0	0	0	67	0	0	0	0	0	0	0
Cape May	29	0	3	3	187	0	0	0	75	0	0	61
Cape May	0	0	1	0	0	0	0	0	137	0	0	0
Cumberland	0	0	0	0	0	0	0	0	28	0	0	0
Essex	47	0	0	0	13	0	0	1	54	0	0	0
Hampden	15	0	0	0	548	0	0	0	549	4	3,783	63
Hudson	0	0	0	0	51	0	0	1	28	0	1,335	4
Hunterdon	38	0	11	36	174	0	0	1	376	1	890	34
Mercer	12	0	12	0	3	0	0	0	14	0	27	0
Monmouth	10	2	1	0	81	1	0	2	101	0	777	3
Morris	29	1	12	4	309	0	0	1	114	0	600	0
Ocean	24	0	0	0	66	0	0	0	170	0	400	4
Passaic	1	3	1	0	26	0	0	0	67	0	134	5
Salem	12	0	0	0	205	0	0	3	233	0	790	23
Somerset	11	0	4	1	10	0	0	0	35	0	87	0
Sussex	0	0	0	0	12	0	0	0	6	0	0	0
Trenton	31	0	11	2	471	0	0	0	168	0	54	1
Warren	4	0	0	0	10	0	0	0	27	0	434	15
State Institutions	0	0	1	0	0	0	0	0	78	0	0	0
Military Posts	0	0	0	0	373	0	0	0	8	0	0	0
Albany	0	0	0	0	0	0	0	0	41	0	413	0

Note: There were no reported cases of Anthrax, Botulism, Cholera, Dengue, Glaucoma, Leprosy, Leptospirosis, Malaria, Plague, Polio, Rabies (human), Smallpox, Tuberculosis, Typhus Fever, or Yellow Fever.

DEPARTMENT OF HEALTH

Table 23b. REPORTED CASES OF CENTRAL NERVOUS SYSTEM DISEASES OF VIRAL ETIOLOGY BY COUNTY: 1960

COUNTY	Poliovaccines		Aseptic Meningitides						Bacterialitides					Suspect CNS Disease		
	Total	Para.	Non-Para.	Leptospirosis	Coxsackie	Adeno	ECHO	LCM	Tnr. Etol.	Mumps	Herpes Simplex	Measles	Varicella		Arbor Viruses	Influenza
New Jersey	369	64	12	5	20	1	15	1	84	79	1	10	8	0	1	71
Atlantic	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bergen	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burlington	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Camden	20	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cape May	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumberland	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Essex	42	10	0	0	0	0	0	0	4	2	0	0	0	0	0	1
Gloucester	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hudson	34	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Hunterdon	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mercer	10	3	2	0	1	0	1	0	2	7	0	0	0	0	0	1
Middlesex	29	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monmouth	21	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Morris	24	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Ocean	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passaic	24	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0
Salem	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Somerset	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Union	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Warren	34	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0

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Table 23c. REPORTED CASES OF CENTRAL NERVOUS SYSTEM DISEASES OF VIRAL ETIOLOGY BY MONTH: 1960

MONTH OF ONSET	Poliovaccines		Aseptic Meningitides						Bacterialitides					Suspect CNS Disease		
	Total	Para.	Non-Para.	Leptospirosis	Coxsackie	Adeno	ECHO	LCM	Tnr. Etol.	Mumps	Herpes Simplex	Measles	Varicella		Arbor Viruses	Influenza
Total	369	64	12	2	20	1	15	1	84	79	1	10	8	0	1	71
January	10	1	0	0	0	0	0	0	3	8	0	0	0	0	0	0
February	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
March	31	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
April	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0
May	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
June	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
July	50	13	4	0	0	0	0	0	0	0	0	0	0	0	0	0
August	88	25	4	0	0	0	0	0	0	0	0	0	0	0	0	0
September	60	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0
October	17	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0
November	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
December	10	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0

Table 23d. REPORTED CASES OF CENTRAL NERVOUS SYSTEM DISEASES OF VIRAL ETIOLOGY BY AGE: 1960

Age	Poliovirus			Aseptic Meningitides							Encephalitis					Suspect CNS Disease
	Total	Para.	Non-Para.	Leprosprosa	Coxsackie	Adeno	ECHO	LCM	Unk. Priol.	Mumps	Herpes Simplex	Measles	Varicella	Arbor Viruses	Influenza	
Total	309	19	12	12	10	1	15	1	84	70	1	10	8	0	1	71
Under 1	27	1	0	0	1	0	1	1	5	1	0	0	0	0	0	1
1-4	22	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
5-9	13	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
10-14	16	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
15-19	13	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
20-24	16	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
25-29	13	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
30-34	16	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
35-39	22	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
40-44	22	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
45-49	14	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
50-54	10	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
55-59	10	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
60-64	11	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
65-69	11	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
70-74	11	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
75-79	11	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
80-84	11	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
85-89	11	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
90-94	11	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
95-99	11	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0
100+	11	0	0	0	1	0	1	0	5	1	0	0	0	0	0	0

Table 23e. VACCINATION STATUS OF POLIOMYELITIS CASES BY PARALYTIC STATUS BY AGE: 1960

Age	PARALYTIC						NONPARALYTIC						Total
	Vaccination Status					Total	Vaccination Status					Total	
	Unk.	0	1	2	3+		Unk.	0	1	2	3+		
Total	..	43	1	4	16	64	1	6	1	1	3	12	
<1	..	1	..	..	..	1	..	..	..	..	..	1
1-4	..	2	..	2	..	4	..	3	..	..	..	3
5-9	..	4	..	..	1	6	..	..	..	..	..	3
10-14	..	4	..	..	2	6	..	..	..	..	..	3
15-19	..	2	1	..	2	5	..	..	..	..	..	3
20-29	..	2	..	..	2	4	..	2	1	..	..	3
30-39	..	11	..	..	10	21	1	..	..	..	2	3
40+	..	3	..	2	7	12	..	..	..	..	1	3
	..	4	..	..	1	5	..	..	..	1	..	1
	..	9	..	..	2	11	..	1	..	..	..	1
	..	2	..	..	2	4	..	..	..	..	..	1
	..	1	..	..	1	2	..	..	..	..	..	1

DEPARTMENT OF HEALTH

Table 24a. DEATHS FROM REPORTABLE DISEASES BY COUNTY OF RESIDENCE, 1960

COUNTY	Amebiasis (046)	Diarrrhea of Newborn (764)	Epilepsy (338)	Food Poisoning (049.0)	Infectious Mononucleosis (052.053)	Infectious Hepatitis (092)	Influenza (480-483)	Measles (088)	Meningococcal Meningitis (057.0)
State Total	1	10	74	2	16	29	45	6	17
Atlantic	0	0	5	0	0	0	4	0	1
Bergen	0	0	2	0	0	0	1	0	0
Camden	0	0	0	0	0	0	1	0	0
Cape May	0	0	0	0	0	0	0	0	0
Cumberland	0	0	1	0	0	0	0	0	0
Essex	0	0	3	0	0	0	1	0	0
Gloucester	0	0	1	0	0	0	1	0	0
Hudson	0	0	0	0	0	0	1	0	0
Hunterdon	0	0	0	0	0	0	0	0	0
Monroe	0	0	0	0	0	0	0	0	0
Middlesex	0	0	6	0	0	0	1	0	0
Monmouth	0	0	1	0	0	0	0	0	0
Morris	0	0	1	0	0	0	0	0	0
Ocean	0	0	0	0	0	0	0	0	0
Passaic	0	0	4	0	0	0	0	0	0
Salem	0	0	0	0	0	0	0	0	0
Somerset	0	0	0	0	0	0	0	0	0
Sussex	0	0	0	0	0	0	0	0	0
Union	0	0	4	0	0	0	0	0	0
Warren	0	0	0	0	0	0	0	0	0
State Institutions	0	0	1	0	0	0	0	0	0
Military Posts	0	0	0	0	0	0	0	0	0

DIV. OF VITAL STATISTICS & ADMINISTRATION

Table 24a. DEATHS FROM REPORTABLE DISEASES BY COUNTY OF RESIDENCE, 1960—Continued

COUNTY	Mental Deficiency (325)	Pneumonia (480-493)	Polymyelitis (080, 081)	Salmonellosis (042)	Streptococcal Scarlet Fever (450-051)	Syphilis (020-029)	Tetanus (061)	Tuberculosis (001-019)	Whooping Cough (036)
State Total	17	1,700	8	2	1	76	1	364	2
Atlantic	0	62	0	0	0	7	0	37	0
Bergen	0	194	0	0	0	0	0	10	0
Burlington	0	168	1	0	0	0	0	10	0
Camden	0	108	0	0	0	0	0	24	0
Cape May	0	22	0	0	0	0	0	4	0
Cumberland	0	36	0	0	0	1	0	0	0
Essex	1	39	3	1	1	19	1	70	0
Gloucester	0	22	0	0	0	1	0	10	0
Hudson	0	282	0	0	0	1	0	69	0
Hunterdon	0	22	0	0	0	1	0	1	0
Mercer	0	6	0	0	0	1	0	23	0
Middlesex	0	94	0	0	0	3	0	17	0
Monmouth	0	88	0	0	0	4	0	16	0
Morris	0	61	1	0	0	0	0	10	0
Ocean	0	20	0	0	0	5	0	15	0
Passaic	4	139	1	0	0	0	0	3	0
Salem	0	17	0	0	0	0	0	17	0
Somerset	1	25	0	0	0	0	0	10	0
Sussex	0	33	0	0	0	0	0	6	0
Union	0	11	0	0	0	0	0	0	0
Warren	0	18	0	1	0	0	0	23	0
State Institutions	0	5	0	0	0	0	0	1	0
Military Posts	0	1	0	0	0	0	0	0	0

Note: There were no deaths from Anthrax, Botulism, Brucellosis, Cholera, Diphtheria, Glanders, Leprosy, Leptospirosis, Malta, Typhimania, Neonatorum, Plague, Pottacosis, Q Fever, Rabies (human), Rocky Mountain Spotted Fever, Shigellosis, Smallpox, Trachoma, Typhoid, Tularemia, Typhoid Fever, Typhus Fever, or Yellow Fever.

Table 24f. DEATHS FROM REPORTABLE DISEASES BY SEX AND AGE GROUP, 1960

International List No.	Disease and Sex	Total	Age Group, in Years							65+
			<1	1-4	5-14	15-24	25-44	45-64		
001-010	Tuberculosis—									
	Male	254	1	2	1	6	33	116	101	
020-029	Syphilis—	100	..	2	..	..	30	26	27	
	Female	61	..	..	..	..	3	25	33	
042	Shistosomiasis—	15	..	..	..	..	2	6	7	
	Female	1	..	..	..	..	..	1	1	
046	Amebiasis—									
	Female	1	..	..	..	..	..	..	1	
049.0	Food Poisonings—									
	Female	1	1	..	..	..	..	1	..	
050, 051	Strep. Soro Throat, Incl. Scarlet Fever—									
	Female	1	..	1	..	..	..	..	..
056	Whooping Cough—									
	Female	2	..	3	..	..	..	..	..
057.0	Meningococcal Meningitis—									
	Female	10	2	2	1	2	1	2	2	1
061	Tetanus—									
	Female	1	1	..	..	..	..	..	..
080, 091	Poliomyelitis—									
	Female	5	..	..	1	1	2	2	1	
052, 093	Infectious Encephalitis—									
	Female	7	1	2	1	1	1	1	2	
083	Meninges—									
	Female	3	1	2	1	..	..	..	3	
092	Infectious Hepatitis—									
	Female	9	..	..	..	..	4	4	1	
323	Menstrual Deficiency—									
	Female	20	1	..	..	..	4	7	8	
333	Epilepsy—									
	Female	9	3	3	1	..	2	..	..
480-483	Indigestion—									
	Female	39	1	1	3	4	18	7	5	
400-403	Pneumonia—									
	Female	35	..	2	1	7	14	5	0	
701	Diarrhea of Newborn—									
	Female	21	1	..	1	..	1	0	13	
8	Other Diseases—									
	Female	1062	140	80	10	9	64	203	641	
2	Other Diseases—									
	Female	763	120	38	11	11	30	112	402	

Note: There were no deaths from Anthrax, Botulism, Brucellosis, Cholera, Dengue, Diphtheria, Glaucoma, Leprosy, Leptospirosis, Malaria, Ophthalmia Neonatorum, Plague, Pott's Disease, Q Fever, Rabies (human), Rocky Mountain Spotted Fever, Shigellosis, Smallpox, Trachoma, Trichinosis, Tularemia, Typhoid Fever, Typhus Fever, or Yellow Fever.

Table 25a. TUBERCULOSIS CASES AND DEATHS; NUMBERS, RATES AND CASE-DEATH RATIOS FOR COUNTIES AND MAJOR CITIES: 1960

AREA	Deaths		All Cases		Active and Probably Active Cases		Case-Death Ratio†
	Number	Rate*	Number	Rate*	Number	Rate*	
New Jersey	354	5.8	2,928	48.0	1,651	27.1	4.7
Atlantic County	17	10.5	124	76.5	48	29.6	2.8
Atlantic City	10	16.7	67	111.7	29	45.3	2.9
Bergen County	26	3.3	394	50.1	89	11.3	3.4
Burlington County	10	4.4	75	33.0	43	18.9	4.3
Camden County	24	6.1	137	34.8	97	24.6	4.0
Camden City	16	13.7	77	65.8	58	49.6	3.6
Cape May County	4	8.2	28	57.1	9	18.4	2.3
Cumberland County	9	8.4	54	50.5	35	32.7	3.9
Essex County	70	7.6	549	59.4	434	47.0	6.2
Bloomfield	3	5.5	17	32.7	13	25.0	4.3
East Orange	3	3.9	40	51.9	23	29.9	7.7
Irvington	2	3.4	20	33.9	7	11.9	3.5
Newark	48	11.9	410	101.2	343	84.7	7.1
Gloucester County	10	7.4	26	19.1	18	13.2	1.8
Hudson County	59	9.7	378	62.0	237	38.9	4.0
Berouns	4	5.4	31	41.9	14	18.9	3.5
Hoboken	5	10.4	30	62.5	22	45.8	4.4
Jersey City	38	13.8	217	73.6	138	49.3	3.6
Union City	5	9.6	27	51.9	19	36.5	3.3
Hunterdon County	1	1.9	14	25.9	10	18.5	10.0
Mercer County	23	8.6	191	71.3	96	35.8	4.2
Hamilton Township	4	6.1	30	45.5	15	22.7	3.8
Trenton	16	14.0	120	105.3	63	55.3	3.9
Middlesex County	17	3.9	114	26.0	79	18.0	4.6
Woodbridge Township	4	5.0	8	10.0	4	5.0	1.0
Monmouth County	10	4.7	103	30.6	86	25.5	5.4
Morris County	10	3.8	70	26.5	36	13.6	3.6
Ocean County	10	9.1	67	60.9	31	28.2	3.1
Passaic County	15	3.7	235	57.6	78	18.6	5.1
Clifton	2	2.4	38	45.8	7	8.4	3.5
Passaic City	4	7.4	38	70.4	16	29.6	4.0
Paterson	7	4.9	114	79.2	44	30.6	6.3
Salem County	3	5.1	16	27.1	12	20.3	4.0
Somerset County	4	2.8	35	24.1	22	15.2	5.5
Sussex County .....	..	..	6	12.0	5	10.0	..
Union County	23	4.5	158	31.2	121	23.9	5.3
Elizabeth	10	9.3	68	63.0	56	51.9	5.6
Union Township	1	1.9	10	19.2	3	5.5	3.0
Warren County	2	3.2	27	42.9	11	17.5	5.5
Institutions	1	†	78	†	43	†	43.0
Military Posts .....	..	..	8	†	6	†	..
Allens .....	..	..	41	†	7	†	..

* 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 25b. TOTAL TUBERCULOSIS CASES AND ACTIVE AND PROBABLY ACTIVE CASES BY AGE GROUP
Numbers and Rates: 1960-1960

Age Group	1960				1960			
	Total Cases		Active and Probably Active Cases		Total Cases		Active and Probably Active Cases	
	Number*	Rate†	Number*	Rate†	Number*	Rate†	Number*	Rate†
ALL AGES	2,928	48.0	1,651	27.1	2,909	48.7	1,670	28.7
Under 1	11	8.6	11	8.6	13	10.4	19	15.4
1-4	12	13.0	59	11.4	91	17.9	67	13.5
5-14	85	34.6	64	4.0	33	6.5	15	3.0
15-24	251	34.6	137	23.9	231	32.8	177	25.1
25-34	385	47.8	237	30.5	439	57.0	270	34.3
35-44	483	62.1	293	38.5	549	71.0	333	39.7
45-54	471	60.8	313	41.0	445	60.0	282	38.6
55-64	471	60.8	313	41.0	501	66.0	339	43.5
65 and over	576	102.7	277	36.4	501	66.0	250	33.0
Not stated	6	..	3	..	14	..	6	..

* Newly reported tuberculosis cases.

† Rate per 100,000 estimated population.

Table 25c. TUBERCULOSIS CASES BY CLINICAL STATUS FOR COUNTIES AND MAJOR CITIES: 1960

AREA	Total	Clinical Status				
		Active	Inactive	Probably Active	Probably Inactive	Not Stated
New Jersey	2,928	1,601	1,218	50	34	25
Atlantic County	124	47	71	1	4	1
Atlantic City	67	29	35	..	2	1
Bergen County	394	85	300	4	4	1
Burlington County	75	43	29	..	2	1
Camden County	137	91	35	6	..	5
Camden City	77	52	16	6	..	3
Cape May County	28	9	18	..	1	..
Cumberland County	54	35	16	..	2	1
Essex County	549	417	114	17	..	1
Bloomfield	17	13	4	..	..	..
East Orange	40	22	17	..	..	..
Irvington	20	7	13	..	..	..
Newark	410	323	66	15	..	1
Gloucester County	26	17	7	1	1	..
Hudson County	373	234	131	3	8	2
Bayonne	31	13	17	1	..	..
Hoboken	30	22	7	..	1	..
Jersey City	217	134	74	2	6	1
Union City	27	19	8	..	..	..
Hunterdon County	14	9	4	1	..	..
Mercer County	191	93	93	3	1	1
Hamilton Township	30	15	14	..	1	..
Trenton	129	60	57	3	..	..
Middlesex County	114	79	33	..	1	1
Woodbridge Township	8	4	3	..	1	..
Monmouth County	103	84	16	2	1	..
Morris County	70	36	33	..	1	..
Ocean County	67	31	34	..	..	2
Passaic County	235	75	157	1	..	2
Clifton	38	7	31	..	..	..
Passaic City	38	15	22	1	..	..
Paterson	114	44	70	..	..	..
Salem County	16	12	4	..	..	..
Somerset County	35	21	12	1	1	..
Sussex County	6	3	1	2	..	..
Union County	158	117	33	4	2	2
Elizabeth	68	53	11	1	1	..
Union Township	10	2	6	1	..	1
Warren County	27	10	16	1	..	..
Institutions	78	40	34	3	1	..
Military Posts	8	6	2	..	..	..
Aliens	41	7	25	..	4	5

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 25d. ACTIVE AND PROBABLY ACTIVE TUBERCULOSIS CASES BY AGE GROUPS FOR COUNTIES AND MAJOR CITIES: 1960

AREA	All Ages	Under 1 Year	Age Group										Not Stated
			1-4	5-14	15-24	25-34	35-44	45-54	55-64	65+			
New Jersey	1,651	11	59	54	170	237	283	313	244	277	3		
Atlantic County	48	..	4	..	2	9	4	10	10	9	..		
Atlantic City	29	..	2	..	..	7	2	7	6	5	..
Bergen County	89	..	1	3	14	8	16	18	14	15	..		
Burlington County	43	..	2	2	3	6	8	10	6	6	..		
Camden County	97	..	3	1	9	10	24	14	19	17	..		
Camden City	58	..	2	1	4	10	16	11	8	8	..		
Cape May County	9	..	..	..	..	..	1	2	2	4	..
Cumberland County	35	..	3	2	4	6	5	7	3	5	..		
Essex County	434	3	11	18	56	74	80	93	53	46	..		
Bloomfield	13	..	1	1	..	1	3	2	4	2	..		
East Orange	23	..	1	..	..	1	3	1	3	5	..
Irvington	7	..	..	..	..	1	3	1	1	1	..
Newark	348	3	8	16	50	61	66	72	37	30	..		
Gloucester County	18	..	1	..	..	..	4	2	3	8	..
Hudson County	237	2	9	8	21	31	42	44	39	41	..		
Bayonne	14	..	..	..	2	3	2	3	3	1	..
Hoboken	22	1	..	2	1	2	4	7	2	3	..		
Jersey City	136	1	8	6	13	20	28	23	17	22	..		
Union City	19	..	1	..	1	2	3	4	5	3	..		
Hunterdon County	10	..	..	..	..	1	..	..	6	3	..
Mercer County	96	..	7	2	9	9	17	13	15	23	1		
Hamilton Township	15	..	..	..	..	..	3	5	3	4	..
Trenton	63	..	5	1	9	7	11	7	9	13	1		
Middlesex County	79	..	2	..	7	11	21	13	12	13	..		
Woodbridge Township	4	..	..	..	2	..	1	1	..	..	..
Monmouth County	86	1	9	8	6	9	10	12	12	18	1		
Morris County	36	..	..	..	5	8	5	10	2	6	..
Ocean County	31	..	2	2	3	4	4	6	2	8	..		
Passaic County	76	1	1	4	11	22	8	5	14	10	..		
Clifton	7	1	..	..	..	1	1	..	3	1	..
Passaic City	16	..	2	..	..	1	4	2	1	3	..
Paterson	44	..	1	2	10	16	4	4	5	2	..		
Salem County	12	..	..	..	..	4	1	2	2	3	..
Somerset County	22	1	1	1	2	4	2	4	3	4	..		
Sussex County	5	..	..	..	..	1	1	1	..	2	..
Union County	121	3	3	2	12	15	20	28	17	21	..		
Elizabeth	56	1	2	..	6	9	9	14	8	7	..		
Union Township	3	..	..	..	..	..	1	..	1	2	..
Warren County	11	..	..	..	..	1	2	3	2	3	..
Institutions	43	..	..	..	4	2	5	13	7	12	..
Military Posts	6	..	1	1	1	1	2	..	..	..	..
Aliens	7	..	..	1	1	2	1	1	1	1	..

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 25e. ACTIVE AND PROBABLY ACTIVE TUBERCULOSIS CASES BY BACTERIAL STATUS FOR COUNTIES AND MAJOR CITIES: 1960

AREA	Total	Bacterial Status		
		Positive	Negative	Pending or Not Done
New Jersey	1,651	714	398	539
Atlantic County	48	26	1	21
Atlantic City	29	16	1	12
Bergen County	89	47	26	16
Burlington County	43	19	11	13
Camden County	97	57	21	19
Camden City	58	34	8	16
Cape May County	9	4	3	2
Cumberland County	35	19	9	7
Essex County	434	220	131	83
Bloomfield	13	6	4	3
East Orange	23	10	7	6
Irvington	7	5	2	6
Newark	343	174	107	62
Gloucester County	18	9	4	5
Hudson County	237	59	39	139
Bayonne	14	5	4	5
Hoboken	22	6	2	14
Jersey City	136	33	24	79
Union City	19	6	3	10
Hunterdon County	10	5	4	1
Mercer County	96	42	16	38
Hamilton Township	15	7	3	5
Trenton	63	26	10	27
Middlesex County	79	17	7	55
Woodbridge Township	4	..	..	4
Monmouth County	86	37	15	34
Morris County	36	14	15	7
Ocean County	31	15	7	9
Passaic County	76	44	7	25
Clifton	7	2	..	5
Passaic City	16	9	3	4
Faterson	44	28	3	13
Salem County	12	5	5	2
Somerset County	22	10	5	7
Sussex County	5	3	..	2
Union County	121	46	59	16
Elizabeth	56	19	30	7
Union Township	3	..	2	1
Warren County	11	2	4	5
Institutions	43	12	6	25
Military Posts	6	1	2	3
Allens	7	1	1	5

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 25f. ACTIVE AND PROBABLY ACTIVE PULMONARY TUBERCULOSIS CASES BY EXTENT OF DISEASE BY COUNTIES AND MAJOR CITIES: 1960

AREA	Total	Extent of Disease				
		Minimal	Moderately Advanced	Far Advanced	Primary	Stated Not
New Jersey	1,532	192	607	647	74	12
Atlantic County	42	6	11	22	3	..
Atlantic City	27	3	7	16	1	..
Bergen County	86	10	38	37	..	1
Burlington County	40	3	13	20	2	2
Camden County	91	10	40	41	..	..
Camden City	55	7	22	26	..	..
Cape May County	9	1	2	6	..	..
Cumberland County	32	2	13	14	3	..
Essex County	383	53	138	174	16	2
Bloomfield	11	2	3	6	..	..
East Orange	21	2	11	6	..	..
Irvington	3	2	3	3	..	..
Newark	301	40	109	136	14	2
Gloucester County	17	2	5	9	..	1
Hudson County	228	23	98	93	13	1
Bayonne	13	4	4	4	..	1
Hoboken	22	1	6	13	2	..
Jersey City	129	5	49	64	11	..
Union City	19	2	13	4	..	..
Hunterdon County	9	..	3	6	..	..
Mercer County	92	17	40	28	6	1
Hamilton Township	15	6	7	7	..	..
Trenton	60	12	25	17	6	..
Middlesex County	72	9	41	21	1	..
Woodbridge Township	3	1	1	1	..	..
Monmouth County	81	11	26	29	14	1
Morris County	33	9	11	13	..	..
Ocean County	30	1	9	16	4	..
Passaic County	72	2	35	29	5	1
Clifton	6	1	5	7	..	..
Passaic City	15	..	7	6	2	..
Faterson	43	..	20	19	3	1
Salem County	12	1	3	8	..	..
Somerset County	21	5	6	8	2	..
Sussex County	5	..	3	2	..	..
Union County	113	14	29	65	5	..
Elizabeth	52	6	12	31	3	..
Union Township	3	..	1	2	..	..
Warren County	10	1	7	2	..	..
Institutions	42	10	29	3	..	..
Military Posts	5	2	3	..	..	..
Allens	7	..	4	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 25g. ACTIVE AND PROBABLY ACTIVE TUBERCULOSIS CASES AND RATES BY SEX BY COUNTIES AND MAJOR CITIES: 1960

AREA	Total	Male		Female	
		Rate (a)	Number	Rate (a)	Number
New Jersey	1,651	1,088	36.4	563	18.1
Atlantic County	48	28	36.2	20	29.6
Atlantic City	29	18	64.8	11	34.1
Bergen County	89	53	13.9	36	8.9
Burlington County	43	26	20.7	17	16.7
Camden County	97	53	27.6	44	21.8
Camden City	58	30	52.7	28	46.6
Cape May County	9	6	24.2	3	12.4
Cumberland County	35	22	43.0	13	23.3
Essex County	434	289	65.5	145	30.0
Bloomfield	13	9	36.7	4	14.6
East Orange	23	14	39.7	9	21.6
Irrington	7	4	14.3	3	9.7
Newark	343	232	118.1	111	53.2
Gloucester County	18	15	22.4	3	4.3
Hudson County	237	167	56.3	70	22.3
Bayonne	14	7	19.1	7	18.7
Hoboken	22	15	61.8	7	29.5
Jersey City	136	99	74.1	37	26.0
Union City	19	12	47.5	7	26.2
Hunterdon County	10	7	25.7	3	11.2
Mercer County	98	62	46.7	34	25.1
Hamilton Township	15	10	29.9	5	15.3
Trenton	63	42	75.4	21	36.0
Middlesex County	70	54	24.7	25	11.4
Woodbridge Township	4	1	2.5	3	7.6
Monmouth County	86	61	36.9	25	14.6
Morris County	36	25	19.4	11	8.1
Ocean County	31	22	39.9	9	16.4
Passaic County	78	50	25.2	26	12.4
Clifton	7	5	12.4	2	4.7
Passaic City	16	11	42.4	5	17.8
Paterson	44	28	40.1	16	21.6
Salem County	12	8	26.8	4	13.7
Somerset County	22	15	20.6	7	9.7
Sussex County	5	4	16.1	1	4.0
Union County	121	81	32.9	40	15.3
Elizabeth	56	37	70.7	19	34.1
Union Township	3	3	11.9	...	...
Warren County	11	5	16.4	6	18.5
Institutions	43	30	b	13	b
Military Posts	6	3	b	3	b
Allens	7	2	b	5	b

a. Rate per 100,000 population.

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

Table 26a. SYPHILIS AND GONORRHEA CASES FOR COUNTIES AND MAJOR CITIES, NUMBERS AND RATES: 1960

AREA	Syphilis								Gonorrhoea*	
	All Stages		Primary and Secondary		Early Latent		Gonorrhoea*		Number	Rate†
	Number	Rate†	Number	Rate†	Number	Rate†	Number	Rate†		
New Jersey	5,273	86.5	670	11.0	755	12.4	5,181	85.0		
Atlantic County	296	182.7	23	14.2	25	15.4	161	99.4		
Atlantic City	243	405.0	19	31.7	21	35.0	143	238.3		
Bergen County	219	27.9	20	2.5	40	5.1	150	19.1		
Burlington County	98	43.2	1	0.4	7	3.1	47	20.7		
Camden County	358	90.9	42	10.7	37	9.4	168	42.6		
Camden City	280	222.2	37	51.8	26	22.2	147	125.6		
Cape May County	51	104.1	10	20.4	4	8.2	15	30.6		
Cumberland County	187	174.8	...	...	9	8.4	131	122.4		
Essex County	1,729	187.1	333	36.0	317	34.3	2,046	221.4		
Bloomfield	8	11.5	1	1.9	1	1.9	3	5.8		
East Orange	86	116.9	8	10.4	17	22.1	29	37.7		
Irrington	15	25.4	1	1.7	4	6.8	5	8.5		
Newark	1,506	371.9	308	76.0	276	68.1	1,958	483.5		
Gloucester County	93	68.4	3	2.2	20	14.7	42	30.9		
Hudson County	443	72.6	34	5.6	69	11.3	484	71.1		
Bayonne	17	23.0	1	1.4	10	14.3	8	10.8		
Hoboken	34	70.8	4	8.3	10	20.8	13	27.1		
Jersey City	321	116.3	26	9.4	48	17.4	395	143.1		
Union City	25	48.1	1	1.9	3	5.8	8	15.4		
Hunterdon County	23	42.6	2	3.7	1	1.9	4	7.4		
Mercer County	317	118.3	15	5.6	23	8.6	458	170.9		
Hamilton Township	3	4.5	...	...	20	17.5	4	6.1		
Trenton	249	218.4	10	8.8	20	17.5	431	378.1		
Middlesex County	227	51.8	18	4.1	21	4.8	170	38.8		
Woodbridge Township	15	18.8	1	1.3	2	2.5	9	11.3		
Monmouth County	331	98.2	8	2.4	27	8.0	272	80.7		
Morris County	83	31.4	10	3.8	8	3.0	31	11.7		
Ocean County	57	51.8	1	0.9	3	2.7	25	22.7		
Passaic County	369	90.4	118	28.9	87	21.3	389	95.3		
Clifton	10	12.0	2	2.4	...	...	8	9.6		
Passaic City	40	74.1	7	13.0	5	9.3	5	9.6		
Paterson	298	206.9	108	75.0	80	55.6	345	239.6		
Salem County	67	113.6	4	6.8	7	11.9	19	32.2		
Somerset County	42	29.0	...	...	1	0.7	22	15.2		
Sussex County	11	22.0	...	...	...	...	3	6.0		
Union County	239	47.1	22	4.3	41	8.1	181	35.7		
Elizabeth	89	82.4	10	9.3	13	12.0	100	92.6		
Union Township	20	38.5	2	3.8	6	11.5	12	23.1		
Warren County	19	30.2	1	1.6	2	3.2	8	12.7		
State Institutions	5	†	...	...	2	†	1	†		
Military Posts	9	†	5	†	4	†	404	†		

* Includes 948 cases reported as having epidemiologic treatment for gonorrhoea.

† Rate per 100,000 population as of July 1, 1960 estimated by the New Jersey State Department of Health.

‡ Rate not computed due to lack of population base.

Table 26b. VENEREAL DISEASE CASES BY AGE GROUP, NUMBERS AND RATES: 1960
(Including Military Cases)

Age Group	Total Venereal Diseases		Syphilis				Primary and Secondary		All Stages		Late Latent		Early Latent		Late		Congenital		Gonorrhea		Other Venereal Diseases	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate	Number	Rate
ALL AGES	10,487	172.0	5,273	86.5	670	11.0	755	12.4	3,406	55.0	263	4.3	179	2.9	5,181	85.0	33	0.5				
Under 1	17	13.3	13	10.2											4	3.1						
1-4	18	3.5	3	0.6											1	0.2						
5-9	3,605	591.2	23	11.2											7	0.6						
10-14	4,315	510.1	2,170	255.8											60	8.3						
15-24	1,770	133.1	1,641	125.4											11	0.8						
25-44	523	83.2	103	16.0											7	0.8						
45-64	170		103																			
65+																						
Unated																						

* Note: Rates are per 100,000 estimated population.

* In the 15-19 year age group, there were 69 primary and secondary syphilis cases and a rate of 17.4. For the same age group, there were 671 gonorrhea cases and a rate of 106.4.

In the 20-24 year age group, there were 207 primary and secondary syphilis cases and a rate of 64.1. For the same age group, there were 2,129 gonorrhea cases and a rate of 650.3.

Table 26c. CASES OF SYPHILIS, BY STAGE, AND GONORRHEA, NUMBERS AND RATES: 1941-1960
(Civilian Cases Only)

Year	Population Estimate	Syphilis						Gonorrhea		
		Total Cases		Primary and Secondary		Early Latent		Number	Rate*	
		Number	Rate*	Number	Rate*	Number	Rate*			
1941	4,199,900	11,391†	271.2	‡	‡	‡	‡	‡	‡	
1942	4,226,426	12,167	287.0	‡	‡	‡	‡	‡	4,390†	104.5
1943	4,235,233	9,509	224.5	‡	‡	‡	‡	‡	3,271	77.4
1944	4,167,840	8,664	207.9	‡	‡	‡	‡	‡	2,141	50.6
1945	4,200,941	8,901	211.9	1,317	31.4	2,694	64.1	‡	3,094	74.2
1946	4,304,261	9,881	229.6	2,010	46.7	3,453	80.2	‡	4,468	150.3
1947	4,435,000	8,735	197.0	1,670	37.7	3,138	70.8	‡	6,448	145.4
1948	4,729,000	8,352	176.6	1,182	25.0	2,978	63.0	‡	4,069	86.0
1949	4,786,000	7,795	162.9	771	16.1	2,511	52.5	‡	4,449	93.0
1950	4,832,000	5,838	120.8	360	7.5	1,768	36.6	‡	3,633	81.4
1951	4,989,000	4,016	80.5	228	4.6	1,125	22.5	‡	3,559	71.3
1952	5,112,000	3,846	75.2	150	3.5	1,029	20.1	‡	3,596	70.3
1953	5,236,000	3,742	71.5	163	3.2	1,005	19.2	‡	3,682	70.3
1954	5,359,000	5,285	98.6	184	3.4	1,175	21.9	‡	3,761	70.2
1955	5,482,000	4,854	88.5	214	3.9	1,095	20.0	‡	4,150	75.7
1956	5,605,000	4,263	76.1	92	1.6	578	10.3	‡	3,828	68.3
1957	5,723,000	5,429	94.8	114	2.0	462	8.1	‡	4,789	83.6
1958	5,851,000	6,055	103.5	170	2.9	638	10.9	‡	5,493	93.9
1959	5,974,000	4,563	81.4	302	5.1	609	10.2	‡	4,646	77.8
1960	6,098,000	6,265	86.3	365	10.9	752	12.3	‡	4,778	78.4

Note: Data for 1941 through 1956 include all New Jersey resident cases plus all nonresident cases diagnosed in New Jersey, but exclude military cases except when specified otherwise.
Data for 1957 to date include New Jersey resident cases only and also exclude military cases.
* Rate per 100,000 estimated population.
† Fort Dix cases included.
‡ Not available.

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