

EIGHTY-SIXTH ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1963



STATE OF NEW JERSEY

DEPARTMENT OF HEALTH

TRENTON, NEW JERSEY

*To His Excellency, Governor Richard J. Hughes:*

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

This is the Annual Report of the Department of Health for the calendar year 1963.

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 1963-1964

JOHN J. CANE, D.D.S., <i>Chairman</i> .....	Phillipsburg
C. BYRON BLAISDELL, M.D., <i>Vice-Chairman</i> .....	Deal
ERMA T. DILKES, <i>Secretary</i> .....	Sewell
NELSON S. BUTERA .....	Morristown
MICHAEL S. KACHORSKY .....	Manville
ANTHONY P. MILLER, JR. ....	Pleasantville
MRS. J. DUNCAN PITNEY .....	Ridgewood
HARRY J. ROBINSON, M.D. ....	Short Hills

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

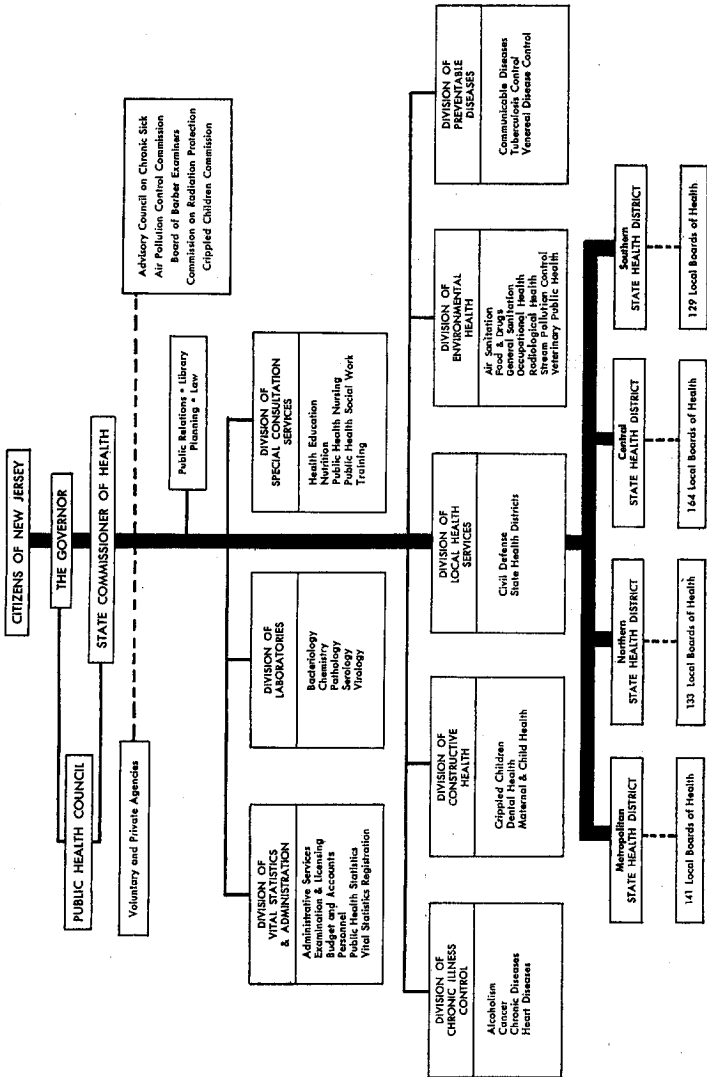
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OF THE STATE OF NEW JERSEY, 1963

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## Annual Meeting Public Health Council

The annual meeting of the Public Health Council was held on July 8, 1963. The following officers were elected for the fiscal year beginning July 1, 1963 and ending June 30, 1964: John J. Cane, D.D.S., Chairman; C. Byron Blaisdell, M.D., Vice-Chairman; and Erma T. Dilkes, Secretary.

The membership of the Council was as follows:

	<i>Address</i>	<i>Term of Office Expiration Date</i>
C. Byron Blaisdell, M.D. ....	Deal	June 30, 1964
Mrs. J. Duncan Pitney .....	Ridgewood	June 30, 1965
Anthony P. Miller, Jr. ....	Pleasantville	June 30, 1966
Erma T. Dilkes .....	Sewell	June 30, 1967
John J. Cane, D.D.S. ....	Phillipsburg	June 30, 1968
Michael S. Kachorsky .....	Manville	June 30, 1968
Harry J. Robinson, M.D. ....	Short Hills	June 30, 1969
Nelson S. Butera .....	Morristown	June 30, 1970



## 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 ..... ROSCOE P. KANDLE, M.D.  
*Acting Program Coordinator*

Cancer Control ..... WILLIAM J. HARRIS, M.P.H.  
*Acting Program Coordinator*

Chronic Disease Control ..... ROSCOE P. KANDLE, M.D.  
*Acting Program Coordinator*

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

Diseases of Nervous System and  
Special Senses ..... LEON A. FRASER, M.D.  
*Program Coordinator*

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

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

### *Public Health Nurse Consultants:*

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

..... CLEORA C. BROWN, R.N.  
..... PATRICIA E. HANNA, R.N.  
..... ELIZABETH T. HARRIS, R.N.  
..... VIOLA B. MACK, R.N.  
..... MILDRED G. MERKIN, R.N.

## Division of Chronic Illness Control

### Alcoholism Control Program

#### *Services*

4,369 individual patients were reached during this year by services sponsored by the Alcoholism Control Program.

3,353 persons were seen in the nine out-patient treatment centers in community hospitals. These centers are staffed by full-time, trained social workers, part-time physicians, and consulting psychiatrists, and provide medical treatment, group therapy, and individual casework services for the alcoholic patient and his or her family. The center also serves as the coordinating agency in the community for problems related to alcoholism. 1,016 persons attended weekly group meetings in four tuberculosis hospitals, one county jail, and a county workhouse. The meetings are conducted by the field representative of the Alcoholism Control Program, and are for patients and inmates who have a problem with alcoholism.

An evaluation of rehabilitation has been attempted with the 3,353 patients seen in the nine out-patient treatment centers. Considered as indications of success are the degree of improvement in the individual's drinking habits, his employment record, his physical health, and his social adjustment, including family relationships. The results were as follows:

- 54 percent showed marked or reasonable improvement;
- 23 percent showed no improvement;
- 23 percent were unknown because their contact with the treatment center was too brief.

Alcoholism continues to be a major public health problem in New Jersey. Using the Jellinek Estimation Formula,\* it is estimated that New Jersey has 250,500 alcoholics. The rate of alcoholism in New Jersey continues at 6,060 per 100,000 adults 20 years of age and over. This rate is second only to that of California.

A recent activity of the Alcoholism Program has been support of community information referral and counseling centers on alcoholism. During

\*A method of measuring the number of alcoholics in a community based on the reported number of deaths from cirrhosis of the liver. It was developed by the late E. M. Jellinek, Sc.D., who was affiliated with the Yale Center of Alcohol Studies which has since been transferred to Rutgers University. *Editor.*

this year, contracts were provided to the Family Service Association of Atlantic County and the Chr-III Service Council on Alcoholism in East Orange. These centers do not provide long-range treatment, but act as a clearing house for individuals seeking help and information with regard to alcoholism. Community education is an important aspect of the program.

Six hundred and twenty-one alcoholics or their families sought help or information from the two centers during the year. These individuals made a total of 1,215 visits to the centers. 3,052 telephone inquiries were answered by the centers from alcoholics, their families, employers, the courts, etc.

A second social work trainee has been added to the program. The worker has been accepted in the three-year program at Rutgers—the State University, Graduate School of Social Work, beginning in September. During the three years, the clinic will have the services of the worker four days a week while she attends school one day a week. This is the second trainee recruited. It is difficult to obtain qualified social workers and the trainee program is an essential source of additional staff.

One clinic has not had full-time coverage by a social worker since September. The social work consultant from this Department gives two days each week to the clinic. Additional services throughout the state are needed; but until qualified staff can be recruited, it does not seem feasible to attempt to develop additional programs. However, we continue to work with interested community groups to develop programs to meet specific needs.

#### *Educational Activities*

During this year, the Alcoholism Program made a valuable contribution to the field of alcoholism in the United States. On September 25, 26, and 27, a workshop for local health officers entitled "Program on Alcoholism for Local Health Officers" was held in Princeton. This was the first conference of its kind for local health officers. A Technical Assistance Project grant from the National Institute of Mental Health made it possible to invite all full-time local health officers for training. The conference brought to New Jersey well qualified persons to present papers.

In addition to the local health department representatives, key State Health Department personnel were invited, so that they would have an opportunity to gain additional understanding about the problem and be better equipped to work with the municipal health officers. Fifty-one persons attended the three-day program.

The proceedings of this conference have been reproduced and distributed to health officials in all states by the National Institute of Mental Health.

In addition to the 51 persons attending the three-day workshop for local health officers, 153 other persons received training in alcoholism at workshops, institutes and the Rutgers Summer School of Alcohol Studies.

In cooperation with the Academy of Medicine of New Jersey, the Alcoholism Control Program sponsored a meeting on the "Current Advances in Treatment of Alcoholism." Program personnel also participated in a state-wide alcoholism program sponsored by the Overbrook Hospital in Essex County.

One hundred and three lectures were given by program personnel and staff of the alcoholism treatment centers to groups such as service clubs, church groups, hospital staffs, and other professional organizations.

Six films, "Alcoholism," "Alcohol and the Human Body," "What About Drinking?," "What About Alcoholism?," "Kid Brother," and "To Your Health" are available on loan through the State Museum for showing to schools and other interested groups. During the year, there were 482 film showings with an attendance of 24,197 persons.

The Program continues to publish "Alcoholism—A Treatment Digest for Physicians." It is sent to all physicians in New Jersey and other interested individuals. Much of the material in the Digest is syndicated and obtained from the Center of Alcohol Studies at Rutgers—the State University and is distributed in New Jersey exclusively through the Digest.

#### *Research*

During the year, the Department supported studies in alcoholism. The Center of Alcohol Studies at Rutgers undertook a community study to determine the problems of alcoholism and methods of education to alleviate these problems in typical New Jersey communities.

The Seton Hall College of Medicine and Dentistry received support from this Program for the following studies:

*Deficiency of Thiamine Pyrophosphate Apoenzyme in Liver Disease*

*B Complex Vitamins in Alcoholic Peripheral Neuropathy*

*Observations on the Mechanism and Significance of Folic Acid Deficiency in Liver Disease*

*Kupffer Cell Proliferation in Fatty Liver and Cirrhosis of the Alcoholic*

*Determinants of Diuretic Response to Ascites of Cirrhosis*

*Observations on the Effects of Drug-Induced Injury on Hepatic DNA*

*Synthesis*

*Experimental Animals and Man*

*Program Emphasis*

We try to provide additional coverage to the out-patient treatment centers by using part-time social workers and qualified psychologists. We will try to expand the trainee program, using the three-year program for social workers at Rutgers University Graduate School of Social Work.

**Arthritis and Allied Disorders**

Assistance has been continued to the Division of Rheumatology of the Seton Hall College of Medicine for out-patient services to arthritics in conjunction with research in the treatment and control of these diseases. A well-qualified nurse is supplied to the service. A report of activities in this program during 1963 follows:

## CLINICAL CATEGORIES OF PATIENTS TESTED

Rheumatoid Arthritis .....	1,200
Degenerative Joint Disease .....	265
Rheumatic Fever .....	134
Gout .....	216
Other .....	600
	2,415

**Cancer Control**

A considerable portion of the Cancer Control Program's activity during this year has been concerned with smoking and health. Surveying high school students to determine their smoking habits and attitudes was a major activity. The survey conducted by students at Newton High School was used as a baseline for a second survey during this year. This student group was used to pre-test an expanded questionnaire to be used among other high school and college students.

The Department, with the cooperation of the Department of Sociology at Rutgers conducted a survey of the high school students in Somerset County and St. Elizabeth's High School and College in Madison. This was to determine habits, attitudes, and knowledge regarding smoking among these groups. During the school year, intensive programs will be conducted in selected schools while no additional educational activities will be conducted in the remaining schools participating in the project. Next spring, these same students will be tested to determine whether or not an intensive education program on smoking has had any effect.

The Department was responsible for the production of a "Teachers' Reference Guide on Smoking and Lung Cancer." The Guide consists of a series of suggestions for the teacher in developing a curriculum on smoking. It has been well received and has been requested by health departments, education departments, and teachers throughout the country. The original printing of 10,000 was soon depleted. A second printing of 2,000 was ordered. To implement use of the Guide in New Jersey, the Department, in conjunction with the State Department of Education and New Jersey Division of the American Cancer Society, conducted 10 regional one-day workshops for secondary school teachers. More than 400 persons attended. Future plans include a follow-up of those participating to determine the extent to which this experience has enabled them to develop more adequate programs for presentation to their students.

*Anti-Smoking Group*

In addition to working with students, the Department also undertook a demonstration of group therapy to determine the effect this approach would have upon individuals desirous of giving up the smoking habit. A memorandum was circulated to the employees of the Department in the Trenton area announcing that a program to aid individuals who were interested in stopping smoking was being developed. Participation was voluntary and was held after office hours, so that their major motivation would be to give up smoking. Sixteen persons indicated a desire to join in this project. When the group began, 13 persons appeared. The 12 sessions were held one evening per week for one and a half hours in a conference room of the Department. Sessions were conducted by a psychiatrist with extensive experience in the group therapy technique. However, he had no experience in dealing with smokers. He himself had given up the habit about four years before. An evaluation at the conclusion of the program showed that of the 12 individuals who attended with some regularity, five had been clearly helped; three were not smoking, although one of the three had stopped before the clinic but attended to reinforce his abstinence; two others had abstained for three weeks during the sessions but have since resumed smoking, although at a reduced rate of consumption. One thing seems clearly evident—the degree of success in giving up smoking is directly related to the number of sessions attended. The two individuals who broke the habit attended 11 of the 12 sessions. A follow-up six months from the conclusion of the group sessions will be made to obtain more information.

The experience of this demonstration group encouraged the Program to attempt to develop additional programs to assist persons to give up the smoking habit. We will seek different approaches so that more persons can be reached.

The Program is working with a local voluntary health agency to develop an educational program which will consist primarily of lecture and discussion sessions. A physician is interested in developing a program for "sick" smokers; that is, individuals who have been advised by their physicians to give up smoking because of an illness that is being irritated by continued heavy smoking.

#### *Cytology*

The training of cyto-technicians to be used as screeners continues in conjunction with the Presbyterian Hospital Unit of the United Hospitals of Newark. During this year, four well-qualified students are taking the course which is held one day each week for a period of eight months. One advantage of this course is that it enables the technician to stay on the job in his laboratory while receiving the additional training.

As a demonstration, the Department entered into a contract with a local health department to conduct a community-wide cytology screening program in an attempt to involve local practicing physicians and make the community more aware of the importance of this proven method of early detection of cervical cancer. Results of this program will be carefully reviewed to determine the yields and problems in such community-wide programs.

During the year, there were a total of 3,962 patients screened in seven programs sponsored by this Department. The following is a breakdown as to classification of the Papanicolaou smears taken on the patients screened.

I	II	III	IV	V	Deferred
2,612	1,012	116	140	61	21

#### *Oral Cytology*

In cooperation with the Dental Health Program of the Department, a series of four courses in oral cytology were planned with the Seton Hall College of Dentistry. The program has been designed to provide a one-day course of theory and practical orientation in oral cytology for practicing dentists in New Jersey. The first two courses held in October and November trained 72 dentists in this technique.

During this demonstration period, arrangements were made with the pathologist at Presbyterian Hospital in Newark to process all slides submitted by the dentists. Only those dentists who have taken the course are eligible to submit slides under this program.

Following the next two courses, to be held in the spring of 1964, an evaluation will be made to determine the extent to which the Department will become further involved in the training of dentists in oral cytology.

#### *Isotopes*

The extent of the use of radioisotopes as a diagnostic tool and therapy continues in three hospitals: Presbyterian Hospital, Newark; St. Barnabas Hospital, Newark; and West Jersey Hospital in Camden. During this period, 396 patients received this service; 355 for diagnosis and 41 for therapy.

Monitoring of equipment and personnel continues in these three hospitals.

#### *Dog Lymphoma Study*

This study continues with the cooperation of veterinarians throughout the state who send specimens of tissue obtained from dogs to the pathologist of the Rutgers Veterinary Laboratory for diagnosis. During the year, 77 tissue specimens from dogs were processed.

#### *Cancer Registry*

The pilot project of a county cancer registry has completed its first year of operation. The project has been undertaken by the Bergen Pines County Hospital in Paramus. Six community general hospitals in the county are participating in the program. The central registry records information on all cancer patients seen at these hospitals and screens all records to be sure there is no duplication of patients who might have been treated at more than one participating hospital. A summary of the first year indicated that there were 1,726 new cancer cases reported to the registry.

#### *Death Certificates*

The program continues to act as a liaison between hospitals and the Public Health Statistics Program in furnishing copies of death certificates from cancer. During the past year, 652 photocopies of death certificates were furnished to hospitals in New Jersey and nearby states. This service helps to complete hospital records and assists in maintaining case registries for completeness of follow-up on all cancer patients.

#### *Education*

The Academy of Medicine of New Jersey has received assistance from the Department to conduct four symposia on gastrointestinal cancer in some of the rural areas of the state. The purpose is to bring to some of the less populous areas of the state information on the latest developments in cancer treatment and research.

*Film Showings*

With the cooperation of the Film Library of the State Museum, the Cancer Program makes nine films available for use by professional and lay groups interested in cancer education. During the period, there were 97 showings attended by 5,075 persons.

*Nursing Activities*

Eighty-five nurses from nine hospitals and 12 public health agencies attended 26 sessions of the Black-Stevenson Clinical Observation Program for nurses. The sessions are co-sponsored by the Presbyterian Hospital Unit of the United Hospitals of Newark and the Department. The objective of this in-service training program is to give nurses an opportunity to observe the latest methods of diagnosis and treatment for patients with cancer.

The day's observation starts in the Black-Stevenson Clinic with a description of the hospital and clinic facilities and a review of the case histories of the patients to be seen in the head and neck clinic that morning. During the clinic session, the staff physicians discuss the patients' diagnoses and course of treatment.

In the afternoon, the nurses are shown through the radiation and isotope departments. The nurse in charge and a technician demonstrate and explain the methods used in diagnosing and treating cancer with radioisotopes.

Over 600 New Jersey nurses have participated in this program since it was initiated in 1957.

*"Ostomy" Model*

The public health nurse consultant demonstrated the plastic "ostomy" model to 15 public health nurses in Burlington County. During this demonstration, the functional use of the intestines and bladder are explained and the mechanics of specific bowel and bladder surgical procedures can be shown as they have been performed on the patient. The uses of appliances used post-operatively by these patients are also demonstrated and discussed. This type of teaching will be conducted throughout the state to public health nurses so they can better care for the patient with certain surgical operations due to cancer.

*Educational Activities*

Public health nurse consultant assisted the director of in-service education, St. Barnabas Hospital, Newark, to plan an in-service education program for staff nurses. The program was designed to acquaint hospital nurses with preventive applications in cancer, such as breast self-examination, as well as information about nursing care of the cancer patient.

**Chronic Diseases Program***Cooperative Community Projects*

During 1963, grant-in-aid contracts were in effect with 75 agencies, including 26 community hospitals, 19 homemaker agencies, 11 nursing services, six local health departments and 13 other organizations, in a total amount of more than \$650,000 (Table 1.). These grants helped the local agencies in strengthening programs for the rehabilitation of the alcoholic; conducting screening programs for the early detection of diabetes, glaucoma, and pulmonary diseases; providing diet counseling, consultant physical therapy, nursing, homemaker and friendly visitor services for the chronically ill and aged; improving services in nursing homes; carrying out specialized techniques in connection with the diagnosis and treatment of cancer and cardiovascular disease; developing comprehensive home care programs; conducting professional education programs; testing and refining the standardized statistical reporting and cost accounting system for homemaker services; expanding rehabilitative and restorative services; and, conducting special studies in arthritis, cancer, diabetes, and heart disease.

TABLE 1. GRANT-IN-AID CONTRACTS  
(By Agency and Type of Service)

## ACADEMY OF MEDICINE:

Professional education program.

## ALL SOULS HOSPITAL, MORRISTOWN:

Rehabilitation service for alcoholics.

## AMERICAN CANCER SOCIETY, NEW JERSEY DIVISION:

Regional workshops for teachers on implementation of Teachers' Reference Guide on Smoking and Lung Cancer.

## AMERICAN RED CROSS, CAMDEN COUNTY CHAPTER:

Diet counseling (six months).

## ATLANTIC CITY HOMEMAKER SERVICE:

Standardized statistical reporting and cost accounting system.

## ATLANTIC CITY VISITING NURSE ASSOCIATION:

Stroke program.  
Diet counseling.

## BERGEN PINES COUNTY HOSPITAL, PARAMUS:

Rehabilitation service for alcoholics.  
Diet counseling.

## VISITING HOMEMAKER SERVICE OF BERGEN COUNTY:

Standardized statistical reporting and cost accounting system.  
Pilot project in employment of salaried homemakers.

## BURLINGTON COUNTY MEMORIAL HOSPITAL, MOUNT HOLLY:

Diet counseling.

## VISITING HOMEMAKER SERVICE OF BURLINGTON COUNTY:

Standardized statistical reporting and cost accounting system.  
Homemaker program.

## CAMDEN COUNTY GENERAL HOSPITAL, LAKELAND:

Comprehensive home care program.

## HEALTH AND WELFARE COUNCIL OF CAMDEN:

Neighborhood conservation program with studies of the needs of the chronically ill on the basis of neighborhood analyses.

## VISITING HOMEMAKER SERVICES, CAMDEN:

Stroke program.  
Standardized statistical reporting and cost accounting system.

## VISITING NURSE ASSOCIATION OF CAMDEN:

Consultant physical therapy services.  
Diet counseling (six months).

## CAMP NEJEDA FOUNDATION:

Summer Camp for diabetic children.

## CAPE MAY COUNTY HEALTH DEPARTMENT:

Diabetes screening.

## CENTRAL BERGEN VISITING NURSE ASSOCIATION:

Consultant physical therapy services.

## VISITING HOMEMAKER SERVICE OF CENTRAL UNION COUNTY:

Standardized statistical reporting and cost accounting system.

## CHILDREN'S SEASHORE HOUSE, ATLANTIC CITY:

Stroke program.

## CHR-ILL SERVICE, INC., EAST ORANGE:

Information, counseling and referral service for alcoholics.  
Resident homemaker program.  
Standardized statistical reporting and cost accounting system.

## CLARA MAASS MEMORIAL HOSPITAL, BELLEVILLE:

Diabetes screening.

## COLLINGSWOOD COMMUNITY NURSING SERVICE:

Stroke program.

## COOPER HOSPITAL, CAMDEN:

Stroke program.  
Diabetes screening.

## DONNELLY MEMORIAL HOSPITAL, TRENTON:

Rehabilitation service for alcoholics.  
Restorative services program.

## EAST ORANGE GENERAL HOSPITAL:

Stroke program.

## EAST ORANGE HEALTH DEPARTMENT:

Diabetes screening.  
Cytology program.

## ELIZABETH HEALTH DEPARTMENT:

Public health nursing services for the chronically ill and aged.

## FAMILY SERVICE ASSOCIATION, ATLANTIC CITY:

Information, counseling and referral service for alcoholics.

## HACKENSACK HOSPITAL:

Community cancer screening program in conjunction with County Medical Society.

## VISITING HOMEMAKER SERVICE OF HUDSON COUNTY:

Homemaker program.  
Standardized statistical reporting and cost accounting system.

## VISITING HOMEMAKER SERVICE OF HUNTERDON COUNTY:

Standardized statistical reporting and cost accounting system.

## HUNTERDON MEDICAL CENTER:

Comprehensive home care program.  
Retrospective study of chronic illness survey.  
Cytology program.

## INSTITUTE OF PHYSICAL MEDICINE AND REHABILITATION, NEW YORK CITY:

Training in restorative services and rehabilitation.

## JERSEY CAPE VISITING HOMEMAKER SERVICE:

Homemaker program.  
Standardized statistical reporting and cost accounting system.

## JERSEY CITY STATE COLLEGE:

Nurses training in audiology.

**MERCER COUNTY CHILD GUIDANCE CENTER:**

Diabetes workshop.

**VISITING HOMEMAKER SERVICE OF MIDDLESEX COUNTY:**

Homemaker program.

Standardized statistical reporting and cost accounting system.

**MIDDLESEX COUNTY VISITING NURSE ASSOCIATION:**

Consultant physical therapy services.

Restorative nursing services.

**MIDDLESEX GENERAL HOSPITAL, NEW BRUNSWICK:**

Diabetes screening.

Early identification of streptococci for prevention of rheumatic fever.

**VISITING HOMEMAKER SERVICE OF MONMOUTH COUNTY:**

Standardized statistical reporting and cost accounting system.

**MONMOUTH COUNTY ORGANIZATION FOR SOCIAL SERVICE:**

Consultant physical therapy services.

**MONTCLAIR COMMUNITY NURSING SERVICE:**

Restorative nursing services.

**VISITING HOMEMAKER SERVICE OF MORRIS COUNTY:**

Standardized statistical reporting and cost accounting system.

**MORRIS COUNTY VISITING NURSE ASSOCIATION:**

Diet counseling.

**MORRISTOWN MEMORIAL HOSPITAL:**

Rehabilitation service for alcoholics.

Cytology program.

Diabetes screening.

**MOUNTAINSIDE HOSPITAL, MONTCLAIR:**

Rehabilitation service for alcoholics.

**NEWARK BETH ISRAEL HOSPITAL:**

Comprehensive home care program.

Cytology program.

Special studies in cardiovascular disease.

**NEWARK EYE AND EAR INFIRMARY:**

Glaucoma detection and research.

Hearing and speech program.

**VISITING NURSE ASSOCIATION OF NEWARK AND VICINITY:**

Restorative nursing services.

Diet counseling.

**NEWCOMB HOSPITAL, VINELAND:**

Rural cardiology service.

Cytology Program.

Special study of leukemia deaths from 1953-63 in Cumberland County.

**NURSING SERVICE, RIDGEWOOD:**

Consultant physical therapy services.

**VISITING HOMEMAKER SERVICE OF OCEAN CITY:**

Homemaker program.

Standardized statistical reporting and cost accounting system.

**HOSPITAL CENTER AT ORANGE:**

Comprehensive home care program.

Educational program in rehabilitation nursing.

Cardio-pulmonary laboratory.

**VISITING NURSE ASSOCIATION OF ORANGES AND MAPLEWOOD:**

Restorative nursing services.

**PASSAIC GENERAL HOSPITAL:**

Dietary instruction for diabetes.

**VISITING HOMEMAKER SERVICE OF PASSAIC COUNTY:**

Standardized statistical reporting and cost accounting system.

**PATERSON BOARD OF HEALTH:**

Comprehensive home care program.

**PENNSYLVANIA HOSPITAL, PHILADELPHIA:**

Professional education programs in chronic illness and aging.

**PLANNED PARENTHOOD ASSOCIATION OF MERCER COUNTY:**

Screening tests for cancer.

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

Pulmonary neoplasm study.

Screening tests for cancer.

**COMMUNITY HOMEMAKER SERVICE OF PRINCETON:**

Standardized statistical reporting and cost accounting system.



**PRESBYTERIAN HOSPITAL, NEWARK :**

- Cytology teaching center.
- Cancer training sessions for nurses.
- Screening tests for cancer.
- Isotope laboratory.
- Stroke program.

**ROOSEVELT HOSPITAL, METUCHEN :**

- Rehabilitation service for alcoholics.

**RUTGERS—THE STATE UNIVERSITY :**

- Development and refinement of questionnaire for smoking survey.
- Statistical services for Anti-Coronary Club.
- Community diet counseling.
- Homemaker training courses.
- Volunteer Friendly Visitor training courses.
- Scholarship in medical social work.
- Field work training for medical social work students.
- Survey of weight reduction and control program.
- Study of Payment Patterns in Public Health Nursing Services.
- Study of Service Areas for Public Health Programs.
- Community study on problems of alcohol and alcoholism.
- Demographic studies of active and control group members of Anti-Coronary Club.

**SAGE VISITING HOMEMAKER SERVICE :**

- Standardized statistical reporting and cost accounting system.

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

- Rehabilitation service for alcoholics.
- Cardio-pulmonary laboratory.
- Restorative services.

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

- Anti-Coronary Club.

**SETON HALL COLLEGE OF MEDICINE AND DENTISTRY :**

- Rehabilitation service for alcoholics.
- Scientific studies in field of arthritis.
- Diagnostic tests for cancer of gastro-intestinal system.
- Special studies in peritoneal dialysis.
- Training courses for dentists in oral cytology.

**VISITING HOMEMAKER SERVICE OF SOMERSET COUNTY :**

- Homemaker program.
- Standardized statistical reporting and cost accounting system.

**TRI-COUNTY SOCIETY FOR CRIPPLED CHILDREN AND ADULTS, ATLANTIC CITY :**

- Stroke program.

**VISITING HOMEMAKER SERVICE OF GREATER TRENTON :**

- Development of a homemaker program.

**VISITING HOMEMAKER ASSOCIATION OF NEW JERSEY, INC. :**

- State-wide homemaker program.

**WAYNE TOWNSHIP BOARD OF HEALTH :**

- Cytology program.

**WEST JERSEY HOSPITAL, CAMDEN :**

- Rehabilitation service for alcoholics.
- Stroke program.

*Diet Counseling*

Three additional diet counseling services were established during the year, in Bergen, Burlington, and Morris Counties. Services had been functioning in Camden and Middlesex Counties and in Newark. Each receives partial financial support and consultation services from the Department.

The Bergen County Diet Counseling Service, located at Bergen Pines County Hospital, began July 1, 1963 offering service two days per week to county residents upon a physician's referral. Much time was required to promote the program during its first months of operation, Counseling services were provided to 29 patients.

The Burlington County Diet Counseling Service started in September, 1963 with headquarters at the Burlington County Memorial Hospital, Mount Holly. It functions under the direct supervision of the hospital administrator with the nutrition committee of the hospital serving as an advisory board. This Service received immediate and continuing physician support. It is a full-time service receiving partial support from this Division with the remainder of the costs being carried by the hospital. During the first four months of operation, 150 patients were counseled, of whom 101 paid full fees, five paid partial fees, and 44 paid no fees.

The most recently established Service, located in the Visiting Nurse Association of Morris County, Morristown, provides service on a one-day per week basis. Seven patients were referred for counseling during the two months the service was in existence during the year.

More than 400 patients were served by the Diet Counseling Service of Camden County, now in its third year of operation. Originally administered through the Camden County Chapter of the American Red Cross, the service

is now located in the Visiting Nurse Association of Camden. Almost entire financial support comes from the United Fund of Camden County.

The Diet Counseling Service of Middlesex County, located at Douglass College, serves the dual purpose of providing individual and group diet instructions and educational instruction for Home Economics students at the College. The director is a nutrition instructor for the Home Economics Department of Douglass College and, in addition to her administrative and supervisory project duties, she is able to plan and coordinate observation and field experience for students majoring in nutrition, dietetics, and adult education.

The Visiting Nurse Association of Newark is the headquarters for the diet counseling service of Newark and its environs. One hundred and six persons were counseled individually during the year.

As Diet Counseling Services became more established and with the development of additional services, the need for uniform reporting became apparent. A form was developed and standardized reporting of activities began with the last quarter of the year. Data received in these reports are summarized in Tables 2 and 3.

Table 2.  
OCTOBER 1 - DECEMBER 31, 1963

Location and date of establishment	Total Patients Served	Total Counseling Sessions	No. of Physicians Using Service	Other Agency Referrals
Bergen Co. (7/1/63) Two days per week	15	15	7	8
Burlington Co. (9/3/63) Five days per week	134	134	13	4
Camden Co. (10/1/60) Five days per week	185	124	94	65
Newark (12/1/62) Two days per week	52	82	13	39
Middlesex Co. (5/23/62) Five days per week	24	32	9	12
Morris Co. (11/6/63) One day per week	7	14	1	6
Totals	417	401	137	134

Table 3. COSTS AND FEES

OCTOBER 1 - DECEMBER 31, 1963

Service	Actual Cost Per Hour, as Reported	No. of Patients Paying Fees		
		Full	Partial	None
Bergen	*	*	*	*
Burlington	\$6.88	88	4	19
Camden	\$4.03	..	2	183
Newark	\$5.75	4	11	37
Middlesex	\$6.95	13	..	11
Morris	\$4.72	1	..	6
Average Cost Per Hour	\$5.675			
Totals		106	17	256

\* Due to financial arrangements, information not available at present time.

During 1963, patients received counseling services, as follows:

Bergen	29	Newark	106
Burlington	150	Middlesex	69
Camden	402	Morris	7

The medical diagnosis for 26.9 percent of the 417 patients served during the last quarter of the year was heart and circulatory disease with an additional 16.4 percent for diabetes and 9.1 percent obesity. The diets most often requested during this same period were sodium restrictions; diabetic; various combinations; calorie modifications; fat and cholesterol restrictions; normal, soft and liquid; and, bland and ulcer.

#### Federal Grant

A grant was received from the Public Health Service, Division of Chronic Diseases, for a study of "Diet Counseling Services in New Jersey." The services of a nutritionist were obtained to prepare the report. The project was undertaken at the request of the Public Health Service which plans to use the material to develop plans for diet counseling projects in other states.

#### Exhibit

A new exhibit, designed to explain and promote diet counseling for professional audiences, was developed. A brochure was designed for use with the exhibit and for general distribution. The exhibit has been used at the annual meeting of The Medical Society of New Jersey, the American Dietetics Association annual meeting in Philadelphia, the Community Nutrition Institute at Rutgers, and in Bergen County.

*New Jersey Diet Manual*

The State Diet Manual was originally printed in 1958. Since then, two printings have been distributed, almost 9,000 manuals. It was decided to revise the manual in 1963, when the new revision of the Recommended Dietary Allowances of the National Research Council would be available. The Diet Manual Committee of the New Jersey Dietetic Association, meeting with Nutrition Program staff and Medical Society representatives, have started the revision.

*Friendly Visitors*

The Volunteer Friendly Visitor Project instituted in 1962 under the auspices of the Division of Chronic Illness Control is a community service designed to assist health and welfare agencies through enlistment and training of Volunteer Friendly Visitors. It is administered by an 18-member volunteer State Committee comprised of professional and other citizens with an active interest in public health. A unique feature of the program is that it provides an additional community service without the creation of an additional agency.

A training course developed by the State Committee on Volunteer Friendly Visitors and the Extension Division of Rutgers, is provided on a county basis for volunteers who have been recruited and screened by local participating agencies. Upon completion of the training course, the Visitor returns to his sponsoring agency for assignment and supervision. Ten training courses were held in 1963, attended by 340 persons, 316 females and 24 males. These courses are subsidized by the Division of Chronic Illness Control and given under the auspices of Rutgers University Extension Division.

*Homemaker*

522,486 hours of service were provided to 4,576 different families by 17 homemaker agencies during 1963, an increase of 7.4 percent over hours of service rendered during the previous year. This is an all-time high for the state and reflects the steady growth of the program. 84.6 percent of the total yearly expenditures of more than \$888,000 was paid for through fees collected from the client or his agent.

During the year, 524 persons were discharged from hospitals because of the availability of homemaker service and for another 578 persons, institutionalization was prevented because of the availability of these services. Employment or school absenteeism was prevented in 2,690 instances.

The year 1963 also saw the establishment of a new Homemaker Service in Trenton, under the guidance of the Mercer Street Friends Center. This makes

a total of 18 Services functioning in 15 counties, serving approximately 80 percent of the state's population.

The training course for homemakers, conducted by the Extension Division of Rutgers and subsidized by this Division, was given 14 times and attended by 190 homemakers during the year. More than 1,700 women have participated in these courses since they were initiated 10 years ago.

The pilot project in Resident Homemaker Service being conducted by Chr-III Service, Inc., East Orange, has completed its third year. During the period of this report, live-in service was provided to 35 patients, 86 percent of whom were females. Diseases of the heart and circulatory system was the diagnostic classification reported in 40 percent of these patients. In addition, 33 persons were provided long hour service. Of the 10 diagnostic classifications reported in this group, 27.3 percent were diseases of the heart and circulatory system; 21.3 percent, pregnancy; 12.1 percent, digestive system; 12.1 percent, genito-urinary system; nine percent, cancer; and the remaining 21.2 percent were divided among five other diagnostic groups.

A two-day National Conference on Homemaker Service, financed by the U. S. Public Health Service, sponsored by this Department, and given by Rutgers University Extension Division, was held in Princeton. The program, which consisted of sessions on Recruitment, Training and Supervision, Record Keeping, and Cost Accounting, was attended by directors of homemaker agencies from throughout the United States.

*Nursing*

Grants-in-aid have been continued with the Sussex County Board of Chosen Freeholders and the Elizabeth Health Department for the further strengthening and expansion of the public health nursing services for the chronically ill and aged. The growth of these programs and steady rise in caseload and patient visits are encouraging.

*Physical Therapy*

The demonstration project in the provision of consultant physical therapy services through visiting nurse associations was continued with grant-in-aid assistance from this Division. In this program, services are provided of selected physical therapy procedures as prescribed by a physician, thus extending nursing care to prevent deformity and disability and promote rehabilitation of the chronically ill and aged. During the year, the nine participating agencies made 1,142 visits to 481 patients, 247 of whom were new to the service. Thirty-nine percent of the patients served were diagnostically classified as diseases of the heart and circulatory system; 16 percent, accidents; 16 percent, diseases of

the nervous system; 12 percent, diseases of the bones; and, the remaining 17 percent were divided among eight other categories.

#### *Professional Education*

Educational programs for physicians, nurses, and other professional personnel have been an on-going activity of the Division. The postgraduate courses for physicians held at St. Michael's Hospital, Newark, designed to acquaint the profession with current developments in the field of chronic diseases, have been repeated.

A symposium on "The Geriatric Crisis in the Community" jointly sponsored by The Academy of Medicine of New Jersey and this Department was held in Newark and enthusiastically received by the audience which included many representatives of social agencies and institutions.

#### *Social Service*

The Graduate School of Social Work of Rutgers again this year conducted the Summer Experience in Social Work Program with financial assistance from the Division of Chronic Illness Control. This program, planned to aid in the recruitment of scarce health personnel, makes it possible for undergraduate students who are interested in and have a good potential for becoming social workers to spend the summer months working in social agencies. The growing interest in social work as a career was evidenced by the 91 percent increase in the number of undergraduate students who applied this year from 44 different colleges. Of the 214 applications received, 183 were from qualified applicants; but it was possible to place only 92 in 23 health and welfare agencies of the state because of fiscal and personnel shortages.

### **Diabetes, Endocrine, and Metabolic Disease Program**

#### *Case-Finding Activities*

The Eleventh Annual State-Wide Diabetes Detection Drive was observed from the 17th to the 23rd of November, 1963 and was jointly sponsored by the New Jersey Diabetes Association, The Medical Society of New Jersey, and the New Jersey State Department of Health, with the cooperation of other groups, such as the New Jersey Association of Osteopathic Physicians and Surgeons and many local health departments. Approximately 14,200 blood screening tests were performed, which represents a two and one-half fold increase over the number of screening tests done during 1962. All

techniques of community education, including radio, television, newspaper and periodical publicity were utilized. The details of test results follow:

<i>Tested</i>	<i>Positive</i>	<i>New Diabetics</i>	<i>Known Diabetics</i>	<i>Potential Diabetics</i>	<i>Not Diabetic</i>	<i>Follow-up Incomplete*</i>
14,208	521	111	158	40	130	82

\* Referred to public health nursing for completion of follow-up.

#### *Year-Round Diabetes Screening Programs*

The Diabetes Detection Unit at the Middlesex General Hospital continued to operate well. The population screened included in-patients and out-patients of the hospital, as well as community groups such as industrial employees, service clubs, etc. Screening test results follow:

<i>Tested</i>	<i>Positive</i>	<i>New Diabetics</i>	<i>Known Diabetics</i>	<i>Potential Diabetics</i>	<i>Not Diabetic</i>
5,254	63	17	8		4

A grant-in-aid contract was entered into with the Cape May County Health Department and the unit began operation in July, 1963. The center screened at the county fair, nursing homes, and individuals coming into the health department. Three hundred and forty-nine individuals were tested, of whom 27 were positive; four were new diabetics; one known diabetic; and 17 not diabetic.

A grant-in-aid contract with Cooper Hospital, Camden, became effective in February, 1963. Initially, the closed records of out-patients at the hospital were polled and these individuals were asked to come in for a blood test; the current out-patient clinic patients were then screened. Specimens were secured also in industries and service clubs. The detection unit is now arranging to set up one-day screening programs in the various municipalities of the county. 3,165 individuals were tested, of whom 78 were positive; 25 were new diabetics; 15 known diabetics and 11 not diabetic.

The grant-in-aid contract with the East Orange Health Department became effective in March, 1963. The program is concentrating on the high-risk groups, including relatives of diabetics, senior citizens, etc. One hundred and thirteen individuals were tested, of whom 13 were positive.

The contract with Morristown Memorial Hospital started in July, 1963 and is active in screening industries, clubs, and municipalities in the county. Results follow:

<i>Tested</i>	<i>Positive</i>	<i>New Diabetics</i>	<i>Known Diabetics</i>	<i>Potential Diabetics</i>	<i>Not Diabetic</i>
1,257	58	7	8	1	32

A Glover-Edwards Kit was used by the Edison Health Department in screening programs. During the year, 79 persons were tested of whom five were positive.

The Hoboken Health Center also used a Glover-Edwards Kit in its screening activities of 292 individuals of whom 27 were positive. There were six new diabetics, seven known diabetics, and six not diabetic.

A Glover-Edwards Kit was used by the Englewood Health Department where 670 persons were screened of whom 53 were positive. There were seven new diabetics; eight potential diabetics, and 28 not diabetic.

Short-term diabetes screening projects were completed in 11 centers with the following results:

<i>Tested</i>	<i>Positive</i>	<i>New Diabetics</i>	<i>Known Diabetics</i>	<i>Potential Diabetics</i>	<i>Not Diabetic</i>
3,091	93	6	9	17	36

The pilot study for the routine screening of blood samples for glucose obtained from blood donors was initiated with the Clara Maass Memorial Hospital, under the supervision of its laboratory director, with the cooperation of the Medical Department. The following blood banks in the area cooperated: Community Blood Bank, Hoboken; Eastern Blood Bank, Jersey City; Garden State Blood Bank, Newark; and, North Jersey Blood Service, Paterson. Blood was obtained in a special tube containing sodium fluoride at the time that the blood donation was made. The tube of blood was transferred to the Clara Maass Memorial Hospital for processing. Historical data of the donors were obtained. The donors were supposed to be fasting at the time that they arrived for the blood letting, but this was not necessarily found to be the case. It was recognized after analysis that the blood donor population was primarily in the young age group, 78 percent of them falling into the 20 to 39 year group. It was stated that most of the donors were from the "lower socio-economic group." None of the donors was over 60.

A total of 3,444 blood specimens were screened for glucose. It was felt that the vast majority were from different donors and very few were "repeat donors." The blood was processed on the Auto Analyzer with the usual methodology employed with such equipment. The results of the screening were as follows:

Less than 130 mg percent	3,332
More than 130 mg percent	112

Follow-up results were: two new diabetics; one potential diabetic; two previously known diabetics; two not diabetic; 105 diagnosis not determined. The vast majority of the 105 persons whose diagnosis was not determined

could not be followed up. The reasons were variable but largely referred to the fact that the blood donors apparently used false addresses, and probably false names. Most communications were returned marked "unknown," "no such address," "moved, left no address," etc. Where it was possible to reach these individuals, the majority failed to show any interest in having follow-up studies. Despite repeated requests by mail and by public health nurses, all attempts at follow-up to a final diagnosis were frustrated.

This pilot project proved without question that blood banks are a poor source for diabetes case-finding. The only favorable point is the fact that the blood is readily obtained. The following major disadvantages of this technique far outweigh this single advantage:

- Most of the donors are in the young age group, below the age of 40, Diabetes is less likely to be discovered in such a population.
- Most of the blood donors were male.
- The history obtained from the individuals is probably completely unreliable, since they used false names and addresses.
- On those persons who screened positive, follow-up cannot be obtained in the vast majority of cases. Without follow-up to a final diagnosis and referral to a medical facility for treatment, such case-finding programs are useless.

#### *Professional Education*

The film "Diabetes and Its Long Range Control," sponsored by the New Jersey State Department of Health, was shown on 33 occasions during the year. Panel discussions were held after many of the showings with groups of educators, nurses, students, graduate students, etc.

Three prints of the film were sold and there were seven showings outside New Jersey through the distribution facilities of Medical Film Guild, Ltd. Utilization and Distribution Section of the National Medical Audio-Visual Facility made 63 loans of the film to a reported attendance of 735 persons during the year.

A contract between the U. S. Public Health Service, Diabetes and Arthritis Program, and the New Jersey State Department of Health was signed for training in New Jersey personnel of the U. S. Public Health Service. Four field representatives and a public health physician were assigned to the program, which consisted of an intensive didactic period of training for three months, followed by field work and program activities. The training program included field trips to clinics, laboratories, hospitals, etc. The most extensive trip was a week at the Joslin Clinic, Boston, and the U. S. Public Health Services Diabetes Field Research Unit in Boston.

The following symposia and workshop were held during the year:

A symposium on "Insulin and Extra Pancreatic Factors in Carbohydrate Metabolism." Prominent educators from Harvard Medical School, Veterans Administration Hospital of the Bronx, and the Albert Einstein College of Medicine addressed 110 physicians.

A symposium on "Kidney Problems in Diabetes Mellitus" was held at Jersey City Medical Center. Speakers from Harvard Medical School, Seton Hall College of Medicine, and Georgetown University School of Medicine addressed a group of 100 practitioners and 150 students from the Jersey City Medical Center.

A symposium on "The Oral Hypoglycemic Agents" was held at Newton Memorial Hospital in conjunction with the Academy of Medicine of New Jersey. A lecturer from the State University of New York and Mt. Sinai Hospital, New York, addressed 49 local physicians.

A two-day workshop on "Adjustment Problems in Juvenile Diabetes" was held in Princeton and sponsored by the U. S. Public Health Service, Diabetes and Arthritis Program, the National Institute of Arthritis and Metabolic Diseases, the Child Guidance Center of Mercer County, and the New Jersey State Department of Health. Fifty-one professional persons were invited, including internists, pediatricians, psychiatrists, behavioral scientists, and resource persons. Four formal papers were presented by distinguished educators from the State University of New York, University of Pittsburgh, School of Medicine, Cornell University Medical College, and Rutgers—the State University. A special lecture on "Aspects of Insulin Metabolism" was delivered by DeWitt Stetten, M.D., Dean-elect, College of Medicine, Rutgers. In addition to the formal presentations, there were eight workshop sessions, each of which lasted two to three hours.

#### *Patient Education*

The Diabetes Control Program assisted the Passaic General Hospital Diabetes Patient Education Center by providing an AutoTutor film "Taking Care of Diabetes" for use in the curriculum for diabetic patients. Program staff instructed hospital personnel in its use. The AutoTutor was used by a number of diabetic patients.

A unique program on the emotional and adjustment problems in juvenile diabetes and the medical aspects of children with diabetes was prepared for the Lehigh Valley Diabetes Association of Allentown, Pennsylvania. This program consisted of a symposium primarily for the parents of children with diabetes. The Program Coordinator and Nutrition Consultant, along with a

psychiatrist and psychologist from the Mercer County Child Guidance Center, gave formal presentations to a very interested non-professional audience.

#### *Non-Professional Education*

Many requests for the booklet "Diabetes and the School Child" were filled. These booklets are used primarily by the parents of diabetic children and school nurses and teachers.

Numerous requests for non-professional literature for diabetic patients, their families and other interested persons were filled.

The pamphlet "Foot Care for People with Diabetes" prepared by program personnel in cooperation with the Administrative Services Program, was so well received, over 200,000 copies being requested, it was felt that the pamphlet should be made available for national distribution. Consequently, this pamphlet was turned over to the U. S. Public Health Service, Diabetes and Arthritis Program. It will be distributed by the U. S. Government Printing Office.

A pamphlet "Overweight? Check for DIABETES" was prepared by personnel, in conjunction with Administrative Services Program, for Diabetes Detection Week during which time 50,000 were distributed.

#### *Activities of the Program Coordinator*

The Program Coordinator delivered lectures on diabetes and related subjects as follows:

1. Temple Medical Center—film and discussion.
2. Diabetes Program outlined for members of the New Jersey Diabetes Association.
3. Chester County (Pa.) Medical Society. Moderator for a panel discussion on diabetes.
4. Graduate School of Medicine, University of Pennsylvania—film and discussion.
5. 52nd Annual Conference of State and Local Health Officers—question and answer session.
6. The Medical Society of New Jersey Convention—exhibit and screening program.
7. Mercer Hospital, Trenton—film and discussion for internes.
8. Rutgers Community Nutrition Institute—paper on "Medical Aspects of Juvenile Diabetes."
9. Rutgers Extension Course for Nurses—lecture.

10. Annual Meeting of American College of Osteopathic Internists, St. Louis, Missouri—paper on "Aspects of Diabetic Neuropathy."
11. Lehigh Valley Diabetes Association Symposium, Allentown, Pa.—lecture and panel discussion.
12. Lower Bucks County Hospital—lecture to internes.
13. American Diabetes Association, Boston—one week postgraduate course.
14. American Diabetes Meeting, Atlantic City.
15. Chairman, Diabetes Detection and Education Committee, Mercer County Component Medical Society.
16. Chairman, Public Health Committee, Mercer County Component Medical Society.
17. Consultant, Child Guidance Center of Mercer County—project "Adjustment Problems in Juvenile Diabetes."

The following papers were published:

1. "An Ounce of Prevention in Diabetes Control" by Program Coordinator, published in *CONSULTANT*, March, 1963, Smith, Kline & French Laboratories.
2. "La Diabetes Y Su Control A Largo Alcance" by Program Coordinator, published in the *BOLETIN De La Oficina Sanitaria Panamericana*, Vol. LV, No. 4, October, 1963.

#### *Research and Special Projects*

*Juvenile Diabetes Study.* The original juvenile diabetes study with the Mercer County Child Guidance Center was completed and the results presented as a paper at the workshop on "Adjustment Problems in Juvenile Diabetes" described above. This project was extremely successful and the material has been accepted for publication in a psychiatric journal.

*Diabetes and Visual Loss.* Data for the years 1956 through 1961 from the records of the New Jersey State Commission for the Blind have been tabulated. Statistical analysis of the material is now being performed by the Division of Vital Statistics.

*Diabetic Neuropathy Study.* A study of 157 diabetic patients and 196 non-diabetic patients was completed. The results indicated that the photomograph is a valuable objective method for recording the presence or absence of Achilles tendon reflex. The study demonstrated that approximately

one-third of the diabetic patients had absence of the Achilles tendon reflex and that there was a significant correlation between this finding and other complications of diabetes. The material is being prepared for publication.

#### *Public Health Nurse Consultant*

During the past year, increased interest among nurses in diabetes and its control has resulted in a larger number of requests for nursing consultation services, in-service education programs, and supplies of written materials. As diabetes detection programs develop in local areas, review and discussion of public health nursing follow-up procedures become a necessary element in program planning. Consultation and in-service education activities have been carried out in official and non-official agencies and in hospitals.

#### *Nutrition in the Diabetes Program*

*Food Preference Questionnaire.* A request from Public Health Service that New Jersey cooperate in an evaluation of a questionnaire resulted in several profitable consultations with hospital dietitians. The Food Preference Questionnaires were administered by a therapeutic dietitian to individual patients in three hospitals and by a nutritionist in three Diet Counseling Services. All persons using the questionnaire expressed appreciation for it and hope it will become a standard, patient interview-education tool.

#### *Diet Counseling Projects*

The various Diet Counseling Services handle many requests for assistance to diabetic patients. During 1963, the six active Diet Counselors worked directly with 157 diabetic patients and often with members of their families. This is especially important if the patient is a juvenile, and is very helpful if the patient is male, dependent on family members for menu planning and food preparation. All Diet Counseling is on requests of the individual physician or the clinic physician treating the patient, with diet prescription supplied by him.

In September, 1963, a new uniform quarterly report form for Diet Counseling Services was adopted. Since this report form has been used, age groups of diabetic patients served by the Diet Counselors are available. The following table gives the figures for the three-month period of October 1 to December 31, 1963 in the six active Diet Counseling Services.

Table 1.

Location of Service	Age Groups in Years				Totals
	0-20	21-39	40-64	65-over	
Camden County .....	..	..	7	7	14
Bergen County .....	1	..	1	..	2
Burlington County .....	2	1	11	13	27
Essex County .....	4	1	3	13	21
Middlesex County .....	..	..	3	..	3
Morris County* .....	1	..	1	..	2
	8	2	26	33	69

\* Two months only; service started November 6, 1963.

### Grants-in-Aid

A grant-in-aid was provided to the New Jersey Diabetes Association for the services of a physician and nurse at Camp Nejedra, the diabetes summer camp at Stillwater, New Jersey.

A grant-in-aid was provided to the Passaic General Hospital, Diabetic Instruction Center, for provision of dietary instruction for patients.

## Diseases of the Nervous System and Special Senses

### The Program

The Nervous System and Special Senses Disease Program has again placed emphasis on education during the year. In the past, epilepsy has been the primary concern of the program. The program is being broadened to include all major neurological diseases. This is made possible through cooperation with the New Jersey Consultation Service for Neurological Diseases and through the receipt of a U. S. Public Health Service Grant. Great emphasis is placed on the training of electroencephalograph technicians, since this group is not organized in New Jersey and consequently are unable to affiliate with national organizations fulfilling this function.

The program-sponsored neurological symposium was a huge success and it is planned to continue these meetings for the benefit of the physician. Three additional EEG machines were placed in community hospitals as a means of improving the neurological services provided and to demonstrate to the community the effectiveness of this diagnostic tool.

### U. S. Public Health Service Grants

#### Expansion of Convulsive Disorder Unit to include Neurological Diseases.

The New Jersey State Department of Health received a grant of \$74,276.00 from the U. S. Public Health Service Neurological and Sensory Disease Service Program. The immediate benefactor of this grant was the New Jersey Consultation Service for Convulsive Disorders. This grant enabled this program to expand, and it is now called the New Jersey Consultation Service for Neurological Diseases.

The New Jersey Consultation Service for Neurological Diseases is administered as a part of the program of the New Jersey Neuro-Psychiatric Institute. The Institute is a training, research, and service center operated by the Division of Mental Health and Hospitals of the New Jersey State Department of Institutions and Agencies. Although the grant was received by the State Department of Health, the project operates under the Division of Mental Health and Hospitals since it is in a position to offer the basic personnel and facilities in accordance with an interdepartmental plan and agreement between the two departments.

The New Jersey Consultation Service for Neurological Diseases meets monthly at five different hospital centers in the state. The five centers are geographically located so that all areas of the state are covered. At each hospital center is located a physician employed on a part-time basis by the program, who is the contact (physician) between the program and the physicians in his district. The central office of the Consultation Service receives referrals on medically indigent patients. These consultations are requested by the physicians, hospitals, and clinics in the state. Referrals, after being processed in the central office, are sent to the appropriate contact physician. Patients are given appointments for diagnostic evaluations with the contact physician and social worker to prepare the patients for a clinic where they will be seen by the medical consultant. The pre-clinic evaluation consists of a neurological, physical, and electroencephalographic examination. The contact physician may also order x-rays, blood tests, or any other procedure that he thinks is indicated. At the pre-clinic evaluation, the patient is seen by the social worker who interprets the program, referral and obtains data which help the team get a complete picture of the patient's problem. After the pre-clinical evaluations are completed, the patient is seen in a clinic presided over by the medical consultant and attended by the other members of the team.

The patient is seen in the clinic with his family. The findings of the contact physician and social worker are reported to the consultant. The findings and recommendations are interpreted to the patient, who is given an opportunity to ask questions of the team members. After this exchange, the



patient is instructed to return to the source of referral (private physician, hospital or clinic), for the recommended treatment. The team prepares a report which is sent to the source of referral, giving the findings and recommendations for treatment. If the social worker has uncovered a school, work, or other social problem, referrals are made to the appropriate agency for such help as is indicated.

If hospitalization for further study and treatment is recommended, the program maintains several beds at the New Jersey Neuro-Psychiatric Institute where patients may be admitted. In some instances, patients may go to their local hospital for these studies to be done. At the New Jersey Neuro-Psychiatric Institute, the patients are sent to the neurological unit where the suggested studies and treatment are carried out. Upon completion of the studies, the patient is returned home to the care of his family physician.

#### *Neurological and Sensory Disease Study*

The New Jersey Department of Health and Jefferson Medical College, Philadelphia, Pennsylvania are participating in a joint study of the neurological and sensory disease problem in southern New Jersey. The study also includes Pennsylvania in cooperation with the Pennsylvania State Department of Health. This assessment is being done with the help of funds granted by the U. S. Public Health Service.

Briefly, the objectives of the Neurological and Sensory Disease Study are as follows:

1. Collect, analyze and interpret data on the prevalence and incidence of neurological and sensory diseases in southern New Jersey and Pennsylvania.
2. Identify presently available services for prevention, detection, diagnosis, treatment, and rehabilitation.
3. Identify presently available professional personnel by specialties, numbers, and distribution, relative to population needs.
4. Determine the availability of facilities in southern New Jersey and Pennsylvania for the education, training, and postgraduate experience of professional and paramedical personnel.
5. Correlate existing services with demonstrable needs to determine current gaps in services.
6. Recommend and develop plans with appropriate consultants and authorities to overcome deficiencies and improve services to both patients and physicians in the field of neurological and sensory disorders.

Questionnaires were distributed throughout southern New Jersey as follows: (1) hospital questionnaires to 22 institutions, (2) physicians questionnaires to over 300 physicians and (3) "Lay Informed Opinion" questionnaires to approximately 275 officers and board members of the various voluntary health organizations. The information obtained will provide the basis for extensive statistical analysis.

#### *Education*

The Fifth EEG Symposium was held at the Y.W.C.A., in Trenton, on February 6, 1963.

The symposium on Neurological Disorders this year attracted more persons than any of the previous symposia. The subject matter was well chosen and included presentations on "Principles of Neurologic Examination," "Head Injuries," "Cerebrovascular Accidents," "Multiple Sclerosis," "Eastern Encephalitis," and "Parkinson's Disease."

The distribution of booklets and literature occupies its usual place in the Program's effort to provide service. The following booklets were requested in increasing volume: "Directory of Epilepsy Services in New Jersey," "Proceedings of the Fourth EEG Symposium," and the "Current Status of the Drug Therapy in Epileptic Seizures." Frequent requests by students for materials on epilepsy stimulated the program to purchase booklets providing basic and advanced information on this subject.

The film "Essentials of the Neurologic Examination" has been purchased.

#### *Report of Electroencephalograph Activities*

Three additional EEG machines were placed in the following community hospitals: Clara Maass Memorial Hospital, Belleville; Burlington County Memorial Hospital, Mount Holly; and Fitkin Memorial Hospital, Neptune.

The placement of three EEG machines this year makes a total of 20 machines placed in community hospitals.

#### **Heart and Circulatory Disease Program**

##### *The Problem*

The morbidity and mortality from heart and circulatory diseases continue to be the major public health problem in the state. Deaths involving heart diseases totalled 27,366 for the state—a rate of 431.4 per 100,000 estimated population for 1962. More than 50 percent of the deaths in New Jersey have been due to heart disease, including deaths from cardiovascular accidents.

Deaths due to cerebrovascular accidents in the state total 5,194; the highest number—119 in Atlantic City, the lowest—31 in Union Township. This is the third most common cause of death in the state and is responsible for the vast amount of chronic invalidism and financial burden in the age group 65 years and over. For this reason, a great deal of effort has been concentrated on the development of a rehabilitation project for patients with a diagnosis of cerebrovascular accident hoping to point up the value and effectiveness of early, intensive, and restorative techniques in the care of these patients.

It is estimated that there are between 10,000 and 13,000 individuals in the state suffering from rheumatic fever. It is believed that not more than 30 percent of these individuals are receiving penicillin prophylaxis to prevent extension of their disease with resultant crippling effects of rheumatic heart disease. The prevention of the extension of the disease through proper prophylaxis is one of the urgent problems.

A control program aimed at the reduction of the morbidity and mortality of arteriosclerotic heart disease has been a major concern of the Heart Program. Deaths from arteriosclerotic heart disease for 1962 totalled 20,993. Of these, 12,414 occurred in males—8,579 deaths in females. The demonstration and research project at the Anti-Coronary Club, St. Vincent's Hospital, Montclair, continues and is recognized as an important study in prevention of secondary effects of arteriosclerotic heart disease.

Case-finding and corrective cardiac surgery by qualified cardiologists continue to be primary goals in the rehabilitation of children and young adults with regard to congenital heart disease.

Special projects such as congestive heart failure, closed chest cardiac resuscitation, social service assistance, education for lay and professional groups, dietary projects, and distribution of literature have all been directed to prevent and control heart and circulatory diseases.

### *Accomplishments*

*Cerebrovascular Accidents.* Two stroke projects already in operation, Camden County Stroke Project and Atlantic City Stroke Project, continue to offer specialized services and to utilize the cooperation of community resources. These projects are integrated to deal with the stroke patient's problems on medical, social, and economic levels. Continuous effort has been made to improve nursing care in both the hospital and the public health nursing agency. Many stroke patients achieved independence in the activities of daily living with the assistance of public health nurses in the home and continued visits to the hospital out-patient department. Articles of self-help were used to demonstrate that many disabled persons can be self-dependent with a little

ingenuity on the part of those working with them. There is an educational lag in this area that needs to be overcome. A total of 400 patients have been registered in these two projects. Two new stroke projects were developed, both hospital based, one in East Orange General Hospital and the other at Presbyterian Hospital, Newark.

The East Orange Project, under the direction of a qualified board certified neurologist and psychiatrist, differs from the Camden and Atlantic City Project in that the emphasis is put upon early *diagnostic treatment* and restorative care in the general hospital. Care is continued into the community by the local Visiting Nurse Association and other community agencies. Thirty-six patients have been accepted in this program to date. A number have been followed into the nursing home by a rehabilitation program already in existence there. This program has created a great deal of interest in the medical community and community at large.

The purpose of the Stroke Program at Presbyterian Hospital in Newark is to determine if an acute hospital, a rehabilitation facility, and community agencies can combine forces to give early, intensive, continued care to stroke patients admitted to the acute hospital. It also uses the services of the local Visiting Nurse Association where the visiting nurse is part of the program before the patients leave the hospital. The number of patients admitted to this project has been limited to six, due to careful screening.

Both the East Orange Project and the Presbyterian Hospital Project use the multidiscipline team approach under the direction of the physician and emphasize preventive and restorative care within the first 24 to 48 hours following the cerebrovascular accident.

The Nutrition Consultant held conferences with dietitians and nutritionists of the teams in the stroke projects. Home visits and follow-up are handled by the diet counselors.

### *Rheumatic Fever*

An effort to learn about follow-up of rheumatic fever patients who take daily penicillin (prophylaxis program) was made again this year. We hope to provide demonstration studies and payment to local visiting nurse associations for follow-up of cases not under medical supervision and for purchase of penicillin for adults who are medically indigent.

A grant-in-aid contract has been renewed with Middlesex General Hospital and the physicians of New Brunswick, Cranford, and Westfield continue to submit specimens so that a demonstration streptococcal control program may be continued. For the year, 2,000 specimens were submitted and analyzed.

One of the assistant bacteriologists in the Division of Laboratories attended the training course in Fluorescent Antibody Methods at the Communicable Disease Center in Atlanta, Georgia. This technician will be responsible for training other local laboratory technicians in the State Laboratory.

#### *Rheumatic Heart Disease*

This Program has cooperated with the Division of Laboratories in a study of morbidity and communicable disease in Levittown,\* New Jersey. Much valuable information has been obtained; one important facet is that complete follow-up histories on all persons in the control and sick group, taken one week and one month after culture, are available. Approximately 10 to 15 percent of the control group has been found to harbor Group A Streptococci. A report was given on these and other facets of the Levittown Study before the Department of Epidemiology at Baylor University Medical School by the public health physician on loan to this Department from the U. S. Public Health Service.

#### *Arteriosclerotic Heart Disease*

The Anti-Coronary Research Project at St. Vincent's Hospital has been concerned with dietary management of men age 20 to 50 with mild myocardial infarction. These men have been treated with fat-modified diets. Approximately 85 of the total 150 members of the study group are now on pre-packaged, frozen food diets especially prepared for the study. Used in conjunction with two different vegetable oils supplied by the Club, a diet of five such dinners a week is showing the best cholesterol lowering effect of any regime thus far used in the study group. For the first time, significant differences in cholesterol lowering with the prudent diet and the proper diet are being noted.

The initial collection of the accumulated data of the project to date has been completed using a machine punch card system.

A survey of the sociological factors involved in the study group is being carried on with Rutgers. A full report on the character of the study group, which includes an attempt to analyze the reasons for failure and dietary management and secondly, an attempt to quantitate a stress profile, is available at the Club.

Preliminary studies on the pre-gastric esterase experiments with animals are near completion. This is a new enzyme which may be effective in splitting the cholesterol ester linkage and may have wide ramification in the therapy of lipid abnormalities. In sucking mice and chicks, it showed no evidence of any

\* Name changed to Willingboro.

toxicity even when given in up to 20 percent of the diet. It is apparently an extremely potent cholesterol lowering agent as evidenced by 40 percent lower level in the treated animals as opposed to the controls. The method of action of the esterase is not as yet clear. Studies will be continued.

Activities in the area of atherosclerosis are also directed toward physician education in the establishment of nutrition counseling services. Students in classes in nutrition have received training at the Anti-Coronary Club. The project has cooperated with Seton Hall College of Medicine and Dentistry, Columbia University, Douglass College, and Montclair State College. Diet counseling service is available to physicians' patients upon referral.

During the year, five monographs have been completed and submitted to leading journals. The articles appeared in the October issue of the *Journal of Chronic Diseases*, the August issue of the *American Journal of Clinical Nutrition*, the *Journal of the American Dietetic Association*, and in *Modern Medicine*.

#### *Special Projects*

*Congestive Heart Failure.* The study on sodium in New Jersey water supplies by this Program with the cooperation of the Division of Laboratories appeared in the December, 1963 issue of *The Journal of the Medical Society of New Jersey*. Reprints are being distributed to nutritionists.

#### *Cardiac Resuscitation Project*

Important progress was made in organizing a study of external cardiac massage in this state. Two areas of interest have been the development of mass education techniques and critical appraisal of the results of closed chest cardiac massage applied by non-medical personnel. A meeting was held with Joseph Fitzgerald, M.D. of the U. S. Public Health Service Heart Disease Control Program and several physicians in the New Brunswick area. As a result, 17 physicians representative of 16 hospitals in the state were sent to The Johns Hopkins Hospital in Baltimore for a one-day teaching and demonstration session with James Jude, M.D. and W. B. Kouwenhoven, M.D. A second group of 20 physicians from the Passaic County area were sent. This was done with the cooperation of the Passaic County Heart Association. During the year, a total of 47 physicians were trained; these physicians held a total of 38 training sessions for physicians, interns, and nurses in their respective hospitals.

On a demonstration basis, two groups of rescue squad men were trained. The first group of 150 and the second of 66 were given a final examination. However, the Department's first concern is the training of medical personnel rather than non-professional personnel.

A protocol was written for the project and literature obtained so as to develop uniformity in the teaching program.

Another phase of the program included a survey to evaluate the facilities for emergency cardiac resuscitation in the hospitals throughout New Jersey. It was discovered that of 78 hospitals surveyed with regard to the defibrillator, pacemaker, cardiac monitor, 51 have all three, 12 have one or two, and 15 have none of this equipment.

#### *Dietary Projects*

Two one-day meetings were held for orientation, staff conference and in-service education. Orientation for new diet counselors is provided by the Nutrition Consultant, Heart Program and the District Nutritionists. New counselors visit existing services and the Anti-Coronary Club at St. Vincent's Hospital, Montclair as part of their orientation.

A conference on "Nutrition and Heart Disease" was presented in cooperation with the New Jersey Heart Association in Princeton. The meeting was planned to stimulate interest in nutrition in relation to heart disease as well as to introduce and promote the use of the new Heart Association booklet, "Planning Fat-Controlled Meals." Guests included a physician representative of each county Heart Association, diet counselors, Heart and Nutrition Program staff members, and representatives of the Medical Society of New Jersey and the Dietetics Association. Individual Heart Association Chapters planned and carried out follow-up meetings locally.

During this year, 288 Diet Pads (40 sheets each) were distributed. The largest number of requests have come from physicians. Hospitals and nursing homes have found them helpful also. The four diet pads available are Bland, Low Calorie, Fat Restricted 1,800, and Fat-Restricted 2,600.

#### *Education*

Pamphlets and brochures on heart and circulatory diseases have been reviewed and re-evaluated for use with lay and professional groups. The pamphlet "Strike Back at Stroke" has had wide distribution and a study revealed the importance of the pamphlet under the direction of a physician. The Departmental policy is that the pamphlet is distributed only on the advice of a physician and in cases where the individual is receiving medical attention. During this period, approximately 400 copies were distributed on request.

Two new films, both technical, have been made available to specific groups. One is "Myocardial Infarction—the Nurse's Role," and the other is "Pulse of Life" to be used with training sessions in cardio-pulmonary resuscitation.

Two exhibits, one on the treatment of stroke patients, and the other on community resources for stroke patients, were developed by this Program and

displayed at the annual meeting of The Medical Society of New Jersey in Atlantic City.

Postgraduate courses were held for physicians on the subject "Recent Advances in Clinical Cardiology" with St. Michael's Hospital in Newark. Forty physicians attended.

A symposium entitled "The First Four Weeks of a Stroke—Management in the Acute Hospital" was held at St. Michael's Hospital. One hundred and ninety were in attendance which included nurses, social workers, and members of the paramedical services from more than 12 institutions in addition to 21 physicians.

#### *Special Services*

Along with services of a public health physician, the Department also has (on loan) the services of a health educator and a medical social consultant.

The Health Educator found himself active in almost every phase of the program. He worked with the Heart Association regarding the use of the Heart Association's new booklet and the interpretation to hospital dietitians and physicians; was involved in the planning and execution of an educational program regarding cardio-pulmonary resuscitation for paramedical and voluntary rescue squad personnel, and the development, as a result of participation and observations, of a Manual designed for use by field personnel planning stroke programs. This was done with the cooperation of two health educators in two hospitals where there are stroke projects.

Interest was developed for the health educator and the social consultant to participate in the study on personality profile of the project participants at the Anti-Coronary Club as conducted by a sociologist and graduate students of Rutgers.

The Stroke Team at the East Orange General Hospital has noted a great need for the services of a social worker for the many problems of patients and their families. As a result, the social consultant has provided direct case work services for patients and families as a demonstration study to show the value of such service. She has also provided medical social consultation to the untrained worker who is providing social services to the Stroke Project at Presbyterian Hospital, Newark.

The staff of the Heart Program consists of a physician as Program Coordinator, a physician as Medical Director of the Arteriosclerotic Research Project, two Public Health Nurse Consultants, one Public Health Nutrition Consultant, and, on loan from the U. S. Public Health Service, one Public Health Physician, one Medical Social Consultant, and one Health Education Consultant.

### Restorative Services Program

The Restorative Services Program is located functionally in the Division of Chronic Illness Control, but the Program Coordinator is the Director of the Division of Constructive Health.

Through three Special Project Nurse Coordinators, specially trained in restorative nursing service, educational and in-service training programs have been made available to the nursing homes, medical institutions, and homes for the aged in the state. These services were provided on the basis of 20 days of in-service training to each such facility served. During 1963, 17 facilities have been provided these services.

Through contracts with four visiting nurse associations, similar in-service educational and training programs have been provided to six facilities. Services of these nurses have been made available, on a one day a week basis, to each facility for a period of 20 days each.

In cooperation with the Hospital Center at Orange, educational and training programs were made available to public health nurses, nursing home and hospital nurses in restorative services. Two such three-week courses were made available to 18 nurses and as a part, thereof, a two-day session of "Restorative Services for the Arthritic Patient" was made available to 33 physical therapists and/or occupational therapists.

The program also underwrote the cost of sending two hospital nurses and one nurse from a nursing home to the three-week courses on "Physical Rehabilitation Methods for Nurses" conducted by the Institute of Physical Medicine and Rehabilitation of New York University Medical Center.

Our Special Project Nurse Coordinators have made numerous presentations on Restorative Services to national, state, and local agencies.

The program has participated in coordinating hospital, nursing home, home care programs in: (1) Paterson, through the Paterson Board of Health, involving three hospitals; (2) Hunterdon Medical Center; (3) Monmouth Medical Center; (4) Camden County General Hospital; (5) the Orange Memorial Hospital.

Through such services, more than 10,000 days of patient care have been provided in these programs. The program has also participated in the Newark Beth Israel Home Care Program.

The program has, through contract, underwritten dental diagnostic evaluation of patients in nursing homes in Wayne Township.

The program has provided pamphlets and brochures pertinent to the previously mentioned educational and training efforts.

### Division of Constructive Health

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

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

## Division of Constructive Health

### *Introductory Statement*

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

In attempting to fulfill this mission, it has been clearly demonstrated that the activities of the Program must not only be closely coordinated, but that there must be combined effort on the part of all governmental, private, philanthropic and professional groups throughout the state in attempting to meet the needs of those requiring such services.

### **Crippled Children's 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.

#### *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 23,434 children registered with the Program at the end of 1963. Of this number, 7,552 children received services.

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

#### *Hospitalization and Convalescent Care*

The Program assisted in underwriting 16,546 hospital bed days and 24,801 convalescent bed days for 727 children. The total expenditure for these services was \$539,151.88.

Of this amount, State and Federal contributions were \$271,796.66; contributions by the county boards of chosen freeholders were \$245,043.18; and contributions on behalf of parents, private, and philanthropic agencies were \$22,312.04.

*Prosthetic Devices, Bracing and Appliances*

Such services were provided for 1,054 children through the purchase of 2,024 such appliances at a total cost of \$137,643.21. State and federal contributions amounted to \$63,791.51 and contributions of the county boards of chosen freeholders \$62,994.34. Contributions on the part of parents, private and philanthropic agencies amounted to \$10,857.36.

*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 40 local private nursing agencies.

During the past 12 months, those agencies having contracts with the Program made a total of 8,672 visits to crippled children registered with the Program at a total cost of \$36,782.26. 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 up to \$5.00 per visit 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 two Nurse Consultants.

*Psychological Services*

Direct psychological consultation services were provided 14 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 the utilization of the team approach to rehabilitation of the total individual, the Program continued its assistance in the pre and post operative evaluation of cleft palate and selected dental facial deformities.

Financial support was afforded a total of 15 such cases through the Department of Plastic Surgery at Cooper Hospital in Camden, and the Department of Plastic Surgery of Mercer Hospital, Trenton.

In support of this team approach, the Program also assisted in providing 5,034 speech therapy sessions for 167 children.

*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 four hospitals in the state, and one in Philadelphia; namely, Orange Memorial Hospital, Orange; Passaic General Hospital, Passaic; United Hospitals of Newark—Presbyterian Hospital Unit, Newark; St. Michael's Hospital, Newark; and St. Christopher's Hospital, Philadelphia. The Program participates up to \$1,570.00 per case for this service and this is underwritten entirely by the Crippled Children's Program.

*Physical Therapy*

In support of total rehabilitation services being afforded handicapped children, the Program has provided physical therapy services through Mountainside Hospital, Montclair; Morristown Memorial Hospital, Morristown; Warren Hospital, Phillipsburg, and St. Christopher's Hospital, Philadelphia.

As a result of these projects, 52 children were provided approximately 1,222 physical therapy treatments.

*Dental Restorative Services*

The Program is also participating in a pilot project relative to dental restorative services for school drop-outs.

*Hearing and Speech Screening Program*

The Crippled Children's Program, in cooperation with the State Department of Education, is participating in the screening of approximately 50,000 school children in four counties relative to hearing and speech defects.

*Congenital Amputees*

The Program is also participating, on a demonstration basis, in the diagnostic evaluation of congenital amputees at the Kessler Institute in West Orange.

## DEPARTMENT OF HEALTH

Table 1. CASE NUMBER AND PAYMENT OF HOSPITAL, CONVALESCENT HOME AND APPLIANCE SERVICES FOR PERIOD 1/1/63—12/31/63

<i>Hospital, Convalescent Care</i> —Total Number of Children .....	727	
Total Bed Days .....	41,347	
<i>In-Patient</i>		
Number of children receiving hospital services .....	559	
Number of bed days .....	16,546	
<i>Convalescent Home</i>		
Number of children receiving convalescent services .....	168	
Number of bed days .....	24,801	
<i>Payment of Bed Days (Hospital and Convalescent Home)</i>		
Total .....	\$539,151.88	
State and Federal Funds .....	\$271,796.66	
County Boards of Chosen Freeholders .....	245,043.18	
Total payments from tax sources .....	\$516,839.84	
<i>Private Contributions</i>		
Local Chapter of Polio Foundation .....	\$7,450.67	
Parents .....	12,637.37	
Elks Lodges .....	220.00	
Insurance .....	1,876.00	
Others .....	108.00	
Total Contributions .....	\$22,312.04	
<i>Appliances</i> —Total Number of Children .....	1,054	
Total Number Purchased .....	2,024	
Total Payments .....	\$377,643.21	
State and Federal Funds .....	\$63,791.51	
County Boards of Chosen Freeholders .....	62,994.34	
Total payments from tax sources .....	\$126,785.85	
<i>Private Contributions</i>		
Parents .....	\$7,881.82	
Local Chapters of Polio Foundation .....	2,169.86	
Elks Lodges .....	704.86	
Miscellaneous .....	100.82	
Total payments from private sources .....	\$10,857.36	
<i>Drugs</i> —Total Payments .....	\$3,243.00	
State and Federal Funds .....	\$1,554.14	
County Boards of Chosen Freeholders .....	1,524.43	
Total payments from tax sources .....	\$3,078.57	
<i>Private Contributions</i>		
Cystic Fibrosis Foundation .....	\$164.43	

## DIVISION OF CONSTRUCTIVE HEALTH

Table 2.

January 1, 1963—December 31, 1963

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 .....	6,877	15,191 Visits
Hospital .....	559	16,546 Days
Convalescent .....	168	24,801 Days
Duplicated Count of Children and Services .....	7,604	56,538 Units
Unduplicated Count of Children .....	7,552	

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

Total Number of Children .....

<i>County</i>	<i>Number of Children</i>	<i>County</i>	<i>Number of Children</i>
Atlantic .....	55	Middlesex .....	528
Bergen .....	757	Monmouth .....	219
Burlington .....	317	Morris .....	352
Camden .....	480	Ocean .....	55
Cape May .....	9	Passaic .....	99
Cumberland .....	25	Salem .....	18
Essex .....	2,151	Somerset .....	228
Gloucester .....	192	Sussex .....	79
Hudson .....	700	Union .....	623
Hunterdon .....	89	Warren .....	46
Mercer .....	528	Military .....	2

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

<i>Total Children</i>	<i>Number Children</i>	<i>Age in Years</i>				...
		<i>Under 1</i>	<i>1-4</i>	<i>5-14</i>	<i>15-20</i>	
<i>Total</i> .....	7,552	301	2,071	3,815	1,365	...
<i>Race</i>						
White .....	5,866	213	1,470	3,010	1,173	...
Other .....	1,686	88	601	805	192	...
Number who received physician's services for the first time .....	2,153	301	913	768	171	...
Number who had received physician's services in previous years .....	5,399	...	1,158	3,047	1,194	...



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

Report Group Code No.	Diagnosis Group	Total	Sex		Age in Years				Unknown
			Male	Female	Under 1	1-4	5-14	15-20	
Total		7,552	4,136	3,416	301	2,071	3,815	1,365	
0130	Late effects of tuberculosis of bones and joints	23	12	11	...	1	13	9	...
0818	Late effects of acute poliomyelitis	548	311	237	...	9	290	249	...
2840	Late effects of rickets	11	6	5	...	3	6	2	...
3510	Cerebral Palsy	1,506	801	705	2	290	909	305	...
3590	Other diseases of the nervous system and sense organs, except eye, ear, and mental disorders	95	47	48	5	41	38	11	...
3989	Deafness and impairment of hearing	305	181	124	3	54	221	27	...
4090	Rheumatic fever, acute	132	67	65	...	1	95	36	...
5339	Disorders of occlusion, eruption and tooth development	31	15	16	...	...	21	10	...
7200	Arthritis and rheumatism except rheumatic fever	70	29	41	...	6	37	27	...
7309	Osteomyelitis and periostitis, except tuberculous	25	18	7	1	1	16	7	...
7459	Curvature of spine, except congenital or late effect of poliomyelitis or tuberculosis	143	40	103	...	2	60	81	...
7499	Other diseases of the bones and organs of movement, except congenital malformation	302	214	88	1	16	179	106	...
7510	Spina bifida and meningocele	199	104	95	17	53	90	39	...
7530	Congenital malformations of the circulatory system	449	248	201	21	143	224	61	...

Report Group Code No.	Diagnosis Group	Total	Sex		Age in Years				Unknown
			Male	Female	Under 1	1-4	5-14	15-20	
7540	Cleft palate and hare-lip	574	331	243	34	187	278	75	...
7571	Congenital dislocation of hip	184	47	137	11	78	76	19	...
7584	Clubfoot, congenital or unspecified	1,131	618	513	86	510	448	87	...
7585	Flatfoot, congenital	99	59	40	1	34	61	3	...
7599	Other congenital malformations	1,350	763	587	108	567	569	106	...
7609	Injuries at birth intracranial and spinal, except cerebral palsy and epilepsy	5	3	2	...	...	4	1	...
7619	Other injuries at birth except cerebral palsy and epilepsy	97	63	34	8	34	34	21	...
9400	Burns	59	28	31	...	8	30	21	...
9980	Other morbid conditions due to accidents, poisonings, and violence	97	69	28	...	6	50	41	...
9991	Other diagnosed diseases, injuries or handicapping conditions, except provisional or deferred diagnoses	117	62	55	3	27	66	21	...

## Dental Health Program

## Introduction

The Dental Health Program has continued its efforts to promote better dental health for all the people of New Jersey. In carrying out this objective, programs of dental health education, prevention, research and treatment for people unable to receive care have been given a high priority. This has been highlighted by programs for school children unable to receive dental care, by programs for crippled children, and programs for the chronically ill.

The Dental Health Program has been able to better fulfill its function by the addition of two full time dentists, who are working from the central office and developing programs in those areas where need exists. With the addition

of these two persons, investigations have been possible into many facets of dental health activities which were not previously feasible.

The Dental Health Program of New Jersey has been selected to train a Dental Public Health Resident, so that the resident might have the necessary field experience to make him eligible for the Board of Dental Public Health. This is the first such residency position setup in the United States.

#### *Dental Health Education*

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

The Program participated in the promotion of fluoridation in all areas of the state. There were five referenda to test community acceptance of fluoridation. The Dental Health Program provided consultation to groups in each community who were active in the referenda. These services also consisted of supplying educational materials and programs of community organization.

The Program participated in providing informative materials to the Trenton City Council and provided national speakers for an open town meeting where fluoridation was unanimously accepted. (One councilman did not vote.)

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

A course on "The Management of the Dental Problems of Handicapped Children" was conducted at Seton Hall College of Dentistry.

Participated in courses on "Cancer Detection (with an introduction to oral cytology techniques)" held at Seton Hall College of Dentistry.

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

An extensive dental health educational program was given to the children of migrant workers and to the migrant workers with one dental student from Nigeria and one dental student from New Jersey.

#### *Dental Treatment*

The Dental Health Program assisted in providing treatment services for school children in 18 counties by utilizing the services of 67 dentists in their private offices, 17 dentists in dental clinics, and eight 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).

In a cooperative effort with the Crippled Children's Program, dental services were provided for crippled children in All Souls Hospital, Morristown; Cooper Hospital, Camden; and, Monmouth Medical Center, Long Branch.

Dental treatment was provided for the children of migrant laborers, as well as to some of the migrant workers, in Cedarville and Rosenhayn in Cumberland County, Cranbury in Middlesex County, Freehold in Monmouth County, and Woodstown in Salem County, during the summer months when the migrants are in New Jersey (Tables 3 and 4).

The Dental Health Program placed portable dental equipment in Warren Hospital, Phillipsburg; Wayne Nursing Home, Wayne; Mountainside Hospital, Montclair; and, All Souls Hospital, Morristown.

#### *Prevention*

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.

The Dental Health Program is carrying out a program of promotion of fluoridation with the New Jersey Public Health Association and the New Jersey State Dental Society. This program has consisted of providing information on the local engineering aspects of instituting fluoridation, also of providing consultative services to governing bodies and other community groups.

The courses in Oral Cytology Techniques inform dentists of the modern techniques of detection of oral cancer and provide them opportunities of observing biopsy techniques so that they might be more familiar with this procedure in diagnosis of oral cancer, and to help the dentist become familiar with techniques of detection that will make him another arm in the battle against oral cancer.

#### *Dental Research*

The Dental Health Program, in cooperation with the Pennsylvania State Department of Health, conducted a research program in the benefits of

fluoridation in the cities of Phillipsburg, New Jersey and Easton, Pennsylvania, and the results of this study have been published.

In cooperation with the Sociology Department of Rutgers—the State University, a study is being made on the attitudes of dentists in providing dental care for the chronically ill.

#### Cooperation With Other Agencies

The Dental Health Program cooperated with the Crippled Children's 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 and educational program for the children of migrant laborers and migrant workers.

The Dental Health Program cooperated with the Cancer Control Program in courses on "Cancer Detection (with an introduction to oral cytology techniques)." The courses were attended by dentists.

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

The Dental Health Program cooperated with Rutgers—the State University 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 attached.)

Table 1. TREATMENT PROGRAM STATISTICAL DATA  
January 1, 1935 to December 31, 1935

Programs by Counties and Communities	Program Initiated	Type of Program	Dentists	School Districts	Total Reporting Hours	Examinations	Visits	Total Operations	Children Treated	Cases Completed	Percentage of Cases Completed
Atlantic	1947	Mo. Cl.	1	8	464	698	1,072	2,898	131	76	63
Bergen	1945	Mo. Cl.	1	1	529	1,201	2,081	1,494	132	188	97
Bergen	1946	Mo. Cl.	1	1	148	2,101	2,081	1,494	142	188	97
Burlington	1945	P. O.	4	6	178	1,655	891	661	42	89	93
Burlington	1946	P. O.	2	6	178	1,655	891	661	42	89	93
Burlington	1947	P. O.	1	11	718	4,890	10,048	6,725	648	890	90
Cape May	1944	P. O.	6	1	87	16	67	172	18	9	20
Cape May	1945	P. O.	6	12	259	158	1,424	1,484	798	402	54
Cumberland	1946	Mo. Cl.	1	1	500	844	1,193	1,488	218	150	69
Gloucester	1947	Mo. Cl.	1	1	574	816	1,700	1,700	861	288	52
Hunterdon	1940	Mo. Cl.	1	29	20	3,005	408	685	81	19	65
Hunterdon	1941	Mo. Cl.	1	1	20	1,067	17	44	7	0	..
Hunterdon	1942	Mo. Cl.	1	1	197	297	934	714	278	59	83
Hunterdon	1943	Mo. Cl.	1	1	197	297	934	714	278	59	83
Hunterdon	1944	Mo. Cl.	1	1	248	2,154	1,465	688	167	106	65
Hunterdon	1945	Mo. Cl.	1	11	248	2,154	1,465	688	167	106	65
Hunterdon	1946	Mo. Cl.	1	1	120	1,868	240	371	74	25	83
Hunterdon	1947	Mo. Cl.	1	1	48	48	34	47	7	2	25
Monmouth	1945	P. O.	20	6	1,224	140	2,418	1,087	181	70	48
Monmouth	1946	P. O.	2	6	620	885	1,863	4,832	534	832	62
Monmouth	1947	P. O.	3	2	132	88	225	837	78	10	13
Passaic	1942	P. O.	3	2	166	184	139	618	178	0	..
Passaic	1943	P. O.	3	2	166	184	139	618	178	0	..
Passaic	1944	P. O.	1	10	881	10,260	840	1,081	402	525	79
Passaic	1945	P. O.	1	8	951	10,260	840	1,081	402	525	79
Passaic	1946	P. O.	1	18	882	225	1,360	3,478	91	81	81
Passaic	1947	P. O.	2	1	658	..	..	..	..	..	..
Phillipsburg	1947	Mo. Cl.	92	186	12,220	42,581	28,228	48,992	7,070	4,044	57
TOTALS (18 Counties)											

\* 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; St. 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
Camden .....	10	1,156	560	48	2.7	1
Gloucester .....	16	1,438	637	44	2.2	14
Ocean .....	6	416	223	53	2.8	4
Passaic .....	4	1,128	478	42	2.8	4
Warren .....	20	806	488	61	3.5	11

The above figures include Pre-School Dental Inspections conducted both in the Spring and Fall of 1963.

Table 3. MIGRANT DENTAL TREATMENT PROGRAM FOR CHILDREN OF MIGRANT WORKERS  
July 1, 1963 to August 30, 1963

	Cumberland County		Cumberland County		Middlesex County		Monmouth County		Salem County		Totals
	Cedarville	Rosebush	Rosebush	(1)*	Cranbury	(1)*	Freehold	Freehold	Woodstown	Woodstown	
Number of Dentists .....	1	(1)*	1	(1)*	1	(1)*	1	1	1	1	3
Number of Examinations .....	83	65	81	81	81	39	39	77	77	77	345
Number of Visits .....	83	65	223	223	223	65	65	144	144	144	584
Number of Extractions—Permanent .....	2	2	2	2	2	0	0	1	1	1	7
—Deciduous .....	6	16	16	16	16	5	5	8	8	8	51
Number of Fillings—Amalgam .....	6	36	84	84	84	34	34	165	165	165	325
—Others .....	0	0	6	6	6	7	7	20	20	20	33
Number of Temporary Fillings .....	0	0	7	7	7	1	1	11	11	11	19
Number of Linings .....	0	0	79	79	79	23	23	56	56	56	158
Number of Propylaxis .....	82	59	79	79	79	39	39	98	98	98	357
Number of Fluoride Treatments .....	82	59	188	188	188	65	65	0	0	0	394
Number of Children Treated .....	83	65	81	81	81	39	39	77	77	77	345
Number of Cases Completed .....	0	0	78	78	78	16	16	61	61	61	155
Percentage of Completed Cases .....	0	0	96.2	96.2	96.2	41.0	41.0	79.2	79.2	79.2	44.9

\* Same dentist worked in two counties.

Funds Allotted

3—Participating Dentists .....	\$4,608.00
3—Dental Assistants .....	1,123.20
Estimated Cost of Dental Supplies .....	491.61
<b>Total .....</b>	<b>\$6,222.81</b>

Additional Dental Equipment used as follows:

2—Ritter Portable Dental Units	2—Sterilizers
3—Amalgamators	2—Headrests
3—Portable Dental Chairs	2—Goose-neck Lights

Table 4. MIGRANT DENTAL PROGRAM FOR MIGRANT WORKERS  
SURVEY WITH TONGUE BLADES AND CHAIR BY DENTAL STUDENTS  
July 1, 1963 to August 30, 1963

Age	Number Examined	Number of Missing Teeth	Number of Decayed Teeth	Number of Filled Teeth	Persons with No Decay Periodontia	Persons with Periodontia	Number Needing Extractions	Number of Persons with No Teeth No Dentures
0-14	86	41	188	15	10	9	32	0
15-24	126	208	448	31	1	53	116	9
25-44	171	813	760	82	1	154	266	5
45 up	213	884	763	7	6	183	309	28
Totals	596	1,946	2,159	135	18	399	723	42

Communities involved in above survey were:

Cedarville, Dutch Neck, Roadstown, Jill Farm (near Roadstown), Rosenhayn, and Kelly Farm (near Rosenhayn).

## Maternal and Child Health Program

### Hospital Consultation Services

In 1955, the Maternal and Child Health Program initiated a consultation service to hospitals, at first concentrating on the care of premature infants, but soon expanding to include the entire maternity and newborn services. In December, 1960, further extension of the consultation service to hospital pediatric services took place. All hospitals in New Jersey with maternity and newborn units have been covered, including military installations. Furthermore, periodic consultation visits are made to maternity homes, which provide no delivery service on their premises, but prenatal and post partum care. A substantial number of hospital pediatric services have also been provided consultation.

Initial consultation visits to a Maternity and Newborn Department or a Pediatric Unit, as a rule, extend over several days. These initial visits are followed up by periodic revisits, some of which, too, may be extended visits, although most of them are one-day visits.

Requests for additional consultation services for a variety of problems are being received from hospitals and complied with. These requests, as well as many letters from hospital administrators, nursing directors, physicians, attest to the usefulness of this program activity.

This has been primarily a nursing consultation service. In October, 1963, an obstetrician was added to the MCH staff on a part-time basis, to strengthen the maternity care aspects of the service.

In 1963 the following services were rendered (more than one staff member may have been involved) :

#### Maternity and Newborn Care:

56 hospitals and maternity homes visited ..... 61 consultation days

#### Pediatrics:

24 hospitals visited ..... 44 consultation days

#### Special Problems:

8 hospitals visited ..... 8 consultation days

88 hospitals and maternity homes visited ..... 113 consultation days

The following is a summary table, by calendar years, of the activities of the hospital consultation service since its initiation :

Table 1. HOSPITAL CONSULTATION SERVICES

Year	Number of Hospitals and Maternity Homes Visited	Number of Hospital Visits
1955	1	1
1956	17	28
1957	33	48
1958	26	35
1959	60	81
1960	69 (Pediatrics—4)	88 (Pediatrics—4)
1961	65 (Pediatrics—25)	86 (Pediatrics—30)
1962	79 (Pediatrics—22)	92 (Pediatrics—26)
1963	88 (Pediatrics—24)	94 (Pediatrics—25)

For a number of years, the Maternal and Child Health Program sent an inquiry to hospitals in which deliveries occurred, asking a number of questions pertaining to maternity and newborn services. Selected statistical data, some of them comparing statistics reported by the hospital with those obtained from birth records by our Public Health Statistics Program, have been regularly distributed back to the hospitals, grouping hospitals by size of service (number of deliveries) and identifying them only by code number, releasing to each hospital administrator his own code number; thereby, the hospitals can compare their own data with those of other hospitals which have maternity services of similar magnitude.

#### Midwives

In 1963, there were 45 licensed midwives registered to practice in New Jersey. This number is 27 less than in the preceding year. By the end of September, 1963 seven midwives were active, having delivered 12 infants. All of these midwife deliveries had physician's clearance. Supervision of midwives is provided by public health nurses.

Table 2. MIDWIFE DELIVERIES BY STATE HEALTH DISTRICTS WERE AS FOLLOWS:

State Health District	Number of Active Midwives				Number of Infants Delivered by Midwives			
	1960	1961	1962	1963*	1960	1961	1962	1963*
Central	4	4	2	3	5	5	2	3
Metropolitan	3	2	2	6	6	9	10	6
Northern	1	2	..	2	1	6	..	2
Southern	2	1	1	1	4	6	3	1
State Total	10	9	5	7	16	26	15	12

\*1963 figures are inclusive of September. Data for October, November, and December were not available at the time of preparation of this report.

Table 3. MIDWIFE ACTIVITIES, 1950-1963

Year	Number of Active Midwives	Number of Midwife Deliveries
1950	67	382
1951	49	252
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
1961	9	26
1962	5	15
1963*	7	12

\*1963 figures are inclusive of September. Data for October, November and December were not available at the time of preparation of this report.

#### Unattended Live Births

As stated previously, the problem of unattended births is, very probably, considerably larger than could be noted from review of the following tables. We have indications that many more unattended births occur in transit, the baby being delivered, not infrequently, by relatives, by friends, or by State or local police or rescue squads, the birth certificate being signed by a physician upon arrival at the hospital. Furthermore, the problem of unattended births includes also the unattended stillbirths. This information, however, cannot be obtained from the fetal death certificates, for these must all be signed by a physician.

The problem of unattended births in New Jersey, even as reported, is increasing, as one can see from the table comparing the number of unattended births for the years 1958 through 1962. This increase has been steady except for a slight drop in 1959, when the lowest number of unattended births was reported within the period of time under consideration. In 1962, we had reported almost three times as many unattended births as were reported for 1959.

The increase of the state total is due primarily to the marked increase in the Metropolitan District, the number of unattended births occurring there in 1962 being almost six-fold that of 1959. It can be assumed that this increase

is a real one, since we have no reason to believe that there was better reporting in 1962 than previously. One hundred and fifty-nine of the 209 unattended births reported for the state in 1962 occurred in the Metropolitan District. One hundred and forty-three of the 159 unattended births reported for that District occurred in Essex County, most of them in Newark. The Central District showed a decrease in the number of unattended births between 1958 and 1961; however, in 1962, the number jumped to the highest figure in the five-year period under consideration. The highest figure for the Northern District was in 1958, with 10 reported unattended births. The number in the Southern District has been fairly even during the five-year period, with the highest figure in 1960 and the lowest in 1962.

All unattended births coming to our attention are being investigated through the State Health District offices and the reports are sent to the Maternal and Child Health Program. From these reports, one would conclude that not all of the unattended births present serious problems, but many of the reports indicate serious difficulties of a social, economic, or a psychological nature.

In 1962, over 39 percent of the cases were reported as having had no prenatal care whatsoever. Thirty percent of the unattended births were illegitimate; this compares to a 4.5 percent illegitimacy for the 1962 resident births.

In 10 percent of the 1962 unattended live births, premature delivery was given as a reason for no qualified attendance (in Essex County this was 35 percent). One can assume that additional premature deliveries occurred among the precipitate births, even if they were not reported as premature. Although these reports do not give us the babies' birth weights and therefore an accurate comparison can, admittedly, not be made, it is interesting to note that the percentage of premature births reported for New Jersey residents was eight percent.

The greatest number of unattended births occurred in the age group 20 to 29, which is also the case in the general age distribution of parturients. Very young women are at particular risk of abnormal pregnancy and delivery. Twenty-eight or 13.4 percent of the mothers having had no qualified attendant at the birth of their child were less than 20 years old, as compared to 9.8 percent among the state total of parturients.

When comparing percentages among the unattended live birth group with those of the state total of live resident births, one must bear in mind that one is comparing very unequal numbers (209 unattended births versus 131,603 resident live births). For the purpose of this report, no statistical significance tests were made to confirm the impression that women who deliver without a qualified attendant have a higher incidence of illegitimacy, prematurity, and very young mothers, than have New Jersey parturients in general.

Table 4. Unattended Live Births—1958, 1959, 1960, 1961, 1962

	1958	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	1958	1959	1960	1961	1962	Total	
Central Metropolitan	1	3	6	1	2	5	6	1	1	2	2	3	5	22	1	2	1	3	5	22
Northern	3	1	1	1	1	2	1	1	1	1	2	1	1	10	1	1	1	1	1	10
Southern	2	1	1	1	1	1	1	4	8	1	1	1	1	22	1	1	1	1	1	22
Grand Total	6	5	8	4	4	10	7	6	5	6	6	4	14	64	1	1	1	1	1	64
Central Metropolitan	1	3	8	1	1	4	2	1	2	5	2	1	1	23	1	2	1	1	1	23
Northern	1	1	1	1	1	1	2	1	2	1	1	1	1	10	1	1	1	1	1	10
Southern	1	1	1	1	1	3	2	2	3	3	1	3	2	20	1	1	1	1	1	20
Grand Total	3	5	10	4	6	7	5	4	7	9	4	5	4	43	3	4	3	3	3	43
Central Metropolitan	2	1	1	1	1	1	4	1	1	2	1	3	1	13	1	1	1	1	1	13
Northern	1	2	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	10
Southern	1	1	2	1	2	2	1	2	1	2	2	2	2	15	1	1	1	1	1	15
Grand Total	4	4	4	3	4	4	7	4	3	5	4	6	4	38	3	3	3	3	3	38
Central Metropolitan	2	1	2	1	1	1	4	1	1	2	1	3	1	15	1	1	1	1	1	15
Northern	1	2	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	10
Southern	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	10
Grand Total	4	4	4	3	3	3	6	3	3	4	3	3	3	35	3	3	3	3	3	35
Central Metropolitan	2	1	2	1	1	1	1	1	1	1	2	1	1	13	1	1	1	1	1	13
Northern	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	10
Southern	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	10
Grand Total	4	3	4	3	3	3	3	3	3	3	3	3	3	33	3	3	3	3	3	33
Central Metropolitan	1	1	2	2	1	1	1	1	1	2	1	1	1	13	1	1	1	1	1	13
Northern	10	12	19	14	6	12	10	17	6	4	4	4	4	88	1	1	1	1	1	88
Southern	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	10
Grand Total	12	24	46	31	18	23	21	28	14	9	9	9	9	102	2	2	2	2	2	102
Central Metropolitan	1	1	2	2	1	1	1	1	1	2	1	1	1	13	1	1	1	1	1	13
Northern	10	12	19	14	6	12	10	17	6	4	4	4	4	88	1	1	1	1	1	88
Southern	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	10
Grand Total	12	24	46	31	18	23	21	28	14	9	9	9	9	102	2	2	2	2	2	102
Central Metropolitan	1	1	2	2	1	1	1	1	1	2	1	1	1	13	1	1	1	1	1	13
Northern	10	12	19	14	6	12	10	17	6	4	4	4	4	88	1	1	1	1	1	88
Southern	1	1	1	1	1	1	1	1	1	1	1	1	1	10	1	1	1	1	1	10
Grand Total	12	24	46	31	18	23	21	28	14	9	9	9	9	102	2	2	2	2	2	102

## DEPARTMENT OF HEALTH

Table 5. Unattended Live Births, 1962, State Total

District	Total Number Unattended Births	Marital Status		Mother's Age					Report Rec'd. District		Prenatal Care		Deaths		Reasons Given for Medical Care*							
		W	D	Under 15	15-19	20-24	25-29	30-34	35-Over	Yes	No	Yes	No	Neonatal	Maternal	Precipitate	Premature	Financial	Religious	O. W.	Miscellaneous	Not Stated
Central	28	20	8	1	5	8	6	5	3	27	1	25	8	13	12	1	8	1	1	6	11	
Metropolitan	159	107	52	1	13	43	45	28	17	189		130	29	70	60	13	79	17		19	29	
Northern	4	4		1	1	3				4		3	1	2	1	2	1				2	
Southern	13	13	2	1	5	1	5	6		13		17	1	6	10	1	4	1	1	8	1	7
Grand Total	209	147	62	2	23	61	55	38	28	209	1	175	34	91	82	2	91	20	1	7	28	49

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

## DIVISION OF CONSTRUCTIVE HEALTH

Table 6. Unattended Live Births, 1962

District	Total Number Unattended Births	Subsequent Adv. Mv. Mother		Subsequent Med. Adv. Infant		Total No. in Prenatal Care	Prenatal Care Started By Month																
		Yes	No	*N.S.	Yes		No	*N.S.	2	3	4	5	6	7	8	9	*N.S.						
Central	28	16	9	3	15	6	4	18				4	1	4	1	3							
Metropolitan	159	65	68	31	65	41	38	70				12	14	16	8	9	2	1					
Northern	4	1		3		2	2	2				1	1										
Southern	13	5	8	5	6	7	5	6				3	2										1
Grand Total	209	87	80	42	109	56	44	91				18	18	19	8	10	5	2					2

\* N. S.—Not Stated.

\*\* Deceased.



### *Maternal Deaths*

The Maternal and Child Health Program works cooperatively with the Special Committee on Maternal and Infant Welfare of the Medical Society of New Jersey in the study of deaths occurring in women during pregnancy, delivery and the puerperium. A total of 52 such deaths were reported and studied for 1963 so far (at the time of preparation of this report the 1963 data were incomplete). In some of these, the cause was unrelated to the maternity cycle. These studies reveal that, despite the dramatic decline of the maternal death rates over the past decades, the irreducible minimum has not been reached. Preventable factors still operate in many of these deaths.

The 1962 maternal death rate was 0.3 per 1,000 live births, the same as in the two preceding years.

### *Mental Retardation*

The *Child Evaluation Clinic* at Morristown Memorial Hospital, which was planned and developed with the assistance of the Maternal and Child Health Program, began functioning in September, 1959. 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 provided. Other medical specialist consultation services and necessary laboratory facilities are available at the hospital.

### *Phenylketonuria*

Phenylketonuria is one of the conditions in the group called "Inborn Errors of Metabolism," which are genetically determined. A child affected with this condition is unable to properly metabolize the amino acid phenylalanine, which is one of the building blocks of all naturally occurring food proteins, including milk. The abnormal metabolism of phenylalanine leads to abnormally high blood levels of the amino acid and this, in turn, by a mechanism to date unknown, has a toxic effect upon the brain, leading to mental retardation. If the condition is discovered very early in life and treatment is instituted promptly, consisting of replacing regular milk and other protein foods with a diet low in phenylalanine, mental retardation can be prevented in many instances. Recent findings indicate that the condition "phenylketonuria" is more frequently occurring than previously estimated. It is assumed to be one in 10,000 births. This condition is the first cause of mental retardation for which a specific method of prevention is available, and where case finding on a large scale has become feasible.

During the report year, the following programs have been operating:

- (a) Screening for phenylketonuria has been increased in Child Health Stations.
- (b) Contracts with St. Christopher's Hospital in Philadelphia and the Babies Hospital Unit of the United Hospitals in Newark have been in effect for the diagnosis, treatment and follow-up of children with phenylketonuria. To the extent to which families need assistance, the Program assumes financial responsibility for those children in whom the condition has been found early enough so that prevention of mental retardation or prevention of deterioration may be possible. This includes provision of the diet formula. In the calendar year 1963, 23 children have been carried in this manner by the Program.
- (c) New Jersey participated in the nationwide study to determine the effectiveness of a method developed by Dr. Guthrie of the University of Buffalo for the discovery of phenylketonuria in newborn infants. This study has been set up under the sponsorship of the U. S. Children's Bureau. New Jersey's participation extended to the testing of 10,000 infants. The Maternal and Child Health Program coordinated this effort in New Jersey and made arrangements with five hospitals (Morristown Memorial Hospital in Morristown, Helene Fuld Hospital and St. Francis Hospital in Trenton, Fitkin Memorial Hospital in Neptune, and West Jersey Hospital in Camden) for taking blood drop samples of all newborn babies on the third or fourth day of life (after they had at least 48 hours of milk feedings) and requesting the mothers to submit urine samples subsequently. The laboratory work was done by the State Department of Health laboratories. Although some suspect cases were rechecked, no definite case of phenylketonuria was found in 1963.
- (d) The Division of Laboratories continued in 1963 with the arrangements made in the preceding year regarding blood phenylalanine level determinations according to the LaDu method.

### *Migrant Health*

Four pediatric clinics for children of agricultural migratory workers were set up in conjunction with the school programs for these children at Cranbury, Fairton, Rosenhayn, and Woodstown, following cooperative planning with representatives of the State Department of Education. The services provided 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 of protective immunizations against diphtheria, pertussis, tetanus and poliomyelitis, as indicated. Dental services were also provided, as recorded elsewhere. Tuberculin testing was also done on these children. Referrals for further medical care were made, as needed. A total of 276 children were examined by the physician. Four hundred and four revisits were made to the physician for a variety of purposes.

The following table gives statistical information on the services thus rendered:

Table 7. Services Rendered at School Clinics for Migrant Children

Age	First Visit to Physician	Re-visit to Physician	Total Attendance	Complete Physical Examination	D. P. T.			D. T.			Polio			Tuberculin Test	Medical Care Source	Public Health Nurse	Other (e. g.) Social Services			
					1st Inj.	2nd Inj.	3rd Inj.	Booster	1st Inj.	2nd Inj.	3rd Inj.	Booster	1st Inj.					2nd Inj.	3rd Inj.	Booster
Under One																				
One to Four	57	87	129	41	41	40	1	18	6			58	40	3	2	42	1	5		
Five and Over	219	317	488	267	23	15	27	4	113	72	27	43	125	89	47	33	213	6	15	1
Total	276	404	617	308	64	58	27	5	131	78	27	43	183	129	50	35	253	7	20	1

A "Learn to Swim" and recreational program was provided to the Cranbury School students two hours a week at the Trenton Y.M.C.A. The program was made possible through the assistance of the State Department of Education and the generosity of the Trenton Y.M.C.A.

Additional maternal and child health services were provided to families of agricultural migratory workers through the following Public Health Nursing organizations: The Burlington County Public Health Nursing Association, the Monmouth County Organization for Social Service, the Middlesex County Visiting Nurse Association, and the Princeton Visiting Nurse Association. The Monmouth County Organization for Social Service, in addition to rendering public health nursing services, provided child health conferences and prenatal clinic services to these people. These services were rendered on basis of contract with the Department.

Six qualified public health nurses were appointed by the Migrant Program during the summer to assist in evaluating health needs of migrant workers and problems encountered in meeting these needs. Much of the needs and problems were in the area of maternal and child health. These nurses also provided direct public health nursing services in many instances and, after evaluation of needs, initiated referrals to appropriate local health agencies. The majority of cases encountered in this experience were in the maternal and child health category, with the single largest category being prenatal patients. The Public Health Nurse Consultant, Maternal and Child Health, also was active in developing and coordinating the nursing services to migratory agricultural workers.

With the expansion of the Migrant Program, a certified Medical Social Worker was appointed to the Program and worked closely with the Public Health Nurses in rendering an intensive service to the agricultural workers.

Contracts for prenatal delivery and post-partum services were made by the Department with Bridgeton, Cooper, Millville, Newcomb and Salem Hospitals. Thirty-one pregnant women were given prenatal care under these contracts; 19 were also provided delivery care.

#### Educational Activities

##### (1) Training Programs

- (a) Two workshops for Volunteers and Hospital Nurses on "Play Programs for Children in Hospitals" were arranged by the Maternal and Child Health Program in cooperation with the Central and the Northern State Health Districts. These workshops were held as follow-up programs to the session on "Volunteer Services in Pediatric Units" conducted in the preceding year in conjunction with the Tri-State Hospital Assembly in Atlantic City. A special exhibit and booklet had been prepared and used in these programs. In addition, a nurse, who is also a child development specialist and who participated in the above programs, both in the planning and the execution, served as consultant and visited those hospitals, which had sent representatives to the meetings, in order to help them initiate or improve their play programs.
- (b) The Maternal and Child Health Program participated very actively in the planning of a two weeks' workshop on Nutrition in Maternal and Child Health, which was held at Rutgers in the summer of 1963. Program personnel also was involved in the actual teaching. Maternal and Child Health funds helped finance the workshop, which had nutritionists from New Jersey as well as other states in attendance.

- (c) Two identical workshops on "Feeding Hospitalized Children" were held, one in the northern part of the state, the other in the southern part. The Proceedings were published in the December, 1963 issue of *Public Health News*. Special reference to these programs was made in the U. S. Children's Bureau publication "Children."
- (d) Two programs for public health nurses were arranged and conducted, dealing with the subject of "Mental Retardation" in general and the home management of the retarded child in particular. One of the meetings was directed to nurses in the Southern and Central State Health Districts, the other one to nurses in the Northern and Metropolitan Districts.
- (e) A series of weekly seminar sessions on "Mental Health in Child Health Conference Services" was planned cooperatively with the Essex County Health Officers Association to start early in 1964. The purpose of the seminar is to give the nurses a thorough understanding of normal personality development and to help them recognize early deviations and problems in mental health. In each participating community, there will be a psychiatrically trained consultant available to the nurses from a family agency or a mental health agency. These consultants will be available to the nurses for consultation with specific cases, either to help the nurse in their supportive role or to assist in facilitating necessary referrals to a family agency or mental health facility. The seminars will be conducted by a child psychiatrist; the consultants will participate. Financing of this undertaking has been arranged through a grant-in-aid contract with the Department.
- (f) Program personnel participated in a variety of in-service training activities on local level, at university level, at League of Nursing meetings, at hospital programs, etc.

(2) *Material Prepared and Published During the Report Year*

- (a) "Feeding Children in Hospitals" (December, 1963 issue of *Public Health News*).
- (b) "English-Spanish Guide for Public Health Nurses in Maternal and Child Health."
- (c) "Play for Hospitalized Children."
- (d) "Information on Tuberculin Testing" (English and Spanish).
- (e) "Protect Yourself and Your Family" (English and Spanish).
- (f) Statistics were prepared and distributed (Tables on Hospital Statistics regarding Maternity and Newborn Services; Unattended Births Data).

- (g) An up-to-date listing of Child Health Stations throughout New Jersey, giving dates and time of session, as well as location.

(3) *Health Education*

Health education is considered a very important function of the Maternal and Child Health Program. A variety of health education activities relating to Maternal and Child Health was carried out by District personnel.

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.

*Field Activities on Local Level*

The operation and administration of the Department's sponsored Maternal and Child Health activities on local level is the responsibility of the four State Health Districts. At the end of the report period, there were 268 Child Health Stations in operation throughout the state. In 63 of these, the Department paid for physicians' services on contract basis with local health agencies. These contracts are renewed yearly, but are to be amortized within a period of three years, by the end of which local communities assume full financial responsibility. Practically all of the contracts were amortized by the end of 1963.

Five District Consultant Pediatricians are assigned to the four State Health Districts. The Metropolitan State Health District has two such physicians assigned, the other State Health Districts have one each. Since the first District Consultant Pediatrician was appointed in 1959, considerable improvement of the quality of services rendered at the various Child Health Stations has been the result. The District Consultant Pediatricians work not only with the State-supported Child Health Stations, but with many such Stations entirely under local sponsorship. Periodic consultation services have expanded considerably during the report period, particularly to include larger communities.

Nursing consultation to the Child Health Conferences has been provided by the Public Health Nurse Consultant, Maternal and Child Health. The Districts, through the Chief Public Health Nurse, also provide a certain amount of consultation regarding Maternal and Child Health activities to health departments and to nursing agencies.

## 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. TEMKO <i>Program Coordinator</i>
Drug, Device and Cosmetic .....	RICHARD J. RUSSO, M.S.P.H. <i>Program Coordinator</i>
Meat Inspection .....	MILTON RUTH <i>Program Coordinator</i>
Milk .....	HOWARD ABBOTT, M.P.H. <i>Program Coordinator</i>
Shellfish .....	RICHARD E. BELLIS <i>Program Coordinator</i>
Stream Pollution .....	ROBERT S. SHAW, <i>Assistant Director</i> Division of Environmental Health ERNEST R. SEGESSER, <i>Supervising</i> <i>Engineer and Program Coordinator</i>
General Sanitation .....	ALFRED H. FLETCHER, M.S. <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 .....	ALFRED H. FLETCHER, M.S. <i>Acting Program Coordinator</i>
Mobile Home Parks .....	LLOYD S. HIGGS <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 .....	WILLIAM H. AAROE, M.P.H. <i>Program Coordinator</i>
Veterinary Public Health .....	OSCAR SUSSMAN, D.V.M., M.P.H. <i>Chief</i>

## Division of Environmental Health

The broad objectives of the programs of the Division of Environmental Health are to foster planning, construction, maintenance and operation of the physical structures that support community life and 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 and camping 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 through epidemiological study and research the mode of transmission of animal diseases to humans and practical methods of control; and to foster programs to deal with pests or environmental health problems such as ragweed, poison ivy, insects, and rodents.

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

### *Food and Drugs*

Milk and Milk Products  
Shellfish  
Meat and Poultry  
Food  
Drug Manufacturing and Wholesaling

### *Occupational Health*

*Air Sanitation*  
*Radiological Health*  
*Stream Pollution*

### *General Sanitation*

Bathing-Camp  
Housing  
Potable Water  
Ragweed and Poison Ivy  
Solid Waste Disposal

### *Veterinary Public Health*

Rabies  
Other Animal Diseases  
Insect and Rodent Control

Codes are drafted and when approved by the Department are recommended for adoption by local boards of health by reference. The fol-

lowing is a list of recommended codes pertaining to environmental health in existence to date:

Retail Food Handling	Coin-Operated Dry Cleaning Machines
Smoke Control	Individual Sewage Disposal Systems
Weed Control	(Updated during 1963)
Plumbing	Individual and Semi-Public Water Supplies
Swimming Pools	Maintenance of Swine
Nuisance Control	Garbage and Refuse Collection and Disposal
Housing	Vending Machines
	Mobile Home Parks

A revision of the Standards required by Chapter 199, P. L. 1954 for Individual Sewage Disposal Systems and the Recommended Code on Individual Sewage Disposal were completed. Copies of Chapter 199, P. L. 1954 with the Standards are printed and available. Copies of the Code will be available early in 1964. The Advisory Committee appointed to update the Rules and Regulations governing the submission of plans for Public Water and Sewerage Systems has worked all year on its assignment. It is expected that they will be completed and adopted during 1964.

No new laws relating to food, drugs, cosmetics, devices were enacted by the Legislature. Regulations were adopted by the Department governing the keeping of records by drug manufacturing and wholesale drug businesses, which will provide more effective control over distribution of drugs. Rules and Regulations Governing Sanitation, Handling, Shucking and Shipping of Shellfish were adopted to clarify certain definitions and strengthen prohibition against specific illegal practices.

### Food Program

Sanitary requirements for the production, preparation, storage and handling of food are a responsibility of the Department. Egg breaking, non-alcoholic beverage and bottled water plants and refrigerated warehouses and locker plants are licensed and inspected by the Department. Samples of food are collected for analyses for bacteriological and chemical adulteration and compliance with established or self-proclaimed standards of potency, quality and identity. Labels of food products are also reviewed for compliance with laws and regulations intended to prevent deception and to inform the consumer fully.

Over 600 results of analyses of samples of food other than milk products, ice cream and shellfish, were reviewed for compliance. New and revised labels proposed for use by industry and submitted to this office for review and comment were examined and comments offered regarding compliance with applicable laws and regulations.

### *Adulterated Meats*

An intensified campaign on behalf of consumer protection was continued in retail meat markets and other establishments selling hamburger, sausage, and other combinations of fresh ground meats. Past history indicated that the practice of adding sodium sulphite or sodium bisulphite to ground meats in order to conceal inferiority was still a problem in certain areas. Such chemicals are prohibited by law for use in or on meats. Using a field testing method, representatives of the Department made 628 tests for sulphites on ground meats with 20 of the samples (3.2%) being confirmed as positive by laboratory analyses. The percentage of positive samples showed a slight increase over last year's figure of 2.9 percent. Based on these findings, three penalties totaling \$300 were collected from violators and eight cases totaling penalties of \$850 were referred to the Attorney General's Office for penalty action. At the same time, 301 samples of hamburger and ground beef were analyzed to determine if fat in excess of 30 percent was being added in violation of Federal standards. Our findings disclosed that 43 samples comprising 14.2 percent of the total examined contained more than the accepted tolerance, compared to 14.5 percent during the preceding year. As in the past, warning letters were sent to first offenders. Resampling of such persons' products resulted in the collection of 10 penalties in the amount of \$600 for sale of meat adulterated by excess fat. Two of the penalties paid were second offenses for which the penalty is \$100. During the latter part of the year, four additional fat testing devices were purchased for use by field personnel which should increase the coverage in the field and further reduce the workload of our laboratories. Because of the inability of the Department to effect passage of legislation establishing specific fat standards for sausage, hamburger and other ground meats, steps were taken to promulgate such standards in the form of regulations which are destined to become effective in the early part of 1964. When enacted, the standards will place the Department and local boards of health in a stronger position to protect the consumer against such deceptive practices.

### *Food Poisoning Outbreaks*

Beginning in March, the Program became involved with the investigation of four nationally publicized outbreaks of food poisonings, involving botulism in tuna fish, canned pate de foie, smoked chubs, and imported Spanish Brandy containing wood alcohol. The death of two women in Detroit, Michigan caused by the consumption of tuna fish was attributed

to a can packed by a California firm and distributed by a major grocery store chain under its own label. Communication with Federal Food and Drug Administration officials disclosed that none of the tuna fish reached the eastern United States through the chain store distribution channels. Regardless of this, the grocery firm removed all lots of tuna fish from its stores. Continued investigation by the Food and Drug Administration disclosed that a Brooklyn, New York wholesaler had received some of the California firm's products labeled "Kosher for Passover" and that 144 cans each had been shipped to a delicatessen store in Lakewood, New Jersey and a Vineland man who sold house-to-house in South Jersey and Philadelphia, Pennsylvania. Prompt action on the part of District and local personnel resulted in the round up and embargo of 137 cans of the Lakewood shipment. Of the Vineland shipment, 77 cans were embargoed by representatives of this Department and all but one can of the remainder were accounted for through the efforts of the Food and Drug Administration and the City of Philadelphia Health Department.

Before final disposition of the preceding matter, information was received from the Food and Drug Administration that a particular brand of imported Spanish Brandy was found to contain methyl alcohol and that 92 bottles of the adulterated beverage had been shipped to a distributor in metropolitan New Jersey, who in turn had redistributed the product to 15 retail outlets in the Metropolitan, Northern, and Central State Health Districts. Prompt follow-up by District and local boards of health resulted in the recovery and embargo of 71 bottles and tracing of the remainder to the point of consumption. No cases of injury from consumption of the product were found in New Jersey. The embargoed merchandise was returned to the importer for destruction under official supervision.

In the early part of October, the Department was alerted to an outbreak of botulism occurring in at least nine persons in Tennessee caused by the alleged consumption of smoked white fish chubs processed by a Michigan firm and distributed through a large grocery chain with outlets in the South and Midwest. Investigation disclosed that none of the processor's products had been shipped into New Jersey. On October 25, the Commissioner, George P. Larrick, of the Food and Drug Administration, in a nationwide public announcement warned against the consumption of any fish caught in the Great Lakes area or processed in plants in the Great Lakes area unless they had been heated to a temperature of 180° F. for 30 minutes after packaging or frozen immediately after packaging and kept in a frozen condition until ready for consumption. The Commissioner's recommendations were based on a Report of a Food and Drug Administration Advisory Committee on Botulism Hazards com-

posed of three nationally recognized scientists in the food field, who were appointed following the Type E Botulism deaths of seven persons in Tennessee and Michigan.

At the end of the year, no firms were reported processing smoked fish, in accordance with Food and Drug Administration recommendations, and no smoked white fish were found on sale in New Jersey.

Publicity relating to the smoked fish cases had barely subsided when the Food and Drug Administration reported receipt of information that an outbreak of botulism in Canada had been traced to canned liver paste (pate de foie) packed by a Montreal firm which had made shipments of the suspected lot of food to New York and New Jersey. Four cases, including two deaths, had been attributed to this source. An immediate embargo was placed on the New Jersey shipment consisting of 462 cases—48 three-ounce cans per case—less 130 cans which had been shipped to mail order customers of the firm. In addition, the Department and local boards of health cooperated with the Food and Drug Administration in tracking down quantities of the product originally shipped to New York and reshipped into New Jersey or carried into the state by residents shopping in New York. The New Jersey importer of the liver paste instituted a vigorous campaign by telephone, telegram, and airmail to warn customers in possession of the product not to consume the food but to destroy or return the containers for credit. Within a month of the original report, Department and local board of health representatives were able to supervise the voluntary destruction of almost 22,000 cans of the product. No cases of botulism in the United States were related to the two shipments.

#### *Egg Breaking Investigations*

In cooperation with the State Department of Agriculture, Program and District personnel were active in checking sources of frozen eggs offered for sale to New Jersey bakeries. Investigations resulted in the collection of three penalties from firms found breaking eggs without a license and a penalty of \$50 for interference with our representative was collected from a suspected illegal egg breaker who refused admission to his premises. During the year, 10 new egg breaking licenses were issued because of our activities and the resultant publicity in the trade. In addition, almost five tons of adulterated frozen eggs were removed from human food channels under supervision of representatives of this Department. These products were uncovered during joint investigations with United States Food and Drug Administration and State Department of Agriculture personnel.

*Miscellaneous Activities*

For many years, the State of Connecticut Department of Consumer Protection conducted inspections of New Jersey bakeries, non-alcoholic beverage bottling plants and other establishments shipping food and drink into Connecticut. Such inspections were made annually in connection with their licensing statutes. Following informal discussion with Connecticut representatives, they requested the cooperation of the Department in making periodic inspections of such establishments in order to eliminate duplication. Seventy-two reports of inspections and reinspections of 53 New Jersey establishments were transmitted to Connecticut as part of the cooperative program.

Following a request for assistance from the newly appointed Atlantic County-Atlantic City Health Officer, meetings were held with local hotel and restaurant associations to discuss the proposed increase of food service surveillance by local board of health personnel. The detailed outline of the activity was found acceptable by industry spokesmen who promised complete cooperation in correcting any unsatisfactory food service practices reported. As part of the project, licensed Atlantic City Health Department personnel underwent a three-day classroom refresher course in supervision of food service sanitation which was followed by a field demonstration course lasting 10 days during which they were instructed in use of the Department's rating form for inspection of food establishments and the accompanying manual of interpretation. Food and Drug and Division of Local Health Services personnel prepared and conducted the course.

Representatives of the Department continued to cooperate with federal, state, and local agencies by making special or joint investigations, collecting samples for special analyses and label review 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 or other disposition was effected in compliance with applicable laws and regulations. Technical and consultative services were also provided for other state agencies, industry, and the consuming public in matters dealing with wholesomeness of food and plant establishments.

The following table lists the number and type of food establishments other than milk, ice cream, shellfish and slaughterhouse inspected for sanitation by representatives of the Department during the year:

Table 1. FOOD ESTABLISHMENTS INSPECTED

JANUARY 1, 1963-DECEMBER 31, 1963

Eating establishments .....	332
Egg breaking plants .....	162
Non-alcoholic beverage bottling and bottled water establishments .....	302
Refrigerated warehouses and locker plants .....	93
Cider plants .....	97
Other .....	419
Totals .....	1,405

**Drug, Device, and Cosmetic Program**

Five hundred and fifty drug establishments are registered with the Department under the Drug Registration Law, N.J.S.A. 24:6B. These 550 registrants have a total of 578 locations each of which should be inspected at least once a year. Three hundred and thirty of these locations were registered as drug manufacturers and 248 were registered as drug wholesalers. One hundred and eighty-nine drug manufacturing locations and 219 drug wholesaling locations were inspected during the year.

The issuance of narcotic drug licenses by this Department remains at a fairly constant figure. At present, 88 licenses are in effect and four applications are pending further investigation and inspection. In the past year, approximately 70 percent of all licensees were inspected prior to renewal. Joint inspections with the Federal Bureau of Narcotics to account for narcotic stocks of the licensee and evaluating the security requirements according to the activity have been discontinued.

Special investigations involving drugs, cosmetics, and devices have taken an increasing amount of the time of inspectors. It is estimated that 25 percent of Program personnel time has been spent in these investigations.

No drug legislation of major importance affecting this program was passed during this year. Regulations were promulgated governing the keeping of records by drug manufacturing and wholesale drug businesses. These regulations require that records be kept on drugs manufactured and/or distributed in sufficient detail to provide an effective method of recall of any particular drug product if necessary.

Some of the major activities, special investigations and highlights of the Program during the period covered by this report are as follows:

1. Twenty-six embargoes were issued for adulteration or misbranding of drug products.



2. With the cooperation of the New Jersey State Department of Banking and Insurance, the Underwriters Salvage Company of New York, the New Jersey State Board of Pharmacy, and the health officers of New Jersey, a procedure was established to notify the State Department of Health of all disasters in which drug products are involved. Fires, floods, hurricanes or other natural or manmade disasters can produce large quantities of distressed drug merchandise which may be adulterated or misbranded and therefore unfit for human consumption. With the cooperation of the above-mentioned agencies, disasters are reported within 24 hours of their occurrence, and inspectors are immediately on location to assure that drugs which are unfit for human consumption do not find their way back into commercial channels. Sixteen disasters have been investigated, all of which were caused by fires, and the destruction of thousands of pounds of drugs which were unfit for human consumption was supervised.

3. With the cooperation of the New Jersey State Board of Pharmacy, criteria have been established for determining registration under N.J.S.A. 24:6B of retail pharmacies which are engaging in a drug manufacturing business.

4. A South Jersey firm purchased a quantity of empty spray cans with a lithograph Pertussin Medicated label and filled them with paint spray, anti-mating spray for dogs, and an indoor and outdoor dog repellent, without first removing or defacing the Pertussin label. The label used was a "sleeve" type label which could slip off the can very easily, leaving the Pertussin Medicated label in full view. Because of the potential hazard involved, the manufacturer destroyed under our supervision 191 dozen filled aerosol cans and an additional 1,440 empty cans.

5. Approximately 40 samples of various drug products were collected by Program personnel. 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. Export certificates numbering 178 were prepared and issued by the Department for a number of New Jersey manufacturers in order that they might meet requirements for shipping to foreign countries.

6. Special narcotic investigations disclosed seven unlicensed violators of the New Jersey Narcotic Drug Law. The licensed violators as well as the unlicensed violators were issued warning letters from this Department. Approximately 600 narcotic drug items were removed from drug stores because they were rendered unfit for human consumption by a disaster and destroyed under this Program's supervision.

7. Much time and effort have been spent in preparing narcotic regulations regarding safeguards and security measures to prevent narcotic drug diversion into illicit channels. Cooperation with the pharmaceutical industry and the Federal Bureau of Narcotics has been extensive in the preparation of these regulations.

8. The State Department of Health became aware of the dangers inherent in the sport of SCUBA (Self Contained Underwater Breathing Apparatus) diving with particular reference to accidental drowning associated with contamination of the compressed air used. Compressed air is considered a drug; therefore, the responsibility for controlling compressed air fell within this Program. In order to provide protection during the summer of 1963 and to secure necessary data, we began testing SCUBA compressed air shops to evaluate the air sold. In addition, correspondence with authorities in this field, and consultations with diving experts, together with a public hearing on proposed regulations regulating compressed air used for SCUBA diving provided the Department with some competence in the subject. At the close of this calendar year, the Department was ready to promulgate effective compressed air control regulations and future activities were programmed for the prevention of SCUBA accidental deaths.

9. During the course of this reporting year, the Drug Program cooperated with federal authorities in the recall of nine different drug items. The degree of activity by this Program varied with the particular item to be recalled and the potential hazard that existed.

10. The Medical Society of New Jersey has on several occasions asked that a particular drug item manufactured by a New Jersey firm be evaluated prior to accepting advertising for the item in its monthly journal. On two occasions, the Medical Society elected not to accept an item based on the information submitted to it. Recognition of the Drug Program and its activities by the Medical Society is gratifying.

The Drug Program has continued to improve its proficiency in the area of drug factory inspection with particular reference to record keeping and quality control procedures. Representatives participated in several training programs sponsored by the Federal Food and Drug Administration in an effort to improve their technical skills.

### Meat Program

Chapter XVI of Title 24 and the "Regulations Concerning Construction, Operation, Maintenance and Licensing of Slaughterhouses and Inspection and Labeling of Animals Slaughtered for Food" require that all establishments

slaughtering animals for sale for food be licensed by this Department. The purpose of the Meat Program is to locate and cause all such establishments to be operated in compliance with our laws and regulations.

### *Sanitation*

During the past year, 86 red meat slaughterhouses and 227 poultry slaughterhouses were licensed by the Department.

Most, if not all, red meat and poultry slaughterhouses have been located and are now operating under Department licenses. All establishments were inspected during the year, including the veterinary animal and meat inspection evaluations at establishments requiring such service.

Water supply inspections were made and samples were collected at establishments that use their own private water supply systems. A total of 109 water supply samples were taken. Twenty-seven supplies or 24.7 percent failed on the first evaluation to meet Departmental requirements for potable water. Follow-up inspections and corrective action resulted in securing satisfactory water supply analyses from all slaughterhouse operators.

The Department continued to cooperate with the State Department of Agriculture in the State Seal of Quality Program for slaughtering and marketing of local grown 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; 20 licensed poultry slaughterhouses operated under the Program. A total of 542,000 pounds of turkeys were inspected for wholesomeness as a result of the program.

The meat inspection course previously offered by the Department through the Extension Service of Rutgers University was considered necessary for the past two years. A request for funds for this course has been included in our 1965 budget in order to satisfy local board of health meat inspection needs and to pick up the backlog of requests for industry needs.

During the past year, meat inspection personnel were reassigned to the central Program unit.

During the latter part of the year, the Department started a preliminary work program to routinely supervise and control meat processing establishments. A survey of all types of meat processing establishments has been completed and the information is being compiled for analysis and inclusion in the proposed program.

The number of red meat establishments continues to be fairly constant. There is a definite decline in the number of poultry slaughterhouses. Most of

the decline is in the "select kill" type of establishment. This appears to be due to some change in customs of the older generation and to price differential between this type establishment and the large processors.

The following is a breakdown of program activity for the period covered by the report:

Number of applications received, red meat .....	86
Number of licenses issued, red meat .....	86
Number of applications denied or pending .....	0
Number of establishments, out of business .....	6
Number of applications received, poultry .....	227
Number of licenses issued .....	227
Number of applications denied or pending .....	0
Number of establishments, out of business .....	13
Number of sanitary inspections .....	646
Number of other visits .....	178
Number of water samples collected .....	109
Number of samples unsatisfactory .....	27
Number corrected .....	27
Number meat inspection evaluations .....	33

General sanitation at meat and poultry slaughtering plants has continued to improve and most establishments are operating at a satisfactory level. Industry meat inspection programs were operated in substantial compliance with our law and regulations.

### *Meat Inspection*

The meat inspection procedures required by our regulations are carried out in the slaughterhouses either by a licensed meat inspector who is under the supervision of a veterinary meat inspector or in the absence of a licensed meat inspector, the veterinarian performs both ante and post mortem inspection. This phase of the program is progressing satisfactorily in this, the fifth year, since meat inspection became mandatory. Sanitarians assigned to the Bureau are also licensed meat inspectors and are responsible for making meat inspection evaluations when making routine sanitation inspections. If irregularities, such as improper meat inspection equipment, licensed meat inspector not present during evisceration, or other related meat inspection procedures are not being correctly performed, the problem is referred to the Bureau of Veterinary Public Health for professional guidance and follow-up. In addition, veterinarians from the Bureau of Veterinary Public Health instruct new sanitarians in approved meat inspection techniques before making meat inspection evaluations in the slaughterhouse.



Table 2. Ante and Post Mortem Inspection Results for Cattle

## Major Causes of Diseased Conditions and Disposition for Such Cattle

<i>Cattle—Antemortem</i>	<i>Total</i>	<i>Passed</i>	<i>Suspect</i>	<i>Condemned</i>
State	16,889	16,880	41	9
Federal	396,080	396,077	23	3
Exempt	8,650	8,650	5	0
	<hr/>	<hr/>	<hr/>	<hr/>
	421,619	421,607	69	12
<i>Cattle—Postmortem</i>				
State	16,880	16,837		43
Federal	396,077	396,059		18
Exempt	8,650	8,650		0
	<hr/>	<hr/>	<hr/>	<hr/>
	421,607	421,546		61

Major causes for condemnation of parts: Liver conditions—Abscesses

—Telangiectasis

Pneumonia  
Actinomycosis  
Injuries

Major diseases and conditions resulting in carcass condemnation:

Enteritis  
Septicemia  
Bruises  
Pneumonia  
Pyemia

Table 3. Ante and Post Mortem Inspection Results for Calves

## Major Causes of Diseased Conditions and Disposition for Such Calves

<i>Calves—Antemortem</i>	<i>Total</i>	<i>Passed</i>	<i>Suspect</i>	<i>Condemned</i>
State	118,366	118,331	63	35
Federal	236,475	236,396	5	79
Exempt	233	233	0	0
	<hr/>	<hr/>	<hr/>	<hr/>
	355,074	354,960	68	114
<i>Calves—Postmortem</i>				
State	118,331	118,157		174
Federal	236,396	236,361		35
Exempt	233	233		0
	<hr/>	<hr/>	<hr/>	<hr/>
	354,960	354,751		209

Major causes for condemnation of parts: Contamination

Injuries  
Abscess  
Bruises

Major diseases and conditions resulting in carcass condemnation:

Enteritis  
Pneumonia  
Icterus  
Injuries  
Immaturity  
Bruises

Table 4. Ante and Post Mortem Inspection Results for Swine

## Major Causes of Diseased Conditions and Disposition of Such Swine

<i>Swine—Antemortem</i>	<i>Total</i>	<i>Passed</i>	<i>Suspect</i>	<i>Condemned</i>
State	116,893	116,840	78	53
Federal	1,343,524	1,343,512	1,007	12
Exempt	3,693	3,643	0	50
	<hr/>	<hr/>	<hr/>	<hr/>
	1,464,110	1,463,995	1,085	115
<i>Swine—Postmortem</i>				
State	116,840	116,787		53
Federal	1,343,512	1,340,728		2,784
Exempt	3,643	3,643		0
	<hr/>	<hr/>	<hr/>	<hr/>
	1,463,995	1,461,158		2,837

Major causes for condemnation of parts: Heads (TB)

Metritis  
Parasites  
Abscess

Major diseases and conditions resulting in carcass condemnation:

Icterus  
Contamination  
Septicemia  
Pneumonia  
Tuberculosis

Table 5. Ante and Post Mortem Inspection Results for Sheep

## Major Causes of Diseased Conditions and Disposition of Such Sheep

<i>Sheep—Antemortem</i>	<i>Total</i>	<i>Passed</i>	<i>Suspect</i>	<i>Condemned</i>
State	14,799	14,788	17	11
Federal	1,140,132	1,140,113	0	19
Exempt	362	362	0	0
	<hr/>	<hr/>	<hr/>	<hr/>
	1,155,293	1,155,263	17	30

*Sheep—Postmortem*

State	14,788	14,758	30
Federal	1,140,113	1,139,799	314
Exempt	362	362	0
	<hr/>	<hr/>	<hr/>
	1,155,263	1,154,919	344

Major causes for condemnation of parts: Immaturity  
Abscesses  
Parasites  
Septicemia  
General conditions

Major diseases and conditions resulting in carcass condemnation:

Enteritis  
Pneumonia  
Septicemia  
Icterus  
General conditions

Table 6. Ante and Post Mortem Inspection Results for Poultry

Major Causes of Diseased Conditions and Disposition of Such Poultry

<i>Poultry—Antemortem</i>	<i>Total</i>	<i>Passed</i>	<i>Suspect</i>	<i>Condemned</i>
State	233,574	231,780	3	1,794
Federal	6,637,906	6,551,792	10,000	86,114
Exempt	1,784,702	1,775,554	1,595	9,148
	<hr/>	<hr/>	<hr/>	<hr/>
	8,656,182	8,559,126	11,598	97,056
<i>Poultry—Postmortem</i>				
State	231,780	230,376		1,404
Federal	6,551,792	6,460,002		91,790
Exempt	1,775,554	1,769,313		6,241
	<hr/>	<hr/>		<hr/>
	8,559,126	8,459,691		99,435

Major causes for condemnation of parts: Bruises  
Overscald  
Injuries  
Abscess

Major diseases and conditions resulting in carcass condemnation:

Inflammatory diseases  
Infectious diseases  
Neoplasms  
Bruises

### Milk Control Program

Activities relating to inspection and sampling of milk plants and milk supplies both in-state and out-of-state were consolidated within the central Program unit. This has resulted in improved correlation of information relating to production of milk through processing and final preparation of milk and milk products for distribution to consumers. This has also resulted in an increased workload within the state and has improved the morale of the inspectors as a lower percent of total work days of each inspector is now spent in out-of-state work.

Cooperating with the United States Public Health Service, inspections of milk plants and ice cream plants were made by the Department for listing as approved sources of supply for Interstate Carriers and as Interstate Milk Shippers. Requirements of the Public Health Service for continued approval for Interstate Carrier listing have been expanded to include surveying the sources of raw milk used by the milk plants.

Personnel participated in training programs of the Public Health Service Annual Conference of State Milk Sanitation Survey Officers and in the Basic Environmental Sanitation Course given by Rutgers University. Training was given to milk industry representatives in the developing of quality control programs and inspection services, and industry personnel were evaluated as to their ability and effectiveness in those activities.

Personnel acted as consultants to working committees of the New Jersey Health Officers Association, the New York State Association of Milk Sanitarians, and the Northeastern Sanitary Milk Standards Committee for the development of uniform standards, interpretations and procedures.

The trend toward consolidation of the smaller milk plants continued with a net loss of 20 plants in New Jersey. The number of licensed plants outside of New Jersey remained fairly constant with losses approximating the number of new permits issued. There were 10 new applications for Milk Plant Permits denied for non-compliance with sanitary requirements and four others were voluntarily withdrawn.

Official agencies making inspections of milk plants and their supplies under Reciprocal Inspection Agreements submitted summary reports of 415 inspections of out-of-state plants and 180 inspections of in-state plants.

The Reciprocal Milk Sampling Program resulted in reports of analyses of 2,992 samples of milk and milk products being submitted by municipal health agencies for review and collation.

The results of activities in the reciprocal programs of inspection and sampling of all milk plants supplying milk and milk products to consumers in New Jersey are reported quarterly to all local boards of health in the state.

Table 1 below shows the number of inspections made and samples collected in the Program during the year by Department personnel.

Table 1. INSPECTIONS AND SAMPLES COLLECTED—1963

Number of inspections of:	
Milk Plants .....	343
Dairy Farms .....	2,724
Ice Cream Plants .....	1,547
Number of Samples of Milk Collected .....	2,675

### Shellfish Program

Inspection of shellfish growing areas, classification of growing waters, sanitary control of 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 complying with New Jersey laws and regulations, the Program must meet the requirements set forth in the United States 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. Such endorsement permits the names of the New Jersey shellfish firms to appear on the list of certified shippers for interstate commerce. This was accomplished during the period covered in this report.

Sanitary surveys of shellfish growing areas were carried on by the Stream Pollution Control Program of this Department and included water sampling, shellfish sampling, float studies, dye studies, shoreline investigations, sewage treatment plant inspections, and other related investigations. Plans for joint studies and reporting are worked out through joint discussions and field work between shellfish and stream sanitation staffs.

Revised Rules and Regulations Governing the Sanitation, Handling, Shipping and Shucking of Shellfish became effective July 1, 1963.

Patrol of areas condemned for the harvest of shellfish was carried out by the Division of Shell Fisheries of the Department of Conservation and Economic Development.

Supplementary patrols are carried out by local police departments, Division of Fish and Game, and Bureau of Navigation. Shellfish Program personnel in the Department of Health provide supplementary patrol duties in conjunction with other activities.

Supervision has been maintained over the Bay scallop industry. Scallops are not a part of the interstate cooperative program as described in the United States Public Health Service Manual of Recommended Practice. Scallop establishments are not required to meet the same standards as shellfish establishments. Scallop shucking establishments are required to operate in accordance with the provisions of Chapter 15, R.S.N.J. There was not as much commercial activity in 1963 as there was in 1962.

Additional equipment was purchased in 1963 bringing the Program equipment inventory to the desired level. For the 1963 sanitary survey season, the following items were available for survey sampling:

- a. 2 cabin cruisers
- b. 4 station wagons with trailer hitches
- c. 4 outboard boats
- d. 4 outboard motors
- e. 4 boat trailers

The above equipment allowed four teams to collect water samples either independently or in conjunction with other teams. Facilities at the laboratory in Tuckerton and Bivalve were increased in order to handle the increased collection load.

Nine sampling station charts were revised. New charts were prepared in advance of the sanitary surveys and have proven very effective in actual use. Charts of the following areas were prepared during the reporting period:

- a. Barnegat Bay (Forked River to Mathis Bridge)
- b. Barnegat Bay (Mathis Bridge to Bay Head)
- c. Mullica River
- d. Absecon and Reed Bays
- e. Scull Bay
- f. Great Egg Harbor Bay
- g. Peck Bay south to Corson Inlet
- h. Sea Isle City south to Great Sound
- i. Great Sound south to Hereford Inlet

The following is a list of sanitary survey work that was accomplished in 1963. A complete sanitary survey was made of:

- a. Absecon Bay
- b. Reed Bay
- c. Great Egg Harbor Bay
- d. Peck Bay south to Corson Inlet
- e. Scull Bay
- f. Barnegat Bay (Forked River to Mathis Bridge)
- g. Barnegat Bay (Main Point to Forked River)
- h. Mullica River
- i. Waters from Sea Isle City south to Great Sound

A resurvey was made of the following areas:

- a. Jenkins Sound area
- b. Ludlam Bay area

There has been continued participation in efforts to begin a depuration program in New Jersey for the purification of hard clams. During 1963, the depuration program was in the research phase, with Rutgers University doing actual laboratory research on the problem.

The following show statistics for 1963:

Number of Certificates issued .....	115
Shucker Packer .....	14
Shellstock Shipper .....	63
Reshipper .....	32
Repacker .....	5
Digger Retailer .....	1
Number of Bay Scallop Shuckers approved .....	26
Sanitary Inspections .....	312
Number of Samples Collected for Analysis:	
Shellfish .....	513
Growing water .....	12,676
Potable water .....	164

Number of patrol hours by Department of Health staff—568

All shellfish are handled, packaged and shucked in certified establishments and shipped to various places both in and out of state. Sanitary inspections of these certified shellfish establishments were intensified this year. Compliance with the new regulations of the Department has brought about a marked improvement in their operations over 1962.

### Stream Pollution Control Program

After review, this Department issued permits for the construction and operation of 280 sewerage projects having a combined estimated cost of \$54,200,000. Nineteen permits to locate factories or workshops were issued. Orders of Necessity were granted to 19 municipalities permitting them to exceed their bonded debt limit in order that they might construct the necessary sewerage projects.

Seventeen Formal Orders were issued to municipalities and industries requiring abatement of pollution of waters of this state. Orders were issued against the Humble Oil and Refining Company, General Aniline and Film Company, American Cyanamid Company, Reichhold Chemical Company, Woodbridge Township, Borough of Carteret, Elizabeth Joint Meeting, Linden-Roselle Sewerage Authority, the Rahway Valley Sewerage Authority, and other industries. The latter three organizations serve 19 municipalities. This action was based on the result of studies of the Arthur Kill by the Interstate Sanitation Commission and this Department's simultaneous investigations, and is one of the steps necessary before pollution of the Arthur Kill can be controlled or abated. Four Formal Orders were issued to municipal boards of health requiring the abatement of nuisances and sources of foulness caused by improper functioning of individual sewerage facilities.

Approximately 600 stream samples were obtained from the major New Jersey streams and tributaries for sanitary chemical and bacteriological analyses. There were 567 routine surveillance inspections of existing sewage and industrial waste treatment plants and 302 special investigations of waste treatment works and their effect upon the environment. Forty-two investigations were made to assess the damage of public works as a result of the March, 1962 storm. These investigations were necessary in order that the storm stricken municipalities could obtain federal and state disaster aid funds. Five sanitary surveys were made in cooperation with the Shellfish Program to determine the acceptability of a number of areas for shellfish culture. Thirty-three municipal sewerage facilities were sampled prior to mass feeding of the Sabin polio vaccine. The purpose of these samplings was to enable a determination of the existence of certain strains of polio virus prior to the feeding.

The Program, in cooperation with the United States Public Health Service, undertook a special investigation of the effect of discontinuing chlorination of treated sewage effluents discharged into the Raritan Bay, particularly in relation to shellfish waters. Sampling and investigation of the Delaware River estuary have been intensified in cooperation with the United States Public Health Service and the States of Pennsylvania and Delaware.

The Federal Construction Grant Program, including the Accelerated Public Works Program for Depressed Areas, provided approximately \$3,300,000 to aid in the construction of 19 sewerage projects. It should be noted that this amounts to less than one percent of the entire cost of construction estimated for New Jersey during the similar period.

Surface water quality criteria have been formulated in cooperation with an Interdepartmental Committee, representing various agencies of the State government, having an interest in stream pollution control. The development of such criteria is significant in that they will provide a basis for objectives to be reached in terms of stream quality and assist in establishing the degree of sewage and industrial waste treatment necessary to maintain or establish desirable stream quality.

The Program continued to encourage and support municipal sewerage planning on a regional or valley-wide basis where indicated. Evidence of such efforts has been reflected by the Monmouth County Board of Chosen Freeholders by appointment of a consulting sanitary engineering firm to study Monmouth County sewerage problems with a view towards establishing regional sewer planning concepts.

### Camp and Bathing Program

#### *Lake Bathing*

The 71 lake bathing places certified by this Department during the 1963 summer season represent a new high. It is indicative of the interest on the part of bathing lake owners and operators in providing high quality facilities from the bacteriological, sanitary, and safety standpoints. As has been customary, each lake bathing place certified was awarded a certificate and sign for display. During the season, the names and locations of places certified by this Department were made public through the press.

Since participation in this activity is voluntary on the part of bathing lake owners and operators, its increasing popularity is thought to demonstrate the value of good public relations, both in providing acceptable facilities and in making the existence of the same known. Efforts will continue to promote ever increasing interest and acceptance by bathing lake owners and operators, in order that the public may be afforded as many certified lake bathing places as possible.

#### *Camps*

There were 258 camps known to this Department during the 1963 camping season, an increase of nine over the 1962 season. Of this number, 253 were

inspected and 226 certified, approximately 90 percent. As in the case of bathing lakes, participation in camp certification activities is voluntary on the part of owners and operators. Acceptance has been excellent and it is anticipated that additional camps will participate in the activity as they are established or become known.

The certification requirements promulgated in 1962 for day camps and resident camps were used for the second season and demonstrated their reasonableness and effectiveness.

### Potable Water Program

For several decades, the proportion of New Jersey's population supplied with water for potable and domestic purposes by community water supply systems has remained, fairly consistently, in the region of 80 percent. However, in numbers, the population has shown a steady increase at the average rate of approximately 23 percent each decade. The official census records show that in the period 1950-1960 the population of the state increased by over 1,200,000 persons, and there is every reason to believe that a proportional increase has been maintained in the four years since the census figures were compiled. The demand for water for domestic purposes has increased at a greater rate than the population, due to the popularity of modern household appliances such as garbage grinders, dishwashers, and automatic washing machines. There has also been a substantial annual increase in industrial production within New Jersey. According to statistical data provided by the Division of Planning, the pro-rated value of industrial output increased from approximately \$5.24 billion in 1950 to \$8.63 billion in 1960. As is well known, industry consumes vast volumes of water in its production processes.

Over the years, the progressive waterworks industry in New Jersey has endeavored, with much success, to keep pace with the rising demand for water. In some cases, this has been achieved by the establishment of new public water supply systems, particularly for new housing developments beyond the boundaries of existing water supply facilities. The Department approves, on the average, between 15 and 20 such new supplies each year.

However, the major proportion of New Jersey's population is served by long established and extensive water systems, some of which serve more than 50 municipalities. Many of these purveyors have been able to satisfy the increased demand by extending the distribution mains within their franchised areas, utilizing unused pumping and treatment plant capacity, and by applying modern technology to permit them to exceed the nominal capacities of their water treatment plans. These methods, while largely effective to date, can



now be considered to be only interim measures because of the antiquity and capacity of the physical structures. As a result, many water purveyors in New Jersey are faced with a need for major structural improvements including the development of new sources of supply, expansion or replacement of treatment plants, installation of larger transmission and distribution mains to satisfy the hydraulic requirements of the increased demand, construction of larger pumping and booster stations, and the provision of greater storage capacities for both raw and treated water.

While the southern half of this state is generally well-endowed with ample supplies of raw water (mostly from subsurface sources), the same is not true of the highly populous metropolitan section of northern New Jersey. Here the existing available sources are being almost fully utilized, and it has become necessary to develop substantial new sources which are often a great distance from the population to be served. The State has assisted in this regard by the construction of the Spruce Run and Round Valley Reservoirs from which water will be sold in bulk to water purveyors for treatment, transmission, and distribution. Several large purveyors are now actively planning appropriate projects for the utilization of this water when available.

The increased activity in waterworks planning and construction is exemplified by the estimated dollar value of projects submitted to this Department for examination and approval prior to construction. In 1961 there were 87 combined projects with a total construction value of \$11,544,000; in 1962, 86 combined projects totaling \$19,812,000; and in 1963, 109 combined projects totaling approximately \$57,000,000.

The 109 combined projects examined and approved during 1963 comprise over 200 individual projects including 15 new water supply systems, 64 new sources of supply, 40 water treatment plants and 34 storage units. A breakdown of these projects is shown in Table 1.

In recognition of the importance of public water supplies, the growing workload, and the need to streamline its administration, particularly in regard to a greater inspection frequency, rapid investigation of special problems and emergencies, and the current emphasis on the delivery of water of better esthetic quality with adequate pressure and volume, the operation of the Potable Water Program was "centralized" within the Division of Environmental Health in June, 1963 in accordance with Executive Notice No. 48. It was not immediately possible to appoint the needed engineering personnel in order to implement the new administrative procedures. It was therefore necessary to continue to utilize District personnel insofar as they could perform field work for the Program consistent with their other commitments. As a result, the number of inspections of public water supplies shows a significant

decrease compared with the previous year. The summary of such field work, etc., is shown on Table 2.

In June, 1963, the Spring drought, coupled with high prevailing temperatures, resulted in chronic water shortages and/or problems of pressure and volume in many parts of the state. The Program assisted water purveyors wherever possible by acquiescing in the use of emergency wells and unapproved wells (subject to adequate chlorination), and the speeding up of procedures for the testing and approval of new wells for which the appropriate engineering data had already been submitted. In an endeavor to encourage the conservation and wise use of water, the Program Coordinator arranged, through the Commissioner of Health and the Public Relations Office, for the release of appropriate news items. The Program also purchased a pressure recording gauge to determine the hydrostatic and hydrodynamic pressures in selected water supply systems, in order to institute the provision of increased storage facilities and larger size mains when low pressures are due to these deficiencies.

During the year under review, a major project to regularize the status of the private water supplies of the Atlantic City hotels, in accordance with current legislation, was undertaken and completed. Physical (cross) connections, conforming with the provisions of Chapter 308, P. L. 1942, were installed in 10 of the hotels in order to maintain protection of the Atlantic City municipal supply, and the Atlantic City Departments of Water and Health were assisted in the setting up of a program to check the hotel water supply systems for bacteriological contamination and the probable existence of hazardous plumbing cross connections.

The Potable Water Program has continued intensive cooperation with the Dental Health Program in the promotion of fluoridation by addressing governing bodies, public meetings, etc., providing necessary engineering data to interested municipalities, and by conducting numerous fluoridation feasibility studies.

Fluoridation equipment was installed and placed into use at Willingboro, New Jersey (formerly Levittown), and was installed in Cape May City and the Borough of Beach Haven, though in these instances it has not yet been placed into operation (End of 1963). Fluoridation equipment was also approved for the Woodbridge State School, which is currently under construction (End of 1963).

Educational aspects of the Potable Water Program continue, and have included lectures to students of the Advanced Water Works Operators Course and the Advanced Plumbing Inspectors Course, both at Rutgers University; the Sanitarians Field Training Course at East Orange; and a series of lectures on the emergency operation of public water supplies in disasters.

The Program Coordinator serves on the Program Committee of the New Jersey Section, American Water Works Association; and on the Committee of Consulting Engineers, etc. which is currently revising the Rules and Regulations governing the Design of Water Works Projects.

In order to modernize the statutes under the authority of which the Potable Water Program operates and bring them into conformity with modern practice, bills have been prepared and submitted to the Assembly to up-date the definition of "Public Water Treatment Plant" and to liberalize the law governing the installation of approved physical (cross) connections.

Table 1. PLANS APPROVED AND PERMITS ISSUED FOR POTABLE WATER PROJECTS

Number of individual permits for combined projects	429
Estimated total construction costs for projects approved	\$56,978,500
New comprehensive water supply systems	15
New sources of water supply approved	64
New water treatment plants	40
Additions and alterations to water treatment plants	21
New water storage units	34
New transmission and distribution systems	29
Major additions and alterations to distribution systems	9

Table 2. SUMMARY OF FIELD WORK

Routine inspections: Public water supplies	245
School and institutional water supplies	37
Interstate carrier watering points	98
Special investigations of public water supplies	55
New well tests	52
Inspections of original physical (cross) connection installations	25
Renewal physical (cross) connection permits issued	232
Bacteriological samples taken from public water supplies	1,226
Bacteriological sample results interpreted (includes mailing program results)	7,448
Complete chemical samples taken	465
Partial chemical samples taken	1,416
Chemical sample results interpreted	1,881

### Solid Waste Program

In general, the operation of sanitary landfills has improved during this year. The majority of disposal areas are receiving satisfactory ratings. A limited number of private as well as municipal refuse disposal areas are operated on a marginal basis. Land, equipment, trained labor, and an understanding of

sanitary landfill requirements are the principal ingredients of successful operation.

A special task-force was set up to inspect the Hackensack meadow area to improve the operating conditions of the landfills in this area and to eliminate open burning. Two men were assigned to aid the program coordinator late in the fall. A total of 130 inspections was made and resulted in a marked improvement in operations.

During this special drive, seven heavy bulldozers and one three-quarter yard drag line were purchased by seven refuse disposal area operators at a conservatively estimated cost of \$205,000.

A survey of the data on refuse disposal areas at the close of the calendar year of 1963 shows the following for the state:

1. Total number of municipal operations	215
2. Total number of private operations	181
3. Total number of refuse disposal areas	396
4. Number of municipalities not having refuse disposal areas	307
5. Number of municipal incinerators	13
6. Number of municipal bulky-waste burners	5
7. Total number of inspections of refuse disposal areas by Districts:	
Metropolitan District 42 areas	19
Northern District 64 areas	226
Central District 141 areas	684
Southern District 149 areas	534
8. Total number of cases in Attorney General's Office	6

In cooperation with the New Jersey State Municipal Contractors Association, the third basic course in Solid Waste Collection and Disposal was given at Rutgers University Extension Division in New Brunswick. Fifty-two men were enrolled in the course and 45 received certificates. Twenty-eight percent of the students enrolled in the course were from outside New Jersey. Three came from Delaware, two from Pennsylvania, six from New York State, two from Connecticut, and one came by scheduled airline flight to five sessions of the course from the Chicago area.

The first advanced course in Solid Waste Collection and Disposal was held at the University Extension Division in Newark. Thirty-three successfully completed this course by passing the examination requirements of Rutgers and received certificates. Completion of this advanced course permits the students to become members of the Society of Solid Waste Technicians.

A technical working committee of the Solid Waste Program held meetings during the year to discuss acute problems associated with the disposal of heavy, bulky waste including waste from cleanup week, building demolition waste, stumps, and heavy tree wastes. Incorporation of such bulky waste into land-

fills is difficult and at times is exceptionally hazardous to equipment and personnel during compactions on landfills. Compaction is poor. The resulting conditions of bridging by such waste makes for uneven settlement. Underground fires break out and are difficult to control and put out. This was demonstrated by a number of underground fires along Route 3 in East Rutherford where refuse disposal areas were closed by municipal ordinance in 1960. Business establishments located along Route 3 and adjacent highways in burning their business wastes, such as oil from service stations and other combustible refuse produced by such businesses, caused underground fires which spread into the former disposal areas. It necessitated the use of draglines and other heavy equipment to remove the burning debris, quench it with water, and compact the disturbed burning area. East Rutherford financed the work.

During the dry spell in the fall, a rash of fires broke out in the North Arlington and Kearny areas. The most serious one was on the filled area of the former Sanitary Land Development Corporation. The disposal area was closed and the refuse was disposed of on other refuse disposal areas in the nearby areas in Bergen and Hudson Counties. The fire was finally brought under control.

Shooters Island in lower Newark Bay is a storage area for dock and wharf redevelopment in the harbor areas of the Hudson River in New York and New Jersey. This problem is continuing on this island as well as in the Staten Island area of New York.

The problem of properly handling bulky wastes is serious and expensive. Heavy pilings from docks and wharves and waste from urban renewal areas furnish much of this waste material. Processing such wastes for landfill operations by chipping and cutting appears to be prohibitive from the point of cost as well as obtaining the necessary machinery and burners for final disposal.

Several meetings with demolition contractors, as well as disposal area operators, have shown that the technical knowledge is limited in this area and the cost of construction of special grinding, chipping devices is high as well as worthless when metal, spikes, cleats, etc., are present on such heavy timbers. Labor cost is high to remove such metals when the salvage value is low.

An incinerator in Detroit to burn tree waste, limbs, trunks, and stumps cost a quarter of a million dollars. It is understood that considerable trouble has been encountered in the warping of the doors and breakage of the fire back linings. More experience will be needed to demonstrate its practical value.

### Ragweed and Poison Ivy Program

The control of ragweed and poison ivy is largely a seasonal problem. Last summer, a high school teacher of English and public speaking worked with the Department in evaluating and promoting educational and control programs of weed control. The work of certain state, county, and township highway departments was reviewed to find situations which illustrated effective control work or which might be strengthened or exploited to expand ragweed control effort in New Jersey.

Because of the strategic locations of communities on Long Beach Island and the Island Beach Finger that separates Barnegat Bay from the ocean, the Department is attempting to support interested communities in evaluating the problem of ragweed growth and pollen concentrations and in undertaking spraying programs to reduce pollen levels in this area.

Two communities have already indicated an interest and action is being taken. Seaside Park, a community about midway on the "finger," has sprayed with 2,4-D to control ragweed for the past two summers. Field visits by the Program Coordinator have shown the work to be well done and quite complete and effective in eliminating pollen dispersion in August and September.

A second community, Ship Bottom, has requested help and support in initiating a control program. They plan also to install a pollen collecting stand to determine counts during the 1964 season.

The Department participated in discussions to improve the ragweed control spraying program in Bloomfield.

A joint meeting was held with representatives of the State College of Agriculture, this Department, and the New Jersey Garden Club's Committee on Conservation. These discussions led to some joint efforts in promoting weed control as a means of removing ugly areas in communities and thus creating beauty. The program was outlined by the chairman of the New Jersey Federation of Garden Club's "Council on Conservation" before the Public Health Section of the Northeastern Weed Control Conference.

There is a continued interest in county roadside spraying for weed control by three of the northern counties of this state. Sussex County purchased its own equipment while Warren and Morris Counties and municipalities continued weed control by contract. The State Highway Department and the New Jersey Turnpike Authorities use herbicide for weed control activity along their respective roadsides for eradication as well as slowing down the grass and turf growth.

### Housing Program

A survey was made to determine what municipalities have Housing Codes and the agency responsible for their enforcement. It was found that 15 municipalities have adopted housing codes since 1962, the year the recommended Housing Code of New Jersey was offered to municipalities for adoption by reference.

The Department has responded to requests for consultation relative to the adoption of the code by reference and has cooperated with local health officers who are interested in improving housing conditions in their community.

The Department has worked with local health officers and boards of health in approving plans for the proper construction of individual water and sewage facilities for many housing developments.

The Department has also approved plans for the installation of water supply or sewage disposal systems for 24 new school buildings or additions to school buildings. This work involves the review of plans and percolation test data, meetings with engineers and architects, and frequently site inspections before the review is complete and the approval can be issued.

### Mobile Home Parks Program

Chapter IX of the New Jersey State Sanitary Code became effective in April, 1963 establishing minimum standards for health and safety in mobile home parks in this state. A Program on Mobile Home Parks had been established in November, 1962. Chapter IX was promulgated by the Public Health Council after a public hearing in Trenton on December 10, 1962 and became effective on April 1, 1963.

Inspections and discussions with owners and operators of 70 mobile home parks have been carried out to improve facilities and practices and to comply with the new standards. Conferences with operators, tenant groups, and local authorities were held. Reinspections have been made to note improvements and to render as much practical assistance as needed in meeting the requirements. The area about Fort Dix was the prime focus of activity where there were 38 parks. Adjacent areas were involved also. During this period, program techniques and materials were developed on the basis of observed need and practical experience in the field. Park operators cooperated and shared their knowledge and experience to aid program development.

Problems of sewage disposal in some mobile home parks necessitated the installation of sewage treatment plants. Five parks installed sewage treatment plants under Departmental supervision and three others installed subsurface sewage disposal systems.

Program activities will continue until full compliance with Chapter IX is accomplished. Additional parks will be inspected until all remaining parks

in the Central District and several counties in the Southern District are covered during 1964. It is estimated that there are nearly 300 mobile home parks in New Jersey.

### Air Sanitation Program

During 1963, air pollution control activities included enforcement of existing regulatory provisions of the New Jersey Air Pollution Control Code; development of a proposed new chapter to the Control Code; research into the causes, effects, and methods of controlling air pollution in New Jersey; education of the general public and of specialized groups regarding various aspects of the problem; and cooperation with neighboring states in efforts to resolve mutual air pollution problems.

### *Air Pollution Control Commission*

Statutory authority to establish codes, rules and regulations controlling and prohibiting air pollution throughout the state is vested in the Air Pollution Control Commission by the Air Pollution Control Act (1954), as amended and supplemented. Controls and prohibitions formulated by the Commission are promulgated as chapters to the New Jersey Air Pollution Control Code.

Three years of research culminated in 1963 with the drafting of a proposed chapter to control and prohibit air pollution from the emission of solid particles. The proposed regulation takes into consideration such factors as stack height, distance from stack to plant boundary, and potential effect of the emission on health, property, and comfort.

In furtherance of its efforts to establish controls to safeguard the quality of air over the state, the Commission also appointed a committee to study air pollution in New Jersey resulting from motor vehicle emissions and to examine the activities of other states with regard to this problem.

### *Enforcement*

Responsibility for enforcement of regulations promulgated by the Commission rests with the State Department of Health. The Department conducted more than 4,500 investigations during the year, including follow-up investigations of violations. A total of 376 persons, industries or firms were cited for first violations of the New Jersey Air Pollution Control Code, and 244 for repeat violations.

Current requirements upon which enforcement activities are based are incorporated in chapters of the Code as follows:

Chapter II--Open burning, including that in connection with refuse disposal and salvage operations.

Chapter IV—Emission of smoke.

Chapter V—Emission of fly ash from combustion of solid fuel.

Chapter VI—Other pollution for which specific standards are not described, but from which effects may be demonstrated.

*Open Burning and Smoke:* Enforcement of the Air Pollution Control Code provisions dealing with pollution from open burning and excessive smoke emission has resulted in a measurable reduction of pollution from these sources.

Table 1. ENFORCEMENT ACTIONS, CHAPTERS II AND IV  
January 1, 1963-December 31, 1963

Type Action	Open Burning	Smoke	Totals
New Complaints Investigated .....	31	21	52
First Violations Recorded .....	304	49	353
Follow-up Investigations .....	3,804	398	4,202
Repeat Violations Recorded .....	205	30	235
Violations Corrected .....	140	24	164

*Fly Ash:* During 1963, three complaints of excessive fly ash emission were investigated, and two follow-up investigations were completed. One citation was issued for a repeat violation. As required by the Code, 27 new registrations of solid fuel burning operations were filed with the Department. Department personnel evaluated 24 plants and conducted stack emission tests on two.

*Other Pollution:* Action was initiated under Chapter VI in cases involving 169 major sources of air pollution. A major portion of the enforcement effort is devoted to this chapter because emission standards are not established and certain specific effects must be demonstrated. Seventy-five percent of the actions involved industrial operations, and 16 per cent covered commercial activities.

Table 2. ENFORCEMENT ACTIONS, CHAPTER VI  
January 1, 1963-December 31, 1963

Caseload	Occurrences			
	Pollutant Effect*	Complete Correction	Partial Correction	Pending**
Number Cases (169) .....	..	61	45	63
<i>Pollutant Effect</i>				
Health Hazard .....	13	6	5	2
Property Damage .....	25	13	7	5
Vegetation Damage .....	11	2	3	6
Public Nuisance .....	146	51	41	54
Totals .....	195	72	56	67

NOTE: \* Some cases involve multiple effects.

\*\* Under study, under orders, or further investigation required.

### Research

Research and development activities of the Air Sanitation Program may be categorized as follows:

1. Study of the air over New Jersey to identify contaminants, to define the scope of air pollution problems, and to compile the scientific data upon which control regulations may be based.
2. Development of the instrumentation required for the study of air and its contaminants and to identify sources of pollution.
3. Assistance to municipalities and various governmental agencies and the provision of technical support to enforcement activities as required.
4. Code development assistance as a service to the Air Pollution Control Commission.

Collection of data for a two-year survey of smoke levels throughout the state was completed in December. A 34-site monitoring system, utilizing equipment developed by Department personnel, collected samples on an around-the-clock basis. Preliminary analysis of the data collected, publication of which is pending, indicates that the smoke levels recorded were substantially below those noted during a similar survey which was concluded in 1957.

Assistance was provided to the U. S. Public Health Service in the operation of its Nationwide Air Sampling Network. Sampling activity was conducted at four sites in New Jersey during the year, and six additional sites were procured in December for utilization during 1964.

The Research and Development Section also assisted in the analysis of unusual air pollution problems encountered by a number of New Jersey communities during the year.

Because the complex instrumentation required for the study of many facets of air pollution has not been developed, extensive research effort was devoted to designing the specialized equipment required by the New Jersey Air Sanitation Program.

A major accomplishment of this activity during 1963 was the design and procurement of a prototype mobile laboratory. This laboratory, and those to be purchased subsequently, will provide for the first time the capability to study the ambient air mass over New Jersey on a continuing basis.

Development of a device to test diesel engine exhaust emissions progressed through the design, construction, and field testing of a second generation prototype. In addition to offering a potential for use in a system to control diesel engine emissions, the device also may prove to be useful for testing emissions from gasoline burning engines.

Experimentation with methods for determining, despite changes in wind flow, the direction from which air contaminants reach a monitoring site resulted in the development of a workable directional sampler. Although this device requires further refinement, it is available for development for use in enforcement monitoring systems to pinpoint difficult to locate sources of air contaminants.

Field tests were conducted by Department research personnel on behalf of the U. S. Public Health Service to correlate smoke readings from a newly developed Smoke Guide with those from the Smokescope and Ringelmann Chart used in New Jersey. The U. S. Public Health Service is evaluating the Smoke Guide, a filmstrip with graduation of density, as a smoke measuring device.

Research also progressed on the assembling of data relating to incinerator operations. The first phase of this project consisted of a study of the devices approved by other states, the codes adopted by them, and the results obtained therefrom. Currently, the operation of incinerators in New Jersey is being evaluated against the experience of other states to explore and define any requirements that may exist in New Jersey for appropriate regulatory controls.

#### *Information and Education*

Information and education activities during the year were directed toward arousing general interest in the problem of air pollution, informing the public regarding air sanitation activities, and providing public and special groups with appropriate information.

Extensive coverage of air pollution problems and activities was provided by press, radio, and television throughout the state at an accelerating rate. An exhibit on air pollution drew considerable favorable comment when displayed at the rotunda of the Capitol, the Farm Show, the New Jersey State Fair, and the American Medical Association Convention in Atlantic City.

Further attention was directed to the Program by talks, formal papers, and lectures delivered by members of the Air Sanitation Program staff. A number of talks were delivered to various service clubs, civic organizations, and associations. Four formal papers were read before professional associations and conferences in New Jersey and other states. Five lectures were delivered to students enrolled in university courses dealing with air pollution. In addition, instructional material was provided to several colleges and schools for use in organizing new courses on air pollution. Similar material also was provided to numerous students who were preparing formal studies on the subject.

Four orientation and smoke observation courses were conducted for Air Sanitation Program personnel, health officers, and other officials concerned with air pollution problems.

#### *Interstate Cooperation*

Since many aspects of air pollution are interstate in nature, Department personnel participate with representatives from neighboring states in joint efforts to resolve mutual problems.

A voluntarily created organization known as the New York-New Jersey Cooperative Committee on Interstate Air Pollution, composed of officials of the State Departments of Health in New Jersey and New York and the City of New York is devoting its attention to inter-jurisdictional air pollution problems. Also participating are the U. S. Public Health Service and the Interstate Sanitation Commission. During 1963, subcommittees of this organization drafted and submitted to the full committee proposals for a Metropolitan Region air pollution warning system and for a comprehensive air pollution survey of the area. Although the latter is under study for the full committee, its implementation will require outside financial support, possibly from federal funds.

Air pollution problems in the Delaware Valley area extending from Trenton, New Jersey to Wilmington, Delaware, are under study by PEN-JERDEL. This voluntary civic group is concerned with the growth problems of the 388 counties and local governments in the area.

#### *Summary*

New Jersey continued to show progress during 1963 in its efforts to control air pollution. Open burning associated with waste disposal and salvage operations has been reduced. Preliminary analysis of smoke level data for 1962 and 1963 suggests that smoke levels throughout the state were reduced significantly during recent years. Numerous individual sources of other air contaminants also were brought under control.

Significant progress was made in the research required to refine equipment and techniques for the analysis and control of air pollution in the state.

The increasing rate of voluntary installation of pollution control equipment by industry and the expression of mounting public interest in air pollution evince growing determination to protect New Jersey's air resources.

#### *Occupational Health Program*

There has been a continuing demand by industry for the services of the Occupational Health Program. With the addition to the staff of a full-time physician, intensive studies were possible in four large industries using lead

in their products or processes. These involved complete physical examinations, blood counts and serology, collection and analysis of urine and blood specimens and an engineering study of the working environment. Recommendations made from the results of such studies are designed to improve the health of workers and remove conditions that might cause sickness to workers from poisons used in industry.

The full-time services of a senior industrial hygienist and part-time services of other Program personnel were involved for a period of three weeks in a study and evaluation of the equipment and air quality being supplied Scuba divers by 26 sources within the state. We conducted a cooperative study with the Drug Program on fatalities among Scuba divers due to the use of contaminated compressed air.

Forty-three percent of all field visits were due to requests for assistance by local health departments. A high proportion of these visits were for community occupational health surveys in industries in Union City, City of Camden, Verona, Cape May County, and Franklin Township.

Thirty Coin-Operated Dry Cleaning Establishments were surveyed for compliance with the code at the request of municipalities having such codes.

Community noise problems accounted for 25 visits.

The Bureau of Engineering of the State Department of Labor and Industry requested studies of the working environment in 13 industrial establishments. The Bureau of Motor Vehicles of the Department of Law and Public Safety requested an evaluation of ventilation systems and possible air contaminants to which their examiners are exposed in 12 inspection stations. Assistance was requested and provided in the establishment and revision of the medical programs of the State Department of Labor and Industry, the State Highway Department, and the Garden State Parkway Authority.

Twenty-two studies were made of automobile service garages, dental offices, residences, and users of such varied equipment as devices for producing ozone and duplicating machines.

Twenty-five percent of the correspondence of the Occupational Health Program included letters to industrial workers, lawyers, safety personnel and others who requested information on specific processes or substances used in industry. As an educational effort and in anticipation of requests, Occupational Health Bulletins have regularly been disseminated to a mailing list of 1,800. Requests for these bulletins came from all the states and in 1963 from 15 foreign nations. Three new bulletins on the hazards and control of specific conditions in industry were completed and published in 1963 on "Methyl Ethyl Ketone," "Control of Industrial Noise," and "Toluol." Fifty-one bulletins on different subjects are now available.

Table 1. OCCUPATIONAL HEALTH PROGRAM  
SUMMARY OF ACTIVITIES FOR CALENDAR YEARS 1962 AND 1963

<i>Field Activities</i>	1963	1962
Number of industrial establishments given service .....	253	286
Number of employees in establishments visited .....	91,900	60,345
Number of workers affected by services .....	41,083	39,972
Number of other places and areas visited .....	105	109
<i>Plant Environmental Services</i>		
Introductory visit .....	203	273
Industrial hygiene survey .....	203	272
Technical study of hazards .....	145	129
Noise and vibration .....	29	25
Consultation only (advisory) .....	11	4
Follow-up on recommendations .....	2	6
Totals .....	593	709
<i>Environmental Recommendations</i>		
<i>Field Determinations</i> .....	865	1,101
Atmospheric contaminants .....	456	725
Physical conditions .....	862	1,516
Totals .....	1,318	2,241
<i>Laboratory Analyses</i>		
Routine .....	334	161
Diagnostic .....	1,039	611
Research .....	198	21
Totals .....	1,613	793
<i>Workers Health-Services</i>		
Promotion of plant health programs .....	180	217
Consultation on medical aspects .....	27	18
Consultation on nursing aspects .....	29	16
Consultation with local health dept. on plant health services ..	4	0
Totals .....	240	251
Occupational diseases investigated .....	37	41
Occupational diseases reported .....	332	323
<i>Related Activities</i>		
Meetings attended .....	81	80
Publications .....	3	6
Lectures and demonstrations given .....	6	17
Attendance at above .....	189	155
Office consultation services and inquiries handled .....	1,047	1,655

### Radiological Health Program

The Radiation Protection Act (Chapter 116, Public Laws of 1958 as amended by Chapter 124, Public Laws of 1961) provides for a seven member Commission on Radiation Protection which is authorized to promulgate necessary radiation protection codes.

The Commission was organized October 6, 1958. The Department has rendered administrative support to the Commission as provided for in the Radiation Protection Act.

The basic purpose of the Act is to provide authority for the state to protect its citizens against unnecessary exposure to radiation.

Officers and members of the New Jersey Commission on Radiation Protection as of December 31, 1963 were:

Frank G. Dunnington, Ph.D., Chairman  
 Benjamin P. Sonnenblick, Ph.D., Vice-Chairman  
 Philip D. Gilbert, M.D., Secretary  
 Roscoe P. Kandle, M.D., State Commissioner of Health, New Jersey State Department of Health  
 Harry D. LeVine  
 Richard J. Sullivan, M.P.H., New Jersey State Department of Labor and Industry  
 Max M. Weiss, Ph.D.

The Commission has presently adopted Chapter I, General Requirements, effective February 1, 1961; Amendments to Chapter I, General Requirements, effective February 1, 1962; and Chapter II, Special Requirements, effective February 1, 1962, New Jersey Radiation Protection Code.

During 1963, the Commission on Radiation Protection has been preparing proposed amendments to the present Code. The proposals basically provide for licensing of all persons to possess and use radioactive materials that are naturally occurring and those artificially produced in particle accelerators. The group of materials proposed for licensing by New Jersey includes all not under similar control of the U. S. Atomic Energy Commission. A public hearing on the proposed amendments is to be held by the Commission on Radiation Protection, February 19, 1964.

During 1963, little progress was made toward assuming certain licensing and regulatory activity now conducted by the U. S. Atomic Energy Commission. This is so because compatibility of the New Jersey Radiation Protection Code with the Atomic Energy Commission Regulations was not effected. Moreover, no funds were made available to effect such an assumption

by New Jersey. Further negotiations with the Atomic Energy Commission toward effecting "compatibility" are anticipated during 1964.

### Activities of the Department

The activities of the Department include efforts to register, inspect, and evaluate and bring under control all radiation producing machines and radioactive materials in use in New Jersey.

### Registration of Radiation Producing Machines

During 1963, 725 radiation producing machines were registered to bring the total number of registrations to 8,454. Initial registration has been taking place since November, 1959. No re-registration is contemplated at this time. An analysis of machine registration by type of user follows in Table 1.

Table 1. NUMBER OF RADIATION MACHINES REGISTERED BY TYPE OF REGISTRANT

Type of Registrant	No. of Machines	
	Registered During 1963	Total as of December 31, 1963
Dentists .....	429	3,943
Physicians .....	118	1,975
Chiropractors .....	16	236
Podiatrists .....	13	251
Veterinarians .....	24	162
Hospitals and Institutions .....	58	1,111
Industry .....	67	776
Total .....	725	8,454

There were 467 X-ray unit registrations cancelled during 1963, due to transfer of ownership or disposal of units. Many of the 246 registrations cancelled by physicians were for fluoroscopic units.

### Registration of Radioactive Materials

A total of 16 users of radioactive materials were registered in 1963. This brings the number of registrations since the beginning of registration in April 1960 to 353. An analysis of registration by type of user is presented in Table 2.



Table 2. NUMBER OF RADIOACTIVE MATERIALS REGISTRATIONS BY TYPE OF REGISTRANT

Type of Registrant	Radioactive Materials Registrations	
	During 1963	Total as of December 31, 1963
Physicians .....	2	61
Hospitals .....	1	65
Industry .....	10	200
Civil Defense Agencies .....	2	9
State or Federal Agencies .....	0	9
Schools .....	1	9
Total .....	16	353

Continuing effort was made to locate and register radium sources in use in the state. The adoption of the proposed amendments to the Radiation Protection Code which require licensing of this material should facilitate this effort.

#### Field Inspections for Code Compliance of X-ray Machines

There were 2,933 inspections of X-ray units made in 1963 to determine compliance with the Radiation Protection Code. Table 3 presents a breakdown of such inspections by type of registrant.

Table 3. INSPECTIONS OF X-RAY MACHINES BY TYPE OF REGISTRANT

Type of Registrant	No. of Inspections Made	
	During 1963	Total as of December 31, 1963
Dentists .....	1,272	4,059
Physicians .....	1,260	2,089
Chiropractors .....	67	289
Podiatrists .....	49	277
Veterinarians .....	112	161
Hospitals and Institutions .....	161	1,251
Industry .....	12	56
Total .....	2,933	8,182

#### X-ray Machine Code Compliance Inspection Results

A total of 12,402 items of noncompliance with the Radiation Protection Code were discovered during the 2,933 inspections conducted during 1963. A total of 20,681 items of noncompliance have been found to date. The most

common defect found is the lack of a radiation protection survey. This deficiency has been found for 5,273 units or 82 percent of the total units inspected. The Radiation Protection Code requires that a radiation protection survey for each X-ray installation be performed by a qualified private consultant in order to assure that the radiation hazard to the operator and to the public is at a minimum.

The second most common deficiency was inadequate filtration with 3,787 defective units or 59 percent of the total units inspected. The Code requires from 1.5 to 2.5 mm of equivalent aluminum filtration in order to prevent soft X-radiation from reaching and being absorbed by the patient. Inadequate collimation was found on 1,929 units or 34 percent of the number of units where this requirement is applicable. Adequate collimation restricts the X-ray beam only to that part of the body which is of clinical interest. Seventy-three percent or 1,243 of the fluoroscopes inspected did not restrict the beam to the fluoroscopic screen. Lack of this restriction could result in the operator being unnecessarily exposed to the direct radiation of the machine. Nine hundred and thirty fluoroscopes or 55 percent had excessive table top dose rates and 663 had excessive radiation through the lead glass screen. The Radiation Protection Code limits the table top dose rate to 5 r/minute and the radiation through the viewing screen to 20 mr/hr in order to prevent unnecessary exposure to both patient and operator.

It is readily apparent that the Code compliance program for X-ray machines is instrumental in significantly reducing the radiation exposure experienced by both patients and operating personnel.

The ultimate goal of the Code compliance inspection program is to bring all the operating X-ray units in New Jersey into compliance with the Radiation Protection Code. Table 4 denoted the progress towards this goal as of December 31, 1963.

Table 4. X-RAY MACHINES IN COMPLIANCE WITH THE NEW JERSEY RADIATION PROTECTION CODE BY TYPE OF REGISTRANT

Type of Registrant	Units "In Compliance"		% of Registered Units
	During 1963	Total as of December 31, 1963	
Dentists .....	1,230	1,446	37
Physicians .....	221	238	12
Chiropractors .....	106	110	47
Podiatrists .....	63	76	30
Veterinarians .....	21	25	15
Hospitals and Institutions .....	18	30	3
Industry .....	17	23	3
Total .....	1,676	1,948	23

The percentage of units in compliance is probably somewhat higher due to a backlog in handling records and correspondence.

#### Field Inspections of Radioactive Material Installations

Installations where radioactive materials are used were inspected 78 times during 1963. Inspections were made jointly with personnel of the United States Atomic Energy Commission at those installations having Atomic Energy Commission licenses. Those installations using non-AEC controlled radioactive materials were inspected independently by Program personnel. A breakdown of these inspections is given in Table 5.

Table 5. RADIOACTIVE MATERIAL INSTALLATIONS FIELD INSPECTIONS BY TYPE OF REGISTRANT

Type of Registrant	Inspections During 1963
Physicians .....	7
Hospitals .....	28
Industry .....	37
State or Federal Agencies .....	5
Schools .....	1
Total .....	78

The adoption of the Proposed Amended Chapter I, New Jersey Radiation Protection Code, after the public hearing to be held February 19, 1964, should bring about a substantial expansion in these activities.

#### Radiological Health Laboratory Activities

The Radiological Health Laboratory routinely collects and assays for radioactive material content environmental samples in order to determine base natural radioactivity levels to which the public is exposed, and to detect any change in these levels due to fallout or other external causes which may necessitate public health action. The laboratory processed 2,793 samples during 1963. A breakdown by type of sample follows in Table 6.

Table 6. RADIOLOGICAL HEALTH LABORATORY ENVIRONMENTAL SAMPLES PROCESSED DURING 1963

Type of Sample	Number
Water Supplies:	
Public Water Supplies .....	Surface Water 263
	Silt 144
	Ground Water 59
State-wide streams .....	Water 254
	Silt 212
Air:	358
Precipitation:	50
Special Environmental Samples .....	Water 381
	Silt 190
	Vegetation 199
	Soil 220
	Milk 378
	Vegetables 23
Leak Test Smears	62
Total .....	2,793

Gross alpha and beta laboratory determinations are made on all water, silt, vegetation, vegetable, and soil samples. Gross beta determinations are made on all precipitation and air samples. Milk is analyzed for Strontium 89, Strontium 90, Iodine 131, and Barium 140. Leak test smears are generally analyzed for alpha and beta and any specific gamma radionuclide which might be suspected.

Table 7. BREAKDOWN—LABORATORY OPERATIONS DURING 1963

<i>Determination</i>	
Gross Alpha .....	2,220
Gross Beta .....	2,220
Strontium-89 .....	248
Strontium-90 .....	248
Iodine-131 .....	223
Barium-140 .....	248
<i>Other Operations</i>	
Leak and Smear Tests .....	244
Fallout Levels (Air) .....	360
Sample Preparation for PHS .....	34
Total .....	6,045

The capabilities of the Radiological Health Laboratory were greatly enhanced during 1963 by the purchase of a 400-channel gamma analyzer and associated accessories which enable the laboratory to identify specific radionuclides with relative ease. The purchase of the analyzer and accessories was made possible by an outright grant of federal funds from the U. S. Public Health Service.

#### *Supportive Activities*

Two hundred and thirty-seven technical conferences were held with representatives of industry, government, and various professions to provide relevant technical information on radiation and radiological health. In addition, 55 inquiries on radiation and radiation hazards were answered by letter and 62 speeches and training lectures were given to interested groups.

#### *Program Notes*

##### *Federal Assistance*

During the 12-month period ending June 30, 1963, \$33,901 in federal funds were expended in strengthening the capabilities of the Radiological Health Program.

##### *Training*

Program personnel spent 366 man-days obtaining training in radiological health, with 315 man-days of the total spent by personnel on educational leaves to gain advanced degrees specializing in radiological health.

#### *Costs*

As part of the Public Health Service's Commissioned Officer Student Training and Extern Program (COSTEP), two dental students spent the summer working mainly on dental X-ray unit inspection throughout the state, while at the same time they were exposed to the broad spectrum of radiological health.

##### *Assignees*

Two Public Health Service reserve officers were assigned to the Program for part of the year and one of the two remained for the full year. They are part of the Public Health Service's "Assignee" program whereby service is rendered and wide experience is gained in radiological health.

##### *Exhibit Award*

The exhibit prepared by the Radiological Health Program covering radiation protection for physicians was awarded a Certificate of Merit by The Medical Society of New Jersey's Scientific Exhibit Committee.

#### *Radiation Incident*

A shipment of radioactive materials accidentally contaminated a trucking terminal in Jersey City. The Atomic Energy Commission was involved since it was an AEC "contractor" shipment. Decontamination was done by U. S. Army personnel at the direction of the New York Operations Office of the AEC. No residual contamination could be detected by Program personnel.

#### *Veterinary Public Health Program*

The program on Veterinary Public Health is an administrative, coordinating, and technical unit within the Division of Environmental Health. The Program's objectives are aimed at preventing animal disease transmission and at gaining information useful to human health. These diseases are collectively known as the zoonoses. These activities are accomplished through the cooperation of (a) personnel assigned to the program, (b) District Public Health Veterinarians and Rabies Control Wardens and (c) other Health Department personnel having allied functions and close liaison with interdepartmental programs. The total of these activities comprises the efforts influencing and influenced by the veterinary medical arts and sciences as applied to the prevention of disease, protection of life, and promotion of the well-being and efficiency of man.

The Program acts in an advisory capacity to the Bureau of Food and Drugs, particularly in relation to the Milk and Meat Control Programs as the demands for professional veterinary medical competence are indicated.

#### *Rabies Control*

The Division of Laboratories reported rabies virus isolations from 16 bats\* during the calendar year as compared to 15 isolations during the period (18 months) covered by the previous report. The bats originated from 13 municipalities, representing eight counties involving three species of bats.

Bats have been trapped and examined for rabies since the first rabies isolation from bats on October 13, 1960.

Organizational activities regarding the conducting of canine vaccination clinics continues to be a major activity. The clinics are a routine procedure except in areas wherein bat rabies is diagnosed. In these areas, new clinics are instituted and follow-up clinics are encouraged in municipalities in which the total number of dogs vaccinated is below the number thought necessary to prevent an outbreak of rabies among canines. 138,600 dogs were vaccinated this period as compared to 122,000 vaccinated during the 1962 calendar year.

\*One specimen was diagnosed as positive for rabies by Bergen Pines Hospital Laboratory.

Table 1. CASES OF RABIES BY YEARS AND STATES

Calendar Year	New York	Pennsylvania	Delaware	New Jersey
1946	1,175	502	1	276 (2 humans)
1947	696	293	0	94 (1 human)
1948	568	147	1	112 (1 human)
1949	515	31	0	67 (1 human)
1950	1,022	102	0	5
1951	539	241	0	0
1952	337	300	7	0
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 (Bat)
1961	90	14	0	8 (7 bats, 1 cat)
1962	111	58	0	11 (10 bats, 1 raccoon)
1963	90	29	1	16 (Bats)

### Psittacosis

Control of psittacosis is governed by Chapter III, State Sanitary Code. Program and District Veterinary Public Health personnel enforce the code primarily through their surveillance of health certificates and permits on birds of the psittacine family that are imported into New Jersey and inspection of records of dealers within the state. Epidemiological investigations are made whenever the disease is diagnosed or suspected in humans. Blood samples were taken from 40 persons handling psittacosis-infected racing pigeons. The blood sera from three of the 40 were positive for psittacosis. Research work is presently underway to determine methods of treating such flocks in order to lessen the hazard to contacts of such birds.

### Q Fever

The Department is currently conducting an epidemiological investigation concerning the incidence of past infections of Q Fever in employees at a large dairy farm in which the causative organism *Coxiella burnetii* has been isolated. Sera from employees disclose that a significant number have titres indicating current or past infection. A report will be compiled and analyzed this coming year.

### Viral Encephalitis Research

The Arbovirus Transmission Pattern Study has been in operation since 1961 and will operate through 1964 under funds allotted under a National Institutes of Health grant. Drs. Martin Goldfield and Oscar Sussman are the coprincipal investigators of this study. The project is a cooperative one jointly operated by the Division of Laboratories and the staff of the Bureau of Veterinary Public Health. Drs. William C. Carter and Raymond E. Kerlin, Senior Public Health Veterinarians, and Walter R. Gusciora, Entomologist, are assigned to the project along with seven part-time Field Representatives. The Department of Conservation and Economic Development, Division of Fish and Game, Bureau of Wildlife Management cooperates by assigning a Junior Wildlife Manager, Mr. George Haws, who renders invaluable assistance in the project. In addition, whenever mammal trapping is needed members of their staff aid in performing this task. Dr. Jeff Swinebroad, Chairman, Department of Biology, Douglass College, Rutgers—the State University is employed as an Ornithological Consultant.

A brief description of the project is as follows:

Four study areas are maintained, located at Estell Manor, Atlantic County; Brigantine Wildlife Refuge, Galloway Township, Atlantic County; Forked River Game Farm, Ocean County; and Great Swamp area, Morris County. The design of the project is as follows:

Wild birds are netted at each study site two days a week in fall, winter, and early spring, and four days a week during the summer months. The birds are speciated; parasites, if any removed; banded; bled; and released. A sentinel chicken flock of 25 birds is maintained in or near each site and bled at two to three week intervals. Mosquitoes are trapped in light traps and resting boxes. Small animals, snakes, and amphibians are trapped, bled, and ectoparasites removed. All blood specimens and insects are submitted to the Program on Virology of the Division of Laboratories for serological tests and virus isolations. The phase of the project concerning mammal, reptile and amphibian trapping has been accelerated and this emphasis will alter the design of the project in 1964.

Table 2. BREAKDOWN OF BIRDS, MAMMALS, AMPHIBIANS AND CHICKENS CAPTURED AND BLED IN EACH STUDY AREA

Mammals, Reptiles and Amphibians	2,230
Wild Birds	6,471
Chickens	708
Mosquitoes	70,284
Other Arthropods	5,034

Results indicate that arbo-virus activity was present throughout the state in the year 1962-1963 in wild birds, mammals, and mosquitoes. Despite this activity, there were no epidemic instances of the disease in humans in 1963.

#### *Lymphoma*

The Lymphoma project is in the final stages of analysis. Retrospective studies are currently being made and are near completion concerning human contacts to determine if there are statistically significant increases in humans who had been in contact with dogs having Lymphoma. Preliminary results indicate that there is no correlation between the incidence of Lymphoma in dogs and humans.

#### *Tularemia*

Seven persons, two children and five adults, residing in Cape May County were reported as Tularemia cases. An epidemiological investigation revealed that the five adults had been engaged in the handling and dressing of wild rabbits. The two children, who had not been associated with wild game, are in a family wherein a member had been hunting. Only one of the cases was laboratory confirmed; however, the clinical symptoms were compatible for Tularemia.

The Bureau of Veterinary Public Health had the Commissioner's office issue a news release informing the public of the nature of the disease and the precautions to take in the handling and dressing of wild game, especially rabbits.

#### *Trichinosis*

There were several cases of trichinosis. Several cases were traced to pork used in manufacture of certain sausages. This Bureau, at the request of the Bureau of Food and Drugs, has prepared control procedures to be used in meat processing plants. These trichinosis control procedures will be part of the regulations to be adopted by the Department as part of the licensing requirement for meat processing plants.

#### *Educational Activities*

The Department released Information Bulletin No. 7 which states the policy of the Department regarding the use of unclaimed animals in humane, constructive research that benefits both animals and man. The release evoked numerous letters and comments both in the press and in correspondence, pro and con, concerning such a policy. Dr. Sussman prepared a talk given at the annual meeting of the Humane Society of the United States, New Jersey

Branch, Inc. The talk was favorably received by a group of people opposing our policy. In addition, the talk has been printed in the New Jersey *Public Health News*. The Department was highly commended by The Veterinary Medical Association of New Jersey for the stand taken.

Members of the Bureau presented a program concerning the Arbo-virus Transmission Pattern Study at a staff conference held in the Northern State Health District. A similar program was given at the annual meeting of the New Jersey Public Health Association. A seminar was given by Drs. Goldfield and Sussman at Rockefeller Foundation.

A conference of field workers in Arthropod-Borne Virus Diseases was held at the Atlantic County Game Preserve, Mays Landing, concerning the status of the study, future plans, and how the various persons attending could cooperate in future activities involving the study. Ninety persons attended representing New Jersey Department of Health, Division of Fish and Game of the Department of Conservation and Economic Development, U. S. Fish and Wildlife Service of the U. S. Department of the Interior, and Rutgers—the State University.

A one-day symposium on Diseases of the Skin in Man and Animals was held and jointly sponsored by The Medical Society of New Jersey, the Veterinary Medical Association of New Jersey, and the New Jersey Department of Health. The Conference was the second in a series of seminars concerning comparative medicine. The Conference was attended by 150 veterinarians, physicians, and health officials.

Members of the staff gave a demonstration on closed circuit television concerning netting, banding, and veni-puncture in wild birds at the centennial meeting of the American Veterinary Medical Association in New York City.

## Division of Laboratories

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MARTIN GOLDFIELD, M.D., *Director*

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

## Division of Laboratories

The Division of Laboratories managed to cope with an ever-increasing workload in 1963 despite the increasingly acute limitations of our physical facility and number of professional personnel. Occupancy of the new laboratory building, anticipated in 1965, will alleviate the former problem, that has finally assumed intolerable proportions.

A program to screen newborn infants for phenylketonuria (PKU) was instituted during this period. Early detection of this inherited disorder of metabolism can lead to treatment preventing the mental retardation which so often is a tragic sequel of the disease. Ten thousand of the 130,000 infants born in New Jersey annually were tested in this pilot program, with plans to increase the number to 50,000 the following year.

New legislation, with appropriate implementation by the Public Health Council, has obligated this Division to inspect, evaluate performance and license all blood banks in the state. This new program has been instituted with the able assistance of the former Director of Laboratories, Dr. Elmer Shaffer, acting as consultant.

Following two years of experience with the new fluorescent rabies diagnostic techniques, the Division has made it available as an additional service. This new, rapid, sensitive, and exceedingly accurate technique has made possible certain changes in recommendations for immunization of persons following animal bites that will permit sparing a number of them from undergoing this prolonged and painful procedure needlessly. It has been accomplished by testing on a 24-hour a day basis and reporting of laboratory results by phone. Although rabies continues to be found in our bat population, these new procedures may help to maintain the fine record of rabies control this Department has shown over the last decade.

The new fluorescent treponemal antibody test has been instituted on a pilot basis as an aid in the differentiation of persons showing positive reactions to screening tests for syphilis who nevertheless are free of the disease. It is anticipated that this procedure will be offered as a routine reference service to physicians in subsequent years following an adequate period of trial.

Many lives of New Jersey residents depend on the accuracy with which biochemical, physical, and microbiologic tests are performed on them during the course of serious illnesses. Assurance that private clinical and hospital laboratories perform such tests adequately is therefore of vital public interest.

This Division has continued to develop a program for evaluation of performance of clinical laboratories on a voluntary basis. Since a voluntary program such as this often includes only those laboratories which are already interested in performing work of high quality, there is little doubt that compulsory legislation will eventually be required.

Inexorably rising workloads continue to strain the resources of the Division. The Chemistry Program, for example, experienced a 15 percent increase in number of determinations, Bacteriology a 12 percent increase, and Virology a whopping 40 percent rise during the past year. Further rises in demands for services are anticipated.

The reports of the Programs of the Division that follow accurately present statistical data regarding the work performed during the past year. They do not reflect the dedication and spirit of service by employees that made these accomplishments possible despite limitations of personnel and facilities.

## Bacteriology Program

### Highlights

Outstanding in 1963 was the continued increasing work loads as compared with 1962 and previous years. There were substantial increases in tuberculosis, enteric bacteriology, phenylketonuria or PKU screening, rabies, mycology, food bacteriology, and water analysis. There were modest increases in nose and throat bacteriology and staphylococcus phage typing. See Table 1 for a more graphic illustration.

The success with fluorescent antibody tests for rabies, especially in bats, caused a 46 percent increase in work load in this activity.

Phenylketonuria or PKU screening expanded into a definite part of the Bacteriology Program with definite plans for much greater future expansion.

During December, 1963, the Sanitary Bacteriology unit was evaluated by Dr. James Read, United States Public Health Service, Sanitary Engineering Center, at Taft Laboratory for milk performance in accordance with the 11th Edition of Standard Methods. Dr. Read commended the staff for its knowledge and strict adherence to standard methods techniques.

In October, a bacteriologist and an assistant bacteriologist spent two weeks and three weeks respectively on courses in fluorescent antibody techniques for identification of rabies and streptococci at the Communicable Disease Center, United States Public Health Service, Atlanta, Georgia. One bacteriologist and one laboratory technician are attending Trenton Junior College for credit.

The branch shellfish control area laboratories at Bivalve and Tuckerton expanded their personnel and equipment to take care of heavily increased work loads during the summer season. This was to study possible increased shellfish area contaminants due to high seasonal increases in population and boat activity.

### Specimens and Examinations

There were 100,916 specimens consisting of 289,244 examinations made in the Bacteriology Program during the calendar year January 1-December 31, 1963.

### Numerical Summary

Total specimens refers to the number of specimens received in the various categories; the total of examinations is given to demonstrate more clearly the volume of work involved; for instance, all tuberculosis specimens have a microscopic spread performed and a culture; cytochemical tests, sensitivity tests and in some cases animal inoculation for virulence are performed on the same specimens; these additional tests are added and shown as total examinations. As another example, all animal brains are examined microscopically for rabies and a fluorescent antibody test is performed as well. Also, all brains of animals are inoculated into laboratory mice intracerebrally and kept under observation. Such additional tests are counted as extra examinations on the same specimen.

Table 1. COMPARATIVE WORK LOADS, 1962-1963

	Specimens		Examinations	
	1962	1963	1962	1963
Laboratory Personnel .....	22	22	.....	.....
Grand Total .....	80,902	100,916	258,232	289,244
Tuberculosis .....	16,209	18,580	36,828	40,375
Enteric Bacteriology .....	11,389	15,162	11,389	15,162
Rabies .....	900	1,320	4,918	7,787
Respiratory Bacteriology Diphtheria, Streptococci, Fluorescent Antibody, Vincent's Angina .....	10,355	10,824	14,009	15,943
Central Laboratory Waters .....	12,362	10,374	18,205	15,549
Branch Laboratories Shellfish and Shellfish Waters .....	9,597	13,954	19,654	28,492
Staphylococcus Phage Typing .....	5,110	5,806	132,528	136,632
Milk .....	3,037	2,477	5,523	4,496
PKU .....	2,655	14,184	2,655	14,184
Miscellaneous, including Mycology, Food Bacteriology, Levittown Sewage .....	929	1,488	929	1,488
Blood Agglutininations .....	4,135	2,638	6,780	4,304
Gonorrhoea .....	4,161	4,111	4,846	4,836



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

#### *M. tuberculosis* Identification

This activity is one that has greatly increased in number of specimens and volume of work. It is one of the most time consuming activities of the Program.

Table 2. STAINED SPREADS OF SPUTA AND OTHER MATERIAL

	Total	Positive	Negative	Uns.	% Positive
	18,580	980	17,106	424	5.3
			<i>Examina-</i>		
<i>M. tuberculosis</i>			<i>tions</i>		
	Total		18,580	40,375	
Sputum spreads			17,520	17,520	
Body fluids			990	990	
Cultures				17,617	
Animal Inoculations				759	
Sensitivity Tests				551	
Cytochemical				2,363	
Virulence Tests				480	
Cultures for identification			70	95	
<i>Cultures listed above were:</i>					
	Total	Positive	Negative	Uns.	% Positive
Sputa	17,619	1,507	15,786	326	10.8
Urine	16,639	1,409	14,865	284	8.95
Gastric	594	4	557	33	0.67
Bronchial Washings	202	8	191	3	3.96
Pleural Fluid	16		16		0.00
Spinal Fluid	70	2	67	1	2.85
Miscellaneous	8		8		0.00
	90	3	82	5	3.33

Table 3. ENTERIC DISEASES

	Total Specimens		Total Examinations	
	Total	Positive	Negative	Unsatisfactory
		15,162		15,162
Feces and Urine	13,173	360	12,637	176
Ova and Parasites	1,552	159	1,368	28
Occult Blood	122	9	112	1
Cultures for Identification	313	300	12	1
Sensitivity Tests	2			

This work also includes the identification of Salmonella into their species type. The assistance of the United States Public Health Service, Communi-

cable Disease Center at Atlanta, Georgia on questionable findings is utilized and appreciated.

Table 4. SPECIES IDENTIFICATION

	Isolated from specimens submitted	Identification and serotype of cultures submitted	Foods	Animal sources
Salmonella Gr. A	0	0		
Salmonella Gr. B				
S. bredeney	1			7
S. chester	7			
S. derby	34	53		
S. heidelberg	105	17	4	
S. paratyphi B		8		
S. typhimurium	72	51		2
S. typhimurium var. copenhagen	6	6	1	14
S. saint-paul	6			5
S. schwarzengrund	6	1	1	
S. stanley	2	1		
Salmonella Gr. C <sub>1</sub>		2		
S. braenderup		2		
S. cholera-suis var. kinzendorf		4		
S. infantis	1	5		
S. montevideo	10		2	7
S. oranienburg	13	3		
S. tennessee	2			1
S. thompson	7	6		
Salmonella Gr. C <sub>2</sub>				
S. bovis-morbificans	1	1		
S. blockley	24	1		
S. kentucky				4
S. manhattan		1		
S. muenchen				3
S. newport	3	5		
Salmonella Gr. D				
S. berta	1	1		
S. enteritidis	19	12		
S. panama	5	1		
S. typhi	16	4		
S. pullorum				2
Salmonella Gr. E <sub>1</sub>				
S. anatum		1		1
S. meleagridis		1		
Salmonella Gr. E <sub>2</sub>				
S. binza				1
S. newington	3			

	<i>Isolated from specimens submitted</i>	<i>Identification and serotype of cultures submitted</i>
Salmonella Gr. G		
<i>S. cubana</i> .....	2	2
Salmonella Gr. (other)		
<i>S. alachua</i> .....	1	
<i>S. urbana</i> .....		1
Total Salmonella .....	347	178
Shigella Gr. B		
<i>S. flexneri</i> 2a (II:3, 4) .....		2
3c (III:6) .....		1
3a (III 6:7, 8) .....	6	
Too rough to type .....		1
4 .....		1
Shigella Gr. D		
<i>S. sonnei</i> .....	9	9
Total Shigella .....	15	14
Escherichia coli		
111 ab:B <sub>4</sub> :H <sub>2</sub> .....		2
111 :B <sub>4</sub> .....		1
127a :B <sub>8</sub> :H <sub>21</sub> .....		2
128a 128b :B <sub>12</sub> :H <sub>2</sub> .....		1
128ac :B <sub>12</sub> :H <sub>10</sub> .....		1
126 :B <sub>16</sub> :H <sub>27</sub> .....		1
Total Enteropathogenic <i>E. coli</i> .....		8

#### *Staphylococcus Phage Typing*

<i>Specimens</i>	<i>Examinations</i>
5,581	136,632

#### *Streptococcus Identification by Fluorescent Antibody Titration*

<i>Specimens</i>	<i>Examinations</i>
689	919

#### *Blood Agglutinations*

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

<i>Specimens</i>	<i>Examinations</i>
833	1,666

#### *Nose and Throat Cultures*

Diphtheria, Diphtheria Virulence, Hemolytic Streptococci and Sensitivity Tests.

	<i>Total Specimens</i>		<i>Total Examinations</i>		
	10,135		15,024		
	<i>Total</i>	<i>Positive</i>	<i>Negative</i>	<i>Uns.</i>	<i>Examinations</i>
Diphtheria .....	5,627	7	5,466	154	10,509
Diphtheria Virulence .....					7
Nose and Throat Bact. ....	1,666	134	1,509	23	1,666
Hemolytic Strep. ....	2,775	902	1,857	16	2,775
Sensitivity Tests .....	56				56
Vincent's Angina .....	11	1	10		11

#### *Gonorrhea Spreads*

	<i>Total Specimens</i>		<i>Total Examinations</i>	
	4,111		4,836	
	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>% Positive</i>
	725	3,346	40	17.6

#### *Rabies*

<i>Total Specimens</i>	<i>Positive</i>	<i>Negative</i>	<i>Unsatisfactory</i>	<i>Total Examinations</i>
1,320	15	1,267	38	7,787

The above figures represent an increase of 420 specimens over the last year, a 46 percent increase. This is almost as many as were received in the previous 18 months. The 15 positives, all bats, are two more positive than were found in the period of the last report. Examinations include microscopic Sells' stain, fluorescent antibody test for rabies, and mice inoculation. The Fluorescent Rabies Antibody test has proven indispensable in the examination of bat brains. This year, because of the presence of rabies in the state, the Director of Laboratories and Chief of Veterinary Health collaborated with all local and county laboratory directors that do rabies examinations in New Jersey. This action resulted in an agreement to submit all brains for rabies examinations to the Bacteriology Program. The result has been that all animals suspected of rabies have been given a complete and thorough examination, including the above three mentioned tests.

Examinations for rabies were made in the following number and species of animals during 1963: bats, 311; dogs, 212; cats, 175; hamsters, 151; rodents, 121; squirrels, 103; rabbits, 67; raccoons, 38; guinea pigs, 19; moles, 18; fox, 16; skunks, 10; monkeys, 8; ground hogs, 9; opossums, 4; weasels, 3;

minks, 3; calves, 2; human, 1; leopard, 1; owl, 1; parakeet, 1; chipmunks, 27; muskrats, 19.

#### Phenylketonuria (PKU) Screening

This program, starting modestly in 1962 with 2,600 specimens, has expanded to over 14,000 specimens in 1963. Plans are now being developed to cover 50,000 births in New Jersey and eventually all live births which are approaching 150,000 yearly.

Phenylketonuria, or PKU as it is commonly called, is a rare inherited disorder occurring once in every 10,000-20,000 live births. Such an individual lacks an enzyme which converts phenylalanine to tyrosine. The unconverted phenylalanine collects in the body damaging the developing brain. Such accumulation leads to severe mental retardation that is irreversible.

The purpose of the test is to measure the phenylalanine level in the blood and urine early enough to place such individuals with high levels on a special diet and prevent this brain damage.

The test is an agar diffusion microbial assay, employing small filter paper discs impregnated with blood or urine on the agar surface to determine abnormally high blood concentrations of the amino acid phenylalanine. A blood filter specimen taken three to four days after birth and a urine filter specimen taken three weeks after birth are required of each baby.

Of the 7,599 blood filter specimens and the 6,547 urine filter specimens examinations, we obtained 12 presumptive positive bloods and 136 presumptive positive urines. Follow-up repeat specimens on presumptive positives were subsequently found negative.

#### Miscellaneous Specimens

Other pathogenic specimens and examinations may be grouped as follows:

	Total Specimens		Total Examinations		
	Total	Positive	Negative	Unsatisfactory	
	1,488		1,488		
Bacterial Infections (body fluids) .....	342	160	141	41	
Food Bacteriology .....	151	2	146	3	
Mycology .....	104	55	46	3	
Cultures for Identification .....	520				
Sensitivity Tests .....	6				
Special Sewage, Levittown Project .....	350	98	215	34	
Other Miscellaneous					
Toxoplasmosis and others .....	15	7	8		

#### Sanitary Bacteriology

*Bacteriological Analysis of Waters, Wastes, Dairy Products, Shellfish and Shellfish Waters, in the Central Laboratory and Branch Laboratories:*

	Total Specimens	Total Examinations
	26,805	47,537
Waters .....	10,374	15,549
Dairy Products .....	2,477	4,496
Shellfish .....	584	1,752
Shellfish Waters .....	13,370	25,740

*Central laboratory water and waste specimens and examinations were from the following sources:*

	Total Specimens	Total Examinations	
	10,374	15,549	
Public .....	4,459	State Parks .....	95
State & Co. Inst. ....	175	Slaughterhouses .....	91
Schools .....	411	Shellfish Waters .....	22
Camps .....	269	Sewage .....	930
Ice Cream Stands .....	31	Streams .....	928
Dairy Plants .....	46	Wastes .....	46
Poultry Plants .....	37	Private, L.H. & D.H.O. ....	2,405
Bottled Water Plants .....	8	Millipore Filter .....	15
Pools .....	33	Algae .....	5
Bathing Areas .....	367	Ice .....	1

#### Central Laboratory Dairy Products:

	Total Specimens	Total Standardized	Total Below Standard	Average Percent Below Standard	Total Examinations
	2,477	2,250	139	5.6	4,496
		Total	Satisfactory	Below Standard	% Below Standard
Milk .....	1,031	966	65		6.4
Skim Milk .....	293	281	12		4
Chocolate Milk .....	217	202	15		6.8
Cream .....	321	290	31		9.6
Half and Half .....	109	105	4		3.7
Penicillin Residual .....	388	388	0		0
Frozen Eggs .....	21	9	12		5.7
USPHS Split Samples .....	88	88			
Other .....	9	9			

Below standard figures in all of the above categories are lower than last year and previous years. We hope this indicates an improvement of the product due to the sampling program.

*Total Specimens and Examinations made at the Bivalve and Tuckerton Branch Laboratories:*

		<i>Total Specimens</i>	<i>Total Examinations</i>
		13,954	28,492
Bivalve	Shellfish .....	509	
	Shellfish Waters .....	5,568	12,663
Tuckerton	Shellfish .....	75	
	Shellfish Waters .....	7,802	15,829

*Laboratory Approval*

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.

All approved laboratories were visited by a representative of the Bacteriology Program, evaluated for personnel and equipment, and given check bacteriological specimens to perform.

In addition to the State Department of Health Laboratories, there are now 136 laboratories approved by the State Department of Health. Of these, 65 are hospital laboratories, 60 private laboratories, six county hospital laboratories, and five municipal laboratories.

*Mailing Cases*

The Bacteriology Program has been responsible for cleaning, re-assembling, and mailing the specimen containers to physicians, Districts, local health departments and institutions using our facilities throughout the state. Over 253,000 containers were supplied during the year. In addition to this, 4,489 water mailing containers were supplied to water companies and to the four Districts for submitting potable water samples for analysis.

*Media Preparation*

The Program produced and supplied 7,624 liters of media for use in the Bacteriology Program. For the Rancocas Hospital project, 8,378 blood agar plates, 6,442 chocolate agar plates and 6,138 tubes of Todd-Hewitt broth were prepared.

*Chemistry Program*

This program experienced a considerable increase in workload during the year. In comparison to the previous year, there was an over-all increase

of 18 percent in the number of samples processed and a corresponding increase of 15 percent in the number of determinations performed.

Table 1. SUMMARIZED STATISTICS, JANUARY 1-DECEMBER 31, 1963

<i>Character of Samples</i>	<i>Number of Samples</i>	<i>Number of Determinations</i>
Milk and Dairy Products .....	1,486	3,227
Other Foods .....	772	1,426
Drugs .....	26	66
Waters and Wastewaters .....	4,638	30,796
Blood Sugars .....	11,618	12,028
Urine Sugars .....	817	817
Miscellaneous* .....	1,358	2,298
Totals .....	20,715	50,658

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

Table 2. TOTAL NUMERICAL WORKLOADS

<i>Period</i>	<i>Total Number of Samples</i>	<i>Total Number of Determinations</i>
January 1-December 31, 1962 .....	17,574	44,099
January 1-December 31, 1963 .....	20,715	50,658

The inclusion of blood and urine sugar specimens in the above totals tends to confuse and exaggerate the true workload trend since these determinations, relatively simple and/or automated, vary by thousands from year to year. A more accurate measure of this upward trend, obtained by deducting all blood and urine sugar determinations for 1962 and 1963, is seen in an increase of eight percent in the number of samples submitted and an increase of 11 percent in the number of determinations completed.

Decreased activity, relative to last year, was experienced in three categories of the total workload; substantial increases were absorbed in the other three areas.

Milk and Dairy Products .....	— 33%
Other Foods .....	— 18%
Drugs .....	— 75%

Waters and Wastewaters .....	+ 17%
Blood and Urine Sugars .....	+ 28%
Miscellaneous .....	+130%

The remarkable increase in the area identified as "Miscellaneous" was largely due to the acceleration of activities in clinical chemistry, as related to our evaluation and quality control program.

#### *Highlights*

The voluntary evaluation and quality control program, initiated last year in cooperation with the New Jersey Association of Clinical Laboratory Directors, was in full effect during 1963. Over 50 laboratories were sent "unknown" specimens on approximately a monthly basis to evaluate their clinical chemistry procedures. Studies undertaken this year included cholesterol, calcium, phosphorus, total protein and albumin-globulin ratio, urea nitrogen and glucose methodologies.

This program has thus far been confined to providing unknown specimens, summaries, statistical analyses and consultations but will eventually be expanded to include field visitations, seminars, and courses. To this end, our Principal Chemist is now completing a course in hospital analytical biochemistry advances at Temple University Medical Center and he will shortly spend a week in each of several hospitals to obtain an appreciation of the needs, problems, and realities of busy clinical laboratories.

The routine determination of serum phenylalanine, begun last year, has increased to an average of six to seven specimens per week and a doubling or tripling of this workload is predicted for 1964. This service is extended to infants showing presumptive positive phenylketonuria screening tests and to patients undergoing diet therapy for PKU.

The major impact of Diabetes Detection Week was felt during the last week of November and the first week of December. Chemistry personnel, assisted by Diabetes Control Program members, working against the limited shelf life of specimens, labored around the clock, seven days a week, to process over 7,700 bloods. The handling of this imposing workload and the quantitation of presumptive positives was expedited through the use of recently acquired automated equipment.

#### *Training and Conferences*

These laboratories have been represented at the monthly meetings of the Philadelphia Section of the American Association of Clinical Chemists by our Principal Chemist.

Miss Poinsett, Laboratory Technician, and Mr. Ventura, Principal Chemist, completed a one-week course in the theory and use of automated analytical equipment (AutoAnalyzer) at Technicon Controls, Inc., Chauncey, New York.

Program personnel were also in attendance at the following meetings:

Eastern Analytical Symposium (N.Y.C.)

29th Exposition of Chemical Industries (N.Y.C.)

16th Annual Meeting of the Dairy Improvement Institute, Inc. (N.Y.C.)

Rudolfs Research Conference; Principles and Applications in Aquatic Microbiology (New Brunswick)

#### *Training Extended*

Four sanitarians, one from each of our District offices, were instructed in the proper use of the Hobart Fat Percentage Indicator, a field instrument for screening fat levels in ground beef.

A technician from a county hospital was given training in milk analysis.

Two water plant operators from a local community received orientation in the fluoride determination.

Three representatives of an industry about to install its own sanitary chemistry laboratory met with the program coordinator to be advised on equipment and methodology.

A medical officer and a technician from a New Jersey army installation were trained in the LaDu and Michael serum phenylalanine procedure.

Three new members of our Diabetes Program received instruction and training in blood sugar testing.

An industrial chemist visited to discuss and observe sanitary chemistry procedures, especially the bio-chemical oxygen demand test.

Eight engineers attached to our Stream Pollution Control Program met with the coordinator for instructions and discussions on the proper collection of specimens and producers applicable to field tests.

#### *Collaborative Studies*

1. An evaluation of methods for determining the level of synthetic detergents in potable water (U.S.P.H.S.).

2. Phosphatase determinations on split milk samples (U.S.P.H.S.).

3. Monthly evaluation specimens, furnished by the Council on Clinical Chemistry of the American Society of Clinical Pathologists, to monitor our own blood chemistry procedures.

4. Cooperative Cholesterol Standardization Program (C.D.C.). Twenty-seven check specimens received and processed to gain experience in handling lyophilized samples and to study reproducibility of results.

5. Two studies pertaining to the detection of pesticides on crops were completed. One involved substituted urea herbicides; the other an organic fungicide (A.O.A.C.).

Table 3. NUMBER AND CHARACTER OF SAMPLES EXAMINED IN THE FOOD AND DRUG LABORATORY

January 1 to December 31, 1963

	<i>Above Standard</i>	<i>Below Standard</i>	<i>Total</i>	<i>Determinations</i>
<i>Milk and Dairy Products:</i>				
Milk—Chemical	338	2		
Milk—Chemical and Phosphatase	516	6		
Milk—Phosphatase	221	1		
Milk—Chemical, Phosphatase and Pesticides	40	2		
Milk—Chemical and Pesticides	20			
Milk—Phosphatase and Pesticides	4			
Milk—Pesticides	4			
Milk—Chemical and Reconstitution	11			
Milk—Filtration	2	2		
Goat Milk—Chemical and Phosphatase	3	2		
Chocolate Milk—Phosphatase	108			
Cream—Phosphatase	202	2		
<b>Total</b>	<b>1,469</b>	<b>17</b>	<b>1,486</b>	<b>3,227</b>

*Other Foods:*

Meat	178	64		
Ice Cream	201	12		
Potatoes	10	6		
Apples	1			
Shrimp	5			
Green Beans	7	4		
Cereal		1		
Flaxseed "B"	1			
Yogurt	3			
Ricotta	2			
Candied Apple	1			
Bread	1			
Tuna Fish	10			
Crackers		1		

	<i>Above Standard</i>	<i>Below Standard</i>	<i>Total</i>	<i>Determinations</i>
Turkey Dinner	1			
Turkey Gravy	1			
Butter	5			
Beer	2			
Yams	1			
Lard		1		
No-Lac	1			
Caloric Wafer	1			
Beets	1			
Cookies		1		
Coffee	1	1		
Asparagus		1		
Ice		1		
Ice Milk	2			
Chicken Soup	1			
Olive Appetizer	1			
Pudding Powder	6	1		
Lettuce	18			
Corn	18			
Fruit Treat	1			
Baby Food	1			
Cottonseed Oil	2			
Carbonated Beverages	71	1		
Flour	5			
Peaches	24			
Eggs	8			
Blueberries	6			
Cabbage	2			
Turnips	1			
Grapes	2			
Greens (Dandelion, Mustard, etc.)	4			
Meat Preservative	1			
Carbonated Water	1			
Cider	21	4		
Canned Fish	3			
Cake	1			
Meat Sauce	1			
Doughnuts	1			
Sugar	2			
Tomato Puree	1			
Ice Cream Pops	1			
Applesauce	1	6		
Sweet Potatoes		6		
Pears		1		
Peanut Butter	1			
Persimmons	1			

	Above Standard	Below Standard	Total	Deter- minations
Cheese Crackers		1		
Chocolate Soda	1			
Margarine	6	2		
Olives	1			
Turkey	4			
Fruit Cocktail	2			
<b>Total</b>	<b>657</b>	<b>115</b>	<b>772</b>	<b>1,426</b>

*Drugs:*

Chestnut Leaves	1			
Stramonium	1			
Mineral Oil	1			
Expectorant Mixture	2			
Digoxin	1			
Cosmo Tabs	1			
Drodeine	1			
Vitamins	1			
Paregoric	1			
Cod Liver Oil	1			
Bitters	1			
Amphetamine	1			
Phenobarbital and Thyroid	1			
Terpin Hydrate and Codeine	2			
Prednisone	1			
Milk of Magnesia Tablets	2			
Drugs—Pest.	3			
Demerol	2			
Complemin	1			
Laniazid	1			
<b>Total</b>	<b>26</b>		<b>26</b>	<b>66</b>

*Diabetes Detection:*

Urine Sugar	799	18		
Blood Sugar	11,211	407		
<b>Total</b>	<b>12,010</b>	<b>425</b>	<b>12,435</b>	<b>12,845</b>

*Miscellaneous:*

Phenylalanine	116			
Urines—State Police Recruits	178			
Urines	2			
Blood Sugar	2			
Glucose	19			
Cholesterol	34			

	Above Standard	Below Standard	Total	Deter- minations
Thallium Standards	5			
Thallium Samples	34			
Alcohol Evaluation	2			
Bubble Bath	1			
Brain Tissue	2			
Toy Duck	1			
Toy Chicken		1		
Cigarettes	1			
Clothing	2			
Algaecide	1			
Warfarin	2			
Experimental—(Blood Chemistry)	859			
Other Experimental	96			
<b>Total</b>	<b>1,357</b>	<b>1</b>	<b>1,358</b>	<b>2,298</b>

Total Milk and Dairy Products	1,469	17	1,486	3,227
Total Foods	657	115	772	1,426
Total Drugs	26		26	66
Total Diabetes Detection	12,010	425	12,435	12,845
Total Miscellaneous	1,357	1	1,358	2,298
<b>Total</b>	<b>15,519</b>	<b>558</b>	<b>16,077</b>	<b>19,862</b>

Table 4. Number and Character of Samples Analyzed in the Water and Sewage Laboratory January 1 to December 31, 1963

	Public	Miscellaneous	School	Bottled Water	Bathing Water	Camp	State Park	State Institutions	Stable-horse	Dairy	Sewage	Stream	Waste	Sand	Expectorants	Total	Determinations
January	80	84	4	1	...	...	...	...	...	...	188	44	9	...	78	488	2,098
February	73	71	8	...	...	4	1	...	...	...	67	92	10	1	...	882	2,695
March	70	87	1	...	...	...	...	...	...	...	40	86	21	...	80	285	2,000
April	84	66	3	...	...	...	2	...	...	...	131	51	17	...	...	844	2,619
May	119	69	4	...	...	...	...	...	...	...	175	119	18	1	...	512	4,188
June	72	62	2	...	...	28	1	1	...	...	118	19	17	2	...	915	1,807
July	89	74	1	1	6	3	2	1	2	...	151	193	36	1	...	827	8,811
August	88	89	...	...	6	6	1	1	...	...	169	130	14	1	...	507	8,994
September	84	68	3	1	...	...	...	10	1	1	108	51	72	...	...	878	1,614
October	83	89	2	...	...	...	...	1	...	...	229	28	184	4	...	515	8,362
November	62	68	1	...	...	...	...	...	...	...	79	25	88	3	...	291	1,687
December	45	41	4	...	...	...	...	4	1	...	78	20	9	2	...	199	1,259
TOTAL	906	886	38	8	12	48	7	6	14	1	1,476	748	420	15	108	4,688	80,798

## Pathology Program

The Annual Slide Seminar sponsored by the New Jersey Society of Pathologists and the New Jersey Department of Health was held on December 14, 1963 at the Essex House, Newark, New Jersey. Dr. Elson B. Helwig, Director, Dermatology Division, Armed Forces Institute of Pathology, was moderator.

Attendance: 140 pathologists.

The subject: Problems in Dermatological Diagnoses.

Most of the cases presented were selected from the files of the New Jersey Tumor Registry, maintained by the Pathology Program.

The Pathology Program has again cooperated with Dr. Jack G. Makari, Director of Research, Muhlenberg Hospital, Plainfield, New Jersey, in experimental work to be reported to the Atomic Energy Commission. The work involved the processing of 122 tissues to completion.

In cooperation with the Virology Program, histological specimens were received and processed.

In cooperation with the Cancer Control Program, 78 cases were processed for the Lymphoma Project. These specimens were referred to the Veterinary Pathologist Consultant at Rutgers University.

Table 1. ITEMIZED ACTIVITIES OF THE PATHOLOGY PROGRAM JANUARY 1-DECEMBER 31, 1963

No. Contributions to Tumor Registry .....	360
No. Consultation Cases .....	108
No. Slides Prepared .....	6,131
No. Slides Stained .....	5,803
No. Specimens Processed .....	875
No. Requests for Special Staining .....	52
No. Slides Distributed .....	5,066
No. Slides Stained with Special Stains .....	696
No. Special Stains Used .....	20

The consultation services were carried out by the Pathology Program with the cooperation of the Consulting Board of the New Jersey Society of Pathologists, who serve without pay.

We have given refresher training to several tissue technologists from hospitals sent to us by local pathologists.



### Serology Program

It would appear that the work load for routine specimens for syphilis has reached a plateau; the premarital-prenatal group constitute about the same percentage of the work load. Slight increases or decreases in numbers correlate well with the extent of the activities in the Venereal Disease Program in the fields of migrant labor and selected surveys. However, the statistics do indicate that more reactive specimens are received on which multiple tests are performed. In the calendar year, 1963 2,357 fewer specimens were received than in the calendar year 1962, but the total tests were 1,459 greater than in the calendar year 1962. This we would like to believe is due to the efforts of the Venereal Disease Program in reaching contacts of reported syphilitics. Requests for the reference test employing the Reiter Protein antigen (KRP) have reached their peak and show no increase for 1963. The slight decrease was due to our change of policy in reporting in the federal evaluations. Quantitative KRP tests were discontinued as suggested by the Public Health Service.

A representative from the Venereal Disease Research Laboratory visited the laboratory in May and evaluated the Fluorescent Treponemal Antibody procedure (FTA) as performed experimentally in this laboratory. Before we can add the FTA to our list of available diagnostic reference tests, more technical personnel will be necessary to carry out the program. The Chief Serologist attended the courses "Introduction to Fluorescent Antibody Methods" and "Fluorescent Antibody Methods in the Diagnosis of the Venereal Diseases" at the Venereal Disease Research Laboratory in Atlanta, Georgia. This means that now two of the serology personnel have received training in the FTA procedure.

Tests for the Rh factor and blood grouping have been performed routinely on all premarital specimens as a civilian defense measure since 1951 and as such were financed by federal funds. Those funds were withdrawn July 1, 1963. Since the need for this service as a public health measure can no longer be justified, the state decided not to underwrite the program and tests for the Rh factor and blood grouping were discontinued July 1, 1963.

One hundred thirty-two hospital and private laboratories are on the approved list for syphilis serology and as such received 10 unknown specimens plus a known control each month for 10 months. Seven technical personnel visited the serology laboratory to receive individual assistance in serologic procedures. Pathologists in increasing numbers are asking whether they may send their technical personnel to the state serology laboratory for refresher

training and we wish it to be on record that we welcome the opportunity to serve in this capacity.

In May of 1963, a bill was passed providing for the licensing of all blood banks. There are approximately 113 licensed blood banks in New Jersey. Previous to this date, about 50 blood banks participated in an evaluation program in Rh and blood grouping voluntarily and the serology program sent out the unknown specimens to them. The State Sanitary Code regulations also require that all bloods for transfusion use shall be tested for syphilis by standard methods. Around 80 of the licensed blood banks are already approved for syphilis serology. An evaluation program in syphilis serology was initiated in November for the 35 blood banks not on the approved list to fulfill the requirements of the Sanitary Code.

Requests for tests for leptospirosis, trichinosis, and Q-fever are sporadic and this year there was a decline in the number of tests performed. Anti-streptolysin titers and tests for infectious mononucleosis are still increasing in numbers, there being a 35 percent and 37 percent increase respectively.

Table 1. SEROLOGY STATISTICS, JANUARY 1, 1963-DECEMBER 31, 1963

	Calendar Year 1962	Calendar Year 1963
Routine Specimens for Syphilis .....	215,944	213,587
Routine Tests for Syphilis .....	238,087	239,596
Rh and Blood Grouping (January-June) .....	55,000	25,729
Miscellaneous Tests .....	4,927	5,353
KRP .....	3,403	3,367
FTA .....	64	1,044
Blood Bank Evaluation Specimens .....	204	330
Field Program Evaluation .....	14,190	14,740

### Virology Program

There was a 40 percent increase in the work processed in the Virology Program over the previous year's total. This was accomplished by changes in work methods; increased skill and experience in handling large numbers of specimens and animals; the availability of more space at the Donnelly Hospitals; and the addition of three new employees.

The arbovirus study, aided by a grant from the National Institute of Health, in collaboration with the Veterinary Public Health Program and other State agencies, has furnished basic information on the occurrence of

past arbovirus infection among the human population in the state as well as possible reservoirs among the animal and bird populations.

The Willingboro community study, also aided by an N.I.H. grant, gives the best index of viruses occurring among the residents of New Jersey. Mass polio immunizations throughout the state have posed the problem of differentiating between vaccine and wild polio strains. Methodology is being developed to accomplish this differentiation.

Despite the retrospective character of virus diagnosis by laboratory methods, trends indicate a growing demand for this service as an aid to clinical diagnosis. The laboratory facilities in the new Health-Agriculture Building will greatly improve the diagnostic services and the investigative activities necessary to supplement them in an over-all program of virus detection and control in New Jersey.

Table 1. WORK LOAD DATA, VIROLOGY PROGRAM, JANUARY 1-DECEMBER 31, 1963

Specimens Received .....	22,127
Tests Performed .....	192,432

*Type of Tests:*

Virus Isolation and Identification .....	110,061
Serologic Tests .....	82,371

## 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 .....	ISIDOR MARKOWITZ, 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 primary function of the Division of Local Health Services is to assure the well being of citizens and visitors of this state by stimulating the development and maintenance of effective community health services in all areas of the state and to meet needs of all citizens so that their health is protected, and so that disease is controlled and disability is minimized. The Director of the Division operates through the staffs of the four State Health District Offices. Each of the Districts is staffed with a complement of professional consultants in each of the major public health disciplines. The staff of the Division presently consists of 73 professional and 35 office workers. Its major functions are:

1. Advising with and bringing to the attention of community health agencies both official and voluntary, municipal and county officials, civic organizations and citizens generally, public health problems and needs, making known to them acceptable methods of meeting these problems and needs, and assisting them in definitive health planning. The Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments which have been promulgated by the Public Health Council in accordance with the New Jersey statutes are the authoritative basis for these activities. Screening type surveys of local health services using an evaluation schedule based upon the Recognized Public Health Activities and Minimum Standards of Performance are being made by a special survey team in the office of the Division Director.
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 an 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 specifically assigned activities of the State Department of Health programs. Specific assignment of activities is contained in the written Departmental programs and is based upon the following criteria:

In general, those program activities which are or should be a local agency responsibility shall be a District office operation; whereas, those program activities which are, and are likely to continue to be, permanently a responsibility of State Government shall be a direct operation of the central program units. Those local activities which are State Government responsibilities and which are in a developmental stage requiring maximum cooperation of local officials and agencies and maximum popular support may for that stage be assigned as a District office responsibility. The provision of such services is therefor made a part of the overall effort to induce communities to engage in and maintain a full program of local health services consistent with local needs.

During the past year, significant progress has been made in reorganizing and modernizing the health departments in Newark and Elizabeth. The county health departments in Cape May and Cumberland Counties have continued to grow both in program content and staff. A city-county health department has been organized in Atlantic City and Atlantic County and Dr. Max Gross has been appointed as Health Coordinator. The Board of Freeholders of Salem County has passed the appropriate authorizing resolution and is making budgetary provisions for a county health department.

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.

### *Report of Survey Team*

With the adoption of Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments by the Public Health Council, effective April 1, 1961, it became necessary to determine the extent of compliance by local boards of health.

In order to evaluate compliance with this provision of the law, a fact-finding apparatus was set up within the Division of Local Health Services. The first step was to construct a survey schedule so that the health services available to the citizens of each municipality could be measured as objectively as possible in terms of the standards. The next step was to staff a survey team and to develop administrative techniques for carrying on the surveys. It was recognized immediately that, faced with 567 municipalities, we must necessarily be satisfied with a screening type of appraisal rather than a survey in depth. Such an evaluation would bring out the deficiencies as measured against the "standards." It was also recognized that the facts brought to light must serve two purposes. They must serve to inform the board of health, the governing body, and the citizenry, of deficiencies in health services. They must also serve as evidence, if and when, the Commissioner should find it necessary to recommend to the Attorney General that legal action be instituted to compel compliance.

Ninety-six evaluation surveys have been made by the survey team in rural and suburban communities as indicated in the following table:

	<i>Central</i>	<i>Metropolitan</i>	<i>Northern</i>	<i>Southern</i>	<i>Total</i>
1961	7	0	11	4	22
1962	25	6	1	6	38
1963	11	2	23	0	36

Efforts of the survey team have been concentrated on the Central and Northern State Health Districts. The Central District State Health Officer planned the surveys so that groups of contiguous municipalities in a county were surveyed within a short period of time. In this way, it was possible to show their mutual and overlapping problems and to develop their interest in planning for regional organization of health services. In the Northern District, a similar effort was made on a full county basis. The 23 municipalities surveyed included all but one community in Sussex County.

As a consequence of these evaluations of local health services, the following results have been achieved:

*Central District*

1. South Brunswick Township Board of Health has employed a full-time licensed Health Officer.
2. Brick Township has employed a licensed Sanitary Inspector, First Class.
3. Lakewood now has a full-time licensed Sanitary Inspector, First Class.
4. Cranbury Township has employed the consultation services of a licensed Health Officer.
5. South Brunswick Board of Health has contracted with a qualified visiting nurse association for public health nursing.

Furthermore, as a result of interest created by these surveys, Long Beach Township is attempting to stimulate interest in a regional health unit for Long Beach Island.

Central District personnel met with the Ocean County Freeholders to encourage the formation of a county health unit. District personnel are also making plans to meet with municipal officials and boards of health to encourage the formation of regional health commissions in the central part and southern part of Middlesex County and a regional health commission for suburban Mercer County.

*Northern District*

Stanhope Borough Council has contracted with a qualified nursing agency for public health nursing.

Experience of the survey team has indicated that surveying contiguous municipalities in a selected area, especially in less densely populated areas, with the objective of encouraging regional or county health units, holds the most promise for providing full-time public health services most economically to the citizens of these areas.

*District Activities*

The four 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 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.
2. To promote a coordinated program of optimum local health services.
3. To guide and advise local health agencies, both official and voluntary, in all phases of organization and program.

4. 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.

5. To carry out the programs of the State Department of Health by performing all assigned 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.

6. To assist in conducting evaluations of the local and State health programs.

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 four 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 ..	4	1	1	1	1
Principal Sanitarian .....	3	vacant	1	1	1
Senior Sanitarian .....	5	2	1 &	1	1
			1 vacant		
Sanitarian .....	8	2	4	1	1
Assistant Sanitarian .....	2	..	..	1	1
Public Health Veterinarian .....	4	1	1	1	1
Rabies Control Warden .....	5	1	2	1	1
District Consultant Community Health Organization .....	4	1	1 &	1	1
			1 vacant		
District Consultant Medical-Social Rehabilitation .....	3	1	vacant	1	1
District Consultant Public Health Nutrition .....	3	1	1	1	vacant
District Chief Public Health Nurse ..	4	1	2	1	vacant
Public Health Nurse Supervisor ..	12	1	4	4	3
Public Health Nurse .....	..	vacant	..	..	..
Senior Public Health Physician .....	4	1	3	..	..
Physical Therapist .....	..	..	..	..	..
Industrial Hygienist .....	1	1	..	..	..
Assistant Industrial Hygienist .....	..	..	vacant	..	..

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

*Central 22.5*

Burlington  
Mercer  
Middlesex  
Monmouth  
Ocean

*Metropolitan 53.1*

Bergen  
Essex  
Hudson  
Passaic  
Union

*Northern 9.4*

Hunterdon  
Morris  
Somerset  
Sussex  
Warren

*Southern 14.8*

Atlantic  
Camden  
Cape May  
Cumberland  
Gloucester  
Stukey

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's most important events in terms of community health organization were the formation of a County Health Unit in Atlantic County, the setting up of oral poliomyelitis immunization campaigns in all six counties of the District, and the initiation of the Cape May County Community Health Study.

*Atlantic County*

On March 22nd, Dr. Samuel Salasin died, leaving the District's second largest city without Health Officer coverage. October 1st, Max Gross, M.D., was sworn in as Health Officer for Atlantic City and as Public Health Coordinator for Atlantic County. This marked the beginning of what will become the third county public health unit in the District. On October 22nd, the State Commissioner of Health designated Dr. Gross as Tuberculosis Controller for Atlantic County.

In December, the Public Health Coordinator presented his projected program and budget for 1964 to the Board of Chosen Freeholders, who gave it a very enthusiastic reception. This shows a realization by municipal and county officials of the advantages to be gained by having the county provide for public health services which the individual municipalities cannot support independently.

Early in October, District and central office representatives met with the Atlantic City Health Officer regarding the surveillance of food services in hotels and restaurants in the city. A plan of joint inspections by State Department of Health sanitarians and local sanitarians was devised. The results would establish a base from which the Health Officer could continue with an inspection program designed to bring about an upgrading of sanita-

tion practices. This was followed later in the month by a meeting with the executive group of the Atlantic City Hotel-Motel Association. The inspection plan was announced and it was decided to include room sanitation as well as the inspection of water supplies, inasmuch as many of the large hotels have their own deep wells, as well as city water. In both the restaurant and hotel inspection programs, representatives of the owners or management were invited to accompany the inspectors. The inspections were followed up by letters detailing deficiencies found, and recommending corrective action. In the case of the hotel water supplies, it was recommended that the uniform color-coding system of the American Society of Mechanical Engineering be used. District personnel had previously succeeded in getting all hotel private water supplies reinspected and protected by approved cross connections meeting state statutory requirements.

Plans were made with the Atlantic City Health Officer—County Public Health Coordinator to assist him in obtaining the services of a full-time nursing director who could coordinate the activities of most or all public health nurses in Atlantic County.

*Camden County*

The Community Health Services Committee of the Health and Welfare Council of Camden County held its first meeting in September. The District State Health Officer and District Consultant in Community Health Organization were named as members of this committee, as they had been in the case of a similar earlier committee. The charge to the new committee included a specific mandate to work toward the establishment of a county health department.

The District State Health Officer was again named as chairman of the Public Health Committee of the Camden County Medical Society, for the year 1963-1964.

The District office in Haddonfield was set up as the headquarters for the Victory Over Polio campaign of the Camden Medical Society. This continued from September through the end of the year and involved the activities of many professional and lay persons associated with the campaign to make the Sabin oral poliomyelitis vaccine available to the 400,000 residents of Camden County. The campaign had to be initiated on very short notice in September because of a serious outbreak of Type I poliomyelitis which had spread during the summer to all parts of Philadelphia. The Camden County Medical Society decided, because of the advantages to be gained from coordinated publicity, to schedule the feeding of Type I vaccine on the same date chosen by Philadelphia—September 22. Approximately three out of four persons living in

Camden County received the Type I vaccine at 50 clinics on the first Sunday or at a smaller number of make-up clinics a week later. This activity involved the recruitment and training of hundreds of individuals who volunteered their services for this community health project. It was without doubt the most extensive single activity on behalf of a public health objective in the history of Camden County.

An interesting development in the field of medical care took place at Cooper Hospital in Camden. Beginning on January 1, the Hospital put its services on a seven-day-a-week basis. This included operating rooms, X-ray department, physical therapy, laboratory, and certain other sections. It was anticipated that this important administrative change would eventually result in a 10 percent reduction in the average length of the patient's stay, or the equivalent of having 50 additional beds. This project had its origin two years before in January, 1961 when hospital services were put on a six-day-a-week basis.

In January, the Better Neighborhood Conference was held in Camden. It was sponsored by the Health and Welfare Council of Camden County, the Division of Health of Camden's Department of Health, Recreation and Welfare, and the Camden City Department of Planning and Renewal. Progress and the direction of rehabilitation and urban renewal were discussed, as well as the establishment of local better neighborhood councils.

The State Department of Health and the Division on Aging were requested to provide grant-in-aid assistance for a proposed neighborhood improvement project in the City of Camden. The funds sought would be used for the employment of a specialist in community organization. Work toward the organization of neighborhood councils was already under way in connection with this project.

The grants, totaling \$9,000, were provided in appropriate contracts. These contracts were implemented on July 29 with the employment of a qualified full-time program coordinator. By year's end, the Advisory Committee, on the recommendation of the program coordinator, had approved three neighborhood councils and arranged for the presentation of charters. Work with several other community groups was in progress.

Mental health activities were given considerable attention during the year by both the District Consultant in Medical Social Rehabilitation and the District State Health Officer. In February, plans were completed for the establishment of an Adjustment Center to be operated by the Camden County Mental Health Association. The Division of Mental Health and Hospitals of the Department of Institutions and Agencies made a grant to permit activation of the program. A professional social worker experienced in group work was

employed as Director of the Adjustment Center as of September 30. The records of discharged mental patients were reviewed to determine eligibility and suitability for this project. It was anticipated that the first patients would be received early in 1964. The District Consultant in Medical Social Rehabilitation served as a member of the committee which planned this project.

#### *Cape May County*

In mid-February, a representative of the National Commission on Community Health Services discussed their Community Action Studies Project with Department staff members and a local ad hoc committee. Twenty communities were to be selected throughout the United States. Enthusiastic support for a Cape May County health survey was expressed by the representatives of the various groups and municipalities. A formal application for approval as a study area was then prepared by the County Public Health Coordinator and submitted on behalf of the Board of Chosen Freeholders, which had agreed to sponsor such a survey. On March 11, word was received from the National Commission on Community Health Services that Cape May County had been selected as one of the first of the 20 communities in the nation to be included in the project. On April 8, a full-time study coordinator was employed, who had had previous experience in the field of health surveys and community health organization. A grant-in-aid by the State Department of Health helped to finance the study. District and other Department personnel began at once to provide basic information to the study coordinator. By June, an eight-page preliminary community profile had been prepared and submitted by the study coordinator for review by the large study committee. During the summer, preparatory meetings were held by the study coordinator with several individual project committees.

This county-wide survey is unique in the recent public health history of New Jersey and important because of the national attention which it will bring to Cape May County and to the state.

In March, an editorial appeared in a weekly newspaper circulated throughout the county, giving strong support to the office of the County Public Health Coordinator and to the community health study which had recently been approved. It is noteworthy that this editorial not only emphasized the importance of good health to a county whose economy is tied to the tourist trade, but also stated that public health had heretofore been "hamstrung by ineffective local boards of health, most of which had not the faintest idea of the reason for their existence except that the law required each community to have one." This editorial evidencing local understanding and support of public health was reproduced in part as a feature in the newsletter of the New Jersey Public Health Association.

The office of the Public Health Coordinator was strengthened during the year with the employment of additional staff so that they now have three sanitary inspectors holding a first grade license. This was accomplished through the initiative of the Coordinator who arranged with the Freeholders to employ interested individuals as sanitarian trainees, who subsequently qualified by passing the licensure examination required by the State Department of Health.

The Coordinator's office continued to be served by a public health nurse supervisor who had been employed with grant-in-aid assistance by the Department in September, 1962. Toward the end of the year, definitive plans were made for setting up a county-wide bedside nursing service to be administered by the Coordinator's office.

Outstanding among the problems faced by the County Public Health Coordinator was sanitary sewage disposal. It had been estimated that about 8,000 homes, including 5,000 summer residences, were a source of pollution of the inland waterways. On February 20, the Coordinator set June 1 as the deadline for ceasing the dumping of raw sewage into these waters. The announcement was made at a meeting of local municipal and health officials, and backed by individual letters to property owners, on several occasions. Vigorous efforts were made by the Coordinator to interest local officials in setting up sewerage authorities and applying for Federal Public Works funds in order to achieve a long range solution to sewage disposal problems.

By year's end, it could be stated that New Jersey's first county health department was firmly established, that it had both the understanding and the all-important financial support by the Board of Chosen Freeholders, that its staff had been strengthened, and that it had made progress toward meeting some of the fundamental public health programs of the county.

#### *Cumberland County*

On April 22, a sanitary inspector was employed by the Cumberland County Public Health Coordinator's office. The Public Health Coordinator continued to supervise the activities of three part-time sanitarians employed by individual boards of health.

In June, a Public Health Nurse Supervisor employed for many years by the State Department of Health resigned to accept employment in the office of the Public Health Coordinator as a Public Health Nurse Director. This position, the first of its kind to have been established in a county health department in South Jersey, was supported by grant-in-aid contract with the Board of Chosen Freeholders.

#### *Gloucester County*

Meetings were held with officers of the Gloucester County Citizens Association, in order to orient them to public health problems in their county, and to the various legal means by which they may be solved. This Association had been recently formed as a result of stimulation by Penjerdel, and had a membership of about 100. The District State Health Officer and the District Chief of Environmental Health spoke to the membership on different occasions concerning the means for county-wide enforcement of the Recognized Public Health Activities and Minimum Standards of Performance for Local Health Departments in New Jersey, and stream pollution and sewage disposal problems in the county. Similar talks were also given during the year to other civic and health organizations.

#### *Salem County*

In May, the Salem County Council for Local Public Health Services decided to take further action toward the establishment of a county health unit including personal contact with individual Freeholders. Contacts were made with representatives of all interested agencies in the county and they were urged by the Council to submit resolutions to the Board of Chosen Freeholders urging the establishment of a county health department. This activity was essentially complete in October, and the resolutions were read at the November 20 meeting of the Freeholders. The District then received a request from the Freeholders for information re a grant-in-aid contract for the support of a county health unit.

On December 18, the Board of Chosen Freeholders unanimously passed a resolution creating the position of County Public Health Coordinator and providing that the services of the Coordinator and his staff should be available to participating boards of health on the basis of a contract for one dollar per year. This action set the scene for the creation of a fourth county health department in the Southern State Health District, all using the County Public Health Coordinator system.

#### *Northern State Health District*

1963 was characterized by practical community planning for services and development of realistic attitudes toward use of local capabilities and resources. Concrete evidence of this is seen in the following accomplishments: County-wide diet counseling services were established and county-wide diabetes screening programs were conducted in all five counties. A successful campaign was conducted in Wharton leading to the fluoridation of the potable water supply. The tuberculosis control program in Sussex County was integrated



into the County Department of Health and Welfare Services. An awareness of need for administratively feasible operational organization of local health services is noted among citizens, local officials, and in civic and professional groups. With the increased amount of chronic illness and long-term care required, emphasis is again being placed on home nursing services. This emphasis, together with the preventive services, makes increasing demands on public health nursing in both voluntary and official agencies.

Requests for direct services of our environmental staff have increased this year. These requests have been primarily from local boards of health which are either not able to or unwilling, because of cost, to supply the environmental health needs of their increasing population. On the other hand, more of the boards of health have obtained the services of licensed sanitarians. These services range from just a few special needs to the entire environmental health needs as they see them.

The transfer of the routine inspection programs carried on by the District in the past to the various Central Office Program Units should permit our staff more time to concentrate on improving and strengthening the total public health services of the local boards of health. The strengthening of our own forces by the training of two of our sanitarians at the East Orange Training Station should further improve the quality of the environmental health services and advice offered to our local boards of health. The environmental health programs of the Northern District have operated with a limited staff due to the time lost for the advance training of two sanitarians and the retirement of one sanitarian.

The following activities indicate some of the major efforts in the development of community health resources:

#### *Hunterdon County*

District staff assisted the Hunterdon County Study Committee throughout the year in its deliberations regarding the initiation of health services. The survey data were brought up to date, cost of service data were secured from other counties, and resource speakers from other counties were secured. Plans were made for a county-wide public meeting in the fall and this meeting was held in the middle of December. As a result of this meeting, the Committee anticipated that definitive action to provide qualitative area-wide services will be forthcoming after the first of the year.

State grant-in-aid was continued for the additional public health staff of the Family Nursing Service of the Hunterdon County Public Health Association. This agency will be incorporated on January 1, 1964 as a separate agency and shall be called Family Nursing Service of Hunterdon County, Incorpo-

rated. In 1961, this agency had public health nursing contracts with 12 municipalities. This was increased to 13 in 1962 and to 15 in 1963. There are three contracts with boards of education.

#### *Morris County*

The grant-in-aid contract for the public health nurse supervisor to the Visiting Nurse Association of Morris County was extended for the second year. During this year, the Visiting Nurse Association contracts with boards of health were increased from six to 10 communities and many more visits to the sick at home were made. Child Health Conference stations were opened in Chester and Lincoln Park with public health nursing provided by the Visiting Nurse Association. Parochial school nursing was also extended to the contractual communities. The increased activities as well as increased staff necessitated a second supervisor for the agency which was provided through a grant-in-aid contract effective September 16, 1963. A committee has been set up to plan for a sub-station in the northeastern area of the county since it has the greater population at this time. A third station in the northwestern area seems indicated in the future.

#### *Somerset County*

Several conferences were held with one of the Somerset County Freeholders in regard to implementing the recommendation of the 1961 Citizens Health Committee calling for a county health service. A revised proposal was prepared in terms of the currently operating procedures for providing selected health services under the county administration. Although assistance was given to the program committee of the Municipal Officers Association, no action was taken by this group.

The grant-in-aid to the Somerset Valley Visiting Nurse Association for a senior public health nurse and other administrative costs was terminated on December 31, 1963. Recruitment of qualified public health nurses and municipal payment on a fee-for-service basis continue to be problems for this agency. Grant-in-aid for physical therapy consultation was made available to the Visiting Nurse Association of Somerset Hills and to the Somerset Valley Visiting Nurse Association.

#### *Sussex County*

Early in the year, District staff worked with a representative of the Stillwater Taxpayers Association on plans for the promotion of a Technical Sanitation Center for Sussex County. Program and District staff assisted the local organization on compiling statistics and developing a plan for such a

service. Evaluation surveys were made of the 23 municipalities (Sussex County), preliminary reports were completed on 13 (12 Sussex, 1 Warren), and six conferences were held with municipal officials (4 Sussex, 1 Warren, 1 Somerset). A county-wide spot check of food establishments was made by District staff in January and February, 1963, followed by a return spot check in June. A review of veterinary public health and communicable disease problems and needs was also made during the first six months of the year. The editor of the local newspaper published the results of the sanitation survey and featured the work being done by the Evaluation Team in the county. Several conferences were held with members of the Board of Freeholders in regard to plans and possibilities for a county-wide health service. By the end of the year, it was anticipated that the Freeholders would be willing to initiate such a service in 1964.

The Sussex County Department of Social and Health Services, established on July 1, 1962, had a full-time director, two full-time and one part-time staff nurses by the end of the year. Total visits made from January 1, 1963 to December 31, 1963 were 2,619; 687 of these were made to the 65 year and over age groups. Visits to the chronically ill totaled 1,052. Increased staff to meet these calls prompted a request for additional grant-in-aid assistance which became effective on April 15, 1963. A medical advisory committee was appointed by the County Medical Society. Parochial school nursing has been requested and is being made available to the schools of Sparta. Similar requests have also come from Newton and Sussex. Efforts are continuing to integrate the tuberculosis program with the generalized nursing program.

#### *Warren County*

Following the Governor's Conference on Community Nursing, public health nursing supervision was terminated. The need for a county-wide comprehensive public health nursing agency continues to be a vital one in Warren County and members of the District staff are continuing in their efforts to assist in establishing this service. The Director, Division of Local Health Services, participated in a spring meeting of the Warren County Medical Society to discuss public health nursing problems and needs in the county. The Medical Society concurred with the need for such a service in the county and requested the Health Committee of the Warren County Welfare Council to initiate action toward the establishment of such a service.

#### *Central State Health District*

Continued emphasis was placed upon surveying local boards of health to determine their degree of compliance with the "Recognized Public Health

Activities and Minimum Standards of Performance for Local Health Departments in New Jersey." Eleven additional municipalities in the Central State Health District were surveyed during the year, making a total of 43 since these surveys were initiated. District personnel and the Survey Team held meetings with local boards of health and governing officials in 17 municipalities during the year to review the Survey Team's findings and recommendations.

In order for these municipalities to comply with the "Recognized Activities Standards," the District State Health Officer initiated moves to establish three regional health commissions as follows: One in the central part of Middlesex County which would include the Townships of East Brunswick, Madison, and North Brunswick, South Amboy City, and the Boroughs of Milltown, Sayreville, and South River; one in the southern part of Middlesex County which would cover the Townships of Cranbury, Monroe, South Brunswick, and Plainsboro, and the Boroughs of Helmetta, Spotswood, and Jamesburg; another in the northwestern part of Mercer County which would include the Townships of Ewing, Lawrence, and Hopewell, and the Boroughs of Pennington and Hopewell. Documentary material has been completed and is being submitted to the local officials and meetings are scheduled.

Documentary material has also been completed and submitted to the Freeholders in charge of health matters in Monmouth, Ocean, and Burlington Counties with a view toward the establishment of county health departments.

District staff cooperated with the Migrant Health Project in planning services for agricultural migrants. At the close of the season, hospital social workers, nurses, and welfare department representatives from Mercer, Middlesex, Monmouth, and Ocean Counties met to discuss mutual problems and projected plans.

During the year, more intensive, direct assistance in nutrition to community groups and agencies has replaced activities of a promotional nature. In some cases, direct assistance has been given where nutrition services have not been available, or where existing community resources have not been utilized.

A major change in policy transferred routine water inspections from the Districts to the General Sanitation Program. Until this Program is sufficiently staffed, however, assistance in routine inspections is being made by District personnel.

Efforts have been made to promote fluoridation by supplying feasibility studies and preparing cost figures for many municipalities. The studies have been limited to those supplies which involve, for the most part, a single municipality and which do not entail great cost. Lack of rainfall has empha-

sized the need for elimination of the many shallow individual wells. The lowering of the ground water table subjects the well to pollution and, in many instances, complete failure of the supply. Emphasis has been placed on having homes connected, where possible, to public water supplies. Also, the development of plans to cover regional areas by public water supplies is being promoted.

Consultation was provided architects, the Federal Housing Administration, Veterans Administration, developers, contractors, State and local agencies, engineers, and others concerning the installation and construction of individual subsurface sewerage disposal systems and sewage treatment plants, including their appurtenances. Random surveys of individual subsurface sewerage disposal systems were conducted throughout the District to determine the extent of problems associated with them. Reports of the surveys were forwarded to the responsible local officials, who in most instances have instituted measures to alleviate indicated problems. Population expansion continues throughout the District, requiring additions to present school structures or the building of new schools. District personnel have been involved in studying proposed water and sewage facilities, and making pertinent recommendations to the State Department of Education. Many schools are built in areas devoid of sewage treatment plants and the only alternative is a subsurface disposal method, often in unfavorable soil conditions. Advice and assistance are freely extended to local boards of health in the application of the standards in Chapter 199, P. L. 1954, regardless of the number of homes in a development. This service is often urgently needed in rural areas lacking well-trained personnel.

Inspections of the refuse disposal sites located in this District disclosed a general improvement. Several, however, were maintained in violation of the State Sanitary Code. Attempts were made in all instances to persuade the concerned officials to employ techniques conducive to the operation of a good sanitary landfill. Persistent and uncooperative violators were cited for legal action.

Inspections disclosed that 56 camps met State standards of sanitation, health and safety; they were then issued certificates of approval. Ten others were not certified. Six lake-bathing places were found to be in compliance with State standards for the Program.

District personnel instituted inspections relative to enforcement of Chapter IV of the Air Pollution Control Code. Violations were recorded at several industrial plants located in Middlesex and Mercer Counties, also at a hotel located in Monmouth County. In each case, reports were forwarded to the Program for appropriate action.

The District has fully supported local boards of health in gaining corrections and improvements of substandard housing conditions. To improve local housing conditions, municipalities were encouraged to adopt the State Housing Code.

#### *Burlington County*

The Burlington County Council of Parents and Teachers was assisted in furthering the self-survey health services study which was started in 1962. However, since a new Health Chairman was appointed, and since certain emergency priority projects were requested of the Council, the final report of this self-survey study has been delayed. The survey, when completed, will be used to generate support for better local health services.

Various organizations which had met to discuss plans to further the Governor's Conference on Community Nursing Services felt that the need for full-time county-wide health services was a higher priority. A representative of the Burlington County Component Medical Society believed that the Society would be interested in donating excess funds, which they had accumulated from the "Sabin Oral Sunday," into a plan for a County Public Health Coordinator position. The District prepared background material which would be of help to the Society in presenting such a plan to the Board of Chosen Freeholders.

The Burlington County Component Medical Society, in cooperation with many community organizations, inaugurated and conducted the first county-wide oral polio program. Although only approximately 55 percent of the total population participated, this program was aimed at the ages up to 30 years. Counties which subsequently conducted programs yielding higher percentages of population covered included all ages. Many of the educational devices and organizational structures, which had been used initially in conducting the program in this county, served as a prototype in other counties.

Burlington City voters successfully secured, by referendum, the fluoridation of their public water supply.

"Tasting Luncheons" for dieters, sponsored by the Auxiliary of the Burlington County Heart Association, have received enthusiastic support from physicians and their patients in Burlington County. Assistance has been given to the Auxiliary in both the planning and presentation of the luncheons. Patients and their family members were referred to the luncheons by their physicians. A booklet prepared for each luncheon gave suggestions for using flavoring aids in food preparation, and contained recipes for each of the foods served at the luncheon. The sponsorship of this program by a lay group seems to have increased its educational value and enthusiasm for health education in the community.

An outgrowth of the "tasting luncheons" was a request received from the Director of the Lutheran Home, Moorestown, for a representative of the District to speak to food service personnel. Subsequently, seven other homes for the aged in this area received the same service. Participants were shown how to evaluate their menus for nutritional adequacy, as well as other factors involved in menu planning. A representative of the Bureau of Community Institutions, Department of Institutions and Agencies, also participated in these meetings.

A diet counseling service began operation in September at the Burlington County Memorial Hospital. An awareness of the desires of the physicians in the community for improved diet instruction for patients was instrumental in initiating the service. The Department is giving financial assistance to support the initial period of this activity. The Burlington County project is the first full-time service, and the only one of seven existing services throughout the state, which is hospital-based.

#### *Mercer County*

The adoption of fluoridation by Council action in the City of Trenton was of particular significance, since this community had some years previously rejected fluoridation by referendum. The time and efforts of many citizens, officials, and Department personnel contributed to its success.

A follow-up meeting of the Governor's Conference on Community Nursing services was held with representatives from various civic and health organizations in the county, and a steering committee was formed. A permanent committee will be created, under the leadership of the executive director of the Mercer County Tuberculosis and Health Association, to study and make recommendations on community nursing services in the county.

In keeping with Departmental policy, supervision of nurses in official agencies in the municipalities of this county will be discontinued January 1, 1964. Prior to that date, a meeting of District personnel with representatives of these agencies was held, in order to explain the change in policy. Monthly in-service educational meetings were conducted for the nurses of official agencies in the municipalities of this county.

Assistance was rendered in establishment of the Trenton Visiting Home-maker Service, Inc., under the auspices of the Mercer Street Friends Center.

#### *Middlesex County*

Several communities south of the Raritan River in Middlesex County have expressed an interest in a Regional Health Commission plan in order to secure full-time health services. A plan has been prepared which would logically

divide this area into two Regional Health Commissions. Detailed background and supporting material has been prepared for these two Commissions.

At the request of the District, the Middlesex County Chapter of the American Cancer Society and the County Superintendent of Schools held a successful one-day Cancer Institute for selected public and parochial school teachers, at which time the Teacher's Reference Guide on Smoking and Lung Cancer was introduced.

The recommendations of the Public Health Nursing Committee for a Unified Community Nursing Service have been accepted by the Board of the Community Welfare Council of New Brunswick. This Committee has been disbanded and replaced by an autonomous "action committee," as recommended by the Board of the Council. District personnel and the National League for Nursing consultant assisted in the advancement of this project.

Consultation was offered to a committee on the Community Welfare Council of New Brunswick and vicinity; its goal is to establish a sheltered workshop to serve a two-county area.

#### *Monmouth County*

A member of the Monmouth County Board of Chosen Freeholders expressed interest in the establishment of a County Health Department. The District prepared extensive background material to acquaint this Freeholder with the functions of a County Health Department and the activities and duties of the Health Officer who would serve as County Public Health Coordinator. At a meeting, under the auspices of the Monmouth County Welfare Council, the Freeholder, with the support of the State Department of Health, presented this plan to the various organizations attending.

Residents living around the Shark River basin became greatly concerned with the stream pollution problem in this area. Many meetings were held with interested groups, and an attempt was made to have them organize a permanent committee to study and find a solution to present and future pollution problems.

An intensive program of nutrition consultation was provided in the county, at the request of the Monmouth County Organization for Social Service. A series of observations, conferences and demonstration home visits was conducted at hospitals, child health conferences, pre-natal clinics, and health centers. Attempts made to demonstrate how nutrition services could be utilized in an agency of this size revealed many of the problems confronted by the health team, also how nutrition can be an essential part of the activities of such an agency. Preliminary plans have been made for the establishment

of a diet counseling service in Monmouth County. The Monmouth County Organization for Social Service has agreed to sponsor the service, when it can administratively undertake this responsibility.

A positive step resulting from the Governor's Conference on Community Nursing Services was the contracting by the Borough of Freehold for public health nursing services from the Monmouth County Organization for Social Service. Criteria evaluations of public health nursing agencies, for approval of Departmental contracts, were completed. All agencies in this county, with the exception of one, have been evaluated. Through the efforts of District personnel, the supervisor of the Public Health Nursing Association of Long Branch, with the approval of the Board of that Association, has been encouraged to complete her undergraduate qualifications. At the request of the Ocean Township Board of Health representative, District personnel completed a survey of public health nursing services in the Township and submitted a final report.

#### *Ocean County*

A new film, "Town Against TB," was produced in Dover Township, by a drug company. This film shows how the Tine Test can be effectively used in locating tuberculosis cases. The Ocean County Tuberculosis and Health Association coordinated the activities of the steering committee of which the District was a member. The committee was able to accomplish, through careful planning and cooperative effort, an excellent film, as well as a thorough case-finding program in the community.

The first out-patient clinics in Ocean County were opened at Paul Kimball Hospital, Lakewood.

#### *District-Wide Activities*

The Coordinator of the Vaccination Assistance Program was assisted by the District in establishing immunization programs in Mercer, Middlesex, Monmouth, and Ocean Counties. Assistance was also given to the respective county chairmen in implementing their programs.

Epidemiological studies were made on selected reports of communicable disease. Investigation of animal diseases transmissible to man included salmonellosis, leptospirosis, and psittacosis. Diseases considered human in origin included typhoid fever, shigellosis, and viral hepatitis. During the past year, rabies in bats continued to be a threat to our people and animals. Four rabid bats were found in Mercer County, two in Burlington County, and one in Middlesex County. To combat this threat of rabies to our pets, the annual anti-rabies vaccination program of free clinics was revitalized.

Informational letters were sent to all local health departments, and second clinics were held in strategic areas. Over-all, 90 percent of the municipalities held one or more clinics; 39,700 pets were vaccinated. Routine inspections were made on kennels, pet shops, dog shelters, and pounds. With few exceptions, inspection reports were satisfactory, indicating a high level of compliance with sanitary and administrative regulations. Consultations were held with local health personnel for education and training in all phases of dog control. Physicians requesting policy were advised of recommended prophylaxis in the treatment of patients who might have been exposed to rabies.

Consultation was provided for 49 child health conference sessions. In-service training courses for public health nurses were conducted in the several counties. District personnel participated in the workshops "Play for Children in Hospitals" and "Feeding Children in Hospitals."

District personnel cooperated with the Coordinator of the Accident Prevention Program and the Division of Laboratories in a case-finding project on lead poisoning.

### **Metropolitan State Health District**

#### *Community Health Services*

The achieving of Minimum Standards in Recognized Public Health Activities for every community remains first in program objectives for the District staff.

During the past year, because of the Governor's Conference on Public Health Nursing, programs have centered to a larger degree on community nursing services. Citizens have responded with constructive thinking and action to the need for implementing existing nursing services, and filling gaps of non-existent services has been given top priority in planning.

Citizens groups have also continued to show interest in securing for their communities compliance with Recognized Public Health Activities and Minimum Standards of Performance. Civic groups in two local communities, Belleville and Ridgewood, are now in the process of studying community health services.

Requests for assistance in planning in problem areas which affect the youth, particularly the teenagers, have increased steadily. These appeals have come from all kinds of community groups, including religious organizations. "The school dropout," venereal disease, and narcotic addiction have received special consideration.

In recognition of District efforts, Dr. Harrold Murray, chairman of Health-Mental Health Committee, New Jersey Youth Commission, appointed the District State Health Officer to serve as chairman of the subcommittee on Venereal Disease in Teenagers. The director of Division of Preventable Diseases acts as consultant to the subcommittee. The group has been organized and has had several exploratory sessions in efforts to implement existing programs. The subcommittee may also recommend new programs by legislation, if necessary, as workable parts of the State's overall program.

### *Bergen County*

#### *Preventable Disease Programs*

##### *Communicable Disease—Vaccination Assistance Project*

"Making Sabin Vaccine available to everyone over six weeks of age to 106 years in order to eliminate polio," describes an important area of service in 1963. Staff members, working with personnel assigned through the Vaccination Assistance Project, have participated with members of county medical societies in numerous conferences designed to stimulate and promote county-wide oral vaccine projects.

The five medical societies of Bergen, Essex, Hudson, Passaic, and Union Counties have assumed sponsorship of the Sabin Oral Programs. Scheduled dates for administration of the vaccine are 3-1, 4-12, and 5-24-64. Many interested citizens, health officers, pharmaceutical groups, the press, radio, television, and voluntary organizations are cooperating in promoting the project.

The Bergen County plan is being cosponsored by the County Superintendent of Schools and the Medical Society. The program will be conducted in public and private schools.

The Union County project is being assisted by the county freeholders.

The Hudson County plan is being assisted through cooperation of many county and municipal officials.

The program in its entirety represents an enormous organization of civic-minded citizens determined to protect people from one of the world's most crippling diseases.

### *Public Health Nursing*

Plan—A "case study" of one community is being developed to show: an outline of a total community nursing program; priority of implementing the program, comparison of cost of buying service as opposed to a local board of health nurse, with advantages and disadvantages of each

approach. A work-shop is being planned. Sponsors of the work-shop will include: Health and Welfare Council of Bergen County, Bergen County Medical Society, the Bergen County Health Officers' Association, Bergen County Public Health and Sanitary Association, the New Jersey League for Nursing, and the New Jersey State Nurses Association.

### *Englewood Survey*

The Subcommittee on Health, Community Development Committee of Englewood, completed its evaluation of public health services. In a discussion of the report, it was pointed out "that with the finishing of the factual survey, actual work has only begun." Serious study and planning should begin immediately in the areas of nursing services, coordinated facilities in chronic illness control, and progressive planning in weak areas.

### *Ridgewood Survey*

The League of Women Voters has instituted a study of local health services. Subcommittee chairmen have been appointed.

### *Garfield Survey*

Plans have been instituted to follow through with the Garfield Board of Health on recommendations made in the evaluation of local health services by the survey team from Local Health Services.

### *Essex County*

#### *Narcotic Addiction*

Appeals for help and requests for information regarding facilities for treatment of drug addicts and for procedures for admission to hospitals inspired staff members to call a meeting of leading professional and lay people of Essex County, interested in narcotic drug control, to acquaint each other with current programs in the narcotic control picture. As a result of discussions of existing programs and needs, the group voted to become an independent, county-wide study committee.

At the present time, a demonstration project for probable treatment and rehabilitation of the narcotic addict is under consideration. Agency representatives have been assigned to find out to what extent their respective agencies can offer facilities in the cooperative demonstration.

Contact has been maintained with the chairman of the Legislative Narcotic Drug Study Commission concerning this committee.

*Newark-Essex Area Community Health Services Survey*

A survey of "health service areas" which includes Essex County and West Hudson has started. The study is being conducted in cooperation with the National Commission on Community Health Services. Application for the survey was submitted by the Hospital and Health Council of Newark and vicinity. The project will be financed by the Essex County Freeholders, Mayor and City Council of Newark, voluntary health agencies, Essex County Medical Society, and the New Jersey State Department of Health.

A project coordinator has been employed. The project plan provides for a self-study by a Citizens Committee assisted by professional and lay health leaders who will be assigned to (1) Collect data, (2) Assess services, (3) Establish a plan of action.

Office space for the survey staff is being provided by Prudential Life Insurance Company at Prudential Plaza, Newark.

*Belleville Survey*

An evaluation of public health services in Belleville is being conducted by a citizens group in cooperation with the Health and Welfare Council of Newark and vicinity. Subcommittees have been appointed. The Evaluation Schedule is being used as the guide. This survey was started before the Newark (and area) survey; its findings will be meshed with those of the Newark group.

*Cedar Grove Survey*

Follow-up conference and plans are under way in regard to recommendations made by the survey team from Local Health Services. The resignation of the City Manager, who was a strong supporter of the survey, has resulted in a need to build up new interest.

*Newark**South Side Expanding Opportunities for Newark Youth Project*

The objective of the South Side Opportunities for Newark Youth Project, introduced by the director of the Urban Studies Center, Rutgers University, is to plan a comprehensive program which will be helpful in increasing the over-all performance of the youth in the South Side School area. Task force areas were concerned with: Employment, Housing and Planning, Education, Social Work, Health and Welfare, Tenant Relations and Relocation, Recreation, Cultural Programming and Library Facilities,

Juvenile Delinquency Prevention and Correction, Business Development, and Community Organization.

District staff, together with the members of the Newark Division of Health and Department of Education, reviewed health services available in the area and discussed methods and measures to augment these services.

Included in the several aspects were:

- (1) Discussion of high incidence of tuberculosis in Newark and gaps in the control program between the schools and the Division of Health, particularly as related to positive reactors in the tuberculin testing of students. Recommendations were made to correct the problem.
- (2) Suggestions for improving nutrition among students. Proposals were made for utilizing the services of home economists in the Newark area.

At the end of 14 months of operation, the entire project was revised, with major emphasis on schools. One phase of the Rutgers-Newark Health Committee's interest in dental rehabilitation of school dropouts has been continued through a special project grant from the Crippled Children Program, with the Dental Program, Newark Beth Israel Hospital Dental Clinic, Youth Careers Development office (N. J. Department of Labor and Industry), and District staff coordinating efforts.

*Aging*

There continues to be an enormous interest in the provision of health services for the elderly. Despite a strong trend toward *separate* services in housing projects, the District has repeatedly emphasized the need to utilize existing community services; to augment them, if necessary; and to make them easily available to the aging, by a special referral and appointment system, providing transportation and establishing public health nursing follow-up.

As a means of obtaining basic data, a Pilot Health Survey (100 cases) of the Elderly in Public Housing in Newark was conducted, with the physicians of Metropolitan staff as enumerators. Cooperating in the survey were: director, Health and Welfare, Newark; Committee for Aging in Public Housing; Essex County Medical Society; Director of Management and staff, Newark Housing Authority.

*Hudson County**North Hudson Public Health Nursing Service*

The North Hudson Public Health Nursing Service has completed its first year of service to the five communities in the North Hudson area. The participating municipalities have been reluctant in signing contracts for services; however, they have paid in their respective communities for services rendered to residents who were unable to pay the fees on an individual basis.

Recognition by board members and staff that the acceptance and use of a new service in the community will require a stepped-up and intensified educational program has resulted in plans for expanding the public relations aspects of the program.

*Passaic County**Public Health Nursing*

The committee appointed by the president of the Passaic County Community Council is taking an active part in stimulating interest about public health nursing services in the county. A working conference is being planned for April. The purpose of the conference is:

1. To provide basic information concerning the functions of a public health nursing service in the community.
2. To join in a study of present services and needs in Passaic County.
3. To stimulate planning on the part of citizens towards the development, expansion, and strengthening of nursing services in Passaic County.

A complete survey of nursing services facilities will follow.

Passaic Tri-Hospital Home Care Unit (Passaic Beth Israel, Passaic General, and St. Mary's Passaic) is now functioning with a full complement of professional personnel. Their caseload has shown a steady increase. Plans are being made to work more closely with the three hospitals to facilitate referrals. Supervisor from Metropolitan State Health District was replaced by nurse coordinator employed by program 10-6-63. District office provided frequent consultations regarding nursing problems.

*Paterson**Foodhandler Training Course*

The Director, Department of Health, Paterson, expressed appreciation for assistance given in developing the plan for training food handlers

instituted in the fall of 1962. More than 1,000 food handlers have been trained. "Original requests to be excluded from the course have now converted to inquiries as to why they have not been called," reported the director. He further stated, "We consider this one of our most effective public health activities."

*Union County**Public Health Nursing*

Two public meetings have been held on nursing care. Attendance has included citizens and representatives of local health and welfare agencies. An action committee is being appointed to formulate a plan for community nursing services on a county-wide basis.

*Clark Township Survey*

Follow-up conference and plans are being set to implement recommendations made in the evaluation of health services by the survey team from Local Health Services.

**Grants-in-Aid for Local Health Services**

The total amount expended for grants-in-aid through the Division of Local Health Services during the calendar year 1963 was \$63,687.51. Contracts with local health departments for the support of child health conference services accounted for \$8,889.54 of this amount.

Exclusive of grants for child health conferences, five new contracts were entered into during the year. Four of these were for implementing public health nursing services and were made to the Board of Freeholders of Cumberland County, to the Visiting Nurse Association of Morris County, to the Board of Freeholders of Sussex County, and to the Town of Nutley. The other new contract was to assist in the conduct of a survey of community health services in Cape May County, a study made in cooperation with the National Commission on Community Health Services.

Contracts which operated prior to the beginning of the year and which expired at the beginning of or during the year were renewed for reduced



amounts with the following organizations: Cape May County for the public health coordinator, sanitarian and clerk; Cumberland County for public health coordinator, sanitarian and clerk; Hunterdon County Public Health Association for nursing services; the East Orange Health Department for conducting training courses and for services of a public health educator; and Rutgers—the State University for conducting courses in public health. The total amount expended during the year for new and renewal contracts was \$54,797.97. The distribution of this amount by type of service is shown in Table 1, by type of receiving agency in Table 2, and the payments to each grantee are shown in Table 3.

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

<i>For</i>	<i>No. of Contracts</i>	<i>Amount</i>
Public Health Nursing .....	5	\$15,996.89
County Public Health .....	5	22,409.07
Education and Training .....	3	8,700.00
Health Survey .....	1	7,692.01
Total .....	14	\$54,797.97

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

<i>For</i>	<i>No. of Contracts</i>	<i>Amount</i>
County Freeholders .....	5	\$22,409.07
Boards of Health .....	3	10,312.83
Visiting Nurse Associations .....	3	8,687.27
Public Health Associations .....	2	10,738.80
State University .....	1	2,650.00
Total .....	14	\$54,797.97

Table 3. GRANT-IN-AID PAYMENTS, CALENDAR YEAR 1963

<i>Grantee</i>	<i>Amount</i>
<i>For County Health Services</i>	
Cape May County .....	\$9,927.06
Cumberland County .....	10,022.01
Sussex County .....	2,460.00
	\$22,409.07
<i>For Public Health Nursing</i>	
Hunterdon Public Health Association .....	\$3,046.79
Visiting Nurse Association of Morris County .....	5,879.27
Somerset Valley Visiting Nurse Association .....	2,808.00
Nutley Town .....	4,262.83
	\$15,996.89
<i>For Public Health Education and Training</i>	
East Orange Health Department .....	\$6,050.00
Rutgers University .....	2,650.00
	\$8,700.00
<i>For Public Health Survey</i>	
New Jersey Tuberculosis and Health Association .....	\$7,692.01
Total .....	\$54,797.97

### Child Health Conference Services

Forty-eight grant-in-aid contracts with local boards of health for the support of child health conference services were in effect during the calendar year of 1963. Only three of these were new contracts, with Hamilton Township (Mercer County), Lincoln Park, and Paterson City. The remainder were renewal contracts. At the end of the year, 39 contracts expired and were not renewed. Each of the grantees had received three years of assistance with an annual reduction in the amount of the contract. The total amount expended through child health conference contracts was \$8,889.54. The distribution of this amount by municipalities is shown in Table 4.

Table 4. PAYMENTS FOR CHILD HEALTH CONFERENCE SERVICES  
YEAR 1963

<i>Grantee</i>	<i>Amt. Paid</i>	<i>Grantee</i>	<i>Amt. Paid</i>
<i>Central District</i>		<i>Northern District</i>	
Edison Township .....	\$512.00	Boonton Town .....	\$72.00
Ewing Township .....	96.00	Butler Boro .....	72.00
Hamilton Twp. No. 1 .....	96.00	Chester Twp. ....	108.00
Hamilton Twp. No. 2 .....	240.00	Lincoln Park Boro .....	48.00
Lawrence Twp. No. 1 .....	64.00	Phillipsburg Town .....	288.00
Lawrence Twp. No. 2 .....	192.00	Riverdale Boro .....	48.00
Monmouth County, Org. for Social Service .....	640.00	Washington Boro .....	96.00
Pemberton Twp. ....	240.00	Total .....	\$732.00
Riverside Twp. ....	48.00	<i>Metropolitan District</i>	
Washington Twp. ....	64.00	East Paterson Boro .....	\$192.00
Total .....	\$2,192.00	East Rutherford Boro .....	36.00
<i>Southern District</i>		Harrison Town .....	96.00
Alloway Twp. ....	\$72.00	Hawthorne Boro .....	96.00
Atlantic City .....	432.00	Hillsdale Boro .....	48.00
Bellmawr Boro .....	192.00	Kearny Town .....	336.00
Bridgeton City .....	96.00	Englewood City .....	560.00
Clayton Boro .....	96.00	Lodi Boro .....	192.00
Gibbsboro Boro .....	48.00	New Milford Boro .....	216.00
Gloucester Twp. ....	96.00	North Arlington Boro .....	96.00
Gloucester City .....	216.00	Paterson City No. 1 .....	833.54
Lawnside Boro .....	48.00	Paterson City No. 2 .....	1,040.00
Millville City .....	96.00	Prospect Park Boro .....	48.00
Winslow Twp. ....	192.00	River Edge Boro .....	96.00
Woodbine Boro .....	48.00	Rutherford Boro .....	144.00
Total .....	\$1,632.00	South Hackensack Boro .....	48.00
		Wood Ridge Boro .....	48.00
		Winfield Twp. ....	160.00
		Wallington Boro .....	48.00
		Total .....	\$4,333.54
GRAND TOTAL \$8,889.54			

### Civil Defense Medical and Health and Special Weapons Services

#### Community Planning for Emergency Health Services

Local and county civil defense medical and health officers requested and received guidance in developing community health plans.

Shelter water storage techniques and related local health mobilization problems were discussed at exploratory meetings attended by municipal civil defense directors and representatives of their respective health departments.

The Department's Diabetic, Nutrition, and Civil Defense Medical and Health Programs met to develop guide-lines for the diabetic-in-disaster. Recommendations included:

1. Replacement of Civil Defense Emergency Hospital insulin stocks with oral hypoglycemic drugs,
2. Consideration of diabetics as possible medical aides in disaster, because of their familiarity with hypodermic injections,
3. Use of cereal based survival biscuits by diabetics by adjustment of their insulin or hypoglycemic drug dosage.

Basic preliminary data have been compiled from miscellaneous departmental records by Environmental Health Division to assist the U. S. Public Health Service to revise and up-date its "Inventory of Public Water Supplies and Water Treatment Facilities and of Sewage Treatment Facilities in New Jersey."

#### Civil Defense Emergency Hospital—Up-dating and Contract Renewal Program

As a result of Presidential executive order 10958, the responsibility of national stockpiling of emergency medical supplies and equipment was delegated to the United States Public Health Service, Division of Health Mobilization. New storage agreements need to be executed for each of the 83 Civil Defense Emergency Hospitals already prepositioned in the state.

Once inspection deficiencies are corrected, only 12 have deficiencies remaining. Civil Defense Emergency Hospital units are eligible for the 30-day capability supply additions which are provided by Public Health Service, Division of Health Mobilization. The supply additions will be delivered in three or four increments. Forty of the state's units have sufficient storage space to qualify and 26 have already received supply addition number 1.

With the cooperation of State Civil Defense and Disaster Control, State regional personnel, County Civil Defense Coordinators, Local Civil Defense Directors and Civil Defense Emergency Hospital custodians, an inspection program of all Civil Defense Emergency Hospitals was initiated and 75 were found to be deficient to some degree. All but 12 units have completed the correction of the deficiencies; the remaining 12 are in process of correction.

Two Civil Defense Emergency Hospital training units equipped with generators, electric distribution lines, portable X-ray equipment, water pumps

with accessories, water storage and treatment tanks, gasoline fired stoves, instrument sterilizers, and auto-clave type dressing sterilizers have been adapted for loan to the counties. These units were used to train key hospital engineering and maintenance personnel, local health officials, and representatives of other governmental, civic, and volunteer organizations in the maintenance and use of the state's prepositioned Civil Defense Emergency Hospital units. This training program will eventually provide trained cadres for all Civil Defense Emergency Hospital operations should the need arise.

#### *Training Program—Prevention and Control of Mass and Environmental Casualties*

Eighty-four local health officers and sanitarians from all parts of the state attended a two-day seminar devoted to adapting their routine workday skills to the shelter and post shelter environment. Local health officers were encouraged to assist their civil defense officials in local health mobilization programs. The Local Health Department's disaster responsibility and authority were clearly defined.

#### *Medical Self-Help*

Incomplete reports indicate 408 medical self-help classes with 9,375 graduates. These totals do not include students in public and private high schools.

#### *Individual and Family Survival Training—State Health Department Employees*

In compliance with the Governor's request that all State employees receive training in survival techniques, 270 departmental employees attended classes preparing them for the shelter and post-shelter disaster period.

#### *Expanded Function Training*

Orientation in the assignment, training, and development of paramedical personnel, as approved by the American Medical Association, was given at Schools of Nursing at Seton Hall University, East Orange General Hospital, Overlook Hospital; to junior and senior students at School of Pharmacy, Rutgers University; and at county civil defense workshops at Ocean, Morris, Cumberland, Passaic, Gloucester, Monmouth, Essex, and Union Counties.

#### *Pilot Project at School of Dentistry, Fairleigh Dickinson University*

Integrated expanded functions training for dentists was developed and implemented during the junior and senior classes at the Dental School, Fair-

leigh Dickinson University. In addition, dental teams from Walter Reed Hospital presented lectures and demonstrations to the teaching staff, junior and senior dental students, and dental hygienist students. Personnel from the Trenton Fire Department gave a one-day training and demonstration program. Staff members oriented the students to the State Civil Defense Plan and organization and the role of the dentist in disaster.

#### *Brush Fire Surveillance (April-May 1963)*

On April 22, 1963, surveillance units were organized to evaluate the health aspects of destructive brush fires in central and southern New Jersey. The overall picture indicated that few commercial food and drug outlets were involved, that damage at poultry farms was primarily of economic and not health significance, that the reception and care of homeless families were conducted effectively under the supervision of local governing and civil defense welfare authorities with the assistance of voluntary civic organizations. Surveillance continued to assure that adequate health and sanitation standards were maintained at the reception centers until they were disbanded.

#### *Liaison Activities*

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 U. S. Public Health Service; preparation of technical letters of reply for staff of State Division of Civil Defense; and review of training films.

## Division of Preventable Diseases

William J. Dougherty, M.D., M.P.H., *Director*

### *Programs:*

- Accident Prevention Program .....HENRY YOUNG, *Coordinator*
- Communicable Disease Control .....WILLIAM J. DOUGHERTY, M.D., M.P.H.,  
*Coordinator*
- Migrant Health .....THOMAS B. GILBERT, *Coordinator*
- Tuberculosis Control ..... FREDERIC BASS, M.D., *Coordinator*
- Vaccination Assistance Project .....WATSON E. NEIMAN, M.D.,  
*Coordinator*
- Veneral Disease Control .....M. WISHENGRAD, M.D., *Coordinator*

## Division of Preventable Diseases

### Tuberculosis Control

#### *Morbidity, Mortality, and Trends*

One of the intermediate goals of Tuberculosis Control in New Jersey is a nine percent reduction in the annual active tuberculosis case rate each year so that by 1970 the annual case rate will be not more than 10 cases per 100,000 population. The base line of departure was the active case rate of the year 1960, recorded as 26.3 per 100,000 persons. In the years 1961, 1962, and 1963 the rates of active cases have declined but slowly from a level of 26.3 to 25.2 to 23.7 to 25.3. In 1963, 2,867 total cases of tuberculosis, including 1,634 cases of active disease, were reported. There were 364 deaths due to tuberculosis. Morbidity and mortality experience in the eight most recent years is apparent in the following table:

Table 1. TUBERCULOSIS CASES AND DEATHS, NUMBERS AND RATES, NEW JERSEY, 1956-1963

Year	Estimated Population	Deaths		Total New Cases		Active Cases	
		Number	Rate <sup>1</sup>	Number	Rate <sup>1</sup>	Number	Rate <sup>1</sup>
1956	5,605,000	522	9.3	3,354	59.8	1,888	33.7
1957	5,728,000	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
1961	6,221,000	389	6.3	3,120	50.2	1,570	25.2
1962	6,344,000	326	5.1	2,769	43.6	1,504	23.7
1963	6,467,000	364	5.7	2,867	44.3	1,634	25.3

<sup>1</sup> Per 100,000 population.

In 1962 and 1963, four New Jersey counties, Essex, Hudson, Union and Passaic accounted for 853 and 876 cases of active and probably active tuberculosis. With the exception of Passaic County, these counties exceeded the state rate for active and probably active tuberculosis. They account for nearly 60 percent of the active and probably active tuberculosis reported in the state. The incidence of tuberculosis in principal cities of New Jersey is demonstrated in the following tabulation.

Table 2. CASES OF ACTIVE AND PROBABLY ACTIVE TUBERCULOSIS CASES IN NEW JERSEY CITIES—1962 to 1963

City	1962		1963	
	Cases	Rates	Cases	Rates
Atlantic City .....	28	47.5	35	59.3
Camden .....	52	45	56	48.7
Newark .....	294	73.9	331	84.0
East Orange .....	31	40.3	21	27.3
Jersey City .....	127	46.9	140	52.0
Bayonne .....	22	29.7	10	13.7
Trenton .....	41	36.9	57	51.8
Paterson .....	64	44.1	75	51.7
Elizabeth .....	61	57.0	53	50.0

The trend of tuberculosis by sex continues to reveal approximately twice as many cases among males as females. The incidence rate of active and probably active tuberculosis in males in 1962 was 15.9 per 100,000, compared to 8.2 in females.

Tuberculosis in children continues a matter of concern. In 1962, there were 66 cases of active and probably active disease in children under five years of age. In 1963, there were 88 cases. Cases under one year of age were nine in number in 1962 and six in 1963. Nearly half of these cases occur in the large cities and are associated with pockets of tuberculosis in which adult to infant spread occurs. Many of these cases have been revealed by intensive contact investigation.

Another manifestation of childhood tuberculosis is found in the frequency with which primary active tuberculosis is diagnosed. In 1962, there were 75 cases of primary active tuberculosis reported. There were 92 cases in 1963. Again, many of these cases have been brought to attention in contact investigations originating in the diagnosis of advanced adult tuberculosis.

The 3,120 total cases of tuberculosis reported in 1961 represented an upswing in the incidence trend. This was most likely due to the introduction of state supported chemotherapy. In 1962, the total number of cases receded to 2,769 and in 1963, 2,867 cases were reported. Other influences upon tuberculosis case finding that may affect total cases reporting include: tuberculin testing in schools, industry, and other selected locations; the increased emphasis being placed upon contact investigation.

Tuberculosis morbidity and mortality tabulations included in the report of Vital Statistics and Administration show deaths and death rates, cases and case rates, extent of disease, clinical status, bacterial status and age distribution for the state and its counties.

### Community X-ray Surveys by Department

Tuberculosis x-ray surveys for the year of 1963 reached 1,555 persons. Among this group there were 63 persons who required further medical examination, which revealed four cases of active tuberculosis, one case of primary active disease in an adolescent, and three cases of reinfection of active tuberculosis in adults. There were seven cases of inactive tuberculosis discovered, and 18 persons were found to have other forms of pulmonary disease, such as bronchiectasis and pulmonary emphysema.

### Hospital Admission X-ray Screening Program

In 1963, nine hospitals cooperating with the Department reported upon 59,525 hospital admission screening x-ray examinations. One thousand one hundred eleven persons suspected of pulmonary tuberculosis were reported. Follow-up examinations revealed 46 new cases and 262 persons previously known as cases of tuberculosis.

### Tuberculin Testing

In 1963, the New Jersey State Health Department continued to demonstrate the use of the tuberculin test in schools, in chest clinics, child health conferences, industries, and in other areas. A total of 24,763 persons were tuberculin tested under the auspices of the department. Two thousand seven hundred ninety-five reactors were found. The age distribution of persons tested and reactors is presented in the following table:

Table 3. PERCENT TUBERCULIN REACTORS BY AGE  
NEW JERSEY, 1961, 1962, 1963

Age	Year		
	1961	1962	1963
Under 1 .....	3.6	4.0	0.86
1-4 .....	5.2	3.0	1.87
5-9 .....	1.2	1.3	1.87
10-14 .....	2.1	2.4	3.1
15-19 .....	2.6	2.5	5.6
20-24 .....	13.5	11.5	10.9
25-29 .....	19.1	21.5	17.9
30-34 .....	26.3	24.3	23.1
35-44 .....	36.7	36.0	35.2
45-64 .....	43.7	46.5	43.1
65 .....	34.4	58.7	42.1

The reactor rate among children under one year of age is higher than that found in the general population, because many of the children studied had been exposed to persons with tuberculosis. The same observation relates to the children in the age group 1-4 years. In the Child Health Conferences where well children up to five years of age are being observed, the rate of tuberculin sensitivity is lower in the range of 0.5 percent. Tuberculin sensitivity appearing in children up to five years of age is indicative of a source of infection within the family. Efforts are being made to reach out to the families of reactors to discover the sources of tuberculosis infection. Nine thousand six hundred eighty-two school children were tested by Departmental personnel in a variety of different school systems. These schools, that were not associated with social deprivation, had a low rate of tuberculin sensitivity, 1.7 percent. Tuberculin studies in schools of low-income areas of cities reveal higher rates indicative of a much higher rate of exposure of children to tuberculosis.

Adult rates of tuberculin sensitivity have varied with the populations tested. In general, it is no longer safe to assume that adults are universally tuberculin reactive; rather the majority of persons under 50 years of age are tuberculin negative. The search for tuberculosis was continued among the tuberculin reactors. While figures are not complete, 33 cases of active tuberculosis were discovered in this program.

#### *Tuberculin Testing in Public Schools*

The State Department of Health and the State Department of Education developed a cooperative plan for sharing information on public school tuberculin testing.

In the school year ending June, 1963, the Department received reports on tuberculin testing of 211,507 students. This over-all reactor rate was 2.16 percent. It varied from county to county and within school districts. The follow-up of over 4,000 reactive students resulted in the discovery of six cases of active tuberculosis.

A grade specific study was undertaken. It revealed that 1.3 percent of first grade students were tuberculin reactive. In nine of the 21 counties the tuberculin reactor rate is under 1.0 percent.

Study of 53,181 students in grade nine revealed a reactor rate of 2.5 percent. In these counties, of 21 the reactor rate is 1.0 percent or less.

The studies, while subject to many variables, are indicative of the tremendous progress made in tuberculosis control. Community and professional interest in this work is high and its educational value must be extended.

#### *Tuberculosis Case Register*

On December 31, 1963, all 21 counties in the state were under tuberculosis case registration. A total of 15,640 tuberculosis patients were under the observation of the tuberculosis register system. Pertinent information from the tuberculosis case registers is summed up in the following table:

Table 4. TUBERCULOSIS PATIENTS, UNDER REGISTRATION,  
NEW JERSEY, 1961-1962-1963

Status	1961	1962	1963
Total	12,180	15,498	15,640
Hospitalized	1,262	1,852	1,750
Non-Hospitalized	10,918	13,646	13,890
Active	658	1,092	793
Probably Active	192	268	246
Probably Inactive	296	340	372
Inactive	9,772	11,593	11,781
Non-Pulmonary		416	698

It is noteworthy that the inclusion of the Sussex and Salem County registers did not materially increase the over-all total of patients under observation.

The supervision of tuberculosis patients by public health agencies and physicians is evidenced in the following table:

Table 5. PERCENTAGE OF NON-HOSPITALIZED CASES OF ACTIVE TUBERCULOSIS  
BY EXAMINATION STATUS  
NEW JERSEY, 1961-1962-1963

Status	1961	1962	1963
Total	100.0	100.0	100.0
Not Due for Examination	57.0	60.0	61.7
Overdue up to 12 months	17.0	15.0	19.2
Overdue 12 months or more	11.0	4.0	5.5
No Data Assigned	15.0	21.0	13.6

It is significant that there has been a steady decline in the number of patients upon whom the dates of examination are not assigned. This diminution is due to the continuing program of developing inter-relationships between the case registers and the physicians of the state.

It is noteworthy also that the percentage of patients returning to examination on time has gradually improved. Among patients who are overdue up to 12 months, the majority are overdue only for a period of three months.

It is of interest also that in 1963, 65.7 percent of non-hospitalized cases of inactive tuberculosis were returning to medical examination on time also.

The sputum of non-hospitalized cases of active pulmonary tuberculosis has been a matter of concern. The following table presents data on sputum status:

Table 6. PERCENTAGE OF NON-HOSPITALIZED CASES OF ACTIVE TUBERCULOSIS BY SPUTUM STATUS  
NEW JERSEY, 1961-1962-1963

<i>Sputum Status</i>	1961	1962	1963
Total .....	100.0	100.0	100.0
Studied within 6 months .....	30.0	58.6	64.3
Studied over 6 months .....	50.0	27.5	30.4
Not Studied .....	20.0	13.9	5.3

A noticeable increase in the percentage of cases having sputum examinations was observed in 1963. Nearly 65 percent of non-hospitalized cases received at least one sputum examination every six months. The marked diminution in the percentage of cases that were not studied from 20 percent in 1961 to 5.3 percent in 1963 is a significant change.

Sputum studies on non-hospitalized cases are being done at an increasing rate. This activity has been materially assisted by the fact that in 1962, 90.4 percent of newly reported active cases had an established sputum status at the time of initial case reporting.

In 1962, an effort was made to determine the number of non-hospitalized cases of active tuberculosis that were receiving drug therapy. These data were collected from the majority of the case registers. The following table presents comparative data for the years ending December 31, 1962 and 1963.

Table 7. PERCENTAGE OF NON-HOSPITALIZED CASES OF ACTIVE TUBERCULOSIS BY DRUG STATUS  
NEW JERSEY, 1962-1963

	1962	1963
Total .....	100.0	100.0
Receiving Drugs .....	63.1	66.0
Not on Drugs .....	6.1	5.0
Status Unknown .....	30.8	29.0

The fact that the drug status is unknown for 29 percent of patients with active tuberculosis may be misleading. This signifies only that a record or

prescription for drugs was not on file for the quarter under study. Means of determining more exactly how adequately patients are taking drugs are under study.

#### *Tuberculosis Drugs*

In the period January, 1963 through December, 1963, a total of 37,000 bottles of INH (isoniazid) was dispensed to patients in this state. Five thousand seven hundred thirty-four bottles of PAS (para-amino salicylic acid) were dispensed as well.

In December, 1963, it was estimated that over 2,000 persons were receiving drugs through the biologic stations. This activity has been the most substantial contribution to public health control of tuberculosis in recent years.

#### *Contact Investigation*

Systematic efforts to develop uniform contact investigation procedures continued throughout 1963 with the development of a draft of a contact register manual and the underwriting of a grant to the Passaic County register to work out a demonstration program. Continued activity by the Hudson County contact register produced the remarkable supporting data presented in the following table.

Table 8. Results of Contact Investigation—Jersey City, New Jersey—March 1962 to December 1963

Contacts	Quarter Ending							
	March 62	June 62	Sept. 62	Dec. 62	March 63	June 63	Sept. 63	Dec. 63
Brought Forward .....	802	815	1,012	1,262	1,394	1,719	2,325	2,775
Added to Register .....	229	227	310	175	358	645	522	420
Total .....	841	1,042	1,322	1,437	1,752	2,364	2,847	3,195
Examined and Re-Examined .....	207	212	304	171	490	540	420	391
Total Tuberculosis .....	2	8	12	8	10	11	5	7
Active Tuberculosis .....	1	6	11	3	6	8	4	7
Rate of Active Tuberculosis Per Thousand Contacts Examined	4.9	28.4	36.2	17.5	13.1	14.8	9.5	17.8

It is important to observe that the yield of new active cases of tuberculosis discovered by contact investigation is high, ranging on the average between 10 and 36 cases per thousand contacts examined.

#### *Diagnostic and Clinical Services*

Diagnostic treatment and clinical services are available in more than 60 clinics in all 21 counties under the sponsorship of health departments, sanatoria, general hospitals, county governments, and tuberculosis associations.

In 1963, there were a total of 103,390 clinic visits. Services were provided to 38,135 persons. Five thousand three hundred eighty-three of these patients



were new patients seen in the clinic for the first time. Attendance information is presented in the attached table.

Table 9. Chest Clinic Attendance, 1959-1963

	* State Clinics					All Clinics				
	1959	1960	1961	1962	1963	1959	1960	1961	1962	1963
Number of Persons New to Clinic	10,068	12,497	5,290	11,012	9,359	39,368	37,741	41,100	39,193	38,135
Previously Known to Clinic	7,112	6,008	3,898	5,895	6,943	25,846	28,930	30,709	31,984	32,732
Number of Clinic Visits	19,015	29,178	10,526	20,462	18,179	118,877	115,090	122,192	115,523	108,390

\* Clinics served by clinicians from Tuberculosis Control Program.

### *Tuberculosis Nursing Services*

Tuberculosis nursing services in New Jersey have shown a trend toward greater concentration, follow-up and supervision of the active, infectious or potentially infectious tuberculosis cases. This is evidenced by a broad evaluation of case register summaries of active tuberculosis patients who are not hospitalized. These reports show that many more patients have been brought to regular medical care, approximately an 11 percent increase. Bacteriologic examination, vital to effective tuberculosis control, showed the greatest increase of patients examined, approximately a 36 percent increase.

Drug therapy supervision of patients is one of the most important contributions public health nurses can make to stop the spread of tuberculosis. Case Register information shows approximately 21 percent of the active patients cannot be documented as receiving drugs.

The New Jersey standard of performance for treatment indicates that 90 percent of known active cases should be under drug therapy, at any time. Nursing agencies are making efforts to bring all patients, for whom drugs are prescribed, under closer medical and nursing supervision. Priority supervision of active cases including all patients for whom drug therapy is prescribed is a continuous objective in working with nurses who are responsible for the tuberculosis services.

Examining contacts of active tuberculosis cases is the most productive method of finding other adults with tuberculosis and children with tuberculosis. Nursing agencies have improved greatly in their contact investigations, systematized recording, follow-up and supervision of these contacts. Many agencies are now using the tuberculin test as part of their follow-up of contacts—as a result, only tuberculin positive individuals are referred for examina-

tion. This phase of tuberculosis follow-up has greatly increased tuberculosis caseloads and follow-up and will undoubtedly expand in 1964 because of the recent acceptance of the intradermal tuberculin test by the New Jersey Board of Nursing.

How much more can nursing agencies responsible for large tuberculosis caseloads and many times, other services, such as schools, maternal and child health, child health conferences, tuberculosis clinics, etc., do? Adhering to strict priorities and seeking volunteer help to assist public health nursing agencies seem most urgent in many areas to relieve public health nurses to perform the skilled services to patients for which they are trained—interviewing and counseling patients.

There is a trend in New Jersey to place health investigators in metropolitan areas to assist public health nursing agencies in locating patients and contacts and bringing them to medical examination.

There is still a need to strengthen relationships with private physicians, their patients and contacts. Local administration must assist and support nursing agencies in their attempts to improve this area.

The gap between hospital and nursing agency still exists in some parts of the state. The importance of preparing for the patients' return to the community is accepted but not practiced. Administration needs to believe in this, too!

### *Tuberculosis Council*

The important coordinating activity of the Tuberculosis Council of New Jersey continued throughout 1963.

The Council endorsed and through its membership circulated a statement entitled "The Use of Chemotherapy as a Public Health Measure in Tuberculosis" published by the American Thoracic Society.

The tuberculosis case register guide was revised by several members of the Council and a revision developed.

The Council established a committee on tuberculin testing that worked throughout the year. It developed a guide that is applicable to the requirements of tuberculin testing in New Jersey.

A committee was established to develop standards for chest clinics. It worked throughout the year and has released its first draft of a comprehensive program.

The Council sponsored a series of meetings with boards of freeholders. This work is designed to assist in implementation of the recommendations of the Amberson Report.

The Council held a meeting to which all hospital directors were invited. Many of the problems plaguing hospitals were considered as well as some pressing community problems. This group continues to be a most productive source of improvement of tuberculosis control in New Jersey.

#### *Toms River Project*

The Tuberculosis Program in cooperation with the Lederle Laboratory undertook the development of a community-wide tuberculin testing project. The area chosen for this project was the Town of Toms River, New Jersey, where the County Medical Society and Ocean County Tuberculosis and Health Association agreed to sponsor the undertaking. The script on community organization was developed by Harold Mantell, Incorporated, and after the basic steps of community organization were undertaken, the film was made. In the filming of this project, 3,896 residents of Toms River were tuberculin tested by the Tine method. Three hundred eighty-four reactors were discovered, a reactor rate of 9.9 percent. The maximum rate of tuberculin reactivity, 33 percent, was found in the age group over 65 years of age.

The community survey undertook to reach as many persons as possible, by testing at central locations and by house-to-house testing techniques. These methods revealed 344 reactors among 2,253 persons tested.

In the Toms River schools, the reactor rate was 0.9 percent. In the community hospital, among 269 persons tested, the reactor rate was 7.1 percent.

Three hundred sixty-two reactors came to medical examination. In this group, three cases of inactive tuberculosis and five cases of other pulmonary disease were found. Three hundred eighteen persons were found free of infection.

The film was presented at the American Public Health Association meeting in Kansas City, Missouri, in November and subsequently has been viewed by many audiences. This film shows concisely the important elements of community organization generally necessary for a program of this type. It is considered to be a base line in community organization.

This program provided evidence that the house-to-house testing technique was most acceptable. It bears out the observation that the closer one brings the service to the person to be served, the more direct the health education message and the action taken by the participants. House-to-house tuberculin testing proved to be effective.

#### *Fort Monmouth Project*

In May, 1963, at Fort Monmouth, a tuberculosis survey was conducted among the Fort's civilian employees. Since one of the disadvantages of the

tuberculosis test has been the need for a physician or nurse to administer and read the test, this survey was designed to evaluate the ability of the persons tested to read their own tests. It was based upon the hypothesis that if those tested could be relied upon to report their test results accurately, the return visit of the nurse or doctor for reading would no longer be necessary. Thus, a greater number of persons could be conveniently tested.

The Fort Monmouth Civilian Welfare Fund, an employee organization, had approached the State Health Department in 1962 for an x-ray survey. Since x-ray surveys of such a group are no longer profitable, it was suggested that the tuberculin test be used as the primary screening method, followed by the x-ray examination of all reactors. The request was opportune because the Department had been seeking a sizable responsible group for an evaluation of tuberculin self-reading.

The Commanding General, Fort Monmouth, and the Welfare Fund Council approved an educational program to explain the significance of the tuberculosis problem in general, the significance of the tuberculin test, its reaction, and how to read the test. During the orientation meetings, the experiment in self-reading was described to the participants. They were informed to report any reaction whatsoever to their Welfare Fund representatives.

The tuberculin test was administered by the Hypospray Injector to 2,721 persons. Two days later, after reactions noted by those tested were to have been reported to the Welfare Fund Representatives, nurses re-read the reactions.

Table 10. TUBERCULIN SENSITIVITY TESTING PROGRAM; A STUDY OF SELF-READING  
Fort Monmouth, May 6-7, 1963

Place	Number of Persons				
	Tested	Not Read	Read	Negative by Both Readings	Positive by Either One or Both Readings
Total	2,721	1,018	1,703	1,107	596
Watson	294	99	195	141	54
Coles	350	72	278	214	64
Evans	338	132	106	117	89
Myers	742	147	595	386	209
Hexagon	975	568	407	239	168
Other	22	...	22	10	12

Table 9 demonstrates that 1,018 persons failed to return for a confirmatory reading by the nurses. For most, the likely explanation of this failure to return is that they were so confident that they did not have a tuberculin reaction that they did not seek the confirmatory reading by the nurse.

Table 11. TUBERCULIN SENSITIVITY TESTING PROGRAM  
A STUDY OF SELF-READING, FORT MONMOUTH, MAY 6-7, 1963

Place	Number of Persons			
	Positive by Either One or Both	Positive Both Readings	Positive Patient Negative Nurse	Negative Patient Positive Nurse
Total	596	337	63	196
Watson	54	34	2	18
Coles	64	43		21
Evans	89	47	41	1
Myers	209	80	12	117
Hexagon	168	123	8	37
Other	12	10		2

Of 1,703 read, 1,170 were considered negative by both methods of reading, 596 were considered positive by one or both methods (Table 10); 533 were noted as positive by the nurses. Of this group of 533, 196 or 37 percent read themselves as negative. It can be seen that self-reading in the situation described, resulted in "under-reading"—underestimating the reactions and calling them negative.

Interviews were conducted among 78 of the 196 persons to learn why they had noted their tuberculin reactions to be negative. In response to questions why they had decided they had no reaction, 46 "thought the reaction was too small," 12 "didn't know," 11 "were afraid of having a tuberculin reaction." Other reasons given were, "I feel well," "I knew someone with TB," and "I never had TB." It is concluded that *self-reading of tuberculin tests is not a feasible undertaking.*

As a result of 496 follow-up x-ray examinations on the reactors, 17 abnormal 70 mm films were noted. Further examination by physicians revealed two cases of active tuberculosis and the following other diagnosis:

No disease	7
Heart disease	1
Other lung disease	3
Primary Inactive TB	1
Minimal Inactive TB	2

### Camden Project

In December, 1962, the Board of Directors of the Camden County Tuberculosis and Health Association determined to terminate the demonstration of tuberculosis follow-up services on April 1, 1963. The Camden City Health Department had already assumed responsibility for nursing services to tuberculosis patients on January 1, 1963. The City Health Department provided nurses to clinics at the Cooper and West Jersey Hospitals so that a close association between the patient, physician, and nurse could be developed.

Discussions were held relative to nursing services for areas outside of the city of Camden. The provision of services remains unresolved.

Since the agencies in tuberculosis control in Camden County needed a central point about which to rally, the Commissioner with the concurrence of the Board of Freeholders appointed a tuberculosis controller for Camden County.

In June, the needs for space in the Camden City Hall required that the Tuberculosis Clinic, administered by the Camden County Tuberculosis and Health Association, be relocated. A series of exploratory meetings were held with officials of local and county government.

Three possibilities were considered:

The establishment of a cooperative clinic system in the local voluntary hospitals.

The establishment of a clinic under joint city-county auspices.

The extension of the Lakeland clinic services to all areas of the county, including the city of Camden by the provision of transportation.

Conferences held with local hospital administrators, medical staffs, and Blue Cross indicated an initial favorable response to a joint program. However, the costs of services for the medically indigent and community hospital are high and a feasible plan could not be devised.

A survey of the community hospital chest clinics indicated that about one-half of the patients in these clinics had non-tuberculous chest disease, and that additional clinic services would place a strain upon the hospitals and their medical staffs.

The frequency of clinics and the number of patients to be seen plus ancillary services to be rendered, prompted the Tuberculosis Committee of the Camden County Medical Society to indicate a grave concern for clinic services and a recommendation that governmental services be established. At year's end, the Camden County Tuberculosis Controller was considering this recommendation with the Board of Chosen Freeholders and the State Department of Health.

*Jersey City*

A Project Grant was received from the Public Health Service for Tuberculosis Control services in Jersey City. Services were developed during the winter and spring of 1963.

Three tuberculosis epidemiologists were recruited, oriented to tuberculosis, trained in field activity, and assigned to contact investigation in the field. Their services included locating patients and persuading them to return to medical care.

A medical-social worker was recruited and employed in late December. Unfortunately, the worker did not feel secure in the work and resigned a few months later.

Efforts to secure the services of an evening clinic for patients and contacts at the B. S. Pollak Hospital were unsuccessful. The medical director of that institution did not believe that the existing caseload of persons who required this type of service was large enough to warrant the effort. A compromise agreement was reached in which the B. S. Pollak Hospital agreed to remove all charges for x-ray examinations provided to tuberculosis cases or contacts.

A public health nurse consultant was recruited during the fall of 1963 and reported for duty in Jersey City in December.

The tuberculosis epidemiologists maintained constant pressure on active tuberculosis throughout the year. The results of their activities are demonstrated in the following tables in which data for the calendar years 1962 and 1963 are compared. The majority of active patients are maintained under constant medical supervision. It is noteworthy that 548 of 643 patients with inactive tuberculosis or 85.2 percent also returned for medical care within three months of the date assigned. In 1962, 70 percent of active patients had sputum examinations within a six month period—in 1963 the percentage increased to 72.4 percent.

Of 74 patients newly reported in the city in the last quarter of 1963, 53 had active or probably active disease. The effectiveness of the tuberculosis epidemiologist is demonstrated in the observation that among these newly reported patients, primary or minimal disease was reported more often than moderately or far advanced disease. Fifty-five percent of patients had primary or minimal infection.

A total of 1,376 contacts were assigned for investigation by the epidemiologists. One thousand eight contacts were provided service; 702 were brought to medical examination for the first time.

A tuberculosis contact register has been maintained in Jersey City. At the end of December, 1963, there were 3,062 contacts of active cases listed. These contacts have been under medical supervision over a period of several years.

The tuberculosis case finding yield from examination of these contacts varies between 17 and 21 cases of active tuberculosis per 1,000 contacts examined. This is by far the most effective form of tuberculosis case finding. Much of the contact investigation work has revealed clusters of tuberculosis patients within a family. The pattern appears to be that an adult with active disease infects several children. A typical case history follows.

A grandfather from Jersey City was reported to have moderately advanced, active, sputum positive tuberculosis in April, 1962. His grandson was examined during 1962 and found to be negative for tuberculosis. A subsequent examination of the child in November, 1963 disclosed pulmonary, primary active tuberculosis.

The health investigation activity supported by the Department came to a standstill in August when the incumbent health investigator resigned to accept a teaching position. One of the tuberculosis epidemiologists employed under the special project was recruited to fill this need. After a period of

Table 1. CASE REGISTER—JERSEY CITY, NEW JERSEY

	December, 1962	December, 1963
Total Cases .....	1,050	1,045
Hospitalized .....	160	167
Non-Hospitalized .....	890	878
Active .....	138	134
Inactive .....	707	643

orientation, he began to function as the health investigator for the entire area of Hudson County. His caseload at the end of December, 1963 comprised 442 patients. Since fall, he had been responsible for activity in association with 741 persons, 358 of whom were brought to examination.

During October and November, 1963 discussions were held with the Department of Medicine, Seton Hall College of Medicine and Dentistry concerning the possibility of including that organization in the federal grant for fiscal year 1964. These discussions were planned to continue in 1964.

The health investigation partly supported by the Department provided a range of services to all communities in Hudson County. A total of 600 persons were assigned for services, 330 were completely processed, 270 remain under observation.

Among the 330 patients, there were 20 active patients returned to medical care, 30 inactive patients returned to chemotherapy, and 73 contacts completed studies.

In the fall, a second medical-social worker began to work with the individual patients in the community. Many varied family problems came to

attention among the patients who were at the State Sanatorium at Glen Gardner.

Table 2. SPUTUM STATUS OF PATIENTS WITH ACTIVE DISEASE  
JERSEY CITY, NEW JERSEY—1962-1963

	1962	1963
Total .....	138	134
Positive within 6 months .....	38	30
Positive more than 6 months .....	5	7
Negative within 6 months .....	59	67
Negative more than 6 months .....	23	23
Pending within 6 months .....	3	5
Not done .....	10	2

Table 3. EXAMINATION STATUS OF PATIENTS WITH ACTIVE DISEASE  
JERSEY CITY—1962-1963

	1962	1963
Total .....	138	134
Not yet due .....	98	101
Overdue past 3 months .....	20	18
Overdue 3-6 months .....	5	7
Overdue 6-12 months .....	4	2
Overdue 12 + months .....	5	1
No date assigned .....	6	5

### Paterson Project

In June, 1962, an intensive analysis of the Passaic County Tuberculosis Case Register indicated that there were 1,522 cases of tuberculosis in Passaic County. Eight hundred twenty-four were located in the city of Paterson; 168 of these cases had active tuberculosis. A study of the distribution of cases by census tract revealed that 68 percent of the prevalent active tuberculosis existed among approximately 30,000 persons living in nine census tracts. The prevalence rate for active tuberculosis in this area approximated 100 cases per 100,000 persons.

In December, 1962, tuberculin testing in two elementary schools, 4 and 28, revealed that eight percent of elementary children and four percent of kindergarten children were reactors. Beginning in February, 1963, schools in the high-incidence areas were tested, over 9,800 students participated. Five hundred thirty-five reactors were found. Most of these children were placed on Isoniazid prophylaxis.

Schools 4 and 28 were retested in late February and conversion rates of three and five percent were found. These children were placed on prophylaxis.

The families of the reactor school children were interviewed and over 1,200 associates were tested. Two hundred sixty were referred to the clinic for an x-ray examination. In this program, the public health nurses conducted most of the tuberculin testing within the homes of the reactor families. The response of the community to this service was most encouraging. The "girls in blue" have been met in the street with "Do my test today, I am related to so-and-so, do you want to test me?"

A program of chemoprophylactic therapy for reactor children up to age 17 years was established following the tuberculin testing program in the public and parochial schools. The treatment will be continued for one year, the children will be supervised in the Health Department Clinic at regular intervals during the year of therapy.

In the school year beginning September, 1963, 9,351 public school children in grades 1-5-9-12 were tested. There were about 400 reactors. Follow-up of these children was not complete at year's end.

An intensive program of tuberculosis control and eradication was instituted in the city of Paterson. A review of the Tuberculosis Case Register revealed that many cases of tuberculosis had been lost to medical supervision, that others were overdue for medical examination or for bacteriologic study, and that others who were recalcitrant needed further study. Effective follow-up activity was directed toward these problems, with the result that many of the lost cases were found and returned for medical examination and bacteriologic studies.

The New Jersey State Department of Health provided a grant to the Paterson Health Department for the employment of a tuberculosis epidemiologist to assist in the eradication program. He was employed in April. Under supervision of the State Health Department, he began his work with patients who were overdue for examination.

Throughout the spring, the clinic case load increased due to the number of students who were returning to the Health Department for chemoprophylaxis and the number of patients who were being returned to medical supervision.

Several exploratory conferences were held at the Barnert Memorial Hospital and at St. Joseph's Hospital for the consideration of evening clinics to be conducted in those hospitals. While clinic services did not result, the growing need led to a decision to lease x-ray equipment to the Paterson Health Department so that individual clinic services could be provided that were readily accessible to the patient population.

As the program moved forward between May and October, it became apparent that the workload of tuberculosis in Paterson was taxing the capacity of the City Health Department staff. In October, a series of priorities was

established for guidance. Primary emphasis was placed upon medical management of patients with active disease immediately following hospitalization. This priority included patients considered to be recalcitrant and others who needed motivation, indoctrination, and education.

Study of patients with inactive tuberculosis revealed a high probability of relapse among those who had lapsed from medical supervision. Attention was focused on returning inactive patients to medical supervision. Among the first 42 patients who were overdue for examination, four were found to have reactivated and five were under supervision.

Examination of clinic records and of patients with active tuberculosis indicated that contact investigation efforts were lagging. Less than 30 percent of contacts of active cases had been examined by December 31, 1963. The contact files were reorganized to make possible an orderly system of examination. Approximately 626 contacts were under deliberate study. In one instance, a private physician referred a tuberculin reactor, age 1½ years, to the City Health Department. After examination, the child was admitted to Preakness Hospital with active, primary tuberculosis. Immediate testing of household contacts revealed moderately advanced, active tuberculosis in the grandmother, and far advanced, active tuberculosis in the mother. All three members of this family are now in hospitals. Two other children with strong reactions are now on prophylactic therapy.

Tuberculin testing of 225 inmates of the Passaic County Jail revealed 82 positive reactors. These reactors were x-rayed, 30 were released to the community and will need constant follow-up. A continuing program of testing admissions to the jail has been arranged.

These activities represent a small portion of the total contribution of the revitalized tuberculosis eradication project conducted by the Paterson Health Department.

In every phase of this program, it was clearly apparent that additional nursing staff was required. Four and one-half nurses were assigned to serve the tuberculosis program and its patients. Nursing supervision and additional staff were provided temporarily by the department.

In summary, the accumulated total of patient visits in 1963 of 3,761 compared to the total of 1,303 visits in 1962 amply testifies to the extensive effort in tuberculosis control presently conducted by the Paterson Health Department.

#### *Newark Project*

The Newark Project in tuberculosis control was activated on March 7, 1963 by a grant from the U. S. Public Health Service. Its primary object was

to provide better facilities with added personnel for the examination of clinic patients and contacts.

These evening clinics provided an opportunity for lower income working persons who could not afford private medical care to attend clinic without loss of income. It also permitted complete family attendance at one time, an asset to parents of large families where both parents assisted in the children's examination.

The project has reduced the number of delinquent contact and patient examinations. It has facilitated the continuation of prophylactic chemotherapy in children also.

Hundreds of clinic records and x rays of inactive cases on file have been checked for the amount of chemotherapy previously given. Where it was determined that inadequate treatment had been given, INH and PAS were started and continued for a period calculated to make up a minimum of a full two and a half years of drug treatment.

In order to reduce the number of cases of childhood tuberculosis, repeated tuberculin testing of exposed children has been emphasized, with subsequent prophylactic chemotherapy instituted where indicated.

In 1963, there were 2,160 cases of tuberculosis under supervision in the Newark clinic, as well as 4,719 contacts. Of this number, 341 were active cases, and 296 of them were hospitalized.

Twenty-seven thousand one hundred fifty home visits were made to patients and contacts. These visits provided an essential public service in the prevention of the spread of tuberculosis. The nurse while teaching precautions and emphasizing good hygiene also assists in rehabilitation and in solving economic problems of the family.

### Venereal Disease Control Program

#### I. Morbidity Trends

##### A. Syphilis

Infectious syphilis rates in New Jersey continue to be alarmingly high; however, the upward trend in the infectious syphilis incidence that started in New Jersey in 1957 and continued through 1962, leveled off in 1963. There were 1,177 such cases reported in 1963, two percent fewer than in 1962.

In 1963, 617 or 53 percent of the 1,177 cases were reported by private physicians. The percentage of primary and secondary syphilis cases reported by private physicians compared to clinic cases has in-

creased from 38 percent in 1960 to 53 percent in 1963. This continued increase in private physician reporting is testimony to physicians' cooperation resulting from the physician visitation program.

It is nevertheless interesting to note that a survey, conducted by the American Social Health Association during the period April 1-June 30, 1962, revealed that private physicians in New Jersey reported 22.3 percent of cases of the infectious syphilis they treated. (542 cases were treated, 121 cases were reported.) While admittedly, this leaves much to be desired, it compares favorably with the national average of 11.3 percent.

Of the 617 primary and secondary syphilis cases reported by private physicians in 1963 in New Jersey, 302 or 49 percent were "volunteers" who walked into the private physician's office; 315 or 51 percent were cases resulting from contacts, suspects, and reactor follow-up cases referred to private physicians by Program representatives.

There were 762 cases of early latent syphilis reported during 1963, 108 cases fewer than in 1962. The relationship of reported primary and secondary syphilis cases to reported early latent syphilis cases continues to follow the trend which started in 1961 in New Jersey. The primary and secondary cases reported exceeded early latent cases reported, thus suggesting there are more known than undetected infectious cases, and that case finding techniques are effective.

There was a total of 5,664 syphilis cases reported in 1963; in 1962 the total incidence was 6,325. The biggest factor in the total syphilis figure continues to be late latent, and late cases, uncovered through routine blood testing.

#### B. Gonorrhoea

During 1963, 4,424 cases of gonorrhoea were reported, an increase of 339 cases over the number reported in 1962.

The relatively low incidence of gonorrhoea continues to be due to the sharp curtailment of gonorrhoea contact tracing because of the continued urgent requirements of the services of the venereal disease investigators in the early syphilis effort.

## II. Program Activities

### 1. Information and Education

Plans were developed throughout 1963, in cooperation with the State Department of Education, to train a nucleus of teachers who

would teach the basic problems, etc., relative to venereal disease infection.

Dr. Phyllis Busch, who was so successful in doing a similar assignment in the matter of smoking and its relation to lung cancer, undertook the preparation of a sourcebook of essential data in the realm of syphilis. To date, a second printing, after numerous corrections, is available and about 35 teachers representing many high schools have been chosen to attend an orientation meeting (February 24, 1964) in Trenton.

The plan at present is to begin the teaching in an average of two high schools of each county in New Jersey.

It is expected that, as a result of the experience gained in this early venture, further corrections will be made to the sourcebook. Workshops will be planned later so that all those involved in the teaching program will be indoctrinated well before the fall term begins.

### 2. Syphilis epidemiology

During the year, 1,132 cases or 96 percent of the primary and secondary syphilis cases reported were interviewed. These patients named 4,086 contacts, compiling an average contact index of 3.61. Fifty-one patients reported by private physicians could not be located for interview. Of the 1,132 cases interviewed, 89 percent were re-interviewed one or more times. Fifty-two percent or 524 of the 1,006 patients re-interviewed were interviewed by more than one interviewer (at different times).

One hundred and seventy-eight patients named homosexual contacts with exposures to syphilis occurring within the critical time period.

During 1963, Program staff personnel located 4,005 syphilis contacts and were instrumental in seeing that necessary medical services were arranged for them. Among these contacts, 380 new primary and secondary syphilis cases, 144 early latents, and 34 other cases of syphilis were found and brought to treatment. One thousand and thirty-one other contacts were found to have been treated prior to investigation. A lesion-to-lesion index of .36 was achieved in 1963.

During 1963, 1,116 cluster suspects were elicited. Among these people, and a smaller number of cluster associates, 64 primary and secondary, and 16 early latent cases were brought to treatment because of this epidemiologic technique.

### 3. Physician Visitation

Program staff personnel visited 2,914 physicians in their offices during 1963. The purpose of these visits was to enlist the physician in the syphilis control effort by showing him how the Program works to eliminate syphilis, to enlist his cooperation in reporting cases and permitting his patients to be interviewed in his office; and to attempt to raise the level of his alertness to the signs and symptoms of syphilis in his patients. A copy of the publication, *SYPHILIS—Modern Diagnosis and Management*, was given to each physician visited who had not previously been given one.

### 4. Surveillance of serologic reactors

Field personnel made 114 visits to hospital, private, commercial, and local health department serology laboratories to secure better reporting of reactive specimens.

During 1963, as in 1961 and in 1962, priority was given reports of high titer. Such reports are relayed by telephone to field personnel for immediate communication with physicians concerned. Many satisfactory dispositions of routine reactor reports were received from physicians by mail. Field personnel made 3,467 field investigations. Three hundred and eighty-three cases of primary and secondary syphilis, 133 cases of early latent, and 277 cases in other stages, were brought to treatment as a result of serologic follow-up.

## III. Epidemiologic Trends of Early Syphilis

A reported case of infectious syphilis is tabulated as an epidemiologic failure if no source or spread infection is identified. From 1960 through 1963, there were 3,905 cases of primary and secondary syphilis reported; of these, 1,279 or 32 percent were tabulated as epidemiologic failures. There is a much greater percentage of failures among private physician cases than clinic cases.

Statistical data show that *when* a private physician patient is interviewed is the factor contributing to their margin of epidemiologic failures. Eighty-one percent of the private physician cases tabulated as epidemiologic failures were interviewed 10 or more days after the date of diagnosis. Seventy-five percent of the early syphilis cases brought to treatment from private physician cases were cases resulting from interviews that were conducted within 10 days of the date of diagnosis.

To effect a greater percent of epidemiologic successes among private physician cases, physicians are being encouraged, through a

number of approaches, to request epidemiologic interviewing services on the day of diagnosis of primary and secondary syphilis, and to permit patient interviews in their offices.

In this way, the private physician becomes an active epidemiologic partner of public health, in contrast to the relatively passive act of reporting. The physician reduces the time infectious contacts are free to spread the disease; he puts the venereal disease investigator in an interview situation at a time when the patient is still concerned about his disease, and at a time when the patient is psychologically ready to reveal the source and spread of his infection.

Clinic cases are almost always interviewed on the date of diagnosis, and in a confidential atmosphere, and clinic cases have always had a higher yield of source and spread infections than private physician cases.

## IV. Program Development

During 1963, a number of changes were introduced in the administrative controls of early syphilis epidemiology, private physician visitation, venereal disease education, follow-up of reactive serologic specimens, and in the training program.

In an attempt to assure maximum effectiveness and productivity in these priority areas, the Venereal Disease District Supervisors now: (1) maintain District daily epidemiologic control ledgers, (2) conduct weekly priority areas control meetings, (3) assign the total epidemiology of each case of infectious syphilis to one venereal disease investigator, and (4) assign the total venereal disease activity of each private physician to one venereal disease investigator.

### Communicable Disease Program

In the subsections following are listed by disease the major outbreaks of public health interest during the past year, as well as an interpretation of their implications.

Problems and areas for needed improvement of preventive medicine practices will be mentioned as part of the sections on the diseases to which they apply. Certain general areas, however, deserve emphasis.

Efforts to maintain effective reporting must be unceasing and are in serious need of improvement. Reporting of communicable diseases by physicians and hospitals remains erratic and inadequate despite repeated



appeals to responsibility and conscience. New avenues for reporting must be explored.

Hospital-acquired infections gained some prominence in the past year because of the S. derby infections which severely plagued certain Philadelphia institutions and resulted in 23 New Jersey residents becoming infected, but also involved 29 New Jerseyans who acquired their illness while in New Jersey hospitals. Unknown but probably significant numbers of other hospital-acquired cases undoubtedly occurred. While the magnitude of the problem this year has apparently never been surpassed, it is believed that such episodes have occurred frequently on a smaller scale in the past.

We are also aware that a number of outbreaks of hospital-acquired disease occur without either proper action by the hospital or reporting to the appropriate authorities. These include both staphylococcal disease and diarrheal affections, and in one episode (in 1962) an apparent group of septicemias.

#### *Amebiasis*

Seventeen cases of amebiasis were reported from various parts of the state, excluding state institutions. All were investigated and none were confirmed, although, in the meantime, many of the patients had been subjected to courses of therapy with toxic agents. There is in general poor ability throughout the state to accurately identify pathogenic amebae, and it is suggested that all such cases be confirmed by specimens submitted to the State Division of Laboratories, except where biopsy diagnosis has been made. One laboratory was found to have been responsible for several of the diagnoses, and in one group of six such cases, the lab was found to have failed to detect S. enteritidis. This is one example of the need for laboratory quality control, in the manner of some surrounding states.

#### *Brucellosis*

One case was reported in a 63-year-old woman with a history of chronic cholecystitis who underwent cholecystectomy. Post-operatively, she developed a B. suis septicemia, and it is felt that, in the absence of any history of occupational exposure or raw milk ingestion, that this represents a case of exacerbation of a long-standing chronic affection.

#### *Dengue*

One case was reported in a 35-year-old female who had recently returned from Puerto Rico, where nearly 30,000 cases were reported this year in an island-wide epidemic. Serologic tests failed to confirm the diagnosis.

#### *Diarrhea of the Newborn*

Five cases of Diarrhea of the Newborn were reported. Two outbreaks of diarrheal illness among infants were investigated which revealed 33 additional cases.

An outbreak involving the premature nursery at Newark City Hospital involved 16 cases with three deaths. Pathogenic E. Coli of two different varieties were isolated from two cases, neither of which was fatal.

An unreported outbreak involved at least 17 infants in the newborn nursery at a South Jersey hospital. Two infants grew out S. oranienburg four months later with a history of continuing diarrhea, which led to the discovery of the epidemic. No precautions had been taken by the hospital, nor had its lab been able to identify any pathogen, though there is no question that such was present.

#### *Diphtheria*

Seven cases of diphtheria were reported, one in an inoculated infant from Bridgeton and six from Hoboken, the last city having two fatalities. Of the six Hoboken cases, four had received early immunizations, but three had lapsed in maintaining immune status, including one of the fatalities. There is no statewide requirement for immunization against diphtheria prior to school admission, and it is not known how many school systems require it on their local authority. Such information is needed. No school systems are thought to require maintenance of immunity by means of regular boosters and it is necessary that this idea be publicized and its acceptance generated.

#### *Encephalitis*

Of the 110 cases reported in 1963, none were proven to be due to the epidemic equine viruses. Eighty-five (82%) were of unknown etiology, a fraction similar to that in previous years. Extensive surveillance of wild animals for the presence of the equine viruses continues (see Veterinary Public Health Program).

#### *Food Poisoning*

Fourteen outbreaks of food poisoning were reported to this Department, two of which were notifications by the United States Communicable Disease Center from newspaper articles of episodes previously unreported. Seven of the outbreaks involved families and friends; one occurred at a northern New Jersey summer camp.

Six other outbreaks involved institutions, five schools (including a state college and a university) and one hospital. The five school outbreaks were thoroughly investigated and evidence of major breaks in technique of food

handling disclosed at two public schools and the college. It was discovered that inadequate refrigeration facilities had been built into the college dining hall contrary to the specifications, and a new, larger unit was ordered. Overly ambitious school lunch programs (in terms of the facilities available to the untrained personnel) were part of the problem at the two school lunchrooms. Attempts were made to generate a program for inspection and food handling education of school lunch programs, which discussions were held through the joint Health-Education Interdepartmental Committee. It was proposed that joint planning of lunchroom facilities be undertaken (i.e., joint approval of plans submitted by local school boards), and that a sanitarian from the State Health Department accompany school lunch program personnel on their school visitations. In addition, the possibility of establishing programs at the county vocational schools for instruction in food handling was considered. Nothing has materialized from all these proposals. A vigorous attack upon them should be made again during the coming year.

#### *Infectious Hepatitis*

Like 1961 and 1962, 1963 was a year of high incidence for New Jersey, though less than those previous peaks. 1,064 cases were reported with onsets during 1963, of which 439 (41%) were under 20 years of age. The overall state ratio of 20 and over to under 20 cases was 1.4, which is higher than the national average of 0.5 for 1963. In the period October-December, it was noted that 46 cases of infectious hepatitis were found to be associated with the ingestion of raw clams within the two-month period prior to the onset of illness, and the majority of these were compatible with a South Jersey shore source for the clams. In addition, 42 New York City and Pennsylvania cases are known to be compatible with a South Jersey source for their clams. Clearly, clam harvesting from sewage-contaminated waters remains a significant problem in the transmission of infectious hepatitis to shellfish-eating individuals, primarily adults.

An apparent food-borne outbreak of hepatitis occurring at a New York country club involved four North Jersey residents along with another club member from New York City. As all five cases ate at the same time but nearly 100 others who ate the same meal were not ill, and as all five cases were probably seated in proximity to one another or at the same table, it is suggested that the outbreak was due to contamination of a small portion of the food relatively late in its handling, e.g. by a waiter or cook's helper recently recovered from or incubating the illness, perhaps asymptotically.

#### *Serum Hepatitis*

Eighty-seven cases of serum-transmitted hepatitis with known incubation period were reported with onsets during 1963. Forty-three (49%) were

serum-transmitted Type A (Infectious Hepatitis) virus and the remainder were the classical Type B virus. In addition, 33 cases were reported, for which no estimate of incubation period or decision as to type of virus could be attempted. A significant percentage of cases arose in individuals who received single pint transfusions.

Follow-up of all cases of serum-transmitted hepatitis to determine the identity of donors resulted in the identification of 45 individuals who were either common to more than one case of hepatitis in a transfused individual, were known narcotic addicts (a high-risk group, cf. below), or were donors to cases who received only single pints. All blood banks were notified under the joint auspices of the new Blood Banking Program and the Division of Preventable Diseases to exclude these donors from their rolls, and the individuals themselves were, where possible, notified of their potential carrier status and ordered to desist from donating, giving or selling their blood or plasma for transfusion purposes.

A study of donations at a commercial blood bank in New Jersey licensed by the National Institutes of Health disclosed that seven percent of the donors were known or suspected narcotic addicts. A follow-up of patients who received at least one unit of blood from this bank showed an incidence of hepatitis of 8.26 per 1,000 pints transfused compared with an incidence of 1.39 per 1,000 pints transfused from voluntary and other commercial sources in a control group. The incidence among recipients of at least one pint of addit blood was 98.3 per 1,000 pints transfused, or 70-fold higher than the control group. Partly as a result of this investigation's disclosures and partly through the attempts to obtain regulation in this area over the past few years by the New Jersey Blood Bank Commission, a voluntary agency, new legislation was enacted giving the State Department of Health authority over all blood-banking practices within its borders, thus making New Jersey the fifth state so empowered.

#### *Influenza*

New Jersey was little affected by the 1962-1963 outbreak due to an Asian variant of influenza virus. Weekly mortality for the state as a whole rose above normal only slightly during the period of February 8 to March 15. Industrial absenteeism was normal as was school absenteeism except for highly-localized outbreaks, such as occurred at the Lawrenceville School. At the latter institution, no protective effect of the influenza vaccine could be demonstrated. A prospective study of influenzal vaccine effectiveness at the Rancocas Valley Regional High School failed to yield any information because of the lack of illness at the school, which was subsequently shown probably to be due to immunity from previous outbreaks.

**Malaria**

Of the nine cases reported in New Jersey, two were in military personnel recently returned from endemic areas in southeast Asia. The others, two of whom were presented in coma, were personnel of a merchant ship of the

Table 1. HEPATITIS IN NEW JERSEY, 1961-1963

	1961	1962*	1963
Total Cases	102	124	120
Information available	99	124	120
Incubation:			
Type A (under 60 days)	20	53	43
Type B	71	51	44
Indeterminate	11	20	33
%A of those with known incubation period	22%	51%	49%
Cases in addicts	9	24	32
Cases with addict donors	6	4	2
Total addict-related cases (%)	15(15%)	28(23%)	34(28%)
Cases in single-pint recipients	16	19	11
Cases from commercial pints	10(63%)	12(63%)	6(54%)
Mortality:			
Type A cases (%)	2(10%)	3(6%)	4(9%)
Type B cases (%)	10(14%)	7(14%)	3(7%)
Total cases (%)	13(13%)	11(9%)	10(8%)

Approximately one-third of all blood used in New Jersey is purchased from commercial sources. An unknown amount is obtained through direct hospital-to-donor payment.

\* Does not include cases discovered during special intensive study.

Norwegian flag who had recently returned from a highly endemic area in West Africa. Although routinely directed to take Quinine tablets before and after entering the infected area, few of the ship's company inconvenienced themselves by doing so. Five cases were mild or asymptomatic infections detected only by blood smears. An additional crewman died of cerebral malaria at sea two days out of the United States, and yet another crewman was hospitalized and diagnosed in Philadelphia. Alertness on the part of the laboratory at St. James' Hospital in Newark to which the comatose patients had been brought combined with prompt action by the Newark Health Department were responsible for the recovery of the two comatose cases as well as the probable prevention of acute illnesses among the as yet asymptomatic infected crew.

**Measles**

There were reported 11,926 cases of measles, probably representing under-reporting by a factor of around 10-fold. There were 12 cases of measles

encephalitis reported. This number and the complications of encephalitis should rapidly diminish over the next few years with widespread adoption of the new measles vaccines, which are highly recommended. Several child-health conferences have already adopted or are considering adopting these new materials with good results and no complications. School physicians now have effective tools for aborting measles epidemics.

**Pertussis (Whooping Cough)**

It has been thought in the past that pertussis reporting might serve as a useful index of the immunization status of the population, along with diphtheria and tetanus. A recent survey by this Program has shown, however, that most of what is reported is unsubstantiated by either the classical picture clinically, including the whoop, by blood counts, or by culture, and in fact most of these diagnoses involve mildly ill children seen on only one occasion. It is unlikely that the reported data, therefore, have any true relationship to the incidence of illness. About the only statement that may be safely made about pertussis in New Jersey is that it undoubtedly occurs.

**Poliomyelitis**

Only four cases were reported for 1963, three of which were probably due to Type I and paralytic, and one of which was due to Type III and was non-paralytic. All three Type I cases occurred in southern New Jersey at the time of the major outbreak due to Type I in Philadelphia. All four cases occurred in inadequately or nonvaccinated individuals.

**Rabies (see Veterinary Public Health)**

No human cases of rabies were reported.

**Rocky Mountain Spotted Fever**

One case which lacked diagnostic rash or serologic confirmation was reported in a 50-year-old woman from the shore area in May.

**Salmonellosis (excluding Typhoid Fever)**

In 1963, there was a substantial rise in reported and discovered cases of Salmonellosis, and further increases are in prospect.

Table 2. CASES OF SALMONELLOSIS IN NEW JERSEY, 1959-1963

	Number of Cases
1959	63
1960	78
1961	70
1962	154
1963	562

Sporadic cases and family clusters of cases accounted for the largest group of cases, with the exception of a single large outbreak of 101 cases related to contaminated pork in a northern New Jersey sandwich shop. There were 476 reports obtained from physicians' notifications to local boards of health, hospital laboratory reports and requests for culture or identification of isolates made to the Division of Laboratories, primarily the last. An additional 86 cases were found by investigation, 25 as part of outbreaks and 61 in families of already known cases.

Twenty-nine distinct serotypes (excluding *S. typhi*) were identified in New Jersey residents. In order of frequency of cases they were:

Table 3. FREQUENCY OF SEROTYPES FOUND IN CASES, NEW JERSEY, 1963

Number	Serotype	Number of Cases
1	derby*	133
2	heidelberg*	129
3	typhimurium*	81
4	enteriditis*	32
5	schwarzengrund*	21
6	oranienburg*	19
7	tennessee	8
8	montevideo*	7
9	paratyphoid B	7
10	newport	6
11	thompson	6
12	blockley	5
13	chester	5
14	infantis	5
15	saint paul	5
16	panama	3
17	braenderup	2
18	bredeley	2
19	cholerastris	2
20	cubana	2
21	meleagridis	2
22	muenchen	2
23	alachua	1
24	berta	1
25	bovis morbificans	1
26	heilbron	1
27	paratyphoid A	1
28	stanley	1
29	urbana	1
	ungrouped	36
	Group B	17
	Group C1*	11

Table 3. FREQUENCY OF SEROTYPES FOUND IN CASES, NEW JERSEY, 1963—Continued

Number	Serotype	Number of Cases
	Group C2	3
	Group D	4
	Total	562

\* Involved in outbreaks.

This frequency distribution is in general agreement with the national experience as given in the publications of the Salmonella Surveillance Unit of the Communicable Disease Center.

Table 4. SALMONELLA CASES IN NEW JERSEY RESIDENTS BY MONTH OF ONSET, 1963

Month of Onset	Number of Cases
January	7
February	16
March	12
April	30
May	191
June	77
July	32
August	45
September	49
October	41
November	29
December	30
Unknown	3
Total	562

Table 5. SALMONELLA CASES BY AGE GROUP, NEW JERSEY—1963

Age Group	Cases
0-4	85
5-9	37
10-19	36
20-29	24
30-39	32
40-49	41
50-59	41
60-69	31
70-79	18
80 and over	4
Unknown	213
Total	562

Thirty-five percent of cases for which age is known occurred in the 0-9 age group. This is less than usually reported and is due to the effect of the hospital-acquired *S. derby* cases.

Table 6. CASES BY AREA OF STATE, NEW JERSEY, 1963

District	Population (est. mid-1961)	Cases	Rate/per 100,000 Population
Northern	595,000	54	9.1
Metropolitan	3,275,000	272	8.3
Central	1,425,000	109	7.7
Southern	926,000	129	13.9*

\* This relatively high rate reflects the large number of *S. derby* infections acquired in nearby Philadelphia hospitals.

Table 7. CASES BY EPIDEMIOLOGIC CHARACTER, NEW JERSEY, 1963

Sporadic Case*	180 (32%)
Family Cluster	102 (18%)
Outbreak	280 (50%)
Total	562

\* Sporadic cases are so defined when no source is found on investigation and no one else in the family is ill. Family clusters occur in a clear grouping with no extra-familial contacts known to be involved. For the purposes of this tabulation, single cases never investigated were assumed to be sporadic.

### Major Outbreaks

Major outbreaks occurred with seven serotypes.

*S. derby*, the source of much publicity in the spring and summer because of hospital outbreaks in several eastern states, struck also in hospitals in New Jersey. Additionally New Jersey residents hospitalized in Philadelphia and nearby Pennsylvania were frequently infected. A total of 133 cases due to *S. derby* occurred, with distribution as below:

Table 8. *S. DERBY* CASES IN NEW JERSEY RESIDENTS BY MONTH OF ONSET AND PLACE OF ACQUISITION, 1963

Month of Onset	Fourteen New Jersey Hospitals	Philadelphia and Pennsylvania Hospitals	Community- Acquired	Total
January	0	0	0	0
February	0	0	0	0
March	1	5	0	6
April	2	5	2	9
May	6	17	2	25
June	11	19	3	33
July	6	6	3	15
August	4	4	7	15
September	2	0	2	4
October	5	5	1	11
November	2	4	2	8
December	2	3	2	7
Total	41	68	24	133

The more or less simultaneous onset of disease among hospital patients in separate locations and in the non-hospitalized community is in keeping with the belief that this outbreak was spread by a vehicle moving in interstate commerce.

Table 9. *S. DERBY* CASES BY AGE GROUP, NEW JERSEY, 1963

Age Group	Hospital- Acquired Cases	Community- Acquired Cases	Total Cases
0-4	6	4	10
5-9	4	1	5
10-19	5	4	9
20-29	3	5	8
30-39	10	3	13
40-49	17	2	19
50-59	24	3	27
60-69	23	0	23
70-79	10	0	10
80 and over	1	0	1
Unknown	6	2	8

The differences in age grouping of cases for *S. derby* are great when contrasted with the distribution for total cases of *Salmonella* serotypes (excluding *S. typhi*) in Table 5 above, and are clearly related to the age distribution of

hospital patients and the fact that this outbreak was primarily located in hospitals. It should be noted that, although no detailed breakdown is available, a number of the community-acquired *S. derby* cases gave histories of chronic colitis or similar gastrointestinal complaints unrelated to their acute infection.

Because of the question of involvement of uncooked or undercooked eggs as the source of *S. derby* infections, egg farmers were visited and 9,460 cultures made by the State Department of Agriculture on feces, feed, wash water, drinking water, dust, and cracked and leaded eggs. The results of these cultures, taken between 3 June 1963 and 2 January 1964 at 68 farms were that only 18 cultures of feces out of 9,242 run were positive. Recoveries included *S. bredney* (7 times), *S. anatum* (3 times), *S. kentucky* (twice), *S. typhimurium*, *S. muenchen*, *S. tennessee*, *S. monteideo*, *S. saint paul*, and an unidentified Group E2. Five cultures of drinking water, 62 of egg-wash water, 72 of feed, 49 of dust, and 30 of eggs were all negative for any *Salmonella* serotype.

Subsequently, from Sept. 19 to Dec. 13, half-pint slurries of eggs were sampled at a South Jersey egg-breaking plant and one of the seven slurries was found positive for *S. typhimurium*.

When the first cases of *S. derby* infection acquired in hospitals in New Jersey were reported, the Commissioner issued a recommendation through the New Jersey Hospital Association that all hospitals serve only hard-boiled eggs, that special attention be directed to sterilization of equipment and tightening of precaution techniques. This was on May 31. On June 19, because no sharp outbreak appeared to be occurring, the recommendation was modified to suggest the serving of well-cooked eggs other than hard-boiled ones, and the continued and future discontinuation of use of raw egg supplements, which contain no assets not readily obtained with less hazard.

It is noteworthy that in addition to the well-publicized *derby* outbreak, and to a nursery outbreak described below, six other hospital-acquired cases were discovered during 1963 in five different hospitals, involving *S. heidelberg*, *S. chester*, *S. newport*, an untyped Group B strain, and one ungrouped strain.

One hundred and one cases of *S. heidelberg* infection occurred among primarily Spanish-speaking customers of a northern New Jersey sandwich shop. Investigation disclosed a history of diarrhea in the shop owner three weeks before the outbreak. Sanitary conditions were conducive to the spread of contamination from the environment to the cooked pork eaten by all those who became ill, the mean incubation period approximating 12 hours. The organism was recovered from the pork and from food handlers at the shop, but no conclusion could be drawn as to which infection came first.

Three isolates of *S. typhimurium* were made at a northern New Jersey nursing home among 34 residents, 11 of whom had diarrhea. No source could be definitely incriminated although two of the staff were found to be also infected. Two chickens on the premises were found *S. pullorum* in their stools, and over 20 more were found to be *pullorum* serologic reactors. Interestingly, ducks were also kept, their eggs stored in water glass until use for human consumption. The water glass was found free of *Salmonellae* as were stool cultures on the ducks, but ducks are known to frequently carry *S. typhimurium*.

At least seven college freshman and one sophomore student became ill with gastroenteritis in the fall, and *S. enteritidis* was cultured from five, *S. monteideo* from one other. No general survey of the student population was done but it is thought that any cases of more than minimal severity would have been seen at the college infirmary. Thirty-one food handlers were cultured at the school cafeteria where the suspected meals were eaten by all those from whom a *Salmonella* was isolated, but all these were negative. The suspected food was scrambled eggs prepared from frozen whole eggs. Bacteriologic sampling of the eggs shortly after the outbreak was negative (the original material was no longer available), but subsequent screening cultures of batches of frozen eggs similar to those used earlier are being obtained in 1964 and are showing *Salmonellae*.

Two cases of *S. oranienburg* infection diagnosed four months after birth in two infants born three weeks apart in the same hospital led to an intensive retrospective investigation for other unreported diarrheal cases among 48 children born in the three-week interval separating the known cases. No further positive cultures were obtained at this late date, but in 17 of 40 newborns of whom a history could be obtained, diarrhea occurred within the first weeks of life, usually while the babies were still in the hospital. One mother also had diarrhea. No source could be found at the time of the investigation, the outbreak not having been reported earlier. Failure to close the nursery to new admissions when the diarrheal cases began to occur was undoubtedly responsible for most of the later illnesses though the method of introduction of infection remains unknown, such failure being combined with poor nursing techniques.

Eighteen cases of gastroenteritis among 23 members of a northern New Jersey club attending a banquet were found to be due to *S. schwarzengrund*, which could be grown from left over uncooked turkey dressing and from the stools of 13 members.

Ill pet animals were implicated in six small episodes of gastroenteritis. The number of cases and organisms incriminated are listed:

Table 10. PET CASES OF GASTROENTERITIS

<i>Pet</i>	<i>Number of Cases</i>	<i>Serotype</i>	<i>Pet positive?</i>
Easter chicks .....	3	saint paul	Yes
Easter duckling .....	5	typhimurium	Yes
Turtle, mice, chicks .....	1	typhimurium	
	1	schwarzengrund	
Dog .....	1	derby	No-late
Dog .....	1	heidelberg	not done
Dog .....	1	bovis moribificans	not done

In five cases, the pets were ill prior to the humans.

The chicks, duckling and turtle were all newly purchased.

The dog related to the derby case ate cracked raw eggs daily.

It is of interest in terms of nationwide rapid movement of foodstuffs associated with Salmonellosis that nine weeks after the report of a nursing home outbreak of *S. braenderup* and *S. infantis* due to raw egg nogs in Kansas (Aug. 22) the former organism was isolated from two New Jersey residents for the only times it was noted during the year.

Salmonellosis continues to be a massive public health problem. Whether or not a true increase in incidence is occurring or whether, as we believe, better diagnosis is merely discovering what has always been among us, intensive attempts to better document source foods and mechanisms of dissemination seem warranted.

#### *Shigellosis*

Sixty-five cases were reported, with no major outbreaks defined. Jersey City had 32 cases, localized to areas of overcrowding and poor economic conditions. The relatively high incidence in this city is thought to be due, in part at least, to a high index of suspicion and good medical care as well as good laboratory facilities at the Medical Center, in addition to good cultural follow-up of contacts of cases by the City's Health Department.

#### *Smallpox*

Two cases of suspected smallpox were reported and investigated by the Program. Neither was found to be smallpox. In addition, U. S. Division of Foreign Quarantine Surveillance Orders were followed through on 89 individuals, none of whom developed illness. All Health Officers were alerted as to the methods of surveillance follow-up to be maintained by a circular over the signature of the Commissioner in February, 1963, codifying the responsibilities of the local health departments in this matter for the first time.

#### *Tetanus*

Tetanus was reported in two individuals, a 61-year-old female who recovered, and a 24-year-old male who expired. The former developed her illness after a pitch-fork wound of the foot, while the latter, a vagrant, developed his illness as a complication of bilateral wet gangrene of his over-exposed feet.

#### *Trichinosis (See Veterinary Public Health)*

#### *Tularemia*

One case of tularemia in a rabbit hunter from Cape May County was proven by rising agglutination titers in November. Rumors of other cases in the area diagnosed retrospectively were investigated, but serologic examination on several individuals so named were all negative. The deer fly is known to be capable of transmitting *P. tularensis*, and infection in wild life in New Jersey is known to be endemic.

#### *Typhoid Fever*

Five new cases of typhoid fever were reported. One from Hackensack was in a 37-year-old female, another from Princeton involved a 21-year-old student, while a third from Lindenwold was in a 27-year-old engineer, who had recently drunk contaminated water. Investigation revealed no identifiable source for any of the above illnesses, from which recovery was uneventful.

Two identifications of typhoid organisms were made from fatal cases. A 101-year-old female Jersey City resident expired following an acute septicemic infection. No source was disclosed for this illness, nor for asymptomatic biliary carriage detected on a routine culture at surgery in a 79-year-old Plainfield man who died from unrelated causes post-operatively.

Following the spring typhoid epidemic in Zermatt, Switzerland, 38 New Jersey residents who had been in the resort were kept under surveillance following their return to the United States, and negative stool cultures were obtained in all.

Two cases noted in previous years were declared carriers. One carrier moved into the state from another jurisdiction, and eleven individuals are under current investigation to determine whether or not they should be declared carriers.

A mechanism for the removal from the carrier list of individuals who the Department has reason to suspect may have lost this status and who demonstrate lack of carriage to the satisfaction of the Department has been evolved and formalized.

*Typhus*

One case of possible Typhus was reported in an American sent by his employer on a field trip to interior Greece. The patient developed appropriate clinical symptoms (except for the rash) at the proper incubation period, and quickly responded to tetracycline therapy. Serologic examination did not confirm the diagnosis, but it is felt that antibody formation may have been suppressed by the early and vigorous antibiotic treatment.

*Distribution of Biologics*

This Division through its Biological Distributing Stations distributed the following doses of medications for people who could not afford to pay for them from January 1, 1963 to December 31, 1963.

	<i>Doses</i>
Smallpox Vaccine .....	185,000
Diphtheria-Pertussis-Tetanus .....	453,950
Typhoid-Paratyphoid Vaccine .....	24,000
Gamma Globulin (10cc) .....	1,470
Polio Vaccine (Salk) .....	383,841
Influenza Vaccine .....	150,000
Diphtheria and Tetanus (Adult) .....	37,000
Diphtheria and Tetanus (Pediatric) .....	19,000
Diphtheria Toxoid .....	8,000
Rocky Mountain Spotted Fever Vaccine .....	300
Antirabies Serum .....	50,000 units
Duck Embryo Rabies Vaccine .....	1,876

In addition, 37,000 bottles of INH each containing 100 tablets and 5,734 bottles of PAS each containing 1,000 tablets were distributed.

Also, 6,864 packages of Gamma Globulin, each of which contained 2cc, furnished to us by the American Red Cross were distributed.

During the period, over seven requests per week came in for Gamma Globulin to be used for hepatitis contacts which had to be refused due to lack of funds to buy the Gamma Globulin.

Toward the end of the year, Distributing Stations were notified that during the coming year the Department would discontinue furnishing Salk polio vaccine and furnish Oral polio vaccine instead. To this end, the Department made all necessary arrangements for the handling, storing, and shipping of oral polio vaccine which are quite different from the ordinary biologic distribution.

Periodic visits to Distributing Stations were made throughout the year at which time expirations were picked up, supplies checked, and questions as to procedures were answered.

**Accident Prevention Program**

Accidents are the greatest public health problem in our state and country in terms of man-years of time lost. Accidents claim about 2,400 lives a year in New Jersey, a death rate of 38.3 per 100,000.

The purpose of the Accident Prevention Program is to work with other divisions, departments, local health departments, and other agencies and groups in preventing accidents and helping to reduce fatalities and injuries as a result of accidents.

Due to the small size and budget of the Program, efforts have been confined to the following main areas: Promotion of automobile seat belts, poison control, control of child lead poisoning, teaching rescue breathing, promotion of safety activities among public health people, migrant worker safety, accident injury reporting and Department employee safety.

*Automobile Seat Belt Promotion*

In 1962, 894 persons died in motor vehicle traffic accidents in New Jersey. In 1961, there were about 80,000 persons reported injured in this manner in the state. The majority of these deaths and injuries did not involve pedestrians. Research studies indicate that at least one of every three fatalities and serious injuries not involving a pedestrian can be prevented or lessened by the use of seat belts.

Despite these data, no other organization in our state has carried on any significant seat belt promotion.

Promotional efforts were begun with an off-the-job seat belt program among Department employees, in cooperation with the Department Safety Committee, building safety representatives, and the Personnel office. The Program's new film, "Broken Glass," was shown to the employees by Division and installation. Prior to the showings, the film was shown at a Commissioner's staff meeting. The Commissioner's backing was obtained. All personnel were notified in a letter from the Commissioner about the program and the schedule of meetings and posters, pamphlets, news releases, and order blanks were distributed. Arrangements were made with a leading seat belt manufacturer for mass discount purchase of the belts and harnesses. Arrangements were also made with a local service station and automobile dealers for discount installation.

Out of about 650 employees and other staff, 163 people bought 444 seat belts and harnesses. These figures compare favorably with that of other similar organizations that had good seat belt programs.



With the experience and publicity gained from this project, promotional efforts were begun among other state departments and elsewhere. The film "Broken Glass" was shown and other promotional efforts made at a meeting of the Personnel Council, the State Coordinating Committee on Traffic Safety, and the Mercer County Traffic Safety Committee. The Commissioner has agreed to promote seat belts at meetings with the other commissioners and key people.

The Program provided the main stimulation for the kick-off meeting of a seat belt program in the Atlantic City Insurance Association.

Promotional efforts included a meeting with a number of health officers, the safety chairman of the Medical Society of New Jersey, and the safety chairman of the Council of First Aid Squads.

A model seat belt program for an organization has been drafted. It will be used to assist others, such as health educators, in promoting seat belts and to assist organizations interested in seat belt programs.

#### *Poison Control*

Each year in the United States about 500,000 children swallow poisonous substances and 500 die. Accidental poisoning causes more childhood deaths than all the contagious diseases combined. In New Jersey during 1962, there were over 3,000 cases of accidental poisoning reported by the 39 Poison Control Centers in the state and a total of 21 reported deaths. Of these cases, 85 percent were children under five years of age.

The main problems in the control of these poisonings are:

1. The child's natural curiosity, his desire to imitate his parents, and his desire to put things in his mouth.
2. Carelessness by parents and their ignorance of the danger of many products.
3. The lack of information of physicians and others concerned on the toxicity of and treatment for many drugs and household products. This is understandable, since there are about 250,000 potentially poisonous products on the market today and thousands more appear each year.

To help combat these problems, a national poison control program was formed. This program consists of a network of Poison Control Centers throughout the United States. These centers are usually in hospital emergency rooms. The program is coordinated by the National Clearinghouse of the Division of Accident Prevention of the United States Public Health Service. Each state health department is the coordinating agency for the state. In order for a hospital to be approved as a Poison Control Center, it must meet standards of operation, such as providing 24-hour service on treatment and

information to other hospitals and physicians, and maintaining the necessary supplies and equipment. Recognized centers are provided with reference materials by the National Clearinghouse and are urged to obtain other necessary references, supplies, and equipment to improve their treatment and information capability.

Poison Control Centers also complete standard report forms furnished by the National Clearinghouse on poisoning cases. These reports provide information on the nature and extent of the problem to the State Health Department and the National Clearinghouse. In some cases, arrangements have been made for public health nurses to do follow-up investigations of the poisonings. Of the 39 Poison Control Centers in New Jersey, 14 have such follow-up arrangements. The follow-ups provide additional valuable data about the causes of the poisoning and enable the nurse to counsel the family on prevention. The National Clearinghouse provides yearly tabulations of these reports and, beginning with 1963, the Department published monthly tabulations based on the state's reports.

Once Poison Control Centers are established, it is necessary to maintain regular communications with them and with the agencies doing follow-up investigations. Due to a shortage of staff, such communications were not adequately maintained for a substantial part of 1963. One improvement, however, was in securing better reporting by the centers. With the addition to the staff of a field representative for poison control in August, regular visits and regular communications were re-established with the Poison Control Centers and the health departments servicing them. Six Poison Control Centers and two health departments were visited.

#### *Lead Poisoning Among Children*

Lead poisoning among children is a much more serious problem than is commonly realized. It occurs principally in slum areas and among children aged one to four. The poisoning occurs mainly by children eating dried paint containing lead from walls, sills, and furniture. Because of its occurrence among the lowest socio-economic group and the non-specificity of the symptoms, physicians and nurses sometimes do not suspect the cause and diagnosis is often not made.

Mortality and morbidity data in the state are incomplete and not reliable, partly for the above reason but also because reporting is voluntary and individual reports may be inconclusive. There were nine reported deaths in 1961 and six in 1962. In all probability, there were more deaths than this, erroneously diagnosed.

Morbidity data are obtained in several ways: from the blood lead analyses done as a service by our Occupational Health Laboratory for hospitals and physicians, from voluntary reporting obtained from just a few cities, and from copies of lead poisoning investigation reports from health departments. In many cases, it is difficult to decide whether a case is lead poisoning or even suspected, partly due to the incompleteness of the data. The blood test is the single best diagnostic criterion. A level of 0.06 mg. or more of lead per 100 g. of whole blood is considered abnormal and we interpret this as at least a suspected case based on the above criterion.

In 1961, there were 55 such suspected or confirmed cases; in 1962, the number was 69, and in 1963 it was 89.

Up to 1963, Jersey City was the only city in the state which had an effective program against child lead poisoning. The records of cases reported by the Medical Center there to the Health Department verify that there are more cases in other places than are usually detected. Although Jersey City is considerably smaller in population than Newark, for example, it has in the past been reporting more than twice as many cases as Newark.

The Program has worked with the Newark Safety Planning Committee, which includes representatives of the local health department and the Metropolitan District office of the State Health Department, to develop a child lead poisoning program for Newark. The usual standard measures against this problem were taken. A nurse and sanitarian conducted an epidemiologic investigation of each confirmed or suspected case. With the assistance of the physician representative on the committee, physicians and hospitals were oriented toward the problem and asked to report suspected and confirmed cases to the local health department and our blood lead analysis service was made available to them. Printed materials, mass media, and word of mouth were used to help inform the public. The improved casefinding is shown by the fact that in 1962 the State Laboratory did blood lead analyses in 48 cases and in 1963 in 74 cases. Of these cases, 13 were confirmed or remained suspects in 1962 and 22 in 1963.

The Program also assisted in developing a child lead poisoning program in Paterson. There were two reported fatalities and 14 reported cases there in 1963. As a result, a program was developed which included orientation of nurses, sanitarians, and other concerned groups in the city.

In the cities of Trenton and Camden, meetings were also held with nurses and sanitarians on epidemiologic and preventive measures.

An improved state-wide reporting procedure was worked out. An addition was made to the letter giving the result of the blood lead analysis to the requesting hospital or physician, asking that if the case is confirmed or still

suspected as lead poisoning, it should be reported to the local health department. An extra copy of this letter is now automatically sent, where the results are positive, with a covering letter to the local health department requesting that the hospital or physician be contacted if he has not reported the case and that an epidemiologic investigation be conducted. A copy of the investigation is also requested in all cases now, on the standard lead poisoning investigation form provided by the Program.

Strict control and follow-up measures were undertaken to make sure that cases were reported, thoroughly investigated, and a copy of the results obtained by the Program. The improvement is shown by the number of copies of investigations received in 1963-64, as against 10 for 1962, and nine for 1961.

The Program is drafting a three-year tabulation of suspected and confirmed cases, a model community lead poisoning program and improved reporting forms and pamphlets.

A set of 35 millimeter slides of paint conditions, and preventive measures have been developed to assist in staff orientation.

#### *Rescue Breathing*

In 1962, 169 persons died as a result of accidental drownings and submersion in the state. Approximately another 100 died from other means of suffocation.

The most effective and the simplest means of artificial resuscitation is mouth-to-mouth or mouth-to-nose rescue breathing. A most effective device in training people in these techniques is the mannequin, "Resusci-Anne." The Program purchased two of these mannequins and they have been considerably used.

The first training accomplished was that of our Departmental employees. Through meetings with groups of employees in each installation in 1962 and early 1963, many of the personnel were trained in the mouth-to-mouth breathing technique. Each meeting consisted of showing the film "Rescue Breathing," a demonstration on Resusci-Anne, having each person practice on the mannequin, and distributing wallet-size cards explaining the technique.

Demonstrations and practice sessions with Resusci-Anne were also given at the Annual Meeting of State and Local Health Officials; at the Cherry Hill Cardio-Pulmonary Seminar for Nurses which was co-sponsored by the South Jersey Nursing Association and the State Heart Association; in Camden for members of the Health Department, police, fire, and civil defense; to the state delegates at the annual meeting of the Federation of Women's Clubs; and to the Riverside Kiwanis.

Resusci-Anne was borrowed by six groups. One of the groups, the Trenton Chapter of the American Red Cross, used Resusci-Anne 27 times among a variety of groups and before a total audience of about 621. Another one of the persons who borrowed Resusci-Anne was a school teacher in East Orange who used Resusci-Anne to train a number of her high school students.

The film "Rescue Breathing" had four bookings during the year. One of the places that used the film was the Camden County Health Fair.

The Program Coordinator participated in a valuable one-day orientation at The Johns Hopkins Hospital on heart-lung resuscitation.

With the assistance of the District and local health offices, a survey of first aid, police, and fire rescue squads on their training in and use of cardiopulmonary resuscitation was made. As a result of a meeting between the Heart Program, the Civil Defense Program, and the Accident Prevention Program, it was decided that the Heart Program would have major responsibility for coordination, policy, and activity in the entire area of heart-lung resuscitation. Consequently, the results of the survey were turned over to the Heart Program for its use and the Accident Prevention Program's role in rescue breathing has been curtailed.

#### *Safety Activities Among Local Health Departments*

As a result of meetings with the health officer of Madison, a safety program was instituted there. It started with Christmas safety. Christmas tree dealers distributed 12,000 newsletters to customers on tree safety. A feature article appeared in the local paper on the Health Department's safety programs for 1964.

Meetings were also held with a number of health officers including those of Verona, Bloomfield, East Orange, Atlantic City, and Newark. It was suggested to the New Jersey Health Officers' Association that they put accident prevention on the agenda of a future meeting and form an accident prevention committee.

#### *Migrant Worker Safety*

With the cooperation of the Migrant Health Program, the Accident Prevention Program has been planning migrant safety activities to begin in 1964. Because of the scarcity of published data on migrant accidents, efforts so far have been fact finding. Migrant camps were visited with inspectors of the Bureau of Migrant Labor and public health nurses to learn of conditions first hand. Subjective data were obtained from these people, based on their knowledge and experience. Meetings were held with the physician and members of the Glassboro Service Association, which looks after the health and welfare of some of the migrant contract workers from Puerto Rico, with the repre-

sentatives of the Puerto Rican government in this connection, and with the Chief of the Migrant Division of the Council of Churches in New Jersey. Arrangements were made with the Glassboro Association to provide us with data on accidents for 1963 and on a running basis in 1964. These data indicate what the major accident problems are among migrants and where and how preventive efforts should be concentrated.

A number of 35 millimeter slides were made of conditions in migrant camps that will help to orient nurses, inspectors, and others toward unsafe conditions and practices in the camps.

#### *Accident Injury Reporting*

In New Jersey as well as in the entire country, a major need in safety activities is the development of good morbidity information. Except for reportable traffic accidents, there is practically no accident morbidity reporting.

St. Francis Hospital in Trenton has agreed to report all emergency room cases to the Department. This was accomplished simply by adding an extra snapout to their existing reporting form and having the extra copy mailed to us regularly. Tabulation of these reports began late in the year.

#### *Department Employee Safety*

The Accident Prevention Program has been working with the Department Safety Committee and the Personnel office in promoting employee safety. The coordinator is a member of the Department Safety Committee.

In addition to the employee seat belt program and the rescue breathing program mentioned above, a home safety program was undertaken. It consisted of a survey of the extent of hazardous conditions and practices in the homes, accomplished through a subjective questionnaire. The results of the survey together with suggestions for ways to prevent accidents in the home were given to each employee. This home safety project was written up in a form that would make it useful for presentation to other organizations.

The Program Coordinator participated in the Civil Defense course given to the Department staff. He lectured on health and education.

Regular circulars on safety, based mainly on seasonal accident problems, continued to be circulated to the staff. The Accident Prevention Program assists by providing much of the material for the releases.

#### *Accidental Falls Among the Aged*

The State Safety Council and the Division on Aging developed a program to prevent falls among the aged. It consists of a movie, pamphlets and a pre-

pared talk, all to be given as part of meetings with community groups. The Accident Prevention Program participated in a planning meeting and prepared an introductory talk and closing remarks for the speakers at meetings.

Data from the Vital Statistics Program showed that Bloomfield and East Orange have a serious problem of fatal falls among the aged. Meetings have been held with the health officers of these cities to plan preventive measures.

### Vaccination Assistance Project

In July, 1963, the New Jersey State Department of Health received a project grant under the Vaccination Assistance Act which is designed "to assist states and communities to carry out intensive vaccination programs designed to protect their populations, particularly all preschool children, against poliomyelitis, diphtheria, whooping cough, and tetanus."

New Jersey's project was designed as a two-phase program to raise levels of immunity. Phase one was the elimination of polio in the state through mass, county-wide immunization programs using oral polio vaccine. The second phase of the program is to assure that immunization protection against diphtheria, tetanus, and whooping cough are substantially raised whenever necessary, particularly in children under the age of five.

#### I. Polio Immunization Programs

Prior to the establishment of the Vaccination Assistance Project in New Jersey, only one of the state's 21 counties had conducted an oral polio immunization program on a county-wide basis. In order to achieve the desired goal, it was the project's hope that the remaining 20 counties would sponsor similar county-wide programs before June, 1964. Five months after the project began seeking this goal, 11 counties in the state were conducting county-wide feeding programs and eight had plans to feed early in 1964. Only one county was not committed to sponsoring a coordinated county-wide program; however, it did plan to have an optional school program with hopes of reaching those people who were not immunized in local community programs conducted in 1962.

With its conception in July, 1963, the project immediately set out to accomplish its goal of selling mass polio immunization programs. The Project Director, a senior public health physician, working in cooperation with the staffs of District offices, began to visit the various county medical societies. The need for oral polio immunization programs was stressed and the goal was presented. The county medical societies sponsored mass oral polio vaccination programs in their respective counties. At the end of 1963, the status of oral polio programs in the counties was as follows:

#### A. Counties Not Having Polio Immunization Programs in 1963

<i>Atlantic</i>	A county-wide oral polio immunization program will be conducted in 1964.
<i>Bergen</i>	In the fall of 1962, it is estimated by the Bergen County Medical Society, that about 20 percent of the county's population was immunized against polio through local community programs. It is hoped that the remainder of the population will be immunized in the spring of 1964 by programs conducted through the county's schools.
<i>Essex</i>	A county-wide oral polio immunization program will be conducted in 1964.
<i>Hudson</i>	A county-wide oral polio immunization program will be conducted in 1964.
<i>Middlesex</i>	A county-wide oral polio program will be conducted in 1964.
<i>Morris</i>	A county-wide oral polio immunization program will be conducted in 1964.
<i>Passaic</i>	A county-wide oral polio immunization program will be conducted in 1964.
<i>Sussex</i>	A county-wide oral polio immunization program will be conducted in 1964.
<i>Union</i>	A county-wide oral polio immunization program will be conducted in 1964.

#### B. Counties Having Polio Immunization Programs in 1963

By the end of 1963, almost three million doses of oral polio vaccine had been administered in New Jersey. This includes 1,711,266 doses of Type I; 696,946 doses of Type III; and 450,746 doses of Type II oral polio vaccine. A more detailed look at this follows:

Table 1. Type I Oral Polio Vaccine—Percent of 1968 Population Fed by County and Age Group

County	Month Fed	Under 1			1-4			5-14			15-29			30+			Total
		No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%		
Canden	September	6,601	87.9	38,016	87.3	78,908	98.5	62,127	81.6	124,850	95.6	808,497	70.4				
Cape May	December	604	83.7	2,482	87.0	6,860	83.4	4,749	81.0	11,668	83.7	24,193	80.9				
Chamberland	October	1,405	87.8	7,889	79.1	18,869	87.8	14,803	71.2	32,698	40.6	78,472	68.8				
Gloucester	October	2,295	60.7	10,842	70.2	28,027	85.8	18,870	74.6	37,654	50.2	96,128	68.8				
Hunterdon	December	788	68.9	8,939	79.8	9,511	88.4	8,128	80.0	16,010	51.5	88,384	68.8				
Mercer	December	2,692	49.4	16,178	68.7	42,888	88.5	32,138	89.4	69,478	44.8	161,971	68.2				
Monmouth	December	4,470	54.2	22,985	64.5	62,042	87.3	36,548	85.4	85,820	44.8	210,445	68.9				
Ocean	December	1,983	65.2	9,023	78.4	21,418	84.7	14,688	64.3	18,649	62.5	78,671	62.9				
Salem	December	887	62.2	4,663	82.1	11,548	92.9	9,298	75.5	15,649	62.5	45,232	72.9				
Somerset	December	1,779	43.3	10,823	73.5	29,847	87.5	18,684	82.1	39,225	47.8	98,866	62.2				
Warren	October	842	64.9	8,848	70.3	10,828	84.7	7,986	66.5	15,634	48.7	83,186	57.9				

County	Month Fed	0-4		5-19		20-29		30+		Total	
		No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%		
Burlington*	March	16,644	65.1	47,079	68.2	33,650	29.3	27,807	26.5	108,000	41.8

\* The first county-wide program in the state was concluded here in June 1968. This program was directed specifically to people under 30 and did not include McGuire Air Force Base, Fort Dix, and dependents of military personnel.

Table 2. Type III Oral Polio Vaccine—Percent of 1968 Population Fed by County and Age Group

County	Month Fed	Under 1			1-4			5-14			15-29			30+			Total
		No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%		
Canden	October	6,200	68.8	32,189	68.7	80,184	100.1	68,272	78.9	120,652	54.9	297,847	70.3				
Cumberland	December	1,229	64.7	7,628	81.6	19,092	83.9	13,068	71.0	36,878	47.9	90,824	60.6				
Gloucester	December	1,827	61.9	10,789	69.1	10,488	86.1	7,220	63.9	15,181	42.7	37,491	68.8				
Warren	December	639	62.1	6,182	69.1	10,488	86.1	7,220	63.9	15,181	42.7	37,491	68.8				

County	Month Fed	0-4		5-19		20-29		30+		Total	
		No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%		
Burlington*	May	18,768	65.5	45,692	67.2	11,786	26.5	23,675	29.3	102,866	40.6

\* The first county-wide program in the state was concluded here in June 1968. This program was directed specifically to people under 30 and did not include McGuire Air Force Base, Fort Dix, and dependents of military personnel.

Table 3. Type II Oral Polio Vaccine—Percent of 1968 Population Fed by County and Age Group

County	Month Fed	Under 1			1-4			5-14			15-29			30+			Total
		No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%		
Canden	December	4,984	51.8	30,620	79.8	76,287	88.2	68,383	71.8	110,643	80.4	276,886	68.3				
Gloucester	December	756	54.2	8,981	71.7	19,811	87.0	8,778	71.3	19,928	60.5	41,161	68.4				

County	Month Fed	0-4		5-19		20-29		30+		Total	
		No. Fed	%	No. Fed	%	No. Fed	%	No. Fed	%		
Burlington*	June	15,886	52.4	49,542	64.0	10,656	22.9	27,652	28.3	97,686	38.5

\* The first county-wide program in the state was concluded here in June 1968. This program was directed specifically to people under 30 and did not include McGuire Air Force Base, Fort Dix, and dependents of military personnel.

Table 4. TYPE I VACCINE FED IN 11 COUNTIES<sup>1</sup>—1963

Age Group	Estimated 1963 Population <sup>2</sup> of 11 Counties	Number of People Fed in 11 Counties	Percent of Population Fed in 11 Counties
Under 1 .....	40,949		
1-4 .....	165,191	24,191	59.1
5-14 .....	347,804	123,518	74.8
15-29 .....	331,531	317,722	91.4
30 and over .....	967,401	224,786	67.8
Total .....	1,852,876	483,512	49.9
		1,173,729	63.3

<sup>1</sup> Camden, Cape May, Cumberland, Gloucester, Hunterdon, Mercer, Monmouth, Ocean, Salem, Somerset, Warren.

<sup>2</sup> 1963 population estimate data furnished by New Jersey State Department of Health Vital Statistics.

Table 5. TYPE III VACCINE FED IN FOUR COUNTIES<sup>1</sup>—1963

Age Group	Estimated 1963 Population <sup>2</sup> of Four Counties	Number of People Fed in Four Counties	Percent of Population Fed in Four Counties
Under 1 .....	17,084		
1-4 .....	67,943	10,171	59.5
5-14 .....	144,114	53,718	79.1
15-29 .....	131,989	134,649	93.4
30 and over .....	388,747	99,215	75.2
Total .....	749,877	203,489	52.3
		501,242	66.8

<sup>1</sup> Camden, Cumberland, Gloucester and Warren.

<sup>2</sup> 1963 population estimate data furnished by New Jersey State Department of Health Vital Statistics.

Table 6. TYPE II VACCINE FED IN TWO COUNTIES<sup>1</sup>—1963

Age Group	Estimated 1963 Population <sup>2</sup> of Two Counties	Number of People Fed in Two Counties	Percent of Population Fed in Two Counties
Under 1 .....	11,119		
1-4 .....	43,935	5,740	51.6
5-14 .....	92,549	34,611	78.8
15-29 .....	86,417	87,068	94.1
30 and over .....	249,809	61,631	71.3
Total .....	483,829	127,490	51.0
		316,540	65.4

<sup>1</sup> Camden and Salem.

<sup>2</sup> 1963 population estimate data furnished by New Jersey State Department of Health Vital Statistics.

## II. Diphtheria, Pertussis and Tetanus

Phase II of New Jersey's Vaccination Assistance Project, raising levels of immunity against diphtheria, pertussis and tetanus, received only limited attention during 1963.

An immunization survey was initiated to determine the approximate immunization status of children age one in New Jersey. About 2,500 children born in November, 1962 will be surveyed as to the number of inoculations they received for diphtheria, whooping cough, tetanus, polio, smallpox and measles; whether the child was immunized by a private physician, at a child health conference, hospital clinic, community immunization program or elsewhere.

This survey should be completed by early spring, 1964, at which time additional surveys will be initiated to measure over-all immunization levels, particularly in the larger cities.

## III. Project Staff

At the end of 1963, the Vaccination Assistance Project Staff was as follows:

- 1 Senior Public Health Physician
- 1 Public Health Service Assignee
- 1 Public Health Nurse
- 1 Community Health Organizer
- 4 Senior Field Representatives, Health
- 5 Field Representatives, Health
- 1 Senior Clerk
- 1 Clerk Stenographer
- 1 Clerk Typist
- 1 Laboratory Technician

## Health Services for Migrant Agricultural Workers in New Jersey, 1963

In 1963, the New Jersey State Department of Health sought to increase health services in the migrant labor camps widely dispersed throughout the state. Direct efforts were undertaken to expand the public health nursing staff rendering services to migrant workers.

The goal of the Migrant Health Program was development of local leadership in the planning and execution of migrant health activity and the involvement of local agencies in carrying out many essential functions.

The receipt of a federal grant for migrant health services enabled the New Jersey State Department of Health to obtain the services of a full-time project director, Mr. Thomas Gilbert, B.S., M.P.H.; a medical social worker,

Miss Rose Galaida, B.S., M.S.S., two assistant sanitarians, Mr. Thomas Grammes and Mr. Frederick Block; three physicians who served at county levels, William Miller, M.D., Salem County; Michael Christofaro, M.D., Monmouth County; Peter Jespersen, M.D., Cumberland County; one dental student, Michael Capolla; five public health nurses, Marie Mausert, Harriet Thompson, Letita Wright, Margaret Powell, Katherine Kapus.

The federal funds also provided for the purchase of public health nursing service by contract from five community agencies: The Public Health Nursing Association for Burlington County, Mount Holly, N. J.; the County of Cumberland Department of Health, Bridgeton, N. J.; the Monmouth County Organization for Social Services, Red Bank, N. J.; the Princeton Visiting Nurse Association, Princeton, N. J.; and the Visiting Nurse Association in Middlesex County, New Brunswick, N. J. The grant also provided for amplification of dental services, the development of hospital and other clinic services, and the provision of physician services.

The services supported by the grant were amplified by provisions within the Department for employment of a Public Health Nurse Supervisor, Sarah Dougherty; a Public Health Nurse, Jacqueline Logue; and six medical students, and for contracts with community hospitals for prenatal care, obstetrical services and post-partum care.\* A grant of funds for emergency medical care made possible a project jointly sponsored by the New Jersey Hospital Association to study the full extent of hospitalization needs of migrant workers in the state. \*\*The Department contributed, in addition, multiple services of its physician, dental, nursing and clerical staffs.

The 1963 program had a unique international aspect, in that a dental student from Nigeria served with the Department during the summer, assisting the dental service in the migrant schools.

#### *Local Leadership and Participation*

The Public Health Nursing Association for Burlington County in Mt. Holly provided a nucleus about which to build community services for migrant agricultural workers. This agency, together with the Burlington County Tuberculosis and Health Association, had worked with the New Jersey State Department of Health for two years. The nursing agency covered the entire county, particularly 30 communities that extended from 15-20 miles to the

\* These were negotiated in July by the Department and the Bridgeton-Millville, Cooper and Salem Hospitals in the counties of Cumberland, Camden, and Salem. It is worthy of note that migrant families participated to some degree in payment for services.

\*\* Survey terminated December 15, 1964.

east toward the Atlantic Ocean. These townships do not have any form of organized health service. The majority of migrants live in these townships. The Director of the Agency indicated both a willingness and a capacity to undertake a migrant health program.

Previous experience with the Monmouth County Organization for Social Services indicated that it was already deeply concerned with the health problems of migrant workers. The Director and staff are already working on a plan for services. With the exception of consultation and contract support, this agency evolved and carried out its services as a community project.

In Cumberland County, the planning activities of the spring of 1962 and the successful clinics in the summer of 1962 provided the stimuli for the organization of migrant health activities in 1963. In this county the Public Health Coordinator, Dr. William P. Doherty, D.V.M., and the Director of Public Health Nurses, Mrs. Elizabeth Kaufman, R.N., aided by a contract from the New Jersey State Department of Health, recruited a nursing staff, made a census of the camps in the county, directly contacted each of the 2,000 migrants, and assessed the health needs of the area in an action unprecedented in migrant health services in previous years.

In Gloucester County, it was decided to recruit public health nurses to serve the migrant population. A number of the local school nurses, who had had public health nursing experience, indicated a willingness to serve during the summer months. They were familiar with the local farms employing migrant labor, they were well known to the farmers and they understood the need of the workers.

Adjoining Salem County did not have in 1963 a local health agency which covered the county. A decision was reached to employ public health nurses in this area also. This group was brought together with the Gloucester County nurses under the supervision of Miss Sarah Dougherty, R.N., who had served formerly in the migrant schools as a school nurse. As a supervisor she assumed responsibility for the nursing service in the two counties, together with the services provided to children in the migrant schools.

Physicians made available to the program by the federal grant worked in Salem, Cumberland, and Monmouth Counties. They provided direct personal supervision of all clinics, constantly available consultation for Public Health Nurses, and a resource for emergency examinations and care of patients when other sources of care were not available.

A decision was reached to carry out the migrant health program on an individual farm base in Mercer and Middlesex Counties.

In Atlantic County, an area that heretofore had not received direct attention, a single public health nurse was employed. She covered the farm

areas of the county, searching out the individual farm camps and determining the needs of approximately 100 women and children and 1,500 workers. The initial study revealed one serious illness in a migrant dependent child. The child, recently delivered, was hospitalized and operated at the Atlantic City Hospital.

A medical student who had worked with the program for two previous years was assigned to the task of locating the migrant camps in Camden County and contacting roughly 600 male workers. Ninety-three men on 18 farms accepted the services which he was authorized to provide. His efforts at the farm location reached other farms.

### Goal of Services

A projected goal of services to be rendered in the summer of 1963 was established upon the basis of figures relating to migrant workers, women and children housed within the state in the previous year. These goals are presented in the following table, which indicates the expected number of migrants to be resident in the county, the expected number to be served and the number actually served.

With the exception of Mercer and Middlesex Counties where the expectancy for women and children was set at 30 percent, it was expected that the program would reach 80 percent of the women, and children up to 12 years of age.

Table 1. Goals for Migrant Health Services by County—New Jersey, 1963

County	Children 0-12		Women		Male Workers	
	Expected Number to Residents	Estimated Number to be Served	Expected Number to Residents	Estimated Number to be Served	Expected Number to Residents	Estimated Number to be Served
Total	1,424	1,019	1,411	685	15,237	6,390
Burlington	142	113	139	151	1,654	1,440
Monmouth	205	263	337	209	2,676	1,500
Cumberland	363	288	282	175	3,742	1,000
Salem and Gloucester	322	313	300	200	5,435	1,000
Middlesex and Mercer	287	71	303	90	1,630	400



The major observations of clinic services are: 2,058 persons received polio vaccine, 1,538 for the first time.

Immunization against diphtheria, pertussis and tetanus was provided to 298 children. Diphtheria and tetanus immunization was provided to the older age groups; 1,772 persons were injected. Of this number, 1,437 received it for the first time.

The apparent low rate of immunization among the workers is a real reflection upon the deprived state of the agricultural migrant.

Tuberculin testing was carried out on 2,090 persons; 343 were revealed who had been exposed to tuberculosis, 235 were brought to medical examination and two cases of primary active tuberculosis were discovered. In addition to this case finding activity, several cases of tuberculosis were discovered during visits to camps by public health nurses. Among these deprived people, tuberculosis still is a serious problem.

There were 12,226 persons tested for syphilis. Of those with positive findings, 13 were brought to treatment for the first time, three were returned to treatment and 53 were found to have adequate therapy.

The mobility of the migrant agricultural worker renders the follow-up of patients difficult. The 72- to 96-hour time interval involved in obtaining the results of the tuberculin test or the serologic test for syphilis was sufficient for the individual to move to another camp and state and be lost to follow-up. It was extremely difficult to locate a person with suspected disease without the assistance of the crew leader. He was the only person who knew all of the members of the crew.

The farmers deal with the crew leader as a labor contractor. They maintain no records of names, addresses, earnings, or other information. The wages for work is a matter to be solved between the worker and the crew leader.

The Migrant Health Program began a register of migrants in the summer of 1961 to summarize the various records of service, to record repeated services in a given year, and repeated services over a span of years. Data are now available on 5,922 migrant workers who have been served in the clinic and in other ways since 1961 by the Department, the migrant schools and contracting community agencies.

In the following table, note that 91.0 percent persons served came to attention in one year only.

Table 2. NUMBERS OF AGRICULTURAL MIGRANTS SERVED IN SUCCESSIVE YEARS  
MIGRANT HEALTH PROGRAM, NEW JERSEY, 1961-1963

Years	Total	Latin	Other	Percent of Total
Total .....	5,922	1,718	4,204	100.0
1 .....	5,427	1,602	3,825	91.0
2 .....	407	94	313	6.9
3 .....	88	22	66	2.1

Many of the persons served may have been here in other years but the clinic services did not reach them. Others may have received service in a single year and chose not to accept services in the following years. The inclusion of a different group of camps each year may have affected the distribution.

Finally, the majority of persons may come to New Jersey for only one year. Study of the frequency with which persons return in the second or third year would indicate that a cadre of persons exists who come repeatedly to one area. These persons may serve as the nucleus about which the crews are formed. If this is the case, identification of these persons and their education regarding Migrant Health Services is a function of high priority.

The effect of increased staff and ability to reach out to the migrant camps is observed in the frequency of camps served. In two years, the Program has reached 80 additional camps. This figure is limited to those camps that participated in the organized community clinics. In many instances, camps may have been visited and health education given, but no record of the camp is available.

Table 3. NUMBER OF CAMPS FROM WHICH MIGRANT WORKERS WERE SERVED IN CLINICS, BY COUNTY, MIGRANT HEALTH PROGRAM, NEW JERSEY, 1961-1963

Counties	Years		1963
	1961	1962	
All .....	106	144	186
Atlantic .....	0	0	5
Burlington .....	19	25	26
Camden .....	0	0	18
Cumberland .....	12	64	44
Gloucester .....	6	6	0
Mercer .....	0	2	11
Middlesex .....	17	0	9
Monmouth .....	39	26	51
Salem .....	13	21	22

*Medical Social Cases*

On July 1, 1963 the Migrant Health Program acquired the urgently needed services of a Medical Social Worker.

After a period of orientation, the Medical Social Worker plunged into the problems besetting the migrant.

The caseload developed during late July and August has continued to swell. Cases have been admitted as late as January 7, 1964. In all, 70 patients or persons have received or are receiving services.

Throughout all of the medical social service activity, there ran a thread of community rejection. This was revealed by the insistence upon the requirement for local residency before assistance was provided. This single issue of direct aid to the needy, administered locally, is a major obstacle to overcome. The extent to which the migrant turns to the community for aid is not adequately known.

**Sanitation Program**

Two assistant sanitarians were employed to assist inspectors of the Bureau of Migrant Labor in the sanitary control of Migrant Labor Camps.

After field training, one man assigned in Bergen, Passaic, Hudson, Essex, Union, and Morris Counties provided sanitation coverage for 147 camps and 1,073 workers.

The second sanitarian assigned in the Camden-Gloucester County area was responsible for service to 278 camps. Many of the camps in both areas housed less than seven workers. Both men found multiple deficiencies in the camps involving water supply, drainage, fecal disposal, garbage disposal, cleanliness of buildings and safety of heating units and sanitation of cooking facilities.

Corrections were achieved in many instances by indicating the nature of the problems to the farmer, the need for the improvements, and suggested methods of correction.

Program personnel and District Consultants in Public Health Nutrition visited several local markets where migrants purchase food. These visits demonstrated deficiencies in sanitation of markets, poor food handling techniques by employees, and mislabeling of products.

Sanitary inspections were carried out by the State Health Department District sanitarians, who found violations sufficient to close several markets, and others of a remedial nature.

*Migrant Schools*

During July and August of 1963, the New Jersey State Department of Education operated four migrant summer schools. Three of these were located in southern New Jersey (Woodstown, Cedarville, and Rosenhayn) and one in central New Jersey (Cranbury). Total registration was approximately 360, with daily attendance somewhat lower. In some of the schools, 45-50 percent of the children had attended school last year in New Jersey. The Department of Education in cooperation with the Department of Health offered a complete health program to all the children in the migrant schools. A qualified nurse and physician directed the health program in each school. The children were given a complete physical examination by the physician. A tuberculosis test was given to 317. Those not previously immunized received diphtheria, tetanus, pertussis, and polio immunizations—739 immunizations in all. Fifteen students were vaccinated for smallpox. The majority needed this immunization. However, because so many had impetigo and poor personal hygiene, it had not been done in the past. All students were given vision and hearing tests. A dentist in each school examined students, cleaned their teeth, gave fluoride treatments, and performed other necessary treatment.

Results of physicians' and dentists' examinations included the following:

<i>Defects Observed</i>	<i>Number</i>	<i>Referred</i>	<i>Secured Treatment</i>
Ear and Nose .....	12	7	7
Throat .....	23	7	4
Heart .....	23	5	5
Hernia .....	16	7	3
Other .....	15	8	7
Dental Exam .....	225	..	96
Treated for skin diseases—60			
Examined for possible ringworm—242			
Found Positive—11			
Treated—11			
Examined for parasitus (stool specimens)—12			
Found positive—7			
Treated—7			

The physicians who render service in the schools have indicated that the health of the children improves each year.

### Dental Program

Dental Health activities in the Migrant Health Program were expanded. These were limited previously to examination and treatment of children in the migrant schools. This year, the Dental Health activities were included in evening community clinics to assess the dental health of adult migrants. The dental personnel examined 345 students in the migrant schools. The children made 584 visits. All the children received treatment, 62 extractions were done and 358 fillings were completed. The children's dental problems were not completely solved, as only 44.9 percent of cases were completed.

A nursing manual concerning migrant nursing procedures was developed as a result of the 1962 Migrant Health Program. This manual was used with success during the 1963 season.

In the summer of 1962, a delegation of students from Montclair, New Jersey, sought to inquire into the background of migrant labor in New Jersey. These students were briefed on health services and were provided with in-field experience in several areas of the state. They traveled with the Public Health Nurses in their daily round and became familiar with migrant health problems by direct observations. In the fall of 1962 these students discussed migrant problems with their fellow students and evolved a plan of student activity. A series of articles on migrant labor were prepared for the school paper, the *Mountaineer*.

Following the publication of the articles, an original plan was developed to involve high schools of the east coast. A conscience letter prepared in February, 1963 sought to persuade high school students to write to governmental officials on behalf of migrant labor. The conscience campaign packets were forwarded to 391 high schools from New York to Florida. The packet contained a reprint of each article from the *Mountaineer*, an article titled the "Forgotten People" by Dale Wright of the *World-Telegram*, a progress report in migrant labor legislation and abstracts from the *Migrant Farm Worker in America*, published by the U. S. Senate Subcommittee on Migratory Labor, 1960, and a list of sources for additional informational material.

Sixteen high schools participated in the campaign. In addition to the 535 letters to government officials written by Montclair students, there were 745 letters from other high schools.

### Division of Special Consultation Services

RALPH T. FISHER, M.P.H., *Director*

#### Programs:

Health Education .....	FLORENCE B. FIORI, M.A. <i>Program Coordinator</i>
Nutrition .....	MARGARET P. ZEALAND, M.S. <i>Program Coordinator</i>
Physical Therapy .....	SUSAN B. GLOCKE, B.A., P.T., M.A., M.P.H. <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 .....	Vacancy <i>Training Officer</i>

## Division of Special Consultation Services

The function of this Division is to provide the consultant services and leadership of a group of specialized public health personnel to the other Divisions and Programs of the Department, to other Departments of State Government, and to local health and allied agencies. Provision of these services from a single Division avoids duplication of professional personnel in various Programs and makes the services of specialized personnel more readily available to all Programs. It prevents the too close identification of a specialized service with any one program and promotes use of the multi-discipline team approach to public health measures.

The Programs of the Division are: Health Education, Nutrition, Public Health Nursing, Public Health Social Work, Physical Therapy, and Training. The Physical Therapy Program was added in November. Individual reports of these Programs follow. They reflect the growing strength of these services in the demands put upon them, in their responses to new public health activities and new approaches to old problems, in the leadership exerted, and in the services provided.

### Health Education Program

Addition of personnel to the hospital based health education project at the Presbyterian Unit, United Hospitals of Newark and to the Division of Preventable Diseases made possible a new range of services particularly related to medical care and to community organization in underprivileged population groups.

Increased emphasis was placed upon evaluation of health education activities and development of pertinent research activities. In this regard, the project on Smoking and Health conducted in cooperation with the State Department of Education and the New Jersey Division of the American Cancer Society deserves special mention. Venereal disease education in elementary and secondary schools is receiving similar attention.

Strengthened working relationships with voluntary agencies resulted from numerous joint programs at state and local level. These included the Smoking and Health project referred to above, special Heart Disease Control services related to diet therapy, penicillin prophylaxis, cardio-pulmonary resuscitation, and stroke rehabilitation.

Visits were made to selected colleges and universities to tell of health education as a career and to provide information about federal traineeship programs.

Major efforts during 1963 were related to chronic illness, preventable diseases, school health education, and development of local health services. The following report covers highlights of those activities which received primary attention.

#### *Immunization Project*

Two proposals to strengthen the health education services of the Department were incorporated in a request to the United States Public Health Service for vaccination assistance funds. These proposals provided for:

1. Employment of a professionally trained health educator who would be responsible for planning and development of educational methods and materials for the project.
2. Employment of four health education aides who would work as field staff under the direction of the Health Educator.

The position of health education aide was set up to recruit qualified college graduates into public health education which is faced with a critical manpower shortage. It was recommended that following two years of service with the Immunization Project, aides who have demonstrated necessary aptitude, interest and ability be encouraged to apply to schools of public health for graduate training in public health education.

Both of these proposals were adopted.

Health education personnel assigned to the project as well as District Health Education staff have participated in planning and organizing local oral poliomyelitis vaccination programs throughout the state.

#### *Narcotics Control*

At the request of the Director, Division of Preventable Diseases, plans were developed for a series of three workshop meetings for Lutheran clergy. The meetings were held in various parts of the state under the sponsorship of the Lutheran Welfare League.

The State Consultant in Community Health Organization was responsible for planning and organization of an institute on narcotic addiction presented at the annual Fall Conference of the New Jersey Welfare Council. This meeting was co-sponsored by the Medical Society of New Jersey and the New Jersey Neuropsychiatric Association.

#### *Venereal Disease Education*

Under the direction of the Interdepartmental Committee of the State Departments of Health and Education, a project to incorporate venereal dis-

ease education in the elementary and secondary school curriculum was developed. Activities included:

A series of exploratory field visits with local school administrators and teachers.

Organization of a task force committee to prepare a teaching manual.

Appointment of a teaching methods specialist who prepared a preliminary draft of the manual.

Duplication and distribution of the manual to selected individuals for review and comment.

Development of plans for field testing of the manual and for a series of teacher training workshops to consider the final edition of the manual.

#### *Heart Disease Control*

The Health Educator assigned to the Heart Disease Control Program assisted in development of several activities including:

Promotion of Stroke Rehabilitation Projects; preparation of a draft of a manual covering the health education aspects of stroke rehabilitation; survey of physician attitudes toward stroke rehabilitation and provision of consultation to other Program personnel; organization and evaluation of cardio-pulmonary resuscitation training programs for hospital personnel and rescue squads; preliminary planning for evaluation of rheumatic fever prophylaxis programs, in cooperation with the New Jersey Heart Association; organization of an informational meeting for physicians on the subject of fat controlled diets. This activity was sponsored by the New Jersey Heart Association and developed under the direction of the Nutrition Program. A follow-up meeting with executive directors of local heart associations was conducted; and planning of an exhibit on stroke rehabilitation presented at the 1963 Annual Meeting of the Medical Society of New Jersey.

District Health Education personnel assisted in the development of stroke projects and worked in close cooperation with local heart associations in the development of informational programs and services. The State Consultant, Community Health Organization, participated in the planning of the Annual Leadership Conference of the New Jersey Heart Association.

### *Smoking and Health*

The final draft of the Teaching Reference Guide on Smoking and Lung Cancer was printed and distributed to elementary and secondary schools and colleges throughout the state. Distribution was accomplished through county and diocesan superintendents of schools by representatives of the State Department of Education and local cancer societies in cooperation with the District Consultants in Community Health Organization.

Numerous requests for sample copies and quantity supplies of the Reference Guide were received from voluntary and official agencies throughout the country. On the basis of this demand, arrangements were made for sale of the Guide to out-of-state organizations.

Supplementing the distribution of the Guide, 10 one-day teacher preparation workshops were held throughout the state. More than 400 elementary and secondary school teachers participated in the workshops to provide opportunity for demonstration of methods and techniques outlined in the Guide. Response to the workshop series on the part of school teachers and administrators was enthusiastic.

The spring meeting of the New Jersey Public Health Association was devoted to consideration of Smoking and the Health of Youth. The meeting served to develop additional community understanding and support of educational efforts on the part of the Department and voluntary health agencies. Numerous local community workshops and conferences supplemented this effort.

In an attempt to assess motivational influences which induce smoking, a contract between the Department's Cancer Control Program and the Department of Sociology, Rutgers—the State University, was entered into. The contract calls for a questionnaire related to peer group influence on the development of smoking habits. Questionnaires related to teacher attitudes and practices in smoking education were also planned. These questionnaires were administered in a pilot basis in three Somerset County high schools and at St. Elizabeth's College. Tabulation and analysis of the data are scheduled for 1964. This activity is the outgrowth of the Newton High School Smoking Project developed by the District Consultant, Community Health Organization, Northern State Health District, in cooperation with Cancer Control Program and local school personnel.

### *Hospital Based Health Education Project*

With the support of a federal community health services project grant, a public health educator was assigned to the staff of the Presbyterian Unit, United Hospitals of Newark, in February, 1963. Since that time, the health

educator, in cooperation with a professional advisory committee and appropriate hospital and community agency personnel, has organized several educational services to improve patient care. These services are focused upon increasing the educational skills of hospital staff; developing acceptance by patients and their families of the nature and treatment of specific medical problems; and enlisting the support of community agencies in providing pertinent educational material and experience. Emphasis has been placed upon services related to the treatment of emphysema, mastectomy, stroke patients, and obstetrical care. Planning committees composed of hospital staff members have been organized for each. Local voluntary agencies, particularly Tuberculosis, Heart and Cancer, have also been actively involved. Educational prescriptions, special informational material, and criteria for measuring program effectiveness have been developed. In addition, the Health Educator assisted in planning the hospital's annual medical symposium and in organizing program plans for a one-day workshop on HOSPITAL BASED HEALTH EDUCATION SERVICES.

Consultation to the project has been provided by District and Program personnel as well as representatives of the United States Public Health Service.

### *Radiological Health*

More than 800 practicing physicians participated in a series of informational meetings to create awareness of radiation hazards resulting from clinical use of x-ray and fluoroscopic equipment. They were also informed of the requirements of the Department's Radiation Protection Code. The program planned in conjunction with the Health Education Program was conducted by a representative of the Radiological Health Program in cooperation with the chiefs of radiology at various hospitals throughout the state.

### *Dental Health*

As part of the Department's continuing effort to promote fluoridation of public water supplies, District Consultants in Community Health Organization participated in several educational programs, including an unsuccessful referendum campaign in Montclair and a successful effort in Wharton. In Trenton, favorable action on fluoridation was taken by the City Council following intensive efforts by the District staff and Dental Health Program personnel.

In cooperation with the New Jersey State Dental Society and the Dental Health Program, fluoridation exhibits were placed at a number of state-wide meetings.

### *Local Health Services*

Continuing efforts were made to demonstrate need for adequate local health services. Health education consultation and follow-up of evaluation surveys based upon the Minimum Standards were provided in many areas.

Health Education staff also participated in planning the Community Health Survey of Cape May County. The District Consultants in Community Health Organization of the Northern and Southern State Health Districts designed a questionnaire to assess local opinion toward specific health problems and services. The Cape May County Survey is one of the studies of local health services undertaken by the National Commission on Community Health Services.

A health educator was added to the staff of the East Orange Department of Health. Her services and activities have included development of inter-agency programs and meetings; organization of educational services for hospital patients, particularly with regard to cytology screening and stroke rehabilitation; assistance in organization of community health services such as tuberculosis screening, diabetes detection, rabies vaccination; and preparation of news releases, annual reports, and other informational material.

### *New Jersey Health Careers Service*

The New Jersey Health Careers Service is an independent, non-profit, voluntary organization to attract qualified persons to the health field. Departmental Health Education personnel helped develop activities under the sponsorship of this organization. Included among these activities have been mailing of the Health Careers Guidebook and related material to guidance counselors throughout the state; preparation and distribution of newsletters covering careers in dental health, environmental health, and social work to all guidance counselors and others interested; use of taped health career interviews by local radio stations and public school systems; cooperation with the New Jersey Association of Hospital Auxiliaries in a tri-state meeting on health careers and in developing volunteer and student work experience programs; survey of health career curriculum offerings of colleges, universities, and vocational schools in New Jersey and the tabulation and distribution of this information to guidance counselors, professional organizations and other interested groups; organization, recruitment of staff and supervision of a special project devoted to preparation of an annotated bibliography of health career materials for guidance counselors; development and preliminary use of a questionnaire designed to obtain counselor evaluation of the effectiveness of the health career program; and assistance to state-wide and local groups in the planning and conduct of health career programs.

At the invitation of the National Health Council, the New Jersey Health Careers Service served as host organization for the Eastern Regional Health Careers Conference held in New Brunswick, December 4-5, 1963. Purpose was to stimulate expansion of health career activities in Connecticut, Delaware, New Jersey, New York, and Pennsylvania. More than 180 delegates representing schools, colleges, universities, professional organizations, civic groups, voluntary and official health agencies participated in the meetings. Many individuals throughout the Eastern Region participated actively as members of the Conference Planning Committee. The State Consultant in Community Health Organization served as Chairman of the Conference Steering and Planning Committees. Arrangements have been made for the Conference proceedings to be published in the Departmental magazine, *Public Health News*

### *Friendly Visitor Project*

As a member of the State Project Committee and in cooperation with the State Consultant in Public Health Social Work, assistance was provided in development of promotional materials and in organization of training programs in Passaic and Hudson Counties. Revision of the manual for county coordinators was completed.

### *Exhibits*

In cooperation with the Program Coordinators and Administrative Services, new exhibits depicting the following Departmental activities were developed.

1. Stroke Rehabilitation
2. Air Pollution Control
3. Migrant Health
4. Smoking and Health
5. Community Nursing Services
6. Radiological Health
7. Homemaker Service

The Radiological Health exhibit presented at the annual meeting of the Medical Society of New Jersey was awarded a certificate of merit.

### *Training*

In cooperation with personnel of related Programs, assistance in the following activities was provided:

- Orientation sessions for newly employed Departmental personnel.
- Training conferences for Diabetes Program Representatives.
- Training sessions for case work supervisors, Department of Institutions and Agencies.
- Workshops on Nursing Supervision.
- Training session on health education—East Orange Sanitation, Field Training Station.
- Volunteer Friendly Visitor Training Courses (Hudson and Passaic Counties).
- Workshop for Board members—Visiting Homemaker Association of New Jersey.
- Maternal and Child Health Workshop—Play for Hospitalized Children.
- Alcoholism Workshop for Local Health Officers.

#### *Field Placement of Graduate Students*

Productive working relationships were established with the Schools of Public Health at the University of California and the University of Michigan, following requests from these schools for field training placement of public health education students. Arrangements were made for field training assignments and supervision by the District Consultant, Community Health Organization, Northern State Health District, and the Health Educator, East Orange Department of Health. Field training also included orientation to various Departmental Programs and participation in the regular Health Education Program staff conferences. At the conclusion of the training period, one student was employed by the Department.

#### *Continuing Education*

Attention was given to the postgraduate educational opportunities and needs in the health education field. During the past year, staff members attended programs of continuing education conducted by the School of Public Health, Columbia University; the Human Relations Training Laboratory conducted by the National Training Laboratories; and a two-day workshop on programmed learning developed by the staff of Region II, United States Public Health Service. In addition, staff members have been participants in activities of numerous organizations, including the New Jersey Public Health Association, the American Public Health Association, the National Health Council, and the Conference of State and Territorial Directors of Health Education.

#### **Nutrition Program**

The Nutrition Program through the State Consultant in Public Health Nutrition, the Consultant in Nutrition in the Division of Chronic Illness Control and the four District Consultants in Public Health Nutrition, provided advisory and consultative service to official and voluntary agencies on state, District, and local levels.

Through the establishment of additional Diet Counseling Services, on Grant-in-Aid from the Division of Chronic Illness Control, a big step has been taken in strengthening services available locally for patients with chronic illness.

Preparing nutrition information and assisting with in-service training for professional personnel on State and District level was again a primary function of the Nutrition Program.

Among the program highlights of 1963 were the following:

1. New Diet Counseling Services were established in Bergen, Burlington, Essex, and Morris Counties.
2. Sixty-one hospitals and nine institutions were represented at the two institutes on feeding hospitalized children planned by the Nutrition and Maternal and Child Health Programs.
3. The first Community Nutrition Institute was held at Rutgers University with the cooperation of Nutrition and Maternal and Child Health Programs.
4. Information was prepared on the proper storage and preparation of eggs as one of the recommendations from the Department of Health for the control of gastroenteritis infection due to Salmonella derby.
5. Program personnel participated in the Diabetes Special Training Course for United States Public Health Service personnel.
6. Field experience in Public Health Nutrition was provided for two graduate students from Columbia University and one from the University of Michigan School of Public Health.

#### *Maternal and Child Health and Crippled Children*

In the Central State Health District, intensive consultation was provided for Monmouth County Organization for Social Service at the request of the agency. A series of observations, conferences and demonstration home visits were planned. These activities included:

1. Observation at Well Child Conferences.
2. Observation and participation in prenatal clinics.



3. Individual conferences with staff nurses, supervisors, and Assistant Executive Director.
4. Group conferences at four Health Centers.
5. Home visits with staff nurses.
6. Orientation conferences for six new staff nurses.

Two Institutes, one-day each, were given in two areas of the state on "Feeding Hospitalized Children." These Institutes were co-sponsored by the New Jersey Chapter, American Academy of Pediatrics, the New Jersey Hospital Association, the New Jersey Dietetic Association, and the New Jersey League for Nursing. In planning these Institutes, Nutrition Program staff conducted a survey of dietary practices in pediatric units of 27 of the 65 hospitals with pediatric units. Selected papers from the Institutes were published in *Public Health News*.

The first Community Institute on Nutrition in Maternal and Child Health was held at Rutgers University in cooperation with the New Jersey State Department of Health. The Institute was attended by dietitians, nutritionists, nurses, and physicians. Outstanding authorities in the Maternal and Child Health field participated. Several sessions were devoted to the function of nutritionists in programs for mental retardation.

#### *Chronic Illness Control*

Nutrition is one of the components which can benefit the long-term patient whether the patient is institutionalized or in the home. Nutrition Program personnel have continued to explain dietary care in relation to chronic illness to professional staff of hospitals, nursing homes, and visiting nurse associations. Diet Pads were sold to physicians for use with their office patients.

#### *Diet Counseling Services*

Diet Counseling is a community service for patients who have been referred by their physicians for help with special diets. Diet Counseling services are now available in seven counties. Although the physician has primary responsibility for identifying the patient's dietary needs and specifying his program of treatment, the diet counselor helps the physician by making the prescribed diet understandable and acceptable so that the patient can incorporate the diet into his daily living pattern. An exhibit on Diet Counseling was displayed at the Annual Meeting of the Medical Society of New Jersey in Atlantic City and at the American Dietetic Association Convention in Philadelphia. Representatives of the Nutrition Program and Diet Counseling Projects were available at both exhibits to answer questions.

Two speakers at the Dietetic Convention made special reference to the New Jersey Diet Counseling Services. Dr. Fredrick Stare of the Harvard University School of Public Health, author of a syndicated nutrition newspaper column, discussed the Diet Counseling Projects in one of his articles. Dr. Lillian Emmons agreed to write up the New Jersey Diet Counseling Services as a special project for the Public Health Service. This report will be used as a guide for other states interested in promoting Diet Counseling.

#### *Diabetes*

Because diet is closely associated with prevention and treatment of diabetes, nutrition activities are an integral part of the Diabetes Control Program.

New Jersey was asked to cooperate in the testing of a "Food Preference Questionnaire" prepared by the Diabetes and Arthritis Programs of the U. S. Public Health Service. This questionnaire was designed to determine the patient's usual eating practices and serve as a guide in preparing modified meal plans individually prescribed for the treatment of diabetes. The questionnaire was used by a selected number of physicians and diet counselors.

The District Consultant in Public Health Nutrition of the Northern State Health District offered consultation to the Diabetes Camp in her area.

#### *Heart*

Cardiovascular disease is responsible for more deaths than all other causes combined and is a major cause of prolonged illness and disability. Nutrition is important in the care and prevention of certain cardiovascular diseases.

The Nutrition Consultant in Chronic Illness Control spent a great deal of time in the interpretation of fat modified diets to Diet Counselors and physicians.

Consultation services have been available to Home Care and Stroke Projects, hospitals, nursing homes, and related facilities.

The State and District Consultants in Nutrition attended a state-wide conference of the New Jersey Heart Association on the interpretation and use of the American Heart Association's new diet booklet, "Planning Fat Controlled Meals for the Treatment of Cardiac Patients." Nineteen counties were represented by physicians and a selected group of dietitians and nutritionists.

The Central District Consultant in cooperation with the Burlington County Heart Association arranged for two "Tasting Luncheons" for low sodium and fat controlled dieters.

### *Homemaker Services*

The State Consultant and District Consultants in Nutrition contributed to the in-service training of Homemakers through the State Advisory Committee and local homemaker services in their Districts.

### *Health Careers*

The Public Health Nutrition Program was represented on the Editorial Committee with representatives of the New Jersey Dietetic Association and the New Jersey Home Economics Association for the New Jersey Health Careers Service Newsletter on "Careers in Dietetics, Nutrition and Food Services." The Central District Consultant in Nutrition served as chairman of a joint State Committee on Careers which has been set up by the New Jersey Dietetic Association and the New Jersey Home Economics Association. As a follow-up for the Newsletter, the joint Committee rented a post-office box and prepared a kit with career information listing New Jersey schools and colleges offering training in these fields and information on professional associations. These kits were made available to guidance counselors who wrote requesting them.

### *Cooperation with other State Departments*

At the request of representatives of the Bureau of Community Institutions, Department of Institutions and Agencies, District Consultants in Nutrition made visits to a number of Boarding Homes for Sheltered Care of Adults to assist with the evaluation of food service. Meetings for directors of food service personnel of seven homes for the aged in the Central and Southern State Health Districts were planned by the District Consultants, representatives of the Bureau of Community Institutions, and several directors of homes for the aged.

The State Consultant served on a special committee set up by the Inter-departmental Committee of the Departments of Health and Education to plan in-service training in sanitation for the school lunch personnel.

The State Consultant is a member of the Nutrition Sub-Committee of the Health-Mental Health Committee, New Jersey Youth Committee, Youth Division, Department of State. This is a fact finding Committee which suggests solutions to problems brought to their attention and refers them to agencies or groups equipped to take appropriate action. Areas presently being investigated are:

1. Substance of nutrition education in schools.
2. Type of information available on eating habits of children and youth.

3. Type of data referring to nutrition status available from school medical records.
4. Type of information that can be obtained from current Selective Service records regarding nutrition-related defects.

### *Camps*

In the Northern State Health District, in-service training in food was offered to camp directors. In the Southern State Health District, camp inspections were conducted by a sanitarian and the District Consultant in Nutrition.

### *Supervision for Candidates for American Dietetic Association Membership*

Douglass College, in cooperation with the New Jersey Hospital Association, surveyed New Jersey hospitals to determine the educational background of their dietary staff. Results indicated that many could qualify academically and meet the American Dietetic Association requirements by taking some additional courses. Douglass College is offering these courses to part-time students. The survey also pointed out a need for on-the-job supervision for dietitians working in hospitals which do not employ an American Dietetic Association Dietitian. The executive board of the American Dietetic Association has approved supervision by Douglass College and a project for this supervision has been set up with financial support of the State Department of Health.

### *New Trends*

There is a need to provide additional training of non-degree supervising dietary help in hospitals and nursing homes so that the quality of food service can be improved. A state-wide committee with representatives from Education, Health, the New Jersey Dietetic Association, and the New Jersey Hospital Association is considering what types of courses are needed and where they should be made available.

In research in nutrition education, there is interest in exploring new ways of reaching patients. A grant-in-aid project has been set up with Dr. Edward Wellin, Ph.D., Anthropologist, Rutgers—the State University, to study weight control projects conducted by various professional and lay groups and organizations in the state during the past 10 years. An attempt will be made to evaluate these projects and it is anticipated that guidelines will be developed for new community services and projects.

### Physical Therapy Program

A Program Coordinator for the new Physical Therapy Program was appointed November 11, 1963 to develop a State Physical Therapy Program.

The purpose of the Program is to promote physical therapy services and to raise professional levels through training, consultation, and development.

Field visits were made to visiting nurse associations for consultation and evaluation of the Physical Therapy services.

### Public Health Nursing Program

The big event of the year was the Governor's Conference on Community Nursing Services. Over 800 civic leaders, representing local, county and state government as well as 131 private agencies, attended this all-day meeting in March. Follow-up activities have been particularly noteworthy in Passaic, Bergen, and Union Counties with the formation of county-wide citizen committees for studying present services and needs and working toward the development, expansion, strengthening or coordination of nursing services.

The impetus given to citizens and nursing agency personnel by the Governor's Conference appears to have brought about some of the following improvements in the New Jersey picture:

1. More agencies ended 1963 in the black, without curtailing staff to balance the books.
2. There was evidence of a much more businesslike approach to financial matters, e.g. charges for service were brought into line with actual costs; contracts and agreements for selling service reflected actual cost; deficit financing was reduced.
3. Agencies have embarked on a much more vigorous public relations program, e.g. exhibit materials have been developed and used more extensively; new attractive, descriptive flyers and brochures have been prepared by agencies; films and slides are being used more frequently.
4. Salaries for public health nurses in many agencies have been increased to coincide with minimums recommended by the Public Health Nursing Section of the New Jersey State Nurses' Association.

The outstanding achievement of 1963 in public health nursing was the development and acceptance of administrative standards for public health

nursing agencies. The State Department of Institutions and Agencies and the Hospital Service Plan of New Jersey (Blue Cross) have requested that the State Department of Health be their standard-setting body. The responsibility for annual evaluation visits to nursing agencies, as well as for the collection of annual cost and fee data, was transferred to the Public Health Nursing Program.

At the instigation of the Commissioner and in close cooperation with the Chief Public Health Nurse, Dr. Harry Stark and his associates at the Bureau of Economic Research, Rutgers—the State University, undertook "an exploratory analysis of costs and expenditures in the provision of home nursing care by public and voluntary organizations." A published report will be forthcoming in 1964.

Through close cooperation with District personnel, progress and accomplishments in specific program responsibilities have been achieved, as follows:

#### *Development of New Community Nursing Services*

The two new nursing services established in mid-1962 have shown steady growth. Considerable assistance, especially by District personnel, has been provided during this developmental period.

A nursing director was employed by Cumberland County, with grant-in-aid assistance from the Department. This position was newly created by the Freeholders for the development of an effective, county-wide nursing service.

#### *Extension and Coordination of Existing Services*

East Orange—The appointment of a qualified nurse director was made possible through federal project money, which was granted to coordinate the Health Department, Visiting Nurse Association, and hospital nursing services in the community. The Health Department nursing staff has also taken on the responsibility for the tuberculosis program, which was formerly carried out by specialized staff of the Anti-Tuberculosis League.

Elizabeth—The appointment of a qualified nurse director, with grant-in-aid assistance from the Department, resulted in a greatly expanded and improved public health nursing program.

Nutley—The employment of a qualified supervisor, with grant-in-aid assistance from the Department, brought the Health Department and Visiting Nurse Association nurses closer together functionally as well as physically. Both groups are now housed in the same building and the supervisor is shared. The Visiting Nurse Association has indicated in writing its satisfaction with the new arrangement, from the standpoint of improved quality and also a savings of \$1,000 to the community.

Freehold Borough—All public health nursing service is now being purchased from Monmouth County Organization for Social Service, thus eliminating a one-nurse health department service.

Middlesex County—The Middlesex County Nursing Study Committee, under the auspices of the Community Welfare Council, has completed its mission and been disbanded. The recommendations for a county-wide coordinated community nursing service are being followed up by an Action Committee.

In addition to the previously mentioned grant-in-aid contracts in Elizabeth, Nutley, and Cumberland Counties, grants were continued with the Family Nursing Service of Hunterdon County, Somerset Valley Visiting Nurse Association, Morris County Visiting Nurse Association, Cape May County, and the Sussex County Department of Social and Health Services.

Nine nursing agencies continued to receive financial assistance through contracts with the Division of Chronic Illness Control for part-time physical therapy consultation services. A tenth agency that had received assistance in 1962 was able to carry the program with its own financial resources.

Four community nursing agencies, through contracts with the Restorative Services Program, have extended services on a one-day a week basis to nursing homes. These agencies are:

- Newark Visiting Nurse Association
- Visiting Nurse Association of Oranges and Maplewood
- Community Nursing Service of Montclair
- The Visiting Nurse Association in Middlesex County

Diet consultation services have been made available by contract with the following nursing agencies:

- Newark Visiting Nurse Association
- Camden Visiting Nurse Association
- Atlantic City Visiting Nurse Association
- Morris County Visiting Nurse Association

During 1963, 156 referrals were made to 41 nursing agencies in 17 counties for follow-up services to discharged psychiatric patients. In comparing program activity for the year with the preceding 12-month period, it was noted that Marlboro State Hospital made approximately three times the number of referrals, Trenton State Hospital doubled referrals, Greystone Park remained about the same, and Ancora referrals decreased by half. This decline is attributed to changes in key staff.

Neuro-Psychiatric Institute, inactive in the program until this year, has initiated referrals. The breakdown of referrals is as follows:

<i>Hospital</i>	<i>Agencies</i>	<i>Counties</i>	<i>Referred Hospital to Agencies</i>	<i>Referred Agency to Hospital</i>	<i>All Referrals</i>
Ancora .....	5	4	6	..	6
Greystone .....	4	3	5	3	8
Marlboro .....	16	5	90	..	90
NP Institute .....	2	2	2	..	2
Trenton .....	19	9	53	..	53

The project grant "Mental Health Consultation for Public Health Nurses" was submitted for renewal by the Eastern Union County Visiting Nurse Association in June, 1963 and financial support for 1964 has been granted for the continued employment of a Mental Health Nursing Consultant by the Visiting Nurse Association. In September, 1963, the services of this Consultant Nurse were extended to include the Plainfield Visiting Nurse Association.

#### *Provision of Consultation Services*

The services of the nursing consultants have been in increasing demand by voluntary agencies and universities. The work with hospitals and official agencies has remained about the same. The Special Project Nurses in the Restorative Services Program are performing an outstanding job in nursing homes. The nursing consultant is no longer assigned to the Restorative Services Program, therefore, this service is not reflected in the figures listed below.

Total consultation visits for January through December, 1963 are:

Official Agency .....	108
Voluntary Agency .....	193
District State Health Offices .....	29
Hospitals .....	208
Nursing Homes .....	4
Clinics .....	27
Industry .....	41
Universities and Colleges .....	32
Other .....	35
Total .....	677

#### *Educational Programs*

Quality of nursing supervision in New Jersey received a boost through three workshops conducted for nursing supervisors in hospitals and public

health agencies. The first workshop was supervised by the Department in cooperation with Rutgers—the State University College of Nursing and the subsequent two workshops were sponsored by Rutgers College of Nursing, on a Federal Short-Term Traineeship Grant with Department personnel assisting. Follow-up showed that the nurses had put into action many of the supervisory tools and techniques emphasized in the workshops. Total attendance at the three workshops: 98 nurses; two-day follow-up: 29 nurses.

One of the major advances brought about by the efforts of the Assistant Chief Public Health Nurse has been the increased coordination of education programs offered by the Department. Two areas of the state have been set up for monthly, identical programs including Maternal and Child Health, Dental Health, Tuberculosis, Crippled Children, and Chronic Illness. Attendance at each session has been growing steadily and averages over 100 nurses.

#### Other education programs of note:

- Two-day orientation to State Mental Hospitals—  
95 public health nurses
- One-day clinical observation in Cancer at Presbyterian  
Hospital, Newark— 85 public health and hospital nurses
- Two three-week Rehabilitation Courses,  
Rehabilitation Unit, Hospital Center at Orange—  
20 nurses

In addition to the above, the Public Health Nurse Consultants conducted informal in-service education programs in the agencies and hospital as follows:

50 programs  
1,199 attendance

#### In-service Education Received

- Public Health Nurse Consultant, Mental Health—  
Rutgers School of Alcohol Studies, one month, summer 1963
- Public Health Nurse Consultant, Maternal and Child Health—  
Mental Retardation Program at St. Christopher's Hospital,  
Philadelphia—one week
- Public Health Nurse Consultant, Pediatrics—  
Children's Bureau Conference on Mental Retardation,  
Los Angeles—three days
- Public Health Nurse Consultant, Hospitals—  
National Conference on Institutionally Acquired Infections,  
Minneapolis—three days
- Attendance at National League for Nursing Convention.

#### Special Projects and Programs

##### Nurse Utilization Study

Eight additional hospitals participated in the Nurse Utilization Study—making a total of 17 hospitals studied under the leadership of a Special Project Nurse. Federal support of this project was withdrawn effective December 1, 1963 on the basis of its no longer being a demonstration project. In order to fulfill commitments already made, the study was accepted as a service project by the New Jersey Hospital Association and the Special Project Nurse is continuing to carry out the study under the sponsorship of that organization.

##### Materials Developed

*Selected Pediatric Bibliography*—Supplement number one completed by Public Health Nurse Consultant, Pediatrics.

*Bibliography on the Newborn, Full-term and Premature*—Supplement number three, completed by Public Health Nurse Consultant, Hospitals.

*Guide for Public Health Nursing Follow-up in Diabetes Detection*—completed by Public Health Nurse Consultant, Heart and Diabetes.

*I Have Nothing To Do*—prepared by Public Health Nurse Consultant, Pediatrics, with assistance of Dr. Gips, for use in workshops on play for hospitalized children.

*Guide for Public Health Nurses Working with Migrant Agricultural Workers*—developed by Public Health Nurse Consultant, Maternal and Child Health.

Public Health Nurse Exhibit—single panel pamphlet: *Did You Know?*

##### Articles Written for Publication

Public Health Nurse Consultant, Pediatrics, co-authored article (with Mrs. Zealand and Dr. Zindwer) on *Feeding Hospitalized Children*—to appear in *Hospitals, Journal American Hospital Association*.

Public Health Nurse Consultant, Maternal and Child Health—authored article on Public Health Nursing in Migrant Health—to appear in *Nursing Outlook*.

Public Health Nurse Consultant, Chronic Illness—authored article on *Restorative Nursing* to appear in *Nursing Outlook*.

Chief Public Health Nurse—authored article on the Governor's Conference on Community Nursing Services and progress.

*Program Administrative Changes*

Mrs. Mildred Merkin appointed Public Health Nurse Consultant, Cancer.  
Mrs. Mildred Ervin appointed Public Health Nurse Consultant, Communicable Diseases.

Miss Zoe Cummings, Public Health Nurse Supervisor transferred from Northern State Health District to Public Health Nursing Program, with assignment to Venereal Disease Program for a special study.

**Public Health Social Work Program**

The Public Health Social Work Program has continued to work with other professional disciplines, Departmental programs and staff in developing plans which included generic social services.

Social work consultation and assistance in program planning have been provided to Programs within the Divisions of Chronic Illness Control, Preventable Diseases, Constructive Health and Local Health Services.

*Heart Disease Control*

In cooperation with the U. S. Public Health Service Career Development Plan, a Senior Medical Social Consultant was assigned to this Department from the Heart Disease Control Program, Washington, D. C., for a two-year period. This addition of a Medical Social Consultant to this Program has broadened the scope of the Public Health Social Work Program in Congestive Heart Failure activities, Coronary Heart activities, Stroke Project activities and in development of supportive community services. The Heart Disease Control Program in this Department now has a full professional complement of the major disciplines.

*Medical Social Services*

The leadership demonstrated by this Department in initiating the first grant-in-aid contract awarded by a State Department of Health to a Graduate School of Social Work to expand training opportunities for graduate students enrolled in schools of social work was recognized this year by the National Institute of Mental Health. Funds for three new training stipends to supplement this Department's project were awarded.

The first person awarded a Medical Social Work Training Stipend by this Department was graduated this year from the Graduate School of Social Work, Rutgers—the State University, and is now employed in a hospital in New Jersey.

*Social Work Recruitment Activities*

More than 214 undergraduate college students from 44 different colleges applied for employment through the Summer Experience in Social Work Project jointly sponsored by this Department.

Of these, 183 were qualified for employment but only 92 were employed by 23 health and welfare agencies because of lack of placement opportunities and limited funds. During the past three years, the number of applicants from undergraduate colleges interested in social work as a career has tripled.

The New Jersey Summer Experience in Social Work Project is one of two state-wide programs now operating in the United States, sponsored primarily by public health and welfare agencies.

*New Jersey Health Careers*

In the December issue of *Careers in Health* the succinct articles on "Social Work—A Helping Profession" evoked enthusiastic response from many sources. As a member of the Editorial Committee, the Program Coordinator has received requests for reprints from the Council on Social Work Education, as well as many federal and state agencies interested in using this publication as a recruitment resource.

*Volunteer Friendly Visitors Project*

As the assigned Project Director for this new Project, the Program Coordinator has carried responsibility for coordination, development, and administration.

Ten training courses were held in 1963: one in Bergen County, two in Hudson, one in Passaic, two in Union, one in Essex, and three in the City of Newark.

A total of 340 persons were trained; 24 males and 316 females, with ages ranging from 21 through 79 years of age.

Nine County Coordinating Committees involving 98 professional and lay community leaders with 220 individual representatives of public and voluntary health and welfare agencies and churches participated in the development of the Project.

Requests for additional Volunteer Friendly Visitors to visit the homebound chronically ill or socially isolated individuals have far exceeded the number who have been trained.

*Visiting Homemaker Association of New Jersey, Inc.*

The Program Coordinator has served as Social Work Consultant to the Board of Trustees of this Association during the past year. As a member of

the Program Committee, the Program Coordinator was responsible for planning an all-day Workshop for Executive and Board Members for Visiting Homemaker Service agencies in northern New Jersey.

Program personnel have continued to work with the Executive Director of the Association in promoting the continued expansion of this essential community service in collaboration with the University Extension Division of Rutgers—the State University.

### Training Program

Training public health personnel in New Jersey in all aspects of public health and its administration is one of the primary missions of this Department. In view of the prodigious growth in population and industry in New Jersey today and its effects, public health training for state, local, and related health practitioners provides the balance needed to keep public health services at an adequate level of effectiveness.

The main objective of the Training Program is to coordinate this Department's efforts in this regard.

### Significant Activities

#### Field Training Station for Sanitarians at East Orange Continued

During this period, 16 local and state environmental health specialists attended this advanced, comprehensive course. Its purpose is to provide modern, up-to-date instruction to experienced sanitarians in an effort to improve local and state environmental health programs.

*Eighty-five Training and Educational Sessions Conducted by Department Programs.* In keeping with the philosophy and objectives of good public health administration, the Department conducted or assisted in 85 separate training and educational sessions. Participants included all disciplines of public health work from voluntary, official and other health related agencies.

#### Health Officers Association

In cooperation with the New Jersey Health Officers' Association, this Department conducted the following institutes:

1. Emergency Sanitation for Disaster Survival—82 participants.
2. National Sanitation Foundation Standards Institute on Dishwashers, Hot Water and Detergents—56 participants.
3. Program on Alcoholism for Local Health Officers.
4. Planning for Environmental Health—125 participants.

Table 1. PROFESSIONAL TRAINING ACTIVITIES

January 1, 1963 - December 31, 1963

Number of applications received and processed .....	56
Master's degrees received 1963-64 .....	9

Table 2. EDUCATION AND TRAINING ACTIVITIES

January 1 - December 31, 1963

Activity	Date(s)	No. Participants
<i>Division of Chronic Illness Control</i>		
Four Symposia—"Recent Advances in Diagnosis and Treatment of Gastrointestinal Cancer" .....	January 1-June 30	200
Fifth Symposium on Electroencephalography .....	February 6	...
Workshop—"Adjustment Problems in Juvenile Diabetes" .....	April 22-23	50
Spring Symposium on "Insulin" and "Extra Pancreatic Factors in Carbohydrate Metabolism" .....	May 8	150
A Symposium on Neurological Disorders .....	June 26	...
Training Course in Diabetes and Arthritis .....	July 8-September 6	...
Program Meeting for Nurses in Heart Disease Control .....	September 17	...
1963 Scientific Session of American Cancer Society .....	October 21-22	...
Fall Symposium: "Kidney Problems in Diabetes Mellitus" .....	October 30	...
Symposium—The Oral Hypoglycemic Agents .....	November 8	...
Clinical Observation in Cancer .....	January-December	85
Programming on Alcoholic for Local Health Officers .....	September 25, 26, 27	...
Current Advances in the Medical Therapy of Alcoholism .....	April 17	...
Alcohol Education Workshops .....	February 6-May 15	...
.....	August 5-23	...
Alcohol Education Workshop .....	June 17-28	...
Alcohol Education Workshop .....	June 24-July 9	...
Symposium—"Geriatric Crisis in the Community" .....	October 2	...
Symposium—"Office Diagnosis of Cardiac Disease" .....	December 10	...
Symposium—"Current Concepts of Chronic Bronchitis and Emphysema" .....	March 13	...
<i>Division of Constructive Health</i>		
Institute on Community In-service Education Program .....	February 7-May 16	40
Eight-session Course on Restorative Services in the Care of Chronically Ill Persons .....	February (opening session)	69
Play for Children in Hospitals .....	February 20	36

<i>Activity</i>	<i>Date(s)</i>	<i>No. Participants</i>
Congenital Child Amputee Conference and Clinic	April 20	...
Feeding Hospitalized Children	April 24-25	98
	April 25	79
Education Program in Restorative Services	February 7-May 16	...
A Course in Restorative Nursing for Chronically Ill and Aged	June 3-14	10
Hearing Conservation Workshop	June 10-21	16
Hearing Conservation Workshop	June 24 through July 5	13
Workshop—Play for Children in Hospitals	September 11	58
Community Education Program in Restorative Services	February 7-May 16	...
Workshops in Supervision for Nurses	January-June	98
Training Course for Nurses as Audiology Technicians	September 15- January 10, 1964	20
<i>Division of Environmental Health</i>		
Air Sanitation Program Orientation Course	February 4, 5, 6, 7	20
National Sanitation Foundation Standards Institute on Dishwashers, Hot Water and Detergents	December 18-19	56
Institute—Emergency Sanitation for Disaster Survival	May 15-16	82
Northeastern Weed Control Conference	January 10	75
American Water Works Association—New Jersey Section	September 25-28	350
Dairy Improvement Institute	February 14	200
Planning and Environmental Health	September 5-6	125
Radiation Protection Seminars for Physicians	19 meetings	976
<i>Division of Local Health Services</i>		
<i>Metropolitan District</i>		
Educational Program for Nurses on Handicapping Conditions in Childhood	January 16-June 19	} 342
Nursing Education Programs for Districts	October 16, November 20, December 18	
Venereal Disease—A Growing Problem Among Teenagers	June 5	300
<i>Northern District</i>		
Educational Program for Nurses on Handicapping Conditions in Childhood	January 16-June 19	} 444
Nursing Education Programs for Districts	October 16, November 20, December 18	
Workshop—Play for Children in Hospitals (MCH Program)	September 11	58
VD Seminar (VD Program)	February 1	128
VD Seminar (VD Program)	February 19	19

<i>Activity</i>	<i>Date(s)</i>	<i>No. Participants</i>
<i>Southern District</i>		
Educational Program for Nurses on Handicapping Conditions in Childhood	January 22-June 25	} 605
Nursing Education Programs for Districts	October 10, November 14, December 12	
<i>Central District</i>		
Nursing Education Programs for Districts	October 10, November 14, December 12	} 334
Educational Program for Nurses on Handicapping Conditions in Childhood	January 22-June 25	
<i>Office of Director</i>		
<i>Field Training Station for Environmental Health</i>		
Personnel	January-October	16
Introductory Sanitation (10 sessions)	March 13-May 15	46
Advanced Plumbing Regulations and Inspection Part I (10 sessions)	March 12-May 14	30
Health Education in Sanitation (10 sessions)	March 13-May 15	6
Advanced Plumbing Regulations and Inspection Part II (10 sessions)	September 17-November 19	29
Group Development and Leadership	September 18-November 27	5
Plumbing Regulation and Inspection (New Brunswick)	September 17-November 19	39
Basic Environmental Sanitation Course (Two parts)	Part I—June 5-July 26 Part II—September 4- October 25	85
Workshop for Teachers of Public Health Courses	Spring, 1963	59
Annual Conference of State and Local Health Officials	April 4-5	400
<i>Civil Defense</i>		
Institute—Emergency Sanitation for Disaster Survival (Environmental Health)	May 15-16	82
Survival Training for Departmental Employees	Periodically	270
<i>Division of Preventable Diseases</i>		
VD Meeting (Local Health Services)	February 19	19
VD Seminar (Local Health Services)	February 1	128
Educational Program for Nurses—"The Adult and Tuberculosis"	February 17	...
<i>Division of Laboratories</i>		
Annual Meeting and Seminar—N. J. Society of Medical Technologists	April 19-21	...
<i>Division of Special Consultation Services</i>		
Feeding Hospitalized Children (MCH Program)	April 24 April 25	98
		79



<i>Activity</i>	<i>Date(s)</i>	<i>No. Participants</i>
Community Nutrition Institute .....	July 8-19	...
Governor's Conference on Community Nursing Services .....	March 6	792
Educational Program for Nurses on Handicapping Conditions in Childhood (Metropolitan and North- ern SH Districts) .....	January 16-June 19	} 786
Nursing Education Programs for Districts (Metro- politan and Northern SH Districts) .....	October 16, November 20, December 18	
Educational Program for Nurses on Handicapping Conditions in Childhood (Central and Southern SH Districts) .....	January 22-June 25	} 960
Nursing Education Programs for Districts (Central and Southern SH Districts) .....	October 10, November 14, December 12	
Courses—Epidemiology for Nurses .....	February 10-11, 17-18	55
Workshop on Supervision in Nursing New Brunswick .....	January 21-24	...
Trenton .....	June 10-14, 17-21	...
Clinical Observation in Cancer Nursing .....	January-May	} 85
Health Careers Conference .....	October-December	
Teacher Preparation Workshops—Smoking and Health (10 Workshops) .....	May 25-26	40
Eastern Regional Conference on Health Careers .....	September, 1963- January, 1964	450
	December 4-5	185

## Division of Vital Statistics and Administration

JOHN B. VAN ELLIS, Director

### Programs:

Administrative Services .....	DONALD J. WERDEN <i>Supervisor</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>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, Budget and Accounts, Examination and Licensing, 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.

### Administrative Services Program

The activities of this Program are based on Department needs for warehousing, addressographing, printing, audio-visual aids, exhibits, and graphic art.

A central warehouse is maintained to receive and distribute office and professional supplies, biologicals and health education materials. A courier service to the District state health offices is maintained for distribution of materials and pick-up of laboratory samples. Two thousand five hundred orders were completed for printed materials, office and nurses supplies. Four thousand orders were filled for biologicals, drugs, and vaccines.

The addressograph center maintains 42 special lists and handles all Department bulk mailings. Two hundred and fifty-seven mailing jobs handled over 528,000 pieces.

All Department printing requests are reviewed by this Program for disposition. Starting July 1, this Program assumed the function of handling all outside printing for the Department. This activity includes design, specification writing, and follow-up until delivery from the commercial vendor. Seventy-five jobs were handled in the last six months of 1963.

An offset print shop produces short-run items requiring quick delivery. The Department print shop processed 660 offset jobs for over 5,314,000 impressions and 1,000 mimeograph jobs with 330,270 impressions.

Professional films and audio-visual equipment are stored, repaired, scheduled and shipped throughout the state. Liaison is maintained with the State Museum in its function of handling Department lay films. Four hundred professional film bookings were made and the film technician gave 70 film showings. There were 180 audio-visual equipment loans.

This Program operates a state-wide health education exhibit loan service. Nine new exhibits were constructed for specific uses and then added to exhibit library. Sixty-five exhibit installations were completed.

Graphic art service is provided for the design and production of exhibit art work, charts, signs, and preparation of mechanicals for printed materials.

### Budget and Accounts Program

GEORGE E. FORMAN, *Program Coordinator*

This program is responsible for centralized Budget and Accounting Services. Purchase requisitions and revenue are channeled through the Program to the various divisions of the Department of Treasury.

Federal formula grants were received for General Health Services, Cancer Control, Water Pollution Control, Heart Disease Control, Tuberculosis Control, Services for the Chronically Ill and Aged, Radiological Health, Services for Maternal and Child Health, and Services for Crippled Children. Various other federal funds were received to continue project studies and research. These include Radiation Research, Coronary Heart Disease, a Community Virus Study, Ecology of Eastern Encephalitis, Venereal Disease Casefinding, and Presymptomatic Failure in Congenital and Acquired Heart Disease.

Four new federal grants were received for a nursing activity study, a tuberculosis epidemiological investigation, a diabetes workshop, and a project providing health services for migrant workers.

During the fiscal year, 358 Grant-in-Aid Contracts were processed. Seventy federal fiscal reports were prepared. Ten thousand and sixty-eight vouchers were passed to payment. Detailed applications forwarded to the Division of Purchase and Property totaled 1,450.

Following is a consolidated financial statement of the Department as of June 30, 1963.

### STATE DEPARTMENT OF HEALTH FINANCIAL STATEMENT

July 1, 1962 - June 30, 1963

#### Receipts

#### Received for Transfer to State Treasury:

Licenses and Permit Fees .....	\$275,293.95
Penalties .....	7,560.00
Certified Certificates .....	41,711.11
Examination Fees .....	21,073.50
Miscellaneous .....	5,211.70

Net Total ..... \$350,850.26

#### Received for Disbursements:

State Appropriation and Transfer .....	\$3,766,025.47
United States Department of Health, Education and Welfare—Public Health Service .....	1,416,386.05
Children's Bureau .....	860,372.04
Other Federal Funds .....	431,426.52
Milbank Research Grant (Private) .....	8,560.00
Crippled Children Donations (Private) .....	92.85

Net Total ..... \$6,482,862.93

DEPARTMENTAL ALLOCATIONS  
July 1, 1962-June 30, 1963

DIVISION	Salaries		Other Allocations		Total State	Total Federal	Total Private	Total All Funds
	State	Federal	State	Federal				
Office of the Commissioner	\$79,242.00	\$82,198.00	\$40,108.00	\$114,797.15	\$119,850.00	\$196,000.00	\$8,500.00	\$824,900.15
Sanitation and administration	841,020.76	116,682.00	83,708.72	232,717.17	820,858.31	240,508.00	1,024,888.43	1,024,888.43
Environmental health	547,387.00	186,604.00	172,221.81	82,066.64	520,883.11	240,508.00	1,024,888.43	1,024,888.43
Preventable diseases	35,302.94	30,994.00	30,994.00	100,291.88	806,880.00	214,318.88	1,111,008.88	1,111,008.88
Chronic illness	89,861.00	32,838.00	181,371.97	131,138.44	413,840.00	687,899.88	93.15	1,111,008.88
Public health	226,888.00	165,271.00	171,878.00	549,424.04	868,704.00	687,899.88	93.15	1,111,008.88
Special consultation services	40,820.00	88,888.00	147,988.00	31,811.00	319,328.00	76,887.00	93.15	393,915.00
Local health services	547,489.00	163,578.00	147,988.00	30,888.25	886,106.00	200,308.25	93.15	1,086,514.00
Total allocations	\$2,416,944.00	\$1,018,827.97	\$1,846,981.47	\$1,089,856.64	\$3,706,026.47	\$2,708,184.61	\$8,962.85	\$6,492,892.98

DEPARTMENTAL EXPENDITURES  
July 1, 1962-June 30, 1963

Office of the Commissioner	\$70,187.16	\$78,878.82	\$39,931.76	\$84,855.17	\$119,008.92	\$185,384.89	\$1,518.87	\$284,122.48
Sanitation and administration	831,020.76	114,822.19	86,791.41	\$1,051.45	812,124.75	222,174.06	1,518.87	1,034,817.68
Environmental health	547,387.00	186,819.28	166,819.44	72,864.88	503,683.28	168,416.11	1,518.87	673,618.26
Preventable diseases	35,302.94	30,994.00	30,994.00	100,291.88	806,880.00	214,318.88	1,024,888.43	1,024,888.43
Chronic illness	89,861.00	32,838.00	181,371.97	131,138.44	413,840.00	687,899.88	93.15	1,111,008.88
Public health	226,888.00	165,271.00	171,878.00	549,424.04	868,704.00	687,899.88	93.15	1,111,008.88
Special consultation services	40,820.00	88,888.00	147,988.00	31,811.00	319,328.00	76,887.00	93.15	393,915.00
Local health services	547,489.00	163,578.00	147,988.00	30,888.25	886,106.00	200,308.25	93.15	1,086,514.00
Total expenditures	\$2,411,107.35	\$984,066.49	\$1,237,150.42	\$1,056,126.68	\$3,611,722.47	\$2,469,222.42	\$1,611.72	\$6,159,181.59
Balance June 30, 1962	\$7,876.87	\$84,781.48	\$89,881.05	\$184,280.71	\$7,041.13	\$97,707.72	\$7,041.13	\$828,711.04

### Examination and Licensing Program

This Program provides examinations and licenses as required by law to personnel qualified to perform public health services in their employment by local authorities and agencies.

During 1963, this Program, in collaboration with the Division of Laboratories, was assigned an additional responsibility of issuing Blood Bank Licenses subject to Chapter 33, P. L. 1963 and Chapter X of the State Sanitary Code.

During this period:

- a. 772 applications were processed for examinations.
- b. 60 examinations were conducted.
- c. 289 licenses were issued as a result of examinations.
- d. 114 initial Blood Bank Licenses were issued and of this number 108 had filed for renewal prior to December 31, 1963 for the year 1964.
- e. Chapter X of the State Sanitary Code and Chapter 33, Public Laws of 1963 were printed and distributed to all hospitals, institutions, and privately owned Blood Banks as well as to other interested persons.

The various licensing boards, whose members serve without remuneration, provided consultative services contributing greatly to the activities of the Program.

#### GENERAL SUMMARY OF WHAT HAS BEEN ACCOMPLISHED BY THE BOARD OF BARBER EXAMINERS

January 1, 1963 - December 31, 1963

Shops Inspected	12,008
Special Investigations	1,463
Shops Found with Sanitary Violations	622
Reinspections	622
Hearings Held	184
Shop Licenses Suspended as a Result of a Hearing	2
Persons Assessed Penalties by Board	132
Barbers Found Working with Expired Certificates	4
Persons Found Working Without a Certificate	22
Unlicensed Apprentices	8
Shops Found Operating with Expired Licenses	3
Shops Found Operating Without a License	17
Shops Reported Out of Business	95

Complaints Received from Public and Investigated .....	80
Barbers Reported Deceased .....	87
Applicants Scheduled for Examination .....	719
Applicants Failed to Appear .....	108
Applicants Examined .....	611
Applicants Passed Examination .....	524
Applicants Failed to Pass Examination .....	87
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### Personnel Program

The responsibilities of the Personnel Office include recruiting of qualified applicants to meet the various clerical, technical and professional needs of the many programs of the Department; the maintenance of adequate classification of positions, processing of all regular and supplemental payrolls; maintaining a centralized accurate up-to-date set of personnel records for all Department employees; providing various in-service training courses as needed such as the Orientation Course for new employees.

The Personnel Program provides consultation services to Department supervisors and employees concerning many personnel actions, salary problems, pension inquiries, insurance coverage questions, Civil Service rules, Department policies, sick leave and vacation leave, performance ratings, disciplinary problems, etc.

Personnel needs are constantly changing because of progressive, modern and expanding public health activities and services. To meet these needs, the Personnel Office has recruited applicants with specialized training and has assisted in providing in-service training courses.

Several Department positions have been evaluated and changes were recommended in classifications to meet the various needs of the many programs.

Exit interviews were conducted for a number of positions and this information was evaluated to determine true reasons for separations.

Members of this office served on various committees of the State Personnel Council, Service Award, and Safety Programs and devoted many hours in research on various projects and in preparing reports and recommendations.

During this report period, 22 job specifications were reviewed and revised.

The Personnel Office provided services to 653 Departmental employees requiring the processing of approximately 36,000 records, forms, etc., relative

to personnel actions, changes, payroll, time reports, etc., for the reporting period.

Service award pins were presented to 68 Department employees for their length of service with the state during this period.

A number of other projects were assigned to this office. They included: employee relations and recreation programs; coordination of payroll accounting procedures with the Department's IBM system; assisting with the housing needs of the Department; providing mail distribution services to the seven different locations of the Department Programs in the Trenton area; conducting recruiting programs; assisting with charity and savings bonds campaigns.

This Program also has the responsibility for preparing and maintaining on a current basis the listing of Department staff members with home addresses and telephone numbers for use with the Department's Alert and Mobilization Plan. The plan provides continuous public health coverage to the citizens of the state whenever emergencies may arise during off duty hours.

At the beginning of this period, there were 186 classifications in the Department; and 189 at the end. Of the 653 employees on the payroll at the end of this period, 118 were at the minimum step of their salary range, 460 at intervening steps, and 75 at their maximum. As of December 31, 1963, there were 667 budgeted positions of which 474 were filled by persons with permanent civil service status, 99 by persons with temporary civil service status, and 80 by persons in emergency or unclassified status. In addition to the regular staff of the Department, a number of professional workers such as doctors, dentists, nurses, special project employees, etc., were hired during this period on a per diem or per hour basis to provide public health services to the citizens of our state.

As of December 31, 1963, 394 employees were being paid from state funds and 259 were being paid from federal funds.

At the end of this period, there were approximately 59 vacant positions which this Program was attempting to fill. Most of these positions require persons with special professional background for which the state compensation plan does not provide adequate salaries for recruitment since a shortage of such personnel exists throughout the country.

## Report of the Vital Statistics Registration Program

### *Workload and Accomplishments*

During the calendar year 1963, the Program received and processed 237,291 original reports of vital events, approximately 2,000 delayed reports of births, and about 10,000 corrections to current and old records. In addition, there were 11,255 office or telephone calls by persons wishing to file corrections or needing help in other registration matters.

New birth records were prepared for 2,561 persons who had been adopted in 1963 or prior years. Copies of these records were sent to the respective local registrars.

The Program examined 86,682 premarital certificate forms for acceptability before detaching them from the marriage certificates forwarded by local registrars.

About 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 1963, this required typing more than 7,000 copies, all of which were subsequently sorted by county and forwarded to the respective county supervisors of veterans' interments.

A daily average of 450 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 57,768 applications for searches of the records of one or more years for one or more persons. About 41 percent of our applications were from agencies requiring either a certification that the record was on file or a free certified copy. The balance of 59 percent required the preparation of certified copies or statements that the record requested could not be found. For all of this, the Program received fees of \$42,213.85 in calendar year 1963.

For the month of January, 1963, the Program selected a 10 percent sample of death certificates and a five percent sample of marriage certificates to microfilm for the National Vital Statistics Center. Beginning with the records for February, 1963, all records were microfilmed and sent to the National Vital Statistics Center on or before the last day of the month of receipt.

The Program assisted with a project of the New Jersey State Society of Anesthesiologists by supplying photocopies of death records for each month relative to deaths possibly associated with therapeutic misadventure in anesthesia.

The Program also gave the Cancer Control Program copies of many death records. These were used to assist in the clearance of Cancer Registers of hospitals in and outside of New Jersey.

A summary of the volume of the major activities of the Program follows:

Table 1. ORIGINAL CERTIFICATES RECEIVED, PROCESSED, AND PERMANENTLY FILED

Certificate Type	Calendar Year		
	1963	1962	1961
Births .....	128,407	127,120	130,369
Fetal Death .....	2,038	1,935	2,035
Marriage .....	43,341	41,462	40,726
Remarriage .....	1,116	1,161	1,051
Death .....	62,389	60,534	59,254
Total .....	237,291	232,212	233,435

Table 2. SEARCHES REQUESTED AND FEES RECEIVED

Item	Fiscal Year		
	1963	1962	1961
Searches made and/or certified copies issued for which fees were received .....	33,837	36,487	34,668
Searches made and/or certified copies issued for which no fees were received .....	22,058	21,813	22,136
Total searches .....	55,895	58,300	56,804
Fees received for searches and certified copies .....	\$41,710.11	\$41,958.69	\$39,067.28

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