

SEVENTY-SEVENTH ANNUAL REPORT

OF THE

Department of Health

OF THE

STATE OF NEW JERSEY

1954



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1955

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

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HARRY J. ROBINSON, M. D. Union
-

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

STATE OF NEW JERSEY

DEPARTMENT OF HEALTH,

TRENTON, N. J., July 1, 1954

To His Excellency Governor Robert B. Meyner:

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

To the Public Health Council:

LADIES AND GENTLEMEN—I have the honor of submitting herewith the Annual Report of the Department of Health for the fiscal year ending June 30, 1954.

Respectfully submitted,

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

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HEALTH OF THE STATE OF NEW JERSEY, 1954

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Report of the State Commissioner of Health

July 1, 1953—June 30, 1954

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

An essential activity for any agency or organization which aims at specific objectives is for it to chart its course. The New Jersey State Department of Health has instituted an activity apparently without precedent in any other state health department: We have required all our programs to be written in full and in a standard format. This made it necessary for us to appraise what we had been doing, what we were doing at the moment, and what we ought to have been doing and ought to be doing in terms of short range and long range objectives. This not only charts a course for present and future action; it provides a yardstick by which we can measure our efforts in relation to the goals we have set for ourselves. There is one over-all master program for the entire department and about forty other programs covering relatively distinct areas of public health activity.

In the period covered in this report, a tentative draft of the Combined Departmental Program was completed. Copies of it were provided, for study purposes, to members of the Public Health Council, to two score local health officers and other citizens who are informed about health, and to forty staff members of the Department. Their suggestions will be used in preparing the final draft of the Program. During the year covered in this report, of the contemplated programs covering forty-five activities, thirty have been approved. The remaining fifteen are in the final stages of critical review essential to approval.

We expect such programs to provide useful bases of operation for two or three years or longer, but we are likewise determined that they shall not become static. Public health problems change from time to time and the methods of overcoming them—public health practices—must be modified to meet changing conditions and new problems.

The programs are divided into four sections:

- I. Problem, Needs and Legal References
- II. Objectives, Activities, and Assignment
- III. Supporting Materials and Procedures
- IV. Evaluation

Developing a workable evaluation index is the most difficult part of program preparation. It is relatively easy to determine what the problem is, what should be done, and how it should be done, but it is considerably more difficult to develop criteria to appraise results objectively.

PERSONNEL REDUCED 27 PER CENT

Study of our methods, policies, procedures, and the ways in which we have used the resources available to us disclosed some interesting data about personnel trends in the Department in the years which the present Commissioner has been chief executive officer of the Department. There were 652 budgeted positions in the Department on June 30, 1948. During the fiscal year ending June 30, 1949, there were incorporated into the Department, as a result of reorganization legislation, three units of government which had previously had independent status. These were the Board of Barber Examiners, the Board of Beauty Culture Control, and the Crippled Children's Commission. Their budgeted positions totalled 83. If the 83 positions were added to the total which the Department had before, one would expect that the new total would be 735 (652 plus 83). However, as of June 30, 1954, the terminal point of this report, there were 535 budgeted positions in this Department, a numerical reduction of 200, and a percentage reduction of 27 per cent.

NEW RESPONSIBILITIES

While this reduction in budgeted positions was taking place, we accepted many new responsibilities. We added these new activities to our efforts: a program for the control of atmospheric pollution; a program for the control of radiological health hazards; a program for the control of ragweed and other obnoxious weeds; a program of veterinary public health; a program of pathology which conducts a cancer laboratory and a tumor registry; extension of consultative services in community health organization; departmental participation in local health evaluation surveys in cooperation with the Commonwealth Fund; departmental participation in planning medical and health services in event of civil defense emergency; departmental participation in a survey of chronic illness conducted in Hunterdon County in connection with the Commonwealth Fund; pursuant to legislative direction, responsibility for a temporary period of mosquito extermination activities; pursuant to legislative direction, establishment of a Division of Chronic Illness Control with new programs aimed at control of alcoholism, diabetes, heart disease, and other chronic diseases and conditions; pursuant to legislative mandate, through the Bureau of Licensing and Examination, direction of the activities of the erstwhile State Board of Barber Examiners, the Department of Beauty Culture, and the Board of Beauty Culture Control; pursuant to legislative

direction, supervision of Crippled Children's Commission's programs; and addition of new laboratory services such as RH typing, blood grouping, and virus testing.

DISTRICT OFFICES STAFFED

During these years, we have set up and substantially staffed four state health district offices to provide more easily accessible consultative services in public health to local boards of health. Such staff includes a district state health officer, district chief public health engineer, public health veterinarian, district chief public health nurse, consultant on community health organization, and a nutritional consultant. This kind of staff, acquainted with the area it serves, provides readily accessible consultative services in public health to local boards of health in its area. Travel time is reduced and maximum consultative service is achieved. The counties served by each district office and the location of the district offices are shown on the map included in this report.

Despite the increases in staff which might reasonably have been expected to result from more numerous and more intensive operations, at the end of the fiscal year—June 30, 1954—the Department was operating with 200 fewer employees than it had budgeted six years earlier plus subsequent accretions resulting from reorganization. In only two instances were employees discharged. The reduction in personnel was accomplished by hard-headed analysis of the need for positions following resignations and retirements; and the consolidation of activities where that could be accomplished without loss of efficiency and production.

Any enterprise operates most efficiently when it operates with the fewest possible trained, qualified, and adequately compensated employees. Under these conditions, the employees are kept productively occupied, they have a professional approach to their jobs, and their morale is high. It is gratifying that we have found it possible to operate with fewer employees although we have accepted additional responsibilities and are attacking all our responsibilities with great vigor. This record has only been possible because our employees have in general measured up to what has been expected from them and believe in doing a day's work for a day's pay.

PREVENTIVE EFFORT PAYS DIVIDENDS

While the trend in numbers of personnel has been downward during these years, it is fair to warn that we cannot consistently intensify and broaden our efforts without employing enough additional personnel to make those efforts effective. But the ultimate results of such preventive effort will save many times over the cost of investment in personnel and services. For example, having enough personnel to assure that a maximum number of persons exposed to venereal disease will be promptly treated can save many times over

the cost of terminal care for even a small number of persons who will require indefinitely prolonged custodial care because of the damaging effects of untreated syphilis. There are still 1,000 patients with syphilitic psychoses in state and county mental hospitals who have been there for seven and one-half years, on the average, at a cost to the taxpayers in excess of \$7,000,000. A few more dollars expended for prevention years ago—case-finding and follow-up to assure appropriate care—would have repaid the taxpayers many times over in the reduction in ultimate costs. The example is applicable in many areas of preventive effort, although ultimate costs resulting from lack of prevention are not always so easily measurable.

We have found it possible to add additional personnel and still keep costs to a minimum by hiring, in some instances, non-medical persons to handle the many administrative duties inherent in carrying out a program of activity while at the same time assuring such persons of medical supervision which is adequate without being full-time. To put it another way, a full-time medical supervisor can supervise effectively several trained non-medical program coordinators. This assures competent medical planning and direction of each and the maintenance of liaison at the professional level with professional organizations. At the same time, it provides opportunity to give expression to the zeal and enthusiasm of many non-medical public health workers and gives them responsibility and remuneration commensurate with their capabilities. The program effort is accelerated, but the cost is substantially less than if each such program were headed by a medically trained person.

FIRST FULL YEAR UNDER REVISED SANITARY CODE

The fiscal year covered in this report is the first full year in which the state has operated under the revised State Sanitary Code. The Code is a collection of sanitary regulations prepared and promulgated by the Public Health Council. These regulations have the force and effect of law. Together with public health law, they provide basic public health regulations, and every municipality in New Jersey is responsible for their enforcement. Elimination of chicken pox, German measles, and mumps from the list of diseases which local boards of health are required to report to the State Department of Health has saved both local boards and the Department a great deal of clerical work without affecting in any way the adequacy of treatment of such cases when they occur.

Revision of the State Sanitary Code was one of several steps to provide New Jersey with modern public health services for contemporary needs. The first was a legislative reorganization of the Department as a result of legislation enacted in 1947. This was followed by substantial administrative revamping to secure an administrative organization based upon functional lines. It now includes, pursuant to legislative direction, a division of chronic illness

control. A third step was enactment of legislation to permit municipalities to consolidate their local health services to offer a solution to the dilemma of small municipalities which cannot individually provide qualified, specialized public health services.

A next step, in logical sequence, was the revision of the State Sanitary Code to assure that its provisions will have maximum applicability and effectiveness in meeting current public health needs. This task was accomplished by the Public Health Council of the Department, in accordance with its statutory responsibilities, the Department serving as secretariat to the Council.

A fifth step was writing our own programs in the State Department of Health so that we shall know specifically where we are going and how we propose to get there, and additionally to equip us to offer more realistic help to local health boards which choose to come to us for program consultation and guidance. A sixth step, and one projected for the future, is the determination, initially by local health officers themselves, of what recognized local health activities ought to be, beyond the basic requirements of law and the provisions of the State Sanitary Code. When the health officers have substantially determined what they consider recognized local public health activities, it may be appropriate to recommend to the Public Health Council that it promulgate standards which local boards of health will be expected to meet.

DIVISIONAL REPORTS TO THE PUBLIC HEALTH COUNCIL

As a result of a request from the Public Health Council, each division head reported in person to the Public Health Council on the functions and responsibilities of his or her division. The division head was accompanied in each instance by his bureau chiefs or the program coordinators. Members of Council were invited to question, and did question, the division head and his subordinates about their work. It is believed that as a result of this series of reports, members of the Council are more adequately informed about the operations of the Department and their functional alignment.

Only careful reading of all the sections of this report will reveal the volume of services offered by the Department. Such reading will also indicate what progress has been made in many areas of public health activity as well as where further intensive effort must be made. Some of the more significant developments and problems merit special comment.

SALK POLIOMYELITIS VACCINE STUDY

Through its four district health offices, the Department coordinated the extensive arrangements required in connection with the participation of New Jersey children in the nation-wide test of the effectiveness of the Salk vaccine

against poliomyelitis financed by the National Foundation for Infantile Paralysis. The required three injections of the vaccine were administered to 15,457 second grade children in five counties: Bergen, Cape May, Monmouth, Morris, and Warren. The health records of first and third grade children will be used as controls; none of the children in those grades received the vaccine. The results of the nation-wide inoculations are to be studied by an epidemiological team. Its findings will not be known until some time in 1955.

The Department continued its responsibility for the distribution of gamma globulin for poliomyelitis and other disease control.

Preventive effort can never safely be relaxed. This is illustrated in diphtheria cases and deaths reported for the year. There were 52 cases and 4 deaths reported from diphtheria. While no immunizing agent may be 100 per cent effective, immunization against diphtheria generally confers immunity. We must continue to urge that it become an accepted part of the over-all protection of children.

Case reports of syphilis illustrate the necessity for intensive effort to find infected persons early and to refer them to physicians for effective treatment. There has been a sharp downward trend in the reported cases of primary and secondary syphilis and a generally downward trend in the death rate. However, early latent syphilis was reported five times more frequently in 1953 than were primary and secondary syphilis. As long as such a proportion prevails, not more than a fraction of the infectious syphilis that exists is being found. Latent and late cases represent case-finding failures in previous years and migrations from other states of persons whose infections are discovered after arrival in New Jersey.

COMMUNICABLE DISEASE CIRCULAR REVISED

Circular 191, "Control of Communicable Diseases Among School Age Children," was revised during the year after consultation with representatives of the Medical Society of New Jersey and with local health officers. There was substantial revision of sections dealing with incubation periods, immunization schedules, placarding, isolation, and quarantine.

CODES FOR MUNICIPAL ADOPTION

Three more codes were completed and approved during the year. They were on Plumbing, Nuisances, and Realty Subdivision Sewage Disposal Systems. Seven codes have now been completed and recommended by the Department for adoption by municipalities by reference. Codes are prepared by advisory committees representative of local health officers, personnel engaged in activities affected by the codes, and personnel of the Department. This permits consideration of several points of view. Upon completion and

approval, there is available to the local boards of health a comprehensive regulation for a specific area of public health activity. It can be adopted by ordinance without substantial advertising cost. Each municipality which chooses to adopt such code is saved the cost of preparing its own code individually.

POTABLE WATER STANDARDS ADOPTED

There were adopted during the year potable water standards. These are helpful in administering laws relating to water used for drinking and cooking.

CONTROL OF STREAM POLLUTION

Orders to cease polluting streams were issued against 14 municipalities and 6 industries during the year.

Following orders by this Department to cease pollution of the Raritan, the boroughs of Somerville and Raritan and Bridgewater Township in Somerset County formed the Somerset-Raritan Valley Sewerage Authority. Participation by some industries seems possible. It is another example of the multi-municipal approach to find a solution to a problem common to each. Under some circumstances, the authority approach is more economical than the combined costs of individual remedies by each municipality and industry in the area. The time-table of operations drawn up by the authority gives promise of effecting a solution to be effective more or less in concert with the anticipated effective date of the Middlesex County Sewerage Authority. Some municipalities and some industries have chosen to solve their disposal problems individually. That is their prerogative. It is not the responsibility of the Department of Health to tell them how to solve the problem but only to see that the pollution is stopped. We have, however, placed such municipalities and industries on notice, where necessary, that we expect a permanent solution to their disposal problems to be effective when the remedies of the other municipalities and industries along the same stream, through an authority approach, are effective.

During the year, the Middlesex County Sewerage Authority submitted for engineering review preliminary basic design data on its proposed trunk line sewer.

ADULTERATION AND MISREPRESENTATION LESSENER

Much effort has been expended to halt adulteration of ground meats by the addition of sodium sulphites or sodium bisulphites. These chemicals are used to preserve meats for longer periods of time, impart a bright red color, and may be used to conceal inferiority. Apprehension and prosecution efforts have been vigorous. Publicity has been given to offenders from whom

penalties have been collected. Recent sampling indicates that the practice or adulteration has been sharply curtailed.

A wholesale distributor paid a \$500 penalty for misrepresenting horsemeat as beef. There has likewise been an apparent decline in this sort of traffic, attributable we believe to alert apprehension followed by the prompt imposition of penalties and publicizing the offense and the offender. We will not knowingly refrain from publicizing any convicted or acknowledged offender unless the outcome of the case is still undetermined. It is our experience that such persons fear the publicity and exposure of their fraud to their clients more than they fear the financial penalties which they must pay.

Similarly vigorous efforts have been carried out to prevent illegal removal of shellfish from polluted areas. During the year previous to the one covered in this report, Departmental personnel, assisted by agents of the Department of Conservation and Economic Development, the State Police, and the New York Department of Conservation, broke up a large-scale practice of bootleg clamming in Raritan Bay by apprehending six persons in a night raid. During this year, five of the violators were tried in Middletown Township Magistrate's Court and were convicted and fined \$100 each for violating statutes enforceable by the Department of Health. In addition, the five individuals were convicted of violating laws enforceable by the Department of Conservation and Economic Development, fined various sums, and suffered the seizure of two large schooners used in their activities. The case of the sixth individual was referred to the Monmouth County Juvenile Court because he was a minor. The convictions were appealed and after retrial in the Monmouth County District Court, the verdicts of the Magistrate's Court were reversed. Despite this decision by the higher court, the illegal shellfish collecting activities were not resumed. It is believed that the enforcement efforts and the publicity achieved a salutary effect, even though the verdicts of the lower court were reversed.

In other shellfish areas in the state, routine patrolling resulted in apprehension of 31 individuals removing shellfish from condemned areas.

NEW JERSEY IS FREE OF RABIES

New Jersey is considered rabies free. That is a short sentence but it reflects tremendous effort. It reflects credit upon municipalities and local boards of health and their efforts to have dogs immunized against rabies and to have dog control programs; it reflects credit upon dog owners, more and more of whom are protecting dogs and in so doing protecting humans and other animals from rabies; it reflects credit upon the individual educational work of veterinarians; and, if it is appropriate for me to say so, it reflects credit upon the Rabies Control Program of the State Department of Health. Only one clinical case of rabies, in a dog, was reported during the year and it was not

confirmed by conventional laboratory studies. There were 205 animal brains examined for possible rabies during the year; not a single positive finding was obtained.

New Jersey's record is the more remarkable in that both Pennsylvania and New York State have problems associated with rabies control. We can be gratified for the moment, but only continued preventive effort will keep New Jersey free of rabies.

PSITTACOSIS REARS ITS HEAD

Gains in some areas of health are often accompanied by the rise of new or different challenges. As veterinary public health personnel saw preventive efforts in rabies begin to pay dividends, there were indications of a disturbing rise in the incidence of psittacosis, like rabies, a disease of animals which is transmissible to man. Provisions of the State Sanitary Code impose safeguards pertaining to the importation of psittacine birds into this State. In April, 1954, a quarantine was placed on the premises of a dealer who had on hand 28,000 birds which were brought into New Jersey in violation of the provisions of the State Sanitary Code and whose birds showed clinical evidence of psittacosis. Subsequent to the imposition of the quarantine, the psittacosis virus was isolated from blood samples taken from some of the birds. It became possible to release one area of the premises from quarantine, but the quarantine was continued on the remainder. The owner decided of his own volition to turn the quarantined birds over to the Communicable Disease Center Laboratory of the U. S. Public Health Service, Montgomery, Alabama.

In the year ending June 30, 1954, 13 persons in New Jersey had been diagnosed as having psittacosis. In each case, there was a history of contact with a parakeet. In some instances, the individuals had worked among birds; in others, they had been owners. Publicity was given when quarantines were imposed. Additional effort was made to inform the prospective buyer how he might undertake to assure that any bird be bought came from a duly registered source. This was helpful in inducing the buyer to beware of buying an infected bird and may have prevented additional cases from occurring.

FLUORIDATION

Despite intensive effort, prevention of tooth decay through almost universal use of fluoridated water remains in New Jersey essentially an unattained goal. There were 27 New Jersey municipalities using fluoridated water supplies on June 30, 1954, and of these progressive municipalities, the largest (Perth Amboy) numbers only about 42,000 population. The proportion of New Jersey population served by such tooth-saving effort will be substantially increased when some of our larger municipalities have taken this much discussed step.

LOCAL HEALTH SERVICES

The total amount reported by local boards of health as available for their use specifically for health purposes during the calendar year 1953 was \$6,546,238.04, a per capita of about \$1.30. They reported spending \$6,353,054.59, a per capita of about \$1.27.

There is a slow growth in coverage of local public health services. There has been a definite decrease in the number of nurses paid fully by the State Department of Health and an increase in the number of locally paid nurses who are supervised by the State Department of Health. This gain has been achieved in some measure by our grants-in-aid policies which enable a local board of health to assume administrative control at once and, on a gradually increasing basis, the cost of hiring a public health nurse locally. Each year the board assumes somewhat more of the cost until it eventually takes over the whole responsibility. The grant-in-aid facilitates budgeting and gradual absorption of the cost.

During all or part of the fiscal year, there were in effect 28 grant-in-aid contracts. Fourteen were for the support of local public health nursing services. The other fourteen were for the initial support of local projects, such as alcoholism study clinics, to strengthen local services in various aspects of chronic illness control.

Services from the central headquarters of the Department to local boards of health are channeled through the Division of Local Health Services and the four district offices of the Department. The Division of Local Health Services is a busy communications center. Requests for service are received by it through the district offices. Technical program services are relayed through it and the district offices.

Requests for service are received in substantial volume by all district offices. Many such requests are actually requests for direct consumer public health services where they do not exist locally. The district offices endeavor to be as helpful as they can with staffs organized to offer only consultative and advisory services to the local boards of health. They continue to impress upon local boards of health that New Jersey law imposes upon municipalities responsibility for providing basic, consumer, public health services.

INFORMATION AND EDUCATION

Elements of the educational process are inherent in every public health program. There were, however, during the year specific educational efforts which merit comment.

As a result of efforts initiated by the Chief of the Maternal and Child Health program, a fact-finding and educational questionnaire was undertaken on a ten per cent sample (30,000 persons) of the combined membership of the

units of the New Jersey Congress of Parents and Teachers. It undertook to test the attitudes and judgment of parents in situations potentially injurious to children. Already a success from the educational effect of widespread participation and publicity in this fiscal year, the findings are to be statistically tabulated as a service of the National Safety Council. Such tabulation will provide the basis for further educational effort.

The Division of Laboratories offered refresher courses in M. tuberculosis identification, biological photography, prothrombin determination, and enteric biology to technical personnel working in various hospital and public health laboratories throughout the state. Since to improve the technician is to improve the service, these courses contribute to the strengthening of laboratory services throughout the state.

There was a Governor's Conference on Alcoholism during the year and another on Epilepsy. The Department either arranged, or participated with others in arranging, an institute for social workers on heart diseases, a symposium on diabetes, and a two-day institute on the administration of a housing program by a department of health.

There was a regional institute on homemaker service in each of the four districts served by departmental district offices. Homemakers are mature women who, after a short training course, are capable of assuming household management in a home in which there is illness. They work for hire on a limited work day but they do not do nursing service. The homemaker's presence in the home a few hours a day often makes it possible for the breadwinner to continue working, keeps household routine operating smoothly, and often tides the family over an emergency with a minimum of family disruption.

Personnel of our Radiological Health Program (Bureau of Adult and Industrial Health), upon request, trained members of the Philadelphia Department of Health in radiation monitoring. The same program has provided expert advice to industry. In two instances, it was called upon for consultative services that probably could have been provided by no other agency, with the exception of the United States Public Health Service or the Atomic Energy Commission.

There was continued emphasis upon inspection of radiation-producing machines, including conventional X-ray machines and fluoroscopic shoe-fitting machines.

Personnel in the Air Sanitation Program, of the same Bureau, gave extensive assistance to municipalities in adoption or implementation of smoke control ordinances. The Bureau of Adult and Industrial Health conducted 19 surveys to initiate and improve health programs in industrial plants.

TRAINING FOR REPORTING OFFICERS

To achieve uniformity in reporting procedures and to discuss ways to stimulate 100 per cent reporting of reportable diseases, training courses for reporting officers were conducted in each of the counties of the state. There are changes in reporting officers each year and such courses are helpful to the new personnel.

A detailed procedure manual on the operation of the crippled children's program was made available to each of the four state health district offices. Program operation is now the responsibility of the districts. Case processing and specialized consultative services are offered through the Trenton headquarters.

Increasing effort is made to have nutritional counselling take its rightful place in almost every public health program. In our Southern District, a nutritional consultative service is offered to parents attending Cerebral Palsy Clinics. In a setting where parents come naturally for advice, valuable suggestions on nutrition, which can affect favorably the health of the entire family, are offered.

NEEDS

An annual report is a recital of activity. It ought also to indicate need.

INTEGRATED PHYSICAL PLANT LACKING

The greatest present need within the Department is an integrated physical plant. The Trenton headquarters of the Department is scattered among several widely dispersed buildings. A terrific price is paid in time to maintain essential inter-program communication. Persons having business with two or more offices of the Department likewise pay a price in inconvenience. Unity and cohesiveness of departmental activity would be materially strengthened could we be housed in a single appropriate building. While most of our personnel suffer space cramp, our laboratories in particular are handicapped by the physical limitations in which they are housed.

The telephone is not always an adequate substitute for face-to-face discussion, especially in situations involving more than two persons. The ability to walk across a hall or down a corridor to scan a file in another office is taken for granted in a physically integrated organization. It may provide a quick answer to an individual dictating a letter. In our organization, it may require a prolonged telephone call, dispatching a messenger to get the file in question, or, on occasion, a trip of several blocks by a person of supervisory level. We have tried to lessen as much as possible the necessity for such effort by having copies of correspondence and reports filed in several offices, but this practice itself is not an economical one.

MENTAL HEALTH PROGRAM NEEDED

Program-wise, we are conscious of the need for a positive and comprehensive program of improving mental health as distinct from the care of the mentally ill. Its influence must be directed to developing, from early life, happy and wholesome home situations. To the extent that we strengthen the security of the home, we develop the basis for the prevention of the personality problems which may ultimately lead to mental illness or other unwholesome deviation from what is considered normal. Program-wise, we are also deeply conscious of the need for a state-wide, integrated and comprehensive program of rehabilitation. It ought to utilize and expand existing facilities and promote the establishment of new ones, thus providing adequate opportunity for complete rehabilitation to all citizens regardless of age or sex.

GAPS IN LOCAL HEALTH SERVICES

At the local level, the great need is for the extension of public health services to the many areas in which they are either almost non-existent or exist only in limited degree. It is not the function of a State Department of Health to provide local consumer services, except in limited and well defined activities. Its local function is to provide highly qualified consultative and advisory services to boards of health and their staffs. The State Department of Health is now equipped to provide these services. When there are no local public health consumer services provided by the local board of health, the gap is not filled.

As indicated earlier in this report, we expect to initiate soon studies to determine what the content of local public health services in New Jersey ought to be. Such determination will provide indices by which our boards of health, local officials and our citizens may measure for themselves the adequacy of their local health services. Perhaps with such measurement and comparison, they will become increasingly motivated to strengthen whatever programs may be weak.

ANNUAL CONFERENCE, STATE AND LOCAL HEALTH OFFICIALS

The 43rd Annual Conference of State and Local Health Officials of New Jersey was held at the War Memorial Building, Trenton, on Friday, March 26th, 1954. The program follows:

FRIDAY, MARCH 26, 1954

WAR MEMORIAL BUILDING, TRENTON, NEW JERSEY

9:45 A.M.—Film showing, stage of main auditorium:

Storage and Collection of Refuse
Sanitary Landfills

10:15 A.M.—Registration in lobby

10:30 A.M. to 12 Noon—Three simultaneous sessions:

BALLROOM—SANITATION

Presiding—John J. Hanson, Health Officer, New Brunswick

The Control of Water Supplies and Sewage Disposal in Realty Developments—M. Warren Cowles, Health Officer, Hackensack Water Company

The Job of the Health Department in the Improvement of Substandard Housing—Murray M. Bisgaier, Executive Secretary, N. J. Association of Housing and Redevelopment Authorities

Air Sanitation Today—Dr. Miriam Sachs, Chief, Bureau of Adult and Industrial Health, N. J. State Department of Health

VETERANS' ROOM—PUBLIC HEALTH ADMINISTRATION

Presiding—Frank M. Doughty, Health Officer, Plainfield

The Diabetes Detection Program—Dr. William J. Dougherty, Director, Medical Research, Division of Chronic Illness, N. J. State Department of Health

The Chest X-ray Survey Program—William A. Hopper, Administrative Secretary, Tuberculosis Control Program, Division of Chronic Illness, N. J. State Department of Health

Nutrition in the Local Health Department—Maurice E. Shils, Sc. D., Assistant Professor of Nutrition, Columbia University School of Public Health

SMALL VETERANS' ROOM—REGISTRATION AND REPORTING

An open question and answer session for Registrars and Reporting Officers who can ask questions of the two Consultants at any time during the morning sessions.

Consultants—Miss Anna P. Halkovich, M.B.A., Principal Statistician, Division of Vital Statistics and Administration, N. J. State Department of Health.

John S. Young, Field Representative, Division of Vital Statistics and Administration, N. J. State Department of Health

12:00 Noon—Adjournment for lunch

1:15 P.M.—Film showing, stage of main auditorium:

Cancer
Heart and Circulation

BALLROOM—GENERAL SESSION

Presiding—Daniel Bergsma, M.D., M.P.H., State Commissioner of Health

2:00 P.M.—Our Job in Public Health—The Honorable Robert B. Meyner, Governor of New Jersey

Responsibilities of Health Department Employees to the Local Board of Health—Frank J. Osborne, Health Officer, East Orange

Responsibilities of Local Board of Health Members to Employees—William H. MacDonald, Assistant Director, Division of Local Health Services, N. J. State Department of Health.

Polio Vaccine Trial in New Jersey—Carl E. Weigle, M.D., M.P.H., Director, Division of Preventable Diseases.

4:00 P.M.—Adjournment

The annual meeting of the Public Health Council was held on July 13, 1953. The following officers were elected for the fiscal year 1953-54: Dr. Marcus W. Newcomb, Chairman; Mr. Harry N. Lendall, Vice-Chairman; Mrs. Erma T. Dilkes, Secretary.

Harry J. Robinson, M. D., of Union, was appointed by the Governor on June 25, 1953 to fill the vacancy on the Council created by the resignation of Dr. Richard E. Shope. Mrs. Erma T. Dilkes of Sewell was appointed by the Governor on June 25, 1953 to succeed herself. These appointments were confirmed by the Senate on the same date. Mrs. Kathleen Sletteland of Ridgewood was appointed by the Governor on January 18, 1954, to complete the unexpired term of Walter G. Alexander, M. D., deceased. The Senate confirmed Mrs. Sletteland's appointment on the same date.

The membership of the Public Health Council is as follows:

<i>Name</i>	<i>Address</i>	<i>Expiration of Term</i>
Harry N. Lendall	New Brunswick	June 30, 1954
Harry J. Robinson	Union	Mar. 13, 1957
Frederick P. Lee	Paterson	June 30, 1957
Nelson S. Butera	Morristown	May 4, 1958
Kathleen Sletteland	Ridgewood	June 30, 1958
Marcus W. Newcomb	Browns Mills	June 30, 1959
Erma T. Dilkes	Sewell	June 30, 1960

HEALTH LEGISLATION OF 1954

The following legislation of interest to health officials was enacted by the 1954 Legislature:

S-20, Chap. 212 (Jones). Creates a 7-member Air Pollution Control Commission within the State Department of Health; prescribes terms, procedures, enforcement powers and duties.

S-28, Chap. 137 (Stout). Prohibits as disorderly conduct the discharging from a vessel afloat in coastal or tidal waters of State any debris or matter tending to litter bathing beaches or pollute waters adjacent thereto.

S-79, Chap. 263 (Lance). Requires physician, within 12 hours after diagnosis of communicable disease or other disease required to be reported according to State or local law, report in writing specified information; such requirement presently limited to specified diseases.

S-80, Chap. 252 (Lance). Excepts nonalcoholic drinks containing water obtained from public supply which has been treated with fluorides, from provisions prohibiting manufacture, distribution, and sale of nonalcoholic drinks containing fluoride or other specified chemicals.

S-121, Chap. 158 (Farley). Increases membership of Public Health Council, Department of Health, from 7 to 8, and requires that 1 member be a licensed dentist.

S-124, Chap. 72 (Sharp). Authorizes governing body of newly consolidated municipality consisting of municipality which had created a sewerage authority, to appoint members of such sewerage authority and to extend the boundaries of the sewerage authority so that they coincide with the boundaries of the newly consolidated municipality.

S-126, Chap. 159 (Sharp). Redefines by metes and bounds oyster beds in vicinity of Back Creek subject to special season seasonal regulations.

S-146, Chap. 113 (Summerill). Permits any physician, licensed by State to practice medicine and surgery, to conduct post-mortem and necroscopic examinations upon bodies of deceased persons, with consent of a person responsible for burial of such bodies.

S-279, Chap. 185 (Murray). Authorizes incinerator authorities to include in municipal garbage disposal contracts a provision for payment to authority by municipality of specified sums to defray cost of operation, maintenance and deficits of system and maintenance of reserve or sinking funds for such purposes.

S-302, Chap. 175 (Dumont). Permits the use of animals, reptiles or fowls for purposes of soliciting contributions or payments of money in connection with exhibitions, shows or performances conducted in a bona fide manner by recognized breeders' associations, 4-H clubs or other similar bona fide organizations; permits the sale or gift of baby chicks, ducklings, other fowl, or rabbits, turtles, or chameleons under 2 months of age in quantities less than 6 by recognized breeders' associations, 4-H clubs or other similar bona fide organizations.

S-317, Chap. 214 (Summerill, Farley). Authorizes \$25,000,000 State Medical-Dental Health Center Bond issue for the creation, construction, establishment, equipment, maintenance and operation of a State institution for the teaching of medicine, surgery, dentistry and public health; provides for referendum at General Election in November, 1954.

SJR-2, Chap. JR-3 (Jones). Creates a 7-member State Old Age Study Commission to study the employment, housing, health, recreation, social and economic problems of the aging group of the population.

SJR-6, Chap. JR-1 (Hannold). Declares week of March 7th to 13th as "Save Your Vision Week."

A-3, Chap. 16 (Beadleston, Haines). Prohibits as disorderly conduct the throwing or placing of any trash or debris of any nature on open fields or private property without permission of owner or person in possession.

A-57, Chap. 25 (Barnes). Authorizes municipalities upon finding that a need for temporary housing still exists, to extend for a period not to exceed 1 year contracts pertaining to such housing previously entered into with housing administrator.

A-77, Chap. 40 (Barnes). Validates marriages, otherwise lawful, heretofore solemnized by divinity student acting as minister of Presbyterian Church.

A-100, Chap. 199 (Vervae). Requires new construction of buildings requiring water and sewerage facilities meet minimum uniform sanitary standards to be prescribed by State Health Department and local ordinances; provides for enforcement through local health boards and prescribes remedies and penalties for violations; effective September 1, 1954.

A-194, Chap. 224 (Haines). Requires the State registrar to make annual certification of vital statistics to the treasurer of each incorporated political subdivision comprising a registration district.

A-195, Chap. 93 (Haines). Increases fees charged by local registrar for burial or removal permits from 25 cents to 50 cents.

A-219, Chap. 261 (Stepacoff). Prescribes additional qualifications for applicants for examination to practice chiropody, graduating after January 1, 1955; increases examination fee from \$25 to \$30; reduces maximum annual registration fee from \$3 to \$1; prescribes penalty up to \$1,000 for persons violating provisions more than once.

A-249, Chap. 179 (Beadleston). Authorizes the Commissioner of Education, with approval of the State Board of Education, to provide rules and regulations for the specified classification of physically handicapped children, to provide procedures empowering boards of education to establish adequate facilities to care for physically handicapped children, and to require the filing with the Commissioner of Education of the names of all children classified and the names and addresses of any known physically handicapped children not attending school; effective July 1, 1954.

A-252, Chap. 218 (Del Tufo). Establishes retirement system for permanent employees of city of Newark, Essex County, by merging 3 existing pension funds; excepts police and firemen; prescribes schedule of deductions and contributions, retirement age, and maximum pension payments.

A-308, Chap. 118 (Crane). Increases from \$2 to \$3 the maximum amount which municipalities may charge for an annual dog license; effective January 1, 1955.

A-338, Chap. 50 (Fowler). Prohibits any person other than a licensed veterinarian from cutting the tissue or muscle, or otherwise operating on, the tail or ear of any animal, for the purpose of altering the natural carriage of such tail or ear.

A-361, Chap. 190 (N. C. Smith). Permits persons applying to take examination for chiropractor's license prior to October 14, 1953, and who completed specified academic requirements prior to December 31, 1954, to take such examination before December 31, 1954; increases requirements for obtaining such license under reciprocity provisions.

A-367, Chap. 197 (Mills). Designated "Mine Safety Act"; creates a mine safety section, in the Bureau of Engineering and Safety, to perform specified functions relative to the health and safety of mine workers and the protection of mine property; provides for the promulgation of rules and regulations relative thereto; specifies standards of health and safety for mine operators; appropriates \$70,000 for purposes of the act; prescribes penalties; repeals present provisions relative to mines and quarries; effective October 1, 1954, except for appropriation and preparatory measures effective immediately.

A-386, Chap. 227 (Marryatt). Effects general revision of provisions regulating practice of optometry; changes definition; specifies minimum equipment; requires notice to board of new location; empowers board to discipline for negligence; prohibits advertising, specified unethical practices, and practice by nonlicensed persons; prohibits sale of glasses without prescription; provides penalties in lieu of suspension or revocation of license in case of specified violations.

A-397, Chap. 130 (A. M. Smith). Requires the State Registrar of Vital Statistics to record the death of persons who died while in the maritime or merchant marine service upon proper proof from the U. S. Department of Commerce.

A-441, Chap. 197 (Vervae). Creates mine safety section, in Bureau of Engineering and Safety, to perform specified functions relative to health and safety of mine workers and the preservation of mine property; provides for promulgation of rules and regulations relative thereto; specifies standards of health and safety for mine operators; appropriates \$70,000 for purposes of act; prescribes penalties; repeals present provisions relative to mines and quarries (R. S. 34:6-68 to 98); effective October 1, 1954.

AJR-1, Chap. JR-2 (Field). Designates April as "Cancer Control Month."

ACR-4 (Haines). Reconstitutes 10-member commission created by Assembly Concurrent Resolution 23, 1953, to study problems relative to clearing obstructions from streams and draining overflowed lands, and to propose legislation authorizing abutting owners and local governing bodies to accomplish same. (Filed with Secretary of State.)

HEALTH BILLS WHICH WERE NOT ENACTED

The following bills of interest to health officials were introduced in the 1954 Legislature, but did not become laws:

S-48 (Shershin). Creates Division of Cemeteries within Department of Law and Public Safety, consisting of Attorney-General, Secretary of State, Commissioner of Health and a division director appointed by Governor with Senate advice and consent; establishes 7-member cemetery council within division, appointed by Governor, at least 3 to be officers of active cemetery organizations; authorizes division to supervise and regulate establishment, maintenance and preservation of burial grounds and operation of cemetery organizations; provides numerous specifications; prescribes penalties.

S-67 (Farley). Establishes State medical and dental college to be affiliated with Rutgers University and with name and location to be designated by concurrent action of State Board of Education, Trustees of Rutgers College, State Board of Medical Examiners and State Board of Registration and Examination in Dentistry; to be managed by trustees of Rutgers College and a Board of Trustees to be appointed as specified; to provide facilities for education in medicine, surgery and dentistry as a Class A Medical College.

S-82 (Jones). Establishes a Pollution Control Board in the Division of Fish and Game (Department of Conservation and Economic Development), consisting of a biochemist and fish and game warden, appointed by Director, Fish and Game Division, with advice and consent of Fish and Game Council; defines powers and duties, prescribes penalties for pollution of fresh or tidal waters.

S-166 (Hannold). Deletes from definition of chiropody in act regulating same, exclusions relative to bone resections, fractures and dislocations.

S-176 (Vogel). Authorizes construction, operation and maintenance of Round Valley and Wharton Reservoirs Water Supply Systems, by Division of Water Policy and Supply, Department of Conservation and Economic Development; specifies powers of division relative thereto including the fixing of water charges; provides for payments of tax losses to municipalities on properties taken for such purposes.

S-194 (Anton). Prohibits sale of ready-made eyeglasses with simple magnification only unless same are prescribed by physician or optometrist; prohibits advertising by ophthalmic dispenser which would distinguish between physician or optometrist or the services they render; requires such advertising be limited to services performed by ophthalmic dispensers and exclude references to ocular symptoms, defects, abnormalities or remedies for relief thereof.

S-209 (Wallace). Requires board of beauty culture control, Department of Health, appoint and employ a secretary who is a licensed operator or manager-operator, at compensation to be fixed by the board; effective July 1, 1954.

S-210 (Wallace). Changes educational, age and experience requirements for beauty culture operators; authorizes granting of licenses to demonstrate appliances, methods and cosmetics; effective July 1, 1954.

S-231 (Shershin). Regulates the candling of eggs and candling, sale, disposition and packaging of inedible eggs; requires license at annual fee of \$10; defines "inedible eggs"; prescribes penalties for violations; effective July 1, 1954.

S-232 (Shershin). Prescribes a \$50 annual fee for egg-breaking business licenses.

S-241 (Shershin). Requires common carriers of passengers and freight having station or office facilities in State provide and maintain specified adequate sanitary facilities for the health and comfort of their employees.

S-247 (Jones). Provides that provisions relative to civilian defense and disaster control (P. L. 1942, c. 251; P. L. 1953, c. 438) not affect the responsibilities of the American Red Cross (33 U. S. Statutes 599, 1905).

S-256 (Shershin). Requires containers of unbroken eggs removed from incubator to be used for biological, scientific or experimental purposes, other than for human consumption, be plainly and legibly marked on at least 2 sides with the words "inedible eggs"; increases penalties to \$500-\$1,000 or imprisonment up to 60 days for violations; effective July 1, 1954. (Absolute veto.)

S-282 (Mathis, Vogel, Dumont). Specifies qualifications for admission to examination for license to practice medicine and surgery relative to academic qualifications, internship, hospital residency, military service, and pharmacy qualifications. (Absolute veto.)

S-316 (Summerill, Farley). Increases rate of cigarette tax from 1½ cents to 1¾ cents for each 10 cigarettes or fraction thereof; effective January 1, 1955, but inoperative unless bond issue for State Medical-Dental School and Health Center is approved by voters in November, 1954.

S-331 (Hillery). Authorizes municipalities to create a Conservation Authority and Board of Commissioners to institute Neighborhood Conservation Plans for prevention and elimination of slum and blighted areas, to issue bonds, to acquire, rehabilitate and dispose of property, and to require property owners to make repairs and improvements necessary to protect public health, safety and morals.

S-386 (Hand). Designated the "Round Valley Water Supply Act," authorizes the Division of Water Policy and Supply of the Department of Conservation and Economic Development to acquire property necessary to establish the Round Valley Water Supply System; appropriates for such acquisition \$700,000 and 50 per cent of income derived from the additional sale of water from the Delaware and Raritan Canal; prohibits the impairment of the levels of the lakes or the flows of the rivers or tributaries.

SJR-17 (Summerill). Creates 8-member State Medical-Dental School and Health Center Site Commission, 2 each appointed by Governor, Senate President and Assembly Speaker, and Presidents of New Jersey Medical and Dental Societies, to study advantages of available sites for location of a State Medical-Dental School and Health Center; requires report to next Legislature. (Absolute veto.)

SCR-14 (Summerill). Creates 6-member bipartisan commission, 3 Senate, 3 Assemblymen, to study the creation of new water supply systems for State, and proposals therefor now pending in Legislature; requires report to next Legislature.

A-19 (Hauser). Provides for recovery of fines for cruelty to animals by civil action brought in name of New Jersey S.P.C.A. or any similar humane or welfare society.

A-27 (Maebert). Prohibits the unlicensed practice of nursing, when performed for compensation, after September 1, 1956; includes professional and practical nursing; excludes certain categories of trainees, aides, attendants, orderlies, helpers, qualified out-of-State nurses, U.S. Government employees and free home care. (Conditional veto.)

A-36 (Dwyer). Authorizes and empowers Interstate Sanitation Commission to study smoke and air pollution in areas of New York and New Jersey and to recommend a program for control; appropriates \$30,000 to defray costs of study; requires report to Governor and Legislature by February 1, 1955; effective when New York enacts a similar legislation and appropriation.

A-44 (Newton, Dwyer, Kurtz). Appropriates \$275,000 for use to June 30, 1955, to Department of Institutions and Agencies for the establishment of a facility for treatment of persons using narcotics or convicted of narcotics violations.

A-45 (Newton, Dwyer, Kurtz). Authorizes and directs Board of Control of Institutions and Agencies to establish "New Jersey Facility for Treatment of Drug Addicts" for confinement and treatment of persons using narcotics or convicted of narcotics violations; board to negotiate with Federal Government to secure any available financial grants; assesses 1/2 of per capita cost per day for maintaining and treating persons admitted or committed against county from which person was committed or wherein such person resided at time of voluntary admission.

A-46 (Mills). Authorizes township committee, upon petition of not less than 50 voters, to create special service districts with power to eliminate mosquito-breeding areas therein and develop, maintain and operate lake-front or bathing beaches; specifies method of electing commissioners, and financing, and approving annual appropriations. (Absolute veto.)

A-57 (Barnes). Authorizes municipalities upon finding that a need for temporary housing still exists, to extend for a period not to exceed 1 year contracts pertaining to such housing previously entered into with housing administrator.

A-60 (A. M. Smith). Requires that all net State revenues derived from the operation or sale of emergency housing under c. 323, P. L. 1946, be paid into a Medical and Dental College of New Jersey Fund, within State Treasury; expenditures therefrom to be made only by appropriation for a Medical and Dental College; no expenditure to be made until fund amounts to \$10,000,000; repeals act which allocated such funds to General State Fund.

A-62 (Field). Permits recovery of fines for cruelty to animals, by methods prescribed, by N. J. S.P.C.A., or other legally incorporated Humane Society, Animal Rescue League, Animal Protective League or similar welfare society.

A-72 (Musto). Creates 8-member Old Age Study Commission, 2 Senate, 2 Assembly, 4 at large, to formulate and prepare legislative program to advance the general social and economic welfare of the aged residents of State; requires annual report to Governor and Legislature on second Tuesday in January.

A-131 (Mintz). Provides that any person operating a motor vehicle within the State shall be deemed to consent to chemical analysis of breath, blood or saliva for the purpose of determining the alcoholic content of his blood; provides for license revocation upon refusal to submit to such analysis, with opportunity for hearing.

A-140 (Dwyer). Provides that any person who operates a motor vehicle in the State shall be deemed to have given his consent to a chemical analysis for the purpose of determining the alcoholic content of his blood; authorizes Director of Motor Vehicles to revoke the driver's license or reciprocity driving privilege of any driver who is arrested and who refuses to submit to such chemical test when police have reason to believe that he is driving while under the influence of intoxicating liquor.

A-143 (Musto). Authorizes municipalities to regulate the use, maintenance and operation of furnished rooms and apartments.

A-145 (Musto). Provides that any person who operates a motor vehicle in the State shall be deemed to have given his consent to a chemical analysis for the purpose of determining the alcoholic content of his blood; authorizes Director of Motor Vehicles to revoke the driver's license or reciprocity driving privilege of any driver who is arrested and who refuses to submit to such chemical test when police have reason to believe that he was driving while under the influence of intoxicating liquor.

A-151 (A. M. Smith). Provides for transfer of the Veterans Loan Guaranty and Insurance Fund, when no longer required for the purposes of the Veterans Loan Act, 1944, to the Medical and Dental College of New Jersey Fund.

A-157 (Field). Requires the State and the several counties, respectively, to bear one-half the per capita cost for care of indigent patients in State and county hospitals for tuberculosis; effective July 1, 1955. (Absolute veto.)

A-225 (Maebert). Requires employment of a full-time nurse in school districts with average daily attendance over 1,000; requires salary be fixed in accordance with teachers' salary schedule where such nurse holds a State certificate; effective July 1, 1954.

A-241 (Maebert). Designated "Physical Therapists Practice Act," creates a Board of Registration and Examinations of Physical Therapists to regulate practice of physical therapy, prescribe qualifications for and examine applicants for registration; requires practice of physical therapy by written prescription only and under direction and supervision of physician; requires records of treatment be kept for at least 5 years; prescribes penalties for violations.

A-246 (Crane, Dwyer). Authorizes Division of Water Policy and Supply, Department of Conservation and Economic Development, to acquire real and personal property necessary to establish the Round Valley Water Supply System; appropriates \$300,000; allocates 50 per cent of the income obtained from the additional sale of water from the Delaware and Raritan Canal by the division to the Round Valley Water Supply System Fund; provides for annual compensation to municipalities for tax losses on such properties.

A-265 (Barnes). Exempts from public school medical examination any child whose parent or guardian objects thereto on religious grounds, except where child has been exposed to communicable diseases.

A-269 (Barnes). Exempts from education board's actions to determine extent of tuberculosis, any child whose parent or guardian objects thereto on religious grounds, except where child has been exposed to tuberculosis in a communicable stage.

A-287 (Newton). Permits owner of premises on which grantor reserved a burial plot by deed executed at least 30 years ago and on which burial took place at least 30 years ago, to obtain Superior Court order in summary proceeding on specified advertised notice for removal and reburial of bodies at own expense; provides that such easement shall cease upon completion of removal.

A-305 (Bowser). Creates 7-member State Board of Psychological Examiners of New Jersey to be appointed by Governor; requires examination, certification and registration of psychologists; prescribes qualifications and requirements; fixes \$25 examination fee; prescribes penalties; effective July 1, 1954.

A-309 (Vervaeet). Provides for retirement with pension equal to $\frac{3}{4}$ salary of full-time municipal health officer or chief executive officer with over 30 years' service and at age 65.

A-368 (Bowkley, Crane, Dwyer). Authorizes \$60,000,000 bond issue for construction and operation of Round Valley and Wharton Reservoirs Water Supply Systems by Water Policy and Supply Council, Department of Conservation and Economic Development; provides for financing same from water charges and additional property taxes if needed; provides for referendum.

A-369 (Bowkley, Crane, Dwyer). Authorizes construction, operation and maintenance of Round Valley and Wharton Reservoirs Water Supply Systems, by Division of Water Policy and Supply, Department of Conservation and Economic Development; specifies powers of division relative thereto including the fixing of water charges; provides for payments of tax losses to municipalities on properties taken for such purposes.

A-378 (Haines). Indemnifies milk producers for losses due to establishment of quarantine due to outbreak of contagious or infectious disease; provides procedures for appraisal of milk condemned or withheld from market and for reimbursing such milk producers. (Absolute veto.)

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A-405 (Marryatt). Requires that all soft drinks be bottled, and the pouring lip sealed, at the place of manufacture; authorizes State Department of Health to establish regulations; provides \$25 penalty for first offense, \$50 for each subsequent offense.

A-413 (A. M. Smith). Increases maximum pension to widow of health board employee in second-class cities from \$2,000 to \$3,600.

A-423 (Lazio). Requires the State or local registrars, when furnishing birth or marriage certificates where a legal change of name has taken place, to show only the new name, unless a court of competent jurisdiction orders the issuance of a copy of the original.

A-424 (Barnes, Junda, Thompson). Authorizes the existing North Jersey District Water Supply Commission as the agent of the State to acquire, construct, operate and maintain the Round Valley Water Supply System; provides for the activation by concurrent resolution of the Legislature of the presently authorized South Jersey District Water Supply Commission to exercise the same functions with regard to the Wharton Water Supply System (companion bill to A-425).

A-425 (Barnes, Junda, Thompson). Provides for referendum as to issuance of \$150,000,000 face value, State "North and South Jersey Water Supply Bonds" to provide for acquisition, construction, operation and maintenance by the North Jersey District Water Commission of the Round Valley Water Supply System, and by the South Jersey Water Supply Commission of the Wharton Water Supply System; pledges net revenues from operation of said systems and from Corporation Business Tax Act (P. L. 1945, c. 162) for payment of principal and interest (companion bill to A-424).

A-432 (N. C. Smith). Prohibits the treatment of water supplies with fluorides by municipalities providing water for public and private uses, unless such treatment be first authorized by referendum in municipality concerned upon petition of 25 per cent of voters; effective 30 days after approval.

A-437 (Haines). Establishes Bureau of Swine Disease Control, in Division of Animal Industry, to license garbage-feeding hog farms, to conduct demonstrative program relative to the control and eradication of contagious and infectious swine disease, and to enforce rules and regulations relative to control of such diseases; prescribe standards of construction and sanitation for garbage-feeding hog farms; specifies licensing procedure and fixes penalties; effective June 1, 1954.

A-439 (Salsburg). Changes designation of officers and meeting date of pharmacy board; authorizes board to examine applicants for registration as pharmacists in additional specified subjects and in such additional subjects as the board may consider necessary; includes under jurisdiction of board all amendments and supplements of original Pharmacy Act.

A-463 (Salsburg). Increases rate of cigarette tax from $1\frac{1}{2}$ cents to 2 cents for each 10 cigarettes or fraction thereof; effective January 1, 1955, but inoperative unless bond issue for State Medical-Dental School and Health Center is approved by voters in November, 1954.

A-464 (Salsburg). Authorizes \$25,000,000 State Medical-Dental Health Center bond issue for the creation, construction, establishment, equipment, maintenance and operation of a State Institution for the teaching of medicine, surgery, dentistry and public health; provides for referendum at General Election in November, 1954.

DEPARTMENT OF HEALTH

A-474 (Salsburg). Increases license fees for stores selling milk from \$1 to \$5, for processors from \$250 to \$500, for subdealers from \$10 to \$20 per route, for dealers selling out of State, or engaged only in manufacturing, from \$25 to \$75, and for milk dealers in specified amounts depending upon monthly average quantity of milk sold; effective April 1, 1955.

A-475 (Thomas, Barnes, Junda, Thompson). Designated "North and South Jersey Water Supply Law," authorizes the existing North Jersey District Water Supply Commission as the agent of the State to acquire, construct, operate and maintain the Round Valley Water Supply System, and creates the South Jersey District Water Supply Commission to exercise the same functions in respect to the Wharton Water Supply System for South Jersey water supply district; effective upon enactment and approval by voters at referendum of act authorizing \$85,000,000 bond issue for such purposes.

A-481 (Crane, Dwyer) Designated the "Round Valley Water Supply Act," authorizes the Division of Water Policy and Supply of the Department of Conservation and Economic Development to acquire property necessary to establish the Round Valley Water Supply System; appropriates for such acquisition \$700,000 and 50 per cent of income derived from the additional sale of water from the Delaware and Raritan Canal; prohibits the impairment of the levels of the lakes or the flows of the rivers or tributaries.

A-486 (Maebert). Requires all professional nurses to be licensed to practice, after September 1, 1956.

A-492 (Thomas, Thompson). Authorizes the Commissioner of Conservation and Economic Development, with the approval of the State House Commission, to acquire property interests in water supply areas (Round Valley and Wharton areas) for the purpose of supplementing and integrating water supply systems to meet State water needs; authorizes exercise of eminent domain powers; appropriates \$4,600,000 out of Veterans Loan Guaranty and Insurance Fund, in excess of total guaranteed loans outstanding, to such acquisition; provides that areas acquired shall be available for public recreation, fishing and boating use.

AJR-2 (Bowkley). Creates 7-member bipartisan legislative commission, 1 appointed by Governor, 3 Senate, 3 Assembly, to investigate nonprofit hospital and medical-surgical plans operating in State; requires report to next session of Legislature.

ACR-11 (A. M. Smith). Creates New Jersey Medical and Dental College Fund Study Committee, 2 Senate, 2 Assembly, 4 at large, to study possible sources of funds from foundations and other private sources for State medical and dental college; requires report to Legislature as soon as practicable.

ADDENDUM

ANNUAL REPORT TO THE GOVERNOR

OCTOBER 1, 1954

Division of Chronic Illness Control

State Department of Health

In accordance with the Chronic Illness Law (Chapter 102, P. L. 1952) this report has been prepared of proposed activities in the Chronic Illness Program of the State Department of Health. Although the Chronic Illness Program was started with programs designed to combat specific diseases (heart disease, rheumatic fever, cancer, tuberculosis, diabetes, epilepsy, and alcoholism) there has been from the beginning a consistent and conscious effort to incorporate in these programs the concept of the patient as a whole person; as a unique individual to whom psychological and social pressures are as important as physical condition; and as a person who is an inseparable part of all that makes up his environment. There is, happily, a growing trend on the part of all professional workers to recognize the total needs of the patient as the focal point around which successful program planning must evolve.

As an example of this trend, steps have been taken to develop a closer working relationship with the Public Assistance Division of the State Department of Institutions and Agencies. Interdepartmental meetings are being held. One result may be the development of a joint research project in the chronic illness problems and rehabilitative potentials of public assistance clients.

The report which follows is a brief statement of the major needs which the Division of Chronic Illness Control currently anticipates and as presented under the same headings in the budget request. All of these programs have as their common goal, however, the broad categories outlined in the Chronic Illness Law: education, prevention, early detection, control, and rehabilitation.

ALCOHOLISM

Additional out-patient facilities in general hospitals are planned. Three full-time services are now functioning (Trenton, Camden, Newark) and one part-time clinic (Passaic). Interest has been expressed by hospitals in

Morristown, Summit, and Perth Amboy. Group education sessions for persons who have a problem with alcoholism will be promoted in State and community hospitals and institutions.

Another project to receive attention is a rehabilitation project in Essex County. A county committee is studying the needs and has shown particular interest in developing a residence for alcoholics who need a period in a sheltered environment while they are adjusting to a return to community life; this need is particularly evident for court cases, persons discharged from institutions, and persons who are homeless. Such a residence would provide a sympathetic environment in which the medical and social resources of the community could be used in the rehabilitative process.

Efforts will be continued in education of the public and of professional groups. Negotiations are underway for making a film suitable for groups of adolescents. This educational tool probably will not be completed until next year. A special educational project for State employees is planned as part of the health services program initiated this year.

The budget estimate for the needs of the Alcoholism Program in 1955-56 is \$64,074.

EPILEPSY

Continued support will be needed, probably, for the four consultation centers which are now operated in Morristown, Englewood, Trenton, and Salem as a cooperative project of the State Department of Institutions and Agencies, the New Jersey Society for Crippled Children and Adults, the Medical Society of New Jersey, and the State Department of Health. These centers were supplied with electroencephalograph instruments by this Department and continued assistance will be in the form of grants-in-aid to pay salaries of technicians. As the centers become self-supporting, State funds will be transferred to help other areas if the need is demonstrated.

Other hospitals are being supplied with EEG instruments to improve diagnostic and treatment services throughout the State. This must be done on a selective basis in hospitals staffed with neurologists experienced in the diagnosis and treatment of convulsive disorders. It is anticipated that some expenditure for training will be necessary for neurologists in order to supply the need for more personnel trained in the interpretation of electroencephalograms.

The budget request for the Epilepsy Program for the year is \$27,600, which represents no increase from the current appropriation.

MULTIPHASIC SCREENING

Encouragement to community hospitals for the provisions of routine chest X-ray and other examinations of all patients and personnel will be continued by supplying necessary equipment and trained personnel. Such programs discover previously unknown cases of tuberculosis, cancer, heart abnormalities, and other illnesses. Multiphasic screening is conducted most economically in hospital centers because facilities and technical assistance are available; follow-up of positive reactors can be performed promptly; research into advanced methods of detection and prevention is stimulated; and a self-supporting community health program is gradually established. A hospital population has a high disease incidence. Continued assistance will be necessary for programs established or to be established in the current year at Hunterdon Medical Center, Flemington; St. Michael's Hospital, Newark; Monmouth Memorial Hospital, Long Branch; West Jersey Hospital, Camden; and Mountainside Hospital, Montclair.

A complete screening examination at Hunterdon Medical Center, available to all residents of Hunterdon County, will be continued. This program for the prevention and early detection of chronic illness is attracting national attention.

For these programs and new ones which it is hoped to start, a budget of \$78,500 is requested.

DIABETES

Greater public participation in diabetes detection programs is anticipated. Trial use of a new device called the Dreyapak, which made possible the mailing to the laboratory of a dried specimen of urine, has been satisfactory. This greatly simplifies the procedure of a mass screening program for diabetes. Research projects in laboratory methods of early detection of diabetes will be underway in two community hospitals.

A budget item of \$15,490 is requested for the Diabetes Program.

STATE EMPLOYEES

Recognizing that Government has lagged behind industry in providing health services for employees, a health screening program is being developed. This will start with the well established procedures of urine sugar tests and chest X-ray examinations. Educational meetings on breast self-examination for women are planned, to be followed by group discussions on the problem of alcoholism and the resources available for alcoholics. By next year, it is hoped to institute some studies in coronary diseases among men and cervical cancer among women. Such studies will be of value not only to the State Government and its employees, but are important in the development of sound

methods for use in hospital screening programs and by physicians for the population generally.

A budget item of \$12,800 is included for the health program among State employees.

SPECIAL SPEECH AND HEARING PROJECTS

Plans have been developed for the establishment of two hearing and speech centers (at Newark Eye and Ear Infirmary and at Hunterdon Medical Center). Pre-school children will be examined by a trained audiometrist under approved audiological standards, following an examination by an otologist and elimination of medical pathology. A diagnostic evaluation will be provided for the orally deformed child.

The eventual aim of the program is to test children as close to one year of age as possible and to carry on a rehabilitative program in speech and hearing to aid the child in achieving communicative social adequacy. It is contemplated that these demonstration clinics will be useful to the State Department of Education for inservice teacher training.

Support for equipment and personnel is estimated for the year 1955-56 in the amount of \$12,000.

HOMEMAKER SERVICE

Plans are in process of development for a sixteen-hour training course, under the direction of Rutgers University, for women who want to give part-time assistance to families in which illness or disability has disrupted family life. New Jersey has pioneered in the development of homemaker service to provide supervised and trained workers on a community basis. The training course by Rutgers is believed to be the first such training offered by a University.

Financial needs for the year 1955-56 are budgeted in the amount of \$10,300. These funds will be used chiefly for three projects: for the expense of University Extension courses; to provide educational materials; and to provide administrative or technical assistance on a demonstration basis to one or two community homemaker units.

PUBLIC HEALTH NURSING

The desirability of generalized public health nursing services, available to all, has long been a goal of the national and state organizations concerned with this problem. We believe that much could be accomplished by such a program in preventing the disabling effects of chronic illness and in making home care possible for many persons now hospitalized over long periods of time. To this end, negotiations have been underway for some time to establish a

demonstration on a county-wide basis in Hunterdon County where the hospital services of Hunterdon Medical Center could be coordinated with a county-wide public health nursing program. It is hoped to have the demonstration underway in Hunterdon County, or some other area of the State, this year. For expansion of such a program, it is anticipated that funds will be needed in the year 1955-56 in the amount of \$16,400.

A one-year training project for hospital nurses' aides was undertaken October 1, 1954 by the New Jersey Hospital Association in collaboration with the New Jersey State Committee on the Nursing Aide In-Service Training Project. This committee includes representatives from the state nursing organizations. For the completion of this project (to October 1, 1955) an additional amount of \$1,800 will be required from the budget for 1955-56.

HEART DISEASE

Activity in the Heart Disease Control Program was begun with Federal funds and probably will continue to receive Federal assistance in the coming year. For this reason, only two projects are proposed for support from the State Chronic Illness funds. One of these is a study in a chest X-ray screening program of the value of two views taken at oblique angles in addition to the usual posterior-anterior view of the heart. Studies are planned in four hospitals in which chest X-ray examinations are a routine procedure. In this way, an expensive cardiac work-up sometimes undertaken unnecessarily on the basis of suggestive evidence of the posterior-anterior view could be avoided. On the other hand, the additional oblique views would discover cardiac abnormalities now being missed.

Increased activity in the field of rheumatic fever prevention and control is the second project contemplated for the year 1955-56.

For these two projects, a budget item of \$16,000 has been set up.

REHABILITATION

Under Secretary Nelson Rockefeller of the Federal Department of Health, Education, and Welfare has recently said, "We are on the threshold of a new era in rehabilitation—an era of unprecedented cooperation between public and voluntary agencies, and an era of unparalleled achievements in man's struggle against disability."

As a first step in initiating, interpreting, and correlating rehabilitative activities in this State, there was an obvious need for trained medical social workers, with experience in the field of rehabilitation, in the State and District Health offices. These positions have been established and have been, or will be, filled with persons qualified through Civil Service examinations.

Also the addition of medical social workers to the staff of community hospitals carrying on a multiphasic screening program was recognized as a means of initiating rehabilitative services at the time of diagnosis. A rehabilitative program as a part of the out-patient service in a general hospital would permit the ambulant patient to secure periodic rehabilitative services as well as medical supervision. By preventing total disabilities requiring institutional care, this type of program could result in tremendous savings in taxes.

The rehabilitative potential among the aged and chronic sick, now receiving domiciliary care and some medical service in an institution, is beginning to receive long-overdue attention throughout the country. Exploration is underway for a demonstration project in a hospital in New Jersey. The plan has been enthusiastically received by officials of a county hospital and the Board of Chosen Freeholders of that county has agreed to defray half of the expense of such a program. Funds are requested for the year 1955-56 to provide for trained therapists as may be needed to demonstrate the possibilities for physical, vocational, social, and recreational therapy.

For the initiation and expansion of rehabilitative programs designed to prevent long-term hospitalization and to train patients to become self-directive while remaining in a home environment, funds are requested for the year 1955-56 in the amount of \$42,000. It is anticipated that such a program will be developed in cooperation with county or municipal hospitals caring for the aged and chronically ill and also in connection with out-patient services of general hospitals. A total program may be demonstrated in a few interested hospitals or services supplemented in several hospitals, whichever seems to be most practical.

TESTING AND RESEARCH CONTROL

For the support of research of new diagnostic techniques such as a serological test for cancer, a blood test for detecting thickening of the artery walls, and to stimulate community action on fluoridation of public water supplies, an item of \$15,000 is budgeted.

SUMMARY

General administrative costs in the amount of approximately \$21,000, and salaries and wages in the amount of approximately \$115,000, bring the total budget request for the year 1955-56 to a total of \$455,085.13. This includes a program on alcoholism which in past years operated under a separate budget.

Chronic illness control has caught the imagination of the public and many agencies are attempting to adjust their services to meet changing needs and opportunities. To explore needs, to encourage constructive programs by

advisory assistance and grants of money, to correlate available resources, are functions of the Division of Chronic Illness Control of the State Department of Health. As the program is in the early developmental stage, new projects will undoubtedly be proposed and some of those outlined in this report will need to be revised. Actual expenditures may, of necessity, differ somewhat from the break-down of this report.

With the assistance of the Advisory Council on the Chronic Sick, every effort will be made to take advantage of the new knowledge and methods for the prevention, early detection, and control of chronic illness and the rehabilitation of those afflicted with such illnesses. There are many programs for future consideration in such fields as arthritis, glaucoma, radiological health, metabolic dysfunctions, nutritional deficiencies, multiple sclerosis, and new diagnostic procedures for cardiovascular disease and cancer.

Report of the Division of Chronic Illness Control

July 1, 1953—June 30, 1954

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

Bureau of Alcoholism Control WILLIAM J. HARRIS, JR.
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Annual Report

Division of Chronic Illness Control

July 1, 1953—June 30, 1954

In reviewing the hopes and plans and accomplishments of the past year in the relatively new program of chronic illness control (authorized by the prevention of Chronic Illness Act of 1952), it seemed important to mention first the changing attitude toward our senior citizens. This has been aptly expressed by Dr. Edward L. Bortz, the former president of the American Medical Association, who has made a valuable contribution to the New Jersey program through his participation in two Governor's Conferences: "The most striking fact is not that as a people we are living longer; of greater significance is the realization that we are staying young longer. Now we have within our grasp the ability to maintain optimum health with optimum performance and mental concentration into the years which, at the opening of the century, were regarded as those in which decline was the common experience." Dr. Bortz goes on to say, "There are, I believe, fabulous untapped resources in the potentials of mature citizens that we must now recognize."

This changing concept makes a favorable climate for the growth of chronic illness prevention programs. Also, there is an increasing realization that many conditions which make people old too young have their beginning in childhood, in adolescence, or in the early adult period of life. Correction of physical defects, periodic screening tests to detect chronic diseases early and the conditions predisposing to chronic diseases, wide application of new and more effective diagnostic procedures often involving the use of costly equipment, acceptance of the limitations of physical handicaps and utilization of latent resources of the handicapped individual, as well as the tried and true procedures for developing good health habits and wholesome environmental conditions; these are some of the facets to be considered in the development of a chronic illness program.

The Chronic Illness Program was started with programs designed to combat specific diseases (heart, rheumatic fever, cancer, diabetes, epilepsy, alcoholism), but there has been from the beginning a consistent and conscious effort to incorporate in these programs the concept of the patient as a "whole" person; a unique individual in whom psychological and social pressures are as important as physical ones and who is an inseparable part of all that makes up his environment. There is, happily, a growing trend on the part of all pro-

fessional workers to recognize the total needs of the patient as the focal point around which successful program planning must revolve.

As an example of this trend, steps have been taken to develop a closer working relationship between the Public Assistance Division of the State Department of Institutions and Agencies and the Division of Chronic Illness Control. Both agencies have the same broad, ultimate objectives in terms of human welfare. Two meetings have been held, others are being planned, and there has been preliminary discussion of the possibility of a joint research project in the chronic illness problems and rehabilitation potentials of public assistance clients.

The record of activities of the Division of Chronic Illness Control during the past year, which follows, has been arranged under the following headings: Education and Prevention, Early Detection and Control, Rehabilitation, Public Health Nursing, Homemaker Service, and Other Activities. Many activities fit, in part, into more than one of these categories; most of them, in addition, have research and statistical aspects.

EDUCATION AND PREVENTION

Alcoholism

The lack of suitable educational media for adolescents and young people in the field of alcoholism has been recognized by educators for a long time. Much of the material used in the past has failed to carry conviction because of scientific inaccuracies. In an effort to improve this situation, approval has been secured from the State Fiscal Officers for the expenditure of funds to develop a motion picture film. Negotiations are under way with the Mental Health Film Board, a non-profit organization skilled in the production of educational health films, for the making of a film as a joint project of possibly three or four state health departments.

A second distribution of current books and pamphlets to all high school and college libraries has been arranged with the assistance of Yale University School of Alcohol Studies. Also, a similar packet will be sent to all public libraries and a professional packet to the hospital and nursing school libraries.

Scholarships were granted to two staff members of the State Department of Health and a teacher from one of the State Teacher Colleges to attend the Yale Summer School on Alcohol Studies.

A Governor's Conference was held in Trenton, December 16, 1953, attended by 400 persons. The entire proceedings were published in the March 1954 issue of *PUBLIC HEALTH NEWS*, which is proving to be a very useful educational tool. Speakers have been supplied for regular meetings of five of the County Medical Societies and for other professional and lay groups. Quarterly publications of "Alcoholism—A Treatment Digest for Physicians"

have been continued. Physicians throughout the State have exhibited much interest in this publication.

Institute on Heart Diseases

An institute for social workers on the subject of heart disease, held in October 1953, attracted many throughout the State who are not working in the medical field but whose skills in related fields are essential in planning for the needs of the person with heart disease. Papers of the Institute will be published in a forthcoming issue of *PUBLIC HEALTH NEWS* as a means of drawing still other professional workers into a team relationship which will more effectively provide services needed by the patient. Such team activity is the goal of all chronic illness programs.

Governor's Conferences

In addition to the Governor's Conference on Alcoholism, mentioned previously in this report, a Governor's Conference on Epilepsy was held in April 1954 and again demonstrated the popularity of this method of bringing new knowledge to the attention of a large group of representative people and stimulating interest in a specific program. The proceedings will constitute an issue of *PUBLIC HEALTH NEWS* which will provide useful material for dispelling the fear and prejudice which has hampered the application of recent advances in diagnosis and treatment.

Symposium on Diabetes

Held at the Academy of Medicine, Newark, and planned jointly by the Medical Society of New Jersey, the New Jersey Diabetes Association, and the State Department of Health, this Symposium attracted 250 physicians from all parts of the State to hear discussions on the medical management of diabetes and reports of research being carried on in this field.

Courses for Physicians

The educational program at St. Michael's Hospital, Newark, consisting of courses in cardiology for the general practitioner and courses in advanced cardiology for physicians specializing in this field continued for the fourth consecutive year and were well attended. A one-day course in Cardiac Resuscitation was held on Saturdays through the year and will be repeated next year by demand. Many of the 125 doctors who took this course have written letters of appreciation. Lecture courses on Chronic Diseases were sponsored in both the northern and southern part of the State.

Prevention of Rheumatic Fever

A program to prevent recurrent attacks of rheumatic fever has been initiated at McKinley Hospital, Trenton, and in Hunterdon Medical Center, and planning has been done for similar programs at West Jersey Hospital, Camden, and Passaic General Hospital. Clinical and follow-up services for rheumatic fever patients are provided for the purpose of controlling streptococcal infections and thus preventing recurrent attacks of rheumatic fever. These programs have started slowly but have the support of the Departments of Education, Medical Societies, and the Heart Associations and it is anticipated that many, children particularly, will be reached in the coming year with this preventive treatment.

EARLY DETECTION AND CONTROL

Multiphasic Screening

Assistance to multiphasic screening programs in four community hospitals has been continued. Four additional hospitals will start programs in the fall. These programs provide screening tests for in- and out-patients and hospital personnel and, in one instance, Hunterdon Medical Center, has been extended to the community. Hunterdon Medical Center has provided this evidence of the value of screening: the findings among 364 apparently well persons screened recently were: 6 cases of diabetes, 30 hypertension, 2 hyperthyroid, 1 hypothyroid, 5 non-toxic adenoma, 1 Reynaud's disease, 1 secondary anemia, and 3 cervical cancer. The battery of tests used in the hospitals has varied from 1 to 12, with a chest X-ray and blood sugar determination and serologic test for syphilis the most common combination.

Positive reactors to the screening tests are referred to their private physicians or clinics for diagnosis and treatment. The tremendous educational value of the program alone justifies its continued expansion and support; this, in addition to early case-finding of unrecognized chronic illness, makes multiphasic screening one of the most important efforts in the chronic illness program.

Heart Disease

Emphasis in this program continues to be on the establishment and expansion of cardiac diagnostic and consultation facilities in community hospitals, as an integral part of a chronic illness program. The highly specialized diagnostic service developed in these centers through assistance in training personnel, the loan of equipment, and grant-in-aid for salaries for technicians, has made available to the physicians in the State the latest techniques for evaluation of their cardiac patients. There are at present four such centers: St. Michael's Hospital, Newark, Hunterdon Medical Center at Flemington, McKinley

Hospital in Trenton, and West Jersey Hospital, Camden. One more is in the planning stage.

The research program initiated at Hunterdon Medical Center in new cardiac diagnostic techniques has not, as yet, reached the stage of evaluation. The studies are continuing.

A new device (a turntable) is being placed in the four centers, which permits study of the oblique views of the heart in addition to the anterior-posterior view. The usefulness of this device for early detection of cardiac damage or abnormality is being tested. Its value has already been demonstrated in the evaluation of damage following rheumatic fever.

Epilepsy

The State Department of Health is cooperating with other official and voluntary agencies through an Advisory Council sponsored by the Medical Society of New Jersey. As an outgrowth of this Advisory Council, a Consultation Service for Convulsive Disorders has been established providing a team of experts which visit each of four hospital centers (Morristown, Englewood, Trenton, and Salem) once a month. A local physician known as the "contact" physician has been appointed in each of the four districts to serve in an advisory capacity and to screen patients for reference to the consultant team. As its contribution, this Department has purchased electroencephalograph instruments for each of the centers and is assisting also in providing technicians to operate the equipment for a demonstration period. These instruments, so essential in the diagnosis and control of convulsive disorders and other neurological disturbances, are not readily available for the use of practicing physicians in this State. Accordingly, additional instruments have been ordered for placement in other hospitals throughout the State. Training in the techniques and interpretation of electroencephalography is also being planned.

Diabetes

An intensified effort was made to secure greater participation than in the past in Diabetes Detection Week, held in November 1953. This was a cooperative effort with the New Jersey Diabetes Association and the Medical Society of New Jersey, and was carried out with the assistance of the County Medical Societies, the County P. T. A.'s, and other interested agencies. Trial use was made of a new device, called the Dreypak, which makes possible the mailing of a dry specimen thus simplifying the procedure of getting specimens to the laboratory. It proved to be a satisfactory method. Only partial returns from the Diabetes Week effort were available for study but of 3,340 persons whose reports were compiled, 8.2% had positive screening tests. Among 126

of these persons known to have completed follow-up examinations, 9 previously unknown cases of diabetes were found.

Dreypaks were supplied also for 3,600 eighth grade pupils in the Newark schools and 1,500 were distributed at the Health Forum sponsored by the Camden County Medical Society in April, 1954.

Cancer

A screening program for the early detection of breast cancer in women was demonstrated in Trenton where 1,365 women attended 10 meetings held at one of the department stores. At each of these meetings breast self-examination was demonstrated by a film, with a physician present, through the courtesy of the Mercer County Medical Society, to answer questions. An illustrated pamphlet on the technique of the examination was distributed to each woman at the close of the session.

A new procedure for early detection of cancer is being undertaken this year in three community hospitals, thus expanding their multiphasic screening services. It is the application of the Papanicolaou smear technique for the early detection of cervical cancer. In addition, at one of these hospitals, Hunterdon Medical Center, urine specimens are being treated by the same technique to detect cancer cells from the urinary tract.

Preliminary reports in the literature indicate that self-obtained vaginal smears are satisfactory for the early detection of cervical cancer. If so, this screening procedure can be made available to other women than those now included in the three hospital screening programs.

Tuberculosis

The Tuberculosis Control Program was assigned to the Division of Chronic Illness Control as of July 1, 1953. As this program has been carried on for many years, statistical information is available as a guide to the extent of the program and a measure of the success of efforts to control this disease (Tables A, B, C, and D). The death rate from tuberculosis has continued to decline. There was also in the past year an increase in the case per death ratio (Table E), an indication of earlier reporting of cases. Both of these trends reflect continued progress. The death rate for the State for 1953 of 13.8 per 100,000 population is, however, slightly higher than the estimated figure for the nation as a whole. In the light of present knowledge and with increased application of control measures, this disease could, and should, be eliminated.

Mass chest X-ray surveys have continued as a major activity in the Tuberculosis Program. The effort to concentrate surveys in high prevalence areas has shown results in a higher proportion of suspects referred for further examination than was achieved previously (see Tables F and G).

During the year a field study of the follow-up of all persons referred for further examination, as a result of the 1953 chest X-ray surveys, was undertaken to establish base lines for plotting future trends. As a result of this study three major base lines were established: (1) 85% of the persons referred for medical examination received follow-up; (2) 32% of the persons upon whom a follow-up diagnosis was established were found to have tuberculosis in one stage or another; and, (3) 50% of the tuberculosis diagnosed as a result of the survey effort remain unreported six months after the completion of the survey.

What has happened in one community is cited as an example of the value of this field study in stimulating greater local effort. The survey time allocated for the last survey period was less than had been previously allocated. However, within this reduced period of time more X-rays were taken than previously, with an accompanying increase in the number of referrals. Last year in six months there had been only six cases officially reported from the survey effort. This year in three and a half months there have already been nineteen cases of tuberculosis reported and the number of active cases among them is well over the accepted standard of one active case per 1,000 films taken.

As hospital populations still prove to be a high prevalence group for tuberculosis, the promotion of routine screening of hospital admissions and personnel is being continued. This program is an integral part of the Division's multiphasic screening program.

TABLE A. TUBERCULOSIS DATA BY RESIDENCE FOR COUNTIES AND MAJOR MUNICIPALITIES—NEW JERSEY, 1953

PLACE	Deaths			Cases*			Cases per Death (Case-Death) Ratio
	Number	Rate†	S.E.‡	Number	Rate†	S.E.‡	
New Jersey	693	13.8	0.5	4,186	83.6	1.3	6.0
Atlantic County	21	15.6	3.4	185	137.0	10.1	8.8
Atlantic City	17	27.4	6.7	132	212.9	18.5	7.8
Bergen County	37	6.6	1.1	433	76.9	3.7	11.7
Burlington County	24	17.0	3.5	76	53.9	6.2	3.2
Camden County	48	15.4	2.2	216	69.5	4.7	4.5
Camden City	39	23.4	4.3	197	83.6	8.1	3.6
Cape May County	5	13.5	6.0	34	91.9	15.8	6.8
Cumberland County	9	9.8	3.3	107	116.3	11.2	11.9
Essex County	154	16.5	1.3	689	73.8	2.8	4.5
East Orange	12	14.8	4.3	44	54.3	8.2	3.7
Irrington	4	6.6	3.3	17	27.9	6.8	4.3
Newark	112	24.8	2.3	509	112.6	5.0	4.5
Gloucester County	14	14.6	3.0	65	67.7	8.4	4.6
Hudson County	107	16.1	1.6	533	89.0	3.5	5.0
Bayonne	7	8.8	3.3	43	53.8	8.2	6.1
Hoboken	14	26.9	7.2	55	108.8	14.3	3.9
Jersey City	58	18.8	2.5	288	93.5	5.5	5.0
Union City	3	5.3	3.0	34	59.6	10.2	11.3
Hunterdon County	3	6.8	3.0	24	54.5	11.1	8.0
Mercer County	37	23.9	8.2	324	136.1	7.6	5.7
Trenton	45	32.8	5.0	227	153.3	11.5	5.3
Middlesex County	37	13.3	2.2	208	74.8	5.2	5.6
Monmouth County	22	9.4	2.0	118	50.4	4.6	5.4
Morris County	21	12.3	2.7	90	52.6	5.5	4.3
Ocean County	6	10.3	4.2	38	65.5	10.6	6.3
Passaic County	41	11.8	1.8	519	149.1	6.5	12.7
Clifton	5	7.4	3.3	95	126.7	14.3	13.0
Passaic City	6	10.2	4.2	137	232.2	19.8	22.8
Paterson	23	16.1	3.4	182	127.3	9.4	7.9
Salem County	4	7.8	3.0	59	115.7	15.1	14.8
Somerset County	13	12.5	2.5	75	72.1	8.3	5.8
Sussex County	6	16.7	6.8	25	69.4	13.9	4.2
Union County	53	12.8	1.8	182	44.0	3.3	3.4
Elizabeth City	22	18.8	4.0	76	65.0	7.5	3.5
Warren County	7	12.5	4.7	39	69.6	11.2	5.6
Institutions	4	**	..	119	**	..	29.8
Military Posts .....	..	**	..	28	**	..	..

* Cases, regardless of activity, reported for first time in 1953.

† Rate per 100,000 estimated population.

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

** Residence allocation too unreliable. Rates not computed.

TABLE B. TUBERCULOSIS MORBIDITY BY AGE GROUPS FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1953

PLACE	Age Group								
	All Ages	Under 1 Year	1-4	5-14	15-24	25-44	45-64	65+	Unknown
Atlantic County	183	..	2	5	13	58	78	28	3
Atlantic City	132	..	2	6	12	42	49	21	1
Bergen County	433	1	6	3	23	142	172	80	6
Burlington County	76	..	2	..	2	34	29	6	3
Camden County	216	1	5	1	17	70	83	34	5
Camden City	197	1	4	..	8	33	46	13	..
Cape May County	34	..	..	4	3	8	15	4	..
Cumberland County	107	..	2	20	12	24	31	18	..
Essex County	689	7	29	11	94	287	197	57	7
East Orange	44	..	1	..	10	19	16	5	..
Irrington	17	..	..	..	1	6	7	3	..
Newark	509	6	26	6	66	223	139	39	4
Gloucester County	65	..	1	5	2	27	23	6	1
Hudson County	533	2	7	8	45	186	205	71	9
Bayonne	43	..	1	..	2	12	16	11	1
Hoboken	55	..	1	3	19	19	28	8	1
Jersey City	288	1	4	5	26	101	109	39	3
Union City	34	..	..	..	3	12	13	5	1
Hunterdon County	24	..	..	..	3	8	6	7	..
Mercer County	324	..	3	1	12	122	128	57	1
Trenton	227	..	2	1	11	88	85	39	1
Middlesex County	208	1	1	5	23	72	71	34	1
Monmouth County	118	..	1	2	11	52	40	10	2
Morris County	90	..	1	1	8	30	33	17	..
Ocean County	38	1	..	..	6	14	13	4	..
Passaic County	519	1	1	8	30	165	226	88	6
Clifton	45	..	..	4	4	31	45	12	..
Passaic	137	..	..	3	7	53	53	17	3
Paterson	182	1	1	4	14	56	79	27	..
Salem County	59	..	..	..	1	28	22	7	1
Somerset County	75	..	..	2	4	27	30	12	..
Sussex County	25	..	..	..	2	9	10	4	..
Union County	182	2	2	1	22	67	67	18	3
Elizabeth	76	1	1	1	7	33	28	4	1
Warren County	39	..	..	1	1	24	10	3	..
Institutions	119	..	..	4	12	43	38	20	2
Military Posts	28	..	..	..	17	6	4	..	1
Total	4186	16	63	85	363	1503	1520	588	51

TABLE C. TUBERCULOSIS MORBIDITY BY SEX AND BY COLOR FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1953

PLACE	Sex				Color			
	Total	Male	Female	Unknown	Total	White	Non-white	Unknown
Atlantic County	185	108	77	....	185	122	62	1
Atlantic City	132	79	53	....	132	78	54	....
Bergen County	433	249	183	1	433	406	20	7
Burlington County	76	50	26	....	76	69	6	1
Camden County	216	160	56	....	216	174	35	7
Camden City	107	78	31	....	107	78	27	2
Cape May County	34	27	7	....	34	18	15	1
Cumberland County	107	63	44	....	107	88	18	1
Essex County	689	445	244	....	689	380	304	5
East Orange	44	23	21	....	44	24	20	....
Irvington	17	11	6	....	17	17	....	....
Newark	509	337	172	....	509	254	252	3
Gloucester County	65	40	25	....	65	54	9	2
Hudson County	533	345	188	....	533	456	67	10
Bayonne	43	27	16	....	43	38	3	2
Hoboken	55	34	21	....	55	49	5	1
Jersey City	288	186	102	....	288	230	54	4
Union City	34	25	9	....	34	33	....	1
Hunterdon County	24	17	7	....	24	22	2	....
Mercer County	324	221	103	....	324	252	71	1
Trenton	227	150	77	....	227	181	45	1
Middlesex County	208	128	80	....	208	183	23	2
Monmouth County	118	74	44	....	118	85	33	....
Morris County	90	59	31	....	90	79	10	1
Ocean County	38	22	16	....	38	31	7	....
Passaic County	519	332	187	....	519	474	44	1
Clifton	95	57	38	....	95	95	....	....
Passaic	137	85	52	....	137	126	10	1
Paterson	182	115	67	....	182	154	28	....
Salem County	59	34	25	....	59	45	14	....
Somerset County	75	45	30	....	75	73	2	....
Sussex County	25	14	11	....	25	25	....	....
Union County	182	114	68	....	182	138	44	....
Elizabeth	76	46	30	....	76	55	21	....
Warren County	39	23	16	....	39	37	2	....
Institutions	119	74	45	....	119	101	18	....
Military Posts	28	22	6	....	28	23	4	1
Total	4186	2666	1519	1	4186	3335	810	41

TABLE D. TUBERCULOSIS MORBIDITY BY CLINICAL STATUS FOR COUNTIES AND MAJOR CITIES—NEW JERSEY, 1953

PLACE	Clinical Status				
	Total	Active	Not Active	Undetermined	Not Stated
Atlantic County	185	48	92	24	21
Atlantic City	132	34	65	21	12
Bergen County	433	111	235	72	15
Burlington County	76	47	13	3	13
Camden County	216	139	46	1	30
Camden City	107	77	20	1	9
Cape May County	34	15	9	3	7
Cumberland County	107	47	42	13	5
Essex County	689	594	51	9	35
East Orange	44	31	6	2	5
Irvington	17	10	4	2	1
Newark	509	466	21	1	21
Gloucester County	65	28	15	11	11
Hudson County	533	312	153	41	27
Bayonne	43	25	16	....	2
Hoboken	55	30	17	5	3
Jersey City	288	168	86	22	12
Union City	34	18	10	3	3
Hunterdon County	24	17	2	....	5
Mercer County	324	190	118	3	13
Trenton	227	133	88	1	5
Middlesex County	208	131	53	13	11
Monmouth County	118	79	18	8	13
Morris County	90	50	28	7	5
Ocean County	38	24	5	4	5
Passaic County	519	125	354	22	18
Clifton	95	21	68	4	2
Passaic	137	35	89	7	6
Paterson	182	53	121	2	6
Salem County	59	19	35	1	4
Somerset County	75	25	40	6	4
Sussex County	25	8	11	5	1
Union County	182	153	12	6	11
Elizabeth	76	66	4	5	1
Warren County	39	16	18	1	4
Institutions	119	94	12	11	2
Military Posts	28	13	3	2	10
Total	4186	2285	1365	266	270

TABLE E

FIVE-YEAR TREND IN TUBERCULOSIS DEATH RATES—NEW JERSEY

Year	Deaths		Cases	Cases per Death (Case-Death Ratio)
	Number	Rate		
1949	1,298	27.1	3,629	2.8
1950	1,170	24.2	3,548	3.0
1951	1,022	20.9	3,246	3.2
1952	831	16.8	3,769	4.5
1953	693	13.8	4,212	6.0

TABLE F

COMMUNITY CHEST X-RAY SURVEYS—NEW JERSEY, 1953

Place	Participants	Number Pulmonary Referred for Medical Examination	Per Cent Referral Rate
Southern District	23,202	854	3.7
Atlantic County	8,287	247	3.0
Camden County	5,621	235	4.2
Cape May County	.....	.....	.....
Cumberland County	5,025	211	4.2
Gloucester County	2,122	98	4.6
Salem County	2,147	63	2.9
Central District	20,952	709	3.4
Burlington County	4,519	108	2.4
Mercer County	7,571	219	2.9
Middlesex County	3,537	134	3.9
Monmouth County	3,896	184	4.7
Ocean County	1,429	64	4.5
Northern District	14,039	428	3.0
Hunterdon County	357	6	2.0
Morris County	6,137	160	2.6
Somerset County	5,520	158	2.9
Sussex County	605	33	5.5
Warren County	1,420	71	5.0
Metropolitan District	83,465	3,345	4.0
Essex County	44,129	1,846	4.2
Bergen County	.....	.....	.....
Hudson County	24,779	1,110	4.5
Passaic County	.....	.....	.....
Union County	14,557	389	2.7
State Total	141,658	5,336	3.8

TABLE G

RATIO OF TUBERCULOSIS REFERRALS TO TOTAL READABLE X-RAYS—FIVE YEARS—NEW JERSEY

Year	Total Readable X-rays (Community and Industrial Surveys Only)	Tuberculosis Referrals	Per Cent Referred Against Readable X-rays
1949	130,594	3,547	2.70
1950	138,176	4,158	3.09
1951	89,104	2,929	3.28
1952	100,311	3,349	3.33
1953	141,658	5,336	3.80
Total	599,843	19,319	3.22

REHABILITATION

Alcoholism

Trends in the field of alcoholism control are epitomized by the following quotation from the Bulletin of the New Mexico Commission on Alcoholism: "Whereas, it used to be 'rant, rebuke, and ridicule,' now it's 'recognize, rally, and rehabilitate'."

In the past year a full-time out-patient clinic has been initiated at the West Jersey Hospital, Camden. This clinic, and also the two clinics previously established at McKinley Hospital, Trenton, and at St. Michael's Hospital, Newark, receive medical direction from an internist on the hospital staff and may use consultant services of a psychiatrist and referral privileges to all other out-patient services of the hospital. In-patient care has been made available in instances of special need. Through grants-in-aid from the State Department of Health, each clinic employs a full-time psychiatric social worker and such clerical assistance as is needed.

Negotiations have been completed for a part-time clinic starting in the fall at the Passaic General Hospital, Passaic. The decision to initiate a part-time clinic service at Passaic was dictated by lack of space, a problem common to many hospitals, but may be a blessing in disguise in pointing the way for other hospitals to meet community needs economically, particularly in small communities. Grants-in-aid have been given with the understanding that local agencies are to assume financial responsibility as the service demonstrates its usefulness to the community.

It is reassuring to know that emphasis on the development of out-patient services for the alcoholic in general hospitals is endorsed by the Alcoholism Sub-Committee of the WHO Expert Committee on Mental Health. A recent issue of the NEWSLETTER of the World Health Organization carries the statement that it is the firm opinion of the Alcoholism Sub-Committee that "to

treat cases of alcoholism in their earliest stages, out-patient dispensary services are necessary and that such services can, in the early stages of the disorder, produce a high proportion of successful results. It is essential for the success that the program have the orientation of a medical institution with all that is implied in a doctor-patient relationship."

Meetings have been held with a committee of Essex County residents which was formed to study the need for a facility to provide long-term shelter and rehabilitation for alcoholics. The possibility of greater utilization of existing facilities is under consideration and the need for integration of all chronic illness rehabilitation.

Medical Social Rehabilitation

Plans have been completed for the placement of a well-trained medical social worker in each of the four District State Health Offices, as a means of utilizing knowledge and facilities in this related field in the service of the chronic sick. To secure trained personnel it was necessary for the Civil Service Department to open the qualifying examination to out-of-State residents. Such an examination has now been held and a list of qualified persons promulgated. Within a matter of weeks it should be possible to have this program functioning.

A qualified medical social worker has been employed by St. Michael's Hospital, Newark, through a grant-in-aid. A part-time medical social worker served for part of the year at Hunterdon Medical Center, and a candidate is being considered for the West Jersey Hospital, Camden. Medical Social Workers are included as a vital part of the professional team, in the plan for promotion of rehabilitation services in certain other community hospitals. Such workers will provide social casework and rehabilitation as an integral part of the services of the hospital.

Hospital Out-Patient Centers

Hospital out-patient departments have served their communities well in the field of diagnosis and treatment. This Division plans to encourage and assist the development of rehabilitation facilities within this same framework whenever possible, where rehabilitation services may become an integral part of the medical care now available.

Other Institutions

Opportunities exist also for initiating rehabilitation programs in various existing institutions. Some county welfare institutions house the old, the indigent, and the disabled without providing the kind of service that might restore some of them to community living or to increased self-help. There are county tuberculosis sanatoria without adequate provisions for rehabilitation.

The placement of a medical social worker in such institutions on a demonstration basis is recommended as funds permit. It is believed that a well-trained worker could do much to demonstrate the possibilities for development of facilities whereby these institutions can do more than provide medical and custodial care.

A proposal has been enthusiastically received for a demonstration project in rehabilitation at the Essex County Hospital (Soho) where 75 public assistance clients, most of them aged, are hospitalized. The Director of the hospital accepted at once; shortly thereafter the Board of Freeholders categorically agreed to take over half of the cost of employing a rehabilitation coordinator, physical therapist, and diversional therapist. Thus, we see an agency of local government, with guiding and practical assistance from the State, ready to move ahead as soon as qualified personnel can be provided through Civil Service channels, into a totally new program because they recognize the need to do something about the ever-increasing number of aged, infirm, and chronically disabled persons in our population.

Work Classification Unit

A pilot unit for cardiac patients, at St. Michael's Hospital, Newark, sponsored by the Essex County Heart Association, St. Michael's Hospital, the State Rehabilitation Commission, and the State Department of Health, is in its third year. The need for work classification units is great and efforts will be continued to stimulate the development of other units.

HOMEMAKER SERVICE

Interest in Homemaker Service has advanced during the year. A State-wide Institute and regional institutes in each of the four State Health Districts have been held, the last in Trenton on March 9, and these Institutes have won many friends for the homemaker movement. The Consultant Committee is now seeking ways of consolidating these gains and transforming them into community services. Definite steps toward the formation of a homemaker service can be reported in four communities. There is evidence of interest in six other communities.

Last October a medical social worker was added to the staff of the Essex County Homemaker Service through a grant-in-aid. She has focused attention on family inter-relationships and the role of the homemaker in the total family situation. More imaginative use of community resources is being made to enable the home-bound patient to enjoy a fuller and richer life.

Arrangements have been completed for a revised and enriched training course for homemakers to be given by the Extension Division of Rutgers University. Four or five classes of trainees should be ready by October.

Rutgers believes this is the first such course ever given under University auspices. A brochure outlining the course is now being printed. Plans are also underway for training of local instructors. This should make for uniformly trained homemakers throughout the State and result in a higher standard of service.

The Commission on Chronic Illness featured the New Jersey service in its February "Newsletter," which has been followed by requests from Florida to Canada for copies of our Handbook.

One of the lessons learned from our experience to date is the need for establishing a sound financial basis before a service is attempted in any community.

PUBLIC HEALTH NURSING

Plans for a completely generalized public health nursing program, including bedside care for the chronic sick, in Hunterdon County have been developed. If accepted by the County Board of Freeholders and other local agencies concerned, this should provide a demonstration applicable to many other areas of the State. Hunterdon County seems particularly suitable for such a demonstration because of the community screening program and other unique public health services developed in connection with the new Medical Center. In-service training in chronic illness control has been provided for public health nurses presently employed in the County and will be continued.

Public health nursing consultants assigned to the Division of Chronic Illness Control have given service to the program coordinators, district offices and other official and non-official nursing agencies, particularly in the field of heart disease, tuberculosis, epilepsy, and diabetes. In meeting requests for consultation service (directed through the Bureau of Public Health Nursing), the need for integration of chronic illness nursing into the total program of patient care has been recognized. As the year has progressed, the scope of programs and activities has widened; now all thinking and action are in terms of all-illness control. The consultant role has become more inclusive in recognition of the need to relate factors common in illness situations in the special program to the total nursing plan. There has been an unmistakable trend in institutes and in-service training programs toward the multi-discipline approach to problems of chronic illness. It is recognized that no one individual group or professional field can give total care.

OTHER ACTIVITIES

Cancer Register

A cancer register was initiated this year with 12 hospitals participating. These hospitals submitted reports of all cancer cases known to them, accompanied by a specimen of the pathological tumor tissue from each case.

This project is now being evaluated. The project was undertaken in the belief that a registry could be useful for follow-up, for research and statistical purposes, and as a method of standardizing nomenclature.

Tuberculosis Registers

Equipment has been purchased to establish several county tuberculosis registers, and arrangements made for assistance from specialized personnel of the Public Health Service and the Bureau of Public Health Statistics of the State Department of Health. Up-to-date records of all cases of tuberculosis should be readily available to the local agencies responsible for follow-up. The establishment of local registers will strengthen the control program.

Package Contracts

Administrative and legal procedures for assisting hospitals and agencies with grants-in-aid and loan of equipment have been time-consuming and frustrating. Standard contract forms and property agreements are being evolved. All assistance to a given hospital or agency is being consolidated into a single "package contract."

Research

A study of well-established screening methods in tuberculosis and diabetes was undertaken by an evaluation of original screening results in correlation with the final diagnosis and the efficiency of follow-up procedures. By increasing efficiency in the presently established methods, we are gaining experience and developing techniques applicable to the newer diagnostic procedures. Continuing evaluation will be necessary in the application of diagnostic procedures for mass detection efforts, not only in regard to the accuracy of the tests but in terms of norms of efficiency, administrative methodology, costs, and economies achieved.

Hearing and Speech Project

Planning is in progress for the establishment on a demonstration basis of two hearing centers in hospitals with ear, nose, and throat clinics for audiological examination of pre-school and school children. Eventually the aim of the testing program is to ascertain the hearing of children at about one year of age. These centers will also be used for a rehabilitation program in speech and hearing to aid the individual in communicative social adequacy.

Training for Nurses Aides

The necessity for more and more use of auxiliary nursing personnel in hospitals, nursing homes, homes for the aged, and other institutions, to assist

registered nurses has created an imperative need for uniform and systematic training of such persons. To this end, the Department has negotiated a contract with the New Jersey Hospital Association for partial support for a year of a "Nursing Aide In-Service Training Project" to begin in October. The project will be under the direction of the Executive Director of the New Jersey Hospital Association in collaboration with an Advisory Committee on the Nursing Aide In-Service Project, which is composed of representatives of the nursing organizations in the State, Medical Society, Hospital Association, and other interested agencies.

CONCLUSION

In commenting on several of the programs of the past year, specific plans for the future have been included. In general, it is hoped to promote a more widespread use of all methods of prevention of chronic illness and early detection of chronic diseases particularly those for which screening test are practical, and to stimulate rehabilitation programs for those afflicted with chronic diseases. Considerable groundwork has been laid in the past two years. Possibilities for future achievements seem almost limitless and present a tremendous challenge.

A recent statement about the goal of the modern health educator seems particularly applicable in the vast field of chronic illness control: "The goal of the modern health educator is not to tell something to the people. Nor is it to work out a solution with the people. His objective is to help people to work out their own solution to their public health problems, and I might add that this is an exciting educational experience for the health educator as well as the people." The Division of Chronic Illness Control hopes to make it possible for agencies and individuals to work out solutions in the field of chronic illness.

Report of the Division of Constructive Health

July 1, 1953—June 30, 1954

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

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Division of Constructive Health

INTRODUCTION

As suggested in the Division name, the several programs and activities of the Division share a positive emphasis on health promotion and optimum total health cultivation. This newer emphasis is rapidly receiving recognition and can be expected to be key-noted as a major task of public health in the future. With the recognition by medicine of the multicausality of disease, and the inter-relatedness of the many processes determining the environments of individuals or groups, it becomes increasingly necessary to discuss disease prevention in positive terms, giving due recognition to these many determining factors. On this basis, however, it must be admitted that the Division and the Department have been handicapped by the lack of a formal integrated program of positive mental health. Consequently the Division Director has been devoting increasing amounts of time and effort in persuading both staff and citizens of this important element of public health's responsibility. Tentative exploration and study has already been started in preparation for such a program within the Department.

During the year, the programs of Air Sanitation and Radiological Health have enlarged their activities and scope in response to increasing and anticipated needs. Major emphasis in the Dental Program has been directed toward public education for fluoridation of public water supplies. Despite the fact that the Nutrition Program Coordinator was absent for most of the year obtaining her M. S. degree, the nutrition program continued to exhibit a high level of integration both in and outside of the Department programs. The major effort in the Crippled Children Program has been further administrative and operational clarification with continued decentralization of responsibility toward the community. The Maternal and Child Health Program has been severely handicapped by lack of professional staff to supervise its field activities in communities and hospitals. Nevertheless, there have been some notable achievements in in-service training, accident prevention, and the development of standards for child health conferences.

The Division Director has continued to devote much time in public relations by means of attendance at numerous organizations, state councils, boards and conferences both lay and professional. These have included the giving of lectures, appearing on programs, work-shops' discussion panels, and planning, study, interdepartmental, advisory and steering committees. The

continued absence of a full-time public health physician to head the program of Crippled Children, has made it necessary for the Division Director to act as its Program Coordinator also and to spend most of his time and effort in Crippled Children and related activities.

Bureau of Adult and Industrial Health

GENERAL INTRODUCTION

The three programs of the Bureau of Adult and Industrial Health, *Air Sanitation*, *Radiological Health* and *Adult and Industrial Health* were designed to meet certain basic responsibilities and obligations of the Bureau and have served as channels through which primary efforts were directed, with each program secondarily emphasizing its respective area of specialization.

The Bureau has been functioning as follows:

- (1) As an advisory body with a highly trained scientific staff, the Bureau has been expected to give and has given expert technical consultation to local communities.

The Air Sanitation Program has been most in demand for this type service, with 19 instances of leadership in community air pollution control. The Radiological Health Program has provided probably the most expert type of advice, especially in two instances, one to an industry planning a building for a kilocure cobalt-60 source, and one to an industry with a micro-wave exposure associated with radar research. In both of these instances it is probable that no other agency, beside the Atomic Energy Commission, could have complied with these requests for consultation.

- (2) As a correlating agency with responsibility for inter-community problems:—Since air contaminants and meteorological conditions know no geographic boundary lines, the Air Sanitation Program has been most active in intercommunity situations. Acute smog conditions around Elizabeth and Linden in November 1953, resulting from a temperature inversion, were intensively studied for a three-day period. Follow-up investigations were conducted in the more chronic air pollution problem between Cliffside Park residents and the industries of Edgewater.
- (3) In the effort towards the establishment of minimal standards, the Adult and Industrial Health Program has made its greatest strides. One of the most pressing problems confronting industry today is that of occupational loss of hearing. The concept of compensation for

industrially caused loss of hearing, not as the result of a traumatic occurrence, but as a result of exposure to noise over a long period of time, has become a medico-legal topic of serious import. It has been reliably estimated that about two billion dollars in claims have already been filed in the United States. There are no clear standards by which the degree of noise exposure in a work environment may be compared nor are there any absolute standards for determining whether hearing impairment is permanent or temporary; and if permanent, what part of the impairment is caused by the injurious noise exposure. In anticipation of requests for industrial noise studies, the Adult and Industrial Health Program has acquired necessary equipment and has trained its program personnel so that representative "type industries" can be surveyed and working standards arrived at. Type specific studies on noisy work environments have already been conducted in an underground drilling and mining operation, a textile mill, a wood-working plant and a pharmaceuticals manufacturing firm with mixing, blending and packaging machines.

- (4) As a state-level agency offering certain specialized direct services:—Because of the need for intricate and expensive equipment, complex laboratory facilities and because a high degree of advanced professional training is available in all the activities of this Bureau, direct or central services are still offered to local communities. All Radiological Health services are conducted by that program's staff with very little participation by local health personnel even in the relatively simple category of fluoroscopic shoe-fitting machines.

There is strong local interest, however, in all programs of this Bureau, the Air Sanitation and Adult and Industrial Health Programs having each received 32 requests for direct investigation of complaints.

- (5) Research

There are many who have maintained that research is the function of educational institutions and not of governmental agencies but there are many important public health problems that can only be studied effectively from the vantage point and viewpoint of an official health agency. The Air Sanitation Program has found it necessary to engage in research in methods for air pollution determinations. Industries, industrial foundations and industrial organizations subsidizing research projects are more interested in process control than in pin-pointing sources of pollution, an essential activity for an official or regulatory agency.

(6) Dissemination of Information

The distribution of technical public health information, as a form of public health education, has been made an activity of all three programs, and such information has been disseminated not only to private individuals and official agencies within the state but also to governmental representatives from many other states and other countries.

The Bureau feels justifiably proud that they have received requests to demonstrate and train personnel from other official groups. The Air Sanitation Program conducted a field tour through several of the industries in New Jersey, to explain air pollution problems and abatement devices to industrial health experts from Great Britain, France, Belgium, the Netherlands, Germany, Denmark and Portugal.

The Radiological Health Program has trained members of the Philadelphia Department of Public Health in the essentials of radiation monitoring, especially with respect to fluoroscopic shoe-fitting machine regulations.

The Adult and Industrial Health Program has oriented and conducted plant surveys for industrial hygiene physicians and engineers from Formosa, Denmark and Israel. New Jersey has all the facilities, industries and geographic compactness for an ideal field clinic in occupational health.

Details of the following programs have been arranged as far as possible under objectives and activities of the Bureau's approved programs.

Air Sanitation Program

The popular press, organized groups, and individuals have shown increased concern with the problems of atmospheric pollution. Publicity given to the activities of the New Jersey State Department of Health has resulted in increased recognition of the Air Sanitation Program, and has resulted in an increased number of diversified problems being brought to the attention of the Department. Two instances of prolonged dense "smog" occurring over wide areas of the state aroused the apprehension of the general public and local municipal officials, and demonstrated the meteorological conditions of prolonged temperature inversions and low wind velocities which tend to prevent normal dispersion of contaminants in the atmosphere can prevail in New Jersey. Moderate to severe eye irritations among inhabitants of certain industrial areas, plus many alleged cases of nose and throat irritation, attributed by Boards of Health and the general public to atmospheric contaminants, have emphasized the public health significance of atmospheric pollution.

The activities of the Air Sanitation Program and the publicity given to the subject of air sanitation also brought about an increased demand for program

personnel to present technical papers and informal talks at conferences and conventions, and before municipal and civic groups.

Attendance of program personnel at technical conferences and special short courses on various phases of air sanitation was an important part of the educational activity of the program. Nineteen (19) technical papers or talks and two (2) field demonstrations of air testing procedures have been given. Assistance in planning of accredited air sanitation courses at Rutgers University and technical aid in the development of proposed atmospheric pollution control legislation have been rendered.

The "Smoke Control Code of New Jersey, 1953," a model ordinance for local adoption by reference, stimulated a number of requests from Boards of Health for advice and technical assistance in establishing local control. The service provided by the Air Sanitation Program was diversified, but in general, included technical assistance in effective enforcement of local ordinances, assistance in the adoption and implementation of smoke control ordinances, and consultation on existing or potential atmospheric pollution problems.

The activities were as follows:

Assistance in adoption of smoke control ordinances	5
Assistance in implementation of smoke control ordinances	3
Technical assistance to enforce local ordinances	5
Consultation on local atmospheric pollution control programs	3
Consultation on potential atmospheric contamination from proposed new industries ..	3
Total	19

The majority of investigations conducted by the Program demonstrated the need for improved methods for conducting field studies. In the absence of standard procedures and instruments it has been necessary to develop and modify instruments for field use. The research and development activities of the program were directed toward the design and fabrication of field devices for the evaluation of air contamination as indicated by problems encountered in various field investigations. These activities can be summarized as follows:

- (1) Field study of a widespread air contamination condition suspected of causing house paint discoloration employing the use of an experimental, automatic, directional air sampler designed and constructed by personnel of the Air Sanitation Program.
- (2) Field study involving operation or supervision of 25 sampling stations throughout the state to determine ragweed pollen count distribution.
- (3) Laboratory research project conducted in cooperation with a large fish oil processing plant for the purpose of developing a suitable method for the evaluation of fish odor control.

- (4) The development of suitable methods for the evaluation of air borne particulate matter for a joint project with the New Jersey Turnpike Authority and Newark Airport authorities in a study of visibility loss due to "smog."
- (5) Design and construction of suitable devices for conducting state-wide air pollution studies at permanent sampling stations.
- (6) Design and construction of air sampling devices which can be loaned to qualified Boards of Health for taking air samples in their respective municipalities.
- (7) Design, construction and field testing of portable, continuous, air testing devices for measuring the soiling characteristics of outdoor air with the long range objective of rating municipalities on air sanitation.
- (8) Modification of a commercially available combustible gas analyzer for use as a continuous recorder for the measurement of combustible gases in sewers.
Studies conducted to date with this instrument have established that combustible gases in sewers in this state can be a very serious problem from the viewpoint of both public health and public safety.
- (9) Design, construction and modification of certain air testing equipment in the air sanitation mobile laboratory with the objective of pin-pointing sources of certain air contaminants.

Providing technical assistance and investigating complaints comprises, by far, the largest portion of the field activity of this Program. Sixty-two (62) requests for assistance were received from individuals, municipalities and other sources. Complaints received from individuals are referred through the State Health Districts to the Board of Health concerned, wherever possible. If the Board of Health in such a case should request the assistance of this Department, field surveys and studies are made when necessary, and conferences are held to discuss data collected and possible action. Legal action in these cases as required, is taken by the Board of Health, under local ordinance. This procedure has avoided, to a great extent, fragmentary investigations of air pollution problems that are within the legal jurisdiction of individual boards of health. A tabulation of action taken in all cases in the past fiscal year follows:

Surveys of specific sources	51
Recommendations submitted	27
Field studies conducted	11
Further study indicated	11
Conciliation conferences arranged	18
Abatement controls installed or being tested in service ..	19
Follow-up visits to check controls	11
No basis for action	11

In general, the progress of the air sanitation program was felt to be satisfactory. Limitations imposed by the lack of suitable test methods and standards for permissible levels of air contamination have continued to restrict control or abatement action. The critical need for field studies to determine base line levels of atmospheric pollution throughout the state has become evident. To meet this need, it will be necessary to divert attention from the investigation of complaints to broad scale studies of atmospheric contamination. Effort will be made to intensify the necessary field study by further reducing activity on complaint investigations.

Adult and Industrial Health Program

The primary responsibility of the Adult and Industrial Health Program is to stimulate industry to conduct its operations so that the health of workers is not impaired. Service is primarily directed to the small work places which are not large enough to support their own industrial health programs.

A formalized preparation of the complete Adult and Industrial Health Program as practiced by this Bureau was accepted by the Department and placed in effect during this fiscal year.

A vigorous program of education of worker and professional groups for promoting healthful working conditions was continued. In addition to indirect methods, such as publications, the industrial health bulletins which are again being written and mailed, news releases, radio and television, 16 formal lectures were presented and two exhibits were prepared and displayed at conventions which met in this state. Forty-eight professional meetings were attended by personnel of this program and post-graduate courses were attended in radiological health, chronic disease control, and air pollution.

Nineteen surveys were conducted for the specific purpose of initiating and improving health programs in industrial plants.

A comprehensive study was completed in four typical motor vehicle inspection stations in New Jersey. The Department of Law and Public Safety, Division of Motor Vehicle Inspection, requested the study. Medical histories of employees were obtained and physical examinations performed which included blood samples analyzed for carbon monoxide and lead absorption, and urine samples for a standard urinalysis and total lead content. The environmental study included continuous atmospheric carbon monoxide determinations, atmospheric lead and aldehyde sampling, temperature and humidity recording, and ventilation determinations. Medical and engineering results were correlated and recommendations made for either new construction or alterations to existing inspection stations. The purpose of this extensively documented study has been to accumulate data on which to base a medical program for the employees of the Division of Motor Vehicles, this program to

include a system of preplacement examinations and periodic re-examination to guard against particular hazards revealed in the study.

The physician, nurse and engineer team approach was applied to a clinical and environmental health study of an iron mine with particular emphasis on silicosis. Limited medical studies were performed and atmospheric sampling was completed at various representative operations. Dust counts were determined by both the usual light field method and also the shorter haemocytometer method; dust particle size determinations were made; the free silica content determined, and ventilation studies and ionizing radiation determinations were completed. As a result of this study, any recommendations were made to management of the mine. These recommendations should serve as a safeguard to reduce hazardous conditions to a minimum.

Some of the interesting shorter studies included atmospheric mercury concentration determinations in university chemical laboratories in the state, atmospheric carbon monoxide determinations in automotive service and repair garages, a ventilation study in a records vault located in the State House, the investigation of eight deaths resulting from bladder tumors allegedly due to exposure to carcinogenic agents at the place of employment, the investigation of three cases of D.D.T. poisoning which resulted from the resale and demolition of chemical apparatus formerly used to manufacture the Chlorinated hydrocarbon insecticide.

Twelve in-plant noise studies were requested by plant management and completed during this fiscal year. An increasing demand is being placed upon the Program for the study of this problem which is already consuming a sizable percentage of the working time. Expansion in this field is limitless. When conducting an industrial noise study, every operation in the plant is described, surveyed, and noise decibel levels determined. Recommndatory reports are submitted to management designating excessive noise areas and suggesting methods for noise reduction. Since data are scant concerning the cause and effect relationship between industrial noise and impairment of hearing, each of the above studies has been correlated with the medical programs of the respective plants, several of which have agreed to do preplacement and periodic audiometric examinations.

One hundred and sixty-two different industrial plants were studied this fiscal year. Sixty-five of these visits were self-initiated and one hundred and eighteen requested. Of these one hundred and eighteen, forty-four were requested by management, five by the plant physician or nurse, twenty-seven by labor, thirty-two by local health departments, three by district state health offices, and seven by petition or residents representing a community. Regarding the general type of services given, there were:

DIVISION OF CONSTRUCTIVE HEALTH

Introductory visits	50
Plant surveys	47
Technical studies of hazards	111
Investigations of occupational diseases	38
Initiation and improvement of health programs	19
Follow-up visits on recommendations	6
In-plant noise studies	12
Total	283

Radiological Health Program

This year ground was broken for the construction of the first, full-scale, nuclear power reactor, the entire output of which is to supply electricity in the competitive power market. Earlier, and more forcefully than by any means available to us, President Eisenhower had pointed the way toward that time when atomic energy may be devoted wholly to the constructive purposes of man. Although the first nuclear power plant is located in a neighboring state, the approaching time of increasingly common usage of nuclear power sources demands a real understanding in the New Jersey State Department of Health of how to maintain constructively the public health in the face of growing potential radiological health hazards. The Radiological Health Program has been the guide for activities intended to achieve this result.

After a series of three conferences, the formal radiological health program was drafted in final form, and was approved in May 1954 by the Commissioner of Health.

Authority for the field activities of the program is derived from the State Sanitary Code, Chapter VI on Radiation. Intensive activity has been directed toward enforcement of the Departmental Regulations, concerning Fluoroscopic Shoe-Fitting Machines, effective January 15, 1953, promulgated for the administration of Chapter VI.

The dissemination of information of value in assisting radiation users to establish and maintain desirable radiological health controls is one of the most powerful tools in creating an effective radiological health program. Activities directed toward this end included: Talks before professional groups utilizing radiation sources, talks on radiological health to the general public, consultations with suppliers of radiation sources, conferences on radiological health activities and standards, and meetings intended for in-service training.

Field inspections of installations of fluoroscopic shoe-fitting machines this year totaled 299; initial inspections numbered 245, while the remaining 54 were made to installations previously found to be noncomplying, in order to determine the effectiveness of repairs that had been made. Approximately ten of the latter inspections were made in the presence of X-ray repairmen, to

demonstrate the thoroughness of the inspection. Table I, "Extent of Fluoroscopic Shoe-Fitting Machine Inspection Program," summarizes this inspection activity both as to accomplishments and anticipated extent:

TABLE I

Extent of Fluoroscopic Shoe-Fitting Machine Inspection Program

The following data summarize the total estimated extent of the inspection program. This table is up-to-date through August 1954.

(1) RESULTS OF WORK PERFORMED THROUGH AUGUST, 1954:

Category	Number
(a) Machines inspected and found to be in use:	
(a) complying	156
(b) noncomplying	82
(b) Machines not in use, disconnected but remaining on premises	42
(c) Machines disposed of permanently	44
(d) Firms reported to own machines, but found to be out of business	44
Total	368

(2) INSPECTIONS STILL TO BE PERFORMED:

(a) Estimated number of machines not yet having received initial inspection ...	43
(b) Follow-up inspections, requested and pending	0
(c) Anticipated number of follow-up visits to be made to noncomplying installations	150
Estimated total	193

NOTE: Inspections to be done, 43; includes 16 machines in the Camden area, and 27 in the Newark area.

Anticipated follow-up visits are necessarily increased to maintain compliance. In a number of cases, the owners of machines voluntarily had the machines brought into compliance prior to inspection, demonstrating the effectiveness of adoption of Departmental Regulations governing radiation exposures of public health concern.

With available personnel and funds, it is not possible to locate and evaluate every industrial radiation source in New Jersey. Field activities have been directed, therefore, to those specific usages of radiation in which it is believed the greatest real radiological health hazards exists, and to perform field research sufficient to outline the pattern of radiation usage in New Jersey. In this way both the sources of greatest *potential* hazard and of greatest *real* hazard may be analyzed, and means adopted to promote adoption of optimum radiological health controls.

Plant Surveys of Industrial Radiological Installations:

Radioactive materials	31
X-ray machines	8
Electronic equipment	2
Uranium processing	1
Radon in mines	5
Co-operative Bureau studies	1
Total	48

In order to begin the enormous task of evaluating the clinical radiation sources in New Jersey, it was decided that those installations should be studied first where the New Jersey State Department of Health already had a vested interest through either the loan or purchase of the X-ray or fluoroscopic equipment, or in some way was sponsoring the hospital or service. All of the surveys tabulated below, with the exception of the veterinary X-ray survey, were of this category.

SURVEYS OF CLINICAL X-RAY INSTALLATIONS

Hospital surveys	3
Chest X-ray surveys	8
X-ray installation consultations	3
Mass screening X-ray surveys	5
Dental X-ray survey	1
Veterinary X-ray surveys	1
Total	21

Before the field survey activities of the program could be expanded on an economically practical basis, a means of performing large numbers of radiation measurements with a minimum of supervision had to be found. Visits were made to investigate the operation of film badge services at offices of the Atomic Energy Commission in New York and Brookhaven, and of the Department of Health and Welfare, Ottawa, Canada, to assist in deriving fiscal and personnel estimates.

On an emergency basis, film badges were borrowed from the Public Health Service (and processed in their radiological laboratory) to investigate radiation exposure to personnel of a cardiac catheterization clinic.

Two instances of suspected injury possibly caused by X-ray exposure were investigated and in each case it was shown that normal operation of the equipment could not have been to blame. These two examples point up the fact that an effective radiological health program is based, not upon morbidity or mortality statistics, and not upon the investigation of complaints, but upon a progressive series of activities intended to urge the development of sound radiological health controls, with the reduction, wherever possible, of all

radiation exposures except those that are to the public benefit, based upon a knowledge of how to establish this protection.

Through the Regional Coordinating Conference on Radiological Health, the program initiated three cooperative demonstrations with representatives of Out-of-State Health and Labor Departments.

Bureau of Crippled Children

INTRODUCTION

The Crippled Children Program is essentially a case servicing program wherein individual children under the age of twenty-one with handicapping conditions defined and acceptable for such services by the State Crippled Children Commission are rendered financial assistance toward their hospitalization and convalescent care needs, their appliances and prosthetic devices, and are furnished psychological and nursing services, and diagnostic, evaluative and medical follow-up clinic services for those with cerebral palsy and rheumatic heart disease.

PROGRAM OPERATION

Program operation is now the responsibility of the State Health Districts and their staffs except for the centralized consultant services of the Orthopedic Consultant, the Psychologist, the State Cerebral Palsy Consultant, and the Public Health Nurse Consultant. During the past year, there has been an increased effort to urge those public health nursing agencies holding contracts with the Department, who qualify to receive consultative rather than supervisory services, to assume responsibility for meeting the needs of their community's physically handicapped children irrespective of home nursing visit allotments paid for by the Department. This new approach has been understandably difficult to interpret in some instances, but has been generally accepted and appreciated by these agencies as an important step toward their community's role to provide adequate public health services. Successful efforts have also been made to reduce the direct services given by District public health nurse supervisors, so that supervision time could be more effectively utilized.

The Central State Health District has demonstrated a further decentralization of crippled children case record responsibility to their contract nursing agencies receiving consultation services. The District office now maintains merely an agency folder enclosing copies of the CC-Os and essential correspondence. Clerical hours, in very short supply, have thus been lessened. Telephone calls concerning crippled children are tactfully referred to the responsible agency covering the child's community. Other districts are being encouraged to follow this procedure. For all other supervised agencies and public health nurses, complete case records are held at the District level.

ADMINISTRATION

The individual case processing procedures, fully described in the 1952-53 report, have remained a primary function of the office of the Bureau of Crippled Children under the leadership of its Executive Director. Much time and effort is spent in evaluating each child's medical and social-economic status reports and on the elaborate arrangements for hospitalization, bed day and appliance purchase for each medically-indigent child. Each case must have individualized agreements for contributions by private and official matching agencies.

Initial case processing, bookkeeping, and accounting activities remain in the Bureau, but final accounting activities have now been transferred to the Bureau of Personnel and Accounts. General administration has been made an integral part of the Division of Constructive Health and the Department.

In line with policy changes, the Crippled Children Program has been rewritten, revised and approved by the Department. As a result of procedure refinements and simplification, a detailed procedure manual was prepared and submitted during the year for the benefit of the State Health Districts, but is still in need of further revision before it can serve effectively as a useful and practical guide for program administration and operation.

STATE REGISTER OF CRIPPLED CHILDREN

The transfer of manual case register preparation and maintenance to IBM machine registrations has been completed during the year. Corrected register lists have and will be distributed to the Bureau and District offices. They include the following:

- A monthly alphabetic cumulative index.
- A monthly geographic cumulative index broken down into counties and forwarded to Districts.
- A yearly alphabetic cumulative index which includes all cases registered.
- A yearly geographic cumulative index broken down into counties and forwarded to Districts.
- Individual duplicated IBM cards broken down by counties to be filed in Districts and used as case reference cards, replacing old registration cards.
- Annual lists of cases reaching their sixteenth birthday for notification of the Rehabilitation Commission by Districts.
- Annual list of over-age cases to Bureau and Districts.
- Annual tabulation by municipality and county for Districts of the number of cards (not individuals) in each diagnostic code.
- Annual tabulation for State as a whole as in above for Bureau use with details as to sex, by color, by age group for each diagnostic code.
- Annual tabulation for each municipality by county, of the number of individuals (unduplicated) on the register, by sex, color and age grouping for District use.

In the latter part of the fiscal year, a register screening project was initiated in the Districts using the new machine lists and tub file cards. With extra clerical assistance and materials paid for by the Program, the Districts' staff have written to all parents and physicians of children on the register who have not been contacted or heard from by the program since January 1, 1952 to determine their present status. The purpose of this project was to bring the register up-to-date and to make it more meaningful and useful as a true indication of current case load and needs. This work is still in progress. What is now needed in order that the State Register may continue to reflect accurately case status in the future is to evolve a yearly appraisal procedure of registered children under both non-private and private care. The register, through the several prepared lists can then become an important program evaluation instrument, rather than merely a convenient but often inaccurate reference index.

Table 1 gives the total number of cases on the State Registry before the screening project was started. It is anticipated that the actual corrected total will be less by several thousand when the project has been completed.

TABLE 1

CRIPPLED CHILDREN ON STATE REGISTER

On Register as of January 1, 1953	16,812
Placed on Register During Calendar Year	2,601
Total Entered on Register	19,413
Removed from Register for Specified Reasons	2,146
Reached age of 21	879
Dead	31
Cured	68
Residence established in another State	26
Ineligible for service	33
Registration in error	8
Cannot locate	31
Other reasons	1,070
On Register at End of Year	17,267

HOSPITALIZATION AND APPLIANCES

It has long been appreciated that the bed day purchase rate paid to co-operating hospitals and convalescent homes is less than half the average reimbursable cost of such institutions and less than the rates paid by any other State agency. This has placed a heavy financial burden on these hospitals and they are obliged to find additional funds elsewhere. This has proved to be especially difficult, because such contributions as are collected by the Bureau of Crippled Children or the hospital from parents or from voluntary agencies toward the reimbursable cost of any specific child receiving program assistance, have been necessarily deducted from the ceiling purchase rate before the balances are paid from tax sources. Therefore, efforts are now underway to evolve a new method of payment wherein it may be possible for the hospitals to act as their own collecting agency through their social service departments and thus be permitted to keep such contributions in addition to receiving ceiling rates paid by the Program, so long as the total amounts of contributions and payments do not exceed the posted reimbursable rates of these hospitals. Such an arrangement will, of course, entail greater expenditures from the Program and from the Boards of Chosen Freeholders who will be expected to continue to match on a 60-40% basis. Inasmuch as payments by Boards of Freeholders are voluntary and limited by law, it can be anticipated that the major financial responsibility will fall on the Program which will have to use up balances and matching sources.

On April 1, 1954, the ceiling rates to hospitals were increased from \$8.00 to \$10.00 for the first 14 days and from \$6.00 to \$8.00 thereafter. Convalescent rates were increased to \$6.00 per day. It is hoped that under the plan proposed above, it will be possible to maintain these same rates.

Table 2 indicates that 268 children received hospitalization for a total of 11,298 bed days and that 83 children received convalescent-home care for a total of 14,681 bed days. Total Federal and State matching expenditure for hospitalization and convalescent-home care was \$120,165.27. In addition \$27,126.44 was contributed by parents and voluntary agencies, particularly local Polio Foundation Chapters and Elks' Lodges.

There were 556 artificial limbs, braces and appliances for which the Program paid with a matched total of \$32,695.05. Payments from parents and private voluntary agencies totaled \$5,352.60. The costs of appliances have been steadily rising, and attempts are being made to determine proper ceiling rates for the several categories of both orthopedic and cerebral palsy braces.

TABLE 2

CASE NUMBER AND PAYMENT OF HOSPITAL, CONVALESCENT HOME, AND APPLIANCE SERVICES SUPPLIED CHILDREN FOR FISCAL YEAR 1953-54	
<i>Hospital Convalescent Care</i> —Total number of children	351
Total bed days	25,979
<i>In-Patient</i>	
Number of children who received specialized services	268
Number of bed days	11,298
<i>Convalescent Home</i>	
Number of children who received specialized services	83
Number of bed days	14,681
<i>Payment of Bed Days (Hospital and Convalescent Home) Total</i>	
State and Federal Funds	\$59,536.67
County Boards of Chosen Freeholders	60,628.60
Total Payments from Tax Sources	\$120,165.27
<i>Private Contributions</i>	
Local Chapters of Polio Foundations	\$17,993.51
Parents	8,455.93
Elks Lodges	677.00
Total Contributions	\$27,126.44
<i>Appliances</i> —Total Number Purchased	
Total Payments	556
State and Federal Funds	\$16,867.84
County Boards of Chosen Freeholders	15,827.21
Total Payments from Tax Sources	\$32,695.05
<i>Private Contributions</i>	
Local Chapters of Polio Foundation	\$1,936.08
Parents	2,757.62
Elks	658.90
Total Payments from Private Sources	\$5,352.60
Total Payments	
\$38,047.65	

PHYSICIAN SERVICES

Handicapped children in need of specialized surgical care are referred to physicians on approval panels of orthopedists, neurosurgeons and plastic surgeons. These physicians examine, operate or prescribe for these children without charge in their approved hospitals and clinics. Hospital and clinic reports are made a part of the case record in the District and often in files of the community agency responsible. Attempts are being made to have these contract nursing agencies include not only a complete nursing record, but copies of medical records as well so that they will be better able to understand and meet the whole professional need of their crippled children case load.

Crippled children who have received hospitalization care through program assistance are followed up free of charge at the several orthopedic or other specialized clinics over the State. On request from these clinics, financial assistance by the Program is given toward the payment of their appliance needs. The Program itself does not operate any medical clinics except for the State diagnostic and medical follow-up and consultation clinics for cerebral palsy. Grant-in-aid assistance is being furnished the Rheumatic Fever Clinic Project at St. Michael's Hospital, Newark, and for follow-up and research studies on post-operative cleft palate cases at the Reconstructive Surgery Center in St. Barnabas Hospital, Newark. During the calendar year, 863 children received clinic services in these cerebral palsy clinics and under these two projects for a total of 1,528 clinic visits. The total unduplicated count of children receiving hospital, convalescent home and clinic services paid for by the Program for the year 1953-54 was 1,219. An analysis of these children relative to county distribution, race, age, new and old cases, and diagnosis by sex and age are given in Tables 3, 4 and 5.

TABLE 3

DISTRIBUTION OF CHILDREN RECEIVING CLINIC, HOSPITAL AND CONVALESCENT SERVICES
CALENDAR YEAR 1953

Total—1,219

County	Number Children	County	Number Children
Atlantic	14	Middlesex	34
Bergen	25	Monmouth	93
Burlington	25	Morris	26
Camden	72	Ocean	19
Cape May	3	Passaic	23
Cumberland	24	Salem	17
Essex	499	Somerset	39
Gloucester	24	Sussex	19
Hudson	100	Union	60
Hunterdon	15	Warren	15
Mercer	73		

DEPARTMENT OF HEALTH

TABLE 4

DISTRIBUTION OF CHILDREN RECEIVING CLINIC, HOSPITAL AND CONVALESCENT SERVICES
BY RACE, AGE AND BY NEW AND OLD CASES

CALENDAR YEAR 1953

Race, New and Old Cases	Number Children	Age in Years			
		Under 1	1-4	5-14	15-20
Total	1,219	27	247	755	190
White	983	19	190	625	149
Other	233	7	56	129	41
Unknown	3	1	1	1	...
Number of these children who received services for the first time	423	27	140	222	34
Number of these children who received services in previous years	796	...	107	533	156

TABLE 5

DISTRIBUTION OF CHILDREN RECEIVING CLINIC, HOSPITAL AND CONVALESCENT SERVICES
BY DIAGNOSIS, SEX AND AGE

CALENDAR YEAR 1953

Report Group Code Number	Title	Total	Sex		Age in Years			
			Male	Female	Under 1	1-4	5-14	15-20
Total		1,219	639	580	27	247	755	190
0120	Tuberculosis of bones and joints, active or unspecified	4	1	3	...	2	2	...
0130	Late effects of tubercu- losis of bones and joints	4	2	2	...	...	4	...
0809	Poliomyelitis, acute ..	15	10	5	...	6	8	1
0818	Late effects of acute poliomyelitis	80	40	40	...	25	48	7
2840	Late effects of rickets	1	...	1	...	1	...	...
3510	Cerebral palsy	452	246	206	3	103	296	50
3590	Other diseases of nerv- ous system and sense organs, except eye, ear, and mental dis- orders	3	3	...	...	1	1	1

DIVISION OF CONSTRUCTIVE HEALTH

Report Group Code Number	Title	Total	Sex		Age in Years			
			Male	Female	Under 1	1-4	5-14	15-20
3899	Other diseases of the eye, except congeni- tal or diabetic cata- ract	2	...	2	...	...	2	...
3999	Other diseases and con- ditions of ear and mastoid process	8	5	3	...	4	3	1
4090	Rheumatic fever, acute	134	62	72	...	3	97	34
4100	Chronic rheumatic heart disease	75	38	37	...	3	45	27
4300	Other diseases of the heart, except con- genital malformations	97	51	46	1	4	73	19
5399	Other diseases of buc- cal cavity and esoph- agus	1	1	...	...	...	1	...
7200	Arthritis and rheuma- tism, except rheu- matic fever	4	1	3	...	...	3	1
7309	Osteomyelitis and peri- ostitis except tubercu- lous	3	3	...	1	...	1	1
7459	Curvature of spine, ex- cept congenital or late effect of polio- myelitis or tubercu- losis	11	3	8	...	1	6	4
7469	Flatfoot, acquired or unspecified .....	...	...	...	...	...	...	...
7499	Other diseases of the bones and organs of movement, except congenital malforma- tions	33	22	11	...	3	23	7
7510	Spina bifida and men- gocele	7	5	2	1	4	2	...
7530	Congenital malforma- tions of the circula- tory system	43	17	26	...	13	21	9
7540	Cleft palate and hare- lip	106	57	49	12	39	52	3

DEPARTMENT OF HEALTH

Report Group Code Number	Title	Total	Sex		Age in Years			
			Male	Female	Under 1	1-4	5-14	15-20
7571	Congenital dislocation of hip	18	4	14	5	7	3	1
7584	Clubfoot, congenital or unspecified	16	8	8	....	7	7	2
7599	Other congenital mal- formations	46	28	18	3	15	25	3
7619	Other injuries at birth, except cerebral palsy and epilepsy	12	6	6	....	1	9	2
9400	Burns	14	7	7	1	1	6	6
9980	Other morbid condi- tions due to accidents, poisonings and vio- lence	16	13	3	....	1	8	7
9991	Other diagnosed dis- eases, injuries, or handicapping condi- tions, except provi- sional or deferred diagnoses	14	6	8	....	3	7	4

CEREBRAL PALSY

Detailed descriptions of program activities and structure in behalf of cerebral palsy may be found in the annual report of 1952-53. During the past year, three physicians received the specialized training in cerebral palsy offered by the Children's Rehabilitation Institute at Cockeysville, Maryland, under the direction of Dr. Winthrop Phelps, the State Cerebral Palsy Consultant. Two of these physicians are Board Orthopedists and one is a Diplomate of the American Board of Physical Medicine. One previously trained physician has resigned from state service and another attends but one clinic session a year. The resulting increased availability of clinic physicians on staff has permitted more frequent clinic sessions in several parts of the State and hence improved services to cerebral palsied children.

A new State diagnostic and follow-up clinic covering Jersey City and Bayonne, and supported by a new Hudson County general Board, under the leadership of the Hudson County Medical Society has been established at the A. Harry Moore School. Additional clinic sessions have been arranged for the Newton Diagnostic Clinic. The services of cerebral palsy diagnostic clinics are being planned for Burlington County to cover urgent needs in that large area.

DIVISION OF CONSTRUCTIVE HEALTH

During the year, State Health Districts have been encouraged to place more responsibility for cerebral palsy clinics on local community levels. In several areas, local nursing staffs are assisting in the clinics. In another area, a local agency has assumed complete responsibility for the nursing operation of the clinic.

The diagnostic and consultation clinics in the Southern State Health District have had the advantage of the active participation of the District Consultant Nutritionist. Similar participation is planned for sessions in the Central District with the appointment of their Public Health Nutritionist.

Private agencies such as the several County United Cerebral Palsy Associations and the New Jersey Society for Crippled Children and Adults have continued to cooperate with the program in furnishing physical therapists, occupational and speech therapists to the three State treatment centers which were originally designed as demonstration centers. The Monmouth County Medical Society is negotiating with the Central State Health District for the possible eventual supervision and conduct of the Center at Long Branch. The Center at Trenton is now under capable medical supervision and lay administration and ready to be taken over entirely under private auspices. The third center in Camden, continues to operate as before until such time as discussions involving cooperation with the United Cerebral Palsy Associations of Southern New Jersey have been completed.

The program coordinator has actively participated in the formation and activities of the Essex County Coordinating Conference on Cerebral Palsy. This organization representing all agencies official and private concerned with cerebral palsy in Essex County has been setting standards, defining needs, determining resources, and providing for an interchange of information so that all agencies can better coordinate and improve their services to the cerebral palsied.

The program coordinator has also had frequent conferences with local, state and national cerebral palsy organizations in an advisory, consultative and coordinating capacity for a more effective integration of the cerebral palsy activities of his program. He has assisted in two courses in giving lectures to parents of handicapped children under the joint auspices of Rutgers University and the New Jersey Society for Crippled Children and Adults.

The tentative cerebral palsy eye research project initiated last year and described in the report of 1952-53, did not receive approval of the Department nor the support of the New Jersey Medical Society because of the association of a non-medically trained individual in the position of major responsibility for diagnosis and treatment. Conferences have been held with representatives of the Medical Society in an attempt to interest a qualified ophthalmologist to receive specialized training from the Children's Rehabilitation Institute in

Maryland under Dr. Phelps's direction so that these research studies may eventually be started.

RHEUMATIC FEVER DEMONSTRATION PROJECT IN ESSEX COUNTY

During the year, the reorganization of the Rheumatic Fever Demonstration Project in Essex County by the Program Coordinator for the Heart Control Program in the Division of Chronic Illness Control was completed. Operational and administrative responsibility for this project has been taken over by St. Michael's Hospital with supervision supplied by the Heart Program and overall administrative supervision by the program coordinator of the Crippled Children Program. Despite increased medical coverage and operational efficiency, program costs have been drastically reduced. The project has now been designed and has been conducted as a model demonstration and research program upon which to pattern other new rheumatic fever and heart centers being established in Flemington, Trenton and Camden.

In general, each new case referred to the rheumatic fever clinic is carefully evaluated and diagnosed for three clinic visits, if necessary, and discussed by the entire clinic "team" for the purpose of making a definitive diagnosis and appraisal and to determine necessary therapy. Such professional efforts have resulted in fewer hospital days or admissions, and also much less need for convalescent-home care. Children are followed up at the clinic and receive home nursing visits provided by the Newark Visiting Nurse Association under program assistance. Each child is given a yearly re-appraisal and consideration by the clinic "team" until such time as final discharge can be made. The hospital has obtained the services of a medical social worker who now actively assists in the project. Other ancillary services are provided as needed.

Payment for the project is now made under a grant-in-aid contract on a reimbursable basis for services rendered. Under the present revised administrative structure, it will be possible for the hospital to carry on the rheumatic fever clinic under its own auspices upon the completion of the project on June 30, 1955. Payments were made for 839 clinic visits and 479 bed days during the fiscal year 1953-54.

RHEUMATIC FEVER AND CONGENITAL HEART DISEASE

At the end of the fiscal year, arrangements were completed for limited state-wide extension of hospitalization and convalescent-home care for children with rheumatic fever or rheumatic heart disease under the crippled children program. Any child referred to one of the newly established heart clinics under the supervision of the Chronic Illness Control Division of the Department, who has been diagnosed at such a clinic as in need of hospitalization or convalescent care for rheumatic fever or rheumatic heart disease, is eligible upon

admission to the hospital, and upon recommendation of the clinic director and the Coordinator of the Heart Disease Control Program with the approval of the Coordinator of the Crippled Children Program, to receive the assistance of the Crippled Children Program toward hospital or convalescent-home bed day purchase arranged in the same manner as for orthopedically handicapped children. At the present time, it will not be possible to reimburse contract nursing agencies for home follow-up visits made upon these children, except in Essex County under the special rheumatic fever project as described. This extension of services, though modest, is expected to fill a real state-wide need, and is logical outgrowth of the demonstration project in Essex County.

CONGENITAL HEART DISEASE

With the establishment of the Heart Center at St. Michael's Hospital equipped for complete evaluation and surgery, and made possible through the assistance of the Department Division of Chronic Illness Control, arrangements have been completed to send children with possible congenital heart disease to the Center upon direct referral or upon referral from any of the other approved heart clinics under the supervision of the Department. If these children are admitted to St. Michael's Hospital for the purpose of cardiac surgery, and upon approval of the coordinator of the Crippled Children Program, the hospital will receive the regular hospitalization bed day purchase rate paid by the Program together with a special pre-operative work-up fee for each case. This new extension of services is expected to meet a great state-wide need.

CLEFT PALATE EVALUATION PROJECT

The Program has continued its financial support for the evaluation of post-operative cases of cleft palate and cleft lip which have formerly received hospitalization assistance under the Program. As described in detail in the Annual Report of 1952-53, the Cleft Palate Center, now called the Center for Reconstructive Surgery or the "Peer Clinic", at St. Barnabas Hospital, Newark receives a fee for the complete evaluation of these children by the clinic "team". Cases are referred back to their physicians for treatment and follow-up or are given such services at the Center. The Center has also served as a teaching center for plastic surgeons, nurses, social workers and speech therapists. A parent's group for Reconstructive Surgery has also been started. The Crippled Children Program Coordinator has been appointed as a Consultant to that organization. The Center holds regular meetings and conferences for both the professional groups and for parents. The Coordinator has given one of the lectures held at the Center for students in the speech class under the auspices of the Newark State Teachers College. He has also participated in other educational activities and meetings at the Center.

NURSING ACTIVITIES

There has been increasing acceptance of the crippled children program as a local community responsibility during the past year, as a result of the continuing educational efforts of the public health nurse consultant and the cooperation of the District nursing staffs. Several nursing agencies have expressed their willingness to take on nursing contracts in areas formerly receiving direct services by public health supervisors.

The Central State Health District has completed its nursing generalization of the crippled children program and has demonstrated its feasibility. The public health nurse supervisors are now supervising the nursing services to crippled children in their respective areas including the supervision of contract nursing agencies. The Public Health Nurse Consultant has been supplying the consulting services in the Central State Health District for those agencies eligible to receive same. She also gave the supervisors an orientation course as a preparation for generalization. Additional educational programs are being planned as a means of integrating crippled children nursing care into other programs.

The contract Nursing Manual was again revised. The Manual indicates that contract funds are supplemental and are not intended to pay for all direct nursing services to crippled children. The agency is encouraged to contact other community resources for necessary funds. The importance of community relationships is stressed during visits by the Nurse Consultant. Other considerations stressed are the criteria for a nursing visit and the priority of visits.

There has been considerable discussion relative to the administration of Crippled Children nursing contracts through or by local health departments. Ever cognizant of the importance of proper standards, a contract will only be given to a local health department which can demonstrate its ability to meet these approved standards. There are several areas in the State where this possibility exists, and such contracts may be initiated during the coming year.

Some thought has also been directed to the possibility of crippled children nursing funds being used toward grant-in-aid assistance to nursing salaries. This may prove to be the ultimate goal for all such funds. This procedure would bring closer alignment of the crippled children nursing program with other Department nursing programs, and may advance the process of generalization of nursing services and the development of family health services.

Educational programs are being given in the Districts by the Crippled Children Public Health Nurse Supervisors to the respective Districts' staff. In some areas, programs for orthopedics and handicapped children have been undertaken locally. Exploratory conferences with Seton Hall and Rutgers have been held relative to the possibilities of a state-wide work-shop for nurses

which would integrate the principles of orthopedic nursing into other public health nursing programs.

The Public Health Nurse Consultant for this Program has attended a course for physical therapists given at the D. I. Watson Home for Crippled Children in Leetsdale, Pa. This course presented an orientation in the abridged muscle examinations to be used for the Poliomyelitis Vaccine Trial Study. The nurse consultant will do these muscle examinations on polio cases talking to the study group in Monmouth and Cape May Counties, assisting as necessary in the other counties.

During the fiscal year 1953-54, contract nursing agencies made a total of 8,386 nursing visits to crippled children receiving the services of the program for a total payment of \$20,965.00 at the rate of \$2.50 per visit.

PSYCHOLOGICAL SERVICES

The services rendered by the Psychologist in the Bureau of Crippled Children include examination of children, research, counseling, addressing public meetings, and participation in conferences with individuals or groups.

Psychological evaluation involves a preliminary study of the case record; the examination itself; conferences with parents and interested professional people such as physicians, nurses and teachers and a written report which includes the findings and recommendations. Approximately 90 per cent of those examinations are requested by a physician, or a physician and educator jointly, for the purpose of determining the level at which a child can profit by training prior to school experience or by education when he has reached the appropriate age. The remaining examinations are requested because institutional placement is desired, vocational planning is appropriate, or amelioration of some emotional condition is desired. In the better centers in the country there is now a growing tendency to accept the psychological findings in the case of cerebral palsied children as a point of departure for the education or training of the child without making as positive a prediction of the child's ultimate development as sometimes is made.

Conferences are held with either individuals or groups as occasion arises. Group conferences involved discussion of a variety of problems related to crippled children. While these have been primarily concerned with problems within the State, several during the past year included larger areas. Such meetings have been concerned with planning and development of research dealing with cerebral palsied children.

Research at present under way involves two major aspects of adjustment of children with cerebral palsy; one is concerned with various aspects of sensation and perception and their bearing on education; the other, the emotional atmosphere of the home and its effect on the child.

Based on this research, one article "Some Factors that Contribute to the Concept of Self in the Child with Cerebral Palsy" was written and published in *Mental Hygiene*. Two chapters were also contributed to *New Jersey Studies in Cerebral Palsy*, now being printed. Additional material has been prepared for *Cerebral Palsy*, edited by Cruickshank and Raus, to be published by Syracuse University Press.

The demand for counseling has continued. Parents feel that it has a value to them that they do not find in any other service. As many sessions were scheduled as time permitted.

The demand for public addresses on the part of the psychologist has grown largely out of the counseling services. Other subjects in which interest has continued include the appraisal of mental competence of children with cerebral palsy and special learning problems of these children.

MEDICAL SOCIAL SERVICES

Because of the resignation of the medical social worker, the Program did not have either direct or consultative medical social work services during the year. It is planned to have the prospective District Consultants in Medical Social Rehabilitation furnish, eventually, the consultant needs of this program as part of their generalized responsibilities. They will stimulate local community social work resources to give direct services as required.

EDUCATION FOR THE HANDICAPPED CHILD

The Program Coordinator has had repeated work sessions and conferences with representatives of the New Jersey Conference for the Handicapped and the newly appointed Director of Special Education for the State Department of Education for the purpose of assisting the drawing up of special legislation, now passed, and in determining standards for the education of the several types of handicaps including orthopedic, heart, blind, hard of hearing, speech and mental deficiency. These standards when completed and approved by the Department of Education will implement the new legislation.

The Program also assisted the State Survey of the education needs of handicapped children conducted by the State Department of Education as a preliminary to legislation by furnishing the Survey with specific local and state registration lists for case coverage checking.

Bureau of Dental Health

"To you, our children, who hold within you our most cherished hopes we . . . make this pledge: . . . 'We will protect you against undue hazards and help you grow in HEALTH and strength'."

This excerpt from the Mid-Century White House Conference on Children and Youths is appropriate to the Dental Health Program in New Jersey. Since the concept of HEALTH is all inclusive—physical, mental and dental, we are continuously directing every effort to improve the dental health of children in our communities.

The role that dental health plays in general health is well known, but too often, it is forgotten or overlooked. Dental health like any phase of health needs constant attention and supervision rather than a few days of observance and many months of neglect.

The dental profession in this country has long urged a constructive approach to the national dental health problem. Their proposals represent scientific, feasible, economical and rational approaches to the problems of dental diseases in direct contrast with the costly and unrealistic proposals associated with a system of federal compulsory health insurance.

In the past decade or more, there has been increasing recognition by the public of the value of dentistry as an essential health service. New methods of prevention and control have been discovered and these promise to give the profession more effective weapons in its fight against dental diseases. This progress has been accompanied by a general reawakening to the fact that American life traditionally is based on community life, and that needs can best be determined and met through individual and community effort.

In the light of these trends, the basic principles which have guided the dental health program are reiterated and certain additional suggestions and recommendations which experience has shown will be useful in the development of better local community programs for dental health, are offered.

In previous Annual Reports we have been speaking of "Basic Principles," "Long Range Objectives," etc. This Report attempts to evaluate the efforts of the Program in attaining dental public health objectives. The criteria for these self-appraisals have been selected from the list of activities recommended by the American Public Health Association as "desirable functions for a State Health Department," and the "Official Policies of the American Dental Association on Dental Health Programs." These activities and policies may be grouped into four main categories:

1. Providing consultative services for Local, County and State Dental Programs in conjunction with personnel of our four State Health Districts.
2. Collecting, publishing and distributing authentic dental health education materials.
3. Conducting investigatory, demonstration and educational programs.
4. Establishing and maintaining dental treatment programs for low income children throughout New Jersey.

These four items have formed the "working basis" of the Dental Health Program this past year. The basic problem in public health dentistry in New

Jersey has been, and still is, to prevent and combat the widespread dental and oral diseases prevalent in our children. The Program has attempted to attack this problem through four basic approaches, as follows: 1. Education; 2. Prevention; 3. Research and Evaluation; 4. Dental Treatment.

1. EDUCATION

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

(a) *Professional education*—in cooperation with the New Jersey State Dental Society and the New Jersey Society of Dentistry for Children; through sponsorship in courses for oral cancer; through accredited courses and dental health education for nurses, teachers and oral hygienists; through scientific information provided to dentists, physicians, nurses, oral hygienists, etc., on request, and lectures at four (4) dental colleges.

Public health educational concepts today emphasize the importance of utilizing community resources for broadening and enriching the school dental program. Many agencies, organizations and individuals make valuable contributions.

Dental societies, dental health committees and individual dentists have a responsibility for contributing to the health and welfare of children and adults both through making dental care available in their private offices and by giving leadership and consultation to their community dental health programs.

Children who have a sound foundation in the principle of dental health can assume more responsibility later for their own dental health. They will develop good oral hygiene habits and seek regular dental care. Dental health throughout life is determined, in part, by the effectiveness of dental health lessons learned during childhood and in school. Each school and community functions differently, and no specific pattern can be established that will fit all.

An Instruction Book pertaining to the New Jersey State Dental Health Program is at present in the process of being revised and will soon be in readiness for distribution to all dental operators, dental health committees, and all persons interested in dental activities in New Jersey.

(b) *Lay or public education*—through cooperation of the four State Health Districts' staff, local officials and voluntary agencies in the dissemination of authoritative dental information; and through community interest in local treatment programs. Such agencies include the county and local dental health committees. Personal visits by the Chief of the Dental Health Bureau to County Boards of Freeholders, Parent-Teachers Associations, County Dental Health Committees, etc., in the past have resulted in increasing local financial support and responsibilities for community Dental Health Programs. One community this past year assumed full financial responsibility for their Dental

Health Program. This is the reason for the difference in "Local Contribution" as shown in Table 2, page 95. This item in itself is quite indicative of the enthusiasm being shown towards their own individual and county Dental Health Programs.

Booklets providing acceptable information for teachers and nurses carrying on dental health education programs in the classrooms are being approved by the Departments of Health and Education and are soon to be ordered for distribution. It is the plan of the Dental Health Program to provide each school in New Jersey, parochial, public and private, with a set of these Teaching Outlines. The set consists of a series of three booklets for various elementary grade levels and one for High School teachers. These formerly were called "Source Units" and have proved very valuable in the past.

The educational program has not been confined to educating the individual to the things he himself can do to have good teeth. It has also made efforts to educate the individual and the public concerning fluoridation as a primary public health preventive measure. During the year 1953-54, fluoridation has been the major educational activity in the field of dental public health. Following the endorsement of fluoridation by the American Dental Association, the American Medical Association, and all leading health organizations of the state and nation, the Dental Health Program has been increasingly active in promoting this project. Fluoridation is looked upon as a measure which restores to the water this naturally essential element, which in the proper proportions markedly reduces the incidence of dental caries. The Dental Health Program Coordinator has met with state and local dental societies; city councils; P.T.A.'s; civic clubs and other interested groups in many counties and communities throughout the State. Literature and films secured from the U. S. Public Health Service, the American Dental Association, and the N. J. State Dental Society, have been very widely distributed. A great reduction in the occurrence of tooth decay in New Jersey is anticipated in a few years after fluoridation has been more widely adopted by municipalities.

2. PREVENTION AND CONTROL OF DENTAL CARIES

At the present time, there is no positive way to prevent all tooth decay; however, if people can be persuaded to make the wisest use of all control measures that are available, great strides can be made in the reduction of dental caries. These control measures are (1) reduction in the daily consumption of sweets, (2) brushing the teeth correctly and at the most effective times, (3) topical fluoride applications and (4) fluoridation of water supplies. Each of these measures will be discussed briefly.

Reduced Sugar Consumption—

Carbohydrates are necessary in the diet to provide the energy necessary for muscular activity. However, the consumption of sugar, a refined carbohydrate, has increased to such an extent that for many people it has become a major factor in causing dental caries. The average per capita consumption of sugar in a year in the United States in 1830 was 12.1 pounds. Today it is about 164 pounds.

Although no one would suggest that all sugar be eliminated from the diet, children should be taught the importance of limiting the amount of sweets consumed. It has been demonstrated that a reduction in the consumption of sugar will result in an appreciable decrease in dental caries.

It is folly for schools to teach the need for reducing sugar intake while, at the same time, making candies and sweetened and acidulated beverages available in lunchrooms or through various types of dispensing machines.

Controlling the intake of sugar is an individual problem and one which education alone can solve. The American Dental Association, the American Medical Association and the National Congress of Parents and Teachers have all prepared statements relating to the sale of sweets in schools.

Toothbrushing—

The statement "a clean tooth will not decay" is perhaps correct. The difficulty is in keeping the teeth truly clean. No method of toothbrushing has yet been devised that will assure complete cleansing of all surfaces of the teeth. Correct toothbrushing, however, is an effective method to help keep the teeth clean.

In order to obtain maximum benefits from toothbrushing, the teeth should be brushed immediately after eating. This rule has equal application to regular meals and to snacks between meals. It is not always possible, however, to brush the teeth after eating. In such event, the mouth should be rinsed thoroughly with water. The oft-taught practice of brushing the teeth the first thing in the morning and just before retiring at night has little value in the prevention of dental decay, but it does give the mouth a feeling of cleanliness.

The purposes of toothbrushing are to remove food particles from between the teeth and from the crevices of the chewing surfaces, to help prevent tartar deposits from forming on the teeth, and to stimulate circulation of the blood in the gums. Toothbrushes should be kept clean and allowed time to dry between use. It is desirable to have two brushes and to use them alternately.

Topical Fluoride Applications—

The term "topical application of sodium fluoride" refers to the use of a two per cent solution of sodium fluoride on the surfaces of the teeth. In making the application, the dentist, or dental hygienist, cleans the teeth, dries

them thoroughly and the dentist then applies the solution, letting it dry on the teeth.

Dentists recommend that a series of applications be given at the ages of 3, 7, 10 and 13 years so that the teeth may be treated shortly after they erupt. Four separate applications are given at each age shown above. Treatments may be given at other ages, however, when the applications have not been made at the recommended times.

Many research studies have been made on the topical application of fluorides. Results among large groups of children show that, when given as recommended, these treatments will reduce the incidence of new decay by about 40 per cent on the average. The American Dental Association recommends that in areas where the drinking water is deficient in fluorides, topical fluoride treatments be used routinely. Topical applications of fluoride will not halt decay already started but will help prevent new decay. The use of this preventive measure is strongly advocated in the New Jersey State Dental Health Program.

The expression "fluoridation of water supply" refers to the adjustment of the fluoride content upward to a desirable level in water deficient in this substance.

It has been observed that teeth of children residing in fluoride areas of New Jersey and other areas of the nation since birth have an unusual resistance to decay. After years of research, methods of adding fluorides safely to the water in the amount of one part of fluorine to one million parts of water (1 ppm) have been developed. Dental decay in teeth of children drinking fluoridated water since birth has been reduced 65 per cent on the average.

Fluoridation does not affect the taste, color or odor of water, nor does it affect the water in any way insofar as industrial use is concerned. The process of adding fluoride is inexpensive, costing about 5 to 14 cents per person per year.

That fluoridation of water supplies is a safe and effective method of reducing tooth decay is attested by the fact that practically all scientific bodies have approved and are supporting fluoridation. Among these are the American Dental Association, American Medical Association, American Public Health Association, U. S. Public Health Service, Association of State and Territorial Health Officers, National Research Council, and New Jersey State Department of Health.

Fluoridation has been the most important topic handled by the Dental Health Program this past year. Due to the wide publicity received from magazines, newspapers, radio, health departments and dental groups, it continues to be of vital interest to New Jersey.

On May 7, 1951, the Public Health Council of the State Department of Health approved fluoridation of public water supplies for "partial control of

dental caries." On June 15, 1951, the New Jersey State Department of Health filed with the Secretary of State, rules and regulations governing fluoridation of public water supplies in the state to become effective June 25. Copies of these resolutions and rules and regulations may be obtained from the Bureau of Dental Health, as well as the latest literature and statistics on costs and results of fluoridation throughout the United States.

At present, 27 communities in New Jersey are receiving the benefits of fluorides added to their drinking water. Many other communities are now seriously considering initiating this valuable public health program.

The hazards to oral health are many throughout the lifetime of the individual and only through proper diet during the formative period of the teeth (both prenatal and postnatal) and the continuous application of preventive techniques and restorative measures can the teeth be retained to serve the normal functions for which they were originally intended. In this way, we will secure for the family and the community better oral health.

3. RESEARCH AND EVALUATION ACTIVITIES

(a) These basic activities deal principally with improving methods of administering public health dental programs; of appraising methods of dental research and prevention of dental disease, particularly on a public health level. The Dental Health Program Coordinator has continued a study to compare dental conditions found among children in naturally fluoridated water communities with children residing in areas with non-fluoridated waters. Also, surveys of caries susceptibility rates have been conducted by dentists in communities currently adding fluoride to the water, and similar surveys in cities anticipating fluoridation.

Increasing evidence indicates that a communal water supply containing 1 ppm to 1.5 ppm will result in a 65% reduction of the dental caries rate.

This past year three such dental surveys were conducted—1,993 children in Atlantic City—1,115 children in Monmouth County and 2,939 children in Ewing Township, in order to establish base line data at various age groups prior to fluoridation in the first two mentioned communities and a dental health treatment program in Ewing Township.

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

1. DMF rates by specific age groups.
2. Percentage of children requiring dental treatment.
3. Average number of defective teeth per child.
4. Number of lost permanent teeth per 100 children in the 12-14 age groups (Table 1, p. 95).

The following criteria are recommended and have been used for the evaluation of the dental health treatment program:

- (a) Individual records and periodic reports as recommended by the State Department of Health and the State Department of Education.
- (b) The percentage of completed cases (all necessary extractions, fillings and topical sodium fluoride applications) from year to year (Table 3, p. 96).
- (c) The number of extracted permanent teeth (Table 1, p. 95).
- (d) Professional supervision of the operations of participating dentists.
- (e) Emphasis on prevention treatment for young children (4-10 yrs.) and incremental care thereafter.
- (f) The community approach with collaboration of State and local dental societies.
- (g) Information as to the number of children obtaining treatment in private dental offices.

4. DENTAL CARE PROGRAMS

Although reduction of the consumption of sugar, proper toothbrushing, topical applications of fluoride and fluoridation of water supplies can do much to reduce the prevalence of dental decay in children, all dental decay cannot be prevented. There is no substitute for regular and frequent visits to the dentist.

The child should pay his first visit to the dentist between two and one-half and three years of age, shortly after all his primary teeth have erupted.

There are a number of advantages in early and frequent visits to the dentist: (1) defects and early symptoms of dental disease can be detected and corrected in their early stages; (2) the dentist can observe and correct irregularities in the growth of teeth; (3) pain can be prevented; (4) the cost of dental care can be reduced.

At present the dental health treatment program of the State Department of Health has progressed to the stage where children from districts in eighteen counties are being provided necessary extractions, fillings, prophylaxis and fluoride treatments. As previously reported, six mobile units have been assigned to sparsely populated areas. These include two trailers and four motorized auto trucks, and they are assigned to Ocean, Somerset, Atlantic-Cape May, Camden, Gloucester and Warren Counties. The program also includes private offices and clinics. A station wagon in Sussex County is utilized in transporting children to private dental offices. The techniques followed for the program are as follows:

1. Programs are instituted at the request of a local or county administrator after the dental needs of the children in the community have been ascertained and plans formulated for the administration of such a program.
2. The first step in establishing a dental health program is the organization of a dental health committee made up of representatives of both unofficial and official agencies, such as schools, health departments, parent-teacher groups, the local dental society, Red Cross, public health nurses, welfare groups and Boards of Freeholders.

3. Local committees designate administrative policies for their program.
4. Local agencies contribute toward cost of program.
5. The New Jersey State Dental Society, as well as its component societies, participate in the planning and accept the responsibility of providing adequate personnel for the program.
6. The chief function of the Bureau of Dental Health is to provide technical supervision of the dental health services rendered for the program. High standards of dental care are maintained because of this supervisory service. Uniform records are kept to compare and evaluate the various programs.
7. Each local program is activated by what may be termed "the community approach." Authority is vested not in one agency or one person, but in a committee representing health, welfare and educational resources in the community.
8. Policies for selecting children for treatment are formulated by the local communities with the advice of the local dental societies.
9. Reports of achievements and costs are regularly submitted by the Bureau of Dental Health of the State Department of Health, informing each committee of its own accomplishments and the cost of its program.
10. Local and county committees conduct educational programs to improve dental conditions among all children.
11. Policies pertaining to technical procedures are recommended and approved by the New Jersey State Dental Society.

Presented in the following pages are the listings of the personnel of the Dental Health Program; and the statistical tabulations relative to the dental health treatment activities for the fiscal year 1953-54, in order to show:

1. Attainments of the State-wide program from July 1, 1940, to June 30, 1954 (Table 1).
2. Breakdown of source of funds of the Bureau of Dental Health from July 1, 1940, to June 30, 1954 (Table 1).
3. Attainments of all the county and local dental treatment programs during the fiscal year 1953-54 (Table 3).

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

- 1—Chief of Bureau of Dental Health Program Coordinator (Sr. Public Health Physician)
- 3—Dental Supervisors (Public Health Physicians)
 - 1—Supervisor in Northern and Metropolitan Districts
 - 1—Supervisor in Southern District
 - 1—Supervisor in Central District
- 1—Dental Aide
 - 1—Mobile Dental Clinic Operator
 - 1—Senior Clerk
 - 1—Clerk-Stenographer
 - 1—Clerk-Typist
- 92—Participating Dentists

TABLE 2
DENTAL TREATMENT PROGRAM AND BUDGET
July 1, 1940, to June 30, 1954

Year	Number of Dentists	School Districts	Number of Children Treated	Percentage of Completed Cases	Number Extractions	Number of Permanent Teeth per 100 Children Treated	Number of Operations Treated per 100 Children	Budget Contributions							
								Federal		State		Local		Total	
								Amount	%	Amount	%	Amount	%	Amount	%
1940-41	2	25	839	50	79	781	\$12,968	80	12,000	58	\$3,200	20	\$16,168	100	
1941-42	5	40	2,086	68	50	690	14,635	46	12,187	37	4,800	10	31,515	100	
1942-43	25	139	7,528	88	59	631	14,072	40	51,765	69	8,500	17	22,069	100	
1943-44	40	171	7,752	64	51	549	19,270	29	50,900	66	9,067	13	77,310	100	
1944-45	67	188	7,713	63	49	606	19,569	18	101,077	61	22,800	21	146,570	100	
1945-46	108	188	8,369	69	47	637	28,233	15	95,906	55	30,000	20	154,250	100	
1946-47	170	180	8,782	67	43	827	28,049	17	74,089	57	41,579	28	144,000	100	
1947-48	107	180	7,869	67	43	800	32,450	13	79,379	50	67,337	42	154,400	100	
1948-49	110	179	7,809	69	44	779	33,637	9	76,310	48	64,897	42	154,400	100	
1949-50	107	173	8,574	64	44	785	14,940	9	78,040	48	66,063	42	157,110	100	
1950-51	102	173	6,179	62	46	607	3,460	6	82,452	52	65,171	40	151,023	100	
1951-52	92	171													
1952-53															
1953-54															

Types of Program
 1946-41 Clinics only.
 1947-48 Clinics, Private Offices and one Traveler.
 1948-54 Clinics, Private Offices, Two Travelers and four Mobile Clinics.

* Note: During the early stage of the program, the number of communities in the program was obtained with some difficulty. The cause of the confusion was the use of school districts, townships, boroughs and schools as units for reporting. After July 1, 1946, it was decided to list only school districts.

TABLE 1

TABLE 3
REPORT—DENTAL TREATMENT PROGRAM
July 1, 1953, to June 30, 1954

Programs By Counties and Communities	Initiated	Type of Program*	Dentists	Communities	Operating Time (Hours)	Examinations	Visits	Extractions—Permanent	Extractions—Deciduous	Fillings—Inlays and Others†	Fillings—Teeth Filled	Prophylaxes	X-rays	Fluoride Treatment	Total Operations	Children Treated	Cases Completed	Percentage of Completed Cases
Atlantic	1947	Mo. Cl.	1	3	325	1,366	488	21	21	44	141	162	...	388	971	163	71	43
Bergen	1943	P. O.	1	3	153	88	372	19	57	48	44	41	60	46	507	97	43	44
North Arlington	1940	Cl.	1	1	525	824	1,578	4	15	402	165	335	394	610	2,580	201	192	65
Rutherford	1945	Cl.	1	1	136	2,330	105	3	49	45	230	...	22	...	224	40	37	82
Burlington	1943	P. O.	2	10	131	141	312	53	122	95	230	69	30	40	579	165	56	34
City of Burlington	1943	Cl.	2	2	180	262	546	66	232	33	472	53	2	...	862	152	72	47
Camden	1943	Mo. Cl.	1	14	919	3,545	1,461	56	510	74	1,924	477	103	479	3,432	488	445	91
Lawnside	1944	P. O.	1	1	46	97	147	3	63	74	66	86	...	61	293	97	71	73
Cape May	1947	Mo. Cl.	1	6	262	372	412	30	50	297	159	233	...	242	1,021	241	82	34
Cumberland	1942	P. O.	9	9	566	240	980	69	356	56	643	149	9	220	1,532	239	105	36
Essex—Orange	1944	Cl.	1	10	591	348	1,158	22	118	1,029	1,308	329	145	...	2,751	239	212	58
Gloucester	1947	Mo. Cl.	2	1	723	3,124	1,334	26	74	136	2,849	489	622	379	4,655	498	459	83
Hunterdon	1940	Cl.	1	25	295	735	886	36	141	129	575	69	2	...	940	508	128	25
Middlesex	1942	P. O.	3	3	207	90	456	81	197	145	337	83	3	25	744	98	48	48
Kiddle Keep-Well Camp	1942	Tr.	1	1	249	309	719	2	142	41	453	136	...	...	754	268	112	41
Deans	1945	Cl.	2	1	107	64	171	6	32	41	104	65	...	...	297	75	27	36
Monmouth	1941	P. O.	10	12	748	2,128	1,301	89	270	300	1,370	319	202	46	2,595	376	232	61
Matawan	1945	Cl.	3	1	239	1,612	403	21	74	124	258	64	...	...	566	83	47	56
Union Beach	1946	Cl.	1	1	83	673	191	18	48	4	195	35	...	...	287	41	16	38
Collier Foundation	1945	Cl.	1	1	33	30	78	1	1	14	23	1	1	...	60	32	5	16
Morris	1943	P. O.	18	23	1,293	1,081	827	67	857	430	2,181	542	218	742	4,537	378	397	68
Ocean	1944	P. O.	5	6	191	73	287	86	89	33	374	74	72	...	738	149	43	28
Traller	1944	P. O.	2	3	575	174	1,080	84	351	635	912	183	...	648	2,513	182	113	62
Passaic	1946	Tr.	2	3	575	174	1,080	84	351	635	912	183	...	648	2,513	182	113	62
Bloomington	1944	Cl.	1	1	165	57	348	35	82	14	279	78	...	169	658	60	30	50
Wanaque	1944	Cl.	1	1	93	55	200	23	46	13	137	53	...	100	361	36	18	50
Somerset	1942	Tr.	1	15	772	5,891	1,219	14	167	98	639	427	30	501	1,896	426	310	72
Sussex	1942	P. O.	8	11	530	877	1,970	102	331	269	1,149	338	49	351	2,379	408	340	84
Union	1948	P. O.	1	1	76	457	116	1	14	51	97	18	128	...	313	22	20	90
Kenilworth	1945	Cl.	1	1	171	901	241	40	210	137	23	23	85	...	529	28	23	23
Warren	1947	Mo. Cl.	1	10	791	970	1,094	29	109	617	590	137	303	267	2,052	150	86	57
TOTALS (18 Counties)....			92	177	11,117	28,424	21,256	1,036	4,108	5,357	18,645	5,088	2,480	5,327	42,046	6,179	3,540	62

* Code for Type of Program: P. O.—Private Office; Cl.—Clinic; Mo. Cl.—Truck Mobile with complete dental equipment; Tr.—Trailer with dental equipment.
† Surfaces Filled Which Includes: Vincent's infection, Gutta-percha, Post Operative Root Canal, Anesthesia for extraction or cavity preparation.
‡ Includes Teeth not Surfaces Filled.

Bureau of Maternal and Child Health

STAFF

At the beginning of the fiscal year 1953-54 clerical staff was added to the Bureau of Maternal and Child Health and at present the program staff consists of the program coordinator, one senior clerk-stenographer, one clerk-stenographer, one clerk-typist and one public health nurse consultant who is under the administrative supervision of the Bureau of Public Health Nursing. Addition of two Maternal and Child Health Consultant Nurses in Relation to Hospitals is anticipated for 1954-55.

HOSPITAL ADVISORY ACTIVITY

The licensing of hospitals and maternity homes in New Jersey is the function of a special Licensing Board under the Department of Institutions and Agencies, which Department is also responsible for approval of structural changes and new construction of hospitals and for the administration of funds allocated to the State under the Hill-Burton (Hospital Construction) Act. In the past the Maternal and Child Health Program cooperated by making available to hospitals special advisory and consultation services in regard to maternity and newborn care and by exchanging pertinent information with representatives of the Department of Institutions and Agencies and the New Jersey State Board of Nursing. This activity had to be curtailed severely because of lack of necessary staff. With the appointment of the Maternal and Child Health Consultant Nurses in Relation to Hospitals, however, re-activation of this important function is foreseen.

HOSPITAL REPORTS

Hospitals are required to make an annual statistical report to the Department of Institutions and Agencies which includes statistical information on maternity and newborn services. These reports are made available to the Maternal and Child Health Program. Discrepancies for given items were noted, when the data supplied by the individual hospitals were compared with those obtained from the Division of Vital Statistics and Administration, particularly as related to premature deliveries. To assist hospitals to realize the need for improvement of their records and statistics and to focus their attention on the problem, several tables of selected comparative hospital statistics (1952 data) were prepared with the assistance of the Division of Vital Statistics and Administration, listing individual hospitals by code number only and grouping them according to number of deliveries. These tables were distributed to all hospital administrators together with an explanatory

letter identifying the code number of their respective hospitals and asking the administrators to arrange for staff discussions on the materials. The tables were also made available to the Department of Institutions and Agencies, the New Jersey Hospital Association, the Maternal Welfare Committee and the Child Health Committee of the Medical Society of New Jersey. This activity has been a continuation and expansion of a similar undertaking begun two years ago and carried on during the preceding year. Again, we were encouraged by the response and expect to continue and further expand this service. Tables with 1953 data are already in preparation.

MATERNITY HOMES

All maternity homes are subject to licensing by the Department of Institutions and Agencies. Their number is steadily decreasing, particularly since adoption of minimum standards by the Licensing Board of the Department of Institutions and Agencies. These standards must be met prior to issuance of license. During 1953 six (6) such maternity homes were licensed in the States; five (5) received a full license, one (1) a provisional license. This compares with eight (8) licensed maternity homes in 1952 and eighteen (18) licensed maternity homes in 1951. Seven hundred and eleven (711) infants were delivered in the licensed maternity homes, 43 of which were premature babies.

MATERNAL AND CHILD HEALTH INSTITUTE FOR NURSES

1. Metropolitan State Health District

The institute for public health nurses of official and non-official agencies in East Orange, West Orange, South Orange, Orange, Maplewood, Millburn and Bloomfield, which had begun the preceding year was continued during 1953-54. Again an invitation was extended to hospital nurses. As previously, the institute was sponsored and planned locally by a representative committee, with active assistance in the planning and execution from members of the State Department of Health (Metropolitan State Health District, Bureau of Maternal and Child Health, Bureau of Public Health Nursing).

The main theme of this year's institute was "Child Health", following the preceding year's theme of "Maternal Health". Specific subjects were chosen on the basis of suggestions submitted by the nurses in their final evaluation of the series which ended in May 1953. The institute consisted of eight (8) afternoon sessions in which physical, social and emotional growth and development of children was discussed. Special sessions on accident prevention and one on the child health conference were held. One session was devoted to the showing and discussion of the film "Broken Appointments". These institutes have been highly successful. Requests were made for continuation in 1954-55,

when particular emphasis will be placed on the mental health aspects of maternal and child health.

2. Southern State Health District

A Maternity Institute for Hospital and Public Health Nurses was held during October in the Camden area. This institute was co-sponsored by the Camden City Health Department, the Visiting Nurse Association of Camden, the Obstetrical Department of the Cooper Hospital and the West Jersey Hospital and the State Department of Health. The institute, consisting of seven (7) afternoon sessions dealt with the clinical as well as public health aspects of maternity care. Lectures were followed by discussion from the floor.

An extensive In-Service Training Institute covering the physical, emotional and socio-economic aspects of pregnancy, motherhood, and child growth and development, as well as the public health approach to these problems, was initiated in the Southern State Health District and will continue in 1954-55 under State Health District sponsorship. Primarily designed for public health nurses it dealt with phases of particular interest also for hospital nurses (e. g. the session devoted to prematurity). The institute was attended by public health nurses throughout the Southern State Health District area as well as hospital nurses. In addition to the State supervised nurses the following agencies were represented in attendance: *From Camden County:* Camden Hospital, Our Lady of Lourdes Hospital, West Jersey Hospital; *From Atlantic County:* Atlantic County Public Health Service, Atlantic Visiting Nurse and T. B. Association, Atlantic City Child Welfare Association, Atlantic City Hospital, Florence Crittendon Home; *From Cumberland County:* Bridgeton Community Nursing Service; *From Gloucester County:* Woodbury Visiting Nurse Association.

Seven (7) full day sessions were held during 1953-54, four (4) additional sessions are already planned for 1954-55 to complete the series. Speakers came from New Jersey as well as New York City. Some of these hold teaching positions in University Medical Schools. Each lecture was followed by a discussion period. Mimeographed bibliographies were distributed at each session for further reference.

3. Central State Health District

Three (3) afternoon in-service training sessions were held by the program coordinator for supervisory public health nurses from official and non-official agencies throughout the district. Subjects dealing with various aspects of maternal and child health care were chosen according to requests from those attending. Free discussions following the lecture were part of each session.

Central Office Staff Training

The Program Coordinator and the Maternal and Child Health Public Health Nurse Consultant attended as a Doctor-Nurse team the Institute in Premature Care at the New York Hospital in the fall of 1953. The Maternal and Child Health Nurse Consultant also attended the "Parents Classes" Training Course at the Maternity Center in New York City and the Special Institute for Nurses on "Growth and Development" at the Harvard School of Public Health.

In-service training on all levels is important for maintaining and improving competency of the staff by keeping abreast with new concepts and new technical and administrative developments in maternal and child health.

HEALTH EDUCATION

Printed health education materials on maternal and child health were made available for distribution to and by public health nurses under State supervision. This method of distribution has been in force because, due to financial limitations, materials cannot be purchased in sufficient quantities to allow unrestricted distribution to citizens upon request. Furthermore, health education materials prove much more valuable, if implemented by a visit of the public health nurse.

Carefully selected films dealing mostly with emotional growth and development are made available to the Districts for in-service training and parent education.

MIDWIVES

The number of licensed midwives who registered to practice in the State for the year 1953 was 114 as compared to 148 registered to practice five years previously in 1948.

Of the 114 licensed and registered, 40 were active and delivered 153 babies during 1953 which represented .1% of the births in New Jersey. One person in Atlantic County signed a birth certificate as midwife and was listed as having delivered one baby, but was not licensed to practice midwifery.

In 1948 the 148 active midwives delivered 393 babies in the State, or .4% of the births in New Jersey.

During 1953, two midwives delivered 23 babies, one delivered 11 babies, 18 delivered between two and nine babies, and there were 19 midwives who delivered only one baby each in 1953.

ACTIVE LICENSED MIDWIVES IN 1953 ACCORDING TO COUNTIES

County	Number of Active Midwives
Atlantic	2
Bergen	2
Camden	3
Essex	7
Hudson	6
Middlesex	9
Ocean	1
Passaic	4
Somerset	3
Union	3
	40

MISCELLANEOUS ACTIVITIES OF PROGRAM COORDINATOR

Lectures: The program coordinator conducted the three in-service training sessions for public health nurses in the Central District and lectured at the various other in-service training institutes. She also served as speaker at a Burlington County Home Agents Group Leaders Meeting (accident prevention) and at the Burlington County C.I. O. Counselling Course (Maternal and Child Health Services).

Program writing: A considerable portion of the program coordinator's time was devoted to the revision of the program plan and implementing procedures as part of the Departmental Project for the combined United States Public Health Service and United States Children's Bureau plan for the 1954-56 period. The final draft was accepted and approved by the Commissioner's staff conference.

Maternal and Child Health and Crippled Children Directors Meeting: The program coordinator attended the bi-annual meeting of the State Maternal and Child Health and Crippled Children Directors in Montana. The scientific program dealing with various problems in the field of maternal and child health was excellent and most helpful from the clinical and particularly the administrative viewpoint.

Medical Society Committees: The program coordinator as an active member of the Maternal Welfare Committee and the Child Health Committee of the Medical Society of New Jersey, represented the Department on these committees.

CHILD SAFETY PROJECT

The New Jersey Child Safety Project, whose planning was initiated in the preceding year, went into action during the current fiscal year. This project was initiated by the New Jersey State Department of Health and planned and executed in conjunction with the New Jersey Congress of Parents and Teachers, the New Jersey Safety Council, the Medical Society of New Jersey, the New Jersey Chapter of the Academy of Pediatrics and the National Safety Council. The project consisted of the distribution of a questionnaire to a 10 per cent sample of the Parent-Teacher Association membership. The purpose was twofold: fact-finding and educational. The questionnaire tried to test judgment and attitudes of parents as they relate to situations which occur quite frequently in the home and may contain a safety hazard to a young child. The educational aspects of the project centered around the activity itself which involved approximately 40,000 people. In addition, there was considerable newspaper and radio publicity which not only covered the project but also the problem of child safety in the home. The questionnaires were distributed and collected by specially appointed members in each local parent-teacher unit. Distribution and collection of the questionnaire took place according to extremely detailed and carefully planned directives. The questionnaires were returned to the central Parent-Teacher Association office and from there shipped in bulk to the National Safety Council for statistical processing. It is anticipated that this project presents the initial phase of a more expanded child safety program. Considerable interest in this project was received from other parts of the country.

CODE FOR CHILDREN'S BOARDING HOMES

A committee was appointed by the Commissioner to deliberate and propose a code governing the conduct of boarding homes for children which can be adopted by reference by local communities. The committee worked intensively on this project and at the close of the fiscal year was near conclusion of its task.

FIELD ACTIVITIES ON LOCAL LEVEL

The administration of maternal and child health activities on local level, where State supervised, is the responsibility of the four State Health Districts. It is of interest to consider some of these activities on a Statewide basis.

There were 240 nurses under District supervision, 15 nurses less than in the preceding fiscal year. These nurses made 33,849 visits to 11,942 prospective mothers, averaging about three (3) visits per case. They reported as having attended 22,784 postpartum cases in 45,714 visits, averaging ap-

proximately two visits per case. These figures indicate that the nurses attended about twice as many postpartum as prenatal cases and that comparatively few contacts are made with the prenatals carried on the case load. There were 1,040 fewer prenatal cases and 597 fewer postpartum cases reported on the nurses' case load than in the preceding year.

Again we need to stress that, if we consider public health nursing services as an important factor in good prenatal care and if we further consider that good prenatal care is probably one of the most significant approaches toward the reduction of prematurity, stillbirths and perhaps even neonatal mortality, more emphasis will need to be placed on locating and working with prenatal cases. Since the work load of the individual nurse is great, emphasis on case selection on basis of priorities is essential. An increase of group activity may, to some extent, alleviate the problem.

The nurses reported as having rendered services to 27,515 infants in 156,304 home or conference visits, averaging approximately six (6) visits per infant. They reported 20,548 preschool children under their care, and recorded 145,307 home or conference visits, an average of approximately seven (7) contacts per child. They had 109 less infants and 1,242 less preschool children under their care than in the preceding year.

Altogether they reported 301,611 home or conference infant and preschool children visits as compared to 326,660 visits for 1952, amounting to a decrease of approximately 8%.

The generalization of public health nursing services resulting in increased activities in other program areas combined with a decrease of the State supervised nursing force by approximately 6% is probably the reason for this change. It is particularly important to offer nurses in the field adequate supervision and in-service training so that cases and visits may be carefully selected on basis of priorities and needs.

The State Health District offices reported that 4,857 infants and 4,019 preschool children were in attendance at 99 medical Child Health Conferences; infants averaged three (3) visits, and the preschool children averaged three (3) visits to these Baby Keep-Well Stations.

The nurses who participated in school health services supervised 139,062 school children. They made 35,009 field nursing visits to these children; assisted school physicians at 89,773 examinations, did inspections themselves, and participated in the teaching of 26 Child Hygiene League classes, and assisted at 479 dental clinics.

ANALYSIS OF VITAL STATISTICS

In the following portion of this report all statistical tables and data were assembled and prepared by the Division of Vital Statistics and Administration. For additional statistical information refer to the report of that Division.

Births: The 112,522 resident live births reported in 1953 represented a crude birth rate of 22.5 per 1,000 estimated population (see table 1). Of the total number of births, 11,205 were births to non-white mothers—approximately 9.9% of the total. This is of interest since the 1950 census indicated that the non-white cases represented only 5.7% of the total population. Of the 108,358 births occurring in New Jersey, 98.8% occurred in hospitals, 1% were attended by physicians outside the hospital and 0.1% by licensed midwives.

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TABLE 1
LIVE BIRTHS: INFANT AND MATERNAL DEATHS (NO. AND RATE)
BY COUNTY OF RESIDENCE
NEW JERSEY, 1953

	Live Births	Infant Deaths No.	Infant Deaths Rate ^a	Maternal Deaths No.	Maternal Deaths Rate ^a
New Jersey	112,522	2,654	23.6	55	0.5
Atlantic County	2,641	85	32.2	..	..
Bergen County	13,810	276	20.0	2	0.1
Burlington County	3,209	89	27.7	2	0.6
Camden County	7,418	161	21.7	4	0.5
Cape May County	744	20	26.9	1	1.3
Cumberland County	2,199	77	35.0	4	1.8
Essex County	18,993	487	25.6	8	0.4
Gloucester County	2,413	81	33.6	1	0.4
Hudson County	13,162	283	21.5	4	0.3
Hunterdon County	891	25	28.1	1	1.1
Mercer County	5,153	134	26.0	7	1.4
Middlesex County	7,652	166	21.7	5	0.7
Monmouth County	5,714	140	24.5	1	0.2
Morris County	4,104	82	20.0	2	0.5
Ocean County	1,433	36	25.1	1	0.7
Passaic County	7,463	172	23.0	3	0.4
Salem County	1,191	46	38.6	..	..
Somerset County	2,531	39	15.4	..	..
Sussex County	845	20	23.7	1	1.2
Union County	9,235	204	22.1	8	0.9
Warren County	1,222	24	19.6	..	..
State Institutions	7	1	b	..	..
Military Establishments	492	6	b	..	..
State Health Districts:					
Metropolitan	62,663	1,422	22.7	25	0.4
Northern	9,593	190	19.8	4	0.4
Central	23,161	565	24.4	16	0.7
Southern	16,606	470	28.3	10	0.6

a. Expressed per 1,000 live births. When based upon small numbers, rates are unreliable for comparative purposes unless standard errors of rates are computed and considered.

b. Due to small numbers, rates are not computed.

TABLE 2
BIRTHS IN NEW JERSEY BY WEIGHT GROUPS, BY SPECIAL AGE GROUPS OF MOTHER: 1953

AGE GROUPS	Total	WEIGHT GROUPS					1001- 1500 Grams	1001- 1500 Grams	Less than 2 lbs. 3 ozs. under 1001 Grams	Weight not Stated
		5 lbs. 9 ozs. and over 2500 Grams	4 lbs. 7 ozs. to 5 lbs. 8 ozs. 2001- 2500 Grams	3 lbs. 5 ozs. to 4 lbs. 6 ozs. 1501- 2000 Grams	2 lbs. 3 ozs. to 3 lbs. 4 ozs.	1001- 1500 Grams				
All Ages	108,358	99,677	5,456	1,434	631	482	678			
10-14	63	49	9	1	2	1				
15-19	6,505	5,780	442	126	53	50	54			
20-24	29,946	27,460	1,595	402	196	104	189			
25-29	35,588	33,095	1,563	398	170	166	196			
30-34	23,492	21,716	1,118	300	121	107	130			
35-39	10,493	9,544	586	162	73	42	86			
40-44	2,169	1,939	138	45	14	12	21			
45-49	91	84	5		2					
50-54	.....	.....	.....	.....	.....	.....	.....	.....	.....
55-59	.....	.....	.....	.....	.....	.....	.....	.....	.....
Unknown	2	1	.....	.....	.....	.....	.....	.....	.....
	9	9	.....	.....	.....	.....	.....	.....	.....

RESIDENT INFANT DEATHS BY CAUSE AND AGE GROUPS:
NEW JERSEY, 1953

In 1953, New Jersey acquired 112,522 live-born babies. During the same year, the State lost by death 2,654 infants. This loss occurred at the rate of 24 infants for each 1,000 live births.

In the attached table, the 2,654 infant deaths are considered in terms of causes with public health significance and causes without public health significance. Of these deaths, 96 per cent or 2,556 were charged to causes which should be of concern to public health workers. Of these, 623 (24 per cent) were classified as prematurity unqualified. If clinical and pathological examinations had been emphasized more, perhaps specific causes could have been discovered. An additional 589 deaths, designated with immaturity, had causes assigned.

As a result of congenital malformations, 499 infants died. That represents 20 per cent of all infant deaths of special interest to public health workers. The causes of congenital malformations and the resultant deaths near birth lend themselves to attack in the research field.

Public health workers should also be concerned with the 292 infant deaths classified as diseases of the respiratory system. This figure includes 91 deaths from pneumonia of the newborn.

More than 10 per cent of the deaths assigned to causes which are thought to have public health significance was charged to birth injuries. This is an obstetrical problem which can be reviewed as rigidly by a medical committee as have been the maternal deaths. In 1953, only 55 women died of causes allocated, according to the rules of the International List, to pregnancy, delivery and the puerperium. This is a rate of 5 maternal deaths for each 10,000 live births.

In 1953, New Jersey lost 32 infants by accidental mechanical suffocation in bed or cradle and an additional 36 from causes classified as diseases of other endocrine glands. Studies have shown that diagnoses in these categories are subject to great error unless substantiated by careful autopsy. A medical committee could consider such deaths from the autopsy records in the hospitals.

If New Jersey's live-born babies die, they experience death early in their brief existence.

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TABLE 3
RESIDENT INFANT DEATHS BY CAUSE AND AGE GROUPS
(Separated Into Those With and Those Without Public Health Significance)
NEW JERSEY, 1953

Showing International List (6th Revision) Numbers	Total Infant Deaths	Less Than 1 Day	1 Day But <1 Week	1 Week But <28 Days	28 Days and Over
ALL CAUSES (001-637, 690-999)	2,654	1,003	805	235	611
Total causes with public health significance	2,556	991	801	228	536
Prematurity unqualified (774-776)	623	383	197	38	5
Postnatal asphyxia and atelectasis (762)	490†	236†	227	18	9
Without immaturity	158	73	73	6	6
With immaturity	330	161	154	12	3
Congenital malformations and congenital diseases of the nervous system (325, 750-759)	409	129	131	94	145
Diseases of the respiratory system (470-527, 763)	292	16	51	26	199
Pneumonia of the newborn (763)	91	14	50	24	3
Without immaturity	55	9	29	14	3
With immaturity	36	5	21	10	3
Other diseases of the respiratory system (470-527)	201	145	111	7	196
Birth injuries (760-761)	267	131	111	7	4
Without immaturity	131	59	64	4	4
With immaturity	136	86	47	3	4
Diseases of the digestive system (530-587, 764)	91	6	10	17	58
Diarrhea of the newborn (764)	14	1	2	9	2
Without immaturity	8	1	2	9	2
With immaturity	6	1	1	6	1
Other diseases of the digestive system (530-587)	77	5	2	3	1
Hemolytic disease of the newborn (770)	53‡	24	8	8	56
Without immaturity	49	22	19	6	2
With immaturity	3	2	1	6	2

ALL CAUSES

Total causes with public health significance
Prematurity unqualified (774-776)
Postnatal asphyxia and atelectasis (762)
Without immaturity
With immaturity
Congenital malformations and congenital diseases of the nervous system (325, 750-759)
Diseases of the respiratory system (470-527, 763)
Pneumonia of the newborn (763)
Without immaturity
With immaturity
Other diseases of the respiratory system (470-527)
Birth injuries (760-761)
Without immaturity
With immaturity
Diseases of the digestive system (530-587, 764)
Diarrhea of the newborn (764)
Without immaturity
With immaturity
Other diseases of the digestive system (530-587)
Hemolytic disease of the newborn (770)
Without immaturity
With immaturity

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External causes other than mechanical suffocation (800-923, 925-999)	46	2	1	6	37
Infective and parasitic diseases (001-138)	37	2	13	2	33
Hemorrhagic disease of the newborn (771)	24	5	6	4	2
Without immaturity	14	3	7	3	2
With immaturity	10	2	1	1	7
Other causes with public health significance	134	43	39	10	42
Accidental mechanical suffocation in bed or cradle (924)*	32	1	1	4	28
Avitaminoses and other metabolic diseases (280-289)	1	1	1	1	1
Ill-defined diseases of early infancy (772-773)	85	36	33	5	11
Without immaturity	26	7	10	1	8
With immaturity	59	29	23	4	3
Other diseases of early infancy (765-769)	16	7	6	1	2
Without immaturity	7	2	3	1	2
With immaturity	9	5	3	1	1
Total causes without public health significance	98	12	4	7	75
Diseases of other endocrine glands (270-277)*	36	2	1	4	29
Diseases of the nervous system and sense organs (330-398)	26	2	2	3	21
Neoplasms (140-239)	10	2	1	1	7
Diseases of the blood and blood-forming organs (290-299)	5	1	1	1	4
Diseases of the circulatory system (400-468)	4	1	1	1	3
Other diseases of the genito-urinary system (590-637)	4	1	1	1	3
Diseases of the musculoskeletal system (740-749)	4	1	1	1	4
Diseases of the skin and cellular tissue (690-716)	2	1	1	1	4
Diseases of the thyroid gland (250-254)	1	1	1	1	2
Symptoms and ill-defined conditions (780-789, 795)	6	5	1	1	1

† Includes two infant deaths not classified for maturity.

‡ Includes one infant death not classified for maturity.

* On the basis of studies made, it has been found that diagnoses in this category are subject to error unless substantiated by careful autopsy.

Note: Diseases in which prematurity was either the only cause or a contributory cause represented a grand total of 1,212 infant deaths. The age distribution was as follows: under 1 day, 673; 1 day but under 1 week, 455; 1 week but under 28 days, 71; 28 days and over, 13.

TABLE 4
INFANT DEATHS BY AGE AND IMMATUREITY
NEW JERSEY, 1953

Age	Total		Immature on Death Certificate		Not Designated as Immature	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
< 1 day	1,003*	37.8	673	55.5	328	22.8
< 1 week	1,808†	68.1	1,128	93.1	677	47.0
< 28 days	2,043†	77.0	1,199	98.9	841	58.4
< 1 year	2,654†	100.0	1,212	100.0	1,439	100.0

* Includes two infant deaths not classified for maturity.

† Includes three infant deaths not classified for maturity.

Of the babies who died in 1953, 38 per cent failed to live beyond the first day of life. Before one week elapsed, 68 per cent of the 2,654 babies had died. Before the end of the neonatal period (28 days), 77 per cent of the 2,654 babies had completed their short lives.

The immature babies so designated on their death certificates contributed 1,212 or 46 per cent of the total infant deaths in 1953. Of these 1,212 babies, 55 per cent died within the first day of life. The immature babies dying within their first day of life accounted for 67 per cent of all infant deaths occurring within the first day of life. Before attaining one week of age, 93 per cent of these 1,212 immature babies had failed to survive. Nearly 99 per cent of the immature babies who died did so before attaining 28 days of age. This contrasts sharply with the 58 per cent of the mature babies who died during their neonatal period.

Stillbirths: 2,046 resident stillbirths were reported for New Jersey (see tables 5, 5a, 5b). These included 1,698 white stillbirths and 336 non-white stillbirths and 12 stillbirths of unknown color. Of these 30% were mature babies, 46% were premature babies (2,500 grams or less). On 24% or the stillbirth certificates no weight was stated, which indicates that we need better completion of stillbirth certificates. As anticipated, the higher incidence of stillbirths in all weight categories occurred in the mothers of the 25-29 years age group, which is the peak of the child bearing period.

TABLE 5
TOTAL STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1953
NEW JERSEY

Weight	AGE GROUP									
	Total	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown
5 lbs. 9 ozs. and over	605	...	22	128	171	138	109	30	5	2
2500 grams										
4 lbs. 7 ozs. to										
5 lbs. 8 ozs.	189	1	15	35	43	50	28	15	2	...
2001-2500										
grams										
3 lbs. 5 ozs. to	201*	...	7	43	41	56	33	17	2	2*
4 lbs. 6 ozs.										
1501-2000										
grams										
2 lbs. 3 ozs. to	213	...	16	57	51	37	35	16	...	1
3 lbs. 4 ozs.										
1001-1500										
grams										
less than										
2 lbs. 3 ozs.	348†	...	25	68	104	89	48	9	1	4†
less than										
1000 grams										
Unknown	490‡	...	20	117	137	105	76	22	...	13‡
Total	2,046§	1	105	448	547	475	329	109	10	22§

* Includes 2 stillbirths of unknown color.

† Includes 4 stillbirths of unknown color.

‡ Includes 6 stillbirths of unknown color.

§ Includes 12 stillbirths of unknown color.

TABLE 5a.
WHITE STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1953
NEW JERSEY

Weight	AGE GROUP									
	Total	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown
5 lbs. 9 ozs. and over	501	...	14	106	131	122	95	26	5	2
2500 grams										
4 lbs. 7 ozs. to	156	...	9	28	37	44	23	13	2	...
5 lbs. 8 ozs.										
2001-2500 grams										
3 lbs. 5 ozs. to	167	...	4	32	36	53	25	15	2	...
4 lbs. 6 ozs.										
1501-2000 grams										
2 lbs. 3 ozs. to	167	...	5	44	43	32	29	13	...	1
3 lbs. 4 ozs.										
1001-1500 grams										
less than	295	...	18	53	96	75	43	9	1	...
2 lbs. 3 ozs.										
less than										
1000 grams										
Unknown	412	...	14	88	121	91	70	22	...	6
Total	1,698	...	64	351	464	417	285	98	10	9

TABLE 5b.
NON-WHITE STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1953
NEW JERSEY

Weight	AGE GROUPS									
	Total	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown
5 lbs. 9 ozs. and over	104	...	8	22	40	16	14	4	...	...
2500 grams										
4 lbs. 7 ozs. to	33	1	6	7	6	6	5	2	...	...
5 lbs. 8 ozs.										
2001-2500 grams										
3 lbs. 5 ozs. to	32	...	3	11	5	3	8	2	...	...
4 lbs. 6 ozs.										
1501-2000 grams										
2 lbs. 3 ozs. to	46	...	11	13	8	5	6	3	...	...
3 lbs. 4 ozs.										
1001-1500 grams										
less than	49	...	7	15	8	14	5	...	...	...
2 lbs. 3 ozs.										
less than										
1000 grams										
Unknown	72	...	6	29	16	14	6	...	...	1
Total	336	1	41	97	83	58	44	11	...	1

Illegitimate Births: There were 2,705 illegitimate births reported among New Jersey residents. This represents 2.4 per cent of the total number of resident births for the State, 0.1% more than in the preceding year.

TABLE 6.
ILLEGITIMATE BIRTHS BY AGE OF MOTHER

	All						
	Ages	10-14	15-19	20-24	25-29	30-34	35 & Over
Number of Illegitimate Births	2,705	53	1,005	948	383	195	121
Per Cent of Illegitimate Births	100	2.0	37.2	35.0	14.2	7.2	4.5

The percentage figure for total illegitimate births has not changed appreciably over the past decade, but the actual number for such births was 1,073 or almost 66% higher than the 1942 figure.

Efforts to help these mothers must accordingly receive greater consideration. Yet, there is still much to be done to provide adequate social service and medical care for unmarried mothers. Coordinated planning of medical, public health and social service groups on State and local level is essential for developing the needed facilities and services for the necessary prenatal care and postpartum follow-up of these mothers and their babies.

Of the 101,317 births in 1953 to white mothers, 1,141 or 1.1% were reported as illegitimate. Of the 11,205 births to non-white mothers 1,564 or 13.0% were listed as illegitimate.

Maternal Mortality: During 1953 there were 55 deaths allocated to pregnancy, delivery and the puerperium according to the rules of the International List (see tables 7 and 8). This is a rate of 5 maternal deaths for each 10,000 live births, the lowest rate yet attained by the State. It must be stressed, however, that the maternal death rate has as yet not reached the irreducible minimum as can be seen from field physicians' reports. Continued efforts towards solving the problem must be made in the following areas:

1. Educate our women to realize the importance of seeking early and adequate prenatal care.
2. Provide the best possible maternal care.
3. Have necessary facilities, equipment, supplies and blood available for any emergency.

TABLE 7.
MATERNAL DEATHS BY SPECIFIC CAUSE
NEW JERSEY, 1953

Toxemias of Pregnancy (642)	14
Ectopic pregnancy (645)	7
Other complications arising from pregnancy (648)	2
Total complications of pregnancy (640-649)	—
Abortion without mention of sepsis or toxemia (650)	23
Abortion with sepsis (651)	3
Abortion with toxemia without mention of sepsis (652)	2
Abortion with toxemia without mention of sepsis (652)	1
Total abortions (650-652)	—
	6
Delivery complicated by placenta praevia or antepartum hemorrhage (670)....	2
Delivery complicated by retained placenta (671)	1
Delivery complicated by other postpartum hemorrhage (672)	5
Delivery complicated by disproportion or malposition of fetus (674)	2
Delivery complicated by prolonged labor of other origin (675)	1
Delivery with other trauma (677)	2
Delivery with other complications of childbirth (678)	4
Total delivery with specified complications (670-678)	—
	17
Sepsis of childbirth and the puerperium (681)	1
Puerperal pulmonary embolism (684)	5
Puerperal eclampsia (685)	3
Total complications of the puerperium (680-689)	—
	9
Total Maternal Deaths	—
	55

TABLE 8.
MATERNAL DEATHS BY CAUSE, COLOR, AND AGE GROUPS
NEW JERSEY, 1953

Cause (a) and Color	Age Groups			
	All Ages	15-24	25-44	45-64
Complications of Pregnancy (640-649)	23	5	17	1
White	16	1	14	1
Non-white	7	4	3	
Abortion (650-652)	6	3	3	
White	2	1	1	
Non-white	4	2	2	
Delivery with Specified Complications (670-678)	17	5	12	
White	13	1	12	
None-white	4	4		
Complications of the Puerperium (680-689)	9	6	3	
White	7	5	2	
Non-white	2	1	1	
All Causes (640-689)	55	19	35	1
White	38	8	29	1
Non-white	17	11	6	

(a) Cause numbers are those of International List, 6th revision.

Nutrition Program

The Nutrition Program has continued to be an integral part of many of the programs of the Health Department. The Program Coordinator prepared the official State Nutrition Program in accordance with recommended procedures. This program was subsequently reviewed and approved by the Department and is now in operation.

The P.C. has kept in touch with national and other state program activities and has continued to cooperate with all other state agencies, both official and voluntary. She has served on the Executive Committee of the State Nutrition Council and has acted as chairman of the Public Health and Welfare Committee of the New Jersey Home Economics Association.

Through the recently organized Association of State and Territorial Public Health Nutrition Directors, the P.C. has had an opportunity to become familiar with the nutrition programs of other states. This Association was formed to study ways and means of developing and strengthening the nutritional aspects of health department programs.

In-Service Training Activities have included the following:

(1) The attendance of the Southern State Health District Consultant Nutritionist at the two weeks Nutrition Institute at Syracuse University. The Institute served not only as a refresher course, but also as a source of up-to-date research information.

(2) Contribution by the P.C. to in-service training in the Central, Northern, and Metropolitan State Health Districts by personal contacts, written material, staff conferences and meetings. The Southern State Health District Consultant Nutritionist has continued her program of in-service training with the nursing personnel of the five supervised areas in the Southern District.

(3) Participation by the P.C. and the Southern State Health District Consultant Nutritionist in the Maternal and Child Health Institute for the Southern State Health District Nurses.

(4) Participation by the P.C. in the In-Service Training Program in Chronic Disease held for the Hunterdon County Public Health Nurses at the Hunterdon County Medical Center.

(5) Discussion of diet planning by the Southern State Health District Consultant Nutritionist at the Cardiac Institute sponsored by the Atlantic County Heart Association, New Jersey Heart Association, and the Atlantic City Hospital.

(6) A speaking engagement by the P.C. at the "Cook's School" held at the New Jersey College for Women, New Brunswick, sponsored by the State Department of Education.

(7) Service on the planning committee for the state-wide annual school Lunch Conference held in September at Rutgers University.

(8) An institute jointly sponsored by the Nutrition Program of the Department of Health and the New Jersey State Nutrition Council was held for teachers, nurses and other professional personnel at the Glassboro State Teachers College in May. The Southern State Health District Consultant Nutritionist acted as general chairman of this institute which was attended by representatives of twenty-seven agencies.

(9) Under the sponsorship of the Health and Medical Services of the New Jersey State Division of Civil Defense, a Basic Training Course in Civil Defense for Registered Professional Nurses was held by the New Jersey State Nurses Association in each of the State Nursing Districts. The P.C. lectured at each of these courses on "Applied Nutrition for Disaster Nursing."

(10) An institute was also held for members of the New Jersey Dietetic Association and the New Jersey Home Economics Association in Newark. The P.C. spoke on "The Nutritional Aspects of Disaster Feeding" at this institute.

Projects

(1) During the past six months, the Southern State Health District Consultant Nutritionist has been offering a nutrition consultation service to parents attending the bi-monthly Cerebral Palsy Clinics. A twenty-four hour diet history is taken, and where necessary, recommendations are made at the clinic or the case is referred to the case worker for further follow-up. Several cases have shown decided improvement. Round table discussions of diet problems of C.P. children have been held with the nursing agency responsible for their supervision.

(2) An overweight project was planned by the P.C. for Hunterdon County as a follow-up on overweight patients in conjunction with the Hunterdon County Chronic Disease Survey now in progress. The Medical Director of Hunterdon Medical Center presented the proposed project to the Medical Board of the Center, and a Medical Advisory Committee was appointed. This committee consisted of two general practitioners from the county and two specialists of the Medical Center staff. All material prepared for the project was cleared through this committee. A Pilot Weight Control Group was conducted for ten weeks at the Medical Center with the P.C. acting as Group Leader. Plans are now underway for the training of additional Group Leaders so that groups can be held throughout the county. Several other agencies have shown interest in this project and have asked for assistance in planning similar projects in other counties.

Nutrition Health Education

Information on nutrition facts and visual aids has been made available by the Nutrition Program in cooperation with Administrative Services to all parts of the state. The P.C. and the District Consultant Nutritionist of the Southern State Health District have reviewed and helped plan and prepare materials such as leaflets and exhibits to be used for public education. This is one constructive way of reaching the public who are exposed to diet fads and other misinformation through the public press, radio and television.

Camp Inspections

In the Southern District, camp inspections conducted by a Sanitarian and the District Consultant Nutritionist were continued this year. Many camps were satisfactory, but others showed a need for improvement.

Report of the Division of Environmental Sanitation

July 1, 1953—June 30, 1954

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

Bureau of Food and Drugs.....MILTON RUTH
Chief

Bureau of Public Health EngineeringROBERT S. SHAW, B. S. E., M. P. H.
Chief

Bureau of Veterinary Public HealthOSCAR SUSSMAN, D. V. M., M. P. H.
Chief

Division of Environmental Sanitation

During the past year three advisory committees have completed codes which have been accepted by this Department and are now recommended for adoption by local communities. This brings the number of recommended codes to seven. Several of these codes are quite extensive in coverage and required many meetings and long hours of work to reach agreement. The codes which were completed and approved this past year are Plumbing, Nuisances, and Realty Subdivision Sewage Disposal Systems. It is anticipated that the three existing advisory committees will complete their reports and make their recommendations during the coming year.

In the field of engineering approximately 63% of the time was devoted to stream pollution problems.

STREAM POLLUTION CONTROL

Pollution control projects approved for construction were estimated to cost \$10,400,000. This included \$3,600,000 for additions and alterations to twenty-two (22) existing wastes treatment plants and \$6,800,000 for twenty-two (22) new sewage treatment plants and ten (10) new industrial wastes treatment plants. The estimated cost of new sewer lines approved for construction is \$1,500,000. The division of the projects among our State Health districts is shown on an attached tabulation.

Although all preliminary work has been completed in the establishment of stream and effluent standards the final steps have not yet been taken to develop them into approved Department standards. It is hoped that this will be accomplished during this coming year.

Forty (40) permits to establish factories or workshops on potable watersheds were issued. They were divided among potable watersheds as follows:

Rahway Watershed	14
Passaic Watershed	9
Hackensack Watershed	5
Delaware Watershed	4
Rockaway Watershed	4
Raritan Watershed	3
Robinson Branch of Rahway	1

Orders to cease pollution of streams were issued against fourteen (14) municipalities and six (6) industries. Most of these orders were issued against municipalities in the Hackensack Valley. These orders were followed by many conferences between municipal and State officials in an effort to establish a thorough understanding of the total program for stream pollution control in the Hackensack Valley. It was made clear through these conferences and through correspondence that the municipalities involved were obliged to choose between solutions of their respective problems individually or through joint action such as that offered by participation in the Bergen County Sewer Authority project. At the close of the fiscal year no decisions have been made.

So-called orders of necessity to permit bonded indebtedness beyond statutory limitations were issued to twelve (12) municipalities.

The Boroughs of Somerville and Raritan and the Township of Bridgewater formed the Somerset Raritan Valley Sewerage Authority. This step followed orders issued by this Department. The objective of this sewerage authority is to solve stream pollution control problems of the municipalities involved. Participation by some industries was a probability. At the close of the fiscal year the Authority was negotiating for consulting engineering services. The Authority had established a timetable designed to effect a solution to its problems in line with the schedule of the Middlesex County Sewerage Authority.

The first preliminary basic data on the design of the proposed Middlesex County Sewerage Authority trunk sewer project were received for engineering review just prior to the close of the fiscal year.

STREAM POLLUTION CONTROL PROGRAM

Examination of Engineering Design Data by Division of Environmental Sanitation,
JULY 1, 1953 to JULY 1, 1954

	Central District	Metropolitan District	Northern District	Southern District
Total Projects In	61	50	21	33
Sewer Extensions	29	33	10	13
Sewer Systems and Partial Systems	14	4	2	6
Additions and Alterations	11	5	3	3
New Sewage Treatment Plants	7	4	2	9
New Industrial Waste Treatment Plants ..	0	4	4	2

A stipulation was agreed upon by this Department, the local board of health of the Town of Secaucus and the Secaucus Stock Farmers Association in relation to stream pollution, plant sanitation, garbage cooking and feeding, and the control of other nuisances produced by the maintenance of insanitary piggeries in Secaucus.

An advisory committee, comprised of engineers with broad experience in the design, maintenance and operation of sewerage facilities, was appointed by the Bureau of Public Health Engineering to review their present rules and regulations on the design of sanitary sewer systems and sewage and industrial wastes treatment plants, and to make recommendations for revision of those rules and regulations. At the close of the fiscal year most of the work of that committee had been completed.

POTABLE WATER

Of importance was the adoption of potable water standards to aid the department in the administration of public health laws relating to water used for drinking or culinary purposes.

Taking cognizance of advances in waterworks design taking place during the past five years, a committee comprised of Division engineers, consulting engineers and licensed operators was formed to review and revise the Department's present rules and regulations for the preparation and submission of design for water supplies and water treatment works.

Close contact was maintained with those in the waterworks field by means of office and field conferences, attendance at technical meetings and appearances before municipal officials and professional groups.

Plans were approved for twenty-nine (29) new systems and supplies and thirteen (13) other projects involving additions, alterations or improvements. Included among the latter classifications were two (2) fluoridation installations. The estimated cost of all projects approved was \$1,625,175.00.

Original cross-connection permits issued pursuant to Chapter 308, P. L. 1942 totaled nine (9).

There was one (1) Order issued pursuant to R. S. 58:11-1 to adopt means of assuring delivery of sufficient quantity of water at all times. Action taken in this instance was an indication of the Department's awareness of the problem of ever-increasing water shortages occurring during hot weather months and its effect upon the health and well-being of residents of this State.

Housing

Activities under the Housing Program continue in our cooperative realty subdivision activity with the FHA, VA and other allied agencies. The State Health Districts, with few exceptions, are now handling all of this activity.

During the fiscal year our records indicate that a total of 56 realty subdivisions were inspected and acted upon. In line with this activity Assembly Bill 100, known as the Realty Improvement Sewerage and Facilities Act of 1954, was introduced at this session of the Legislature and it now appears that the bill will become law. The Individual Sewage Disposal System Code was completed by the Advisory Committee and was approved by the Department on December 14, 1953. The Plumbing Code of New Jersey was approved by the Department on December 29, 1953 and was accepted as Part E of the Standard Building Code of New Jersey. Contracts have been let for the printing of these codes and the Department has received the first proofs. It is anticipated that these codes will be available for distribution during the early part of the next fiscal year.

The Trailer Court Code Advisory Committee was reactivated. It appears that the work of this Committee will be completed during the next fiscal year.

On May 18 and 19, 1954 the Department, in cooperation with the New Jersey Health Officers Association and the U. S. Public Health Service, conducted an Institute in Plainfield, New Jersey, on the Administration of a Housing Program for Health Departments. Several of our municipalities are now actively engaged in such housing programs of rehabilitation and slum clearance. What may be the greatest force for good in this activity in this State was undertaken in June of this year when, with the sanction of Governor Meyner, the Interdepartmental Committee on Housing was organized by the State Commissioner of Health to promote the cooperation and integration of the programs of six (6) departments of the State concerned with the problem of housing so as to more effectively influence the improvement of housing conditions throughout New Jersey. The first meeting of the committee is to be held on September 29, 1954.

The Bureau and State Health District offices continue to provide consultation services and information to interested persons and associations engaged in the activities covered by the Department's Housing Program. This service alone has done much to improve environmental sanitation and promote the Department's working relations with others engaged in the various housing activities in this State.

SOLID WASTE DISPOSAL

The report of the Advisory Committee on the Preparation, Storage, Collection and Disposal of Garbage and Refuse was submitted to the committee for final review and comment. As soon as the report is corrected in accordance with the criticisms, the report will be submitted to the Department for consideration and adoption of the recommendations of the committee.

Ten sanitary landfill operations serving a total of nineteen municipalities are being conducted in this State. Fifteen additional municipalities had sites approved or tentatively approved for the operation of sanitary landfills. These will begin their operations as soon as budgets are approved for the purchase of the necessary equipment and for the operation.

Eleven meetings at ten additional municipalities have been held during the past year at which motion pictures were shown illustrating the preparation, storage and collection of refuse and the sanitary landfill operation. A discussion and a question and answer period follows the presentation of the films. The operations are explained in greater detail and fitted to the needs of the individual municipality concerned.

Up to the end of this fiscal year a total of 44 municipalities in this State have done something about the proper disposal of garbage and refuse or are considering the adoption of this method in the interest of better sanitation to eliminate nuisances and public health hazards in order to protect the health, comfort and welfare of their residents and neighbors.

BATHING

During this fiscal year most of the activities necessary for the promotion of sanitation and safety at bathing places became the responsibility of the District offices. The Division continued to be responsible for coordination and consultation.

A committee appointed a number of years ago to prepare a swimming pool code was re-activated. As a result, a preliminary draft has been prepared. It is anticipated that the committee will complete its task by the end of the calendar year. This code will provide local health authorities with the means of controlling swimming pool design and operation. Consultations were held with manufacturer's representatives, engineers, pool owners and local health authorities to aid these groups in pool design and other problems relating to the proper planning of swimming pools.

Although the District offices became responsible for the activities connected with bathing lake certification, the Division continued in its interest by attendance at meetings of lake owners and operators located in the northern part of the State.

In general the activities relating to the determination of the suitability of surf bathing places were the responsibility of the Central and Southern District offices. The cooperation of local health authorities and sewage treatment plant operators were obtained in order that the general public could be advised of the conclusions reached by sampling and sanitary surveys made along the coastal beaches.

INSECT AND RODENT CONTROL

A program of insect and rodent control is now being prepared and should be completed in the near future.

Seventy-nine rats were collected in connection with the joint rodent survey initiated during 1952 and conducted in New Jersey with the First Army Area Medical Laboratory, the New Jersey Department of Agriculture and the New Jersey Agricultural Experiment Station. Upon examination of specimens of rat feces from these rats five per cent showed the presence of *Hymenolepis* ova. This dwarf tapeworm, a common parasite of man in the warm southern states, especially Georgia, Tennessee and Texas was isolated from rats caught on dumps located at High Bridge, Bloomingdale, Newark and Kearny.

Further cooperation with First Army Area Medical Laboratory included instruction of military and civilian personnel of the First Army Area in rodent control at a six-day insect and rodent control training program at Fort Monmouth, New Jersey.

RAGWEED AND POISON IVY CONTROL

Twenty-two widely distributed pollen collecting stations were established this past year on a cooperative basis to obtain some data concerning air pollution by ragweed pollens in the State. The highest ragweed pollen count occurred in Hightstown on August 31, 1953 with a total of 396 pollen grains per square centimeter. The highest average ragweed pollen count for the 1953 ragweed pollinating season was recorded in Hightstown with 111.4 pollen grains per square centimeter. The lowest average pollen count for the season occurred in Jersey City and Summit. Jersey City recorded 2.6 pollen grains per square centimeter and Summit recorded 2.9 pollen grains per square centimeter. Both of these municipalities conduct a city-wide weed control program.

Conferences were held with municipal officials of Trenton and various State agencies located in the City in a cooperative program for the control of ragweed and poison ivy throughout Trenton by spraying with herbicides and the use of other control measures. Excellent work was carried on by all of the State agencies including the Department of Institutions and Agencies, the State Highway Department and the Division of Water Policy and Supply.

A number of municipalities have adopted the recommended Weed Control Code of New Jersey (1953) by reference.

Although no survey of municipalities was made to determine the number that have initiated control programs it is known that there has been an increase over the number conducting such programs last year.

July was designated as Weed Control Month in a statement signed by the Governor.

The portable ragweed control exhibit was used at various meetings for educational purposes as well as placed on exhibition in a number of municipalities in this State during this past year.

Two publications which are directly related to the Interdepartmental Weed Control Committee program were published during the year. Each of these efforts have made a contribution to the over-all effort to reduce ragweed growth in New Jersey. One was a report of a survey of the extent of growth of certain selected weeds, including ragweed throughout New Jersey and the other a report of research studies indicating that it is now possible to raise better potatoes without the growth of ragweed by using a new chemical herbicide.

A representative of this Department was responsible for the development of the Coordinating Committee Report of the Northeastern Weed Control Conference for the Control of Weeds of Importance to Public Health. The Department also cooperated in setting up the program for the Public Health Section of the Northeastern Weed Control Conference.

GENERAL FOOD AND DRUG

Administration of the programs of food, drugs, milk and shellfish involves the issuance of licenses, permits and certificates required by law or regulation for the operation of these specific establishments. Laws administered by the programs involve the adulteration and misbranding of foods, drugs, cosmetics and devices, regulating the sale and labeling of caustic acids and alkalies and regulating sanitation in food establishments. In addition the programs enforce laws and regulations governing the production, handling and distribution of milk, cream, milk products and goat milk, the operation of refrigerated warehouses, egg-breaking establishments, slaughterhouses, nonalcoholic beverage bottling plants, narcotic drug manufacturers and wholesalers and the harvesting and sale of shellfish.

The tabulation below illustrates the licenses, permits and certificates issued and revenue derived under the above laws and regulations.

<i>Establishment</i>	<i>Licenses</i>	<i>Permits</i>	<i>Certificates</i>	<i>Revenue</i>
Milk Plant		606		\$15,150.00
Goat Milk Plant		24		223.55
Refrigerated Warehouse and/or Locker Plant	101			4,725.00
Ice Cream Factory	1,065			9,920.00
Narcotic Drug Plant	58			425.00
Creamery and/or Cheese Factory ...	56			No fee
Egg-Breaking Plant	13			No fee
Nonalcoholic Beverage Bottling Plant	195			No fee
Slaughterhouse	138			No fee
Shellfish Interstate Shipping Plant ..			267	No fee
Shellfish Intrastate Shipping Plant ..			73	No fee
	<u>1,626</u>	<u>630</u>	<u>340</u>	<u>\$30,443.55</u>

The statutes administered by the programs also contain penalty provisions for certain violations. It is the function of each program coordinator to evaluate information regarding infractions of rules, regulations and laws to determine what corrective steps are needed. During the year \$850.00 in penalties was collected by the Attorney General for violations of Food and Drug Laws.

During the year one shellfish sanitarian completed the course in Basic Public Health Administration at Rutgers University. Personnel of the Food and Milk Programs served as lecturers at the Basic Public Health Administration Course and Introductory Milk Sanitation Course sponsored by this Department in cooperation with Rutgers University Extension Division.

No major changes were made in the Food, Drug and Cosmetic Laws by the Legislature during the year. One section of the Uniform Narcotic Act, 24:18-7, was amended to exempt certain narcotic preparations from the provisions of the Act. R. S. 24:18-24.1 was added to Chapter 18 and requires physicians to report within 24 hours cases of sickness or injury caused by narcotic drugs taken for purposes other than treatment of sickness or injury.

In addition, Chapter 422 of Public Laws of 1953 was approved and became effective September 18, 1953. This legislation established definitions and standards for nonfat milk and nonfat fortified milk to supplement the existing definition for skimmed milk.

PROPOSED REVISION OF TITLE 24

During the previous year committees were appointed by the Commissioner to review the provisions of Title 24 with a view to modernizing and improving sections in need of revision. Four subcommittees were established to deal with various chapters of Title 24.

Each committee has submitted recommendations regarding necessary changes in existing laws. These recommendations are being used as a guide in drafting legislation to modernize and improve our existing law.

FOOD (OTHER THAN MILK AND SHELLFISH)

During the year the Food Program was completed, adopted and activated during the current year.

Administration of the Food Program involves licensing of nonalcoholic beverage bottling, egg-breaking, slaughterhouses and refrigerated warehouses and locker plants, enforcement of sanitary requirements in such establishments and other unlicensed food industries and collection of samples of food for analysis for chemical and bacteriological contamination and compliance with established standards of identity and quality. The program also provides for review of food labels to determine compliance with statutory requirements to prevent misrepresentation to the consumer.

During the past year a great deal of effort was expended on halting the practice of adulterating ground meats and sausage by the addition of sodium sulphites or sodium bisulphites. These chemicals are used to preserve the meats for longer periods of time, impart a bright red color and may be used to conceal inferiority. Recent sampling indicates that this practice has been discontinued due primarily to the vigorous campaign put on by the Department and the resultant publicity given meat processors penalized for such violations. A total of 370 samples of meats were collected for chemical analyses of which exactly 10% (thirty-seven) were found to be adulterated. Based on the above results of analyses, 15 cases were referred to the Attorney General for prosecution for violation of R. S. 24:5-14. Eight hundred dollars were paid to the Attorney General by persons or firms violating the above statute during the past fiscal year.

Samples of beef to detect substitution of horseflesh were also collected routinely throughout the year. One sample collected in conjunction with representatives of a local department of health from a caterer was found to consist of horseflesh. Further investigation by the local board of health resulted in collection of a penalty of \$500 which was paid by the wholesale distributor of the meat to the local board of health. One case involving a wholesaler which developed near the end of the previous fiscal year was referred to the Attorney General during the current year for prosecution.

During the early part of 1954, a short crop of coffee in producing countries resulted in unusual increases in retail prices. In an effort to forestall frauds on the public, agents of the Department made spot surveys of shipments of coffee to restaurants, coffee roasting plants, stores and similar establishments to check on the possibility of the use of cereal-coffee blends as an economy measure. Forty-seven samples of coffee labeled as such were collected for analysis and all were found to be free of adulterating substances.

At the request of a local board of health an investigation was conducted by representatives of this Department, the United States Food and Drug Administration, the local board of health and police department representatives regarding the breaking of eggs. The representatives discovered an unlicensed egg-breaking establishment, 2,460 dozen incubator reject shell eggs and 5,790 pounds of frozen eggs broken out from incubator reject shell eggs which were seized and subsequently destroyed. An additional 4,300 pounds of frozen eggs were also seized and are still under embargo pending destruction. The illegal operation covered a number of municipalities in the Metropolitan State Health District and was apparently expanding its operations until halted by the joint efforts of the cooperating agencies. The Department has recommended to the Attorney General that penalty proceedings be instituted against the operator for violation of the egg-breaking law, R. S. 24:11-1, et seq.

Agents of the Department continued to cooperate with Federal, State and local agencies by making special investigations and placing embargoes on adulterated or misbranded foods. In cases where embargoes were placed at the request of Federal agencies, the embargoes were continued until seizure was made by the United States Marshal.

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

Type of Establishment	Total
Bakeries	21
Candy Factories	19
Canneries	7
Eating Establishments	65
Egg-Breaking Plants	28
Food Warehouses	6
Frozen Food Processing Plants	20
Meat Processing Plants	48
Nonalcoholic Beverage Plants	218
Pickling Plants	2
Poultry Slaughtering Plants	9
Slaughterhouses	134*
Refrigerated Warehouses and Locker Plants	128
Miscellaneous Food Establishments	100
	<hr/> 805

Note: *Inspections of slaughterhouses made by Southern State Health District are not available and not included in the above tabulation.

DRUG, DEVICE AND COSMETIC PROGRAM

The Drug, Device and Cosmetic Program was completed, adopted and activated during the current year.

Three new licenses were issued and 55 licenses were renewed for narcotic drug manufacturers, wholesalers and firms engaged in research or experimental use of narcotic drugs.

One hundred and ninety-five samples of various drugs were collected for analysis to determine compliance with standards of quality and strength and labeling requirements. In cases where drugs were found to be misbranded or adulterated, warning letters were sent to the vendors and follow-up investigations made to check compliance. One case was referred to the Attorney General for prosecution after a reinspection of his product showed failure to correct the initial violation.

The Department continued to cooperate with the drug and cosmetic industries of the State by issuing certificates of inspection of certain plants exporting products to foreign countries. Many foreign governments require proof from State or local health authorities that the establishment and product comply with State laws and regulations. Ninety certificates were issued by the Department during the year after satisfactory information was collected regarding conditions in the plant and labeling of products.

Fourteen inspections of narcotic and other drug manufacturing plants were made during the year in connection with sanitary conditions, security precautions in narcotic handling establishments and general labeling requirements.

In addition, liaison was maintained with the New Jersey State Police, State Board of Pharmacy, the Narcotics Bureau of the United States Treasury Department, the Food and Drug Administration and local boards of health in connection with marihuana weeds, dangerous drugs, contaminated drugs and similar problems.

MILK CONTROL PROGRAM

During the year, the Milk Control Program was completed, adopted and activated.

A general meeting was held with sanitarians from the four District offices to discuss the use of the new rating forms and interpretive manuals for evaluating milk supplies. After further training in the use of the above materials, five sanitarians (at least one in each District) were certified as approved milk raters. With these additional men available for training purposes, the certification of the other sanitarians in the District offices should be concluded at an early date.

An extensive exhibit on the production, processing and consumption of milk was developed by the State Museum in cooperation with the State Department of Health. The exhibit stressed such interrelated activities as Veterinary, sanitary, and laboratory control and the role milk plays in the nutrition of the people. The exhibit was on display at the Museum during "June Dairy Month" and will be shown again at the State Fair in the Fall.

Conferences with representatives of the Jersey City, Newark and Paterson Health Departments have continued and proceeded satisfactorily toward establishing reciprocal agreements of milk inspection and reporting between the agencies participating.

Information was received from the above three local health agencies on the sanitary status of 188 out-of-state milk plants and 78 milk plants located in New Jersey.

In addition, the following tabulation illustrates the number of inspections made by Department personnel of various establishments handling milk, cream, milk products, and ice cream:

	<i>In-State</i>	<i>Out-of-State</i>
Creameries	81	
Dairy Farms	864	1,643
Goat Dairy Farms	18	
Goat Milk Plants	15	2
H. T. S. T. Units	14	
Ice Cream Plants	1,057	78
Milk Plants	546	66

Proposed requirements for "Bulk Farm Tank Pickup", "Milk Bottle Closures", "Bulk Milk Dispensers", and proposed regulations to be adopted in conjunction with the proposed revision of Title 24, Chapter 10, have been prepared and submitted to interested groups such as the New Jersey Health Officers Association, producers, and processors for comment.

"In-Place Cleaning" of sanitary pipes in milk plants and on dairy farms is still being studied by a joint committee of the New Jersey Health Officers Association and the State Department of Health for the purpose of setting up requirements if the method proves acceptable.

The new rating forms have been used for rating approximately one-third of the milk plants and supplies located out-of-state. The forms have been adopted by several of the plants for use in their own quality control work and field supervisors of quality control programs have stated that their use has helped them in improving conditions within the supplies under their jurisdiction. In addition, three of our neighboring states are studying the forms with the possibility that they may use them with or without modifications.

SHELLFISH PROGRAM

Laws and regulations governing the harvesting, handling and sale of shellfish (clams, mussels and oysters) in New Jersey are administered as part of the Shellfish Program.

Samples of water from approved and condemned shellfish areas are collected for bacteriological analyses, together with samples of shucked and shell stock and water used in shellfish establishments as part of the program. In addition, sanitary inspections of all types of establishments handling shellfish are routinely performed. Regular patrols are made of condemned waters to prevent the illegal removal of shellfish from polluted areas.

During the previous year Department personnel, assisted by agents of the New Jersey Department of Conservation and Economic Development, State Police and New York Department of Conservation, broke up a large scale practice of bootleg clamming in Raritan Bay by apprehending six persons in a night raid. During this year, five of the violators were tried in Middletown Township Magistrate's Court and were convicted and fined \$100 each for violating statutes enforced by this Department. In addition, the five individuals were convicted of violating Conservation Department laws, fined various sums and suffered the seizure of two large schooners used in the illegal activities. The case of the sixth individual was referred to the Monmouth County Juvenile Court inasmuch as he was a minor.

The convictions were appealed and after a lengthy retrial in the Monmouth County District Court, the verdicts of the Magistrate's Court were reversed. Despite the unfavorable decision rendered by the higher court, illegal shellfish activities were successfully curtailed in the Raritan Bay due to the attendant publicity relating to the prosecutions.

In other shellfish areas in the State, routine patrolling resulted in the apprehension of 31 individuals removing shellfish from condemned areas. Inasmuch as all were first offenders, including some vacationers, warning letters were sent to each person together with copies of laws and charts showing areas condemned by the Department for the taking of shellfish. The case of one chronic offender, apprehended near the close of the last fiscal year, was referred to the Attorney General for prosecution.

The bacteriological survey of the waters of Raritan and Sandy Hook Bays was concluded and the results of analyses are being tabulated prior to review. Bacteriological surveys were also carried out in the waters of the Navesink River, Long Beach Island sections of Barnegat Bay, Metedeconk River, Wildwood area and in the vicinity of the Cape May Sewer Outfall in Delaware Bay.

No new shellfish areas were open or condemned by this Department during the past year.

The following tabulations illustrate the number of inspections of shellfish establishments made and the number of samples of shellfish and water collected by shellfish program personnel during the past year:

Number of Inspections:

Shellfish Shucking Plants	174
Shellfish Shipping Plants	539
	713

Number of Samples Collected:

Shellfish Waters	4,705
Special Waters	166
Shell Oysters	228
Shucked Oysters	421
Shell Hard Clams	683
Shell Soft Clams	95
	6,298

Field personnel also cooperated with the Southern State Health District in the collection of samples of bathing beach waters from Brigantine to Cape May.

VETERINARY PUBLIC HEALTH

Major activities of the Program of Veterinary Public Health for the year July 1, 1953 to June 30, 1954 continued in the field of zoonoses. Intensive efforts were made in the field of psittacosis control caused by increasing evidence of infection of parakeets with psittacosis. A field research project on Eastern equine encephalomyelitis was continued with the U. S. Public Health Service and other agencies cooperating. Attempts have been made to coordinate control procedures with the Department of Agriculture in the field of trichinosis control. Implementation of the approved Veterinary Public Health program was commenced and it is apparent that this has been helpful in eliminating unnecessary waste of time and effort in field activities.

Psittacosis

The provisions of the State Sanitary Code with respect to restriction on the sale, breeding and handling of psittacine birds was implemented in April of this year when a quarantine was established on a distributor of birds who

had on hand 28,000 birds which were illegally brought into the State without proper certificates and which, upon examination by the Chief of this Bureau, appeared to have evidence of clinical infection with psittacosis. Rutgers University was contacted and through the cooperation of Dr. Fred R. Beaudette, Poultry Pathologist, isolation of psittacosis virus was obtained on April 15. The entire plant had been quarantined and after consultation, one area which appeared to be free of the disease was released. Throughout the continuing period of quarantine 112 birds were taken and submitted for isolation studies. Of this number, 95 were reported as positive by either Rutgers University or the Communicable Disease Center Laboratory of the U. S. Public Health Service at Montgomery, Alabama.

The owner of the plant was informed of the infection and was given the choice of either destroying the birds, attempting to treat them, or, cooperating in a research project to aid in the study of psittacosis. The plant management decided to allow all remaining birds to be used for psittacosis studies and these were shipped under secure conditions in a separate sealed truck to the Montgomery Laboratory who consented to accept these birds for a study in which attempts were to be made to determine the most feasible method of psittacosis infection determination and the possibility of the breeding of psittacosis-free parakeets.

As of June 30, 1954, 13 human cases of psittacosis had been determined in New Jersey. A number of these cases involved persons who had bought, or been in contact with, birds that were brought into the State illegally and action has been taken to prevent such importations in the future. The public was advised by means of news releases of the danger of buying birds from unknown sources and from intimate contact with birds. It was felt that this advice considerably reduced the hazards to the public and prevented a greater number of cases from occurring during this period.

Encephalomyelitis

The encephalomyelitis project initiated the previous year has proceeded in a most satisfactory fashion. The field project leader, Dr. Preston Holden, a U. S. Public Health Service Veterinary Virologist, on loan, succeeded in obtaining the first isolation of Western encephalomyelitis virus that has been found East of the Appalachian Mountains. The virus of the Western equine encephalomyelitis strain was obtained from the blood of sparrows collected in the area of South Jersey where the project is in progress. It was further determined that the virus of Eastern equine encephalomyelitis was isolated from *Culiseta melanura* mosquitoes. These isolations in the project are the only isolations from such mosquitoes in the Atlantic Coastal States.

Funds allotted to the project on an emergency basis during the year were used to construct portable pens. These pens were constructed through the co-

operation of the Division of Fish and Game of the Department of Conservation and Economic Development and with materials supplied by this Department. Plans were prepared following consultation with the Experimental Station, Entomology Section, at Rutgers University.

The project also consisted of a vaccination study which will not be completed until the fall or winter of 1954, but the birds involved were bred and incubated in May of this period. The planning, collection of data and specimen availability therefore must be done on a continuing basis in order to allow a proper statistical value to be placed on the project. A vaccination study was initiated utilizing 50 birds each in three different lots; one control lot was not vaccinated; one lot of which received a single vaccination as is normally done; the other lot receiving a double vaccination 14 days apart, approximately. This study may actually prove to be of considerable value to the pheasant growers in controlling this disease in their flocks. The control of the disease in flocks that have intimate association with humans will be helpful from a public health standpoint.

Others cooperating in this project are the Passaic County Mosquito Commission; the U. S. Public Health Service; Rutgers University, Department of Poultry Pathology and entomology; and the School of Public Health at the University of Pittsburgh. This basic research involving the cooperation of this varied group is not only interesting from the standpoint of the possibility of the knowledge to be obtained, but also from the standpoint of the use of scientific knowledge in a coordinated fashion at a minimum of expense to the taxpayers in order to obtain the maximum results. It is hoped that the project will be continued through the year 1954-1955.

Trichinosis

Continuing efforts were expended by this Bureau to get proper cooking of garbage to be fed to swine in New Jersey. These efforts consisted of meetings and consultations with local health departments, the New Jersey Department of Agriculture, garbage feeders, and the Federal Department of Agriculture and Public Health. Efforts have not been successful to date. It is hoped that a continuing process of education of garbage feeders and the public will eventually bring trichinosis under control. This Department was represented at the Second National Conference on Trichinosis in Chicago. It is noted that recommendations of the Conference are in line with the activities undertaken by this Department.

Meat Inspection

Regulations covering slaughtering and meat processing are in process of being prepared and submitted for final review to the Meat Inspection Code Committee. Lay meat inspectors cannot be used in the slaughterhouses of this

State. Legislation to permit the utilization of lay inspectors under the supervision of a Veterinary Meat Inspector is needed. Until such legislation is passed, it is not practical to develop a system of proper meat inspection throughout the State. Such a program will then require the cooperation of local health officials in obtaining a uniform system of requirements for meat inspection within each of the various municipalities into which meat is brought from other municipalities. This Department is now working with Trenton and Newark on a program which will permit Trenton-inspected meat to be sold in Newark.

Epidemiology

A representative of this Bureau attended a 5-day conference of physicians, veterinarians and virologists for the purpose of making an epidemiological appraisal of the major animal diseases transmissible to man in the United States, including psittacosis, infectious hepatitis, leptospirosis, anthrax, encephalitis, brucellosis, rabies and poliomyelitis.

A member of this Bureau serves on the State epidemiological team for specific problems involving outbreaks of disease throughout the State. Several such problems have occurred at Institutions under the control of the Department of Institutions and Agencies.

Rabies

The Rabies Control Project continued its program to prevent rabies from once again becoming an epidemic disease in New Jersey. Only one clinical case of rabies in a dog was reported by a veterinarian this year. This case was not confirmed by laboratory examination of the brain or by inoculation procedure. There were no human cases of rabies.

Cooperation with the Division of Fish and Game, with respect to wild life rabies, continues as in previous years. Surveys are made by personnel of both the Division of Fish and Game and the Department of Health to observe for any indication whatsoever of the spread of wild life rabies from adjoining areas.

The State of New Jersey has a 3-pronged rabies program: (1) licensing, which identifies each owned dog and counts the actual number of licensed dogs; (2) picking up and properly disposing of stray dogs which are unusually good vectors of the disease; and, (3) vaccination programs for those areas where the expenditure of funds will do the most good in preventing the introduction of rabies into New Jersey once again. It should be noted that the aim of this program is to best utilize the limited funds available to vaccinate dogs in certain strategic areas where rabies would most likely enter the State.

There were 347,425 dogs licensed in New Jersey during the calendar year 1953, yielding \$86,856.25 in registration tag fees. The total expenditures for the fiscal year 1953-1954 was \$81,543.97.

The tabulation below indicates the trend of licensing with regard to dogs in New Jersey during the years 1942 through 1953.

<i>Year</i>	<i>No. Licensed Dogs in New Jersey</i>	<i>Year</i>	<i>No. Licensed Dogs in New Jersey</i>
1942	336,993	1948	317,788
1943	323,762	1949	316,920
1944	312,448	1950	320,576
1945	318,842	1951	322,158
1946	318,828	1952	331,859
1947	324,136	1953	347,425

It is significant to note that there was a decrease in the number of licensed dogs during the years 1942 through 1949 and that from 1949 there was a general increase in the number of dogs licensed. This indicates that there is recently an increased awareness of the necessity for dog owners to license their pets; that there is an increase in the number of such pet animals; that patrolling activities and dog control education is having its effect. New Jersey is one of the few areas of the United States where the immediate threat of rabies is not constantly in the mind of the pet owner and the hazard to children is small.

Canine rabies vaccine purchased and dispensed for use in immunization clinics amounted to \$15,033.20; \$512.05 was spent for human rabies vaccine. The following tabulation indicates the number of doses of rabies vaccine distributed by the State Department of Health commencing in 1948 and used in areas where clinics were established when rabies was considered a threat.

<i>Year</i>	<i>Vaccine Distributed</i>	<i>Doses Administered</i>
1948	135,800 c. c.	19,400
1949	195,000 c. c.	27,857
1950	170,000 c. c.	24,285
1951	240,000 c. c.	34,285
1952	200,000 c. c.	28,571
1953	260,000 c. c.	37,142

The above tabulation shows that the total number of doses of vaccine distributed never exceeded 10% of the entire dog population of the State. This must be considered in the light of the fact that vaccination clinics were judiciously planned for where they would do the most good, so that in some instances as high as 70% of a community's dogs were vaccinated. However,

contrary to the opinion, normally, that 70% of the dogs must be vaccinated to prevent the spread of rabies, the general average percentage of dogs vaccinated was closer to 35%. This is pointed out to indicate that vaccination alone was not the cause of the reduction of rabies, that proper dog control coupled with the elimination of strays all combined to aid nature in the elimination of this disease from New Jersey.

Rabies in New Jersey, commencing in 1943 and for 10 years following, resulted in cases as per the following tabulation.

<i>Year</i>	<i>Rabies in Pennsylvania</i>	<i>Rabies in New York State Exclusive of New York City</i>	<i>Rabies in New Jersey</i>
1943	826	189	42
1944	902	314	68
1945	843	663	51
1946	502	1175	276
1947	293	696	94
1948	147	568	112
1949	31	515	67
1950	102	1022	5
1951	241	539	0
1952	300	337	1
1953	27	437	0
Totals	4214	6455	716

It should be noted that in 1946 the Rabies Control Unit initiated stray dog patrol activities and that in 1948 mass vaccination clinics selected in municipalities were instituted. These combined procedures have certainly contributed to the elimination of rabies from New Jersey. Further activities with regard to fox depopulation in counties of New Jersey adjoining areas in New York where rabies was present in wild life complemented the above procedure. It is gratifying to be able to report as of this date that New Jersey is considered free of rabies and it is hoped will continue to be so in spite of the fact that Pennsylvania and New York States, which are adjoining our borders, continue to have considerable trouble associated with the control of rabies.

Report of the Division of Laboratories

July 1, 1953—June 30, 1954

ELMER SHAFFER, PH. D., *Director*

Bureau of Bacteriology.....JOHN H. SPICNER, JR., B. Sc.
Chief

Bureau of Chemistry.....JOHN J. NELSON, M. S.
Chief

Bureau of Pathology.....EDWIN O. GILBERT, D. V. M.
Principal Histologist

Bureau of Serology.....CLARENCE H. BUNTING, B. Sc.
Chief Serologist

Division of Laboratories

During the year ending June 30, 1954, the Division of Laboratories completed writing its four programs: Bacteriology, Chemistry, Pathology and Serology. These were accepted and approved and are now in operation. The written programs have greatly aided us in maintaining prescribed relationships with other Divisions, Departments and all others authorized to use our services. Our reporting system has been simplified without sacrificing any real needs. This has made for more efficient office management and direct savings in man-hours. Because the four written programs were put into effect only a few months before the close of the year, a more accurate estimate of their impact on our operations will be gained during the coming year. However, experience thus far indicates that the time and effort of the division staff consumed in preparing and revising the programs to their final accepted form will be greatly outweighed by the benefits derived.

The past year saw a further consolidation of program budgets into a more compact divisional budget. This has made for more effective use of budget funds to fill all requirements and at the same time maintain adequate stock inventories. The year also proved the effectiveness of our stock inventory control by which a proper balance of supplies and equipment was attained yielding an actual saving in budgeted funds.

More careful supervision of the distribution of mailing containers has resulted in appreciable economies. For example, all industries have cooperated by obtaining their own blood collecting tubes for submitting samples for syphilis serology. We believe retrenchment in the previous liberal supply of containers has had a salutary effect on the users of these supplies and has reduced our expenditures without curtailing services. By carefully scrutinizing all requests for containers, we feel we have reduced the "floating supply" of this material in the field to reasonable proportions.

One of the most noteworthy developments during the year was the part the Division played in organizing and carrying through an effective plan of professional education. More and more we have come to realize the importance and need for this activity. We have been encouraged in this belief by the response obtained to the refresher courses offered throughout the year. Laboratory personnel from hospitals, boards of health and private laboratories have eagerly registered for courses offered during the past year, taxing our facilities to the utmost. We believe we have a responsibility to meet this demand and shall continue to offer regular curricula in laboratory subjects which are of practical import. Our own personnel have, in most cases, acted

as instructors in these courses in addition to their regular duties. They are to be commended for the part they played in this activity. Full cooperation from the Communicable Disease Center, Venereal Disease Research Laboratory and other agencies in this field has been received. Our method of organizing and carrying through these refresher courses was developed by experience and appears to be successful. National recognition of our plan has been given by authorities in this field.

In addition to the above educational activity, opportunity to our own personnel to take advanced refresher courses in laboratory subjects has been given where it was in the interest of the Department. During the year, the following members of our staff attended such courses:

- Theresa Banko, Asst. Chemist—Modern Industrial Spectroscopy, Boston College and at E. H. C.
 Mr. L. Weller, Sr. Chemist—Symposium on Atmospheric Pollution, New York University.
 Mr. J. J. Nelson, Chief—Chemical Spectroscopy, Rutgers University.
 Peter Ventura, Sr. Chemist—Water Pollution Investigation, E. H. C.
 Anthony Lucci, Sr. Serologist—Refresher course in syphilis serology at V. D. R. L.
 Marie Wicker, Lab. Tech.—Refresher course in syphilis serology at V. D. R. L.
 Celia Levy, Asst. Serologist—Special course with Dr. P. Levine on blood typing and grouping.
 E. O. Gilbert, D. V. M., Prin. Hist.—Special course on Histochemistry at A. F. I. P.

We are certain that the Division and the Department have been strengthened by our workers acquiring new, useful knowledge and experience and that the costs involved are thus justified.

The following refresher courses were given during the year:

1. M. tuberculosis identification, 48 registrants, closing lecture by J. D. Aronson, M. D., Professor of Bacteriology, University of Pennsylvania, September 30 to October 23, 1953.
2. Biological Photography, 24 registrants, January 18—February 3, 1954.
3. Prothrombin Determination, 45 registrants, April 5—May 1, 1954.
4. Enteric Bacteriology, 56 registrants, March 16—April 30, 1954. Opening lecture by Dr. Ewing of C. D. C.

Total registrations (all courses)—173.

All registrants received a certificate of attendance. This, we feel, is a good "morale" booster for a group of workers who have as yet not received adequate professional recognition. We are of the opinion that a contribution to the raising of standards in laboratory technology by means of these refresher courses has been made and we propose to continue them in the coming year.

List of instructors in Refresher Course series 1953-1954:

J. Norman Welsh, Principal Bacteriologist
 Catherine Jedynak, Assistant Bacteriologist
 Russell Stein, Senior Bacteriologist
 E. O. Gilbert, D.V.M., Principal Histologist
 Bernard Lind, Histologist
 (All from the Division of Laboratories.)

Special Lecturers:

J. D. Aronson, M. D., Professor of Bacteriology, Phipps Institute, University of Pennsylvania
 W. H. Ewing, Ph.D., P. H. S., C. D. C.
 Anna Fogelson, M. T., P. H. S.

As is frequently the case, budgetary restrictions have forced us to re-evaluate certain activities. Serious thought was given to the closing of our branch laboratory at Leonardo. By re-districting collecting stations for shellfish and waters, it was felt that the closing of this laboratory could be carried out without loss of program content. The two remaining branch laboratories at Tuckerton and Bivalve can readily absorb the work of the Leonardo branch laboratory. It is anticipated that in the next fiscal year, the closing of the Leonardo laboratory branch will be effected.

It is hoped that funds made available through such economies during the year may be utilized in increased expenditures for new activities when there is proved need, or used in the expansion of programs now in operation. For example, this year's experience indicates the growing need for an active virology program. However, no program change or expansion can be envisioned without consideration of the lack of physical facilities. Previous annual reports have emphasized this and it must find place in this report. We hope the present realization of our inadequate physical plant will be translated into action to secure modern laboratory facilities to meet the needs of the present and the future.

LABORATORY INSPECTION, EVALUATION AND ASSISTANCE

In compliance with certain statutes in the New Jersey Sanitary Code, laboratories doing bacteriological examinations in communicable disease and serological tests for syphilis for premarital and prenatal examinations must be approved by the Department of Health. As of June 30, 1954, there were 116 such, approved, including the State laboratory, one U. S. Government laboratory, 19 municipal or county, 50 hospital and 45 private laboratories.

Periodically, these laboratories are visited and inspected and specimens left for evaluation. During the past year, laboratories approved for syphilis serology testing have been subjected to intensified evaluation. Each laboratory has received 90 test specimens and submitted their reports to us. This activity has extended beyond simple evaluation of laboratories but has been coupled with our offer of assistance to those laboratories requesting it. We believe this activity together with our educational program will go far towards standardizing test performance in this field. Results analyzed thus far show the need for such improvement.

The Division as usual was responsible for the preparation and distribution of containers for collecting and mailing specimens to the laboratories. We feel that our careful "scrutiny" of all requests has succeeded in keeping this distribution within proper bounds without curtailing actual needs. This has resulted in a lower number of collecting outfits distributed and a consequent saving of funds. For example, we distributed about 50,000 less serological containers during the past year than in the previous year. Not only the cost of such material has been saved, but personnel time in preparing them for mailing has resulted in further savings. Due to this policy, the "floating supply" of such containers in the field can be reduced to reasonable proportions, and adequate supplies will be available to all authorized to use our services.

The service corps who have the responsibility of cleaning and preparing glassware for laboratory use, continues to work under handicaps. Under present lack of utilities, modern washing machinery cannot be installed. Large economies would be possible if we could utilize such equipment and in addition there would be an appreciable reduction in breakage loss.

Bureau of Bacteriology

This program received final approval by the Commissioner of Health, Dr. Bergsma, on April 7, 1954.

The total bacteriological, parasitological and agglutination specimen examinations made during the year were 63,158, representing a slight increase over last year's total. Of these, 46,071 were communicable disease specimens, 7,006 water specimens, 3,173 milk specimens and 6,908 shellfish and shellfish water specimens.

In *M. tuberculosis* identification we have increased activity, so that of the total of 18,034 specimens received, 8,495 have been subjected to cultural procedures. Where sufficient data are submitted with the specimen, we routinely culture. The culture method shows more than a 2:1 ratio of positivity over the direct spread examinations.

Total *T. B.* spreads—18,034, Positive—1,115

Total *T. B.* cultures— 8,495, Positive—1,046

This in itself indicates the importance of our expanded activity in this work. Animal inoculations are used when special requests are made by physicians. Animal studies are also used for checking virulence on positive cultures. Where requested, tests for sensitivity to antibiotics and chemicals used in treatment are performed.

There has been an increase in the total of specimens received for enteric bacteriological investigation. This probably has resulted from an increase in enteric type of infections, and an increase in the awareness of physicians and laboratories of the more precise methods of studies that can be applied to the identification of bacteria of this type. This is especially true of the "non-specific" types of diarrheas and infant epidemic diarrheas hitherto not yielding to identifiable causative organisms. Certain serotypes of *E. coli* have been found involved in these cases and we are prepared to identify them.

Of the total 9,381 feces and urine specimens received, 35 yielded positive *Salmonella* cultures and 2 *Shigella* cultures. The *Salmonellas* isolated were further typed and 4 were of the typhosa variety.

In addition to the above, 1,408 stools were received for parasitological investigation. Of these 36 yielded positive results.

A total of 4,001 blood specimens was received for agglutination tests for typhoid, paratyphoid, undulant, Rocky Mountain spotted typhus fevers and tularemia. Of this total, 55 gave "positive" results. All antigens used were made in our own laboratories.

Pus spread examinations for *Neisseria gonorrhoea* totaled 5,584, representing a slight increase over the previous year. Of these, 614 were reported presumptively positive.

Diphtheria always remains as a public health threat and despite the tremendous reduction in cases during the past decade, physicians should be alert (and in most cases have been) to the need for early diagnosis. Sporadic outbreaks have occurred accounting for the increase in number (total: 4,860 of which 56 were positive) over the previous year.

A total of 1,454 throat cultures for hemolytic streptococci and Vincent's angina were received of which 182 were positive.

The good record of New Jersey in rabies control has apparently been maintained as reflected by laboratory examinations made here during the year. Of a total of 205 animal brains examined, not a single positive finding was obtained. Where a history of bite or intimate contact with humans is obtained, in addition to the usual impression preparation of brain tissue, the mouse inoculation method is employed for further identification. There were 480 such animal inoculations carried out.

A group of miscellaneous specimens totalling 1,151 were received for various bacterial and parasitological examinations.

Bacteriological examinations of water and milk were made in the central laboratory and water and shellfish examinations were carried out at our branch laboratories at Leonardo, Tuckerton and Bivalve. The totals are: waters, 11,621; milks, 3,173; shellfish, 1,422. Almost 13% of milk and 13% of cream specimens were found to be below standard, bacteriologically.

Bureau of Chemistry

Program approved April 7, 1954.

Statistical summaries show that 9,499 specimens were received and subjected to 33,067 tests. This represents about a 30% increase in the number of samples processed; a result of increased activity in the milk and food programs at the district level, and increased numbers of samples submitted by the Adult and Industrial Hygiene program. In the case of the latter program close participation resulted in our making 126 field tests and 20 plant visits. This was done in addition to the 453 samples (1647 analyses) processed. Much time and effort were consumed in preparation and standardization of reagents and servicing of equipment to be used in the air sanitation program. It is hoped that during the coming year sufficient electrical power will be supplied to the Industrial Health Laboratory to utilize the new equipment placed there.

The complete chemical survey of all public waters was completed during the year. This activity will be conducted every 2 years.

We will shortly be in a position to conduct vitamin assays in connection with the enforcement of the Flour and Bread Enrichment Act of 1946. Standard concentration curves for required vitamins and minerals have been prepared and personnel orientation in methodology is practically completed.

Current interest in atmospheric pollution problems and pending legislation indicate that our activities in relation to the air sanitation program may be expected to increase greatly in the near future. The nature and number of analyses performed in the industrial health laboratory reflect a trend toward the development of the project type of investigation in contrast to the individual complaint type. The more extensive use of instrument analysis (e. g. carbon monoxide, mercury, sulfur dioxide, chlorinated hydrocarbons, etc.) makes it possible to conduct a series of tests in a relatively short time. The use of the spectrograph enables the laboratory to do more work accurately with a limited number of available personnel. The basic equipment for this work is now available and awaits installation of adequate electrical power lines which are now in the process of being ordered.

SUMMARIZED STATISTICS

<i>Type of Sample</i>	<i>Number</i>	<i>Determinations</i>
Milk and Dairy Products	3,488	9,102
Other Foods	945	1,709
Drugs	178	403
Water and Sewage	2,190	17,058
Industrial Health	453	1,647
Miscellaneous*	2,245	3,148
Total	9,499	33,067

*Urinalyses, blood counts, experimental, method development, etc. This item is uncommonly high this year as a result of our conducting about 1900 urine-sugar determinations as a cooperating agency in the screening survey for diabetes.

Bureau of Pathology

Program approved February 2, 1954.

The year past showed a large increase in the number of tumor registry specimens received, 1,950 against 525 in the previous year. This was due to the participation in a pilot operation with the Cancer Control program. There were 15 selected hospitals involved, in which Pathologists of the respective institutions submitted every case of malignancy reaching their laboratories. Thus, from the 15 hospitals, we received a 100% reporting of authenticated cases of cancer. Such statistics have 2 important features (1) complete coverage (2) validity of diagnosis based on actual tissue examination. An analysis of the data gathered in this pilot study is being made. As a result some decision may be reached as to how this pilot study can be expanded and what information can be derived of use to the study of cancer.

A 30% increase in consultations was experienced, 169 cases being received as against 125 in the previous year. This increasing use of the Consultation Board indicates that the Pathologists of this State have a growing respect for its services and it is anticipated this use will continue to increase each year.

Other services continue to show increased participation such as our activity in biological photography. The increasing use of this medium for teaching and also maintaining records has stimulated most laboratories to include it in their activities. We have thus been called as consultants to assist a number of such laboratories to set up and operate their own photographic equipment.

Fundamentally, the program in Pathology is one of professional education and assistance. All our activities are designed for that purpose. The annual slide seminar on "unusual cases" with Drs. F. Stewart and F. Foote, Jr., as

moderators was held in December 1953 in Newark. An enthusiastic attendance of over 80 pathologists indicated the popularity and usefulness of these instructive seminars. We are certain that the diagnostic abilities of pathologists have improved as a result of attendance at such meetings led by outstanding authorities.

We continue to evaluate certain new histological methods and to publish technical bulletins as new procedures have been found to be advantageous. We have delved more deeply into the field of histochemistry, which is an important developing science.

Our files of slides on common types of tumor tissue is gradually approaching a point where we have on hand enough of such material to fill all requirements for teaching and demonstration. It may well be that we shall soon discontinue collecting such material and concentrate on rarer and more "controversial" types of tumors.

We also have developed another specialized series of slides for distribution to Pathologists on request, a series of neurological tumors. Material for these has, in large part, been obtained from Columbia University, College of Physicians and Surgeons, Department of Pathology. We anticipate a continuance of the development of this type of slide series to include all medical specialties. Frequent requests to borrow such material have been made.

We continue to enjoy the fine spirit of cooperation that has evolved in our relationships with the Pathologists of this State. Mutual respect and the desire to be helpful to all participants have greatly strengthened the program.

Bureau of Serology

Program approved February 2, 1954.

Two trends are evident in reviewing this program for the fiscal year ending June 30, 1954. There is a decrease in the number of specimens received for syphilis serology to 255,760 from 308,908 in the previous year. This decrease is in major part due to limitations placed on the number of routine and pre-employment examinations under the health programs of industries. A number of industries developed their own resources to serve themselves or employed private laboratories for this purpose. This indicates a willingness on the part of industry to recognize their responsibilities and to assume the burdens involved. The second trend noted is the increase of requests for serological tests for viral and rickettsial diseases. The disclosure of the presence of psittacosis in parakeets and canaries in this State has stressed the importance of diagnosing this disease in man. Many cases of viral pneumonia and pneumonitis are now believed to be due to psittacosis viral infection.

Last year an expansion of our activity in evaluation of the serological tests for syphilis being performed in our State approved laboratories was begun and is now in full operation. Each of the 112 approved laboratories received 15 unknown sera at bi-monthly intervals totalling 90 for each laboratory for the year. Preparation of test sera, tabulation of the results and publication of the data gathered by the survey were time-consuming duties absorbed by two senior technicians. It is anticipated that this close supervision of the approved laboratories' performance will eventually lead to better general results. We continue to invite those laboratories whose results are not up to standard to send their serological technicians to us for brief visits of refresher training. During the year, six technicians spent varying times in receiving this training in our laboratories. We encourage wherever possible the utilization of our services to assist all laboratories to attain better performance. Furthermore, many of these laboratories submit reference specimens to us for check up.

We have continued to use the Mazzini lipoidal antigen for our primary screening test for syphilis. During the many years this laboratory has utilized this test, we have felt that it has been entirely satisfactory for the purpose intended. On occasions, however, we have noted a tendency to obtain excessive numbers of reactive tests which on later re-check with V.D.R.L. slide tests and Kolmer complement fixation tests have yielded negative results. While the Mazzini test has served a useful screening purpose during the period of use in our laboratories, it may well be that we shall shift our screening test to the use of a cardiolipin antigen such as the V.D.R.L. and discontinue the Mazzini test. A pilot operation is planned during the coming year to obtain data to justify such a change.

Premarital and prenatal blood specimens from 97,876 in the previous year to 102,996 specimens received this year. As usual all such specimens received blood grouping and typing tests as a part of the Civil Defense and Maternal Child Health programs. The technic employed in these tests was changed from the slide method to a modified tube method. This latter method, while more time-consuming, is considered to be more accurate. Special training in this work was accorded to one of our technicians in the laboratories of Dr. Phillip Levine, an authority in this field.

As usual, the standard Mazzini lipoidal antigen was prepared in our laboratories and 309 bottles were distributed to approved laboratories during the year. This is a continuation of an activity begun in 1942 and we feel has contributed much in obtaining uniform serological results in those laboratories utilizing this antigen.

DEPARTMENT OF HEALTH

Total number of blood and spinal fluid examined for syphilis:

Total	Reactors	Negatives	Unsatisfactory
255,760	25,090 (9.6%)	225,158 (88.3%)	5,512 (2.1%)

Number of tests performed on above specimens:

Mazzini Qualitative	248,596
Mazzini Quantitative	9,715
V. D. R. L.	31,534
Kolmer Qualitative	15,052
Kolmer Quantitative (spinal fluids)	1,717
Total	306,614

Rh Factor Determinations	102,996
Blood Grouping Tests	102,996
Total Protein Determinations (spinal fluid)	679
Colloidal Gold Tests (spinal fluid)	304
Heterophile Antibody Reaction	957
Antistreptolysin Titers	38

No. of special viral, rickettsial and parasitic disease specimens: 197.

No. of tests on above—543.

During the year 55 specimens were referred to P.H.S. for special serological tests.

SUMMARY

The year's activity here reviewed was highlighted by (1) completion of writing and acceptance of the four divisional programs, (2) full development of an educational program of refresher courses for qualified laboratory workers from local laboratories of the State, (3) increasing demand for services in viral diagnosis, (4) preparation of laboratory requirements to serve field activities of air pollution investigation, (5) intensified interest in improving standards of performance in our own laboratories and in local laboratories.

It must be here emphasized that the past year has seen a more "compact" operation of the 4 programs, fiscally, administratively and scientifically. Closer relationships of associated activities in the programs have been developed and a spirit of cooperation has pervaded all personnel. We believe our continuous desire to improve services and to give these to the limits of our capacity have engendered a fine esprit de corps among our workers. We hope that the operations of the past year brings us closer to the fulfillment of our assigned tasks.

Report of the Division of Local Health Services

July 1, 1953—June 30, 1954

G. FREDERICK MOENCH, M. D., M. P. H., *Director*

WILLIAM H. MACDONALD, M. S., *Assistant Director*

Bureau of Grants-in-Aid WALLACE T. EAKINS, M. S.
Chief

Bureau of Public Health Nursing GLADYS J. WILSON, R. N., M. P. H.
Chief

STATE HEALTH DISTRICTS

Central JESSE B. ARONSON, M. D., M. P. H.
District State Health Officer

Metropolitan JAMES E. PETERMAN, M. D., M. P. H.
District State Health Officer

Northern HARRY R. H. NICHOLAS
District Health Officer

Southern HUGH D. PALMER, M. D., M. P. H.
District State Health Officer

Division of Local Health Services

The Division of Local Health Services is the crossroads of the State Department of Health. It has the day-to-day knowledge of New Jersey's public health needs as seen by the four State Health District offices in the northern, metropolitan, central, and southern areas of the State. Through the Division, this information is made available to the program coordinators of the Department who have the job of planning the State Health Department's part in meeting these needs, and it translates into reality the action plans of the various programs.

The public health team in each District office has behind it the professional and technical staff of the six other Divisions of the Department.

The major functions and responsibilities of the Division are the rendition of consultant, advisory and certain direct services to local boards of health through correlation of the other Division programs. The Division of Local Health Services correlates and integrates these services and programs with those of official, voluntary and private agencies and local boards of health according to State laws, community needs and requests. It interprets and carries out State Health Department policies.

Specifically, the functions are:

1. To promote a coordinated program of optimum local health services.
2. To guide and advise local health departments in all phases of organization and program.
3. To maintain a competent staff of professionally trained workers to whom local communities can direct requests for guidance and consultation.
4. To implement the programs of the State Department of Health by consultative and advisory service.
5. To expedite available resource assistance of the State Health Department to local boards of health as needed in local programs.
6. To channel information on pertinent public health problems, and to gather facts and data needed in program planning.
7. To participate in specific pilot projects in certain phases or areas of local health programs for demonstration or research.
8. To cooperate in community and State health programs with all agencies interested in welfare, education, safety and public health.
9. To assist in conducting evaluations of the local and State health programs.

LOCAL BOARDS OF HEALTH

The total number of local boards of health in New Jersey is 570. This includes the board in each municipality and also the board in each of two Camp Meeting Associations created under special laws and the board authorized by statute in the New Jersey section of the Palisades Inter-State Park.

The total amount reported by the local boards of health as available for their use specially for health purposes during the calendar year 1953 was \$6,546,238.04, a per capita of about \$1.30. The amount reported as spent specifically for health purposes by local boards of health during 1953 was \$6,353,054.59 a per capita expenditure of about \$1.27.

The activities of the Division and the State Health District offices are spread throughout this report of the Department, for much of the work reported upon by the various Divisions is done by the personnel of the District offices. If all of the work done were to be reviewed here, it would of necessity be a recapitulation of parts of the reports of the other Divisions. We have, therefore, left the definitive reporting of many of these activities to the responsible Division while indicating the special participation by the State Health District office staffs in certain programs.

Central State Health District

The Central State Health District includes the counties of Burlington, Mercer, Middlesex, Monmouth and Ocean. At the close of the fiscal year the staff consisted of 28 members, including a District State Health Officer, District Chief Public Health Nurse, District Chief Public Health Engineer, District Veterinarian, District Epidemiologist, District Consultant on Community Health Organization, Dental Supervisor, four Public Health Nurse Supervisors, one staff Public Health Nurse, one Senior Public Health Engineer, one Principal Sanitarian, three staff Sanitarians, two Physical Therapists, one Rabies Control Warden, two Venereal Disease Investigators, five office personnel and one building service worker.

Community organization continued to develop on a county-wide basis.

In Mercer County the Health Council continues to function and has made some significant advances. At the onset the group consisted of a nucleus of active individuals in the Princeton area. A review of the situation at the beginning of the year convinced the group that a broadening of the active membership to include residents of all the municipalities in the county was necessary. This was successfully accomplished in that, at the end of the year, 11 out of 13 municipalities were represented by active participants. In addition, during the year a series of discussions, the elaboration of a survey form,

and the making of a survey, all served to orientate the active members and give them a background knowledge in the several types of public health problems and programs. It must be noted that the survey mentioned above was brief and was patterned with the idea of stimulating questions and discussion rather than a detailed and accurate assay of local resources and needs.

In Burlington County a new organization was founded, the Burlington County Public Health Nursing Committee. This approach was used since in the previous two years a considerable interest had been stimulated in the very urgent problem in Burlington County in securing county-wide public health nursing services. An open meeting sponsored by the New Jersey State League of Nursing and the Central District was held in the County Court House. At this meeting there were 38 representatives of nursing organizations, boards of health, health officers, physicians and other interested groups. The meeting voted to form a permanent representative committee to study the public health nursing resources and needs and to propose methods of meeting these needs. The committee actively studied the problem, elaborated a plan to form a Burlington County Public Health Nursing Association, and presented this plan to the County Board of Chosen Freeholders with a plea for financial support.

In Monmouth County the Health Council, formed some five years previously, disbanded. Actually, the Council ceased to be an effective organization some three years before. It had been organized as a purely representative council of the various health groups in the county. There was no provision for admitting to membership interested individuals. Members of the Council, therefore, had to refer all matters back to their own organization before decisions could be implemented. During the first two years under the leadership of a physician loved and respected throughout the county, the organization prospered but with his resignation and subsequent death this binding force was lost.

A Homemaker Institute was held for the Central District and a wide representation of organizations and agencies in the District was present. Many persons expressed exceptional interest in such a program and believed that their communities were in need of such a service.

There had materialized since this meeting, a Homemaker Service for the New Brunswick area of Middlesex County. This was a joint project of the Health and Welfare Division of the Community Service Council and is coordinated by the committee chairman for the Middlesex County Health Council.

ENVIRONMENTAL SANITATION

Under the direction of the District Chief Public Health Engineer, a generalized environmental sanitation program was carried on in the District.

Special investigations were made of sewage treatment plants in Allenhurst, Asbury Park, Bay Head, Red Bank, Deal, Avon, Bradley Beach and Wrightstown.

The Monmouth and Ocean County Bathing Beach Committee, consisting of members of the Monmouth and Ocean County Health Officers' Association and the Ocean and Monmouth Counties Industrial Waste Association, organized in 1951, continues to carry on their program of bathing beach sanitation, with necessary inspections, sampling, and public relations activity. The area surveyed included the entire North Jersey shore from Perth Amboy to Seaside Park.

The restaurant sanitation program received considerable attention with special reference to the Retail Food Handling Establishment Code. Four food handler's courses were arranged by the District staff.

The problem of individual sewage treatment plants for new realty subdivision developments loomed as a large problem during the year. Forty-eight such subdivisions were investigated by the District staff, and recommendations made as to the suitability of such systems.

Inspections were made of the railroad and steamship watering points as a cooperative activity with the U. S. Public Health Service.

The fluoridation program has been greatly stressed during the current year. New water supplies initiating fluoridation during the year are Asbury Park, Allenhurst and Perth Amboy.

VETERINARY PUBLIC HEALTH

One case of clinical rabies in a dog was reported. Diagnosis could not be confirmed by laboratory examination. Epidemiological investigation combined with the clinical history prompted the institution of precautionary measures. This consisted of alerting all health officials in the county involved to intensify their over-all dog control program. A quarantine was invoked and all dogs were confined to their premises. Vaccination clinics were held in the township where the clinical case was diagnosed and in four adjacent towns. More intensive pick-up activity was carried out. No other case was found.

No case of anthrax was reported in the District. This is of significance because there have been several farms involved in each of the past several years.

Inspections were made of all 32 slaughterhouses in the District and inspections made whenever it was deemed necessary. It is our main objective to assist local health officials in the sanitary inspection of slaughterhouses in

their municipalities and at the same time encourage the establishment of a proper meat inspection system at the local level. Because of this combined effort with local health officials, there are nine slaughterhouses in the Central District that have an adequate ante- and post-mortem system of meat inspection. This compares with only two slaughterhouses having adequate meat inspection prior to the beginning of the year.

COMMUNICABLE DISEASE

The District initiated and coordinated the Salk vaccine trial in Monmouth County. The wholehearted cooperation of various organizations and individuals was without equal. The planning committee called together by the District State Health Officer was composed of representatives of The National Foundation for Infantile Paralysis, Monmouth County Chapter; The Monmouth County Medical Society; The Monmouth County Organization for Social Service; The American Red Cross, Monmouth County Chapter; The New Jersey State League for Nursing; District No. 4 New Jersey State Nurses' Association; Monmouth Memorial Hospital; Monmouth County Parent-Teacher's Association (Public); Monmouth-Ocean County Parent Teacher's Association (Parochial); The Superintendent of Schools, Monmouth County; Superintendent of Schools of the Catholic Diocese of Trenton; The Monmouth County Health Officers' Association; the local boards of health; the local boards of education.

The combined thinking and planning of this committee resulted in the organization of 48 clinics to administer the Salk vaccine to the second grade children in approximately 100 schools throughout the county. Twenty-seven hundred children received three injections of vaccine each and 250 children were each blood-tested on two occasions. In addition, it was necessary to maintain numerous records on nearly 13,000 children. This number included the first and third grade children who were used as controls in the study. One of the primary factors contributing to this most successful mass immunization program was the wholehearted cooperation and combined efforts of over 500 physicians, nurses, school teachers, mothers and other individuals who gave many hours of their time without monetary compensation.

A significant outbreak of typhoid fever occurred in Trenton among the parishioners of a church. Twelve cases developed in the course of the outbreak. A typhoid carrier was found among the parishioners who had assisted in the preparation of cookies for religious celebration.

TUBERCULOSIS CONTROL

The tuberculosis registry in Mercer County continues to operate effectively. It was significant that every physician involved in the home care of a tubercular patient gave full cooperation by making quarterly reports of the status of his patients. The cooperation of the local boards of health was likewise noteworthy. A monthly tally was made of the cases added to and dropped from the registry, as well as a six-month tally of the status of all the cases in the registry. These tallies are a pilot study for the State and should result in a procedure that will provide a set of statistics giving a more complete picture of the status of the care of reported cases of tuberculosis. This includes their treatment status, activity status, and sputum status, as well as the prevalence of tuberculosis in various population groupings.

With the cooperation of the Middlesex County Tuberculosis League and the medical and nursing staff of the Roosevelt Hospital, a tuberculosis registry for Middlesex County was set up. The League subsidized the salary of a registry clerk and the purchase of filing equipment. The hospital staff provided medical and nursing guidance as well as office space. With the assistance of a research analyst from the U. S. Public Health Service, the Department gave intensive consultation service.

Upon the advice of the District staff, the Monmouth County registry was made more effective by including the regular checking of tuberculosis cases under private physicians' care.

VENEREAL DISEASE CONTROL

The Venereal Disease Control Program continued to develop on the basis of the work of the Venereal Disease Investigators. Three such investigators were assigned to the Central District during this year, as follows: one to Camp Kilmer and the Middlesex County area, one to Fort Monmouth and Monmouth-Ocean County area; and one to the Mercer-Burlington County area. Case interviewing in Fort Dix was carried on by an Army-employed civilian who had been sent for special training to Alto, Georgia. Each of the investigators, in addition to their case finding at the Army installations, did similar interviewing at the regular established Venereal Disease Clinics in their areas, were in close contact with the local health departments, and followed up cases involving more difficult problems of investigation.

MIGRANT HEALTH

The Migrant Health Program in the District was coordinated by the staff personnel and with invaluable assistance from departmental, inter-departmental and voluntary agencies. Special credit is due the Bureau of Migrant Labor, the Bureau of Venereal Disease Control, the Bureau of Serology and The Monmouth County Organization for Social Service.

It was possible through the personnel and services furnished by the participating agencies to operate the clinics and carry out other related activities. The use of a mobile health clinic for the examination of migrant workers was initially started this year. This type of clinic resulted in a much higher number of examinations than in previous years. This increase is due apparently to being able to place clinic facilities throughout the District at concentrations of migrant workers.

The venereal disease investigators assigned to the mobile unit were also an important factor in the increase in clinic attendance. This personal contact with the farmers to alert them of the location of the mobile unit in their area was an added inducement to have their migrant employees examined.

The mobile unit functioned at eleven different locations in Monmouth, Mercer and Middlesex Counties during the summer. The stationary clinics operated as in former years at the Freehold Health Center and Prospect Plains (Monroe Township Hall).

During 1953 there was a 76% increase in the number of migrants examined over the previous year. The findings gave approximately 124% more positive serology and 80% more clinical diagnosed gonorrhea found over that for 1952.

CRIPPLED CHILDREN

A new crippled children's nursing contract was put into effect placing public health nurse supervisory responsibilities, formerly held by the specialized crippled children public health nurse supervisor in the District office, on to the local agency supervisor when such an agency had an adequate and competent staff. In the Central District this meant that 74.5% of the cases were no longer under our direct supervision, since the cases covered by the Trenton Visiting Nurse Association, the New Brunswick Visiting Nurse Association, the Monmouth County Organization for Social Service, and the Ocean County Nursing Service were supervised locally.

Metropolitan State Health District

The Metropolitan State Health District includes the counties of Bergen, Essex, Hudson, Passaic and Union. As of June 30, 1954, the following personnel comprised the active full-time staff of the District: District State Health Officer, District Health Officer, District Chief Public Health Engineer, Senior Public Health Engineer, Public Health Veterinarian, Senior Sanitarian, two Sanitarians, Assistant Sanitarian, Rabies Control Warden, District Chief Public Health Nurse, eight Public Health Nurse Supervisors, two Public Health Nurses, District Consultant on Community Health Organization, Public Health Analyst (V.D.), Venereal Disease Inspector, seven clerical personnel and a Senior Veterinary Inspector on quarter-time basis. There also served jointly in the Northern and Metropolitan Districts a part-time Dental Supervisor, administratively responsible to the program coordinator of the Dental Health Program.

Although certain services, by law and regulation, require Departmental action, District personnel have, wherever possible, actively promoted the assumption of direct services by local governments through constant stimulation and the rendition of consultative and advisory assistance to local health officials. Staff members attended numerous evening meetings of boards of health to assist them in arriving at a satisfactory solution of current problems. Every such meeting afforded opportunity to develop better understanding and mutual acquaintance and to point up public health responsibilities and ways and means of implementation at the municipal level. On every possible occasion, local officials were informed as to the advantages of consolidation as a means of economically providing adequate public health services of good quality.

ENVIRONMENTAL SANITATION

Inspection of all licensed establishments as required by statute and Departmental programs have been carried on as a routine procedure; assistance, upon request, was also given representatives of local boards of health in the inspection of various large wholesale establishments, not requiring license. A consistent effort has been made to encourage local boards of health to assume increasing responsibility for direct services, keeping in mind that the ultimate objective of the District office is to function as an advisory and consultative agency. Nevertheless, pressing problems of water supply, sewage disposal, industrial wastes, and other Departmental responsibilities are demanding an increasing share of District attention. A growing number of appeals from the populace for relief from obnoxious nuisances are being re-

ceived and require critical analysis to afford that relief in a manner that is satisfactory but not coercive.

The completion and allocation of the various Departmental programs has more definitely organized our efforts towards carrying through the objectives as outlined. New realty subdivision construction continues at a steady pace, with increasing problems of proper sewage disposal as sub-marginal and more difficult soil conditions are encountered and brought into use. Inspections performed at the request of Federal Housing Agencies and local boards of health have resulted in recommendations designed to minimize performance failures and thereby lessen future problems.

The Metropolitan State Health District has the largest concentration and diversity of industry in the State of New Jersey and, therefore, the most difficult and complicated aerial pollution problems. The area most generally afflicted lies between Elizabeth and the Hudson River. A difficult problem involving two municipalities along the Hudson River came to District attention in the fall of 1953. The District State Health Officer arranged a conference of municipal officials, plant management, representatives of the Bureau of Adult and Industrial Health and District staff which has resulted in an amicable cooperative effort to strive for an abatement. Similar conferences are being planned to resolve corresponding problems in other areas. A large contribution to "smog" in the Metropolitan District is smoke from the large number of burning dumps, control of which is a local responsibility. Considerable efforts have been made to encourage the various municipalities to assume the task of correcting and eliminating such conditions. Here, too, the opportunity for conferences between local authorities and representatives of Departmental bureaus concerned and of the District may assist in the solution of existing problems, and also set a pattern towards the handling of future problems as they arise.

VETERINARY PUBLIC HEALTH

The Metropolitan District veterinary effort was particularly directed towards furtherance of the Rabies Control Program, improvement of abattoirs and meat processing plants, and epidemiological investigation of reported infections of man transmitted through animals.

Routine inspections of pet shops, shelters, dog pounds and kennels were made as set forth in the Departmental program. Local officials have been encouraged to license all such establishments as well as each privately owned dog; also to provide adequate pounds and stray pick-up services either on a local or regional basis.

Continual supervision has been maintained and routine inspection performed of abattoirs and meat processing plants. During the past year, several establishments have been making marked improvements in their physical facilities. Much effort has been exerted by way of impressing local officials and abattoir owners of the many beneficial results to be derived from a combined local and State meat inspection program.

Encouragement was given to local officials to partake in routine inspection activities and epidemiological investigations.

POLIOMYELITIS VACCINE FIELD TRIALS

Bergen, one of the five counties selected in New Jersey, is the largest participating county in the State and believed to be the largest county fully participating nationally. The county school population contains 13,783 children in the first, 13,168 in the second, and 10,044 in the third grade, a total of 36,995 pupils participating in the study. There were 8,903 second grade children given the first inoculation, of which number 8,690 (66% of the second grade) completed the series of injections of Salk vaccine in 220 of the 230 public, parochial and private schools located in the 70 municipalities within the period April 27 through June 16. In seven of the larger communities and immediately prior to the first inoculation, blood for immunity studies was contributed by 734 children in the first three grades and 658 of these same children contributed a second blood sample two weeks following the third injection of Salk vaccine. This group approximated two per cent of the total number in the study.

Recognition of the invaluable assistance given by school authorities, the County Medical Society, local health officers, the County Chapter of the National Foundation for Infantile Paralysis, the American Red Cross, all six hospitals in the county and many individual citizen volunteers is hereby acknowledged. Successful conclusion of a task of such great magnitude would have been impossible without such excellent cooperation. The combined labors of the District staff and the County Polio Chapter have been great in distribution of educational and clinical materials necessary to the Trials and in the collection of completed forms and other returnable items. Epidemiological investigation, physiotherapeutic evaluation and statistical follow-up by District and other designated personnel have been provided for. Most of the follow-up procedure will necessarily continue into the new fiscal year when reports as to evaluation of the vaccine may be expected.

TUBERCULOSIS CONTROL

The major efforts of the District office were concerned with Mass Chest X-ray Surveys, promotion of Case Registers and control of Veterans Administration cases discharged against advice.

Case finding by mass X-ray is a well-developed and established procedure in Bergen and Passaic Counties where locally provided mobile X-ray units give excellent continuous coverage. There were 61,325 individuals in Bergen and 52,110 in Passaic Counties given this service in the calendar year 1953. High case-death ratios in these counties are testimony to effective case-finding methods.

In the fiscal year just closed, administrative responsibility for the conduct of mass surveys under Department sponsorship was first vested in the District. There were 197 unit survey days allotted to the District and concentrated in Hudson, Essex and Union Counties. A representative committee of local health officers and TB League secretaries with the guidance of the District State Health Officer arranged the survey schedule in Newark, Jersey City, Elizabeth and 29 other communities within the three counties. Subsequently, by the cooperative efforts of the local health officers, the County TB Leagues, the Bureau of TB Control and the District, a successful survey was conducted in the summer and fall months.

A total of 83,465 individuals was X-rayed, of which 3,345 (4%) were referred for medical examination. Of this referred group, 3,080 (92.1%) received follow-up services and definitive diagnosis was established in 1,784 instances. Of this number there were found 63 active, 563 inactive, and 53 of undetermined status, a total of 679 cases of tuberculosis.

There still remains the task of determining the amount of tuberculosis in the 1,296 individuals remaining under study with diagnoses as yet unknown. It has been estimated that 593 (55 active) cases may be expected in this group.

VENEREAL DISEASE

The highly urbanized Metropolitan State Health District continues to present the greatest venereal disease control problem in the State. The City of Newark was one of only seven major cities of over 200,000 population in the entire United States to report an increase in the incidence of both syphilis and gonorrhea for the fiscal year 1953 over 1952. Realizing the seriousness of this problem, a concerted effort was made to reduce the reservoir of undiscovered venereal disease within the District, with special emphasis being placed on case interviewing and contact investigation. Successful case-finding

activities as well as the orientation of local health department personnel were cooperative responsibilities of the public health nurse supervisors and assigned venereal disease investigators.

MATERNAL AND CHILD HEALTH

In the year just concluded, emphasis has been placed upon improvement of the quality of maternal and child health nursing visits, stimulation of personnel to increase the educational functions of child health conferences, continuous evaluation of community needs in relation to child health conferences and nursing staff education on child safety. Progress has been made in all of the above.

CRIPPLED CHILDREN

Responsibility for the Rheumatic Fever Demonstration Program was transferred from the District to St. Michael's Hospital, effective July 1, 1953. Consultative help from the District has been available. On the same date, service to crippled children in Union County, with a caseload of 389 active cases, was assumed by the District. The Essex County Cerebral Palsy Coordinating Conference was organized during the year, with active participation by appropriate members of the District staff. Cooperative action by member-agencies promised to provide better service to cerebral palsy patients in the county and to promote better inter-agency relationships. Efforts to intensify the educational program in orthopedic nursing have been successful, especially in the consultative service given to New Jersey Orthopedic Hospital for the establishment of an orthopedic course for nurses. Two series of the course have been well attended by VNA nurses and evaluations indicate that they have been most beneficial. A series of Parents Education Classes for Handicapped Children, co-sponsored by the New Jersey Society for Crippled Children and Adults and Rutgers University was held in Bergen County and repeated in Essex County. Five public health nurse supervisors and the District Chief Nurse attended the series on their own time and tuition.

EVALUATION SURVEYS - ESSEX COUNTY

A survey of health facilities and needs in the City of Newark based on the Evaluation Schedule of the State Department of Health was begun in February of 1954 starting with the first section of the evaluation schedule selected for study, the section entitled "Water Supplies, Excret^e Disposal, Garbage and

Refuse." The survey is an outgrowth of more than two years of sustained interest in health appraisals on the part of the chairman of the Health and Hospital Division, Council of Social Agencies of the Welfare Federation of Newark, Irvington and West Hudson. The Health and Hospital Division has undertaken full organizational leadership and has worked in close cooperation with the Metropolitan State Health District and the Newark City Health Department since the inception of the program.

The District State Health Officer has attended several meetings for the purpose of exploring the possibility of conducting an evaluation survey in the Town of Irvington. The Community Welfare Council, a branch of the Welfare Federation, is anxious to develop such a program and has taken initial steps toward its organization.

Northern State Health District

The Northern State Health District encompasses the five counties of Hunterdon, Morris, Somerset, Sussex and Warren. At the close of the fiscal year the staff consisted of 34 persons, including a District Health Officer, District Chief Public Health Nurse, District Consultant on Community Health Organization, Public Health Physician, Senior Sanitarian, Sanitarian, Assistant Sanitarian, Investigator Rabies Control, six Public Health Nurse Supervisors, fifteen Public Health Nurses and five office personnel.

Within the framework of available personnel, the present unit is functioning as a team in rendering service and integrating Departmental programs with the local core of public health activities.

This office has emphasized:

1. The promotion of better local health services.
2. Assistance to local health authorities in analyzing health needs, formulating plans and developing program content.
3. Promotion of cooperative programs between local health departments and other official and voluntary agencies.
4. Consultative and advisory services in special health activities.
5. Coordination and integration of activities of staff personnel.

The open house reception was held in the new offices of the Northern State Health District on December 4, 1953. Its purpose was to acquaint individuals and local agencies with the public health programs carried on in the District.

HEALTH COUNCIL ACTIVITIES

Members of the staff cooperated with the Council for Local Public Health Services of New Jersey and participated in its annual and regional conferences. There were representation and participation of staff at all health council or committee meetings within the District, primarily in the interest of promoting better local health services. Efforts were expended in special health activities of civic groups and voluntary agencies whenever the opportunity was available in order to coordinate and interpret Departmental programs and stimulate local activity and participation. Some of these included the Homemaker Service of Morris County Chest and Council, School Survey of the Warren County Council, Mental Health Institute, Hunterdon County Mental Health Committee, etc.

As an outgrowth of the basic course on public health given at Belvidere, the Regional Health Council was organized in February, 1954. This office was called upon to assist with the planning, representation and organization of the Council as well as with its integration with the program of the Warren County Welfare Council which has a Health Committee functioning on a county-wide basis.

CRIPPLED CHILDREN PROGRAM

The Union County case load was transferred to the Metropolitan District as of July 1, 1953. The Hackettstown office moved to Dover in November.

Seven cerebral palsy clinics were held in the District with an attendance of 31 new cases and 68 re-examinations. Conferences were held with hospital administrators and coordinators of the cerebral palsy centers prior to the clinic dates.

Conferences were held to discuss the needs of the cerebral palsy children in Warren County. Future plans for therapy and supervision of these children in the county will be dependent on the facilities to be made available by the new Warren Hospital—until that time when the children will receive therapy in neighboring county facilities.

In an effort to provide better public health nursing supervision for crippled children in Sussex County, the public health grant-in-aid nurse is attending and assisting at the weekly orthopedic clinic at Newton Memorial Hospital.

Plans were made in the late spring for the case-screening project initiated through the Crippled Children and the Vital Statistics Programs. The project started in this District in June, and though time-consuming, is worthwhile.

In an effort to expand and improve services for crippled children in Morris County, an in-service training program was presented from November to March, co-sponsored by the Visiting Nurse Association of Morris County, County Superintendent of Schools, local health officers and the District Health office. This was initiated at the request of the public health and school nurses in the area as well as the VNA in order to improve services to crippled children, aid in case-finding, prevent further deformities, and become acquainted with and stimulate resource facilities.

MATERNAL AND CHILD HEALTH

At the beginning of the fiscal year, there were 13 well-baby stations functioning in three of the five counties in the District. During the year, three stations were discontinued. A total of 166 conferences were held, attended by ten physicians.

VENEREAL DISEASE

During the year the venereal disease work has increased. Suspects, contacts and diagnosed cases were referred to the seven full-time health officers in the District. In municipalities where there were no full-time health officers, the cases were sent to the public health nurse supervisor who in turn referred the patients to the local nurses; and if there were no local nurses, the supervisor gave direct service.

One local health officer and five nurses attended the one-week course, "Techniques of Interviewing", given at Fulton County Health Department, Atlanta, Georgia.

CHRONIC ILLNESS

During the year emphasis has been placed on providing educational experience for nurses in chronic illness and the development of the nursing aspects by integration in the generalized public health nursing program. The consultant staff of the Division of Chronic Illness assisted in the interpretation of the program and the teaching of nursing aspects.

The consultant in Medical Social Rehabilitation participated in a joint supervisors and field nurses staff meeting for discussion of "the rehabilitation of the cardiac patient".

A cardiologist lectured on "cardiovascular disease" to the Warren County nurses. Arrangements were also made for these nurses to visit St. Michael's Hospital, Newark, to observe the cardiac and rheumatic fever programs.

SPECIAL ACTIVITIES—HUNTERDON COUNTY

Considerable advancement was made in generalizing and developing the public health nursing program in Hunterdon County. In November, a public health nurse supervisor was assigned full-time to the county. Progress was made in the following areas:

1. A grant-in-aid nursing program was developed and the proposal has been presented to county officials.
2. A limited bedside nursing service was started for certain patients discharged from the Medical Center.
3. A system of referral to and from the Medical Center to the nurses was initiated. A form for this purpose was made up and is in use.
4. A county-wide Rheumatic Fever Program was started in November, 1953 by the Medical Center in cooperation with the Department and the local staff nurses. Patients are referred to the Medical Center for examination and diagnosis, and referrals requested by the hospital are followed up. All cases are cleared through the family physician. A referral form was made up and is in use.
5. A school health demonstration project was started in Franklin Township co-sponsored by the Medical Center and the Franklin Township Board of Education, with assistance from the nurse supervisor and local field nurse.
6. Plans were completed for the installation of the new nurses' record system to begin on July 1, 1954, as a three-months' demonstration project. This is designed to meet the nursing statistical requirements of the Departmental program and will replace the present record system in the county.

In cooperation with the Department, the series of in-service seminars initiated last year were continued at the Medical Center. Medical lectures and nursing instruction were given by the medical, nursing and physical therapy staff of the Medical Center, a State Department of Health Public Health Nurse Consultant in Chronic Illness and the Public Health Nurse Supervisor. The field nurses participated by presenting case studies.

COMMUNICABLE DISEASE

Investigation of communicable disease, promotion of more adequate reporting, submission of adequate laboratory specimens where indicated, and studies of possible sources of cases were routinely carried on where practical.

All of the typhoid carriers (9) in the District were checked twice during the year.

This office cooperated with the county tuberculosis associations in organizing community X-ray programs and in assisting with follow-up and referral of cases. Staff also participated in a State-wide survey of the follow-up of suspected tuberculosis patients found during State-conducted mass X-ray surveys directed by the Tuberculosis Program. During February, surveys of the five county associations in this District were completed.

Cooperation with the National Foundation for Infantile Paralysis in supplying case histories and checking quarantine of contacts with local health agencies was effected.

SANITATION

There was continued effort to generalize the environmental program to broaden individual scope of activities as well as to assure adequate coverage and more even distribution of the work load. Routine inspections performed included creameries, ice cream plants, dairy farms (including out-of-State farms), bakeries, taverns, restaurants, inter-State water carriers, public and private water supplies, industrial waste disposal, public and private sewage disposal systems, cross-connections, dumps, realty sub-divisions, flood water control, rodent control, etc.

Percolation tests, dye tests, orthotolidine tests, use of HTH and other methods of determining hazards, adequacy of treatment and control were demonstrated by staff to personnel of local boards of health.

Wherever local health department personnel were available, this office requested and received their cooperation and assistance with investigations and inspections with the long-term objective of consultative and advisory service by the District office being promoted.

In the fall of 1953, the New Jersey State Department of Health and the Passaic Valley Water Commission undertook a joint investigation of the pollution of Crooked Brook and the Whippany River, both in Morris County. This office assisted in the investigation in cooperation with the Commission, Departmental engineers, local officials and the citizens' groups who were demanding permanent corrections to commercial and municipal sources of pollution. Pre-planning conferences with the local boards of health concerned involved pin-pointing possible sources of pollution, outlining a program for the field investigation and the stream sampling survey. The investigation culminated in confirmation of violations of the Potable Water Act; abatement procedures were initiated.

Complaints were investigated concerning the fibre waste from the paper mills along the Delaware River, Hunterdon County. Also investigated was

the problem of dead fish in the Black River, Morris County. The low rainfall with the resultant lack of oxygen seemed to have caused this condition. No possible sources of pollution contributing to the condition could be located.

Certificates of Approval were issued to all summer camps which complied with the sanitary requirements of the Camp Program, a total of 110. In accordance with the procedure initiated by this office in 1952 in recording facilities available for capacity housing and mass feeding in the event of emergency or disaster, a supplementary list was compiled to expedite the continuance of the roster for civil defense purposes.

VETERINARY PUBLIC HEALTH

Routine inspections of abattoirs with notification and follow-up of any discrepancies were carried on.

Local health departments and municipalities were advised on provisions of ordinance and codes concerning problems embracing zoonosis.

Two privately-owned regional dog pounds and services have been established—one in Branchburg Township and the other in Hillsborough Township. Many municipalities have joined in this type of service because of the low cost and the fact that the dog pound is located out of the respective municipalities.

Some municipalities have joined together in advertising and publicizing their rabies clinics. Through the Rabies Control Program of the Department, this office now has radio and newspaper publicity material available to local officials for release by them prior to the vaccination clinics.

POLIOMYELITIS VACCINATION FIELD TRIAL

Two counties in this District, Morris and Warren, were chosen for inclusion in the national Poliomyelitis Vaccination Field Trial. Because of the nature of the local administrative setup in these two counties, this office functioned on a State level, coordinating the organization and operation of the project—and on a local level, having full and basic responsibility for the conduct of the trials. Of course, where there were full-time local health officers, this basic responsibility was assumed by them. In one instance, the local health officer assumed the responsibility for his adjacent municipalities.

Through the cooperation of the school personnel, 46 clinic sites in Morris County and nine in Warren County were established during the month of April. The second and third weeks of April were devoted to providing all of the schools in both counties with literature, films and forms. This was accomplished with the assistance of volunteers from the County Chapters of the Polio Foundation.

The last two weeks of April were devoted to meetings for the orientation of parents to the study. Within these two weeks approximately 35 meetings were arranged by the local schools in Morris County and six area meetings were arranged in Warren County.

The public health nurse supervisors assisted in setting up the vaccination clinics, demonstrating techniques and conferring individually with school nurses and the local health officers on problems as they arose.

Arrangements were made with the five hospitals in both counties for sterilization of supplies, and at clinic sites for washing and re-packaging. Arrangements were made with local health officials wherever possible for the distribution and collection of supplies, and assistance was given by staff members where necessary.

TRENDS

The most outstanding trend within the District during the past year has been the cross-integration of programs of all social agencies related to health and safety. Active interest in health has gone beyond the limits of only the professions concerned with the delivery of health services. The impact of this interest and awareness emphasizes the need for scope in the leadership that official agencies must provide and maintain in spite of a lack of personnel and shortage of qualified personnel at the local level.

Community planning and provision for adequate medical care were evidenced by the opening of St. Clare's Hospital in Denville, Morris County, last fall, and the groundwork being laid during the whole year for the new Warren County Hospital. The value of these hospitals as they are developing and have developed into the health foci of whole communities is a significant trend.

Recognition of the need for promotion of mental health and the prevention of mental diseases was indicated in four of the counties in the District with particular emphasis in the planning for school-age and young adult groups. Each of the counties present different aspects of planning and action, demonstrating at the same time constructive community attitudes and understanding of emotional growth and practicable solutions to problems now existing.

The value of the public relations activities of the District has increased in importance and has become an indispensable adjunct to the Departmental program.

Southern State Health District

The Southern State Health District includes the counties of Atlantic, Camden, Cape May, Cumberland, Gloucester and Salem. At the close of the fiscal year the personnel consisted of 42 persons, including a District State Health Officer, District Chief Public Health Engineer, District Chief Public Health Nurse, Public Health Veterinarian, District Consultant on Community Health Organization, Senior Public Health Physician, Senior Sanitarian, Sanitarian, three Assistant Sanitarians, seven Public Health Nurse Supervisors, District Consultant Public Health Nutrition, Physical Therapist, Rabies Control Warden, seventeen Public Health Nurses and four office personnel.

Dr. Nelson E. Newbury retired at the end of August after having been in charge of the branch office at Mays Landing for 12 years. The Public Health Nurse Supervisor at Mays Landing was subsequently made responsible to the District Chief Public Health Nurse and the activities carried out by the branch office became the direct responsibility of the District office in Haddonfield.

COMMUNITY HEALTH SERVICES

With the objective of increasing public understanding of medical care and the activities of the medical and related professions, the Camden County Medical Society held a three-day "Public Health Forum" in the spring. The Department provided a number of exhibits and the District participated by providing both literature and personnel. About 1,200 people visited the Forum.

Three hundred and fourteen second grade children in Cape May County were inoculated with the Salk poliomyelitis vaccine. In the absence of a County Health Officer, but in cooperation with local health officials and community leaders, the District played an active part in organizing this important project.

NUTRITION

A South Jersey Nutrition Institute was held for professional workers at Glassboro. It was organized by District personnel with the cooperation of other groups and was under the joint sponsorship of the Department and the New Jersey Nutrition Council.

In-service training for public health nurses continued and considerable improvement in the handling of nutrition problems was noted. A special demonstration project was begun in 1954 through which families of children attending the Department-sponsored diagnostic and consultation clinics for cerebral palsy are given help on nutrition problems.

ENVIRONMENTAL SANITATION

District personnel participated in a food handlers' training course given for supervisory personnel at the Leesburg State Prison Farm. This course was set up in response to a request from the Farm management.

Sanitation and related problems which are legally the responsibility of local boards of health were referred to them for solution, but District personnel were made available on request for advice and consultation.

A number of communities were stimulated to take positive action toward the elimination of open dumps and definite steps were taken by some communities toward the establishment of sanitary landfills or incinerator authorities.

PUBLIC HEALTH NURSING

Further progress toward the improvement and decentralization of crippled children services was made when a temporary employee joined the staff in June—to aid in the assembling of data to be given to each public health nurse supervisor concerning the crippled children case load of each nurse under her supervision. This work is part of the relatively new system of registration on IBM cards and the setting up of a tickler system to be used in connection therewith.

Because of Federal budget cuts increased efforts were made to obtain larger local contributions toward the salaries of nurses partly paid by the Department. Increases were made in the case of 11 out of 18 nurses concerned. Two public health nurses left the Department and were employed locally under the terms of grant-in-aid contracts, which provide for nursing supervision without cost to the local board of health.

The number of nurses doing public health work (non-supervisory) in the field varies from 1 per 2,700 population to 1 per about 4,400 population in the counties of the District. In 27 communities with a combined population of over 67,000 no antepartum, postpartum or pre-school services exist. In these same communities there are over 1,500 births annually. Fifteen of these communities, with a population of almost 37,000, have school nursing services only. An increasing number of requests were received for bedside nursing but many of these could not be referred for action because of the existence of uncovered areas. In one county alone a group of communities with a combined population of over 45,000 have no bedside nursing services available to their citizens.

An extensive program for in-service training was carried on. A monthly institute began in December and covered themes in the fields of maternal and

child health as well as related subjects. Attendance from all counties in the District was very good.

Because of the existence of uncovered areas public health nurse supervisors are often obliged to render direct services which should be carried out by locally employed public health nurses.

Bureau of Public Health Nursing

The emphasis of recent years on the transition of direct public health nursing services from State to local administration has resulted in increased local responsibility for direct public health nursing service. Departmental nursing statistics reveal a definite decrease in the number of nurses fully paid by the State Department of Health and an increase in the number of locally paid nurses who are supervised by the State Department of Health. Parallel with these changes an increase is noted in the number of nurses employed through Departmental grants-in-aid.

Implementation of the Public Health Nursing Program has enabled the public health nurse consultants to function more effectively in rendering consultative services to the Districts and local communities. There was a notable increase in the number of requests for consultative services, especially for assistance in in-service training programs. These services embraced the public health nursing aspects of the following specialties: Maternal and Child Health, Crippled Children, Chronic Illness, Heart Diseases and Cancer.

Many conferences among the administrative and consultative nursing personnel involved pre-planning and planning with other program coordinators, division directors and personnel of other State agencies. Results of these coordinated efforts were manifested in the participation of Departmental nursing staff in the Glaucoma Institutes, the Cancer and Cardiac Institutes for Nurses, the Social Workers Institute on Cardiovascular Diseases, the Handicapped Children's Conference and the inauguration of the Safety Program. Other activities included cooperation with national agencies toward the improvement of public health nursing services.

Further developments in the generalization of public health nursing services can be cited in the nursing program in Hunterdon County. A detailed plan for generalized nursing services was recommended as part of implementing the program of Chronic Illness Control. Plans included a generalized family health record, a daily activity report and recommendations for a public health nursing uniform, public health nursing bag, equipment and procedures. As part of this plan, in-service training, in which a public health nurse consultant

participated, was conducted for the local public health nurses. In addition, conferences were held by Bureau staff for orienting District and local staff in the use of the recommended report forms for a pilot study.

The Planning and Policy Committee of the Bureau of Public Health Nursing established a sub-committee on In-service Training for Nurses. The membership is comprised of representation from the Bureau of Public Health Nursing and the four State Health Districts and includes a staff nurse, five supervisors, a public health nurse consultant and a district chief public health nurse. Like other Departmental nursing committees, this committee functions under the guidance of the Chief Public Health Nurse in order to attain coordination, uniformity and standardization of patterns for staff education in the Districts.

Numerous opportunities were afforded to the nursing staff for continuing their professional growth and development. These included regular staff and Planning and Policy Committee meetings, attendance at conferences, institutes and workshops sponsored by national, State and local agencies, and study privileges for formal education.

At this point, it seems feasible to cite some trends in public health nursing in various areas throughout the State. In many instances, it is encouraging to note that local agencies are increasing salaries for public health nurses. Definite improvement in the relationships between hospital and public health nursing agencies became apparent, particularly in relation to maternal and child health services. A main factor in this accomplishment was, undoubtedly, the Maternal and Child Health Institutes for Nurses held in the Southern State Health District. Another indication of closer working relationships was reflected in the participation of State Health Department nursing staff in the planning and conducting of the Institute "Present-Day Trends in Nursing Care" sponsored by the Departments of Hospital and Public Health Nursing of the New Jersey League for Nursing. Strides have been made in the orientation of nurses to the Crippled Children, Chronic Illness, and Maternal and Child Health Programs. Many nurses who have received on-the-job training in public health nursing have resigned in recent months to accept positions exclusively in schools; consequently, local communities have great difficulty in their replacement of qualified nurses.

The current changes in public health in New Jersey present a challenge to public health nurses, to agencies employing them and to communities utilizing their services. As we review these changes, they reflect scientific advances in medicine with concurrent increased public health nursing services in the home aimed toward the maintenance of optimal health. In order to meet present and anticipated needs, concentrated efforts are continually directed toward comprehensive nursing care to the family unit as an integral part of the community.

The great task continues for interpretation of public health nursing and its value to all citizens, and for further coordination of public health nursing with other community health and welfare activities toward the expansion of local health services. In this area, public health nursing consultative and supervisory functions are vitally important.

Efforts are perpetuated for the provision of a sufficient number of well prepared nurses and for qualitative evaluation of services in order to meet our challenge most effectively.

Bureau of Grants-In-Aid

During all or part of the fiscal year there were in effect 28 grant-in-aid contracts, 14 for the support of local public health nursing services and the same number for the support of demonstration and study projects in the field of chronic illness control.

PUBLIC HEALTH NURSING SERVICES

The practice of making grants of money to local health departments to pay all or part of the salaries of public health nurses was continued during the year. With the limited funds available, grants were made on the basis of demonstrated need in instances in which the local department lacked sufficient funds to pay for nursing services. Contracts were usually for a one-year term with the understanding that, if renewed, the local boards would assume an annually increasing share of the nurse's salary and eventually pay the nurse's entire salary.

Eight of the 14 contracts entered into during the year were with local boards of health which had not previously received grants. They were Gloucester City, Maurice River Township in the Southern State Health District; Madison Township and Raritan Township in the Central District; North Arlington Borough and Winfield Township in the Metropolitan District and Hillsborough Township and Newton Town in the Northern District.

The other six contracts were with boards of health which had previously had contracts for the support of public health nursing services. They were the boards in Clayton Borough, Kearny Town, Union City, New Milford Boro (2), and Pequannock Township. The board of health of Kearny after the expiration of its contract took over full payment of the nurse's salary and the New Milford board did likewise in the case of one of its two nurses who were partly supported by grants. The total amount expended by the Department for these grants during the fiscal year was \$14,460.54.

CHRONIC ILLNESS CONTROL

To a greater extent than in the previous year the grant-in-aid technique was applied to the problems and needs related to research, demonstrations and pilot studies for implementation of the Department's program in chronic illness control.

In this field 14 grants were in effect during all or part of the fiscal year. Six hospitals and the Essex County Service for the Chronically Ill were included. The hospitals were the West Jersey Hospital at Camden, the Hunterdon County Medical Center, St. Michael's Hospital at Newark, McKinley Hospital at Trenton, the Monmouth Memorial Hospital at Long Branch and the Mountainside Hospital at Montclair. The grants assisted these hospitals in conducting chronic illness control programs in rheumatic fever, heart disease, diabetes, alcoholism, cancer detection and multiphasic screening. In certain instances the grants were used by the grantees to employ needed program personnel such as medical secretaries, medical technologists, psychiatric social workers, medical social workers, other social workers and clerks. Some grants provided drugs, equipment and supplies necessary to carry out specific tests and studies.

The total amount of money expended by the Department in these 14 grants during the fiscal year exclusive of the value of drugs and other supplies furnished was \$32,498.85.

PUBLIC HEALTH NURSES PARTLY OR WHOLLY STATE PAID ASSIGNED TO LOCAL SERVICE

In accordance with the Department program, in instances in which a State paid nurse was assigned to serve in a single municipality the local board of health was offered a grant-in-aid contract. Under such a contract the nurse would become a local employee and the Department would pay to the local board a sum of money equal to all or part of the nurse's salary.

During the fiscal year seven local boards accepted grant-in-aid contracts under the conditions outlined above totaling \$12,810.00.

The board of health of the City of Paterson took over payment of the entire salary of a nurse who had previously been partly State paid.

Likewise, in accordance with the program of the Department efforts were made during the fiscal year to have local boards of health and education assume

a greater share of the salaries of nurses assigned to local service in more than one municipality who receive part or all of their salaries from the Department. Considerable success was obtained in this endeavor. Twenty-seven local boards of health or governing bodies increased their shares of such nurses' salaries by \$4,816.58 and 20 boards of education by \$3,908.25 making a total increase of \$8,724.83.

Report of the Division of Preventable Diseases

July 1, 1953—June 30, 1954

CARL E. WEIGELE, M. D., M. P. H., *Director*

Bureau of Acute Communicable Disease Control.. ADELE C. SHEPARD, M. D., M. P. H.
Program Coordinator

Bureau of Venereal Disease Control..... ADELE C. SHEPARD, M. D., M. P. H.
Program Coordinator

Division of Preventable Diseases

Due to administrative changes in the State Department of Health, the scope of activities of the Division of Preventable Diseases was reduced to the acute communicable and venereal diseases. The Bureau of Tuberculosis Control was transferred to the Division of Chronic Illness on July 1, 1953, since tuberculosis usually is considered a long-term illness.

At the beginning of this fiscal year, Adele C. Shepard, M. D., was designated Program Coordinator for the Acute Communicable Disease Control Program, as well as the Venereal Disease Control Program.

ACUTE COMMUNICABLE DISEASES

During the calendar year 1953, there were reported 82,150 cases of notifiable diseases (exclusive of tuberculosis and venereal diseases) as compared with 149,522 cases for the preceding year. Measles was chiefly responsible for this decrease with 3,626 cases in 1953 as compared with 79,972 cases in 1952.

The revised State Sanitary Code which was enacted on June 22, 1953 omits chickenpox, German measles, and mumps from the list of reportable diseases. Accordingly, reported figures for these three diseases are available only until that date. Although these diseases were reportable for only about one half of the calendar year, their total, 67,979 cases in 1953, exceeded the 60,195 cases reported in all of 1952. Their total last year was almost 83% of all the cases of notifiable diseases (exclusive of tuberculosis and venereal diseases).

The number of reported cases of poliomyelitis last year was essentially the same as that in 1952 with 754 cases reported in this year and 756 reported in 1953. The median for the five-year period 1949-1953 was 756. There were 40 deaths from poliomyelitis in 1953 as compared with 47 in 1952.

There was a sharp upswing in reported cases of diphtheria, there being 20 more cases reported in this year over last. The total of 52 cases in 1953 exceeds the number of cases reported even in 1950. Middlesex County contributed the greatest proportion of these cases with a total of 27 from this county alone. The all-time record low was reported for 1952 with a total of 32 cases. There were 4 deaths from diphtheria in 1953, also higher than any year since 1950.

Dengue, infectious hepatitis, including serum hepatitis, leptospirosis, and Q fever appear in the newly revised State Sanitary Code for the first time. While there were 122 cases of hepatitis reported, there was none reported for dengue, leptospirosis, and Q fever. Twenty-eight of the cases of hepatitis were reported from military installations. Infectious hepatitis was the cause of death in 19 instances.

The reporting of only 31 cases of typhoid fever in 1953 brings to an all-time low the reported incidence of this disease in New Jersey.

There have been no cases of smallpox reported since 1947.

In 1953, there was a marked decline in reported cases of malaria. Twenty-two cases were reported as compared with 191 cases in 1952.

Streptococcal sore throat (including scarlet fever) decreased from 3,630 cases in 1952 to 3,296 cases in 1953.

Of the 257 reported cases of amebiasis in 1953, 244 were reported from State Institutions.

There were no recorded deaths in 1953 from anthrax, botulism, brucellosis, cholera, dengue, food poisonings, German measles, glanders, leprosy, malaria, measles, mumps, ophthalmia neonatorum, plague, psittacosis, Q fever, rabies, smallpox, trachoma, trichinosis, tularemia, typhoid fever, typhus fever, or yellow fever.

Although there has been an increase in population, the total of deaths from notifiable diseases reported during 1953 was less than that reported in 1952. There were 1,403 such deaths in 1953 and 1,476 in 1952.

It is interesting to note that deaths from diarrhea of the newborn exceed by far the number of reported cases. This has been true for the last several years. In 1953 there were 2 cases and 14 deaths recorded from this disease.

COMMUNICABLE DISEASE EDUCATION AND INFORMATION

In cooperation with licensed local health officers, the Preventable Disease Committee of the New Jersey Health Officers Association, the Advisory Committee on Local Health Services, and the Child Health Committee of the Medical Society of New Jersey, circular 191, "Communicable Diseases Among School Children", was revised this year. The revision contains several new sections dealing with incubation periods, immunization schedules, placarding, and isolation and quarantine. The format of the booklet has been simplified and the context made to conform with the State Sanitary Code as revised and enacted on June 22, 1953.

Staff members of the Division again took part in teaching the Basic Public Health Course conducted each year by the State Department of Health and Rutgers University for training sanitarians for employment in health departments and as preparation for the examination for sanitary inspector's license.

In addition, educational material dealing with communicable disease reporting was provided for the reporting officers' training sessions conducted by the Division of Vital Statistics and Administration.

A paper, "Polio Vaccine Trial in New Jersey", was presented by the Director of the Division at the Annual Meeting of State and Local Health Officials on March 26, 1954.

Notices were placed in the Journal of the State Medical Society to apprise physicians of rules concerning the distribution of gamma globulin and of current quarantine regulations as provided in the revised State Sanitary Code.

POLIOMYELITIS VACCINE FIELD TRIAL

In November 1953, the National Foundation for Infantile Paralysis announced that the vaccine developed by Doctor Jonas E. Salk would be available for a nationwide study to determine the effectiveness of the vaccine in preventing paralytic poliomyelitis.

On the basis of certain epidemiological and statistical data, Bergen, Cape May, Monmouth, Morris, and Warren Counties were selected by the National Foundation for Infantile Paralysis as the areas in New Jersey for the polio vaccine trial.

Children in the second grade were selected to receive the vaccine because the incidence of polio is highest among this age group. Children in the first and third grades would participate in the study as controls.

In cooperation with the State and county medical societies, nursing, parent-teacher organizations, public, parochial, and private school authorities, the National Foundation for Infantile Paralysis and its county chapters, the vaccine was administered to children in the above mentioned counties, as follows: 1st inoculation—15,647; 2nd inoculation—15,466; and third inoculation—15,457 children.

The Manual of Suggested Procedures for the Conduct of the Poliomyelitis Vaccine Field Trials, prepared by the National Foundation for Infantile Paralysis, served as the guide for organizing the teams for the administration of the vaccine and the withdrawal of blood for antibody level determinations. The trial in New Jersey proceeded without incident.

Doctor Thomas Francis, Jr., Chairman of the Department of Epidemiology in the University of Michigan School of Public Health, will direct the evaluation of the vaccine. Epidemiological and laboratory data obtained from children in the vaccinated and control groups will be periodically forwarded to Doctor Francis.

It is hopefully anticipated that the evaluation studies will indicate that effective immunization against the paralytic effect of poliomyelitis has been attained.

GAMMA GLOBULIN

Gamma globulin was made available in 1954 for administration to contacts of cases of measles, German measles, infectious hepatitis, and poliomyelitis. Regulations for its distribution were liberalized in three ways over 1953 and the following changes were authorized.

Use of gamma globulin for persons exposed to poliomyelitis was limited to household contacts in 1953. The 1954 regulations also permit the use of this material for individuals intimately exposed in another household to a reported case during the last four days of the incubation period, or the first week of illness.

The 1953 regulations made no reference to German measles. The current rules specify that gamma globulin may be used to protect non-immune pregnant women who have been intimately exposed to this disease.

The third liberalization is in the use of gamma globulin for children exposed to measles. One of the provisions last year was that gamma globulin might be used for non-immune children under 3 years of age recently exposed to a reported case of measles. The age level this year was raised to 5 in the same category.

The complete 1954 regulations for the use of gamma globulin in New Jersey are:

Measles

- (1) Non-immune household contacts of reported cases.
- (2) Non-immune children under 5 years of age, older chronically ill, recently ill, or debilitated children who have been intimately exposed to a reported case.
- (3) Non-immune hospitalized children exposed to a reported case.
- (4) Non-immune pregnant women who have been intimately exposed to a reported case.

Dosage: 2 cc per individual, other than pregnant women.
10 cc for pregnant women.

German Measles

- (1) Non-immune pregnant women who have been intimately exposed to a case.

Dosage: 10 cc per individual.

Infectious Hepatitis

- (1) Non-immune household contacts of reported cases.
- (2) Non-immune pregnant women who have been intimately exposed to a reported case.

Dosage: 2 cc per individual, other than pregnant women.
10 cc for pregnant women.

Poliomyelitis

- (1) Household contacts of a reported case.
- (2) Individuals who have been intimately exposed in another household to a reported case during the last four days of the incubation period, or the first week of illness.

Dosage: 10 cc per individual.

Children who were inoculated with the Salk vaccine during the 1954 Poliomyelitis Field Trial in Bergen, Cape May, Monmouth, Morris, and Warren Counties were permitted to receive gamma globulin upon subsequent intimate household exposure to poliomyelitis. While the administration of gamma globulin to such children might affect the value of their participation in the Salk study, it was believed that the number of such cases would be so few that it would not affect the validity of the nationwide trial.

PROGRAMS

Considerable time was given by the Director and his staff to the preparation and refinement of program plans within the Division. The final plan for the Acute Communicable Disease Control Program was approved by the Commissioner on February 17, 1954, and for the Venereal Disease Control Program on February 2, 1954. The initial program plan for the Division was prepared and submitted for review on April 1, 1954.

BOARD OF EXAMINERS OF HEALTH OFFICERS, INSPECTORS,
AND PUBLIC HEALTH LABORATORY TECHNICIANS

The Director of the Division continued to serve as Chairman of the Board of Examiners of Health Officers, Inspectors, and Public Health Laboratory Technicians. The usually scheduled examinations were conducted.

DISABILITY INSURANCE SERVICE

The Disability Insurance Service of the Division of Employment Security is in the State Department of Labor and Industry, but the medical services needed to authorize the payments of benefits continued to be provided by the personnel of the Division of Preventable Diseases. Statistical services are provided by the Division of Vital Statistics and Administration.

TABLE I
 REPORTED CASES OF NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE
 (Exclusive of Tuberculosis and Venereal Diseases)
 New Jersey, 1933

COUNTIES	Anthrax	Chickensox	Diphtheria of Newborn	Diphtheria	Dysentery, Amoebic	Dysentery, Bacillary	Dysentery, Unspecified	Encephalitis, Infections	Epilepsy	Food Poisonings &	Hepatitis	Indonesia	Malaria	Measles	Measles, German*	Meningococcal	Mumps	Ophthalmia Neonatorum
Atlantic	0	0	0	0	1	2	0	0	0	0	0	11	0	75	10	1	100	0
Bergen	0	0	0	0	0	0	0	0	0	0	0	31	0	448	1,594	4	3,644	0
Burlington	0	0	0	0	0	0	0	0	0	0	0	11	0	32	1	0	1,271	0
Camden	0	0	0	0	0	0	0	0	0	0	0	49	0	412	236	0	1,271	0
Cape May	0	0	0	0	0	0	0	0	0	0	0	0	0	24	51	1	1,106	0
Cumberland	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	0
Essex	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Gloucester	0	13,894	0	0	0	0	0	0	26	0	14	114	0	0	14	3	0	0
Hudson	0	280	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hunterdon	0	1,187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mercer	0	714	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Middlesex	0	1,226	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Monmouth	0	1,705	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Morris	0	1,518	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ocean	0	3,584	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passaic	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salem	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sussex	0	206	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trenton	0	4,749	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Warren	0	107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
White Plains	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Military posts	0	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
State total	2	43,907	2	52	287	11	3	30	47	60	122	1,917	22	3,026	9,260	140	15,712	5

TABLE I—Continued
 REPORTED CASES OF NOTIFIABLE DISEASES BY COUNTY OF RESIDENCE
 (Exclusive of Tuberculosis and Venereal Diseases)
 New Jersey, 1933

COUNTIES	Paratyphoid Fever	Pneumonia	Polio-myelitis	Rocky Mountain Spotted Fever	Salmonellosis	Scarlet Fever	Streplococcal Sore Throat	Tetanus	Trachoma	Trichinosis	Typhoid Fever	Typhoid Fever	Whooping Cough
Atlantic	0	7	8	0	0	74	0	0	0	0	2	0	0
Bergen	0	41	143	0	0	573	5	0	0	0	4	0	30
Burlington	0	0	0	0	0	0	0	0	0	0	0	0	0
Camden	0	56	31	2	0	247	1	1	0	0	0	0	0
Cape May	0	0	0	0	0	0	0	0	0	0	0	0	0
Cumberland	0	0	0	0	0	0	0	0	0	0	0	0	0
Essex	0	38	6	0	0	21	0	0	0	0	0	0	0
Gloucester	0	898	107	0	0	482	5	0	0	0	2	0	0
Hudson	0	37	93	0	0	0	0	0	0	0	0	0	0
Hunterdon	0	5	0	0	0	0	0	0	0	0	0	0	0
Mercer	0	129	21	0	0	83	0	0	0	0	0	0	0
Middlesex	0	23	31	1	2	117	1	1	0	0	0	0	0
Monmouth	0	23	21	1	1	64	2	1	0	0	0	0	0
Morris	0	18	40	0	0	0	0	0	0	0	0	0	0
Passaic	0	15	61	1	1	154	1	0	0	0	0	0	0
Salem	0	0	0	0	0	0	0	0	0	0	0	0	0
Sussex	0	0	0	0	0	0	0	0	0	0	0	0	0
Trenton	0	0	0	0	0	0	0	0	0	0	0	0	0
Warren	0	0	0	0	0	0	0	0	0	0	0	0	0
White Plains	0	0	0	0	0	0	0	0	0	0	0	0	0
Military posts	0	1,115	0	0	0	183	215	0	0	0	0	0	0
State total	3	2,733	756	8	27	3,010	286	7	21	14	31	0	1,874

Note: No reported cases of Botulism, Cholera, Filariasis, Glanders, Leprosy, Plague, Psittacosis, Rabies (human), Smallpox, Tularemia, Typhus Fever (German Measles) and Mumps were not reportable in New Jersey after June 22, 1933.

DEPARTMENT OF HEALTH

TABLE II
RECORDED DEATHS FROM REPORTABLE DISEASES BY COUNTIES
(Exclusive of Epilepsy, Mental Deficiency, Tuberculosis and Venereal Diseases)
New Jersey, 1953

COUNTIES	Disease and International List (6th Rev.) Numbers									
	Amelias (146)	Chickpox (087)	Diphtheria (053)	Infectious Encephalitis (082-083)	Infectious Hepatitis (082)	Influenza (480-483)	Leptospirosis (072)	Meningococcal Meningitis (081-0)	Scarlet Fever (030-031)	Tetanus (061)	Whooping Cough (036)
Atlantic	0	0	0	1	0	1	0	0	0	0
Bergen	1	0	0	0	0	0	0	0	0	0
Burlington	1	1	0	1	1	0	0	0	0	0
Camden	0	0	0	0	0	0	0	0	0	0
Cape May	0	0	0	0	0	0	0	0	0	0
Cumberland	0	0	0	0	0	0	0	0	0	0
Essex	0	1	0	3	1	0	0	0	0	1
Hancock	0	0	0	0	0	0	0	0	0	0
Hudson	0	1	0	0	0	0	0	0	0	0
Hunterdon	0	0	0	0	0	0	0	0	0	0
Mercer	0	0	0	0	0	0	0	0	0	0
Middlesex	1	0	0	1	1	0	0	0	0	0
Morris	0	0	2	1	1	0	0	0	0	0
Municipal	0	0	0	0	0	0	0	0	0	0
Ocean	0	0	0	1	0	0	0	0	0	0
Passaic	2	0	0	0	0	0	0	0	0	0
Salisbury	0	0	1	0	0	0	0	0	0	0
Somerset	0	0	0	0	0	0	0	0	0	0
Sussex	0	0	0	0	0	0	0	0	0	0
Union	0	1	0	0	0	0	0	0	0	0
Warren	0	0	0	0	0	0	0	0	0	0
State Institutions	0	0	0	0	0	0	0	0	0	0
Military posts	0	0	0	0	0	0	0	0	0	0
State total	7	5	14	22	10	68	1	0	0	17

DIVISION OF PREVENTABLE DISEASES

TABLE II—Continued
RECORDED DEATHS FROM REPORTABLE DISEASES BY COUNTIES
(Exclusive of Epilepsy, Mental Deficiency, Tuberculosis and Venereal Diseases)
New Jersey, 1953

COUNTIES	Disease and International List (6th Rev.) Numbers									
	Polio-myelitis (050-051)	Pneumonia (490-493)	Rocky Mountain Spotted Fever (104.1)	Salmonellosis (042)	Shigellosis (043)	Streptococcal Sore Throat (Including Scarlet Fever) (030-031)	Tetanus (061)	Whooping Cough (036)	Scarlet Fever (030-031)	Tetanus (061)	Whooping Cough (036)
Atlantic	0	53	0	0	0	0	0	0	0	0
Bergen	9	111	1	0	0	0	0	0	0	0
Burlington	0	19	0	0	0	0	0	0	0	0
Camden	0	90	0	0	0	0	0	0	0	0
Cape May	0	19	0	1	0	0	0	0	0	0
Cumberland	0	0	0	0	0	0	0	0	0	0
Essex	0	10	0	0	0	0	0	0	0	0
Hancock	4	205	0	1	0	0	0	0	0	0
Hudson	4	29	0	0	0	0	0	0	0	0
Hunterdon	0	152	0	0	0	0	0	0	0	0
Mercer	0	8	0	0	0	0	0	0	0	0
Middlesex	1	72	1	0	0	0	0	0	0	0
Monmouth	1	52	0	0	0	0	0	0	0	0
Morris	2	33	0	0	0	0	0	0	0	0
Ocean	0	15	0	0	0	0	0	0	0	0
Passaic	7	80	0	0	0	0	0	0	0	0
Salisbury	0	15	0	0	0	0	0	0	0	0
Somerset	1	23	0	0	0	0	0	0	0	0
Sussex	0	3	0	0	0	0	0	0	0	0
Union	0	63	0	0	0	0	0	0	0	0
Warren	1	10	0	0	0	0	0	0	0	0
State Institutions	0	2	0	0	0	0	0	0	0	0
Military posts	0	0	0	0	0	0	0	0	0	0
State total	40	1,188	2	2	2	3	5	4	3	4

* Includes late effects.
Note: No records for Botulism, Brucellosis, Cholera, Dengue, Food Poisoning, German Measles, Glaucoma, Leprosy, Malaria, Meningitis, Mumps, Ophthalmia Neonatorum, Rabies, Psittacosis, Q Fever, Rabies, Smallpox, Trachoma, Trichinosis, Tuberculosis, Typhoid Fever, Typhus Fever, or Yellow Fever. German Measles and Mumps were not reportable in New Jersey after June 22, 1953.

TABLE III
CASES AND DEATHS FROM TYPHOID FEVER: 1953
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Less than 1 year	1	0	0	0	1	0
1 to 4 years	3	0	2	0	1	0
5 to 14 years	14	0	11	0	3	0
15 to 24 years	4	0	3	0	1	0
25 to 44 years	6	0	5	0	1	0
45 to 64 years	3	0	2	0	1	0
65 years and over	0	0	0	0	0	0
Age unknown	0	0	0	0	0	0
All ages	31	0	23	0	8	0

TABLE IV
CASES AND DEATHS FROM STREPTOCOCCAL SORE THROAT (Including Scarlet Fever): 1953
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Less than 1 year	10	1	7	1	3	0
1 to 4 years	905	0	482	0	423	0
5 to 14 years	1,856	0	932	0	924	0
15 to 24 years	480	0	433	0	47	0
25 to 44 years	37	0	21	0	16	0
45 to 64 years	5	1	3	1	2	0
65 years and over	0	1	0	0	0	1
Age unknown	3	0	1	0	2	0
All ages	3,206	3	1,879	2	1,417	1

TABLE V
CASES AND DEATHS FROM DIPHTHERIA: 1953
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Less than 1 year	0	0	0	0	0	0
1 to 4 years	16	1	9	0	7	1
5 to 14 years	16	1	11	1	5	0
15 to 24 years	12	2	5	1	7	1
25 to 44 years	6	0	3	0	3	0
45 to 64 years	2	0	0	0	2	0
65 years and over	0	0	0	0	0	0
Age unknown	0	0	0	0	0	0
All ages	52	4	28	2	24	2

TABLE VI
CASES AND DEATHS FROM WHOOPING COUGH: 1953
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Less than 1 year	151	4	73	3	78	1
1 to 4 years	596	0	288	0	308	0
5 to 14 years	1,036	0	503	0	533	0
15 to 24 years	42	0	20	0	22	0
25 to 44 years	23	0	8	0	17	0
45 to 64 years	5	0	3	0	2	0
65 years and over	1	0	0	0	1	0
Age unknown	0	0	0	0	0	0
All ages	1,874	4	893	3	981	1

TABLE VII
CASES AND DEATHS FROM MENINGOCOCCAL MENINGITIS: 1953
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Less than 1 year	21	5	11	2	10	3
1 to 4 years	42	8	24	5	18	3
5 to 14 years	16	1	11	1	5	0
15 to 24 years	49	2	43	2	6	0
25 to 44 years	9	0	7	0	2	0
45 to 64 years	1	1	0	0	1	1
65 years and over	1	0	0	0	1	0
Age unknown	1	0	1	0	0	0
All ages	140	17	97	10	43	7

TABLE VIII
CASES AND DEATHS FROM POLIOMYELITIS: 1953
BY SEX AND AGE GROUPS

AGE GROUPS	Total		Male		Female	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Less than 1 year	5	0	4	0	1	0
1 to 4 years	149	2	94	2	55	0
5 to 14 years	392	17	263	11	129	6
15 to 24 years	87	3	44	2	43	1
25 to 44 years	117	17	61	8	56	9
45 to 64 years	5	1	3	0	2	1
65 years and over	0	0	0	0	0	0
Age unknown	1	0	1	0	0	0
All ages	756	40	470	23	286	17

TABLE IX

CASES OF ACUTE POLIOMYELITIS BY MONTH BY COUNTY: 1953

AREA	NUMBER OF CASES												
	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Atlantic County	8	0	0	0	0	0	0	1	3	3	1	0	0
Bergen County	143	0	0	0	0	1	1	24	44	42	24	5	2
Burlington County	10	0	0	0	0	0	0	0	4	2	4	0	0
Camden County	34	0	0	0	0	0	0	7	13	9	3	0	2
Cape May County	1	0	0	0	0	0	0	1	0	0	0	0	0
Cumberland County	6	0	0	0	0	0	0	2	1	2	1	0	0
Essex County	107	1	0	0	0	0	3	12	23	27	27	5	4
Gloucester County	13	0	0	0	0	0	6	3	4	4	1	0	1
Hudson County	90	1	0	0	2	1	1	17	25	27	9	2	2
Hunterdon County	4	0	0	0	0	0	0	1	1	1	1	0	0
Mercer County	21	0	0	0	0	0	0	5	3	5	5	2	1
Middlesex County	56	0	0	0	0	0	2	7	20	17	7	2	1
Monmouth County	32	0	0	0	0	0	0	9	6	8	7	1	3
Morris County	49	0	0	0	0	3	0	4	19	16	6	1	0
Ocean County	8	0	0	0	0	0	0	2	1	2	2	1	1
Passaic County	61	1	0	0	0	0	0	7	23	14	11	4	1
Salem County	6	1	0	0	0	0	1	0	1	2	1	0	0
Somerset County	17	0	0	0	0	0	0	3	4	6	4	0	0
Sussex County	3	0	0	0	0	0	0	0	1	2	0	0	0
Union County	72	0	0	0	0	0	4	13	24	20	6	1	0
Warren County	11	2	1	0	0	0	0	1	0	5	2	0	0
*State Institutions	0	0	0	0	0	0	0	0	0	0	0	0	0
*Military establishments	4	0	0	0	0	0	1	0	1	1	1	0	0
State total	756	6	1	0	2	9	13	117	230	212	123	25	18

* Not included in totals of counties where located.

TABLE X

MALARIA—1944-1953

Year	Total No. Reported Cases	No. Cases In Military Personnel	No. Cases In Civilians	Probable Place of Infection of Civilian Cases		
				Out of State	New Jersey	Doubtful
1944	826	788	38	32	5	1
1945	1,412	1,397	15	10	5*	0
1946	931	917	14	8	5†	1
1947	99	49	50	48	2†	0
1948	36	23	13	11	2	0
1949	20	16	10	5	5	0
1950	11	5	6	3	1†	2
1951	371	365	6	6	0	0
1952	191	178	13	12	0	1†
1953	6	3	3	2	0	1
Totals	3,900	3,741	108	137	27	6

* Two of these cases infected through blood transfusion.
† One of these cases infected through blood transfusion.
‡ Diagnosis not confirmed, based on clinical symptoms.

TABLE XI

CASES AND DEATHS, WITH RATES AND PER CENT FATALITY: 1953 FOR SELECTED REPORTABLE DISEASES

DISEASES	CASES		DEATHS		Per Cent Fatality
	No.	Rate*	No.	Rate*	
Chickenpox	43,007	\$30.1	5	0.1	<0.1
Diphtheria	52	1.0	4	0.1	7.7
German Measles	9,260	185.0	0	...	...
Influenza	1,017	20.3	68	1.4	6.7
Measles	3,826	72.4	0	...	...
Meningococcal Meningitis	140	2.8	17	0.3	12.1
Mumps	15,712	313.9	0	...	...
Pneumonia	2,733	54.6	1,188	23.7	48.5
Poliomyelitis	756	15.1	40†	0.8	5.3
Rocky Mountain Spotted Fever	8	0.2	2	0.04	25.0
Scarlet Fever	3,296	65.8	3	0.1	0.1
Typhoid Fever	31	0.6	0	...	...
Whooping Cough	1,874	37.4	4	0.1	0.2

* Expressed per 100,000 estimated population.

† Includes deaths from late effects.

Note: <0.1 means less than 0.1.

‡ German Measles and Mumps were not reportable in New Jersey after June 22, 1953.

Bureau of Venereal Disease Control

MORBIDITY, MORTALITY AND TRENDS

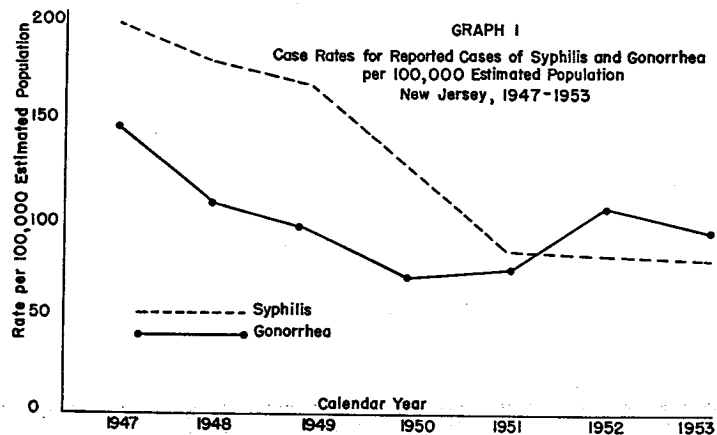
Reported morbidity rates for venereal diseases must be regarded as a minimum estimate of incidence because these diseases are generally under-reported in spite of statutory requirements. Observations and conclusions in this report are based on the assumption that the percentage and accuracy of reporting are the same for all areas of the State. All rates are given per 100,000 population.

From a high of 11.2 in 1940, the death rate for all syphilis dropped gradually to 2.7 in 1951. There was a slight rise to 2.9 in 1952 but a new low was established with a rate of 2.5 in 1953 when syphilis was listed as the cause of death for 124 persons.

There has been a decline in first admissions to mental hospitals due to syphilis in New Jersey. During the five-year period 1930-34, 9.8% of first admissions were due to syphilis. During the four-year period just completed, 1950-53, the percentage was 1.7%.

Venereal diseases ranked fourth among the notifiable diseases for 1953. Chickenpox, mumps, and German measles, the diseases which outnumbered venereal diseases, were not required to be reported by the Sanitary Code after June 22, 1953, so that venereal diseases will probably outnumber any notifiable disease during subsequent years.

The reported syphilis incidence rates by year since 1947 were: 197.0, 176.6, 162.9, 120.8, 82.0, 79.1 and 75.6. (See Graph I.) The downward trend in syphilis case rates, begun following World War II, continued during calendar year 1953. However, smaller decreases in annual case rates since 1952 as compared to previous years indicate a current tendency for these rates to level off. There were only 104 less cases of syphilis among civilians in New Jersey in 1953 than in 1952. In the fiscal year 1953, the reported syphilis case-rate for the United States as a whole was 100.8 per 100,000 population.



The reported incidence of infectious syphilis has declined rapidly during recent years. In 1946 there were 2,010 cases of primary and secondary syphilis reported and in 1953 there were 183 cases. (See Table I.) This decline may mean either the occurrence of fewer cases or a failure to find new cases, or both.

Although there has been a sharp downward trend in reported primary and secondary syphilis, the reporting of latent and late syphilis has been practically undiminished. There were only 52 less cases reported in 1953 than in 1952, and only 68 less in 1952 than in 1951. This may mean that improved case-finding techniques of recent years have been more successful in reaching the reservoir of syphilis. (See Section on Epidemiological activities.) Early latent syphilis was reported five times more frequently in 1953 than were primary and secondary syphilis. As long as such a proportion prevails, not more than a fraction of the infectious syphilis that exists in the State is being found. Latent and late cases represent case-finding failures in previous years and

migrations from other states of persons whose infections are discovered after arrival in New Jersey.

The reported gonorrhea incidence rates by year since 1947 were: 145.4, 107.2, 93.0, 81.4, 72.7, 102.3, 94.9. (See Graph I.) During 1953, 4,753 cases of gonorrhea were reported. It is estimated that for each of these cases at least five cases were not reported and were perhaps not even found and treated. Most of this large undiagnosed reservoir are women, subject to gonorrhea's late manifestations. In support of this statement, 1953 morbidity data show that 2,597 cases of gonorrhea were reported in civilian males, while only 1,085 cases were reported in female civilians.

The majority of the 1,071 cases of gonorrhea from military installations were from Camp Kilmer and Fort Dix, with 724 cases from the former installation and 271 from the latter.

TABLE I
REPORTED CASES OF SYPHILIS,* BY STAGE, AND OTHER VENEREAL DISEASES
BY REPORTING AGENCY, NEW JERSEY, 1950-1953

Diseases	1953			1952			1951			1950		
	Private Doctor	Clinics Other†	Military Total	Private Doctor	Clinics Other†	Military Total	Private Doctor	Clinics Other†	Total	Private Doctor	Clinics Other†	Total
Syphilis	1,074	2,108	41	1,978	1,868	70	3,846	2,146	1,870	4,016	2,950	5,838
Primary and Secondary	476	829	15	1,324	1,044	31	2,371	1,564	1,410	2,974	1,873	3,600
Early Latent	962	1,484	8	2,454	1,064	11	3,529	1,958	1,081	3,039	2,039	3,482
Late Latent	35	69	3	104	79	2	183	78	26	104	33	137
Not Staged	883	1,471	10	2,364	1,745	67	3,176	2,116	1,765	3,881	2,607	4,488
Gonorrhea	2,097	1,071	4,753	786	2,811	1,406	5,062	853	2,701	3,559	1,029	2,607
Chancroid	3	25	51	1	4	5	6	3	3	6	4	10
Granuloma Inguinale	3	17	5	25	1	1	1	2	7	9	1	20
Lymphogranuloma	3	17	5	25	1	1	1	2	7	9	1	20
Total	3,174	6,294	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000

* Includes all cases reported in New Jersey and venereal disease cases occurring in other states and referred to the Division of Vital Statistics and Administration, and other institutions.

† Hospitals, jails, reformatories, and other institutions.

A review of New Jersey's venereal disease incidence by age group reaffirms the fact that infectious venereal disease is still a problem largely of the teenager and the young adult. The following observations are of significance:

1. In 1953, 50% of all early infectious venereal disease reported in New Jersey was in the 15-24 year age group. Under early infectious venereal disease are grouped primary, secondary and early latent syphilis, gonorrhea, chancroid, granuloma inguinale, and lymphogranuloma venereum.
2. There were reported 65 cases of primary and secondary syphilis in persons 15-24 years of age and 333 cases of early latent syphilis in the same groups. Since more than five cases of early latent syphilis were reported for each case of primary and secondary syphilis, it is apparent that many individuals had no early lesions, or failed to observe them, or neglected to obtain medical care until after the lesions had disappeared.
3. In the age group 15-29, from which over 70% of the civilian gonorrhea is reported, 1,819 cases were reported in males and 821 in females.

There was a total of 3,742 cases of syphilis in civilians reported during 1953, of which physicians reported 1,574, or 42.0% and clinics, institutions and hospitals reported 2,168, or 58.0%. These figures represent an increase in reporting by clinics over 1952 and a decrease in reporting by physicians. There is a very large difference in the proportion of cases of gonorrhea reported by public facilities and those reported by physicians in private practice. Exclusive of military cases, 3,682 cases of gonorrhea were reported. Of these, physicians reported only 985, or 26.8%, while public clinics, institutions, and hospitals reported 2,697, or 73.2%.

As a result of the statewide implementation of control measures, the State's venereal disease rates are gradually being reduced but there remain pockets of high prevalence in several areas of New Jersey. Tables II and III have been prepared to indicate the control status by District, by county, and by major city. The Northern District has the lowest venereal disease rates of the four Districts. This District is rural and follows the pattern of low incidence in areas where a majority of the population is comprised of permanent residents who own their own homes and farms. In an area such as this, it becomes exceedingly important to prevent any localized outbreaks by rapid follow-up and careful epidemiological study of each infectious case as it comes to the attention of the Department. This is particularly true since public facilities for the handling of cases have largely been closed and since the index of suspicion will be lower.

The syphilis and gonorrhea rates for the Metropolitan District are lower than those of the State as a whole, but there are areas within this District where the rates are high. Newark has the highest reported gonorrhea rate of any major city in the State, 358.0. Its reported syphilis rate is also high. An active case-finding program is partly responsible for the high reported rates for this city. The syphilis rate in East Orange is twice as high as the rate for New Jersey as a whole and Paterson's gonorrhea rate is higher than the statewide figure. Because of its size, the rates in Jersey City represent a considerable number of cases of venereal disease. It is significant that more cases of gonorrhea than of syphilis were reported from Jersey City during 1953 for the first time in the several years for which records are available.

TABLE II

SYPHILIS AND GONORRHEA CASES AND RATES PER 100,000 ESTIMATED POPULATION
BY DISTRICT AND COUNTY OF RESIDENCE, NEW JERSEY, 1953

AREA	Syphilis		Gonorrhea	
	Number	Rate	Number	Rate
New Jersey	3,783	75.6	4,753	94.9
Northern District	87	21.2	36	8.8
Hunterdon County	15	34.1	3	6.8
Morris County	29	17.0	18	10.5
Sussex County	17	16.5	9	8.7
Warren County	9	25.0	4	11.1
Metropolitan District	1,606	54.9	2,327	79.6
Bergen County	139	24.7	27	4.8
Essex County	875	98.8	1,743	186.8
Hudson County	253	35.0	281	42.2
Passaic County	131	37.6	170	43.9
Union County	208	50.2	108	25.6
Central District	1,185	124.9	897	94.5
Burlington County	52	36.9	38	27.0
Mercer County	397	106.8	165.5	77.3
Middlesex County	306	110.1	215	103.4
Monmouth County	404	172.6	242	135.8
Ocean County	24	44.8	8	13.5
Southern District	618	85.6	384	53.2
Atlantic County	166	123.0	73	54.1
Camden County	132	42.4	174	55.9
Cape May County	37	100.0	21	56.8
Cumberland County	183	186.9	82	89.1
Gloucester County	85	89.6	10	10.4
Salem County	62	121.6	24	47.1
Institutions	135	.	7	.
Military posts	41	.	.	.
Out-of-State	109	.	1,071	.
Unknown	2	.	31	.

* Rates not computed due to lack of population base.

TABLE III

SYPHILIS AND GONORRHEA CASES AND RATES* BY DISTRICT AND
SELECTED CITY OF RESIDENCE, NEW JERSEY, 1953

AREA	Syphilis		Gonorrhea	
	Number	Rate	Number	Rate
New Jersey	3,783	75.6	4,753	94.9
Northern District	87	21.2	36	8.8
Metropolitan District	1,606	54.9	2,327	79.6
Bayonne	15	18.8	9	11.3
Clifton	7	10.3	1	1.5
East Orange	122	150.6	53	65.4
Elizabeth	78	66.7	24	20.5
Hoboken	9	17.3	9	17.3
Jersey City	14	23.0	2	3.3
Newark	189	61.4	252	81.8
Passaic	393	131.2	1,613	358.0
Paterson	25	42.4	13	22.0
Union City	92	64.3	151	105.6
Central District	12	21.1	1	1.8
Trenton	1,185	221.1	897	94.5
Southern District	290	124.9	343	261.8
Atlantic City	618	85.6	384	53.2
Camden	109	175.8	63	101.6
	104	51.3	159	124.2

* Rates expressed per 100,000 estimated population.

In the Central District, three of the five counties, Mercer, Middlesex and Monmouth, have venereal disease rates which exceed those for the State as a whole. (See Table II.) There are active case-finding programs in each of these three counties. In these counties, the reported syphilis rate exceeds that of gonorrhea and serological surveys in carefully selected areas are necessary to further reduce reservoirs of syphilis. While Table III indicates for the Central District the high venereal disease rate only in the City of Trenton, the rates for New Brunswick, Asbury Park, Freehold, and certain areas adjacent to each of these cities are also high.

Taken as a whole, the Southern District probably has more unsolved venereal disease control problems than any other area of New Jersey. The syphilis rates in four of its six counties are higher than the over-all rate for the State. Cumberland County has the highest reported syphilis rate of all counties, yet it has no year-around public facilities for the diagnosis and treatment of venereal disease. The syphilis rate in this county is adversely affected by the annual influx of migrant farm laborers, a known high prevalence group, many of whom remain in the area to become permanent residents. The high syphilis rate in Salem County represents a similar situation except that there is one clinic in this county.

Atlantic City now has a virtually inactive venereal disease program. The drop in reported gonorrhea rate from 240.3 in 1952 to 101.6 in 1953 probably does not represent a decline in gonorrhea incidence but probably reflects the decrease in case-finding activity. The situations which exist in several areas in the Southern District are conducive to the loss of gains in the control of venereal diseases made during recent years.

MAINTENANCE LEVEL

(Basic Maintenance Control)

There has been a general acceptance throughout the United States of the premise that when reported syphilis is reduced to one case of early syphilis (primary, secondary, or early latent) per 5,000 population per annum, a controllable minimum will have been attained. This point is called the maintenance level and basic control measures should prevent any increase in venereal disease incidence. While the maintenance level has been reached in many counties and cities in New Jersey, there were reported in the whole State in 1953 168 civilian cases of primary and secondary syphilis and 1,005 civilian cases of early latent syphilis, or a total of 1,173 cases of early syphilis in civilians during the year. This represents a ratio of 1.17 such cases per 5,000 population. Program attention will be directed toward those areas and communities which have the highest reported incidence at the end of fiscal year 1953. National figures indicate that there were 24 states above and 24 states below maintenance level. New Jersey ranked fourth among the states above maintenance level.

EPIDEMIOLOGIC ACTIVITIES

Epidemiologic activities received more emphasis during 1953 than any other aspect of venereal disease control. The trend toward increased reliance upon the interviewing of infectious patients, the investigation of their contacts, and the follow-up of all known venereal disease suspects is reflected in greater activity in this field during the last four years. In 1950, only 2,772 individuals were reported for follow-up but the numbers for the successive years were: 4,245; 7,857; and 8,616. Information concerning 878 persons suspected of having a venereal disease was referred to other states and countries. In addition, investigators assigned to military installations forwarded many reports on civilian contacts of military personnel to other states and countries.

TABLE IV
Results of Investigation of All Venereal Disease Suspects Reported
New Jersey, 1953

Type of Suspect	Total Number	Brought to Treatment						Infectious Identified						Not Infected—Not Examined							
		P. & S.	E. L. S.	O. S.	G. G.	O. V. D.	Returned to Rx—Syphilis	Returned to Rx—Gonorrhea	Under Rx	Time of Invest.	Prev. Rx	Adap.	No Prev. Rx.	Epi. Rx	Not Inf.	Trans-operative	Unable to Locate	Out of Juris.	Insufficient Inform.	Other	No Reply
Contacts	3,083	4	23	15	373	4	18	164	68	13	693	386	693	71	357	88	163	31	116		
Military	664	4	1	1	72	4	3	19	13	13	75	75	120	13	107	1	30	7	32		
Syphilis—Primary and Secondary	24																				
Syphilis—Early Latent	3																				
Other Syphilis	3																				
Other Venereal Diseases	661			1	70	2	2	18	10		75	75	6	12	175	1	92	0	25		
Civilians	2,320				301	2	15	145	53		311	44	569	58	820	20	10	70	24		
Syphilis—Primary and Secondary	197							4	7		40	7	44	2	44	3	3	3	1		
Syphilis—Early Latent	137							5			9	7	40	7	44	3	3	3	1		
Syphilis	1,023							134	30		311	351	40	887	37	61	1	6	1		
Gonorrhea	4,665				298	1	3	1			1	5	9								
Other Venereal Diseases	4,665				345	3	7	519	1,573		18	37	68	812	114	1	1	82	105		
Pre-employment	677				71	1	1	33	20		1	33	20	81	89	6	16	16	6		
Pre-natal	208				60	1	1	33	20		1	33	20	81	89	6	16	16	6		
Private Test for Gonorrhea	82				17		34	32	66		3	23	2	4	1						
Private Physicians' Lab. Report	149				12		45	38	38		3	13	24	130	38	1	1	43	67		
Science	123				3		20	8	20		1	5	2	18	5			2	10		
Sarvey	248				4		178	2	485		4	46	15	17	1			6	18		
Miscellaneous	248				2		48	21	40		1	6	30	4	33	7	1	10	10		
All Contacts and Suspects	7,738*	45	270	390	444	11	973	723	1,419	2	404	1,052	130	1,180	197	104	116	191			

* The total number of referrals is less than the total number of dispositions because there may be two or more dispositions for one suspect.

The results of investigation of the 7,738 contacts and other suspects who were residents of New Jersey are summarized in Table IV. Of all persons referred, 73.1%, or 5,653, were located and brought to examination, with the result that 2,509 persons were placed under treatment, 1,130 of them being new cases. The lowest percentage of referred suspects examined was found among contacts of military personnel. Only 308, or 46.4%, of 664 such contacts were brought to examination. A total of 1,404, or 58.8% of the 2,389 contacts of civilians was brought to examination. Of the 3,053 contacts of civilians and military personnel, 1,712, or 56.1%, were examined, compared with 56.6% in 1952. Field personnel were successful in the follow-up of 3,941, or 84.1% of 4,685 suspects on whom positive laboratory reports or other reported evidence was available.

Duplicates of positive venereal disease laboratory reports are made available to the Department by many laboratories. One of the most productive types of follow-up is that of investigating patients of private physicians who have positive serologic reports but who have not been reported as cases of syphilis. In 1953, 2,086 such suspects were investigated and 729, or 34.9% of these patients were brought to treatment for the first time or were returned to physicians for additional therapy. Nineteen cases of primary and secondary syphilis were placed under treatment by this method. The testing of patients by family physicians constitutes a continuing "survey" of large numbers of people.

Correlating the summary data in Table IV with reported morbidity data in Table I, the impact of case-finding on reported rates can be appreciated. The 45 cases of primary and secondary syphilis brought to treatment represent 26.8% of the 168 cases reported in civilians during the year. A total of 2,508 people were placed under treatment because of epidemiologic investigation and 2,144 other infections were identified as being under treatment at the time of investigation, as having had adequate treatment, or as not being treated for some other reason. Many of the cases in the last three categories were reported to the State Department of Health as a direct result of follow-up.

Indices which measure the quality of contact interviewing and contact investigation have been calculated for the last three years. These are based on the epidemiological investigation of primary and secondary syphilis.

VENEREAL DISEASE PROGRAM EVALUATION INDICES
1951-1953*

Year	Contact Index (1)	Epidemiologic Index (2)	Brt. to Treatment Index (3)	Lesion-to-Lesion Index (4)
1953	1.97	.39	.17	.11
1952	1.92	.27	.16	.07
1951	.71	.10	.05	.03

*The indices for 1953 are calculated by using as a base figure the number of primary and secondary syphilis cases in civilians reported by clinics, hospitals, and institutions. The indices for 1951 and 1952 were based on clinic admissions alone.

- (1) Ratio of reported contacts obtained from previously untreated cases of primary and secondary syphilis to the number of such cases.
- (2) The number of infections found in named contacts per case of lesion syphilis.
- (3) The number of new cases of syphilis brought to treatment per reported case.
- (4) Number of primary and secondary syphilis infections found per reported case through epidemiologic investigation.

While there has been considerable improvement during the last three years, New Jersey is still below the national average in this activity. The nationwide contact index for the last reported period (July - December, 1953) was 2.71, the epidemiologic index .39, the brought-to-treatment index .35, and the lesion-to-lesion index .20. The largest single factor responsible for New Jersey's comparatively poor performance is the failure to interview a large proportion of reported cases for contacts.

SPECIAL CASE-FINDING PROJECTS

The assignment of venereal disease investigators to areas of greatest need was continued during the fiscal year 1954. Specialized personnel were assigned to the Metropolitan District Office, Newark Department of Health, Monmouth County, Mercer County, Burlington County, Middlesex County, and the Central District Office. These assignments are covered by five men on a part or full-time basis. Their activities during the period July 1, 1953 to June 30, 1954 are summarized in part in Table V. Their other activities included assisting with planning and conducting of selective blood-testing programs and the Migrant Health Program. One of the five assignments involves little interviewing and investigating so that only four investigators are available to perform these tasks in their assigned areas.

It is interesting to compare the quantitative and qualitative results of field work performed by a small group of full-time, well-trained individuals with that of other personnel who, as a group, are not as well trained and who have integrated venereal disease epidemiology with numerous other duties. Investigators interviewed a total of 2,048 venereal disease patients during calendar

year 1953, reporting a total of 3,192 sex contacts. There was a minimum of 4,575 patients in public facilities, as apart from those reported by private physicians, available for interview. This means that from 2,527 remaining patients with primary, secondary, early latent and congenital syphilis, gonorrhea and other venereal disease, who should have been interviewed, personnel other than investigators obtained only 1,757 contacts. The respective contact indices for investigators and other personnel are 1.56 and 0.70 for all interviewable diseases. A comparison of investigative activity is given in Table VI. Not shown in this table is the fact that 30 of the 44 cases of primary and secondary syphilis found during 1953 through contact and suspect investigation were brought to treatment by investigators. On the basis of these comparisons, the expanded use of interviewer-investigators is warranted.

In order to reduce the numbers of cases of syphilis extant in certain problem areas, the Venereal Disease Program planned and conducted serologic screening programs in carefully circumscribed areas of Newark and Atlantic City during May and June, 1954. Participating in these surveys were the Metropolitan and Southern District offices and the local health departments concerned. Preliminary data indicated that, of approximately 20,000 serologic tests done in the city of Newark, more than 9% were reactive. In Atlantic City, where testing was even more highly selective, more than 15% of approximately 2,700 tests were positive. These programs demonstrated that, while mass blood-testing of the general public is neither economically feasible nor desirable, it is possible to select and reach, in an area of relatively high prevalence, those individuals who comprise the majority of the syphilis problem. Detailed analyses and evaluations are being done as follow-up is completed and will be presented in subsequent reports. It is planned to continue "pin-point" surveys on a more conservative scale as long as results justify this activity.

VENEREAL DISEASE AMONG MIGRANT WORKERS

Migrant workers from the Southern states constitute a real threat, from the standpoint of venereal disease, to the communities in which they find seasonal employment. This group has a high incidence of syphilis and gonorrhea but it has been difficult to motivate any appreciable proportion of these individuals to attend one of the several seasonal clinics maintained for their benefit. This problem was met in 1953 by the conversion of a deactivated chest X-ray mobile unit into a traveling clinic. This vehicle, with a physician and other staff members, was driven to centrally located farms where groups of migrants were referred by field workers, usually venereal disease investigators. There were examined by this facility more patients (2,003) than were examined in all clinics during the previous year. The clinics at Prospect Plains, Freehold, Orchard Center, and Gelston Village were operated as in previous years.

TABLE V
SUMMARY OF EPIDEMIOLOGIC ACTIVITY
VENEREAL DISEASE INVESTIGATORS
July 1, 1953—June 30, 1954

Diagnostic Categories	Interviewing		Investigation		Disposition of Persons Identified— Brought or Returned to Rx					Disposition of Persons Examined		Not Infected With Disease Suspected	
	No. Patients Interviewed	Contacts Obtained	Contact Index	Persons Examined	Persons Not Examined	Primary and Secondary Syphilis	Early Latent Syphilis	Other Syphilis	Gonorrhea	Other VD	Already Under Rx & Adequate Rx for Syphilis		Other	Prophylactic or Epidemiologic Rx
Military Contacts:													
Primary and Secondary Syphilis	15	57	3.80	23	...	1	5	...	...	2	...	...	2
Early Latent Syphilis	20	60	3.00	8	...	...	...	...	...	...	...	...	7
Other Syphilis	1	1	1.00	3	...	...	...	...	...	...	...	...	...
Other VD	772	1,170	1.52	167	68	...	...	...	48	...	...	...	83
Selectees and Separates	48	70	1.65	4	2	...	...	...	...	...	...	...	2
Total Military	836	1,376	1.61	228	66	2	10	5	49	2	20	1	85
Civilian Contacts:													
Primary and Secondary Syphilis	20	59	3.11	31	10	...	...	...	...	...	...	...	...
Early Latent Syphilis	52	150	2.88	90	8	...	...	...	...	...	...	...	...
Other Syphilis	...	...	...	...	...	...	...	...	...	...	...	...	...
Gonorrhea	510	764	1.50	14	1	...	...	...	...	...	...	...	3
Other VD	10	25	2.50	24	11	...	...	...	...	...	...	...	217
All Other VD	15	22	1.47	60	6	...	...	...	...	...	...	...	99
Private Physician Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
Positive S. T. S. Other Suspects	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Follow-up Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Civilian	600	1,020	1.68	321	81	25	217	504	105	20	90	48	251
Total Case Load	1,462	2,396	1.63	2,792	387	30	227	560	214	22	970	49	316

TABLE VI
COMPARISON OF EPIDEMIOLOGIC ACTIVITY
INVESTIGATORS AND OTHER PERSONNEL
January 1—December 31, 1953
INVESTIGATIONS COMPLETED

Group	All Suspects		Contacts of Military		Contacts of Civilians		Other Suspects	
	Number	Per Cent Examined	Number	Per Cent	Number	Per Cent	Number	Per Cent
All Personnel	7,138	5,633	664	308	2,850	1,404	4,635	3,041
Investigators	3,604	2,950	225	155	1,272	875	2,107	1,020
Other Personnel	4,134	2,607	439	153	1,117	529	2,578	2,015

The result of this and other innovations was the most successful venereal disease program for migrant workers in recent years. A total of 608 persons required treatment for venereal disease. Of 3,401 persons tested, 19 were treated for primary and secondary syphilis and 198 for gonorrhoea. Approximately one of every four persons tested (23.5%) was reactive for syphilis. An article which was written to describe this case-finding operation was published in the September, 1954, issue of PUBLIC HEALTH REPORTS.

Migrant workers were also tested at three race tracks, at oyster shucking plants and, on a local basis, at various resort hotels.

NEW JERSEY'S NEW PREMARITAL LAW

New Jersey's Premarital Law which was amended effective July 1, 1953, extends interstate reciprocity of premarital examinations. The major changes in the new law (Chapter 416, P. L. 1953) are:

- The acceptance of certification by a physician licensed to practice medicine and surgery in all its branches in the United States and its territories, or on active duty with the Armed Forces of the United States, or with the Public Health Service that an approved serological test for syphilis has been done and that, in the opinion of the physician, the applicant is not infected with syphilis or is not in a stage of that disease which is likely to become communicable. The physician may sign the certificate of a person who has a serologic test reactive for syphilis, but who is adequately treated or is not in an infectious stage.
- The acceptance of certification by any laboratory approved for the performance of serological tests for syphilis by any state or territorial health department, the Department of Health of the District of Columbia, the Armed Forces of the United States, or the Public Health Service, that an approved serological test for syphilis has been performed on the blood sample of the applicant.
- The acceptance of premarital certificate forms from states and territories other than New Jersey if the form is approved for use in this State by the Department of Health and contains a statement certifying that the laboratory has the approval described in 2 above.
- The acceptance, in lieu of a premarital certificate form, of a statement from the physician that a female applicant is near the termination of her pregnancy, or that death of either or both of the applicants is imminent and that he has taken blood samples for testing from such applicants, excepting those whose death is imminent, and forwarded them to the State Department of Health Laboratory.

VENEREAL DISEASE EDUCATION AND INFORMATION

In cooperation with the Division of Local Health Services and the Bureau of Administrative Services, the Bureau promotes educational activities relative to venereal disease control for the public and for professional groups. These activities are aided by the use of venereal disease and sex hygiene pamphlets, motion picture films, posters, newspaper articles and radio programs.

A new booklet, "Management of Venereal Disease," was distributed to physicians in clinics and to Departmental personnel interested in the program. A notice was placed in the Journal of the State Medical Society that this publication is available to physicians. Another article in the Journal advised physicians that the Department no longer recommends or pays for the hospitalization of venereal disease patients. Changes in the procedure for obtaining replacement of drugs were also set forth.

It was decided that sex hygiene literature would be more appropriately handled by the Bureau of Maternal and Child Health. An orderly transition in this function will be effected.

The Metropolitan District Office and the Newark Board of Health cooperated in publicizing the new blood-testing survey. Newspaper releases, a radio program, and many informational materials were used in this campaign.

The Chief of the Bureau presented a paper, "Venereal Disease in Migrant Agricultural Workers," at the Annual Venereal Disease Control Seminar for the New England and Middle Atlantic States.

DRUG DISTRIBUTION

The New Jersey Statutes which govern the control of venereal disease require that the Department provide drugs for the treatment of venereal disease. Penicillin, other antibiotics and drugs for this purpose are distributed without charge upon receipt of case reports from hospitals and private physicians. During 1953, supplies of drugs were provided to public clinics semi-annually, the required quantities being determined by a review of the case load in each clinic. This procedure proved more efficient than the previous system which required the recording of each case treated and reported by a clinic.

PERSONNEL

At the end of the fiscal year, the staff of the Bureau consisted of the following personnel:

Administrative

Chief
Health Program Representative

Clerical

Senior Clerk
Clerk-Stenographer
Clerk

Field

Health Program Representative (Assigned to Metropolitan District office)
Public Health Advisers (Venereal Disease Investigators)—4.

One clerk who had been transferred to another division was restored to the staff of the Bureau in November, 1953.

Report of the Division of Vital Statistics and Administration

July 1, 1953—June 30, 1954

MARGUERITE F. HALL, PH. D., *Director*

Bureau of Administrative Services	JOHN B. VAN ELLIS <i>Chief</i>
Bureau of Examination and Licensing	KENNETH J. CARHART <i>Chief</i>
Bureau of Personnel and Accounts	WILLIAM R. PEBLES <i>Chief</i>
Bureau of Public Health Statistics	F. MERTON SAYBOLT <i>Chief</i>
State Registrar of Vital Statistics	F. MERTON SAYBOLT <i>State Registrar</i>

Division of Vital Statistics and Administration

The Division of Vital Statistics and Administration continues to operate principally as a service unit to the Department. Eight program coordinators with the Director are responsible as participating personnel in those Department programs assigning activities to the Division as well as for those programs emanating from the Division itself.

By the close of the fiscal year, eight of the nine programs for which the Division is responsible were completed and distributed in bound volumes to the various units in the Department. These programs follow:

- Administrative Services—71a
- Distribution of Biologics—71b
- Examination and Licensing—72
- Board of Barber Examiners—72a
- Board of Beauty Culture Control—72b
- Fiscal Accounts—73a
- Personnel Program—73b
- Vital Statistics Registration—74a

The Public Health Statistics Program 74b has been completed and reviewed. After final approval, this Program will be bound and distributed as have been the other programs in the Division.

The Director has continued to give considerable time to all Department programs operating and integrating with the services offered by the Division.

Major emphasis has been given to the improving of morbidity reporting, a responsibility transferred to the Division in the preceding year. The Director participated with two program coordinators in planning and conducting the Reporting Officers' Training Courses offered in each of the 21 counties of the State. Such efforts have reduced considerably the multiplicity and quantity of reporting problems involved in the collection of required morbidity data.

Continued participation in the Hunterdon County Health Studies has integrated with the Department's policy of strengthening local health activities.

Cooperation with the American Cancer Society promises continuing strength to the Department's Cancer Control Program.

The Division through its Public Health Statistics Program and its Distribution of Biologics Program has given services which have aided in the State's participation in the Polio Vaccine Study carried out under the sponsorship of the National Foundation for Infantile Paralysis and the Poliomyelitis Vaccine Evaluation Center at the University of Michigan.

Significant administrative problems challenging the Director working with Division personnel are inherent in the nature of the Division services such as:

1. Helping interpret to Department personnel those services centralized in the Division;
2. Trying to meet shortages of qualified personnel through orientation and in-service training;
3. Improving, whenever and wherever possible, inadequate housing by constant vigilance over property including equipment, materials and supplies, as well as by continual review and improvement of work methods.

Bureau of Administrative Services

Functions of the Administrative Services Program include the design and production of educational materials; maintenance and display of exhibits; maintenance of audio-visual aids; warehousing and distribution of materials and supplies; production of printed materials and mimeographing, addressographing and mailing services. Details and procedures pertinent to these functions and services have been prepared in Program Form and is entitled "Administrative Services—71a."

The distribution of biologics, drugs and vaccines is also administered by this Program. Procedures necessary to the proper administration of this work were also completed in Program Form and is entitled "Distribution of Biologics—71b". Copies of both Programs have been distributed to all units of the Department.

Personnel at the end of the fiscal year totaled fifteen.

HEALTH EDUCATION SERVICES

Requests for the production of new exhibits continued to increase. A new technique for presenting exhibits was designed and is now in production. The District State Health Offices are being equipped with portable exhibit stands upon which these new exhibit panels may be displayed.

There was a decided increase in the use of all exhibits and films available from this program.

A new centralized booking system for departmental films was established at which time the staff was increased by the addition of a Film Technician.

Lay film bookings are made for the department by the New Jersey State Museum. Attendance reports received indicate that these films were seen by a minimum of 130,000 persons. It was necessary to withdraw several films from the Museum which were no longer usable and which in most instances have not been replaced.

The print shop was closed for a period of four months due to the lack of personnel. Accordingly a considerable backlog of work has developed.

WAREHOUSE

Printed materials, office supplies and nurses' field supplies were stored and distributed on a department-wide basis. A perpetual inventory was maintained for all items.

Considerable time was devoted to other projects such as large mailings requiring special packaging, mimeographing and many special truck deliveries.

Several requests to broaden the services presently rendered by the warehouse staff were received, but could not be fulfilled due to insufficient personnel. In addition, the quantity of items stored by the warehouse was increased to the degree that additional items can no longer be accepted due to the lack of storage space.

A study of these problems is now being made by this program in an attempt to increase and improve general services to the Department.

BIOLOGICS

The following biologicals were distributed during the fiscal year: Diphtheria Toxoid, alum precipitated; Smallpox Vaccine; Diphtheria-Tetanus-Pertussis (fluid); Diphtheria-Tetanus-Pertussis (alum refined); Typhoid Vaccine; Rocky Mountain Spotted Fever Vaccine and Rabies Vaccine (human).

A 20% increase in the volume of materials distributed over the preceding fiscal year was noted, with the exception of Rabies Vaccine (human) and Rocky Mountain Spotted Fever Vaccine.

These materials were made available to all physicians and local boards of health without charge through sixty-six distributing stations located at strategic points in the twenty-one Counties of the State.

The distribution of Gamma Globulin continues to be a major problem. The Department acts as the distributor for the Office of Defense Mobilization and endeavors to maintain the stringent rules governing its release for Poliomyelitis, Measles and Infectious Hepatitis. During the fiscal year there was a slight relaxation in these rules. However, it was necessary to withdraw Gamma Globulin from three distributing stations because of their failure to enforce them.

Approximately 40% more Gamma Globulin was received this year from the Office of Defense Mobilization over the preceding year. This resulted in additional field and office work.

Penicillin, Aureomycin and other drugs were distributed for the Venereal Disease Program, as was Canine Rabies Vaccine for the Rabies Control

Program. Distribution of Salk Vaccine for Poliomyelitis in certain test areas of the State was also made.

Constant supervision of all distributing stations was maintained by special and periodic visits at which time local problems concerning biologic and Gamma Globulin distribution were corrected, inventories and supplies checked, and expired biologic collected. The fine work that these distributing stations are doing for the Department without remuneration, and the cooperation of their personnel is highly commendable.

Bureau of Examination and Licensing

The fiscal year 1953-54 once again has indicated definite accomplishments within the three programs which are a part of this unit.

Written programs were completed and approved during this fiscal year for which the value of such material may not at this time be evaluated completely.

Material not heretofore supplied to the four District State Health Offices of the Department for those who possess licenses to operate sewage and water plants was made available. The initial study of all Sewage and Water Plants recorded in this unit has been reviewed and is in its final stages for distribution to the four District State Health Offices. Readjustment in license classifications held by sewage and water plant operators was another accomplishment; this was predicated on the Rules and Regulations adopted by the Board of Examiners and approved by the State Commissioner of Health in the fall of 1953.

Pilot studies on laboratories approved or subject to approval by the Department in accordance with Chapter IV of the State Sanitary Code were made. Effort in this unit was directed toward securing the compliance of laboratories approved or subject to approval by the Department to Regulation Four which states that the supervisor of such laboratories "shall possess a public health laboratory technician license issued by this Department."

There have been initiated extensive studies of the types of licenses and methods used in issuing all annual renewable licenses. The ultimate goal is to give more and better service to the license holders.

The Board of Barber Examiners and the Board of Beauty Culture Control during the past year have been able, through legislation enacted in 1953, to conduct more examinations and to restore without examinations certain licenses heretofore not allowable by statute. Investigators employed by the Board of Beauty Culture were successful in securing evidence against twenty-six persons who were practicing in their homes without benefit of proper licenses.

During this year a grand total of fifty-eight examinations was conducted totaling 1,433 applicants.

The total amount of revenue collected by this Program and deposited to the State Treasury was \$211,413.47.

Bureau of Personnel and Accounts

The continuing and progressing reorganization of the State Department of Health; the evolution of certain new health programs; the expansion of other health programs; and the sudden and serious reduction in federal grant moneys for operating purposes created many problems during fiscal year 1953-1954 in the administration of the personnel and fiscal programs of this Department. The Bureau was assigned the tasks of considering and recommending the personnel and fiscal adjustments necessary to meet these continuing and new problems.

The Personnel Section of the Bureau started the new fiscal year with the tremendous task of reducing and re-aligning personnel and budgeted positions in order to meet the serious curtailment of federal funds and the personnel needs and requirements of the new health programs. In excess of fifty budgeted positions were abolished, and approximately forty others were re-aligned functionally and fiscally.

Several new specifications and corresponding new positions were created during the year, particularly in the area of Chronic Illness Control. Existing specifications were amended as working situations indicated functional shifting of responsibilities.

A general upward revision of salary ranges was accomplished in cooperation with the State Department of Civil Service.

The Orientation course and the refresher course in Stenography, which were instituted in fiscal year 1952-1953 were continued in fiscal 1953-1954, as was the personnel administration of the Professional training program. In addition, in-service training programs for Administrative Assistants to Division Directors; telephone conduct courses; and Retirement System courses were instituted.

The first three sections of the Departmental Personnel Program were written during this period; individual job descriptions of each position in the Bureau were accomplished; and finally, the departmental personnel procedural manual was started.

The Accounting Section of the Bureau continued to be concerned primarily with the proper accounting of all moneys received and expended by the various

organizational units of the Department, and with the considerable fiscal adjustments mandated by the reduction in fiscal operating moneys; new health programs; and continuing reorganization. Several accounting procedures were revised in order to further simplify the system; to provide greater controls; and to provide increased fiscal information for the Program Coordinators.

An analysis of the time spent by each employee of the Department on each of the individual health programs; and its relationship to categorical grant funds was undertaken and completed during the year. A comprehensive cost study of detailed items such as individual laboratory test costs, screening costs, consultation costs, etc., was undertaken.

A physical inventory of all property and equipment owned by the Department was undertaken, and the corollary remarking and identifying for fiscal purposes continues. The first three sections of the departmental accounting program were written; job descriptions were completed; and the procedural guide for departmental fiscal operations was ready for compilation at the end of the fiscal year.

Project control accounts by funds were maintained as was a budgetary working reserve account. The accounting of the Department was operated on an encumbrance basis.

As of June 30, 1954, there were 524 budgeted positions in the Department, of which 466 were filled by persons with permanent civil service status, 18 by persons with temporary civil service status. In addition, nearly 200 professional workers, as doctors, dentists, nurses, etc., were hired during the year on a per hour or per diem basis.

Immediately below is a consolidated financial statement of the Department as it was constituted on June 30, 1954.

STATE DEPARTMENT OF HEALTH—FINANCIAL STATEMENT

FISCAL YEAR—1953-1954

RECEIPTS

Received for Transfer to State Treasury:

License and permit fees	\$331,426.52
Penalties	855.00
Certified certificates	32,393.39
Examination fees	2,950.00
Miscellaneous	6,277.00
Net total	<u>\$373,901.91</u>

Received for disbursement:

State appropriation and transfers	\$2,004,873.40
United States Department of Health, Education and Welfare—Public Health Service	538,128.51
United States Department of Health, Education and Welfare—Children's Bureau	393,634.61
Hunterdon County Health Inventory Fund	4,771.00
Net total	<u>\$2,941,407.52</u>

DEPARTMENTAL ALLOCATIONS

	Salaries		Other Allocations		Total State	Total Federal	Total All Funds
	State	Federal	State	Federal			
Office of the Commissioner	\$70,536.39	\$14,063.00	\$10,105.40	\$1,270.34	\$98,731.70	\$15,344.34	\$114,076.13
Vital statistics and administration	293,311.61	137,107.54	89,399.01	13,100.53	330,078.32	150,387.07	691,035.59
Preventable diseases	127,064.88	30,450.37	43,326.77	9,849.15	208,731.65	48,200.25	290,031.17
Chronic illness	67,057.01	41,652.93	227,270.70	85,155.01	294,330.77	157,407.04	451,747.71
Laboratories	197,068.35	89,133.42	42,136.00	12,846.11	239,224.35	101,470.63	340,704.98
Constructive health	147,141.00	60,227.72	102,891.61	17,847.53	230,632.61	177,575.25	427,007.86
Local health services	417,539.32	242,182.44	120,240.40	47,406.71	537,788.72	289,649.13	827,437.87
Total Allocations	\$1,358,488.76	\$625,059.42	\$650,955.64	\$306,103.70	\$2,000,644.40	\$931,703.12	\$2,932,347.52

DEPARTMENTAL EXPENDITURES

Office of the Commissioner	\$78,991.60	\$14,063.00	\$17,353.98	\$1,212.84	\$90,546.55	\$15,277.64	\$111,026.42
Vital statistics and administration	290,139.32	137,208.70	82,630.53	12,852.70	348,706.85	150,901.40	498,926.34
Environmental sanitation	102,525.94	36,450.37	39,274.81	5,108.45	201,800.75	41,048.62	243,440.57
Preventable diseases	28,270.00	4,730.00	6,484.23	17,762.27	34,724.23	22,512.27	57,236.50
Chronic illness	108,400.52	80,913.42	40,846.14	12,054.76	231,204.60	101,068.18	338,334.81
Laboratories	144,488.70	57,528.98	100,724.95	85,249.68	245,964.65	142,732.06	398,206.31
Constructive health	388,984.89	290,093.53	110,838.11	44,527.80	409,843.10	281,131.42	775,074.52
Local health services	\$1,327,216.20	\$617,273.02	\$900,098.65	\$262,170.97	\$1,917,224.84	\$890,032.09	\$2,707,277.80
Totals	\$3,147,427.47	\$8,398.40	\$90,947.00	\$43,323.73	\$92,410.56	\$51,701.13	\$144,129.69
Balances, June 30, 1954							

Bureau of Public Health Statistics

VITAL STATISTICS REGISTRATION

This Section is responsible for collecting, editing, querying, coding, filing and preserving the original records of births, marriages, stillbirths, and deaths. Upon request from individuals and various agencies, the Section prepares and issues certified copies of such records.

By law, the State Registrar has supervisory power over the more than 500 local registrars of vital statistics, and must furnish the blanks and forms used by them and others in the registration of vital events.

The State Registrar has the custody of more than twelve million records of births, marriages, and deaths which date back to 1848. The records for the period 1848 to 1887 were collected by the Secretary of State and turned over to the old Bureau of Vital Statistics when the health laws were revised by the Legislature during the session of 1887. The new law provided for a State Board of Health and Bureau of Vital Statistics. Prior to that year annual statistical reports, which have been published since 1879, were prepared from records not in the custody of the Bureau.

On September 1, 1953, Mr. Walter R. Scott retired as State Registrar, having served in that office since October of 1939. Mr. Scott had a total service of 47 years with the Department.

Several legislative bills of minor importance to the Department were approved and became part of the 1953 laws. These bills amended various sections pertaining to vital statistics so that the sections conformed to the new State Constitution.

The only major bill amended the premarital examination law. Any laboratory which has been approved by the State Department of Health of any State, Territory or District of Columbia, and any laboratory of the U. S. Public Health Service or the Armed Services may perform a serological test (for syphilis) that will now be acceptable in New Jersey, provided the director of the laboratory certifies over his signature to such approval having been given. Also the certification with regard to the physical examination of the applicant may be signed by any physician possessing an unlimited license to practice medicine in any State, Territory or District of Columbia, or by any physician who is a duly commissioned officer of the U. S. Public Health Service or Armed Services.

During 1953 the Section received and processed 210,252 original returns of vital events, 1,200 delayed reports of births and 6,000 corrections to the records. New birth certificates in names received by adoption decrees were established for 1,710 individuals and local registrars notified as required by law. Approximately 82,000 premarital certificate forms were examined and detached from the marriage records.

By law, the Department must certify monthly the names of all deceased veterans buried in New Jersey, together with the place and date of burial, cremation or removal, and the war in which each veteran served. This required the preparation of 3,378 such certifications in 1953, all of which were sorted by county and forwarded to the respective county supervisor of veterans' interment.

Due to the volume of other work the Field Representative was able to visit only three local registrars and one army chaplain during the year.

For the effective operation of this Section in the future, it is necessary that consideration be given to methods for the recruitment and retention of additional skilled search clerks. Only in that manner will it be possible to continue to meet the ever-increasing demands for the services of this Section.

A General Summary of some of the activities of the Section follows:

Certificates received, examined, coded,
and permanently filed:

	Calendar Years		
	1951	1952	1953
Births	105,218	110,215	112,522
Stillbirths	1,993	2,002	2,046
Marriages	44,564	41,125	40,886
Remarriages	1,073	1,071	2,004
Deaths	50,098	51,430	52,794
Total	202,946	205,843	210,252
	Fiscal Years		
	1951	1952	1953
Searches made and/or certified copies issued for which fees were received..	33,233	33,904	33,366
Searches made and/or certified copies issued for which no fees were received	13,957	13,563	11,801
Fees received for searches and certified copies	\$34,010.80	\$35,554.15	\$32,258.30

In addition there were 5,529 office interviews with interested persons who subsequently failed to apply for a copy of any record.

PUBLIC HEALTH STATISTICS

The Public Health Statistics Program is responsible for the collection of morbidity reports for those illnesses which are reportable by law or regulation and for providing statistical services. These two functions are carried out through two units—the Analysis and Research Unit and the Machine-processing Unit.

The collection of illness reports involves close cooperation between the physicians, the local health departments and the State Department of Health. Through correspondence and instructions to physicians and local health departments, the Public Health Statistics Program emphasized this three-way cooperation in its attempt to stimulate reporting.

Involved in providing statistical services is the preparation of public health statistics—coding, punching, verifying, sorting, tabulating and interpreting information from records of births, marriages, deaths and morbidities. (Except for morbidity reports, all other records are collected by the Vital Statistics Registration Program whose annual report appears elsewhere.)

Technical assistance on special projects was given throughout the year not only to Departmental Programs but to other agencies working in behalf of good public health.

Newly proposed or revised report forms were reviewed as requested by the varied Departmental Programs.

Resource materials were provided to the Program Coordinators in accordance with the needs specified in their Programs. These included monthly and annual tabulations of marriages, births, total reportable diseases, deaths, maternal deaths, infant deaths and stillbirths; monthly copies of special lists of tuberculosis deaths and case reports; monthly and annual cumulative alphabetic lists of crippled children; IBM punch cards for crippled children's cases shown on the monthly listing of cases; monthly lists of midwives who attended births; weekly, monthly, and annual counts of reportable diseases; and annual statistical tables covering population estimates, vital events (births, marriages and deaths), reportable diseases, and selected causes of death.

Statistical processing of schedules for the Hunterdon County Chronic Illness Survey continued throughout 1953, and marginal tabulations were prepared for study. This project was undertaken in cooperation with the Hunterdon Medical Center.

Primarily, the Public Health Statistics Program provides services to the Department of Health. However, basic statistical information is provided on an increasing scale to many agencies and individuals working either in public health or related fields.

Population: The population estimate for New Jersey as of July 1, 1953 was 5,006,000. This figure and the estimates for the counties and major cities as shown at the end of Table 22 were obtained by adding the excess of births over deaths for the period April 1, 1950 through June 30, 1953 to the 1950 census count and rounding each estimate to the nearest thousand.

According to the data on characteristics of the New Jersey population as of April 1, 1950, the non-white races represented 6.7 per cent of the total population. Application of that percentage to the July 1, 1953 estimate of total

population gave a figure of 335,000 as the estimated number of non-white persons. The estimate of the white population was 4,671,000 as of July 1, 1953.

Births: The 112,522 resident live births reported in 1953 represented a crude birth rate of 22.5 per 1,000 estimated population. This all-time high of live births reported in 1953 was almost double the number of births registered in each of the years 1933 through 1939. The year 1953 was the eighth consecutive year in which the annual number of births exceeded 95,000 and the birth rate was greater than 20.0. Boards of education have become increasingly concerned with the school problems which steady increases present.

Of the 101,317 births in 1953 to white mothers, 1,141 or 1.1 per cent were reported as illegitimate. Of the 11,205 births to non-white mothers, 1,564 or 14 per cent were listed as illegitimate. Although the percentage figure for total illegitimate births has not changed appreciably over the past decade, such births in 1953 were 1,056 or almost 64 per cent greater than the 1943 figure. Plans of social agencies and nurses to help these mothers and babies must accordingly receive greater emphasis.

Except where otherwise specified, all births have been allocated to the usual residence of the mother.

Births occurring in New Jersey have been tabulated and analyzed monthly for certain characteristics. Annual totals are accumulated from the monthly data. Of the 108,358 births occurring in New Jersey during 1953, there were 678 records having no entry for weight at birth. Therefore, only 107,680 births were used as the denominator in computing the following percentages by weight.

<i>Weight Group</i>	<i>Number</i>	<i>Per Cent</i>
Over 2,500 grams	99,677	92.6
2,001-2,500 grams, incl.	5,456	5.1
1,501-2,000 grams, incl.	1,434	1.3
1,001-1,500 grams, incl.	631	0.6
1,000 grams or less	482	0.4
Total with weight given	107,680	100.0

Of the 108,352 birth records on which the attendant was clearly identified, 107,004 births or 98.8 per cent occurred in hospitals; 1,131 or 1 per cent were attended by physicians outside of hospitals; and 152 or 0.1 per cent had midwives in attendance. The midwife data presented here may differ from figures accumulated by the Maternal and Child Health Program after it checks back on information given on these original birth records. The rest of the births were attended by other persons of a specific or unknown category.

There were 1,214 sets of twins born, but in 77 of these only one was born alive. Mothers in New Jersey gave birth to 6 sets of triplets. In 3 instances all three were born alive; in 3 cases, two were born alive.

Marriages: The crude marriage rate for 1953 was 8.2 per 1,000 estimated population. The total of 40,886 marriages reported was 239 or 0.6 per cent less than in 1952. The trend in marriage rates has been downward since 1946. In that year, the number of marriages reached an all-time high of 61,020, representing a rate of 14.2 per 1,000 population.

Tables 7 and 7a of this report give information on marriages by age and previous marital status of the individuals. The text associated with the tables may be of interest to many agencies.

All marriage tabulations are by place of occurrence.

Deaths: A total of 52,794 resident deaths from all causes was recorded for New Jersey in 1953. The crude death rate of 10.5 per 1,000 estimated population was slightly higher than the 1952 rate. The 1949 rate of 10.0 was the lowest in the State's experience.

As of January 1, 1949, two important changes occurred in the mortality registration and classification system. A new standard certificate of death form was put in use and the 6th Revision of the International Classification of Diseases, Injuries and Causes of Death was used in selecting the underlying cause of death. The introduction of these changes, with their accompanying rules and regulations for use, may have resulted in making totals for certain causes or groups of causes not strictly comparable to prior years.

Table 19 and its text on principal causes of death by age groups deserve careful study by persons truly interested in learning more of the health hazards facing the citizens of New Jersey.

Summarization of monthly tabulations of deaths in New Jersey revealed the following items of interest.

Of the 51,574 deaths, 3,491 or about 7 per cent were veterans. Of these deaths, 2,096 were World War I veterans; 932 were World War II veterans; and 47 were veterans of both wars. Spanish-American War veterans accounted for 175 deaths and an additional 12 persons who died were veterans of both the Spanish-American and First World Wars. United Nations Force accounted for 90 deaths and an additional 26 decedents were veterans of other wars. On the balance of 113 death certificates, military service was indicated but war service was unspecified.

Except where otherwise specified in the titles of the Tables, all deaths have been allocated to the usual place of residence of the deceased.

Infant Mortality: During 1953, there were 2,654 infant deaths for New Jersey. The resulting mortality rate of 23.6 per 1,000 live births, was the

lowest ever experienced in New Jersey since rates were first computed. The white infant mortality rate in 1953 was 21.6 and for non-white infants, the rate was 41.4. When New Jersey in 1921, by virtue of meeting high standards of reporting, was admitted to the United States Birth Registration Area, its infant mortality rate was 73.8. The rapid and consistent decrease in the rates as shown in Table 4 has been influenced tremendously by the extensive baby welfare work carried on in New Jersey. Since most infant deaths occur in the first day or week of life, no great reduction in New Jersey's infant mortality rate can be expected unless the neonatal rate is reduced. This will need adequate staffing and equipment for the care of immature babies in hospitals and continued efforts to get expectant mothers under the care of physicians soon enough to increase the babies' chances of survival. Table 18 and its text point out those fields in which greater effort must be placed if a further reduction in infant mortality is to be achieved.

Maternal Mortality: In 1953 there were 55 maternal deaths, representing a rate of 0.5 per 1,000 live births. This is the lowest rate since 1906 when such rates were first computed. The non-white maternal mortality rate was 1.5 as compared with 1.7 for 1952. Tables 6 and 6a may serve to indicate more clearly where greater emphasis can be placed if fewer mothers are to die as a result of conceiving and bearing children.

Stillbirths: The 2,046 stillbirths reported for 1953 accounted for a rate of 18.2 per 1,000 live births. In 1952, the rate was the same. The non-white rate for 1953 was 30.0. On 12 reports, race or color was not stated.

Cancer: The number of deaths from malignant neoplasms in 1953 was 9,350 and the rate was 186.8 per 100,000 estimated population. The mortality from this cause, with few exceptions, has steadily increased since records were first kept in New Jersey. (See Chart 2.) This may be due, in some measure, to the higher proportion of persons in the older age groups and to more accurate diagnosis of the disease by physicians. Tables 12 and 12a give the mortality detail by site, sex, color and age.

Tuberculosis: The number of deaths from all forms of tuberculosis during 1953 was 693 of which 639 were charged to tuberculosis of the respiratory system. The rates per 100,000 estimated population were 13.8 and 12.8, respectively.

There were 544 deaths of white persons from all forms of tuberculosis and 149 deaths of non-white persons. Per 100,000 estimated population, the white rate was 11.6 and the non-white rate was 44.5. Reference to Chart 3 and Tables 14, 15, 17, and 20 is recommended. Additional discussion of the disease may be found in the report of Tuberculosis Control Program in this volume.

Deaths from Other Reportable Diseases: By law and regulation, morbidity reports of certain diseases are required. Although the number of deaths from these diseases can be found in the mortality tables following, reference should also be made to the reports in this volume by the Acute Communicable Diseases Program and the Venereal Disease Control Program.

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- Chart 1. Birth and death rates per 1,000 population (based on five year averages of events and population): 1880-1949.
- Table 1a. Births, marriages and deaths in New Jersey by month of occurrence: 1953.
- Table 1b. Births, marriages, deaths, stillbirths, maternal deaths, infant deaths and neonatal deaths by counties and municipalities: 1953. (Births, deaths and stillbirths adjusted for residence.)
- Table 2. Deaths by age groups; number and percentage for past decade: 1944-1953.
- Table 3. Illegitimate births by color and age of mother: 1953.
- Table 4. Number of births, deaths under one year, deaths under one month, stillbirths and maternal deaths, with rates per 1,000 live births: 1921-1953. (Adjusted for residence.)
- Table 5. Total stillbirths by weight by age of mother: 1953.
- Table 5a. White stillbirths by weight by age of mother: 1953.
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- Table 7. Marriages by age of husband versus age of wife: 1953.
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- Table 12. Deaths from malignant neoplasms by site, sex, color and age groups; benign and unspecified neoplasms by sex, color and age groups: 1953.
- Table 12a-1. Deaths from neoplasms by sex, color and age groups for each site group: 1953.
- Table 12a-2. Deaths from malignant neoplasms; percentage distribution by age, site, sex and color: 1953.
- Table 12a-3. Cancer death rates by age, sex and color per 100,000 estimated population: 1953.
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Table 13a-1. Deaths in New Jersey from transportation accidents by cause groups and month of death: 1953.

Table 13a-2. Deaths in New Jersey from non-transportation accidents by cause groups and month of death: 1953.

Table 13a-3. Deaths in New Jersey from suicide, homicide and other violence by cause groups and month of death: 1953.

Table 13b. Motor vehicle deaths in New Jersey by primary cause of death, sex and age groups: 1953.

Table 13c. Accidental deaths in New Jersey by immediate cause of death and type of accident: 1953.

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Table 13g. Motor vehicle deaths in New Jersey by type of vehicle by age groups: 1953.

Table 14. Causes of death (abridged list) as percentage of total deaths; with percentage by sex for each cause: 1953.

Table 15. Death rates: Total, white and non-white by abridged list cause: 1953.

Table 17. Deaths by abridged list cause by sex, color and age group: 1953.

Table 18. Infant deaths by cause and age groups: 1953.

Table 18a. Infant deaths by age and immaturity: 1953.

Table 19. Principal causes of death by age groups; numbers and percentages: 1953.

Table 20. Deaths from each cause, detailed international list, by sex, color and age groups: 1953.

Table 22. Deaths by abridged list cause by sex, color and age groups for each county, cities having estimated populations of 50,000 or more, State institutions and military posts: 1953.

TABLE I
POPULATION: NUMBERS AND RATES FOR BIRTHS, MARRIAGES
AND DEATHS: 1921-1953

(Births and deaths adjusted for residence)

YEAR	Estimated Population	BIRTHS		MARRIAGES		DEATHS	
		Number of Births Reported	Birth Rate per 1,000 Population	Number of Marriages Reported	Marriage Rate per 1,000 Population	Number of Deaths Reported	Death Rate per 1,000 Population
1921	3,285,475	78,172	23.7	27,815	8.4	37,302	11.3
1922	3,371,859	74,479	22.0	27,114	8.0	40,086	11.8
1923	3,458,243	74,611	21.5	28,730	8.3	41,294	11.9
1924	3,544,627	76,330	21.5	27,601	7.7	40,531	11.4
1925	3,631,011	74,193	20.4	27,672	7.6	41,749	11.4
1926	3,717,395	72,886	19.4	28,424	7.6	44,298	11.9
1927	3,803,779	72,799	19.1	28,318	7.4	41,582	10.9
1928	3,890,163	70,076	18.0	29,120	7.4	44,555	11.4
1929	3,976,546	68,297	17.1	30,237	7.6	45,746	11.5
1930	4,044,300	68,282	16.9	28,489	7.0	45,190	10.7
1931	4,058,200	64,078	15.8	28,488	6.5	44,135	10.9
1932	4,068,100	61,215	15.0	22,840	5.6	42,826	10.5
1933	4,050,000	56,072	13.7	24,453	6.0	45,380	10.6
1934	4,091,300	54,541	13.4	23,991	7.1	43,547	10.6
1935	4,133,100	55,089	13.4	23,724	7.2	43,267	10.5
1936	4,115,600	54,145	13.2	32,771	8.0	44,659	10.9
1937	4,127,500	55,197	13.4	36,190	8.8	45,312	11.0
1938	4,139,400	56,602	13.7	31,006	7.5	44,045	10.6
1939	4,151,300	56,859	13.7	31,895	7.7	43,837	10.6
1940	4,163,100	59,328	14.3	41,059	9.9	45,208	10.9
1941	4,189,900	67,104	16.0	46,538	11.1	45,971	10.9
1942	4,226,428	80,812	19.1	50,498	11.9	48,270	10.9
1943	4,235,233	82,256	19.4	41,045	9.7	48,761	11.8
1944	4,167,540	75,632	18.2	36,054	8.7	47,340	11.4
1945	4,200,941	76,995	18.3	39,711	9.5	47,633	11.3
1946	4,304,261	95,044	22.1	61,020	14.2	46,261	10.7
1947	4,435,000	106,096	23.9	55,802	12.6	48,276	10.9
1948	4,728,000	97,278	20.6	51,913	11.0	48,107	10.2
1949	4,756,000	97,414	20.4	44,469	9.3	47,708	10.1
1950	4,832,000	97,734	20.2	46,291	9.6	48,837	10.2
1951	4,896,000	105,218	21.5	44,564	9.1	47,098	10.0
1952	4,949,000	110,215	22.3	41,125	8.3	51,430	10.4
1953	5,006,000	112,522	22.5	40,836	8.2	52,794	10.5

Note: For similar data for period 1879-1920, see Table 1 in any annual report prior to 1950.

BIRTH AND DEATH RATES

per 1,000 population

(Based on Five-Year Averages of Events and Population)

1880 - 1949

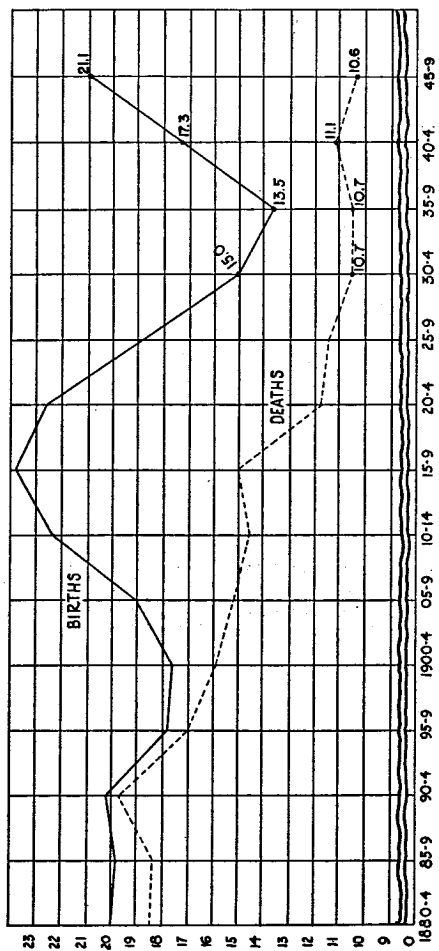


TABLE 1a. BIRTHS, MARRIAGES, AND DEATHS: 1953

Month	Births	Marriages	Deaths
January	8,738	2,646	4,689
February	8,341	2,879	4,587
March	9,040	1,921	4,435
April	8,065	3,611	4,144
May	8,508	3,773	4,217
June	9,189	5,319	4,171
July	9,777	2,914	4,074
August	9,681	3,456	3,993
September	9,560	4,335	4,174
October	9,308	4,091	4,199
November	8,827	3,397	4,315
December	9,324	2,544	4,573
Total	108,358	40,886	51,571

The birth and death data have not been adjusted for residence but, like the marriage figures, represent events occurring in New Jersey. The environmental conditions responsible for seasonal influence on the occurrence of these events exist in New Jersey. It would be illogical to include in New Jersey's seasonal trend those events occurring to New Jersey residents in other states where the natural conditions may differ.

TABLE 1b. BIRTHS, MARRIAGES, DEATHS, STILLBIRTHS, MATERNAL DEATHS, INFANT DEATHS AND NEONATAL DEATHS BY COUNTIES AND MUNICIPALITIES: 1953

(Births, deaths and stillbirths adjusted for residence.)

CIVIL DIVISION	Births	Marriages	Deaths	Still- births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Absecon City	83	20	26	...	...	2	2
Atlantic City	975	645	1026	29	...	35	25
Brigantine City	61	8	16	...	...	...	...
Buena Borough	42	30	20	1	...	2	2
Buena Vista Township	47	15	25	...	...	5	5
Corbin City	4	1	3	...	...	...	...
Egg Harbor City	121	57	47	3	...	6	3
Egg Harbor Township	53	25	45	1	...	...	...
Estelle Manor City	5	1	6	...	...	...	...
Folsom Borough	1	1	7	...	...	1	1
Galloway Township	42	24	43	1	...	2	1
Hamilton Township	78	16	68	2	...	3	2
Hammonton Town	223	63	70	4	...	5	5
Linwood City	56	20	25	...	...	1	1
Longport Borough	12	1	10	...	...	...	...
Margate City	129	26	80	2	...	2	2
Mullica Township	13	10	24	1	...	2	1
Northfield City	95	10	35	2	...	1	1
Pleasantville City	380	110	155	6	...	11	6
Port Republic City	3	2	11	...	...	...	...
Somers Point City	66	39	42	...	...	...	...
Ventnor City	122	76	105	2	...	6	3
Weymouth Township	17	1	13	...	...	...	...
Total	2641	1194	1899	55	...	85	60

BERGEN COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still-Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Allendale Borough	61	8	26	...	...	1	1
Alpine Borough	10	5	2	...	...	...	...
Bergenfield Borough	124	152	1	...	...	...	...
Bogota Borough	129	82	78	6	...	4	1
Carlstadt Borough	93	19	53	...	...	3	1
Cliffside Park Borough	318	95	187	5	...	5	4
Closter Borough	129	24	44	1	...	5	3
Cresskill Borough	124	22	44	1	...	3	3
Demarest Borough	64	9	22	1	...	...	...
Dumont Borough	314	67	104	5	...	4	3
East Paterson Borough	378	60	104	7	...	7	5
East Rutherford Borough	125	71	87	1	...	4	4
Edgewater Borough	71	96	52	...	...	4	3
Emerson Borough	62	12	11	1	...	...	...
Englewood City	492	288	253	...	...	9	4
Englewood Cliffs Borough	16	3	14	1	...	1	1
Fair Lawn Borough	714	122	185	11	...	19	33
Fairview Borough	183	138	88	2	...	6	2
Fort Lee Borough	427	135	147	5	...	9	9
Franklin Lakes Borough	46	8	19	...	...	12	10
Garfield City	590	196	243	10	...	2	2
Glen Rock Borough	219	31	70	1	...	15	14
Hackensack City	625	364	338	10	...	...	...
Harrington Park Borough	40	10	14	...	...	4	1
Hasbrouck Heights Borough	227	74	84	1	...	...	...
Haworth Borough	14	34	17	1	...	2	...
Hillsdale Borough	121	21	52	1	...	...	...
Hoboken Borough	61	31	25	...	...	...	...
Leonia Borough	167	59	53	...	...	1	2
Little Ferry Borough	99	99	99	...	...	1	1
Lodi Borough	578	98	135	10	...	12	9
Lyndhurst Township	410	144	198	4	...	9	9
Mahwah Township	75	22	44	...	...	5	1
Maywood Borough	175	39	86	...	...	4	4
Midland Park Borough	229	30	83	2	1	3	2
Montvale Borough	48	3	15	...	...	...	...
Moonsachie Borough	69	8	17	...	...	1	...
New Milford Borough	570	59	70	9	...	8	7
North Arlington Borough	357	76	120	3	...	6	5
Northvale Borough	32	20	14	...	...	...	...
Norwood Borough	41	27	17	2	...	...	...
Oakland Borough	63	8	18	1	...	...	...
Old Tappan Borough	24	5	6	...	...	...	...
Oradell Borough	68	16	38	...	...	1	1
Palisade Interstate Park Borough	...	...	...	...	...	...	...
Palisade Park Borough	221	87	90	...	...	3	3
Paramus Borough	431	40	71	3	...	7	5
Park Ridge Borough	84	30	40	...	...	2	2
Ramsey Borough	133	34	66	4	...	1	1
Ridgefield Borough	191	48	65	6	...	1	1
Ridgefield Park Township	229	94	136	3	...	5	5
Ridgewood Village	389	189	210	11	...	10	7
River Edge Borough	284	47	66	...	...	2	2
River Vale Township	85	2	13	1	...	2	2
Rochelle Park Township	150	33	32	1	...	3	3
Rockleigh Borough	1	2	...	...	...	...	...
Rutherford Borough	401	125	220	2	...	8	6
Saddle River Borough	26	10	12	...	...	...	...
Saddle River Township	209	14	48	5	...	6	5
South Hackensack Township	28	1	11	1	...	...	...
Teanack Township	642	221	311	14	...	18	14
Tenafly Borough	185	81	112	...	...	8	8
Teterboro Borough	...	...	...	...	...	...	...
Upper Saddle River Borough	27	9	6	...	...	...	...
Waldwick Borough	208	6	35	2	...	5	4
Wallington Borough	138	45	89	3	1	2	2
Washington Township	40	10	10	...	...	2	2
Westwood Borough	153	70	83	2	...	7	6
Woodcliff Lake Borough	89	1	17	...	...	...	...
Wood Ridge Borough	146	46	65	1	...	...	...
Wyckoff Township	166	35	45	1	...	1	1
Total	13810	4012	5250	196	2	276	211

BURLINGTON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still-Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Bass River Township	7	1	7	1	...	...	...
Beverly City	109	24	29	...	...	...	...
Bordentown City	190	77	80	4	1	5	3
Bordentown Township	31	17	1	...	...	4	8
Burlington City	310	105	147	3	...	...	...
Burlington Township	84	8	38	1	1	...	...
Chesterfield Township	22	5	15	...	...	1	1
Cinnaminson Township	24	18	27	...	...	...	...
Delanco Township	82	14	30	2	...	2	2
Delran Township	21	10	30	1	...	1	1
Eastampton Township	14	1	7	...	...	1	1
Edgewater Park Township	15	12	8	...	...	...	...
Fresham Township	48	9	24	1	...	2	2
Fleetsboro Borough	17	5	7	...	...	...	...
Florence Township	148	58	70	3	...	6	6
Hainesport Township	39	14	24	1	...	2	2
Lumberton Township	36	2	12	1	...	2	2
Mansfield Township	40	4	21	...	...	1	1
Maple Shade Township	238	59	77	3	...	6	5
Medford Township	68	18	34	1	...	3	3
Medford Lakes Borough	21	11	2	...	...	11	8
Moorestown Township	244	71	121	4	...	12	10
Mount Holly Township	269	66	95	4	...	...	...
Mount Laurel Township	61	7	19	...	...	1	10
New Hanover Township	33	...	8	1	...	...	...
North Hanover Township	9	16	8	1	...	3	3
Palmyra Borough	114	41	71	3	...	2	2
Pemberton Borough	50	13	12	...	...	2	2
Pemberton Township	197	49	44	1	...	5	3
Riverside Township	204	72	78	1	...	3	3
Riverton Borough	104	43	39	1	...	3	3
Shamong Township	22	1	12	...	...	1	1
Southampton Township	56	16	34	4	...	...	...
Springfield Township	35	10	1	...	...	...	...
Ternacole Township	24	13	12	...	...	2	1
Washington Township	10	2	5	...	...	...	...
Westampton Township	27	...	6	1	...	1	1
Willingsboro Township	5	1	8	...	...	...	...
Woodland Township	15	2	10	...	...	...	...
Wrightstown Borough	36	16	9	...	...	...	...
Total	3200	893	1298	46	2	89	72

CAMDEN COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still-Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Abudon Borough	197	56	116	6	...	4	4
Abudon Park Borough	20	9	9	...	...	...	...
Bargton Borough	152	9	25	3	...	4	3
Bellmawr Borough	215	19	31	1	1	...	...
Berlin Borough	64	51	30	1	...	1	1
Berlin Township	68	4	21	6	...	3	2
Brooklawn Borough	54	7	19	1	...	1	1
Camden City	2769	1384	1439	60	2	78	66
Ceshilhurst Borough	8	...	4	...	...	...	...
Clementon Borough	95	8	32	5	...	1	1
Collingswood Borough	445	141	212	4	...	5	4
Delaware Township	127	18	63	4	...	2	1
Gibbsboro Borough	21	13	10	...	...	...	...
Gloucester City	338	134	148	5	...	4	4
Gloucester Township	205	46	88	1	...	3	2
Haddonfield Borough	515	89	188	6	...	9	9
Haddon Heights Borough	185	88	83	1	...	3	3
Haddon Township	189	62	92	1	...	2	2
Hi Nella Borough	17	1	2	1	...	...	...
Laurel Springs Borough	67	8	18	...	...	1	1
Lawnside Borough	48	17	22	...	...	...	...
Lindenwald Borough	74	37	27	2	...	2	1

CAMDEN COUNTY—Continued

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Magnolia Borough	80	11	22	2	1	1	1
Merchantville Borough	284	95	78	1	...	5	4
Mount Ephraim Borough	189	24	44	3	...	3	2
Oaklyn Borough	127	58	63	3	...	14	9
Pennsauken Township	477	113	191	5	...	1	1
Pine Hill Borough	44	22	23	1	...	...	...
Pine Valley Borough	...	...	...	...	...	...	...
Runnemede Borough	160	52	80	5	...	3	2
Somerdale Borough	30	9	18	...	...	...	...
Stratford Borough	43	11	7	...	...	...	...
Tavistock Borough	...	...	...	...	...	...	...
Voorhees Township	7	11	12	...	...	...	...
Waterford Township	68	31	50	...	...	5	4
Winslow Township	102	29	57	2	...	1	1
Wood Lynne Borough	62	27	27	...	...	...	...
Total	7418	2655	3274	130	4	161	123

CAPE MAY COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Avsion Borough	5	3	6	...	...	...	...
Cape May City	1	39	54	1	...	2	2
Cape May Point Borough	1	1	3	...	...	...	...
Dennis Township	30	19	33	3	...	1	1
Lower Township	72	19	50	1	...	...	...
Middle Township	105	32	97	2	1	2	1
North Wildwood City	31	19	41	...	...	2	1
Ocean City	128	69	107	6	...	1	1
Sea Isle City	19	8	16	1	...	...	...
Stone Harbor Borough	2	5	16	...	...	...	...
Upper Township	54	10	32	...	...	4	3
West Cape May Borough	13	2	15	1	...	...	...
West Wildwood Borough	4	1	3	...	...	1	1
Wildwood City	99	110	80	2	...	4	2
Wildwood Crest Borough	49	4	24	...	...	1	1
Woodbine Borough	31	6	18	2	...	1	1
Total	744	347	595	20	1	20	14

CUMBERLAND COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Bridgeton City	497	204	291	8	2	28	17
Commercial Township	98	21	50	2	...	4	2
Deerfield Township	50	11	24	2	...	1	1
Downe Township	27	8	22	1	...	1	...
Fairfield Township	96	28	42	2	1	5	5
Greenwich Township	31	4	5	...	...	2	2
Hopewell Township	54	8	20	...	...	1	1
Lawrence Township	64	19	31	...	...	4	4
Maurice River Township	49	13	43	1	...	3	2
Millville City	409	152	199	17	...	8	7
Shiloh Borough	15	5	5	...	...	...	...
Stow Creek Township	19	11	1	...	...	...	...
Upper Deerfield Township	132	24	83	3	...	4	2
Vineland City	658	204	280	13	1	16	14
Total	2199	702	1061	60	4	77	53

ESSEX COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Bellefonte Town	688	222	295	20	...	11	11
Bloomfield Town	1099	327	489	17	...	31	22
Caldwell Borough	124	78	77	2	...	2	...
Caldwell Township	30	8	14	...	...	...	...
Cedar Grove Township	239	19	44	2	...	5	4
East Orange City	1535	624	904	33	1	38	35
Essex Falls Borough	22	20	13	...	...	1	1
Glen Ridge Borough	117	40	66	...	...	1	1
Irvington Town	1136	478	618	16	...	27	23
Livingston Township	337	49	85	5	...	8	7
Maplewood Township	342	173	248	7	...	5	8
Millburn Township	214	110	123	3	1	4	4
Montclair Town	787	368	527	11	...	18	14
Newark City	9574	4655	5227	211	4	277	221
North Caldwell Borough	48	4	16	...	...	1	1
Nutley Town	554	249	243	10	...	14	12
Orange City	866	309	451	20	...	20	12
Roseland Borough	35	9	15	2	...	...	...
South Orange Village	201	172	155	3	...	3	3
Verona Borough	236	71	104	3	...	6	5
West Caldwell Borough	111	6	28	...	...	1	1
West Orange Town	695	191	285	7	...	13	10
Total	18993	8302	10117	372	8	487	392

GLOUCESTER COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- Maternal		Infant Deaths by Age at Death	
				births	Deaths	Total	Under 28 Days
Clarton Borough	81	39	36	...	...	6	3
Deptford Township	129	51	66	3	...	4	2
East Greenwich Township	55	12	22	1	...	1	1
Elk Township	16	5	14	...	...	3	...
Franklin Township	110	23	33	1	...	4	3
Glassboro Borough	179	61	68	1	...	6	4
Greenwich Township	48	18	34	...	...	1	1
Harrison Township	70	11	20	1	...	1	1
Logan Township	27	9	18	1	...	1	1
Mantua Township	147	25	48	3	...	7	4
Monroe Township	136	39	87	2	...	5	4
National Park Borough	68	21	24	1	...	1	1
Newfield Borough	64	20	11	1	...	...	...
Paulsboro Borough	232	67	88	3	1	11	9
Pitman Borough	157	50	109	2	...	5	5
South Harrison Township	1	9	1	...	...	...	...
Swedesboro Borough	104	29	39	1	...	2	1
Washington Township	31	13	22	1	...	...	...
Wenonah Borough	29	16	16	...	...	...	...
West Deptford Township	93	20	42	...	...	...	...
Westville Borough	125	43	53	1	...	2	1
Woodbury City	474	108	115	6	...	15	14
Woodbury Heights Borough	23	8	13	1	...	1	1
Woolwich Township	6	...	4	...	...	1	1
Total	2413	688	1003	31	1	81	59

HUDSON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Bayonne City	1651	550	738	37	...	26	22
East Newark Borough	30	26	19	1	...	...	...
Guttenberg Town	81	25	79	2	...	...	...
Harrison Town	244	158	136	5	...	5	5
Hoboken City	1064	662	688	15	1	22	17
Jersey City	6332	3023	3462	112	3	135	122
Keasbey Town	738	244	392	22	...	10	9
North Bergen Township	853	188	381	17	...	12	9
Secaucus Borough	162	51	88	3	...	4	4
Union City	1035	553	649	21	...	27	25
Weehawken Township	220	82	176	3	...	15	4
West New York Town	763	577	376	12	...	16	13
Total	13163	6119	7165	250	4	233	231

HUNTERDON COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Alexandria Township	27	7	8	...	...	...	...
Bethlehem Township	11	3	7	...	...	...	...
Blommsbury Borough	18	8	7	...	...	...	...
Calton Borough	18	10	6	...	...	...	...
Clinton Town	24	27	29	...	...	...	...
Clinton Township	48	7	24	1	...	1	1
Delaware Township	30	14	28	1	...	1	...
East Amwell Township	35	8	20	...	...	2	...
Flemington Borough	42	35	48	...	...	...	...
Franklin Township	36	7	28	...	1	1	1
Frenchtown Borough	39	7	26	1	...	3	2
Glen Gardner Borough	15	...	9	2	...	...	...
Hampton Borough	25	14	10	1	...	1	1
High Bridge Borough	28	21	31	...	...	1	1
Holland Township	9	4	12	...	...	...	...
Kingwood Township	30	1	15	...	...	1	1
Lambertville City	95	48	57	2	...	2	1
Lebanon Borough	12	6	13	...	...	2	1
Lebanon Township	33	3	20	...	...	2	2
Milford Borough	36	16	13	...	...	1	1
Raritan Township	74	5	25	...	...	3	2
Readington Township	37	30	53	...	...	1	1
Stockton Borough	4	18	3	...	...	1	1
Tewksbury Township	30	13	14	1	...	...	...
Union Township	20	3	14	2	...	2	2
West Amwell Township	20	2	5	...	...	...	...
Total	891	323	519	15	1	25	16

MERCER COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
East Windsor Township	60	1	11	...	...	2	...
Erving Township	512	95	148	7	...	12	11
Hamilton Township	1124	295	447	18	2	24	19
Hightstown Borough	110	45	64	1	...	4	4
Hopewell Borough	41	16	28	...	...	...	...
Hopewell Township	38	14	28	1	...	...	...
Lawrence Township	181	50	75	4	...	1	1
Pennington Borough	32	20	23	...	...	...	...
Princeton Borough	167	132	100	6	1	...	...
Princeton Township	113	42	39	1	...	6	5
Trenton City	2550	1274	1491	57	4	77	59
Washington Township	54	5	29	...	...	4	3
West Windsor Township	66	21	27	...	...	2	1
Total	5153	1980	2518	99	7	134	105

MIDDLESEX COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Carteret Borough	343	107	145	5	...	12	8
Caranbury Township	75	25	25	...	...	...	...
Duanelen Borough	205	78	66	4	...	3	2
East Brunswick Township	235	25	36	5	...	4	3
Helmetta Borough	12	2	6	1	...	...	...
Highland Park Borough	258	97	103	4	...	...	...
Jamesburg Borough	111	33	32	3	...	3	1
Madison Township	168	43	79	2	...	4	4
Metuchen Borough	451	74	111	10	1	...	...
Middlesex Borough	139	29	48	3	...	9	8
Milltown Borough	147	40	49	1	...	1	1
Monroe Township	21	6	31	...	...	1	1
New Brunswick City	1015	514	399	35	...	21	14
North Brunswick Township	144	16	58	...	...	2	2
Perth Amboy City	743	393	441	12	2	21	15
Piscataway Township	275	35	72	5	1	5	5
Plainboro Township	24	2	10	...	...	...	...
Raritan Township	712	98	132	...	...	22	13
Sayreville Borough	225	48	103	6	1	7	3
South Amboy City	235	77	102	2	...	2	2
South Brunswick Township	76	18	41	1	...	2	2
South Plainfield Borough	394	47	81	5	...	8	6
South River Borough	305	95	108	3	...	7	5
Spotswood Borough	110	6	19	4	...	...	...
Woodbridge Township	1226	218	348	19	...	26	22
Total	7652	2126	2685	137	5	166	126

MONMOUTH COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Still- births	Maternal Deaths	Infant Deaths by Age at Death	
						Total	Under 28 Days
Allenhurst Borough	15	3	9	...	...	...	...
Allentown Borough	34	25	8	1	...	1	...
Asbury Park City	434	294	253	7	...	20	14
Atlantic Township	29	6	16	1	...	1	1
Atlantic Highlands Borough	102	41	43	1	...	1	1
Avon Borough	21	27	21	...	...	...	...
Belmar Borough	101	66	66	2	...	1	1
Bradley Beach Borough	63	32	37	...	...	4	2
Brielle Borough	22	2	20	1	...	1	1
Deal Borough	29	28	12	...	...	...	...
Eatontown Borough	257	34	36	4	...	5	5
Englishtown Borough	61	19	21	...	...	1	...
Fair Haven Borough	124	11	35	3	...	2	2
Farmingdale Borough	28	14	20	...	...	...	...
Freehold Borough	153	77	101	1	...	3	3
Freehold Township	114	6	46	4	...	2	1
Highlands Borough	51	19	23	...	...	...	...
Holmdel Township	21	10	14	...	...	...	...
Howell Township	158	20	76	4	...	6	1
Interlaken Borough	28	...	5	...	...	...	...
Keansburg Borough	120	66	79	3	...	1	...
Kerport Borough	150	116	97	3	...	3	3
Little Silver Borough	80	12	24	3	...	3	2
Long Branch City	708	176	285	10	...	22	17
Manalapan Township	90	11	36	3	...	5	1
Manasquan Borough	85	42	55	5	...	2	2
Marlboro Township	85	21	27	1	...	3	2
Matawan Borough	140	31	70	...	...	1	1
Matawan Township	113	10	38	3	...	1	2
Middletown Township	408	72	181	7	...	6	4
Millstone Township	47	10	22	...	...	1	1
Monmouth Beach Borough	47	4	14	...	...	1	1
Neptune Township	361	85	218	3	1	11	9
Neptune City Borough	89	8	49	1	...	2	1
Ocean Grove	...	...	1	...	...	...	...
Ocean Township	146	33	69	1	...	2	2

MONMOUTH COUNTY—Continued

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
New Shrewsbury Borough	32	19	22	1	...	3	1
Oceanport Borough	59	15	24	1	...	1	1
Raritan Township	67	13	23	2	...	2	2
Red Bank Borough	338	197	184	10	...	8	6
Roosevelt Borough	9	2	7	...	...	...	...
Runson Borough	93	31	40	2	...	1	1
Sea Bright Borough	27	4	11	...	...	...	...
Sea Girt Borough	24	6	16	...	...	...	...
Shrewsbury Borough	70	15	23	1	...	1	1
Shrewsbury Township	16	...	4	...	...	...	...
South Belmar Borough	27	4	25	...	...	...	...
Spring Lake Borough	31	62	34	1	...	1	3
Spring Lake Heights Borough	78	16	24	...	...	3	3
Union Beach Borough	27	37	1	...	...	2	1
Upper Freehold Township	56	1	27	...	...	1	1
Wall Township	184	25	74	2	...	1	1
West Long Branch Borough	81	22	29	1	...	2	1
Total	5714	1880	2729	95	1	140	101

MORRIS COUNTY - 1953

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Boonton Town	164	88	82	2	...	6	3
Boonton Township	33	6	20	1	...	1	1
Butler Borough	106	54	57	1	...	3	3
Chatham Borough	157	42	71	4	...	4	4
Chatham Township	63	4	31	2	...	3	3
Chester Borough	21	14	13	...	...	...	...
Chester Township	29	...	9	...	...	...	...
Denville Township	190	35	66	2	...	5	5
Dover Town	277	141	136	5	...	6	5
East Hanover Township	41	11	17	...	...	...	...
Florham Park Borough	90	13	34	1	...	2	2
Hanover Township	133	18	44	3	...	3	2
Harding Township	31	9	11	1	...	...	...
Jefferson Township	97	27	38	3	...	...	...
Kinnelon Borough	42	1	8	...	...	...	...
Lincoln Park Borough	86	20	24	...	...	2	1
Madison Borough	293	96	121	11	1	3	1
Mendham Borough	33	23	17	...	...	...	...
Mendham Township	32	3	16	1	...	2	1
Mine Hill Township	44	18	15	...	...	2	2
Montville Township	99	41	34	1	...	2	2
Morris Plains Borough	85	28	46	1	1	1	1
Morristown Town	484	161	221	11	...	7	5
Morris Township	104	41	61	2	...	1	1
Mount Arlington Borough	18	9	10	2	...	2	1
Mountain Lakes Borough	58	15	28	1	...	2	2
Mount Olive Township	89	7	18	1	...	...	...
Mount Tabor	...	...	1	...	...	...	...
Netcong Borough	55	50	29	...	...	2	2
Parsippany-Troy Hills Township	252	64	88	4	...	10	6
Passaic Township	65	24	26	2	...	1	1
Pegannock Township	166	47	46	1	...	2	2
Randolph Township	78	10	36	...	...	...	...
Riverdale Borough	50	3	11	...	...	1	1
Rockaway Borough	84	51	45	1	...	1	1
Rockaway Township	118	12	29	...	...	2	2
Roxbury Township	145	29	66	4	...	3	2
Victory Gardens	25	...	3	...	...	...	...
Washington Township	46	10	34	2	...	1	1
Wharton Borough	92	41	46	2	1	1	...
Total	4104	1265	1703	72	2	82	64

OCEAN COUNTY - 1953

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Barnegat City Borough	4	3	3	...	...	...	...
Bay Head Borough	21	12	9	...	...	...	...
Beach Haven Borough	18	16	16	...	...	1	1
Beachwood Borough	44	4	20	1	...	...	...
Berkeley Township	47	16	20	...	...	...	...
Brick Township	104	10	64	3	...	4	3
Dover Township	269	88	103	5	...	2	1
Eagleswood Township	16	2	7	...	...	2	1
Harvey Cedars Borough	1	...	...	...	...	...	...
Island Beach Borough	1	...	...	...	...	...	...
Island Heights Borough	14	3	9	1	...	...	...
Jackson Township	48	29	36	...	...	2	2
Lacey Township	24	5	11	...	...	1	1
Lakelurst Borough	100	7	21	3	...	2	1
Lakewood Township	282	128	166	6	...	5	5
Lavallette Borough	15	7	8	1	...	...	...
Little Egg Harbor Township	...	...	...	...	...	...	...
Long Beach Township	19	10	13	...	...	...	...
Manchester Township	10	12	8	...	...	...	...
Mantoloking Borough	4	...	...	...	...	...	...
Ocean Township	10	3	16	...	...	1	1
Ocean Gate Borough	13	5	12	...	...	...	...
Pine Beach Borough	16	4	10	...	...	2	2
Plumstead Township	82	17	27	2	1	1	1
Point Pleasant Borough	118	25	60	3	...	3	3
Point Pleasant Beach Borough	38	50	43	...	...	...	...
Seaside Heights Borough	10	6	15	...	...	1	...
Seaside Park Borough	14	14	21	2	...	1	...
Ship Bottom Beach Arlington Borough	3	5	9	...	...	...	...
South Toms River Borough	3	6	2	...	...	...	...
Stafford Township	27	9	20	...	...	...	...
Surf City Borough	5	...	3	...	...	...	...
Tuckerton Borough	41	19	20	1	...	1	1
Union Township	14	9	17	1	...	1	...
Total	1433	525	769	29	1	36	29

PASSAIC COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death		Total	Under 28 Days
				Still-births	Maternal Deaths		
Bloomingtondale Borough	80	19	34	3	...	3	3
Clifton City	1658	283	617	29	1	36	29
Haledon Borough	191	35	62	...	...	2	1
Hawthorne Borough	298	115	157	7	...	2	2
Little Falls Township	195	50	58	1	...	1	1
North Haledon Borough	67	15	36	...	...	3	3
Passaic City	997	617	688	22	...	20	14
Paterson City	2732	1290	1766	68	1	77	56
Pompton Lakes Borough	198	71	42	2	...	5	4
Prospect Park Borough	95	61	48	4	...	1	...
Ringwood Borough	42	7	20	...	...	1	...
Totowa Borough	168	45	50	2	...	1	1
Wanaque Borough	212	23	50	...	...	2	2
Wayne Township	400	59	150	6	1	9	7
West Milford Township	92	28	57	2	...	4	4
West Paterson Borough	108	15	43	3	...	4	2
Total	7463	2753	3770	148	3	172	130

SALEM COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death	
				Still- births	Maternal Deaths
Alloway Township	35	14	26	...	...
Elmer Borough	43	8	20	...	...
Elisabore Township	13	3	6	...	...
Lower Alloway Creek Township	32	9	6	...	...
Lower Penns Neck Township	158	47	48	2	...
Mannington Township	79	8	24	1	...
Oldmans Township	36	10	14	1	...
Penns Grove Borough	180	79	70	2	...
Pilesgrove Township	64	6	22	1	...
Pittsgrove Township	60	5	25	1	...
Quinton Township	36	6	15	1	...
Salem City	199	70	103	6	...
Upper Penns Neck Township	124	33	86	1	...
Upper Pittsgrove Township	53	16	25	3	...
Woodstown Borough	79	19	45	1	...
Total	1191	330	487	21	...

SOMERSET COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death	
				Still- births	Maternal Deaths
Bedminster Township	28	12	16	...	...
Bernards Township	165	40	43	1	...
Bernardsville Borough	73	39	29	1	...
Bound Brook Borough	314	95	88	8	...
Branchburg Township	51	6	28	...	...
Bridgewater Township	214	30	75	10	...
Far Hills Borough	23	8	9	...	...
Franklin Township	301	36	73	3	...
Green Brook Township	43	1	13	...	...
Hillsborough Township	109	11	31	2	...
Manville Borough	220	98	63	8	...
Hillstone Borough	21	...	1	...	...
Montgomery Township	5	5	19	...	...
North Plainfield Borough	318	114	132	9	...
Peapack Gladstone Borough	41	12	15	...	...
Raritan Town	163	35	43	3	...
Rocky Hill Borough	11	3	7	...	...
Somersville Borough	315	104	135	6	...
South Bound Brook Borough	70	19	22	5	...
Warren Township	66	17	22	1	...
Watchung Borough	83	16	16	1	...
Total	2531	721	895	50	...

SUSSEX COUNTY 1953

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death	
				Still- births	Maternal Deaths
Andover Borough	10	3	11	...	...
Andover Township	32	2	6	1	...
Branchville Borough	20	11	9	1	...
Byram Township	24	1	15	1	...
Frankford Township	47	4	21	1	...
Franklin Borough	61	28	44	5	...
Fredon Township	15	11	3	...	...
Green Township	8	8	5	...	...
Hamburg Borough	26	16	15	1	...
Hampton Township	12	2	7	...	...
Hardyston Township	43	3	12	1	...
Hopatcong Borough	31	5	16	...	...
Lafayette Township	15	5	8	1	...
Montague Township	34	4	18	1	...
Newton Town	128	63	75	4	...
Ogdensburg Borough	38	11	8	...	...
Sandyston Township	16	1	12	...	...
Sparta Township	81	26	40	1	...
Stanhope Borough	13	13	2	...	...
Stillwater Township	19	6	8	2	...
Sussex Borough	33	34	31	3	...
Vernon Township	34	12	15	2	...
Walpack Township	3	1	...	...	...
Wantage Township	76	7	13	1	...
Total	845	279	413	28	...

UNION COUNTY

CIVIL DIVISION	Births	Mar-riages	Deaths	Infant Deaths by Age at Death	
				Still- births	Maternal Deaths
Clark Township	215	45	38	4	...
Cranford Township	449	119	194	7	...
Elizabeth City	2341	1025	1220	48	...
Fanwood Borough	110	9	34	...	...
Garwood Borough	132	27	36	2	...
Hillside Township	343	118	186	10	...
Kenilworth Borough	153	25	24	...	...
Linden City	733	178	248	22	...
Mountainside Borough	71	7	17	1	...
New Providence Borough	166	17	40	2	...
Berkeley Heights Township	78	10	28	2	...
Plainfield City	1010	393	455	19	...
Rahway City	576	167	232	11	...
Roselle Borough	484	130	137	10	...
Roselle Park Borough	202	61	107	5	...
Scotch Plains Township	394	71	92	3	...
Springfield Township	197	38	36	3	...
Summit City	318	179	212	2	...
Union Township	770	193	292	10	...
Westfield Town	496	149	196	6	...
Winfield Township	45	...	10	1	...
Total	9234	2981	3874	171	...

WARREN COUNTY

CIVIL DIVISION	Births	Marriages	Deaths	Still-births		Maternal Deaths		Infant Deaths by Age at Death	
				Total	Under 25 Days	Total	Under 25 Days		
Allamuchy Township	24	...	6	...	...	...	...	...	...
Alpha Borough	62	22	15	...	...	...	...	...	...
Belvidere Town	74	35	48	1	...	...	3	2	...
Blairstown Township	50	8	18	1	...	...	...	...	...
Franklin Township	49	3	16	...	...	...	1	1	...
Frelinghuysen Township	16	...	8	1	...	...	...	...	...
Greenwich Township	19	21	14	...	...	...	...	...	...
Hackettstown Town	86	30	52	...	...	...	1	1	...
Hardwick Township	7	...	7	1	...	...	1	...	...
Harmony Township	36	10	17	...	...	...	...	...	...
Hope Township	9	4	17	...	...	...	...	...	...
Independence Township	29	8	26	1	...	...	...	...	...
Knowlton Township	23	10	14	...	...	...	1	...	...
Liberty Township	10	1	9	...	...	...	...	...	...
Lopatcong Township	7	8	14	...	...	...	...	...	...
Mansfield Township	27	9	20	...	...	...	2	1	...
Oxford Township	44	8	25	...	...	...	1	...	...
Palmyra Township	3	...	...	...	...	...	...	...	...
Phillipsburg Town	454	163	237	8	...	...	8	6	...
Pohatcong Township	27	4	14	...	...	...	...	...	...
Washington Borough	113	61	71	3	...	...	3	3	...
Washington Township	32	7	23	1	...	...	1	...	...
White Township	20	4	15	1	...	...	2	...	...
Total	1222	416	686	17	...	...	24	14	...
INSTITUTIONS	7	2	32	...	...	...	1	1	...
MILITARY POSTS	492	398	24	5	...	...	6	5	...

TABLE 2. DEATHS BY AGE GROUPS; NUMBER AND PERCENTAGE FOR PAST DECADE, 1944-1953

YEAR	Total Deaths	AGE GROUPS															
		Under 1 year	1 to 4	5 to 14	15 to 24	25 to 44	45 to 64	65 and over	Unknown	No.	%						
1944	47,840	2,697	5.4	493	1.0	490	1.0	941	2.0	4,334	9.2	15,659	32.9	22,937	48.1	25,868	54.1
1945	47,840	2,705	5.7	433	1.0	495	1.0	840	1.8	4,127	8.7	15,070	32.0	23,524	49.3	25,554	53.4
1946	46,201	2,705	5.8	428	0.9	377	0.8	752	1.6	3,805	8.4	15,066	32.6	22,889	49.5	25,270	52.5
1947	48,107	2,680	5.6	419	0.9	377	0.8	682	1.4	3,700	7.7	15,052	31.4	22,333	46.4	24,710	51.2
1948	48,107	2,680	5.6	419	0.9	355	0.7	680	1.4	3,685	7.7	15,495	32.2	22,111	46.2	24,848	51.7
1949	48,837	2,645	5.4	382	0.8	323	0.7	590	1.2	3,517	7.2	15,358	31.4	20,210	41.4	24,022	49.3
1950	50,008	2,616	5.2	392	0.8	331	0.7	567	1.1	3,680	7.4	15,390	31.4	21,022	42.0	24,508	49.2
1951	51,430	2,633	5.1	429	0.8	341	0.7	560	1.1	3,590	7.0	15,180	29.5	21,508	41.8	24,210	47.1
1952	51,430	2,633	5.1	429	0.8	341	0.7	560	1.1	3,590	7.0	15,180	29.5	21,508	41.8	24,210	47.1
1953	52,794	2,654	5.0	417	0.8	341	0.7	560	1.1	3,590	7.0	15,180	29.5	21,508	41.8	24,210	47.1

TABLE 3. ILLEGITIMATE BIRTHS BY COLOR AND AGE OF MOTHER: 1953

Age of Mother	Total		Color			
			White		Non-White	
	No.	%	No.	%	No.	%
All Ages	2,705	100.0	1,141	100.0	1,564	100.0
10-14	53	2.0	7	0.6	46	2.9
15-19	1,005	37.2	349	30.6	656	42.0
20-24	948	35.0	444	38.9	504	32.2
25-29	383	14.2	172	15.1	211	13.5
30-34	195	7.2	101	8.9	94	6.0
35-39	82	3.0	46	4.0	36	2.3
40-44	38	1.4	22	1.9	16	1.0
45-49	1	<0.1			1	0.1

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

Of the total illegitimate births 72 per cent were assignable to two age groups, 15-19 and 20-24.

The percentage of non-white females who became mothers out of wedlock prior to reaching twenty years of age was relatively higher than that for white females. This was also true for 1951 and 1952.

After age twenty-nine a greater percentage of illegitimate births occurred to white mothers. The percentage for white mothers was 14.8 as compared with 9.4 per cent for non-white mothers.

Although constituting approximately 6 per cent of New Jersey's population, the non-white races accounted for 57.8 per cent of the total illegitimate births. One out of every hundred births to white mothers occurred out of wedlock, while 14 out of every hundred occurred to non-white mothers. These ratios were approximately the same in 1951 and 1952.

TABLE 4. NUMBER OF BIRTHS, DEATHS UNDER ONE YEAR, DEATHS UNDER ONE MONTH,* STILLBIRTHS AND MATERNAL DEATHS WITH RATES PER 1,000 LIVE BIRTHS: 1921-1953 (Adjusted for residence)

Year	Births Reported	Deaths Under 1 Year		Deaths Under 1 Month*		Stillbirths		Maternal Deaths	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate
1921	78,172	5,773	7.38	2,830	36.2	3,242	41.5	464	6.9
1922	74,470	5,804	7.87	2,773	37.2	3,033	40.5	466	6.2
1923	74,611	5,365	7.19	2,921	35.1	3,169	42.5	424	5.4
1924	74,383	5,369	7.21	2,789	35.8	3,177	41.5	400	5.0
1925	72,886	6,000	70.3	2,537	33.1	3,018	41.7	394	5.4
1926	72,799	4,464	6.13	2,462	33.8	3,074	42.2	450	6.1
1927	70,070	4,600	65.6	2,485	35.5	2,864	40.9	405	5.7
1928	68,252	4,316	60.2	2,333	32.7	2,707	39.5	367	5.3
1929	68,282	4,300	60.1	2,309	32.9	2,678	38.9	379	5.6
1930	64,075	3,649	56.9	2,061	32.0	2,573	38.3	363	5.7
1931	61,218	3,608	50.4	1,892	29.4	2,543	38.3	353	5.8
1932	59,072	2,698	46.5	1,533	27.3	2,073	37.0	285	6.1
1933	54,811	2,686	48.9	1,634	29.8	2,025	36.9	294	5.3
1934	54,811	2,382	43.5	1,440	26.3	1,812	31.6	284	4.7
1935	54,145	2,332	43.1	1,441	26.3	1,812	31.4	282	4.7
1936	55,197	2,170	39.3	1,327	24.1	1,704	30.1	182	3.2
1937	56,802	2,228	39.3	1,365	24.1	1,704	30.1	191	3.3
1938	56,859	2,180	38.8	1,412	24.8	1,609	28.3	166	2.9
1939	57,414	2,392	41.8	1,422	25.4	1,573	25.0	172	2.9
1940	67,164	2,392	35.6	1,422	21.2	1,573	23.1	182	2.7
1941	80,812	2,535	31.4	1,821	22.5	2,006	24.8	193	2.4
1942	82,856	2,782	33.8	1,892	23.0	1,978	24.0	151	1.8
1943	82,856	2,567	30.9	1,756	21.2	1,744	23.1	119	1.6
1944	82,856	2,567	30.9	1,756	21.2	1,744	23.1	119	1.6
1945	82,856	2,567	30.9	1,756	21.2	1,744	23.1	119	1.6
1946	82,856	2,567	30.9	1,756	21.2	1,744	23.1	119	1.6
1947	100,086	2,939	27.9	2,217	20.9	2,365	21.4	170	1.0
1948	97,278	2,589	26.6	1,961	20.2	1,904	20.2	72	0.8
1949	97,278	2,589	26.6	1,961	20.2	1,904	20.2	72	0.8
1950	97,278	2,589	26.6	1,961	20.2	1,904	20.2	72	0.8
1951	105,218	2,633	23.9	1,875	17.8	1,845	18.9	76	0.7
1952	110,215	2,633	23.9	1,875	17.8	1,845	18.9	76	0.7
1953	112,622	2,634	23.6	2,043	18.2	2,002	18.2	65	0.6

* Beginning with 1951, number and rate are based on neonatal deaths under 28 days of age.

TABLE 5. TOTAL STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1953

Weight	AGE GROUP										Unknown
	TOTAL	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown	
5 lbs. 9 ozs. and over	605	...	22	128	171	138	109	30	5	2	
2500 grams											
4 lbs. 7 ozs. to											
5 lbs. 8 ozs.	189	1	15	35	43	50	28	15	2	...	
2001-2500 grams											
3 lbs. 5 ozs. to	"201	...	7	43	41	56	33	17	2	"2	
4 lbs. 6 ozs. to											
1501-2000 grams											
2 lbs. 3 ozs. to	213	...	16	57	51	37	35	16	...	1	
3 lbs. 4 ozs.											
1001-1500 grams											
less than											
2 lbs. 3 ozs.											
less than											
1001 grams	"348	...	25	68	104	89	48	9	1	"4	
Unknown	"490	...	20	117	137	105	76	22	...	"13	
Total	"1046	1	105	448	547	475	329	109	10	"22	

a Includes 2 stillbirths of unknown color.

b Includes 4 stillbirths of unknown color.

c Includes 6 stillbirths of unknown color.

d Includes 12 stillbirths of unknown color.

TABLE 5a. WHITE STILLBIRTHS BY WEIGHT BY AGE OF MOTHER: 1953

Weight	AGE GROUP										Unknown
	TOTAL	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown	
5 lbs. 9 ozs. and over	501	...	14	106	131	122	95	26	5	2	
2500 grams											
4 lbs. 7 ozs. to											
5 lbs. 8 ozs.	176	...	9	28	37	44	23	13	2	...	
2001-2500 grams											
3 lbs. 5 ozs. to											
4 lbs. 6 ozs.	167	...	4	32	36	53	25	15	2	...	
1501-2000 grams											
2 lbs. 3 ozs. to											
3 lbs. 4 ozs.	167	...	5	44	43	32	29	13	...	1	
1001-1500 grams											
less than											
2 lbs. 3 ozs.	"95	...	18	53	96	75	43	9	1	"6	
less than											
1001 grams	412	...	14	88	121	91	70	22	...	"6	
Unknown											
Total	1698	...	64	351	464	417	285	98	10	9	

TABLE 5b. Non-White Stillbirths by Weight by Age of Mother: 1953

Weight	AGE GROUP										TOTAL
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	Unknown		
5 lbs. 9 ozs. and over	...	8	22	40	16	14	4	...	...	1
over 2500 grams	1	6	7	6	6	5	2	...	...	...
4 lbs. 7 ozs. to 5 lbs. 8 ozs.	...	3	11	5	3	8	2	...	...	...
2001-2500 grams	...	11	13	8	5	6	3	...	...	...
3 lbs. 5 ozs. to 4 lbs. 6 ozs.	...	7	15	8	14	5	...	...	...	...
1501-2000 grams	...	6	29	16	14	6	...	...	...	...
2 lbs. 3 ozs. to 3 lbs. 4 ozs.	...	41	97	83	58	44	11	...	...	1
1001-1500 grams	1	41	97	83	58	44	11	...	...	1
less than 2 lbs. 3 ozs.	...	...	...	...	...	...	...	...	...	...
less than 1001 grams	...	...	...	...	...	...	...	...	...	...
Unknown	...	...	...	...	...	...	...	...	...	...
Total	336	41	97	83	58	44	11	...	...	1

TABLE 6. MATERNAL DEATHS BY SPECIFIC CAUSE: 1953

Toxemias of pregnancy (642)	14
Ectopic pregnancy (645)	7
Other complications arising from pregnancy (648)	2
Total complications of pregnancy (640-649)	23
Abortion without mention of sepsis or toxemia (650)	3
Abortion with sepsis (651)	2
Abortion with toxemia without mention of sepsis (652)	1
Total abortions (650-652)	6
Delivery complicated by placenta praevia or antepartum hemorrhage (670)	2
Delivery complicated by retained placenta (671)	1
Delivery complicated by other postpartum hemorrhage (672)	5
Delivery complicated by disproportion or malposition of fetus (674)	2
Delivery complicated by prolonged labor of other origin (675)	1
Delivery with other trauma (677)	2
Delivery with other complications of childbirth (678)	4
Total delivery with specified complications (670-678)	17
Sepsis of childbirth and the puerperium (681)	1
Puerperal pulmonary embolism (684)	5
Puerperal eclampsia (685)	3
Total complications of the puerperium (680-689)	9
Total Maternal Deaths	55

TABLE 6a. MATERNAL DEATHS BY CAUSE, COLOR AND AGE GROUPS: 1953

Cause* and Color	Age Groups			
	All Ages	15-24	25-44	45-64
Complication of pregnancy (640-649)	23	5	17	1
White	16	1	14	1
Nonwhite	7	4	3	..
Abortion (650-652)	6	3	3	..
White	2	1	1	..
Nonwhite	4	2	2	..
Delivery with specified complications (670-678)	17	5	12	..
White	13	1	12	..
Nonwhite	4	4	..	..
Complications of the puerperium (680-689) ...	9	6	3	..
White	7	5	2	..
Nonwhite	2	1	1	..
All causes (640-689)	55	19	35	1
White	38	8	29	1
Nonwhite	17	11	6	..

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

DISCUSSION OF TABLES 7 AND 7a

The age groups below 21 years in Table 7 differ for males and females because this variation is necessary to correctly reflect the legal requirements for marriage in New Jersey.

Of the 40,886 married males, 4,133 or 10.1 per cent were less than 21 years of age and had to furnish parental consent. There were 2,029 or 5.0 per cent of the 40,886 females who, being under 18 years of age, had to receive consent.

Of the 4,133 males who were required to furnish parental consent, 210 or 5.1 per cent, being less than 18 years old, had to receive judicial approval of the parental consent. Of the 2,029 females under 18 years of age, 173 or 8.5 per cent were less than 16 years old and so had to receive similar judicial approval or parental consent.

As would be expected, more marriages of both males and females occur in the 20-24 age group than in any other. After males reach 25 years, they seem to prefer to marry females in the next lower age group. Males in the age group 50-59 years tend to select mates in the same age group.

From a study of Table 7a, one may make some interesting observations. In 30,262 marriages, or 74 per cent, both parties were single. Of those who had been married before, there was a fairly consistent pattern for both males and females in remarrying. In computing the following percentages, all unknown items were eliminated from the denominators. Of the 4,744 divorced males, 51 per cent married single women, 37 per cent married divorcees, and 12 per cent married widows. Of the 4,580 divorced females, 50 per cent married single males, 38 per cent married divorced males, and 12 per cent married widowers. Of the 2,368 widowers, 47 per cent married widows, 29 per cent married single females, and 24 per cent married divorcees. Of the 2,500 widows, 45 per cent married widowers, 32 per cent married single males, and 23 per cent married divorced males.

TABLE 7. MARRIAGES BY AGE GROUPS: 1953

WIFE'S AGE GROUP	HUSBAND'S AGE GROUP										Total														
	10-17		18-19		20-24		25-29		30-34			35-39		40-44		45-49		50-54		55-59		60-69		70 plus	
	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent		Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent	Judicial Consent	Parents' Consent
10-15	38	63	16	41	9	158	9	2	2	173	1	1	1	1	1	1	1	1	1	1	1	1	1	1	173
15-17	112	600	600	3234	998	147	92	2	1850	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1850
18-19	34	279	755	8477	5639	1181	127	147	6433	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	6433
20-24	2	23	23	887	2766	1826	1054	1054	16730	88	88	88	88	88	88	88	88	88	88	88	88	88	88	88	16730
25-29	1	9	9	94	610	1054	1054	1054	1054	414	414	414	414	414	414	414	414	414	414	414	414	414	414	414	1054
30-34	1	1	1	20	101	207	207	207	207	137	137	137	137	137	137	137	137	137	137	137	137	137	137	137	207
35-39	1	1	1	4	21	21	21	21	21	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	207
40-44	1	1	1	1	1	1	1	1	1	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
45-49	1	1	1	1	1	1	1	1	1	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
50-59	1	1	1	1	1	1	1	1	1	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
60-69	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
70 plus	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL	210	1880	2043	13550	10372	4391	2519	1725	1345	1005	910	245	245	245	245	245	245	245	245	245	245	245	245	245	40886

TABLE 7a. MARRIAGES BY PREVIOUS MARITAL STATUS: 1953

Wife's Status	Total	Husband's Status				Unknown
		Single	Widowed	Divorced	Divorced	
Single	33,618	30,262	691	2,421	244	244
Widowed	2,534	802	1,117	581	34	34
Divorced	4,624	2,278	560	1,742	44	44
Unknown	110	40	19	28	23	23
Total	40,886	33,382	2,387	4,772	345	345

TABLE 12. DEATHS FROM MALIGNANT NEOPLASMS BY SITE, SEX, COLOR AND AGE GROUPS; BENIGN AND UNSPECIFIED NEOPLASMS BY SEX, COLOR AND AGE GROUPS; 1955—Continued

SITE, SEX AND COLOR	List No.	AGE GROUPS														Total	Under 1 year	1 to 4	5 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 and over	Unknown																																																																																						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14																			15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
		[Empty cells for age group data]																																																																																																																					
Lymphosarcoma and Reticulosarcoma	200	[Data for Lymphosarcoma and Reticulosarcoma]																																																																																																																					
Hodgkin's Disease	201	[Data for Hodgkin's Disease]																																																																																																																					
Other Forms of Lymphoma (Reticulosis)	202	[Data for Other Forms of Lymphoma (Reticulosis)]																																																																																																																					
Multiple Myeloma (Plasmocytoma)	203	[Data for Multiple Myeloma (Plasmocytoma)]																																																																																																																					

TABLE 12. DEATHS FROM MALIGNANT NEOPLASMS BY SITE, SEX, COLOR AND AGE GROUPS; BENIGN AND UNSPECIFIED NEOPLASMS BY SEX, COLOR AND AGE GROUPS; 1963—Continued

SITE, SEX AND COLOR	List No.	AGE GROUPS														Total	Under 1 year	1 to 4	5 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 and over	Unknown																																																																																						
		1	2	3	4	5	6	7	8	9	10	11	12	13	14																			15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
		[Empty cells for age group data]																																																																																																																					
Leukemia and Aleukemia	204	[Data for Leukemia and Aleukemia]																																																																																																																					
Mycosis Fungoides	205	[Data for Mycosis Fungoides]																																																																																																																					
All Benign Neoplasms	210-229	[Data for All Benign Neoplasms]																																																																																																																					
All Neoplasms of Unspecified Site	230-239	[Data for All Neoplasms of Unspecified Site]																																																																																																																					

TABLE 12a-1. DEATHS FROM NEOPLASMS BY SEX, COLOR AND AGE GROUPS FOR EACH SITE GROUP: 1953

AGE GROUP	Group Total	Malignant							Lymph and Blood (200-205)	Other and Unspecified (190-199)	Breast and Genito-urinary (170-181)	Respiratory (160-165)	Digestive and Peritoneum (150-159)	Buccal Cavity and Pharynx (140-148)	Total (140-205)	Region in Which Died (210-219)
		Other and Unspecified (190-199)	Breast and Genito-urinary (170-181)	Respiratory (160-165)	Digestive and Peritoneum (150-159)	Buccal Cavity and Pharynx (140-148)										
All Ages	9,544	205	3,746	1,294	2,580	833	692	194	5							
Under 1 yr.	11	6	2	1	2	3	3	5								
1-4	53	52	2	1	6	11	33	1								
5-14	51	46	6	4	1	22	23	33	1							
15-24	67	63	6	4	6	13	34	4								
25-44	784	700	158	82	258	97	104	48								
45-64	3,957	3,871	1,389	688	1,060	376	272	86								
65 plus	4,651	4,606	2,191	519	1,247	311	226	45								
Male	5,044	174	2,038	1,084	778	481	408	81								
Female	4,500	4,387	1,708	210	1,802	352	284	113								
White	8,975	8,802	3,535	1,221	2,402	792	657	173								
Non-white	569	548	211	73	178	41	35	21								

TABLE 12a-2. DEATHS FROM MALIGNANT NEOPLASMS; PERCENTAGE DISTRIBUTION BY AGE, SITE, SEX AND COLOR: 1953

AGE GROUP	Group Total	Buccal Cavity and Pharynx	Digestive and Peritoneum	Respiratory	Breast and Genito-urinary	Other and Unspecified	Lymph and Blood	Site Distribution by Age, Sex and Color		
								Age	Sex	Color
All Ages	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 1 yr.	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.4	0.4	4.8
1-4	0.5	<0.1	0.2	0.2	0.2	0.2	0.2	1.3	2.6	3.3
5-14	0.5	0.2	0.2	0.3	0.2	0.2	0.2	1.6	1.6	4.9
15-24	0.7	3.4	4.2	6.3	10.0	11.7	11.7	45.1	45.1	39.3
25-44	7.5	42.0	37.1	53.2	41.1	48.3	37.3	37.3	37.3	32.7
45-64	41.4	54.6	58.5	40.1	48.3	48.3	37.3	37.3	37.3	32.7
65 plus	49.3	54.6	58.5	40.1	48.3	48.3	37.3	37.3	37.3	32.7
Male	53.1	84.9	54.4	83.8	30.2	57.7	59.0	57.7	57.7	41.0
Female	46.9	15.1	45.6	16.2	69.8	42.3	41.0	42.3	42.3	41.0
White	94.1	95.1	94.4	94.4	93.1	95.1	94.9	95.1	95.1	94.9
Non-white	5.9	4.9	5.6	5.6	6.9	4.9	5.1	4.9	4.9	5.1
Age, Sex and Color Distribution by Site										
All Ages	100.0	2.2	40.1	138	27.6	8.9	7.4	8.9	8.9	7.4
Under 1 yr.	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1-4	100.0	0.0	3.8	16.7	33.3	21.2	63.5	33.3	33.3	21.2
5-14	100.0	0.0	0.0	0.0	11.5	20.6	50.0	11.5	11.5	20.6
15-24	100.0	0.0	9.5	6.4	9.5	47.8	50.0	9.5	9.5	47.8
25-44	100.0	1.0	22.4	11.6	36.6	20.6	54.0	11.6	11.6	20.6
45-64	100.0	2.2	35.9	17.8	27.4	13.7	14.7	17.8	17.8	13.7
65 plus	100.0	2.4	47.6	11.3	27.1	6.7	7.0	11.3	11.3	6.7
Male	100.0	3.5	41.1	21.8	15.7	9.7	8.2	21.8	15.7	9.7
Female	100.0	0.7	38.9	4.8	41.1	8.0	6.5	4.8	41.1	8.0
White	100.0	2.2	40.1	13.9	27.3	9.0	7.5	13.9	27.3	9.0
Non-white	100.0	1.8	38.5	13.3	32.5	7.5	6.4	13.3	32.5	7.5

TABLE 12a-3. CANCER DEATHS AND RATES SPECIFIC FOR AGE, SEX AND COLOR
(PER 100,000 ESTIMATED POPULATION): 1953

Age Group	Estimated Population(a)	Deaths		
		Number	Rate	S.E.(b)
All Ages	5,006,000	9,350	186.8	1.9
Under 5 yrs.	476,000	58	12.2	1.6
5-14	686,000	46	6.7	1.0
15-24	665,000	63	9.5	1.2
25-44	1,629,000	706	43.3	1.6
45-64	1,140,000	3,871	339.6	5.5
65 plus	410,000	4,606	1,123.4	16.6
Male	2,468,000	4,963	201.1	2.9
Female	2,538,000	4,387	172.9	2.6
White	4,671,000	8,802	188.4	2.0
Nonwhite	335,000	548	163.6	7.0

(a) Estimated population calculated as follows: total population is the excess of births over deaths from April 1, 1950 to July 1, 1953 added to the 1950 census count and rounded to the nearest thousand. Population break-down by age group, sex and color is the 1950 census percentage distribution applied to the total estimated population.

(b) Standard error of rate must be considered if comparisons are to be made.

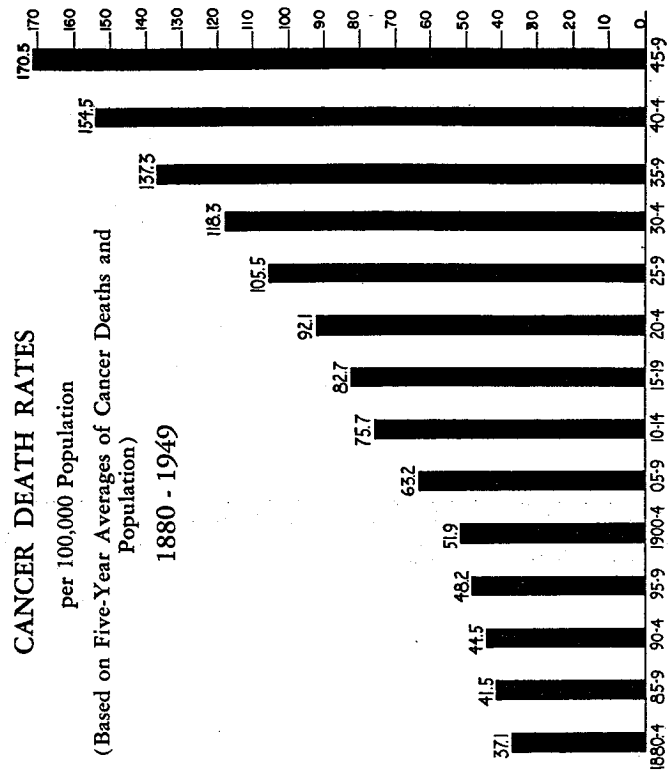


TABLE 13a-1. DEATHS IN NEW JERSEY FROM TRANSPORTATION ACCIDENTS BY CAUSE GROUPS AND MONTH OF DEATHS: 1963
International List (6th Revision) Numbers 800-868, 960

PRIMARY CAUSE	List No.	MONTH OF DEATH												
		January	February	March	April	May	June	July	August	September	October	November	December	
Total		808	79	57	74	57	83	82	72	96	62	64	57	112
Railway accidents	800-868, 960	43	3	4	2	2	4	4	5	1	4	4	3	3
Motor vehicle accidents	800-862	818	73	32	69	55	74	70	62	91	52	58	54	108
Other road vehicle accidents	840-845	17	1	1	1	1	1	1	1	1	1	1	1	1
Air transport accidents	800-868	1	1	1	1	1	1	1	1	1	1	1	1	1
Water transport accidents	800-868	1	1	1	1	1	1	1	1	1	1	1	1	1
Aviation accidents	800-868	1	1	1	1	1	1	1	1	1	1	1	1	1
Total		101	2	1	2	2	2	2	2	2	2	2	2	2

TABLE 13a-2. DEATHS IN NEW JERSEY FROM NON-TRANSPORTATION ACCIDENTS BY CAUSE GROUPS AND MONTH OF DEATH: 1963
International List (6th Revision) Numbers 870-959, 961-962

PRIMARY CAUSE	List No.	MONTH OF DEATH											
		January	February	March	April	May	June	July	August	September	October	November	December
Total		1244	103	115	77	84	109	110	104	123	95	103	115
Poisoning by solid and liquid substances	870-939	38	4	3	2	1	3	3	1	1	1	2	2
Poisoning by gases and vapors	800-888	4	1	1	1	1	1	1	1	1	1	1	1
Falls	800-904	821	49	43	41	60	47	100	56	67	49	62	62
Fire and explosion of combustible material	916	156	21	20	15	8	15	21	8	8	13	10	17
Struck by or against object	824	134	1	2	1	1	1	1	1	1	1	1	1
Drowning	800-915	133	3	4	10	9	14	21	15	10	4	1	7
Other causes	817-923, 825-929, 831-938, 840-959, 961-962	232	21	14	19	14	9	21	19	42	16	19	10

TABLE 13c. ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE OF DEATH AND TYPE OF ACCIDENT: 1953
International List (6th Revision) Numbers 800-928

TYPE OF ACCIDENT	IMMEDIATE CAUSE										
	Total	Poisonous Gas and Smoke	Burns	Mechanical Suffocation	Drown- ing	Cutting or Piercing	Falls	Crushing, Fractures and Lacerations	Electric Current	Foreign Bodies	Other Accidents
Total	2142	77	147	41	137	8	632	900	29	10	146
Honors	824	56	110	33	5	2	475	23	3	10	103
Occupational motor vehicle	50	12	4	4	1	1	33	44	15	...	14
Other occupational	181	20	16	4	...	...	53	54	...	...	...
Public place non-occupational motor	768	...	11	...	5	...	747	...	...	...	...
Public place non-occupational non-motor vehicle	310	1	6	2	143	...	95	37	2	...	24
Not specified or unknown	9	...	1	...	...	...	1	2	...	...	5

These totals vary in some instances from figures in other tabulations of accidental deaths. In this table the deaths are classified by the immediate cause irrespective of the underlying cause of death.

TABLE 13d. ACCIDENTAL DEATHS IN NEW JERSEY BY IMMEDIATE CAUSE OF DEATH AND COUNTY OF ACCIDENT: 1953
International List (6th Revision) Numbers 800-928

	IMMEDIATE CAUSE										
	Total	Poisonous Gas and Smoke	Burns	Mechanical Suffocation	Drown- ing	Cutting or Piercing	Falls	Crushing, Fractures and Lacerations	Electric Current	Foreign Bodies	Other Accidents
Atlantic County	80	4	6	2	11	...	16	42	1	1	10
Burlington County	102	...	2	1	13	...	15	30	1	1	12
Burlington County	97	...	1	1	13	...	11	30	...	1	12
Camden County	138	3	9	2	10	...	41	63	3	...	7
Cape May County	20	4	4	2	4	...	1	17	1	...	1
Essex County	62	4	4	...	0	...	13	29	...	...	...
Gloucester County	462	21	26	1	11	...	298	37	4	2	50
Gloucester County	171	15	13	1	13	1	58	54	1	...	13
Hudson County	38	10	3	4	4	...	3	26	...	2	6
Hudson County	182	5	11	2	18	1	27	41	1	...	6
Monmouth County	124	8	10	2	18	1	27	65	...	...	6
Monmouth County	86	2	8	1	9	...	18	40	2	1	6
Ocean County	54	2	2	...	10	...	8	27	...	...	5
Ocean County	109	3	3	2	9	...	37	42	...	1	6
Passaic County	53	3	3	2	2	1	7	18	...	1	4
Passaic County	24	...	2	2	3	1	7	9	...	...	1
Somerset County	99	1	5	1	5	...	30	41	2	...	6
Somerset County	11	3	1	1	2	...	6	24	...	...	1
State Institutions	12	...	...	1	...	...	...	4	...	...	3
Military Posts	21	...	...	...	...	...	7	10	...	...	1
Other States	1	...	...	...	3	...	...	...	...	...	...
Unknown	2	...	...	...	1	...	...	...	...	...	...
Total	2142	77	147	41	137	8	632	900	29	10	146

These totals vary in some instances from figures in other tabulations of accidental deaths. In this table the deaths are classified by the immediate cause irrespective of the underlying cause of death.

TABLE 17. TABULATION OF DEATHS OF RESIDENTS OF NEW JERSEY FOR 1933
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail No.	CAUSE GROUPS	White		Non-white		AGE GROUPS BY YEARS						
			Male	Female	Male	Female	Under 1	1-4	5-14	15-24	25-44	45-64	65+
B1	001-139	Infective and parasitic diseases	1027	553	256	70	35	31	20	31	200	801	787
B1	001-006	Tuberculosis of respiratory system	371	347	36	10	1	2	3	15	140	281	197
B1	010-019	Tuberculosis, other forms	54	51	12	3	1	1	1	1	1	1	1
B1	020-029	Syphilis and its sequelae	134	72	22	13	2	3	1	1	9	11	41
B1	040	Typhoid fever	1	1	1	1	1	1	1	1	1	1	1
B1	041-048	Dysentery, all forms	3	1	4	1	1	1	1	1	1	1	1
B7	060-061	Scarlet fever and streptococcal sore throat	10	6	4	1	1	1	1	1	1	1	1
B8	065	Diphtheria	4	2	1	1	1	1	1	1	1	1	1
B8	066	Whooping cough	4	2	1	1	1	1	1	1	1	1	1
B11	068	Membranous croup	3	1	1	1	1	1	1	1	1	1	1
B11	069	Acute epiglottitis	31	16	13	2	1	1	1	1	1	1	1
B12	080	Plague	38	22	10	1	1	1	1	1	1	1	1
B13	084	Smallpox	1	1	1	1	1	1	1	1	1	1	1
B14	086	Meningitis	2	2	1	1	1	1	1	1	1	1	1
B14	100-108	Malaria and other rickettsial diseases	2	2	1	1	1	1	1	1	1	1	1
B16	110-117	Residual (030-039, 041, 042, 044, 046, 052-064)	118	52	51	9	7	5	7	22	31	89	90
B18	140-239	Neoplasms	9544	4743	4232	301	268	10	53	67	755	3057	4623
B18	240-249	Malignant neoplasms	6530	4045	4136	297	251	5	32	46	63	707	3871
B19	250-259	Benign neoplasms	1914	171	306	4	17	5	4	4	48	86	43
B20-299	260-389	Allergic, endocrine system, metabolic and nutritional diseases	1405	608	792	27	78	38	10	11	10	57	404
B20	299	Diabetes mellitus	1077	338	608	15	56	1	4	12	34	347	679
B21	290-299	Residual (240-249, 250-254, 270-277, 280-289)	328	170	184	12	22	38	7	4	24	117	124
B21	300-309	Diseases of the blood and blood-forming organs	31	21	20	1	1	1	1	1	1	1	1
B21	310-319	Anemias	10	6	13	1	1	1	1	1	1	1	1
B21	320-329	Residual (284-299)	42	10	19	1	1	1	1	1	1	1	1
B30-329	330-339	Mental, psychoneurotic and personality disorders	239	127	163	10	3	10	2	3	8	50	87
B30	340-349	Residual (330-339)	6025	3433	2551	207	258	25	27	270	1406	3848	
B31	350-359	Vascular diseases of the nervous system and nervous organs	46	29	31	1	1	1	1	1	1	1	1
B32	360	Nonmeningococcal meningitis	46	29	31	1	1	1	1	1	1	1	1
B32	360	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	364	172	161	11	19	12	11	19	60	106	128
B32	400-408	Diseases of the circulatory system	24443	12958	10010	782	687	4	4	20	300	7182	10171

B34	400-402	Rheumatic fever	38	16	17	2	1	1	1	1	1	1	1
B35	410-416	Chronic rheumatic heart disease	157	102	147	25	24	1	3	6	10	225	304
B35	420-422	Arteriosclerosis and degenerative heart disease	187	102	111	35	41	1	1	1	11	506	558
B37	430-54	Other diseases of heart	438	225	154	51	50	3	1	1	11	506	558
B29	440-443	Hypertension with heart disease	2718	1659	1462	118	169	1	1	1	1	70	700
B29	444-447	Residual (430-439)	885	161	176	27	27	3	2	2	30	162	241
B30	470-527	Diseases of the respiratory system	1250	600	611	35	34	2	2	3	2	30	162
B30	480-483	Influenza	68	35	37	1	1	1	1	1	1	1	1
B31	490-493	Pneumonia	1188	659	477	60	56	102	47	21	18	86	250
B32	500-625	Residual (470-475, 510-527)	94	36	27	5	6	11	17	11	5	13	45
B33	540, 541	Diseases of the digestive system	2947	1392	81	19	8	22	14	7	24	169	186
B33	540, 541	Ulcer of stomach and duodenum	384	224	72	16	11	1	1	1	1	1	1
B33	540-549	Appendicitis	87	46	28	6	7	1	1	1	1	1	1
B33	540-549	Cholelithiasis and hernia	349	169	162	9	18	28	7	1	24	86	207
B33	543, 571, 672	Gastritis, duodenitis and enteritis and colitis, except diarrhoea of newborn	1053	573	651	12	15	38	7	2	4	20	38
B37	581	Cirrhosis of liver	167	466	254	28	19	1	1	1	1	1	1
B38	590-597	Diseases of the genito-urinary system	485	222	275	11	11	8	5	3	6	6	6
B38	598-599	Nephritis and nephrosis	189	296	123	6	5	3	1	1	1	1	1
B38	610	Hyperplasia of prostate	231	222	151	5	5	1	1	1	1	1	1
B40	640-689	Residual (600-609, 611-617, 620-628, 650-687)	230	129	80	18	12	1	2	1	8	21	46
B41	690-749	Diseases of the skin and cellular tissue	43	11	17	1	1	1	1	1	1	1	1
B41	750-759	Diseases of the bones and organs of movement	60	35	49	1	1	1	1	1	1	1	1
B41	760-769	Congenital malformations	648	341	391	10	27	480	63	17	15	33	30
B42	770-782	Birth injuries of early infancy	1663	837	522	160	103	1	1	1	1	1	1
B43	785-788	Infectious diseases of infancy and adolescence	112	45	58	13	11	1	1	1	1	1	1
B44	790-776	Other diseases peculiar to early infancy and immaturity unqualified and unqualified conditions	794	366	240	69	83	794	1	1	1	1	1
B45	800-809	Accidents, poisonings and violence	132	36	80	9	7	6	3	1	17	24	106
B45	810-825	Motor vehicle accidents	763	615	168	41	21	78	101	122	239	317	842
B45	830-835	Other accidents	797	488	144	92	32	61	58	60	69	147	171
B45A	836-837	All other accidents except falls	632	354	305	18	1	6	1	1	1	1	1
B45A	838-845	Falls	431	228	133	11	4	8	1	1	1	1	1
B45A	846-849	Struck, caught, or compressed	132	40	31	4	2	5	6	6	6	6	6
B45A	850-853	Homicide	6	5	5	1	1	1	1	1	1	1	1
B45A	854-868	Police intervention, execution and operations of war	5279	2100	2164	220	180	417	341	500	3060	1280	2839
B45B	869-899	All causes	5279	2100	2164	220	180	417	341	500	3060	1280	2839

Rate per 1,000 Population, 10.3.

Total Resident Deaths, 62,764.

July 1, 1933, Estimated Population, 5,006,000.

TABLE 18. RESIDENT INFANT DEATHS BY CAUSE AND AGE GROUPS: 1963
(Separated into Those With and Those Without Public Health Significance)

Cause of Death Showing International List (8th Revision) Numbers	Total Infant Deaths	Less than		1 Week but		1 Week but		28 Days and Over
		1 Day	< 1 Week	< 28 Days	28 Days and Over			
ALL CAUSES (001-857, 900-999).....	2654	1003	805	235	611			
Total causes with public health significance.....	2558	991	801	228	598			
Prematurity, unqualified (771-776).....	2561	991	801	228	598			
Prematurity, qualified (771-776).....	9	281	197	38	5			
Electrocutions (169).....	138	23	73	6	6			
Without immaturity.....	380	161	154	12	3			
With immaturity.....	469	120	131	64	145			
Congenital malformations and congenital diseases of the nervous system (350, 700-730).....	292	14	51	24	30			
Without immaturity.....	285	14	50	24	29			
With immaturity.....	69	9	21	14	3			
Truismoids of the newborn (163).....	25	5	5	10	3			
Without immaturity.....	11	12	11	2	196			
With immaturity.....	36	14	11	4	1			
Other diseases of the respiratory system (470-527).....	201	140	104	4	4			
Without immaturity.....	131	89	67	3	1			
With immaturity.....	138	80	47	3	58			
Diseases of the digestive system (530-587, 764).....	14	6	10	17	2			
Without immaturity.....	1	1	2	0	1			
With immaturity.....	13	5	8	8	1			
Other diseases of the digestive system (530-587).....	17	5	8	8	1			
Diseases of the newborn (770).....	152	24	121	6	2			
Without immaturity.....	49	25	19	6	2			
With immaturity.....	3	1	1	1	1			
External causes other than mechanical suffocation (900-923, 925-999).....	46	2	1	0	37			

Infective and parasitic diseases (001-193)

Hemorrhagic disease of the newborn (771).....	37	2	1	2	33
Without immaturity.....	44	3	6	2	42
With immaturity.....	10	2	7	1	1
Other causes with public health significance.....	134	43	39	10	42
Accidental mechanical suffocation in bed or cradle (924)†.....	32	.....	.....	4	28
Avitaminoses and other metabolic diseases (290-299).....	1	.....	.....	.....	1
Without immaturity.....	82	30	33	5	11
With immaturity.....	29	.....	.....	.....	8
Other diseases of early infancy (772-775).....	50	20	19	4	8
Without immaturity.....	10	7	6	1	2
With immaturity.....	7	2	3	1	1
Without immaturity.....	1	.....	.....	.....	1
With immaturity.....	6	.....	.....	.....	4
Total causes without public health significance.....	98	12	4	7	75
Diseases of other endocrine glands (270-277)†.....	30	2	1	4	2
Without immaturity.....	26	.....	.....	3	21
With immaturity.....	10	2	2	1	4
Neoplasms (140-239).....	4	.....	.....	.....	3
Without immaturity.....	4	.....	.....	.....	3
With immaturity.....	1	.....	.....	.....	.....
Diseases of the circulatory system (400-468).....	4	.....	.....	.....	3
Without immaturity.....	4	.....	.....	.....	4
With immaturity.....	.....	.....	.....	.....	.....
Diseases of the genito-urinary system (600-637).....	4	.....	.....	.....	4
Without immaturity.....	.....	.....	.....	.....	.....
With immaturity.....	.....	.....	.....	.....	.....
Diseases of the skin and cellular tissue (800-740).....	2	.....	.....	.....	2
Without immaturity.....	.....	.....	.....	.....	.....
With immaturity.....	.....	.....	.....	.....	.....
Diseases of the lymphoid tissue (230-254).....	.....	.....	.....	.....	.....
Without immaturity.....	.....	.....	.....	.....	.....
With immaturity.....	.....	.....	.....	.....	.....
Symptoms and ill-defined conditions (850-760, 765).....	0	.....	.....	.....	.....

* Includes two infant deaths not classified for maturity.

† Includes one infant death not classified for maturity.

‡ On the basis of studies made, it has been found that diagnoses in this category are subject to error unless substantiated by careful autopsies. The following table shows the number of deaths in this category as presented, grand total of 1,212 infant deaths. The age distribution was as follows: under 1 day, 673; 1 day but under 1 week, 455; 1 week but under 28 days, 71; 28 days and over, 13.

DISCUSSION OF TABLES 18 and 18a

In 1953, New Jersey acquired 112,522 live-born babies. During the same year, the State lost by death 2,654 infants. This loss occurred at the rate of 24 infants for each 1,000 live births.

In the attached table, the 2,654 infant deaths are considered in terms of causes with public health significance and causes without public health significance. Of these deaths, 96 per cent or 2,556 were charged to causes which should be of concern to public health workers. Of these, 623 (24 per cent) were classified as prematurity unqualified. If clinical and pathological examinations had been emphasized more, perhaps specific causes could have been discovered. An additional 589 deaths, designated with immaturity, had causes assigned.

As a result of congenital malformations, 499 infants died. That represents 20 per cent of all infant deaths of special interest to public health workers. The causes of congenital malformations and the resultant deaths near birth lend themselves to attack in the research field.

Public health workers should also be concerned with the 292 infant deaths classified as diseases of the respiratory system. This figure includes 91 deaths from pneumonia of the newborn.

More than 10 per cent of the deaths assigned to causes which are thought to have public health significance was charged to birth injuries. This is an obstetrical problem which can be reviewed as rigidly by a medical committee as have been the maternal deaths. In 1953, only 55 women died of causes allocated, according to the rules of the International List, to pregnancy, delivery and the puerperium. This is a rate of 5 maternal deaths for each 10,000 live births.

In 1953, New Jersey lost 32 infants by accidental mechanical suffocation in bed or cradle and an additional 36 from causes classified as diseases of other endocrine glands. Studies have shown that diagnoses in these categories are subject to great error unless substantiated by careful autopsy. A medical committee could consider such deaths from the autopsy records in the hospitals.

If New Jersey's live-born babies die, they experience death early in their brief existence.

TABLE 18a
INFANT DEATHS BY AGE AND IMMATURITY: 1953

Age	Total		Immature on death certificate		Not designated as immature	
	No.	Per Cent	No.	Per Cent	No.	Per Cent
< 1 day	(a)1,003	37.8	673	55.5	328	22.8
< 1 week	(b)1,808	68.1	1,128	93.1	677	47.0
< 28 days	(b)2,043	77.0	1,199	98.9	841	58.4
< 1 year	(b)2,654	100.0	1,212	100.0	1,439	100.0

(a) Includes two infant deaths not classified for maturity.

(b) Includes three infant deaths not classified for maturity.

Of the babies who died in 1953, 38 per cent failed to live beyond the first day of life. Before one week elapsed, 68 per cent of the 2,654 babies had died. Before the end of the neonatal period (28 days), 77 per cent of the 2,654 babies had completed their short lives.

The immature babies so designated on their death certificates contributed 1,212 or 46 per cent of the total infant deaths in 1953. Of these 1,212 babies, 55 per cent died within the first day of life. The immature babies dying within their first day of life accounted for 67 percent of all infant deaths occurring within the first day of life. Before attaining one week of age, 93 per cent of these 1,212 immature babies had failed to survive. Nearly 99 per cent of the immature babies who died did so before attaining 28 days of age. This contrasts sharply with the 58 per cent of the mature babies who died during their neonatal period.

PRINCIPAL CAUSES OF DEATH BY AGE GROUPS: 1953

In the following selection of principal causes of death, certain groupings were made when the causes were functionally or etiologically related. If such relation did not exist, then individual causes were chosen. Although one might expect that the list for each age group would include the same number of causes, such an arbitrary method would in some instances result in placing undue importance upon the causes at the end of the list. For some groups, the small numerical totals of causes further down such a list would be so nearly alike that one could not truly be ranked above another. Where the numbers were meaningful, an attempt was made to include for each age group most of the principal causes of death which affected the total population regardless of age.

In 1953, twelve principal causes of death are listed for all ages as compared with eleven for 1952. Added to the list is congenital malformations. Combined, the twelve causes account for slightly more than 88 per cent of the 52,794 resident deaths which occurred during 1953.

The first six causes have the same rank for both years. The rearrangement in rank for other causes may or may not be significant.

Deaths from diseases of the circulatory system, still the leading cause of death, showed an increase from 45.4 per cent in 1952 to 46.3 in 1953. There was an increase of 1,114 deaths in 1953 over the 1952 total assigned to this category. The major portion of the increase occurred in the age group, 65 and over.

In 1953, deaths from malignant neoplasms (cancer and allied conditions) accounted for 17.7 per cent of the total deaths. The 1952 percentage (17.6) was slightly lower. Cancer appears as one of the first two principal causes in each age group, starting with 5-14 years. As compared with 1952, the number of deaths due to cancer in 1953 did not increase appreciably in any of the age groups up to and including 25-44 years. However, in 1953, there was an increase in cancer deaths of 5.5 per cent in the 45-64 age group and 1.9 per cent in 65 years and over.

Fourth in rank for all ages, influenza, pneumonia and bronchitis accounted for 2.6 per cent of the total deaths in both 1953 and 1952. As in the preceding year, these respiratory diseases ranked first in the 1-4 age group in 1953. More than 25 per cent of the deaths from influenza, pneumonia and bronchitis occurred to persons 25-64 years of age. The outbreak of influenza in the early months of the year probably accounted for the slight increase in deaths due to this cause. There were 68 influenza deaths in 1953 as compared with 40 in 1952.

Tuberculosis, ninth in rank for all ages, continued its downward trend and accounted for 693 deaths. This total represents a decrease of slightly less than one-half the total of tuberculosis deaths recorded five years ago. Compared with totals for the preceding year, decreases in tuberculosis deaths in 1953 occurred primarily in the ages 15-64. Despite the reduction in tuberculosis mortality, this disease still ranks sixth among the principal causes of death in the age group 45-64 and accounted for 299 deaths.

Diabetes was sixth in rank for all ages, and fifth in each of the two age groups, 45-64 years and 65 and over, in which most of the diabetes fatalities occurred. In 1953, this degenerative disease accounted for 1,077 deaths or 2.0 per cent of all deaths recorded for the year.

Cirrhosis of the liver, with a total of 767 deaths, is the seventh leading cause of death for all ages. In 1952, it ranked ninth among the principal causes. More than half of the deaths due to cirrhosis of the liver occurred in the age group 45-64 in both 1952 and 1953.

Although poliomyelitis is not one of the leading causes of death, it is interesting to note that this disease took more lives of children under fifteen years of age than did the four principal childhood diseases combined. There were 19 poliomyelitis deaths in this age group as compared with seven due to diphtheria, measles, scarlet fever and whooping cough. Of the 40 poliomyelitis deaths which occurred in 1953, 17 deaths occurred to persons in the 25-44 age group.

Suicide does not appear as a principal cause of death for all ages, but ranks fourth in 15-24 years, eighth in 25-44 years, and ninth in 45-64 years. Deaths due to suicide showed a slight decrease in 1953. There were 451 suicides as compared with 464 for the preceding year.

Fire and explosion of combustible materials caused 39 deaths of children under 15 years of age as compared with 56 fatalities in 1952. Accidental drowning caused 38 deaths in this same group as against 49 in the previous year.

Deaths due to accidental falls were some lower in 1953. There were 632 fatalities as compared with 672 in 1952. Of the 632 deaths, 432 were charged to the age group 65 years and over.

Motor vehicle accidents, eighth in rank for all ages, accounted for 763 deaths in 1953. In the previous year motor vehicles fatalities were seventh in rank with 837 fatalities recorded. This slight decrease is gratifying in the face of increased motor vehicle registrations and extensive use of the New Jersey highways.

On the whole, residents of New Jersey experienced a lower mortality rate in 1953. Careful study of the causes of death in each age group, with particular reference to those of a preventable nature, may reveal problem areas in which public health workers could work to an advantage.

TABLE 19. PRINCIPAL CAUSES OF DEATH BY AGE GROUPS;
NUMBERS AND PERCENTAGES: 1953
ALL AGES

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Totals
1	Diseases of the circulatory system (400-468)	24,443	46.3
2	Malignant neoplasms (140-205)	9,350	17.7
3	Vascular lesions (330-334)	5,219	9.9
4	Influenza, pneumonia, and bronchitis (480-502)	1,350	2.6
5	Immaturity unqualified and diseases with immaturity (774-776, 760-773) (with 0-5 or more)	1,212	2.3
6	Diabetes (260)	1,077	2.0
7	Cirrhosis of liver (581)	767	1.5
8	Motor vehicle accidents (810-835)	763	1.4
9	Tuberculosis (001-019)	693	1.3
10	Congenital malformations (750-759)	648	1.2
11	Falls (900-904)	632	1.2
12	Nephritis and nephrosis (590-594)	539	1.1
	All other	6,051	11.5
	Total deaths	52,794	100.0

TABLE 19. PRINCIPAL CAUSES OF DEATH BY AGE GROUPS;
NUMBERS AND PERCENTAGES: 1953—Continued

UNDER 1 YEAR			
Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Immaturity unqualified (774-776)	623	23.5
2	Congenital malformations and congenital diseases of the nervous system (825, 750-759)	499	18.8
3	Postnatal asphyxia and atelectasis (762)	490	18.5
4	Birth injuries (760-761)	267	10.1
5	Pneumonia and pneumonia of the newborn (490-493, 768)	253	9.5
6	Diseases of the digestive system (530-537, 764)	91	3.4
7	Hemolytic disease of the newborn (770)	53	2.0
8	All other	378	14.2
Total deaths		2,654	100.0

1-4 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Influenza, pneumonia and bronchitis (480-502)	68	16.3
2	Congenital malformations (750-759)	63	15.1
3	Malignant neoplasms (140-205)	52	12.5
4	Motor vehicle accidents (810-835)	32	7.7
5	Fire and explosion of combustible material (916)	25	6.0
6	Meningococcal infections (037)	12	2.9
7	Drowning (929)	10	2.4
8	Tuberculosis (001-019)	10	2.4
9	Nephritis and nephrosis (590-594)	9	2.1
10	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn (543, 571, 872)	7	1.7
	All other	129	30.9
Total deaths		417	100.0

5-14 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Malignant neoplasms (140-205)	46	13.5
2	Motor vehicle accidents (810-835)	38	11.2
3	Drowning (929)	28	8.2
4	Influenza, pneumonia and bronchitis (480-502)	27	7.9
5	Congenital malformations (750-759)	17	5.0
6	Poliomyelitis (060-081)	17	5.0
7	Diseases of the circulatory system (400-468)	15	4.3
8	Nephritis and nephrosis (590-594)	12	3.5
	All other	143	41.9
Total deaths		341	100.0

15-24 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Motor vehicle accidents (810-835)	126	22.9
2	Malignant neoplasms (140-205)	63	11.2
3	Diseases of the circulatory system (400-468)	52	9.3
4	Suicide (970-979)	29	5.2
5	Influenza, pneumonia and bronchitis (480-502)	19	3.4
6	Homicide (980-983)	19	3.4
7	Drowning (929)	18	3.2
8	Tuberculosis (001-019)	17	3.0
9	Nephritis and nephrosis (590-594)	14	2.6
10	Congenital malformations (750-759)	13	2.3
	All other	188	33.6
Total deaths		560	100.0

TABLE 19. PRINCIPAL CAUSES OF DEATH BY AGE GROUPS;
NUMBERS AND PERCENTAGES: 1953—Continued

25-44 YEARS			
Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Diseases of the circulatory system (400-468)	1,010	28.8
2	Malignant neoplasms (140-205)	707	20.2
3	Motor vehicle accidents (810-835)	198	5.6
4	Tuberculosis (001-019)	153	4.4
5	Vascular lesions (330-334)	145	4.1
6	Cirrhosis of liver (581)	145	4.1
7	Nephritis and nephrosis (590-594)	101	2.9
8	Suicide (970-979)	100	2.9
9	Influenza, pneumonia and bronchitis (480-502)	95	2.7
10	Homicide (980-983)	58	1.7
	All other	794	22.6
Total deaths		3,506	100.0

45-64 YEARS

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Diseases of the circulatory system (400-468)	7,182	44.9
2	Malignant neoplasms (140-205)	5,871	34.2
3	Vascular lesions (330-334)	1,283	8.0
4	Cirrhosis of liver (581)	407	2.5
5	Diabetes (260)	347	2.2
6	Tuberculosis (001-019)	239	1.9
7	Influenza, pneumonia and bronchitis (480-502)	233	1.8
8	Motor vehicle accidents (810-835)	206	1.3
9	Suicide (970-979)	206	1.3
10	Nephritis and nephrosis (590-594)	199	1.3
	All other	1,697	10.6
Total deaths		15,980	100.0

65 YEARS AND OVER

Rank	Cause and Code Numbers	Number of Deaths	Per Cent of Total
1	Diseases of the circulatory system (400-468)	16,177	55.2
2	Malignant neoplasms (140-205)	4,606	15.7
3	Vascular lesions (330-334)	3,765	12.8
4	Influenza, pneumonia and bronchitis (480-502)	680	2.3
5	Diabetes (260)	679	2.3
6	Falls (900-904)	432	1.5
7	Nephritis and nephrosis (590-594)	251	0.9
8	Cirrhosis of liver (581)	211	0.7
9	Intestinal obstruction and hernia (560, 561, 570)	207	0.7
10	Tuberculosis (001-019)	205	0.7
	All other	2,123	7.2
Total deaths		29,336	100.0

TABLE 20. DEATHS FROM EACH CAUSE, DETAILED INTERNATIONAL LIST (6th REVISION), FOR THE STATE BY SEX, COLOR AND AGE GROUPS: 1963—Continued

CAUSE OF DEATH	Total		White		Non-white		Age Groups								
	Total	Male	Female	Male	Female	Male	Female	<	1-4	5-14	15-24	25-44	45-64	65+	Unknown
E885. Accidental poisoning by lead and its compounds	2	1	1												
E886. Accidental poisoning by arsenic and its compounds	1														
E887. Accidental poisoning by fluorides	3	2	1												
E888. Accidental poisoning by other and unspecified solid and liquid poisons	14	10	4												
E889. Accidental poisoning by acids (Unspecified)	2	1	1												
E890. Accidental poisoning by other carbon monoxide gas	2	2													
E891. Accidental poisoning by cyanide gas	2	2													
E892. Accidental poisoning by cyanide gas and vapours	4	4													
E893. Accidental poisoning by unspecified gases	118	62	46												
E894. Fall from ladders	116	69	37	7	8	3	4	0	7	18	27	61	8		
E895. Fall from one level to another	30	17	13	1	1	1	1	1	1	1	1	1	1	1	1
E896. Unspecified falls	22	21	1												
E897. Accident caused by vehicle	29	24	5												
E898. Accident caused by machinery	17	17													
E899. Accident caused by electric current	12	12													
E900. Accident caused by explosion of pressure vessel	2	2													
E901. Accident caused by fire and explosion of combustible material	148	60	44	28	10	5	25	11	8	20	45	30	1	5	
E902. Accident caused by fire and explosion of liquid and steam	12	5	6												
E903. Accident caused by steam	21	18	2	1	1										
E904. Foreign body entering eye and adnexa	16	8	8	3	2	2	20	8	1	7	2				
E905. Inhalation and ingestion of food causing obstruction or suffocation	1	1													
E906. Inhalation and ingestion of other object causing obstruction or suffocation	5	1	1	1	1	1	2	1	1						
E907. Foreign body entering other orifice	34	16	6	5	4		82	2							
E908. Accidental mechanical infarction in bed and cradle	7	7													
E909. Accidental mechanical infarction in other and unspecified circumstances	1														
E910. Accidents caused by bites and stings of venomous animals and insects	157	83	15	25	4										
E911. Other accidents caused by animals	1	1													
E912. Accidental drowning and submersion	34	10	12	2	1										
E913. Excessive heat and insolation	6	4	1	1	1										
E914. Excessive cold	3	2	1												
E915. Hunger, thirst and exposure	3	2	1												
E916. Lightning	1	1													
E917. Other and unspecified accidents	10	7	4	4	1										
E918. Generalized vaccinia following vaccination	1														
E919. Ovariocele	1														
E920. Post-immunization fatalities and hospitalization	1														
E921. Other complications of poliomyelitic inoculation	148	60	44	28	10	5	25	11	8	20	45	30	1	5	
E922. Other complications of anaesthesia or nontherapeutic purpose	1														
E923. Other complications due to nontherapeutic medical and surgical procedures	1														
E924. Therapeutic misadventure in infusion or transfusion	1														
E925. Therapeutic misadventure in local applications	1														
E926. Therapeutic misadventure in administration of drugs or biologicals	1														
E927. Therapeutic misadventure in anaesthesia	1														
E928. Other therapeutic misadventure in anaesthesia	1														
E929. Late complication of surgical operation	1														
E930. Late complication of amputation stump	1														
E931. Late complication of irradiation	1														
E932. Late complication of other forms of treatment	1														
E933. Late effect of other accidental injury	3	2	1	1	1										
E934. Late effect of self-inflicted injury	6	2	3	1	1										
E935. Late effect of self-inflicted injury (not in war)	2														
E936. Late effects of injuries due to war operations	2														
E937. Suicide and self-inflicted poisoning by anesthetic and soporific substances	29	12	17	4	1										
E938. Suicide and self-inflicted poisoning by other solid and liquid poisons	14	10	4												
E939. Suicide and self-inflicted poisoning by gases in domestic use	30	18	21	5	6	2									
E940. Suicide and self-inflicted poisoning by other gases	48	39	9	3	1										
E941. Suicide and self-inflicted injury by hanging and strangulation	147	112	81	1	1										
E942. Suicide and self-inflicted injury by firearms and explosives	10	8	2	1	1										
E943. Suicide and self-inflicted injury by cutting and piercing instruments	47	33	14	2	1										
E944. Suicide and self-inflicted injury by jumping from high place	20	19	0	1	1										
E945. Nonaccidental poisoning by other and unspecified means	9	6	3	1	1										
E946. Assault by firearms and explosives	43	10	8	11	6										
E947. Assault by other means	39	17	8	24	6										
E948. Injury by other means	6	17	20	1	1										
E949. Excretion	5	5													
E950. Injury due to war operations by gas and chemicals	1														
E951. Injury due to war operations by gunshot	1														
E952. Injury due to war operations by grenade and hand mine	1														
E953. Injury due to war operations by marine mine, depth charge and torpedo	1														
E954. Injury due to war operations by explosion of artillery shell	1														
E955. Injury due to war operations by aircraft determined origin	1														
E956. Injury due to war operations by aircraft undetermined origin	1														
E957. Injury due to war operations by other and unspecified means	1														
E958. Injury due to war operations but occurring after cessation of hostilities	1														

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF ATLANTIC COUNTY FOR 1953
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	001-138	Infective and parasitic diseases	37	10	7	9	5	1	1	1	1	5	8	11	10	10	
B1	001-008	Tuberculosis of respiratory system	10	9	3	4	4	5	1	1	1	5	8	11	10	10	
B2	009-018	Syphilis, other forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B3	020-029	Scarlet fever and streptococcal sore throat	10	4	1	4	1	1	1	1	1	1	1	1	1	1	
B4	043	Cholera	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
B5	045-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B6	051	Chronic enteric fever and typhoid fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B7	061	Whitish fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B8	065	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B9	067	Scarlet poliomyelitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B10	087	Meningococcal infections	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B11	088	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B12	089	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B13	084	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B14	086	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B15	100-108	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B16	110-117	Malaria (including falciparum, vivax, 044, 049, 052-054, 055-074, 084-083, 086-086, 150-158)	5	2	2	2	2	2	2	2	2	2	2	2	2	2	
B17	119	Neoplasms	310	110	136	20	20	26	26	1	1	2	17	132	157	187	
B18	140-239	Malignant neoplasms	302	117	131	29	29	26	26	1	1	2	15	130	154	184	
B19	240-259	Benign and unspecified neoplasms	8	2	5	5	5	1	1	1	1	1	1	1	1	1	
B20	260	Diseases inducing system, metabolic and nutritional	62	28	28	3	3	3	3	1	1	1	1	1	1	1	
B21	290-296	Diabetes mellitus	40	15	25	1	1	1	1	1	1	1	1	1	1	1	
B22	297-298	Diseases of the blood and blood-forming organs	13	7	3	2	1	1	1	1	1	1	1	1	1	1	
B23	300-306	Headural (240-245, 250-254, 270-277, 280-288)	7	2	4	4	1	1	1	1	1	1	1	1	1	1	
B24	307-308	Headural (294-296)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
B25	309-325	Mental, psychoneurotic and personality disorders	6	4	4	1	1	1	1	1	1	1	1	1	1	1	
B26	326-328	Diseases of the nervous system and sense organs	206	60	60	99	29	27	27	1	1	2	8	90	134	159	
B27	329-334	Vascular lesions affecting central nervous system	188	64	61	29	23	23	23	1	1	1	1	1	1	1	
B28	335	Headural (341-345, 350-353, 360-360, 360-368)	3	5	7	7	7	7	7	1	1	1	1	1	1	1	
B29	400-468	Diseases of the circulatory system	942	448	348	75	71	71	71	1	1	2	1	20	276	639	
B30	469-483	Chronic rheumatic heart disease, rheumatic fever, congenital valvular disease, degenerative heart disease, other diseases of heart	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B31	484-490	Other diseases with heart disease	24	37	12	25	21	21	21	1	1	1	1	1	1	1	
B32	491-494	Hypertension with heart disease	18	6	6	6	6	6	6	1	1	1	1	1	1	1	
B33	495-498	Hyperextension of heart	97	24	43	9	21	21	21	1	1	1	1	1	1	1	
B34	499-503	Headural (450-455, 460-468)	15	4	4	4	4	4	4	1	1	1	1	1	1	1	
B35	504-511	Headural (450-455, 460-468)	57	84	19	2	2	2	2	1	1	1	1	1	1	1	
B36	512, 572	Influenza	41	22	10	9	9	9	9	1	1	1	1	1	1	1	
B37	581	Headural (450-455, 460-468)	20	10	5	4	4	4	4	1	1	1	1	1	1	1	
B38	590-597	Diseases of the genitourinary system	17	6	9	1	1	1	1	1	1	1	1	1	1	1	
B39	598-610	Nephritis and nephrosis	18	10	4	3	3	3	3	1	1	1	1	1	1	1	
B40	610-689	Hyperplasia of prostate, diseases of the skin and integument	10	5	3	2	2	2	2	1	1	1	1	1	1	1	
B41	690-716	Headural (600-605, 611-617, 620-620, 630-637)	4	1	3	3	3	3	3	1	1	1	1	1	1	1	
B42	720-749	Diseases of the bones and organs of movement	17	10	7	7	7	7	7	1	1	1	1	1	1	1	
B43	750-776	Congenital malformations	50	19	15	5	11	11	11	1	1	1	1	1	1	1	
B44	780-788	Certain diseases of early infancy	18	6	7	1	1	1	1	1	1	1	1	1	1	1	
B45	789-798	Intoxication of the newborn, asphyxia and steatorrhea	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
B46	799-799	Other diseases peculiar to early infancy and immaturity	30	14	7	4	4	4	4	1	1	1	1	1	1	1	
B47	800-802	Symptoms, senility and ill-defined conditions	6	4	2	2	2	2	2	1	1	1	1	1	1	1	
B48	803-805	Motor vehicle accidents	100	68	23	20	20	20	20	1	1	1	1	1	1	1	
B49	806-806	All other accidents except falls	30	18	6	6	6	6	6	1	1	1	1	1	1	1	
B50	807-807	All other accidents except falls	36	17	6	11	11	11	11	1	1	1	1	1	1	1	
B51	808-808	Falls	14	6	7	7	7	7	7	1	1	1	1	1	1	1	
B52	809-809	Motor vehicle accidents	12	10	1	2	2	2	2	1	1	1	1	1	1	1	
B53	810-810	All other accidents except falls	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B54	811-811	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
B55	812-812	ALL CAUSES	1899	837	714	189	168	168	168	85	6	9	17	110	688	1084	

July 1, 1953, Estimated Population, 135,000. Total Resident Deaths, 1,899. Rate per 1,000 Population, 14.1.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF ATLANTIC CITY FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	White		Non-white		Age Groups by Years							
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-138	Infective and parasitic diseases	97	10	3	0	5	1	1	1	4	18	8
B2	001-008	Tuberculosis of respiratory system	15	7	1	1	4	1	1	1	3	8	4
B3	001-010	Tuberculosis, other forms	2	2	1	1	1	1	1	1	1	1	4
B4	020-229	Tuberculosis, its sequelae	8	2	1	1	4	1	1	1	1	4	.....
B5	048	Cholera	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B6	044-048	Dysentery, all forms	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B7	050, 051	Scarlet fever and streptococcal sore throat	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B8	052	Diphtheria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B9	053	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B10	057	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B11	058	Meningococcal infections	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B12	060	Acute poliomyelitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B13	064	Scarlet fever	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B14	065	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B15	100-108	Gyphus and other rickettsial diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B16	110-117	Malaria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B17	030-030, 031, 032, 043, 049, 062-064, 068-074, 081-083, 088-098, 120-126	Neoplasms	0	1	0	0	1	1	1	1	1	1	1
B18	140-230	Malignant neoplasms	138	62	40	24	24	22	2	0	72	77	.....
B19	140-205	Benign and unspecified neoplasms	136	62	40	24	24	22	2	0	72	70	.....
B20	240-288	Alimentary endocrine system, metabolic and nutritional diseases	2	2	1	1	1	1	1	1	1	1	.....
B21	200	Diabetes mellitus	30	10	10	1	9	1	1	1	14	24	.....
B22	200-288	Diseases of the blood and blood-forming organs	6	2	2	1	1	1	1	1	14	2	.....
B23	200-288	Diseases of the blood and blood-forming organs	3	3	2	1	1	1	1	1	1	1	.....
B24	400-402	Menial, psychoneurotic and personality disorders	4	4	2	2	2	2	2	2	2	2	.....
B25	400-402	Chronic rheumatic heart disease	130	37	56	14	23	1	2	1	6	34	80	
B26	400-402	Chronic rheumatic heart disease	110	34	51	14	20	1	1	5	30	83	.....
B27	430-434	Other diseases of heart	8	8	5	3	3	2	1	1	1	1	.....
B28	440-443	Hypertension with heart disease	80	9	24	5	12	1	1	1	11	88	.....
B29	444-447	Hypertension without mention of heart	13	8	8	4	4	3	1	1	6	8	.....
B30	450-527	Diseases of the respiratory system	27	14	10	2	1	2	1	1	3	7	.....
B31	460-463	Influenza	21	9	8	.....	.....	.....	.....	.....	.....	.....	.....
B32	500-502	Pneumonia	12	3	0	2	1	1	1	1	1	1	.....
B33	500-507	Bronchitis	8	1	1	2	1	1	1	1	1	1	.....
B34	540-541	Diseases of the digestive system	44	22	13	4	4	4	1	1	1	1	.....
B35	500-507	Ulcer of stomach and duodenum	5	5	5	.....	.....	.....	.....	.....	.....	.....	.....
B36	500-501, 570	Intestinal obstruction and hernia	4	.....	3	1	1	1	1	1	1	1	.....
B37	543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	5	4	4	.....	.....	.....	.....	.....	.....	.....	.....
B38	581	Chlorosis of liver	14	6	4	3	1	1	1	1	1	1	.....
B39	590-597	Diseases of the genito-urinary system	11	9	6	6	6	6	6	6	6	6	.....
B40	590-594	Nephritis and nephrosis	21	12	9	3	3	3	3	3	3	3	.....
B41	610	Urethritis	13	7	5	1	2	1	1	1	1	1	.....
B42	610-619	Uterine and vaginal diseases	4	4	4	.....	.....	.....	.....	.....	.....	.....	.....
B43	610-619	Pregnancy, childbirth and the puerperium	4	1	1	2	1	1	1	1	1	1	.....
B44	720-748	Diseases of the skin and cellular tissue	3	1	2	.....	.....	.....	.....	.....	.....	.....	.....
B45	750-750	Congenital malformations	4	1	3	.....	.....	.....	.....	.....	.....	.....	.....
B46	750-752	Birth injuries, postnatal erysipelas and osteomyelitis	27	8	1	2	7	4	4	4	4	4	.....
B47	760-768	Infections of the newborn	2	.....	1	1	1	1	1	1	1	1	.....
B48	760-776	Other diseases peculiar to early infancy and infancy	13	5	5	2	3	15	5	5	5	5	.....
B49	800-800	Struck by falling objects, in unimpaired conditions	3	2	1	2	1	2	1	2	1	2	.....
B50	800-802	Accidents, poisoning and violence	4	2	1	3	3	3	3	3	3	3	.....
B51	800-805	Motor vehicle accidents	4	1	1	3	3	3	3	3	3	3	.....
B52	800-805	All other accidents except falls	17	0	2	8	1	2	1	2	4	1	.....
B53	800-805	Falls	8	8	4	.....	.....	.....	.....	.....	.....	.....	.....
B54	800-804	Suicide	12	11	.....	.....	.....	.....	.....	.....	.....	.....	.....
B55	800-804	Homicide	4	1	2	.....	.....	.....	.....	.....	.....	.....	.....
B56	800-803	Police intervention, execution and operations of war	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B57	900-999	ALL CAUSES	1026	418	344	130	128	85	4	10	50	328	590	

July 1, 1933. Estimated Population, 62,000.

Total Resident Deaths, 1,026.

Rate per 1,000 Population, 16.5.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF BERGEN COUNTY FOR 1963
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	White		Non-white		Age Groups by Years								
			Total	Male	Female	Male	Female	<1	1-4	5-64				65+	Unknown
										5-9	10-14	15-24	25-44			45-64
B31	400-488	Pneumonia	111	43	61	4	3	22	4	1	1	9	18	67	...
B32	500-502	Bronchitis	8	5	3	2	2	2	1	1	1	2	0	2	4
B33	530-537	Diseases of the digestive system	240	28	82	1	1	7	3	2	1	1	31	88	108
B34	550-553	Stomach and duodenum	4	0	0	0	0	0	0	0	0	0	0	0	0
B35	560, 561, 570	Intestinal obstruction and hernia	39	18	21	1	1	4	1	1	2	2	7	25	4
B36	543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	19	10	9	0	0	2	1	1	1	0	0	6	8
B37	581	Residual (530-539, 542, 544, 545, 575-578, 580, 585-587)	75	34	21	1	1	1	1	1	1	1	11	41	20
B38	590-637	Diseases of the genito-urinary system	51	27	23	1	1	1	1	1	1	7	13	28	...
B39	520-524	Uterus and ovaries	101	68	31	1	1	1	1	1	3	7	39	60	...
B40	640-689	Pregnancy, childbirth and the puerperium	32	31	1	1	1	1	1	1	1	2	6	31	...
B41	750-759	Congenital malformations	77	36	41	1	1	60	8	3	1	2	2	1	...
B42	700-762	Certain diseases of early infancy	160	94	66	4	2	103	4	2	103	6	2	1	...
B43	730-732	Birth injuries, postnatal asphyxia and atelectasis	81	40	33	1	1	81	1	1	81	1	1	1	...
B44	760-776	Other diseases peculiar to early infancy and infancy unqualified	14	8	6	1	1	14	1	1	14	1	1	1	...
B45	780-795	Symptoms, senility and ill-defined conditions	74	40	30	8	1	74	1	1	74	1	2	12	...
B46	800-899	Accidents, poisonings and violence	232	140	73	7	3	1	13	13	20	40	07	14	...
B47	850-859	Motor vehicle accidents	67	54	11	1	1	1	6	4	13	10	15	7	...
B48A	830-835	All other accidents except falls	60	38	17	8	2	1	4	6	3	21	12	13	...
B48B	800-904	Falls	66	28	28	2	2	1	1	1	2	8	11	89	...
B49	810-819	War	17	24	16	1	1	2	1	1	2	1	3	11	...
B50A	820-823	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50B	824-839	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50C	840-849	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50D	850-859	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50E	860-869	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50F	870-879	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50G	880-889	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50H	890-899	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50I	900-909	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50J	910-919	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50K	920-929	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50L	930-939	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50M	940-949	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50N	950-959	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50O	960-969	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50P	970-979	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50Q	980-989	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50R	990-999	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	2	...
B50S	000-009	ALL CAUSES	5200	2724	2887	60	68	276	47	30	43	530	1466	8017	...

July 1, 1963, Estimated Population, 565,006. Total Resident Deaths, 5,200. Rate per 1,000 Population, 9.3.

TABLE 28. TABULATION OF DEATHS OF RESIDENTS OF HURLINGTON COUNTY FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-038	Infective and parasitic diseases	33	18	9	5	1	1	1	1	1	1	6	14	8	...
B2	001-038	Tuberculosis of respiratory system	24	16	5	3	...	...	...	...	...	...	6	11	7	...
B3	010-019	Tuberculosis, other forms	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B4	050-029	Syphilis and its sequelae	2	...	1	1	...	...	...	...	...	...	2	...	...	...
B5	040	Cyphoid fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B6	045-048	Dysentery, all forms	1	...	1	...	...	...	...	...	...	1	...	...	...	...
B7	050, 051	Scarlet fever and streptococcal sore throat	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B8	055	Epidiemia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B9	059	Whooping cough	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B10	063	Staphylococcal infections	1	...	1	...	...	...	...	...	...	...	...	...	...	...
B11	053	Acute poliomyelitis	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B12	080	Smallpox	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B13	084	Measles	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B14	085	Scarlet fever and streptococcal diseases	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B15	110-117	Malaria	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B16	110-117	Malaria	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B17	030-074, 081-083, 086-096, 120-135	Residual (030-039, 041, 042, 044, 049, 052-054, 059-062, 065, 068, 070-072, 075-077, 280-289)	8	2	2	2	1	1	1	1	1	1	10	5	1	1
B18	140-229	Neoplasms	201	105	89	4	4	3	3	2	2	2	10	10	10	8
B19	230-239	Neoplasms, unspecified	201	105	89	4	4	3	3	2	2	2	10	10	10	8
B20	240-289	Neoplasms, specified	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B21	290-293	Alleged, endocrine system, metabolic and nutritional diseases	44	20	23	...	...	...	...	...	...	...	5	12	28	...
B22	300-323	Diabetes mellitus	28	11	17	...	...	...	...	...	...	...	2	11	14	...
B23	330-334	Diabetes mellitus, unspecified	16	9	6	...	...	...	...	...	...	...	3	11	14	...
B24	340-344	Diabetes mellitus, specified	3	1	1	...	...	...	...	...	...	...	1	1	1	...
B25	350-353	Residual (294-299)	4	4	...	...	...	...	...	...	...	...	...	...	...	...
B26	360-363	Mental, psychoneurotic and personality disorders	148	68	68	9	7	7	7	1	1	1	9	27	111	...
B27	370-374	Alcoholism, drug addiction, nervous system	188	66	62	9	7	7	7	1	1	1	7	23	108	...
B28	380-384	Vascular lesions affecting circulatory system	16	6	4	...	...	...	...	...	...	...	...	...	...	...
B29	390-393	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	509	339	223	21	16	...	...	...	...	...	3	17	101	413
B30	400-405	Diseases of the circulatory system	10	5	...	...	...	...	...	...	...	...	...	...	...	...
B31	410-416	Chronic rheumatic heart disease	432	272	141	12	10	...	...	...	...	...	1	16	185	268
B32	420-422	Arteriosclerotic and degenerative heart disease	12	9	2	...	...	...	...	...	...	...	...	...	...	...
B33	430-434	Other diseases of heart	50	21	47	7	5	...	...	...	...	...	1	22	87	...
B34	440-443	Hypertension with heart disease	46	22	22	...	...	...	...	...	...	...	...	...	...	...
B35	444-447	Hypertension without heart disease	40	22	22	...	...	...	...	...	...	...	...	...	...	...
B36	450-453	Residual (400-460, 460-468)	31	17	9	3	2	...	...	...	...	...	4	6	19	...
B37	470-527	Influenza	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B38	530-564	Pneumonia	19	1	6	...	...	...	...	...	...	...	...	...	...	...
B39	570-574	Pneumonia, unspecified	11	1	3	...	...	...	...	...	...	...	...	...	...	...
B40	580-587	Pneumonia, specified	8	...	...	...	...	...	...	...	...	...	...	...	...	...
B41	590-593	Diseases of the digestive system	39	19	16	3	1	...	...	...	...	...	7	12	20	...
B42	600-603	Ulcer of stomach and duodenum	7	5	2	...	...	...	...	...	...	...	1	2	4	...
B43	610-617	Appendicitis	12	7	6	...	...	...	...	...	...	...	2	3	7	...
B44	620-627	Intestinal obstruction and hernia	...	...	...	...	...	...	...	...	...	...	...	...	...	...
B45	630-637	Gastritis, duodenitis, enteritis and colitis, except chronic	3	1	1	...	...	...	...	...	...	...	...	...	...	...
B46	640-647	Chirrhosis of liver	3	1	1	...	...	...	...	...	...	...	...	...	...	...
B47	650-657	Residual (630-639, 642, 644, 645, 673-675, 680, 682-687)	12	2	8	1	1	...	...	...	...	...	1	2	2	...
B48	660-664	Diseases of the genito-urinary system	24	13	8	1	1	...	...	...	...	...	3	4	6	...
B49	670-674	Nephritis	16	6	3	1	1	...	...	...	...	...	2	8	11	...
B50	680-683	Hypertrophy of prostate	4	2	2	...	...	...	...	...	...	...	...	...	...	...
B51	690-696	Pregnancy, childbirth and the puerperium	2	0	1	...	...	...	...	...	...	...	...	...	...	...
B52	700-704	Diseases of the skin and cellular tissue	2	1	1	...	...	...	...	...	...	...	...	...	...	...
B53	710-719	Congenital malformations of organs of movement	2	1	2	...	...	...	...	...	...	...	...	...	...	...
B54	720-726	Certain diseases of early infancy	55	33	17	3	3	...	...	...	...	...	22	9	2	...
B55	730-733	Birth injuries, postnatal asphyxia and atelectasis	21	13	14	4	2	...	...	...	...	...	3	6	12	...
B56	740-746	Operations of the newborn	2	1	1	...	...	...	...	...	...	...	...	...	...	...
B57	750-776	Operations of ear to early infancy and immature	89	20	9	1	1	...	...	...	...	...	...	...	...	...
B58	780-786	Symptoms, senility and ill-defined conditions	80	53	18	6	1	...	...	...	...	...	...	...	...	...
B59	790-799	Accidents, poisonings and violence	83	25	4	8	1	...	...	...	...	...	6	19	21	...
B60	800-802	Motor vehicle accidents	23	15	6	2	1	...	...	...	...	...	...	...	...	...
B61	810-815	All other accidents except falls	11	2	6	...	...	...	...	...	...	...	...	...	...	...
B62	820-824	Police intervention, execution and operations of war	11	10	2	...	...	...	...	...	...	...	...	...	...	...
B63	830-834	Police intervention, execution and operations of war	1	1	1	...	...	...	...	...	...	...	...	...	...	...
B64	840-849	ALL CAUSES	1338	702	462	63	40	...	...	...	...	...	80	397	750	...

July 1, 1933, Estimated Population, 141,000.

Total Resident Deaths, 1,298.

Rate per 1,000 Population, 9.2.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF CAMDEN COUNTY FOR 1935
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total			White		Non-white		Age Groups by Years						
			Total	Male	Female	Male	Female	Male	Female	<1	1-4	5-14			65+	
												5-14	15-24	25-44		45-64	65+
B1	601-138	Infective and parasitic diseases	70	38	16	14	4	5	4	1	13	30	17	...		
B1	601-008	Tuberculosis of respiratory system	46	27	10	9	...	2	20	...	10	24	12	...		
B1	601-019	Tuberculosis, other forms	2	1	1	...	...	1	...	...	...	...	...	...
B1	601-029	Syphilis and its sequelae	5	...	2	...	...	...	...	...	...	...	...	...
B1	601-048	Cholera	...	...	...	...	...	...	...	...	...	...	...	...
B1	601-048	Dysentery, all forms	...	...	...	...	...	...	...	...	...	...	...	...
B1	601-048	Scarlet fever and streptococcal sore throat	1	...	...	...	...	...	...	...	...	...	...	...
B1	601-051	Diphtheria	...	...	...	...	...	...	...	...	...	...	...	...
B1	601-051	Measles	2	1	1	...	...	...	...	...	...	...	...	...
B1	601-057	Measles	...	...	...	...	...	...	...	...	...	...	...	...
B1	601-063	Whooping cough	...	...	...	...	...	...	...	...	...	...	...	...
B1	601-063	Acute poliomyelitis	...	...	...	...	...	...	...	...	...	...	...	...
B1	601-080	Smallpox	...	...	...	...	...	...	...	...	...	...	...	...
B1	601-084	Scarlet fever	...	...	...	...	...	...	...	...	...	...	...	...
B1	601-084	Typhus and other rickettsial diseases	...	...	...	...	...	...	...	...	...	...	...	...
B1	601-108	Malaria	14	7	3	2	2	2	2	3	1	2	4	2		
B1	601-117	Residual (690-639, 641, 642, 644, 649, 652-654, 659-674, 681-683, 686-688, 126-138)	599	282	270	27	20	270	27	20	651	293	208	...		
B1	140-230	Malignant neoplasms	698	277	260	29	19	277	26	19	80	232	204	...		
B1	210-239	Malignant neoplasms	11	1	4	1	1	1	1	1	3	0	2	...		
B1	240-289	Allergic, endocrine system, metabolic and nutritional diseases	80	52	43	1	4	...	...	...	...	...	...	...
B2	200	Diseases of the blood and blood-forming organs	57	20	34	...	...	...	...	...	...	...	...	...
B2	200-299	Diseases of the blood and blood-forming organs	29	12	17	1	1	...	...	...	...	...	...	...
B2	200-293	Anemias	9	4	4	1	1	...	...	...	...	...	...	...
B2	200-299	Diseases of the nervous system and sense organs	3	1	1	...	...	...	...	...	...	...	...	...
B2	300-308	Diseases of the nervous system and sense organs	372	164	175	15	18	...	...	...	...	...	...	...
B2	300-308	Nuclear lesions affecting central nervous system	348	152	165	15	18	...	...	...	...	...	...	...
B2	330-334	Nonmeningeal meningitis	3	2	1	...	...	...	...	...	...	...	...	...
B2	340	Diseases of the circulatory system	1461	803	858	1	63	43	2	1	3	4	62	430	900	
B2	400-408	Ischemic heart disease	2	1	1	
B2	400-402	Chronic rheumatic heart disease	69	22	33	3	2	
B2	410-415	Arteriosclerotic and degenerative heart disease	1047	630	859	84	24	
B2	420-422	Other diseases of heart	228	115	115	11	15	
B2	430-434	Myocardial infarction	28	15	10	1	2	
B2	440-443	Other diseases of heart	228	115	115	11	15	
B2	444-447	Residual (440-450, 460-463)	63	25	35	1	2	
B2	470-527	Diseases of the respiratory system	134	64	64	15	15	2	2	2	9	12	59	74		
B2	480-483	Influenza	6	1	4	
B3	500-502	Pneumonia	60	40	35	10	10	5	10	5	1	2	1	1	1	
B3	500-502	Residual (470-475, 510-527)	10	10	10	
B3	530-537	Diseases of the digestive system	28	19	6	8	8	
B3	540-541	Ulcer of stomach and duodenum	111	57	47	8	4	
B3	550-551	Other diseases of digestive system	18	14	2	1	1	
B3	560-561, 570	Intestinal obstruction and hernia	21	12	6	
B3	571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrheal of newborn	6	2	4	
B3	581	Cirrhosis of liver	27	14	11	1	1	
B3	582-587	Diseases of the genito-urinary system	33	13	15	
B3	590-594	Nephritis and nephrosis	70	38	27	8	5	2	1	1	3	6	7	18		
B3	610	Gonorrhea	53	22	24	4	3	3	1	0	20	23	23	...		
B3	610	Hyphomycosis of prostate	9	9	
B3	610	Pregnancy, childbirth and the puerperium	14	6	3	4	2	2	1	3	6	4	...	...
B3	610-619	Diseases of the skin and cellular tissue	5	1	2	
B3	720-749	Diseases of the bones and organs of movement	4	2	1	1	1	
B3	750-759	Congenital malformations	38	22	13	
B3	760-769	Birth injuries of early infancy	100	44	33	12	8	30	4	2	1	1	1	1		
B3	770-779	Birth injuries of late infancy and childhood	28	11	15	4	3	6	1	1	1	1	1	1		
B3	783-785	Other diseases of the newborn	9	3	4	1	1	
B3	783-770	Other diseases of newborn to early infancy and infancy unqualified	30	13	8	5	2	2	30	1	1	1	1	1		
B3	783-785	Acidosis, senility and ill-defined conditions	11	6	8	
B3	783-785	Acidosis, senility and ill-defined conditions	11	6	8	
B3	783-785	Motor vehicle accidents	35	35	11	2	4	
B3	800-802	All other accidents except falls	42	24	10	6	2	4	6	5	6	5	0	8		
B3	800-805	Falls	40	18	18	1	8	
B3	800-804	Suicide	22	10	5	1	1	
B3	800-804	Homicide	8	8	1	1	
B3	800-805	Police intervention, execution and operations of war	
B3	801-809	ALL CAUSES	3274	1687	1317	161	129	101	33	25	37	207	676	1898		
B3	801-809	ALL CAUSES	3274	1687	1317	161	129	101	33	25	37	207	676	1898		

July 1, 1935, Estimated Population, 311,000.

Total Resident Deaths, 3,274.

Rate per 1,000 Population, 10.5.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF CAMDEN CITY FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years						
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-133	Infective and parasitic diseases	38	18	6	4	1	0	1	0	17	11	.....	.....	.....
B12	001-008	Tuberculosis of respiratory system	28	13	6	7	1	1	1	1	1	1	1	1	1
B13	010-019	Tuberculosis, other forms	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B14	020-029	Typhoid fever	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B15	040	Cholera	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B16	045-048	Dysentery, all forms	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B17	060, 061	Scarlet fever and streptococcal sore throat	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B18	065	Whooping cough	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B19	067	Meningococcal infections	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B20	068	Acute poliomyelitis	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B21	080	Measles	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B22	089	Mumps	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B23	088	Scarlet fever and streptococcal sore throat	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B24	100-108	Typhus and other rickettsial diseases	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B25	110-117	Malaria	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B26	140-230	Residual (830-839, 841, 842, 844, 846, 852-954)	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B27	240-250	Neoplasms	226	103	10	12	1	1	1	1	1	1	1	1	1
B28	251-259	Malignant neoplasms	223	98	9	13	1	1	1	1	1	1	1	1	1
B29	260-280	Benign and unspecified neoplasms	4	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B30	290	Allergic, endocrine system, metabolic and nutritional	94	43	17	2	1	1	1	1	1	1	1	1	1
B31	290-293	Diabetes mellitus	14	11	3	3	1	1	1	1	1	1	1	1	1
B32	294-299	Diseases of the blood and blood-forming organs	158	72	63	10	13	5	5	5	5	5	5	5	5
B33	300-328	Mental, psychoneurotic and personality disorders	143	63	57	10	11	1	1	1	1	1	1	1	1
B34	330-336	Diseases of the nervous system and sense organs	13	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B35	337-344	Vascular lesions affecting central nervous system	143	63	57	10	11	1	1	1	1	1	1	1	1
B36	345-349	Residual (345-349, 350-359, 370-389, 400-468)	426	221	33	36	2	2	2	2	2	2	2	2	2
B37	400-402	Diseases of the circulatory system	28	8	10	8	1	1	1	1	1	1	1	1	1
B38	403-416	Chronic rheumatic heart disease	45	20	14	9	1	1	1	1	1	1	1	1	1
B39	417-424	Other diseases of the heart and the pericardium	90	37	38	5	10	1	1	1	1	1	1	1	1
B40	425-444	Hypertension with heart disease	25	9	5	2	2	2	2	2	2	2	2	2	2
B41	445-447	Hypertension without mention of heart	68	30	14	1	14	1	1	1	1	1	1	1	1
B42	470-537	Diseases of the respiratory system	489	261	12	4	1	1	1	1	1	1	1	1	1
B43	480-483	Influenza	12	6	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
B44	540-562	Residual (470-475, 510-527)	491	261	12	4	1	1	1	1	1	1	1	1	1
B45	563-587	Diseases of the digestive system	12	8	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
B46	588-597	Ulcer of stomach and duodenum	57	27	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
B47	598-607	Appendicitis	7	4	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
B48	608-617	Diseases of the liver, gallbladder and biliary tract	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B49	618-627	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	15	6	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
B50	628-637	Cirrhosis of liver	15	6	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
B51	638-647	Nephritis and nephrosis	10	6	8	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
B52	648-657	Hyperplasia of prostate	32	13	4	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
B53	658-667	Residual (600-699, 811-817, 820-826, 830-837)	9	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B54	668-699	Diseases of the uterus and the pericardium	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B55	700-719	Diseases of the bones and organs of movement	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B56	720-749	Congenital malformations	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B57	750-769	Certain diseases of early infancy	42	9	16	6	8	4	4	4	4	4	4	4	4
B58	770-779	Infections of the respiratory tract	27	6	11	5	1	1	1	1	1	1	1	1	1
B59	780-789	Other diseases peculiar to early infancy and infancy unqualified	10	2	2	4	2	10	10	10	10	10	10	10	10
B60	790-799	Symptoms, senility and ill-defined conditions	4	4	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
B61	800-809	Motor vehicle accidents	84	50	18	7	11	3	4	5	10	15	17	30	30
B62	810-819	All other accidents except falls	27	17	4	2	4	2	2	2	2	2	2	2	2
B63	820-829	Police intervention, execution and operations of war	19	10	5	3	1	1	1	1	1	1	1	1	1
B64	830-839	Falls	10	12	8	1	8	.....	.....	.....	.....	.....	.....	.....	.....
B65	840-849	Suicide	13	5	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B66	850-859	Homicide	6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B67	860-869	Police intervention, execution and operations of war	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B68	870-879	ALL CAUSES	1430	710	603	117	100	78	14	11	22	65	451	750	750

July 1, 1933, Estimated Population, 128,000.

Total Resident Deaths, 1,430.

Rate per 1,000 Population, 11.2.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF CAPE MAY COUNTY FOR 1953
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPE	Total		White		Non-white		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-128	Infective and parasitic diseases	9	2	3	2	2	1								
B2	001-008	Tuberculosis of respiratory system	4	1	2	1	1									
B3	010-019	Tuberculosis, other forms	4	1	1	1	1									
B4	040	Syphilis and its sequelae	1													
B5	041-048	Cyphoid fever	1													
B6	049-056	Dysentery, all forms	1													
B7	050, 061	Scarlet fever and streptococcal sore throat	1													
B8	065	Diphtheria	1													
B9	070	Whooping cough	1													
B10	075	Myxomatous infections	1													
B11	085	Plague	1													
B12	080	Acute poliomyelitis	1													
B13	084	Smallpox	1													
B14	088	Tetanus	1													
B15	100-108	Typhoid and other febrile diseases	1													
B16	110-117	Malaria	1													
B17		Residual (030-083, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-189)	2	1	1	1	1									
B18	140-200	Neoplasms	64	41	48	4	4	1								
B19	210-239	Benign and unspecified neoplasms	59	41	47	4	1									
B20	240-289	Malignant neoplasms	5	1	1											
B21	290-299	Diseases of the blood and blood-forming organs	15	8	8	7										
B22	300-329	Diabetes mellitus	6	0	0	0	0									
B23	330-359	Diseases of the circulatory system	6	2	3	1	1									
B24	360-389	Anemias	2	1	1	1										
B25	390-399	Residual (291-299)	2	1	1	1										
B26	400-409	Diseases of the nervous system	1	0	0	0	0									
B27	410-419	Alzheimer's disease	1	0	0	0	0									
B28	420-443	Diseases of the endocrine system, metabolic and nutritional	68	32	33	3	2									
B29	444-447	Diabetes mellitus	1	0	0	0	0									
B30	448-453	Residual (341-345, 350-357, 360-368, 370-389, 390-399)	2	1	1	1	1									
B31	454-463	Nonmeningeal meningitis	1	0	0	0	0									
B32	464-468	Residual (464-468)	2	1	1	1	1									
B33	469-483	Chronic rheumatic heart disease	276	140	100	12	15									
B34	484-493	Chronic rheumatic and degenerative heart disease	6	2	2	0	0									
B35	494-503	Arteriosclerosis and degenerative heart disease	184	102	88	8	6									
B36	504-513	Coronary atherosclerosis	136	78	64	1	1									
B37	514-523	Hypertension with heart disease	6	4	3	2	1									
B38	524-533	Hypertension without mention of heart	24	9	9	2	2									
B39	534-543	Hypertension without mention of heart	24	9	9	2	2									
B40	544-553	Residual (460-465, 469-483)	2	1	1	1	1									
B41	554-563	Diseases of the respiratory system	28	19	19	5	2									
B42	564-573	Influenza	2	2	2	4										
B43	574-583	Pneumonia	10	11	11	4	2									
B44	584-593	Bronchitis	5	6	6	1	2									
B45	594-603	Residual (470-475, 510-527)	5	6	6	0	0									
B46	604-613	Diseases of the digestive system	23	12	12	2	2									
B47	614-623	Appendicitis	5	3	3	1	1									
B48	624-633	Intestinal obstruction and hernia	2	1	1	1										
B49	634-643	Gastritis, duodenitis, enteritis and colitis, except	4	1	3	3	4									
B50	644-653	Ulcers of the stomach and duodenum	1	1	1	1										
B51	654-663	Residual (630-639, 642, 644, 645, 673-678, 680, 682-687)	6	6	6	1	1									
B52	664-673	Diseases of the genito-urinary system	13	10	10	3	3									
B53	674-683	Gonorrhea and syphilis	7	4	4	3										
B54	684-693	Residual (690-699, 611-617, 620-624, 630-637)	2	2	2	2										
B55	694-703	Pregnancy, childbirth and the puerperium	4	4	4											
B56	704-713	Diseases of the skin and cellular tissue	1	1	1	1										
B57	714-723	Conjunctivitis	1	1	1	1										
B58	724-733	Diseases of the bones and organs of movement	4	2	2	3	4									
B59	734-743	Certain diseases of early infancy	17	4	4	3	4									
B60	744-753	Birth injuries, postnatal asphyxia and atelectasis	1	1	1	1										
B61	754-763	Infections of the newborn	6	6	6	1	1									
B62	764-773	Diseases peculiar to early infancy and infancy	8	1	1	3	4									
B63	774-783	Symptoms, swellings and ill-defined conditions	17	10	10	0	0									
B64	784-793	Accidents, poisonings and violence	27	20	20	7	7									
B65	794-803	Motor vehicle accidents	9	7	7	2	2									
B66	804-813	All other accidents except falls	7	6	6	2	2									
B67	814-823	Falls	2	1	1	1										
B68	824-833	Suicide	8	7	7	1	1									
B69	834-843	Miscellaneous	1	1	1	1										
B70	844-853	Police intervention, execution and operations of WEP	1	1	1	1										
B71	854-863	ALL CAUSES	639	302	238	28	28									

July 1, 1953. Estimated Population, 37,000.

Total Resident Deaths, 639.

Rate per 1,000 Population, 16.1

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TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF CUMBERLAND COUNTY FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Main table with columns: Abridged List No., Detail List No., CAUSE GROUPS, Total, White (Male, Female), Non-white (Male, Female), Age Groups by Years (<1, 1-4, 5-14, 15-24, 25-44, 45-64, 65+, Unknown).

July 1, 1933. Estimated Population, 92,000.

Total Resident Deaths, 1,061.

Rate per 1,000 Population, 11.5.

Continuation of Table 22 for causes BE01-BE50B, including categories like Pneumonia, Diseases of the digestive system, etc.

July 1, 1933. Estimated Population, 92,000.

Total Resident Deaths, 1,061.

Rate per 1,000 Population, 11.5.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF ESSEX COUNTY FOR 1963
Classified by International Abridged List of Causes (9th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	001-133	Infective and parasitic diseases	211	61	46	27	6	10	3	7	43	88	40				
B2	001-019	Tuberculosis of respiratory system	153	62	33	21	1	2	1	1	10	100	701	880	6	2	
B3	019-019	Tuberculosis, other forms	21	2	2	1											
B4	030-029	Syphilis and its sequelae	28	10	4	3	1	4									
B5	045	Cholera															
B6	045-048	Dysentery, all forms															
B7	060, 061	Scarlet fever and streptococcal sore throat															
B8	068	Diphtheria	1	1	3												
B9	068-083	Scarlet fever, erysipelas and other streptococcal diseases	8	5	3												
B10	087	Measles	6	3	3												
B11	083	Measles, infectious mononucleosis and other viral diseases															
B12	080	Measles, infectious mononucleosis and other viral diseases															
B13	084	Measles, infectious mononucleosis and other viral diseases															
B14	100-108	Acute poliomyelitis															
B15	100-108	Acute poliomyelitis															
B16	110-117	Polio and other rickettsial diseases															
B17		Malaria															
B18	140-239	Residual (690-039, 041, 042, 044, 046, 052-054, 059-074, 081-085, 086-096, 120-138)	14	4	4	1	1	2	1	2	11	10	100	701	880	6	2
B19	240-289	Neoplasms	1728	877	753	101	05	05	6	11	10	100	701	880	6	2	
B20	240-289	Malignant neoplasms	1228	635	606	64	94	11	2	11	10	100	701	880	6	2	
B21	240-289	Benign neoplasms	500	222	222	2	2	2	5	11	2	13	23	11			
B22	290-299	Allergic, endocrine system, metabolic and nutritional diseases	271	81	139	10	21	4	4	2	5	11	88	101			
B23	290-299	Diabetes mellitus	52	16	4	16	4	6	4	2	4	7	62	144			
B24	290-299	Residual (240-245, 250-254, 270-277, 290-299)	32	14	2	6	4	4	2	1	2	6	24	17			
B25	300-329	Anemia	22	11	3	6	1	3	1	2	2	4	5	3			
B26	330-339	Menstrual disorders	10	3	1	4											
B27	330-339	Menstrual disorders	800-329														
B28	330-339	Diseases of the nervous system and sense organs	1058	431	482	69	70	3	3	3	16	50	12				
B29	340-468	Nonneoplastic meningitis	5	5													
B30	400-468	Diseases of the eye, ear, nose, throat, mouth and respiratory system	70	37	39	8	5	2	3	2	2	17	22	22			
B31	400-468	Rheumatic fever	402	23	182	2	1	2	2	11	22	1383	2098				
B32	410-416	Chronic rheumatic heart disease	167	73	74	6	14										
B33	420-422	Arteriosclerotic and degenerative heart disease	3531	1922	1322	138	149										
B34	420-422	Arteriosclerotic and degenerative heart disease	18	10	6	6	6										
B35	440-443	Hypertension with heart disease	837	423	372	39	57										
B36	444-447	Hypertension without mention of heart	80	31	30	7	16										
B37	470-527	Residual (480-485, 490-493)	211	88	106	16	11										
B38	480-493	Diseases of the respiratory system	308	143	119	29	20										
B39	480-493	Influenza	9	5	3	1											

B81	494-493	Pneumonia	205	77	91	14	19	4	8	2	22	52	98			
B82	500-602	Residual (470-475, 510-527)	15	8	4	2	1	3	2	1	2	1	40			
B83	540, 541	Ulcer of stomach and duodenum	430	234	155	39	8	1	3	6	81	107	135			
B84	550-583	Appendicitis	70	66	6	2	3									
B85	584, 571, 572	Acute inflammation and hernia	17	6	6	2	3									
B86	584, 571, 572	Gastritis, duodenitis and colitis, except diarrhoea of newborn	59	21	25	4	9									
B87	581	Diarrhoea of liver	30	13	13	1	3									
B88	590-637	Residual (690-639, 642, 644, 645, 673-578, 680, 682-687) of the respiratory system	183	95	67	13	8									
B89	590-634	Nephritis and nephrosis	85	43	33	2	7									
B90	610	Hypertrophy of prostate	122	159	32	22	8									
B91	640-680	Residual (600-603, 611-617, 620-624, 630-637)	30	37	19	9	6									
B92	700-719	Pregnancy, childbirth and the puerperium	8	9	5	3	3									
B93	720-749	Diseases of the bones and organs of movement	12	6	5	3	3									
B94	750-759	Congenital malformations	114	63	48	6	7									
B95	760-778	Certain diseases of early infancy	337	142	82	60	47									
B96	780-782	Birth injuries, postnatal asphyxia and atelectasis	123	68	35	14	8									
B97	780-782	Other diseases peculiar to early infancy and infancy unqualified	21	19	4	5	2									
B98	790-796	Symptoms, senility and ill-defined conditions	191	64	48	47	37									
B99	800-809	Accidents, poisonings and violence	22	6	9	5	2									
B00	810-832	Motor vehicle accidents	574	200	176	70	20									
B01	830-832	All other accidents except falls	166	69	19	13	5									
B02	840-855	Falls	132	70	21	23	9									
B03	850-854	Fire	212	84	108	11	9									
B04	850-854	Homicide	58	19	25	6	1									
B05	850-854	Police intervention, execution and operations of war	1	1	1	1										
B06	850-899	ALL CAUSES	10117	4890	3946	694	467	78	69	84	744	3191	5470			

July 1, 1963, Estimated Population, 693,000.

Total Resident Deaths, 10,117.

Rate per 1,000 Population, 10.8.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF IRVINGTON FOR 1983
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	White		Non-white		Age Groups by Years						
			Total		Male	Female	< 1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
			Male	Female	Male	Female							
B1	001-108	Infective and parasitic diseases	4	8	1	1					1	3	
B2	009-017	Tuberculosis, all forms	4	8	1	1					1	3	
B3	010-019	Tuberculosis, other forms											
B4	020-029	Syphilis and its sequelae											
B5	040	Typhoid fever											
B6	045-048	Cholera											
B7	050-061	Dysentery, all forms											
B8	065	Scarlet fever and streptococcal sore throat											
B9	066	Diphtheria											
B10	067	Whooping cough											
B11	068	Whooping cough											
B12	080	Pneumococcal infections											
B13	084	Acute poliomyelitis											
B14	086	Measles											
B15	088	Scarlet fever and streptococcal sore throat											
B16	110-117	Myxoma and other rickettsial diseases											
B17	119-117	Residual (080-089, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-086, 126-183)	113	68	60	60	1	2	6	6	67	47	
B18	140-209	Neoplasms	109	50	47	47	1	1	1	1	6	52	46
B19	210-239	Malignant neoplasms of the digestive system	7	4	6	6							
B20	240-259	Neoplasms of unspecified neoplasms	12	6	6	6							
B21	260-299	Allergic, endocrine system, metabolic and nutritional diseases	12	6	6	6	1	1	2	4	6	5	
B22	300-329	Diabetes mellitus	9	4	4	4							
B23	330-334	Residual (341-345, 350-357, 360-369, 370-389, 390-395)	3	2	1	1							
B24	400-468	Nonhemorrhagic meningitis	2	2	2	2							
B25	470-483	Residual (294-296)	307	167	159	159	1	1	1	1	1	1	1
B26	410-416	Mental, psychoneurotic and personality disorders	1	1	1	1							
B27	420-422	Alzheimer's disease	1	1	1	1							
B28	430-434	Vascular lesions affecting central nervous system	33	33	33	33							
B29	440-448	Nonhemorrhagic meningitis	4	2	2	2							
B30	450-458	Diseases of the circulatory system	8	6	6	6							
B31	460-468	Chronic rheumatic heart disease	1	1	1	1							
B32	470-477	Arteriosclerotic and degenerative heart disease	153	150	102	102	1	1	1	1	1	1	1
B33	480-483	Other diseases of heart	8	6	6	6							
B34	490-494	Hypertension with heart disease	26	6	6	6							
B35	495-504	Other diseases of heart	12	6	6	6							
B36	510-517	Residual (460-468, 490-494)	10	8	8	8	2	1	1	1	1	1	1
B37	520-527	Diseases of the respiratory system	1	1	1	1							
B38	530-539	Influenza	11	6	6	6							
B39	540-549	Pneumonia	1	1	1	1							
B40	550-562	Bronchitis	1	1	1	1							
B41	563-569	Residual (570-574, 510-527)	28	16	10	10							
B42	570-579	Ulcers of the digestive system	5	5	5	5							
B43	580-589	Ulcer of stomach and duodenum	2	2	2	2							
B44	590-591, 570	Appendicitis	10	6	6	6							
B45	592-593, 571, 572	Intestinal obstruction and hernia and colitis, except cirrhosis of liver	10	6	6	6							
B46	594	Intestinal obstruction and hernia and colitis, except cirrhosis of liver	10	6	6	6							
B47	595	Residual (530-539, 542, 544, 545, 573-575, 580, 602-587)	6	4	4	4							
B48	596-597	Diseases of the genitourinary system	10	6	6	6							
B49	598-599	Nephritis and nephrosis	20	11	11	11							
B50	600	Hypertrophy of prostate	7	7	7	7							
B51	601-609	Residual (600-609, 611-617, 620-626, 630-637)	1	1	1	1							
B52	610-619	Pregnancy, childbirth and the puerperium											
B53	720-749	Diseases of the bones and organs of movement											
B54	750-759	Congenital malformations	7	3	4	4							
B55	760-776	Certain diseases of early infancy	19	12	7	7							
B56	780-782	Birth injuries, postnatal asphyxia and asclecstasis	10	7	5	5							
B57	783-789	Other diseases peculiar to early infancy and infancy	1	1	1	1							
B58	790-795	Infant mortality	8	5	3	3							
B59	800-809	Symptoms, senility and ill-defined conditions	1	1	1	1							
B60	810-819	Accidents, poisonings and violence	27	20	13	13							
B61	820-802	Motor vehicle accidents	7	4	3	3							
B62	830-839	All other accidents except falls	7	5	2	2							
B63	840-849	Self-inflicted injuries	12	9	5	5							
B64	850-859	Suicide	3	2	1	1							
B65	860-869	Homicide	1	1	1	1							
B66	870-879	Police intervention, execution and operations of war	1	1	1	1							
B67	880-889	ALL CAUSES	618	344	278	278	27	4	4	2	37	225	910

July 1, 1983, Estimated Population, 61,000.

Total Resident Deaths, 618.

Rate per 1,000 Population, 10.1.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF GLOUCESTER COUNTY FOR 1933
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	001-138	Infective and parasitic diseases	18	0	0	0	4	2					1	4	6	8	
B2	001-008	Tuberculosis of respiratory system	13	3	3	5	3	2					2	4	4	7	
B3	010-019	Tuberculosis, other forms	1	1										1	1		
B4	020-029	Typhus and its sequelae	1														
B5	043	Cholera															
B6	043-048	Dysentery, all forms															
B7	060, 061	Scarlet fever and streptococcal sore throat															
B8	085	Diphtheria															
B9	085	Whooping cough															
B10	037	Meningococcal infections															
B11	083	Acute poliomyelitis	1	1													
B12	080	Acute poliomyelitis															
B13	084	Smallpox															
B14	100-108	Typhus and other rickettsial diseases															
B15	110-117	Malaria															
B16	090-099, 041, 042, 044, 049, 092-094, 098-074, 081-083, 086-090, 120-125	Residual	2	1	1	1							1	4	6	1	
B17	140-239	Malignant neoplasms	137	68	68	62	6	1					2	14	51	67	
B18	140-205	Benign and unspecified neoplasms	133	65	65	61	4	1					2	12	50	66	
B19	210-239	Allergic, endocrine system, metabolic and nutritional diseases	8	3	3	1							1	2	1	1	
B20	280	Diseases of the blood and blood-forming organs	25	0	0	0	2	0					2	1	0	10	
B21	290-299	Anemia	11	1	1	1							2	1	5	9	
B22	300-328	Residual (294-299) Toxic and infectious diseases	1	1													
B23	330-353	Diseases of the nervous system and sense organs	3	3													
B24	400-402	Diseases of the nervous system and sense organs	100	48	48	44	4	7					1	5	24	74	
B25	420-422	Vascular lesions affecting central nervous system	100	45	45	41	4	7					1	3	25	71	
B26	330-334	Nonmeningococcal meningitis	0	0	0	0	0	0									
B27	340	Residual (341-345, 350-357, 359-366, 370-389, 390-398)	408	259	259	181	78	11					1	22	133	310	
B28	400-468	Rheumatic fever	1	1													
B29	400-402	Chronic rheumatic heart disease	10	6	6	6											
B30	410-416	Arteriosclerotic and degenerative heart disease	340	203	203	123	80	6					13	102	229		
B31	420-422	Coronary atherosclerosis	75	40	40	30	10	1					2	21	51		
B32	440-444	Hypertension with heart disease	7	4	4	4							1	1	2		
B33	444-447	Hypertension without mention of heart	22	11	11	4	7	1					1	1	3		
B34	470-337	Residual (450-465, 460-468)	37	18	18	13	5	2					8	2	4	28	
B35	480-485	Diseases of the respiratory system															
B36	480-485	Indiennia															
B37	581	Pneumonia	29	16	16	10	6	1					6	1	4	18	
B38	590-602	Bronchitis	6	2	2	3							2	1	3	6	
B39	590-597	Residual (570-571, 610-597)	46	20	20	13	7	1					7	3	20		
B40	610-680	Diseases of the digestive system	12	10	10	22							2	10	20		
B41	540, 541	Ulcer of stomach and duodenum	2	4	4	5							2	4	15		
B42	550-555	Appendicitis	11	4	4	5							2	1	4		
B43	560, 561, 570	Intestinal obstruction and hernia	1	1	1	1							1	1	1		
B44	570, 571, 572	Intestinal enteritis and colitis, except diarrhoea of newborn	5	3	3	2	1	1					3	1	1		
B45	581	Cirrhosis of liver	10	7	7	2	5	1					1	7	13		
B46	590-637	Residual (580-539, 542, 544, 545, 573-578, 580, 632-587) of the gastro-intestinal system	6	5	5	1	4	1					2	7	20		
B47	590-594	Nephritis and nephrosis	15	13	13	4	9	1					1	2	6		
B48	610	Hyperplasia of prostate	1	1	1	1							1	1	1		
B49	620-629	Diseases of the skin and cellular tissue	1	2	2												
B50	690-719	Diseases of the bones and organs of movement	7	4	4	3	1	1									
B51	720-749	Congenital malformations	20	10	10	9	1						17	1	1		
B52	800-805	Birth injuries of early infancy and childhood	3	3	3	2	1						8	3	7		
B53	785-788	Infections of the newborn	2	2	2	3							1	1	1		
B54	788-776	Other diseases peculiar to early infancy and infancy unqualified	1	1	1												
B55	798-795	Symptoms, senility and ill-defined conditions	8	3	3	4							8	1	8		
B56	800-809	Motor vehicle accidents	70	42	42	15	27	5					6	12	30		
B57	810-815	All other accidents except falls	23	12	12	6	6	3					8	10	5		
B58	820-825	Falls	25	12	12	5	7	3					2	8	2		
B59	830-835	Suicide	4	1	1	2											
B60	840-845	Homicide	10	6	6	4											
B61	850-855	Police intervention, execution and operations of war	4	1	1	2											
B62	860-865	Residual	1008	517	517	385	65	96					81	13	71	290	552
			ALL CAUSES														

July 1, 1933, Estimated Population, 96,000. Total Resident Deaths, 1,003. Rate per 1,000 Population, 10.4.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF HUDSON COUNTY FOR 1953
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUDES	Total		White		Non-white		Age Groups by Years						
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
B1	001-188	Infective and parasitic diseases	168	104	28	11	8	4	3	2	4	20	72	34
B2	001-008	Tuberculosis of respiratory system	103	74	8	0	0	0	1	1	1	10	68	53
B3	010-019	Tuberculosis, other forms	10	12	1	24	64	22
B4	020-029	Syphilis and its sequelae	4	10	1	.....	.....	.....	.....	.....	.....	6	8	.....
B5	040-049	Typhoid fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B6	045-048	Dysentery, all forms .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B7	050-051	Scarlet fever and streptococcal sore throat .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B8	060	Diphtheria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B9	065	Whooping cough .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B10	070	Streptococcal infections .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B11	085	Plague .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B12	090	Acute poliomyelitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B13	094	Smallpox .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B14	100-108	Typhus and other febrile diseases .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B15	110-117	Malaria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B16	120-129	Residual (080-089, 041, 042, 044, 040, 032-054, 030-074, 081-083, 080-096, 120-195)	15	9	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
B17	130-139	Neoplasms	1580	673	516	.....	.....	.....	.....	.....	.....	.....	.....	.....
B18	140-149	Melanoma	639	349	22	.....	.....	.....	.....	.....	.....	.....	.....	.....
B19	210-239	Benign and unspecified neoplasms	1242	324	22	.....	.....	.....	.....	.....	.....	.....	.....	.....
B20	240-289	Malignant neoplasms .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B21	290-299	Allergic, endocrine system, metabolic and nutritional diseases	190	74	108	2	0	3	0	1	5	71	110	.....
B22	300-309	Diabetes mellitus	150	54	91	2	3	3	1	1	3	62	94	.....
B23	310-319	Diseases of the blood and blood-forming organs	1094	26	174	.....	.....	.....	.....	.....	.....	.....	.....	.....
B24	320-329	Residual (341-345, 350-354, 370-377, 380-389)	21	6	15	.....	.....	.....	.....	.....	.....	.....	.....	.....
B25	330-339	Anemias	10	7	10	.....	.....	.....	.....	.....	.....	.....	.....	.....
B26	340-349	Residual (294-296)	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
B27	350-359	Genital, psychoneurotic and personality disorders	28	18	10	.....	.....	.....	.....	.....	.....	.....	.....	.....
B28	360-369	Alcoholism	1094	261	341	.....	.....	.....	.....	.....	.....	.....	.....	.....
B29	370-379	Vascular lesions affecting central nervous system	20	11	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
B30	380-389	Nonmicrovascular neurosis	6	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
B31	390-399	Residual (391-393, 395-397, 390-398, 390-398)	3524	1089	1478	.....	.....	.....	.....	.....	.....	.....	.....	.....
B32	400-409	Rheumatic fever	45	23	21	.....	.....	.....	.....	.....	.....	.....	.....	.....
B33	410-419	Chronic rheumatic heart disease	120	57	68	.....	.....	.....	.....	.....	.....	.....	.....	.....
B34	420-429	Arteriosclerotic and degenerative heart disease	2839	1045	1109	40	85	.....	.....	.....	.....	.....	.....	.....
B35	430-439	Other diseases of heart	83	32	26	.....	.....	.....	.....	.....	.....	.....	.....	.....
B36	440-449	Ischemic heart disease	320	130	109	.....	.....	.....	.....	.....	.....	.....	.....	.....
B37	450-459	Residual (460-466, 460-483)	117	58	67	.....	.....	.....	.....	.....	.....	.....	.....	.....
B38	460-469	Diseases of the respiratory system	254	148	91	12	12	.....	.....	.....	.....	.....	.....	.....
B39	470-527	Influenza	7	4	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
B40	530-539	Pneumonia	199	108	78	10	10	.....	.....	.....	.....	.....	.....	.....
B41	540-549	Bronchitis	46	30	7	.....	.....	.....	.....	.....	.....	.....	.....	.....
B42	550-557	Diseases of the digestive system	391	229	123	4	4	.....	.....	.....	.....	.....	.....	.....
B43	560-569	Diseases of the stomach and duodenum	54	47	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
B44	570-579	Intestinal obstruction and hernia	11	8	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
B45	580-589	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	48	27	20	.....	.....	.....	.....	.....	.....	.....	.....	.....
B46	590-599	Diseases of the genito-urinary system	147	98	46	.....	.....	.....	.....	.....	.....	.....	.....	.....
B47	600-609	Nephritis and nephrosis	57	37	20	.....	.....	.....	.....	.....	.....	.....	.....	.....
B48	610	Residual (600-609, 611, 604-606, 600-637)	62	24	35	.....	.....	.....	.....	.....	.....	.....	.....	.....
B49	620-629	Pregnancy, childbirth and the puerperium	52	28	26	.....	.....	.....	.....	.....	.....	.....	.....	.....
B50	630-639	Diseases of the skin and cellular tissue	9	3	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
B51	640-649	Diseases of the bones and organs of movement	69	41	25	.....	.....	.....	.....	.....	.....	.....	.....	.....
B52	650-659	Certain diseases of infancy	144	102	90	.....	.....	.....	.....	.....	.....	.....	.....	.....
B53	660-669	Birth injuries, postnatal asphyxia and atelectasis	20	16	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
B54	670-679	Other diseases peculiar to early infancy and immaturity	70	40	23	.....	.....	.....	.....	.....	.....	.....	.....	.....
B55	680-689	Syphilis, congenital and ill-defined conditions	271	182	70	.....	.....	.....	.....	.....	.....	.....	.....	.....
B56	690-699	Accidents, poisonings and violence	62	39	17	.....	.....	.....	.....	.....	.....	.....	.....	.....
B57	700-709	Motor vehicle accidents	53	30	20	.....	.....	.....	.....	.....	.....	.....	.....	.....
B58	710-719	All other accidents except falls	88	48	34	.....	.....	.....	.....	.....	.....	.....	.....	.....
B59	720-729	Falls	68	38	13	.....	.....	.....	.....	.....	.....	.....	.....	.....
B60	730-739	Suicide	8	5	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
B61	740-749	Police intervention, execution and operations of war .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B62	750-759	ALL CAUSES	7105	3906	2984	147	144	288	507	37	70	482	2510	3724	

July 1, 1953, Estimated Population, 606,090.

Total Resident Deaths, 7,165.

Rate per 1,000 Population, 10.8.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF BAYONNE FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	001-138	Infective and parasitic diseases	7	1	1	1											
B2	001-008	Tuberculosis of respiratory system	5	1	1	1											
B3	002-019	Tuberculosis, other forms	2														
B4	003-029	Scarlet fever	2														
B5	040	Diphtheria	1														
B6	048	Cholera															
B7	045-048	Dysentery, all forms															
B8	060-061	Scarlet fever and streptococcal sore throat															
B9	068	Diphtheria															
B10	087	Whooping cough															
B11	088	Measles															
B12	084	Scarlet fever															
B13	081	Smallpox															
B14	085	Measles															
B15	100-108	Typhus and other rickettsial diseases															
B16	109-117	Malaria															
B17	110-117	Residual (890-939, 041, 042, 044, 049, 052-054, 056-059)	1	1	1	1											
B18	140-230	Neoplasms	135	74	39	2											
B19	140-205	Malignant neoplasms	132	70	37	2											
B20	240-289	Benign and unspecified neoplasms	3	4	2												
B21	290-299	Allergic, endocrine system, metabolic and nutritional	15	7	9												
B22	300-329	Diabetes mellitus	12	4	7												
B23	330-334	Diseases of the blood and blood-forming organs	3	1	2												
B24	340	Anemia	2	1	1												
B25	350-359	Menstrual disorders	1	1	2												
B26	360-369	Diseases of the nervous system	77	39	39												
B27	370-379	Neuronal lesions affecting central nervous system	7	3	3												
B28	380-384	Nonmeningeococcal meningitis	1	1	1												
B29	385-389	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	2	2	2												
B30	400-468	Residual (240-243, 250-254, 270-277, 280-289)	378	209	161	6											
B31	470-527	Diseases of the circulatory system	2	1	1												
B32	430-440	Chronic rheumatic heart disease	1	1	1												
B33	440-416	Arteriosclerotic and degenerative heart disease	171	117	117	5											
B34	420-422	Myocardial infarction	3	3	3												
B35	430-444	Other diseases of heart	48	18	29												
B36	445-447	Diseases of the pericardium	3	3	3												
B37	448-447	Hypertension without mention of heart disease	3	3	3												
B38	450-458, 460-468	Residual (450-458, 460-468)	22	10	10	1											
B39	469-483	Diseases of the respiratory system	22	10	10	1											
B40	484-483	Influenza	8	8	8												
B41	485-487	Pneumonia	4	4	4												
B42	500-502	Bronchitis	3	3	3												
B43	530-537	Residual (470-475, 510-527)	35	24	11												
B44	540-543	Diseases of the digestive system	4	4	4												
B45	550-553	Lesions of stomach and duodenum	4	4	4												
B46	560, 561, 570	Intestinal obstruction and hernia	2	2	2												
B47	543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	3	1	2												
B48	581	Diarrhea of newborn	14	10	4												
B49	582-587	Obstruction of bowels	9	5	4												
B50	590-594	Diseases of the genito-urinary system	9	6	4												
B51	610	Nephritis and nephrosis	1	1	1												
B52	620-629	Hyperplasia and neoplasia of genito-urinary organs	1	1	1												
B53	630-637	Pregnancy, childbirth and the puerperium	1	1	1												
B54	640-689	Diseases of the skin and cellular tissue	1	1	1												
B55	720-749	Diseases of the bones and organs of movement	1	1	1												
B56	750-759	Congenital malformations	4	3	3												
B57	760-762	Birth injuries, postnatal asphyxia and asolelectra	10	7	5												
B58	763-768	Infections of the newborn	1	1	1												
B59	769-776	Other diseases peculiar to early infancy and infancy unqualified and ill-defined conditions	4	1	2												
B60	780-795	Accidents, poisonings and violence	20	21	6												
B61	800-809	Motor vehicle accidents	6	5	1												
B62	810-815	All other accidents except falls	9	8	1												
B63	820-829	Falls	0	0	0												
B64	830-835	Struck by or against object	1	1	1												
B65	836-840	Shocks	2	1	1												
B66	841-844	Intoxication	3	1	1												
B67	845-849	Force intervention, execution, and operations of war	2	1	1												
B68	850-899	ALL CAUSES	738	408	300	12	9	26	6	4	8	74	250	340			

July 1, 1933, Estimated Population, 89,000.

Total Resident Deaths, 738.

Rate per 1,000 Population, 0.2.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF HOBOKEN FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-133	Infective and parasitic diseases	17	15	15	2										
B2	001-008	Tuberculosis, other forms	13	12	12	1										
B3	010-019	Syphilis and its sequelae	1	2	2											
B4	020-029	Typhoid fever	1													
B5	033	Dysentery, all forms														
B6	045-048	Scarlet fever and streptococcal sore throat														
B7	050, 061	Diphtheria														
B8	065	Whooping cough														
B9	071	Whooping cough														
B10	057	Acute poliomyelitis														
B11	053	Plague														
B12	080	Acute poliomyelitis														
B13	084	Smallpox														
B14	084	Smallpox														
B15	100-106	Typhus and other rickettsial diseases														
B16	110-117	Malaria and other rickettsial diseases														
B17	089-074, 081-088, 086-066, 120-133	Residual (680-039, 041, 042, 044, 046, 052-054, 059-074, 081-088, 086-066, 120-133)	114	59	53	1										
B18	140-230	Neoplasms	112	59	51	1										
B19	210-230	Neoplasms	2													
B20	240-280	Residual (240-231, 270-277, 280-285)	27	11	15											
B21	290-200	Diseases of the blood and blood-forming organs	5	3	3											
B22	290-203	Anemias	4	1	3											
B23	300-320	Diseases psychoneurotic and personality disorders	1													
B24	330-368	Diseases of the endocrine and sense organs	46	21	25											
B25	330-334	Vascular lesions affecting cerebral and nervous system	2	17	23											
B26	340	Nonmeningeococcal meningitis	2	3	3											
B27	400-068	Residual (341-345, 350-357, 360-369, 370-380, 390-395)	328	212	114	2										
B28	410-418	Rheumatic fever, the circulatory system	3													
B29	420-422	Chronic rheumatic heart disease	17	1	3											
B30	430-434	Arteriosclerotic and degenerative heart disease	297	17	28											
B31	440-444	Other diseases of heart	3	2	2											
B32	444-447	Diseases of heart with heart disease	38	22	16											
B33	448-452	Other diseases of heart	3	1	2											
B34	414-417	Hypertension with infarction of heart	3	4	3											
B35	414-417	Hypertension with infarction of heart	3	1	2											
B36	470-527	Residual (450-456, 480-485)	22	10	19											
B37	430-458	Influenza														

B31	490-493	Pneumonia	17	8	1												
B32	500-602	Bronchitis	2														
B33	530-537	Residual (470-475, 510-527)	45	37	8												
B34	540	Diseases of the digestive system	4	4													
B35	550-553	Appendicitis, stomach and duodenum															
B36	560, 561, 570	Intestinal obstruction and hernia	3	2	1												
B37	563, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	4	3	1												
B38	581	Residual (530-539, 542, 544, 545, 570-573, 590, 582-587)	28	25	3												
B39	590-637	Diseases of the genito-urinary system	6	6	2												
B40	610-680	Nephritis and nephrosis	3	1	5												
B41	690-716	Residual (600-606, 617, 650-659, 630-637)	3	3	2												
B42	720-749	Pregnancy, childbirth and the puerperium	1														
B43	750-776	Diseases of the skin and cellular tissue	8	8	1												
B44	780-782	Diseases of the bones and organs of movement	10	9	1												
B45	790-796	Certain deformations, burns, scalds, frostbite, and other injuries of the newborn	1	1													
B46	800-808	Infections of the newborn	4	3	1												
B47	810-835	Other diseases peculiar to early infancy and infancy	1	1	4												
B48A	830-802, 830-807, 830-804	Strabismus, unqualified and qualified conditions	2	1	3												
B48B	830-802, 830-807, 830-804	Accidents, poisonings and violence	8	21	8												
B49	840-844	Motor vehicle accidents	10	8	2												
B50	850-855	All other accidents except falls	4	3	2												
B51	860-864	Falls	4	3	2												
B52	870-879	Suicide	4	3	3												
B53	880-884	Homicide	1	1	3												
B54	890-899	Police intervention, execution and operations of war	1	1	1												
B55	901-999	ALL CAUSES	688	413	247	4	4	4	22	5	4	6	55	246	330		

July 1, 1933, Estimated Population, 52,000.

Total Resident Deaths, 688.

Rate per 1,000 Population, 12.5.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF JERSEY CITY FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	White		Non-white		Age Groups by Years							
			Total		Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
			Male	Female	Male	Female								
B1	001-138	Infective and parasitic diseases	86	113	10	8	4	2	1	2	20	26	21	..
B1	001-008	Tuberculosis of respiratory system	57	34	5	6	..	..	..	..	17	20	12	..
B2	010-019	Tuberculosis, other forms	1	1	8	..	..	..	..	..	1	1	..	..
B3	020-029	Subcutaneous, other forms	..	..	..	..	..	..	..	..	..	..	..	..
B4	030-039	Typhoid fever	11	7	2	1	..	..	..	..	..	5	0	..
B5	040	Cholera	..	..	..	..	..	..	..	..	..	..	..	..
B6	045-048	Dysentery, all forms	..	..	..	..	..	..	..	..	..	..	..	..
B7	050, 051	Scarlet fever and streptococcal sore throat	1	1	..	..	..	..	..	..	..	..	..	..
B8	060	Diphtheria	..	..	..	..	..	..	..	..	..	..	..	..
B9	065	Whooping cough	..	..	..	..	..	..	..	..	..	..	..	..
B10	067	Meningococcal infections	3	2	..	..	..	..	..	..	..	..	..	..
B11	068	Plague	..	..	..	..	..	..	..	..	..	..	..	..
B12	070	Septic polyomyelitis	1	1	..	..	..	..	..	..	..	..	..	..
B13	080	Scarlet fever	..	..	..	..	..	..	..	..	..	..	..	..
B14	085	Measles	..	..	..	..	..	..	..	..	..	..	..	..
B15	100-108	Typhus and other rickettsial diseases	..	..	..	..	..	..	..	..	..	..	..	..
B16	110-117	Malaria	..	..	..	..	..	..	..	..	..	..	..	..
B17	120-127	Residual (001-039, 045, 048, 052-054, 059, 074, 081-083, 088-096, 120-125)	19	7	4	1	2	1	1	2	2	4	2	..
B18	140-239	Neoplasms	612	315	264	4	..	..	..	..	..	..	..	..
B19	140-205	Malignant neoplasms	504	300	247	20	..	..	..	..	..	..	..	..
B20	210-239	Benign and unspecified neoplasms	18	9	7	..	..	..	..	..	..	..	..	..
B21	240-289	Alteric, endocrine system, metabolic and nutritional	79	69	69	2	1	1	1	1	1	1	..	..
B22	290	Diabetes mellitus	29	17	18	2	1	1	1	1	1	1	..	..
B23	290-299	Diseases of the blood and blood-forming organs	29	17	11	2	1	1	1	1	1	1	..	..
B24	300-329	Diseases of the nervous system and sense organs	13	6	7	..	..	..	..	..	..	..	..	..
B25	330-339	Mental, psychoneurotic and personality disorders	15	12	3	..	..	..	..	..	..	..	..	..
B26	340-344	Diseases of the circulatory system	314	130	164	7	3	4	3	12	8	20	..	..
B27	350-354	Myocardial infarction	255	122	154	6	3	1	2	8	8	18	..	..
B28	355-359	Residual (341-345, 350-357, 360-369, 370-389, 390-398)	59	8	6	..	..	..	..	..	..	..	..	..
B29	400-468	Diseases of the respiratory system	1644	841	700	53	44	3	3	93	531	694	..	..
B30	400-402	Rheumatic fever	10	4	6	..	..	..	..	..	..	..	..	..
B31	400-402	Acute rheumatic fever	10	4	6	..	..	..	..	..	..	..	..	..
B32	400-402	Chronic rheumatic fever	..	..	..	..	..	..	..	..	..	..	..	..
B33	400-422	Artificially induced infectious heart disease	13	28	39	..	..	..	..	..	..	..	..	..
B34	430-434	Other diseases of the heart	137	58	41	..	..	..	..	..	..	..	..	..
B35	440-443	Hypertension with heart disease	125	38	79	4	4	4	4	4	4	4	..	..
B36	444-447	Hypertension without mention of heart disease	27	98	14	3	4	4	4	4	4	4	..	..
B37	470-527	Diseases of the respiratory system	140	88	47	10	4	12	4	1	6	36	31	..
B38	480-483	Influenza	3	2	2	..	..	..	..	..	..	..	..	..
B39	500-502	Tracheitis	11	6	3	..	..	..	..	..	..	..	..	..
B40	500-504	Residual (470-475, 510-527)	24	17	4	..	..	..	..	..	..	..	..	..
B41	530-587	Diseases of the digestive system	181	105	68	5	5	2	3	1	2	10	70	85
B42	540, 541	Ulcer of stomach and duodenum	38	22	5	..	..	..	..	..	..	..	..	..
B43	550-559	Intestinal obstruction and hernia	26	12	13	..	..	..	..	..	..	..	..	..
B44	560, 561, 670	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	34	7	6	1	1	2	1	1	1	2	8	15
B45	570-579	Chronicity of newborn	67	42	22	1	2	1	2	1	10	38	19	..
B46	580-587	Diseases of the genito-urinary system	38	17	29	1	1	1	1	1	1	1	2	8
B47	590-594	Nephritis and nephrosis	75	39	30	2	2	2	2	2	2	2	13	21
B48	610	Residual (600-609, 611-617, 620-628, 630-637)	39	11	17	..	..	..	..	..	..	..	..	..
B49	640-689	Pregnancy, childbirth and the puerperium	35	18	13	2	2	2	2	2	2	2	4	21
B50	690-710	Diseases of the skin and cellular tissue	..	..	..	..	..	..	..	..	..	..	..	..
B51	720-710	Diseases of the bones and organs of movement	7	1	1	..	..	..	..	..	..	..	..	..
B52	700-702	Certain diseases of early infancy	104	47	32	6	3	3	2	2	2	2	2	..
B53	700-702	Birth injuries, postnatal asphyxia and atelectasis	51	18	19	6	3	3	3	3	3	3	3	..
B54	703-708	Infections of the newborn	3	6	2	1	1	1	1	1	1	1	1	..
B55	700-705	Other diseases peculiar to early infancy and immaturity	4	23	15	4	4	4	4	4	4	4	4	..
B56	730-739	Symptoms, sequelae and ill-defined conditions	46	3	3	..	..	..	..	..	..	..	..	..
B57	740-749	Accidents, poisonings and violence	145	96	40	6	2	2	2	4	19	27	49	42
B58	750-759	Motor vehicle accidents	39	17	8	3	2	2	2	2	2	2	2	8
B59	760-769	All other accidents except falls	44	24	12	6	2	1	2	5	10	10	14	..
B60	770-779	Falls	37	23	13	..	..	..	..	..	..	..	..	..
B61	780-789	Suicide	27	21	6	..	..	..	..	..	..	..	..	..
B62	790-799	Homicide	5	3	3	..	..	..	..	..	..	..	..	..
B63	800-809	Police intervention, execution and operations of war	2	2	..	..	..	..	..	..	..	..	..	..
B64	810-819	ALL CAUSES	3462	1768	1489	127	128	157	39	21	43	244	1195	1774

Total Resident Deaths, 3,492.

July 1, 1933, Estimated Population, 308,000.

Rate per 1,000 Population, 11.2.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF UNION CITY FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
E1	001-138	Infective and parasitic diseases	4	2	2	2			1						2	1
E2	001-139	Diseases of the respiratory system	2												1	1
E3	010-019	Tuberculosis of other organs	1	1											1	
E4	020-029	Syphilis and its sequelae														
E5	040	Typhoid fever														
E6	044	Cholera														
E7	045-048	Dysentery, all forms														
E8	050-051	Syphilis of ear and streptococcal sore throat														
E9	054	Diphtheria														
E10	055	Whooping cough														
E11	056	Meningococcal infections	1	1												
E12	058	Fague														
E13	061	Scarlet fever														
E14	065	Smallpox														
E15	100-108	Measles														
E16	109-116	Typhus and other rickettsial diseases														
E17	110-117	Malaria (001-039, 041-052, 054, 057, 059, 059-074, 081-083, 085-090, 120-128)														
E18	140-239	Neoplasms	102	43	43	10								4	39	10
E19	240-259	Malignant neoplasms	101	43	43	10								3	38	10
E20	260	Benzene and unspecified neoplasms	2	2										1	1	
E21	280-299	Diseases of the endocrine system, metabolic and nutritional	21	7	7	11										
E22	300-329	Diabetes mellitus	18	7	7	11										
E23	330-359	Diseases of the blood and blood-forming organs	3	3												
E24	360-369	Anemias (291-299)	2	2												
E25	370-399	Mental, psychomotoric and personality disorders	62	26	26	36								2	13	44
E26	400-469	Diseases of the nervous system and sense organs	52	22	22	31								2	11	39
E27	470-489	Vascular lesions affecting central nervous system	4	4												
E28	490-519	Residual (541-545, 550-557, 800-809, 870-880, 890-899)	343	154	154	140								15	108	225
E29	520-539	Diseases of the circulatory system	19	4	4	10										
E30	540-559	Rheumatic fever	10	4	4	10										
E31	560-579	Chronic rheumatic heart disease	27	10	10	10								4	10	42
E32	580-599	Diseases of the heart and circulatory system (other diseases of heart and circulatory system)	47	6	6	21								1	2	49
E33	600-619	Hypertension with heart disease	10	4	4	6										
E34	620-639	Residual (450-469, 490-499)	11	11	6	6								2	8	19
E35	640-659	Diseases of the respiratory system	27	12	12	15								1	2	19
E36	660-689	Influenza	5	1	1	4										
E37	690-719	Pneumonia	19	12	12	10								1	7	8
E38	720-739	Bronchitis	5	5	5	5										
E39	740-759	Diseases of the digestive system	8	2	2	6										
E40	760-779	Diseases of the mouth and pharynx	2	2												
E41	780-799	Diseases of the stomach and duodenum	1	1												
E42	800-819	Intestinal obstruction and hernia	7	6	1	1										
E43	820-839	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	8	4	4	4										
E44	840-859	Residual (600-639, 642, 644, 645, 673-678, 680, 682-687)	6	5	5	3										
E45	860-879	Diseases of the genito-urinary system	1	1	1	1										
E46	880-899	Diseases of the genital organs (excluding gonorrhoea)	1	1	1	1										
E47	900-919	Pregnancy, childbirth and the puerperium	3	2	2	2										
E48	920-939	Diseases of the bones and cartilages	1	1	1	1										
E49	940-959	Congenital malformations	10	7	7	3										
E50	960-979	Certain diseases of early infancy	19	10	10	5										
E51	980-999	Birth injuries, postnatal asphyxia and atelectasis	5	4	4	1										
E52	000-009	Infections of the umbilicus in early infancy and immaturely unqualified	2	2	2	2										
E53	010-019	Symptoms, senility and ill-defined conditions	2	2	2	2										
E54	020-029	Accidents, poisonings and violence	1	1	1	1										
E55	030-039	Motor vehicle accidents	1	1	1	1										
E56	040-049	All other accidents except falls	2	2	2	2										
E57	050-059	Falls	3	3	3	3										
E58	060-069	Strokes	5	5	5	5										
E59	070-079	Police intervention, execution and operations of war	1	1	1	1										
E60	080-089	All other causes	640	348	348	301								27	31	190

July 1, 1933, Estimated Population, 57,060.

Total Resident Deaths, 640.

Rate per 1,000 Population, 11.4.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF HUNTERDON COUNTY FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years						
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown
R1	001-138	Infective and parasitic diseases	7	5	2	1	1	1	1	1	1	1	1	1	2
R2	001-008	Tuberculosis of respiratory system	5	3	2	1	1	1	1	1	1	1	1	1	2
R3	010-010	Tuberculosis, other forms	2	2	0	1	1	1	1	1	1	1	1	1	2
R4	040-039	Typhoid and its sequelae	1	1	0	1	1	1	1	1	1	1	1	1	2
R5	048	Cholera	1	1	0	1	1	1	1	1	1	1	1	1	2
R6	045-046	Dysentery, all forms	1	1	0	1	1	1	1	1	1	1	1	1	2
R7	050-061	Scarlet fever and streptococcal sore throat	1	1	0	1	1	1	1	1	1	1	1	1	2
R8	055	Diphtheria	1	1	0	1	1	1	1	1	1	1	1	1	2
R9	056	Whooping cough	1	1	0	1	1	1	1	1	1	1	1	1	2
R10	057	Measles	1	1	0	1	1	1	1	1	1	1	1	1	2
R11	068	Acute poliomyelitis	1	1	0	1	1	1	1	1	1	1	1	1	2
R12	080	Smallpox	1	1	0	1	1	1	1	1	1	1	1	1	2
R13	084	Scarlet fever	1	1	0	1	1	1	1	1	1	1	1	1	2
R14	090-108	Meningococcal infections	1	1	0	1	1	1	1	1	1	1	1	1	2
R15	110-117	Typhus and other rickettsial diseases	1	1	0	1	1	1	1	1	1	1	1	1	2
R16	118	Malaria	1	1	0	1	1	1	1	1	1	1	1	1	2
R17	039-074, 081-085, 080-086, 120-138	Residual (680-039, 641, 642, 644, 646, 652-084, 653-074, 681-085, 080-086, 120-138)	85	51	34	1	1	1	1	1	1	1	1	1	20
R18	140-239	Neoplasms	64	31	33	1	1	1	1	1	1	1	1	1	25
R19	210-239	Malignant neoplasms	54	28	26	1	1	1	1	1	1	1	1	1	50
R20	240-250	Benign and unspecified neoplasms	10	3	7	1	1	1	1	1	1	1	1	1	50
R21	290-299	Diseases of the blood and blood-forming organs	17	3	14	1	1	1	1	1	1	1	1	1	7
R22	300-320	Anemia (501-509)	1	1	0	1	1	1	1	1	1	1	1	1	4
R23	330-334	Leukemia (520-529)	1	1	0	1	1	1	1	1	1	1	1	1	4
R24	400-468	Diseases of the nervous system and sense organs	70	34	36	1	1	1	1	1	1	1	1	1	10
R25	470-476	Alzheimer's disease	7	3	4	1	1	1	1	1	1	1	1	1	10
R26	480-482	Vascular lesions affecting central nervous system	33	15	18	1	1	1	1	1	1	1	1	1	10
R27	483-484	Nonmeningeal meningitis	2	1	1	1	1	1	1	1	1	1	1	1	4
R28	485-486	Encephalitis (530-539, 570-580, 590-598)	2	1	1	1	1	1	1	1	1	1	1	1	4
R29	440-443	Diseases of the circulatory system	230	138	92	1	1	1	1	1	1	1	1	1	2
R30	450-457	Rheumatic fever	189	115	74	1	1	1	1	1	1	1	1	1	44
R31	458-463	Chronic rheumatic heart disease	1	1	0	1	1	1	1	1	1	1	1	1	188
R32	464-467	Arteriosclerotic and degenerative heart disease	1	1	0	1	1	1	1	1	1	1	1	1	2
R33	468-471	Myocardial infarction	1	1	0	1	1	1	1	1	1	1	1	1	2
R34	472-473	Hypertension with heart disease	1	1	0	1	1	1	1	1	1	1	1	1	87
R35	474-475	Hypertension without mention of heart	1	1	0	1	1	1	1	1	1	1	1	1	5
R36	476-477	Residual (450-456, 460-468)	10	10	0	1	1	1	1	1	1	1	1	1	21
R37	478-483	Diseases of the respiratory system	14	14	0	1	1	1	1	1	1	1	1	1	13
R38	484-488	Influenza	1	1	0	1	1	1	1	1	1	1	1	1	8

R39	500-527	Pneumonia	8	5	3	1	1	1	1	1	1	1	1	1	2
R40	528-533	Bronchitis	1	1	0	1	1	1	1	1	1	1	1	1	2
R41	534-537	Residual (470-475, 510-527)	4	4	0	1	1	1	1	1	1	1	1	1	4
R42	538-541	Ulcer of stomach and duodenum	20	5	15	1	1	1	1	1	1	1	1	1	3
R43	542-543	Appendicitis	7	7	0	1	1	1	1	1	1	1	1	1	3
R44	544-545	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	2	2	0	1	1	1	1	1	1	1	1	1	4
R45	546-547	Cirrhosis of liver	4	3	1	1	1	1	1	1	1	1	1	1	1
R46	548-553	Residual (530-539, 542, 544, 546, 578-579, 580)	2	1	1	1	1	1	1	1	1	1	1	1	2
R47	554-557	Diseases of the genito-urinary system	12	10	2	1	1	1	1	1	1	1	1	1	4
R48	558-563	Nephritis and nephrosis	6	6	0	1	1	1	1	1	1	1	1	1	8
R49	564-567	Hyperplasia of prostate (560-569, 630-637)	3	2	1	1	1	1	1	1	1	1	1	1	1
R50	568-573	Diseases of the skin and cellular tissue	3	2	1	1	1	1	1	1	1	1	1	1	2
R51	574-579	Diseases of the bones and organs of movement	3	2	1	1	1	1	1	1	1	1	1	1	2
R52	580-583	Congenital malformations	12	6	6	1	1	1	1	1	1	1	1	1	2
R53	584-587	Certain diseases of early infancy and adolescence	8	0	8	1	1	1	1	1	1	1	1	1	2
R54	588-593	Other diseases peculiar to early infancy and immaturity unqualified	4	3	1	1	1	1	1	1	1	1	1	1	2
R55	594-597	Symptoms, sequelae and ill-defined conditions	33	21	12	1	1	1	1	1	1	1	1	1	6
R56	598-603	Motor vehicle accidents	15	11	4	1	1	1	1	1	1	1	1	1	8
R57	604-609	Motor vehicle accidents	7	4	3	1	1	1	1	1	1	1	1	1	2
R58	610-615	All other accidents except falls	4	2	2	1	1	1	1	1	1	1	1	1	2
R59	616-621	Falls	1	1	0	1	1	1	1	1	1	1	1	1	3
R60	622-627	Suicide	4	4	0	1	1	1	1	1	1	1	1	1	2
R61	628-633	Homicide	1	1	0	1	1	1	1	1	1	1	1	1	2
R62	634-639	Police intervention, execution and operations of war	1	1	0	1	1	1	1	1	1	1	1	1	2
R63	640-645	All causes	510	270	240	1	3	25	3	6	6	30	116	333	833

July 1, 1933, Estimated Population, 44,000. Total Resident Deaths, 510. Rate per 1,000 Population, 11.8.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF MERCER COUNTY FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-138	Infective and parasitic diseases	75	30	10	6	14	6	8	17	27	24	21	15	21	15
B12	010-010	Tuberculosis, other forms	53	31	8	8	11	8	1	14	21	21	14	11	14	15
B13	030-029	Syphilis and its sequelae	4	1	1	1	1	1	1	1	1	1	1	1	1	1
B14	040	Cyphoid fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B15	043-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B16	050-061	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B17	065	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B18	065	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B19	065	Staphylococcal infections	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B20	065	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B21	084	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B22	100-108	Typhoid	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B23	110-117	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B24	140-159	Residual (080-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-130)	9	2	5	1	11	10	1	1	1	1	1	1	1	1
B25	160-209	Neoplasms	422	229	100	5	11	16	1	1	1	1	1	1	1	1
B26	210-239	Injury, poisoning and unspecified non-specific	430	229	108	11	16	15	2	2	2	2	2	2	2	2
B27	240-289	Alleged, endocrine system, metabolic and nutritional diseases	2	2	2	1	1	1	1	1	1	1	1	1	1	1
B28	290	Diabetes mellitus	5	2	3	1	4	1	1	1	1	1	1	1	1	1
B29	290-299	Diseases of the blood and blood-forming organs	63	16	32	1	4	1	1	1	1	1	1	1	1	1
B30	300-309	Anemias	12	6	6	1	3	2	1	1	1	1	1	1	1	1
B31	310	Residual (294-299)	4	2	3	2	1	1	1	1	1	1	1	1	1	1
B32	320-329	Mental, psychoneurotic and personality disorders	17	6	10	1	1	1	1	1	1	1	1	1	1	1
B33	330-339	Alcoholism, drug addiction, syphilis and sense organs	2	1	1	1	1	1	1	1	1	1	1	1	1	1
B34	340-349	Vascular lesions affecting the nervous system	2	1	1	1	1	1	1	1	1	1	1	1	1	1
B35	350-359	Nonmeningeococcal meningitis	270	108	142	12	8	14	8	1	1	1	1	1	1	1
B36	360-369	Residual (341-345, 350-357, 360-369, 370-380, 390-398)	4	4	2	2	2	2	2	2	2	2	2	2	2	2
B37	400-483	Rheumatic fever, rheumatic heart disease, rheumatic mitral stenosis, chorea, chorea minor, chorea major, chorea minor, chorea major, chorea minor, chorea major	1107	570	465	38	8	38	38	1	1	1	1	1	1	1
B38	490-502	Arteriosclerotic and degenerative heart disease	11	7	11	1	1	1	1	1	1	1	1	1	1	1
B39	510-519	Other diseases of heart	845	470	323	20	25	2	2	2	2	2	2	2	2	2
B40	520-529	Hypertension with heart disease	17	11	6	1	1	1	1	1	1	1	1	1	1	1
B41	530-539	Hyperemia with heart disease	140	40	78	6	10	1	1	1	1	1	1	1	1	1
B42	540-549	Myocarditis with heart disease	11	8	5	1	3	1	1	1	1	1	1	1	1	1
B43	550-559	Myocarditis without heart disease	11	8	5	1	3	1	1	1	1	1	1	1	1	1
B44	560-569	Residual (490-499, 500-509, 510-519, 520-529, 530-539, 540-549, 550-559, 560-569, 570-579, 580-589, 590-599, 600-609, 610-619, 620-629, 630-639, 640-649, 650-659, 660-669, 670-679, 680-689, 690-699, 700-709, 710-719, 720-729, 730-739, 740-749, 750-759, 760-769, 770-779, 780-789, 790-799, 800-809, 810-819, 820-829, 830-839, 840-849, 850-859, 860-869, 870-879, 880-889, 890-899, 900-909, 910-919, 920-929, 930-939, 940-949, 950-959, 960-969, 970-979, 980-989, 990-999)	102	55	51	1	1	1	1	1	1	1	1	1	1	1
B45	470-527	Influenza	3	1	1	1	1	1	1	1	1	1	1	1	1	1
B46	480-483	Influenza	3	1	1	1	1	1	1	1	1	1	1	1	1	1

July 1, 1933, Estimated Population, 238,000. Total Resident Deaths, 2,518. Rate per 1,000 Population, 10.6.

ALL CAUSES

Estimated Population, 238,000. Total Resident Deaths, 2,518. Rate per 1,000 Population, 10.6.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF TRENTON FOR 1953
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	601-188	Infective and parasitic diseases	51	14	25	9	7	5	1	1	1	2	15	27	1	1	1
B2	010-019	Tuberculosis of respiratory system	40	20	23	14	7	3	5	1	1	2	12	17	11	1	1
B3	020-029	Typhoid and typhus	5	3	3	2	1	1	1	1	1	1	1	1	1	1	1
B4	030-039	Shigellosis and its sequelae	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
B5	040-049	Typhoid fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B6	050-059	Cholera	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B7	060-069	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B8	070-079	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B9	080-089	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B10	090-099	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B11	100-109	Meningococcal infections	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B12	110-119	Scarlet fever	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B13	120-129	Varicella	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B14	130-139	Measles	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B15	140-149	Typhus and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B16	150-159	Residual (630-639, 641, 642, 644, 646, 652-654, 656-659)	239	90	132	90	7	10	1	1	1	1	1	1	1	1	1
B17	160-169	Neoplasms	238	132	89	7	10	10	1	1	1	1	1	1	1	1	1
B18	200-209	Malignant neoplasms	238	132	89	7	10	10	1	1	1	1	1	1	1	1	1
B19	210-219	Benign and unspecified neoplasms	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B20	220-229	Diseases of endocrine system, metabolic and nutritional diseases	47	10	25	9	2	8	1	1	1	1	1	1	1	1	1
B21	230-239	Diabetes mellitus	37	15	17	6	2	3	1	1	1	1	1	1	1	1	1
B22	240-249	Diseases of the blood and blood-forming organs	10	4	4	1	1	1	1	1	1	1	1	1	1	1	1
B23	250-259	Residual (240-249, 250-254, 270-277, 280-289)	6	3	3	1	1	1	1	1	1	1	1	1	1	1	1
B24	300-309	Ascites	3	3	3	1	1	1	1	1	1	1	1	1	1	1	1
B25	310-319	Mental, psychoneurotic and personality disorders	189	73	94	12	10	8	1	1	1	1	1	1	1	1	1
B26	320-329	Diseases of the nervous system and sense organs	181	73	90	10	12	8	1	1	1	1	1	1	1	1	1
B27	330-339	Vascular lesions affecting central nervous system	181	73	90	10	12	8	1	1	1	1	1	1	1	1	1
B28	340-349	Residual (330-339, 340-349, 370-389, 390-399)	6	3	3	1	1	1	1	1	1	1	1	1	1	1	1
B29	400-409	Diseases of the circulatory system	328	258	22	22	22	22	2	2	2	2	2	2	2	2	2
B30	410-419	Chronic rheumatic heart disease	20	9	10	10	10	10	1	1	1	1	1	1	1	1	1
B31	420-429	Coronary atherosclerosis	482	204	188	10	16	14	1	1	1	1	1	1	1	1	1
B32	430-439	Other diseases of heart	7	3	3	3	3	3	1	1	1	1	1	1	1	1	1
B33	440-449	Hypertension with mention of heart	30	10	8	3	3	5	1	1	1	1	1	1	1	1	1
B34	450-459	Residual (430-439, 460-469)	36	10	17	1	1	1	1	1	1	1	1	1	1	1	1
B35	470-479	Diseases of the respiratory system	61	27	23	8	3	3	5	5	5	5	5	5	5	5	5
B36	480-489	Influenza	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

B37	500-509	Pneumonitis	40	21	10	7	2	2	2	2	2	2	2	2	2	2	2
B38	510-519	Residual (470-475, 510-527)	16	5	8	2	1	1	1	1	1	1	1	1	1	1	1
B39	520-529	Diseases of the digestive system	82	44	28	6	4	4	4	4	4	4	4	4	4	4	4
B40	530-539	Appendicitis	4	1	3	1	1	1	1	1	1	1	1	1	1	1	1
B41	540-549	Intestinal obstruction and hernia	8	2	4	1	1	2	2	2	2	2	2	2	2	2	2
B42	550-559	Gastritis, duodenitis, enteritis and colitis, except chronic of newborn	6	3	1	2	1	2	2	2	2	2	2	2	2	2	2
B43	560-569	Chronic of newborn	30	22	12	1	1	1	1	1	1	1	1	1	1	1	1
B44	570-579	Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)	16	5	8	2	1	1	1	1	1	1	1	1	1	1	1
B45	580-589	Diseases of the genito-urinary system and ureters	40	20	10	4	4	4	4	4	4	4	4	4	4	4	4
B46	590-599	Elymphatic diseases	24	15	8	2	2	2	2	2	2	2	2	2	2	2	2
B47	600-609	Residual (590-599, 611-617, 620-626, 630-637)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
B48	610-619	Pregnancy, childbirth and the puerperium	4	3	3	1	1	1	1	1	1	1	1	1	1	1	1
B49	620-629	Diseases of the skin and cellular tissue	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
B50	630-639	Diseases of the bones and organs of movement	2	1	3	1	1	1	1	1	1	1	1	1	1	1	1
B51	640-649	Birth injuries	45	21	10	5	2	2	2	2	2	2	2	2	2	2	2
B52	650-659	Birth injuries, postnatal asphyxia and atelectasis	45	21	10	5	2	2	2	2	2	2	2	2	2	2	2
B53	660-669	Infections of the newborn	6	3	1	2	1	2	2	2	2	2	2	2	2	2	2
B54	670-679	Other diseases peculiar to early infancy and lunacy	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B55	680-689	Symptoms, senility and ill-defined conditions	30	18	5	4	4	4	4	4	4	4	4	4	4	4	4
B56	690-699	Accidents, poisoning and violence	87	26	17	11	3	3	3	3	3	3	3	3	3	3	3
B57	700-709	Motor vehicle accidents	13	8	4	4	4	4	4	4	4	4	4	4	4	4	4
B58	710-719	All other accidents except falls	12	4	4	4	4	4	4	4	4	4	4	4	4	4	4
B59	720-729	Falls	13	8	4	1	1	1	1	1	1	1	1	1	1	1	1
B60	730-739	Suicide	11	6	4	1	1	1	1	1	1	1	1	1	1	1	1
B61	740-749	Miscellaneous	8	4	1	5	1	2	2	2	2	2	2	2	2	2	2
B62	750-759	Police intervention, execution and operations of war	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B63	760-769	ALL CAUSES	1491	730	504	89	69	69	77	77	77	77	77	77	77	77	77

July 1, 1953, Estimated Population, 131,000. Total Resident Deaths, 1,491. Rate per 1,000 Population, 11.4.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF MIDDLESEX COUNTY FOR 1953
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-188	Infective and parasitic diseases	60	39	24	4	2	2	0	11	3	1	1	7	17	20
B2	001-008	Tuberculosis	35	20	13				5	1	2			4	14	11
B3	010-019	Tuberculosis other	2	2					1					1	1	3
B4	040	Syphilis and its sequelae	0													
B5	020-029	Typhoid fever	0													
B6	042-048	Dysentery	1													
B7	050-061	Scarlet fever and streptococcal sore throat	1													
B8	065	Diphtheria	2	1												
B9	100	Whooping cough	1	1												
B10	035	Measles	1	1												
B11	083	Parasiticoecological infections	1	4	3				4							
B12	080	Acute poliomyelitis	2	2												
B13	084	Smallpox	0													
B14	100-108	Measles	0													
B15	110-117	Malaria and other tick-bite diseases	0													
B16	110-120	Residual (030-039, 041, 042, 044, 045, 052-055, 059-074, 081-085, 086-090, 120-128)	0	1	5									2	24	3
B17	140-205	Syphilis	517	267	290	10	8	8	1	9	5	1	6	4	216	6
B18	140-205	Menigitis	515	295	228	10	8	8	1	9	4	1	4	215	241	1
B19	210-259	Benign and unspecified neoplasms	2													
B20	200	Allergic, endocrine system, metabolic and nutritional diseases	89	37	50	1	1	1	2	2	2	1	1	4	38	40
B21	200-203	Diabetes mellitus	62	20	40	1	1	1	2	2	1	1	1	4	22	5
B22	200-203	Disease of the blood and blood-forming organs	27	17	10				2	2	1	1	2	0	11	3
B23	300-308	Anemia	4	2	1									1	3	3
B24	300-308	Residual (204-206)	11	0												
B25	400-402	Mental, psychoneurotic and personality disorders	11	0												
B26	410-410	Endocrine system and sense organs	203	132	122	5	4	4	1	3	3	13	70	106	1	
B27	420-422	Diseases of the central nervous system	248	124	115	5	4	4	1	1	1	1	7	101	1	
B28	330-334	Vascular lesions affecting the brain	13	8												
B29	400-402	Nonmeningeoconcal meningitis	1158	631	400	23	16	16	1	1	3	5	37	393	702	5
B30	400-402	Diseases of the circulatory system	2	2												
B31	410-410	Chronic rheumatic heart disease	2	2												
B32	420-422	Arterio-sclerotic and degenerative heart disease	966	530	310	22	9	9	0	1	1	1	11	24	9	
B33	430-434	Other diseases of heart	31	30	10				2	2	2	2	2	119	530	
B34	440-444	Hypertension with heart disease	112	47	62	2	1	1	1	1	1	1	1	8	10	
B35	440-444	Other diseases of the circulatory system	12	3	6	2	1	1	1	1	1	1	1	2	4	1
B36	444-447	Residual (430-439, 460) Diseases of heart	101	29	22	5	3	3	3	4	1	1	2	1	6	42
B37	470-527	Diseases of the respiratory system	101	51	38	5	3	3	12	4	1	1	1	9	24	48
B38	480-483	Influenza	4	1												

B39	590-593	Pneumonia	681	291	28	4	4	8	0	9	1	1	7	14	29	
B40	590-593	Residual (470-475, 510-527)	28	7	8	1	1	1	5	1	2	2	2	3	5	
B41	540-541	Diseases of the digestive system	97	63	31	1	1	1	4	2	1	2	17	35	89	
B42	560-563	Ulcer of stomach and duodenum	14	6	2								2	5	7	
B43	560-563	Appendicitis	6	6	0									1	5	
B44	570-572	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	10	9	0				2	2			2	7	7	
B45	580-583	Diarrhoea of newborn	0	3	6	1	1	1	2	1			1	3	2	
B46	590-593	Residual (580-589, 642, 644, 645, 675-678, 680, 682-697)	36	23	10	1	1	1					11	15	10	
B47	590-593	Diseases of the genito-urinary system	16	0	0								3	4	8	
B48	590-594	Nephritis and nephrosis	52	31	18	2	1	1					7	14	31	
B49	610	Hypertrophy of prostate	27	14	11	2	2	2					6	11	11	
B50	610	Residual (601-617, 619-620, 630-637)	13	4	5								3	7	13	
B51	610-619	Diseases of the skin and cellular tissue	1	1												
B52	720-749	Diseases of the bones and organs of movement	1	1												
B53	750-759	Congenital malformations	44	28	18	0	0	0	38	5	1	1	2	1	1	
B54	760-762	Birth injuries of the head and neck	41	20	10	4	1	1	32	1	1	1	1	2	1	
B55	763-768	Birth injuries of the trunk, arms and limbs	2	2					4							
B56	769-776	Infections of the newborn	0	0												
B57	780-786	Other diseases peculiar to early infancy and immature infancy	49	28	16	2	2	2	49							
B58	790-796	Symptoms, senility and ill-defined conditions	3	3	5	10	10	10	5	1	1	1	2	11	15	6
B59	800-803	Violence	17	14	4	1	1	1	5	1	2	1	1	10	18	13
B60	804-806	Motor vehicle accidents	60	42	12	5	1	1								
B61	800-806	All other accidents except falls	50	33	12	2	2	2	8	6	8	4	10	14	10	
B62	810-816	Falls	27	11	15	1	1	1	1							
B63	820-823	Suicide	33	27	6											
B64	830-833	Homicide	5	2	1											
B65	834-839	Police intervention, execution and operations of war	0	0												
B66	840-843	ALL CAUSES	2953	1483	1084	71	45	45	166	33	21	28	204	578	1353	

Rate per 1,000 Population, 0.7.

Total Resident Deaths, 2,685.

July 1, 1953, Estimated Population, 278,000.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF MONMOUTH COUNTY FOR 1933
Classified by International Abridged List of Causes (9th Revision)

Abridged List No.	Detail List No.	CAUSAL GROUPS	White		Non-white		Age Groups by Years									
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+	Unknown	
B1	001-138	Infective and parasitic diseases	38	13	13	10							9	10	14	
B2	001-008	Tuberculosis of respiratory system	19	10	3	5							6	6	7	
B3	020-029	Syphilis and its sequelae	3	1	2								1	1	1	
B4	040	Typhoid fever	6			4							1	5	3	
B5	043	Cholera														
B6	043-018	Dysentery, all forms														
B7	060-061	Typhus fever and streptococcal sore throat														
B8	066	Whooping cough														
B9	067	Meningococcal infections														
B10	088	Pneumonia														
B11	088	Whooping cough														
B12	084	Scarlet fever														
B13	084	Smallpox														
B14	085	Measles														
B15	100-108	Typhus and other rickettsial diseases														
B16	110-117	Malaria														
B17	039-074, 081-085, 084, 049, 052-064, 083-074, 081-083, 086-086, 130-187		461	104	259	116						3	3	3	2	2
B18	140-239	Neoplasms	471	104	259	116						3	3	3	2	2
B19	210-239	Malignant neoplasms	449	189	239	110						1	1	1	1	1
B20	240-259	Benign and unspecified neoplasms	12	5	6	6										
B21	260	Diabetes mellitus	67	59	34	9										
B22	300-326	Diseases of the blood and blood-forming organs	48	14	28	2										
B23	330-334	Diseases of the nervous system and sense organs	19	6	9	1										
B24	400-402	Alcoholism	3	3	2											
B25	400-402	Alcoholism	2	1	1											
B26	400-402	Alcoholism	1													
B27	430-434	Other diseases of heart	107	127	116	8										
B28	430-443	Other diseases of heart	240	101	116	8										
B29	444-447	Hypertension with mention of heart	183	69	83	5										
B30	470-527	Diseases of the respiratory system	97	41	56	3										
B31	480-483	Influenza	75	41	20	11										
B32	480-483	Influenza	6													

B31	490-498	Pneumonia	52	23	16	11										
B32	500-502	Bronchitis	2	2												
B33	530-537	Diseases of the digestive system	16	11	4											
B34	540-541	Ulcer, stomach and duodenum	108	84	42	9										
B35	540-541	Ulcer, stomach and duodenum	28	22	4											
B36	500, 501, 570	Intestinal obstruction and hernia	14	8	9											
B37	543, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	8	1	4	2										
B38	580-587	Diseases of the genito-urinary system	30	18	15	3										
B39	590-594	Nephritis and nephrosis	24	10	13	1										
B40	600-610	Residual (600-600, 611-617, 620-624, 630-637)	44	27	10	3										
B41	600-610	Pregnancy, childbirth and the puerperium	7	4	3											
B42	700-716	Diseases of the skin and cellular tissue	1	1												
B43	700-716	Certain diseases of early infancy	2	1	1											
B44	730-739	Birth injuries, postnatal asphyxia and atelectasis	83	42	18	5										
B45	730-739	Infections of the newborn	37	21	7	6										
B46	730-739	Septicemia due to early infancy and toxemia untypical	8	6												
B47	800-809	Symptoms, senility and ill-defined conditions	38	11	11	9										
B48	810-885	Accidents, poisonings and violence	152	89	34	23										
B49	890-895	Motor vehicle accidents	55	35	11	9										
B50	900-905	All other accidents except falls	38	24	5	7										
B51	905-910	Falls	29	14	9	1										
B52	910-915	Suicide	20	14	6											
B53	915-920	Homicide	1	1	3											
B54	920-925	Force intervention, execution and operations of war	12	1	1											
B55	001-999	ALL CAUSES	2722	1290	1160	161										

July 1, 1933, Estimated Population, 234,000. Total Resident Deaths, 2,722. Rate per 1,000 Population, 11.7.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF MORRIS COUNTY FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	White		Non-white		Age Groups by Years							
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-45-64	65+ Unknown	
														Male	Female
B81	600-083	Infective and parasitic diseases	37	22	15	1	1	1	1	1	1	1	1	1
B82	001-008	Tuberculosis of respiratory system	19	14	5	1	1	1	1	1	1	1	1	1
B83	002-009	Tuberculosis of brain	3	1	2									
B84	020-029	Syphilis and its sequelae	2	1	1									
B85	048	Typhoid fever	2	2										
B86	045-048	Cholera	2	2										
B87	060-061	Dysentery, all forms	1	1										
B88	068	Dysentery and streptococcal sore throat	1	1										
B89	066	Whooping cough	1	1										
B90	087	Meningococcal infections	1	1										
B91	083	Plague	1	1										
B92	089	Scarlet fever	5	4	1									
B93	085	Scarlatina	5	4	1									
B94	100-108	Measles	1	1										
B95	100-106	Typhus and other rickettsial diseases	1	1										
B96	110-117	Malaria	1	1										
B97	024	Neoplasms (890-939), 041, 042, 044, 049, 052-064, 069-074, 081-083, 086-096, 120-133)	4	1	3									
B98	140-239	Neoplasms (890-939), 041, 042, 044, 049, 052-064, 069-074, 081-083, 086-096, 120-133)	306	159	147	1	3	5	11	11	11	11	14	4
B99	140-206	Malignant neoplasms	301	148	153	1	3	5	11	11	11	14	4	
B100	210-239	Benign and unspecified neoplasms	5	2	3									
B200	240-289	Alberic, endocrine system, metabolic and nutritional	44	14	30	3	3	1	1	1	3	24	1	
B201	290-299	Diseases of the blood and blood-forming organs	11	7	4	1	1	1	1	1	1	1	1	
B202	290-298	Residual (240-245, 250-254, 270-277, 280-289)	6	3	3									
B203	300-326	Diseases of the nervous system and sense organs	2	2										
B204	300-325	Mental, psychoneurotic and personality disorders	2	1	1									
B205	330-309	Diseases of the nervous system and sense organs	159	75	84	4	2	6	5	5	5	5	5	5
B206	340	Residual (300-309, 350-359, 370-389, 390-399)	181	70	111	2	4	11	11	11	11	11	14	4
B207	400-468	Diseases of the circulatory system	778	415	363	13	12	1	4	3	31	189	55	2
B208	400-467	Rheumatic fever	22	11	11									
B209	400-465	Chronic rheumatic heart disease	612	364	248	12	9	10	16	10	16	10	16	5
B210	400-464	Other diseases of heart	144	39	105	1	1	1	21	106	436	1	1	1
B211	420-448	Other diseases with heart disease	64	23	41									
B212	440-448	Hypertension with heart disease	9	4	5									
B213	440-447	Hypertension without mention of heart disease	40	17	23	1	1	1	1	1	1	1	1	1
B214	470-527	Diseases of the respiratory system	3	2	1									
B215	480-483	Influenza	1	1										

July 1, 1933, Estimated Population, 171,000. Total Resident Deaths, 1,793. Rate per 1,000 Population, 10.0.

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B81	600-083	Infectious	37	22	15	1	1	1	1	1	1	1	1	1
B82	001-008	Tuberculosis of respiratory system	19	14	5	1	1	1	1	1	1	1	1	1
B83	002-009	Tuberculosis of brain	3	1	2									
B84	020-029	Syphilis and its sequelae	2	1	1									
B85	048	Typhoid fever	2	2										
B86	045-048	Cholera	2	2										
B87	060-061	Dysentery, all forms	1	1										
B88	068	Dysentery and streptococcal sore throat	1	1										
B89	066	Whooping cough	1	1										
B90	087	Meningococcal infections	1	1										
B91	083	Plague	1	1										
B92	089	Scarlet fever	5	4	1									
B93	085	Scarlatina	5	4	1									
B94	100-108	Measles	1	1										
B95	100-106	Typhus and other rickettsial diseases	1	1										
B96	110-117	Malaria	1	1										
B97	024	Neoplasms (890-939), 041, 042, 044, 049, 052-064, 069-074, 081-083, 086-096, 120-133)	4	1	3									
B98	140-239	Neoplasms (890-939), 041, 042, 044, 049, 052-064, 069-074, 081-083, 086-096, 120-133)	306	159	147	1	3	5	11	11	11	11	14	4
B99	140-206	Malignant neoplasms	301	148	153	1	3	5	11	11	11	14	4	1
B100	210-239	Benign and unspecified neoplasms	5	2	3									
B200	240-289	Alberic, endocrine system, metabolic and nutritional	44	14	30	3	3	1	1	1	3	24	1	1
B201	290-299	Diseases of the blood and blood-forming organs	11	7	4	1	1	1	1	1	1	1	1	1
B202	290-298	Residual (240-245, 250-254, 270-277, 280-289)	6	3	3									
B203	300-326	Diseases of the nervous system and sense organs	2	2										
B204	300-325	Mental, psychoneurotic and personality disorders	2	1	1									
B205	330-309	Diseases of the nervous system and sense organs	159	75	84	4	2	6	5	5	5	5	5	5
B206	340	Residual (300-309, 350-359, 370-389, 390-399)	181	70	111	2	4	11	11	11	11	11	14	4
B207	400-468	Diseases of the circulatory system	778	415	363	13	12	1	4	3	31	189	55	2
B208	400-467	Rheumatic fever	22	11	11									
B209	400-465	Chronic rheumatic heart disease	612	364	248	12	9	10	16	10	16	10	16	5
B210	400-464	Other diseases of heart	144	39	105	1	1	1	21	106	436	1	1	1
B211	420-448	Other diseases with heart disease	64	23	41									
B212	440-448	Hypertension with heart disease	9	4	5									
B213	440-447	Hypertension without mention of heart disease	40	17	23	1	1	1	1	1	1	1	1	1
B214	470-527	Diseases of the respiratory system	3	2	1									
B215	480-483	Influenza	1	1										

July 1, 1933, Estimated Population, 171,000. Total Resident Deaths, 1,793. Rate per 1,000 Population, 10.0.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF OCEAN COUNTY FOR 1938
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Date of List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-188	Infective and parasitic diseases	9	3												
B1	001-008	Tuberculosis of respiratory system	4	1												
B2	009-029	Diphtheria, pertussis, tetanus	1	1												
B3	030-029	Syphilis and its sequelae	1	1												
B4	040-029	Typhoid fever														
B5	041-048	Cholera														
B6	049-048	Dysentery, all forms														
B7	049-061	Dysentery, bacillary dysentery														
B8	062-061	Diphtheria, and other streptococcal sore throats														
B9	068-068	Whooping cough	1	1												
B10	087-087	Meningococcal infections														
B11	088-088	Scarlet fever														
B12	089-089	Acute poliomyelitis														
B13	084-084	Smallpox														
B14	085-085	Measles														
B15	100-108	Typhus and other rickettsial diseases														
B16	109-111	Residual (630-039, 641, 642, 644, 646, 632-634, 639-674, 681-683, 686-696, 120-138)	1	1												
B17	110-117	Residual (630-039, 641, 642, 644, 646, 632-634, 639-674, 681-683, 686-696, 120-138)	1	1												
B18	140-230	Neoplasms	164	64												
B19	140-205	Malignant neoplasms	163	64												
B20	210-230	Benign and unspecified neoplasms	1	1												
B21	240-259	Alergic, endocrine system, metabolic and nutritional														
B22	290-299	Diseases of the blood and blood-forming organs	21	13												
B23	290-293	Anemias (294-299)	19	12												
B24	300-325	Mental, psychoneurotic and personality disorders	2	1												
B25	330-336	Diseases of the nervous system and sense organs	2	1												
B26	330-334	Vascular lesions affecting central nervous system	80	44												
B27	340	Nontraumatic fatal myocardial infarction (390-399, 370-389, 390-398)	369	209												
B28	400-408	Diseases of the circulatory system	9	6												
B29	400-402	Rheumatic fever	4	6												
B30	410-410	Chronic rheumatic heart disease	0	0												
B31	420-422	Arteriosclerotic and degenerative heart disease	20	17												
B32	430-433	Coronary artery disease	11	11												
B33	440-443	Hypertension with heart disease	85	12												
B34	444-447	Hypertension without mention of heart	4	3												
B35	450-455	Residual (460-466, 469-488)	13	13												
B36	470-477	Diseases of the respiratory system	20	10												
B37	480-485	Influenza														
B38	500-488	Pneumonia	15	7												
B39	500-492	Bronchitis	6	3												
B40	500-507	Diseases of the digestive system	26	14												
B41	510-511	Diseases of the mouth and pharynx	3	3												
B42	520-523	Appendicitis	0	3												
B43	530-531	Intestinal obstruction and hernia	3	3												
B44	540-543	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	3	2												
B45	550-557	Diseases of the genito-urinary system	7	15												
B46	560-564	Nephritis and nephrosis	14	7												
B47	570-573	Residual (600-609, 611-617, 620-626, 630-637)	4	3												
B48	640-680	Pregnancy, childbirth and the puerperium	1	1												
B49	690-718	Diseases of the skin and cellular tissue	1	1												
B50	720-749	Diseases of the bones and organs of movement	1	1												
B51	750-770	Certain diseases of early infancy	24	15												
B52	780-782	Birth injuries, postnatal asphyxia and micticæmia	8	4												
B53	783-788	Infections of the newborn	2	2												
B54	789-776	Other diseases peculiar to early infancy and infancy	13	7												
B55	800-809	Symptoms, smelly and ill-defined conditions	47	27												
B56	810-835	Accidents, poisonings and violence	18	13												
B57	840-842	Motor vehicle accidents	13	6												
B58	850-855	All other accidents except falls	5	7												
B59	860-864	Falls	7	7												
B60	870-879	Self-inflicted injuries	6	2												
B61	880-884	Police intervention, execution and operations of war	3	1												
B62	890-899	Residual	789	443												

July 1, 1933, Estimated Population, 55,000. Total Resident Deaths, 799. Rate per 1,000 Population, 13.8.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF PASSAIC COUNTY FOR 1953 Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years						
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-126	Infective and parasitic diseases	75	46	20	2	7	2	1	2	6	2	21	22	21
B2	001-008	Tuberculosis of respiratory system	40	23	11		4	2	1	1	1	2	15	12	11
B3	010-019	Tuberculosis, other forms	1	1					1				1		
B4	020-029	Scarlet fever and streptococcal sore throat	1	1	1		2					1			6
B5	030-039	Diphtheria	1	1											
B6	040-048	Cholera	3	2	1		1								2
B7	050-061	Dysentery, all forms													
B8	060-069	Scarlet fever and streptococcal sore throat													
B9	070-079	Whooping cough													
B10	080	Plague	2	1			1								
B11	085	Meningococcal infections	7	6	2										
B12	090	Acute poliomyelitis													
B13	095	Acute poliomyelitis													
B14	100-108	Measles													
B15	110-117	Typhus and other rickettsial diseases													
B16	120-129	Malaria													
B17	130-139	Residual (600-639, 641, 645, 644, 649, 652-654, 656-659, 660-669, 670-679, 680-689, 686-696, 700-709, 710-719)	11	6	5		7	8	1	1		2	5	6	7
B18	140-230	Neoplasms	743	409	319		7	7	3	5	6	61	304	369	308
B19	240-249	Malignant neoplasms	721	406	312		7	6	2	5	6	58	298	308	
B20	250-259	Benign and unspecified neoplasms	12	3	7							1	6	1	
B21	260-269	Alberic, endocrine system, metabolic and nutritional	128	55	68		1	4	1	2	3	4	30	79	
B22	270-279	Disease of the blood and blood-forming organs	23	16	8		3	1	1	2	2	3	5	12	
B23	280-289	Disease of the nervous system and sense organs	423	197	212		3	10	2	2	2	1	1	5	12
B24	290-299	Mental, psychoneurotic and personality disorders	8	3	5										
B25	300-309	Diseases of the nervous system and sense organs	391	183	196		3	10	3	4	4	2	10	308	
B26	310-319	Vascular lesions affecting central nervous system	28	13	14										10
B27	320-329	Nonmeningococcal meningitis (860-899, 900-999)	4	2	2										10
B28	330-334	Diseases of the circulatory system	1659	924	724		18	18	1	4	4	27	472	1155	
B29	340	Myocardial infarction	3	2	1										4
B30	350-359	Ischemic heart disease	16	8	8										4
B31	360-369	Chronic rheumatic heart disease	3	2	1										1
B32	370-379	Arteriosclerotic and degenerative heart disease	126	72	48		8	8	1	2	3	10	100	208	
B33	380-389	Coronary artery disease	19	13	6										1
B34	390-399	Hypertension with heart disease	163	103	110		11	1	1	1	1	1	10	30	
B35	400-408	Hypertension without mention of heart	35	17	14		3	1	1	1	1	1	6	14	
B36	410-418	Hypertension with heart disease	106	59	52		3	1	1	2	3	1	6	37	
B37	420-429	Residual (450-464, 460-468)	11	6	2		4	5	1	1	1	1	4	6	
B38	430-437	Diseases of the respiratory system	470-527	243	224		2	2							4
B39	440-448	Influenza													

July 1, 1953, Estimated Population, 348,000. Total Resident Deaths, 3,770. Rate per 1,000 Population, 10.8.

B40	460-468	Pneumonia	86	36	4		4	1	3	1	5	15	10	47	
B41	470-475	Residual (470-475, 510-527)	20	15	5							1	10	10	
B42	480-489	Diseases of the digestive system	154	83	5		5	1	1	2	16	65	69		
B43	490-499	Ulcer of stomach and duodenum	30	24	6		2	1			4	8	18		
B44	500-509	Appendicitis, enteritis and hepatitis	20	7	13						1	5	15		
B45	510-517	Gastritis, duodenitis, enteritis and colitis, except diarrhoea of newborn	9	6	3		2								
B46	520-529	Diarrhoea of liver	60	39	20										
B47	530-537	Residual (530-539, 542, 544, 545, 578-579, 586, 587-589)	30	15	15		2	2	1	1	5	10	13		
B48	540-547	Diseases of the genito-urinary system	73	45	22		4	2	1	1	14	20	37		
B49	550-559	Nephritis and nephrosis	41	20	15		4	2			1	14	13		
B50	560-569	Prostatitis	28	23	5							2	21		
B51	570-579	Residual (600-609, 611-617, 620-622, 630-637)	9	2	7										
B52	580-589	Diseases of the skin and cellular tissue	4	1	3										
B53	590-599	Diseases of the bones and organs of movement	6	5	1		1	1							
B54	600-609	Congenital malformations	53	28	24		2	2	4	2	4	3	8		
B55	610-619	Certain diseases of early infancy	104	54	41		6	3	2	104	14	11	14		
B56	620-629	Other diseases of early infancy	6	2	4										
B57	630-639	Infections of the newborn	9	2	7										
B58	640-647	Other diseases peculiar to early infancy and immature	55	28	25		3	1	65						
B59	650-659	Symptoms, senility and ill-defined conditions	13	4	10		1								
B60	660-669	Accidents, poisoning and violence	163	106	48		11	3	10	12	15	23	60	10	
B61	670-679	Motor vehicle accidents	31	35	16		1	1	2	4	11	12	10	11	
B62	680-689	All other accidents except falls	36	22	8		9	2	8	2	7	4	7	6	
B63	690-699	Falls	31	16	19		1	1	1						
B64	700-709	Self-inflicted injuries	87	48	32		1	1							
B65	710-719	Suicide	3	2	1										
B66	720-729	Police intervention, execution and operations of war													
B67	730-739	ALL CAUSES	3770	2060	1510		74	56	172	18	28	37	228	1114	2175

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF GLISTON FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	White		Non-white		Age Groups by Years							
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
B1	001-138	Infective and parasitic diseases	11	9	2	1	1	1	1	5	3	2	2	1
B2	001-008	Tuberculosis of respiratory system	4	4	0	1	1	1	1	2	1	1	1	1
B3	010-019	Tuberculosis, other forms	1	1	0	0	1	1	1	1	1	1	1	1
B4	040	Syphilis	2	1	1	1	1	1	1	1	1	1	1	1
B5	043	Typhoid fever	1	1	0	1	1	1	1	1	1	1	1	1
B6	043-045	Dysentery, all forms	1	1	0	1	1	1	1	1	1	1	1	1
B7	050, 061	Scarlet fever and streptococcal sore throat	1	1	0	1	1	1	1	1	1	1	1	1
B8	065	Whooping cough	1	1	0	1	1	1	1	1	1	1	1	1
B9	067	Meningococcal infections	3	2	1	1	1	1	1	1	1	1	1	1
B10	083	Measles	1	1	0	1	1	1	1	1	1	1	1	1
B11	083	Scarlet fever and streptococcal sore throat	1	1	0	1	1	1	1	1	1	1	1	1
B12	080	Whooping cough	1	1	0	1	1	1	1	1	1	1	1	1
B13	085	Measles	1	1	0	1	1	1	1	1	1	1	1	1
B14	085	Scarlet fever and streptococcal sore throat	1	1	0	1	1	1	1	1	1	1	1	1
B15	100-105	Typhus and other rickettsial diseases	1	1	0	1	1	1	1	1	1	1	1	1
B16	110-117	Malaria	1	1	0	1	1	1	1	1	1	1	1	1
B17	110-117	Residual (890-899, 911, 925, 934, 949, 952-954, 958-959, 961-968, 980-986, 120-128)	1	1	0	1	1	1	1	1	1	1	1	1
B18	140-239	Neoplasms	147	81	66	1	1	1	1	2	17	68	64	1
B19	140-205	Malignant neoplasms	144	81	63	1	1	1	1	2	17	61	63	1
B20	240-250	Benign and unspecified neoplasms	3	3	0	1	1	1	1	1	1	1	1	1
B21	260-263	Alberic, endocrine system, metabolic and nutritional	17	8	9	1	1	1	1	1	1	1	1	1
B22	300-326	Diabetes mellitus	2	2	0	1	1	1	1	1	1	1	1	1
B23	330-334	Diseases of the blood and blood-forming organs	17	7	10	1	1	1	1	1	1	1	1	1
B24	400-468	Diseases of the nervous system and sense organs	2	2	0	1	1	1	1	1	1	1	1	1
B25	410-416	Residual (240-245, 250-254, 270-277, 280-289)	63	32	31	1	1	1	1	1	1	1	1	1
B26	420-426	Mental, psychoneurotic and personality disorders	58	29	29	1	1	1	1	1	1	1	1	1
B27	430-443	Vascular lesions affecting central nervous system	4	4	0	1	1	1	1	1	1	1	1	1
B28	440-443	Diseases of the circulatory system	257	160	107	1	1	1	1	1	1	1	1	1
B29	444-447	Rheumatic fever	1	1	0	1	1	1	1	1	1	1	1	1
B30	447-457	Chronic rheumatic heart disease	1	1	0	1	1	1	1	1	1	1	1	1
B31	458-468	Diseases of the heart and circulatory system	150	70	80	1	1	1	1	1	1	1	1	1
B32	469-477	Other diseases of heart	204	110	94	1	1	1	1	1	1	1	1	1
B33	480-483	Hypertension with heart disease	21	11	10	1	1	1	1	1	1	1	1	1
B34	484-487	Hypertension without mention of heart	3	2	1	1	1	1	1	1	1	1	1	1
B35	488-498	Residual (490-495, 498-498)	15	8	7	1	1	1	1	1	1	1	1	1
B36	499-499	Influenza	21	14	7	1	1	1	1	1	1	1	1	1
B37	500-502	Pneumonia	15	9	6	1	1	1	1	1	1	1	1	1
B38	500-502	Residual (470-475, 510-527)	3	2	1	1	1	1	1	1	1	1	1	1
B39	530-537	Diseases of the digestive system	25	17	8	1	1	1	1	1	1	1	1	1
B40	540, 551	Ulcer of stomach and duodenum	4	4	0	1	1	1	1	1	1	1	1	1
B41	560, 561, 570	Appendicitis, obstruction and hernia	2	1	1	1	1	1	1	1	1	1	1	1
B42	541, 571, 572	Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	1	1	0	1	1	1	1	1	1	1	1	1
B43	581	Cirrhosis of liver	1	1	0	1	1	1	1	1	1	1	1	1
B44	582-587	Diseases of the genito-urinary system	9	7	2	1	1	1	1	1	1	1	1	1
B45	590-594	Nephritis and nephrosis	8	4	4	1	1	1	1	1	1	1	1	1
B46	610	Pyelitis, pyelonephritis and cystitis	5	4	1	1	1	1	1	1	1	1	1	1
B47	610-616	Diseases of the bladder and ureters	1	1	0	1	1	1	1	1	1	1	1	1
B48	617, 620, 627	Residual (600-606, 617, 620-626, 630-637)	1	1	0	1	1	1	1	1	1	1	1	1
B49	640-669	Resquency, childbirth and the puerperium	1	1	0	1	1	1	1	1	1	1	1	1
B50	710-716	Diseases of the skin and cellular tissue	13	9	4	1	1	1	1	1	1	1	1	1
B51	720-749	Diseases of the bones and organs of movement	10	7	3	1	1	1	1	1	1	1	1	1
B52	750-778	Congenital malformations	13	10	3	1	1	1	1	1	1	1	1	1
B53	780-782	Birth injuries, neonatal asphyxia and asolecularia	12	10	2	1	1	1	1	1	1	1	1	1
B54	783-788	Infections of the newborn	11	7	4	1	1	1	1	1	1	1	1	1
B55	789-778	Other diseases peculiar to early infancy and immaturity unqualified	7	4	3	1	1	1	1	1	1	1	1	1
B56	800-809	Styptic unqualified	2	2	0	1	1	1	1	1	1	1	1	1
B57	810-835	Accidents, poisonings and violence	18	13	5	1	1	1	1	1	1	1	1	1
B58	836-838	Motor vehicle accidents	6	6	0	1	1	1	1	1	1	1	1	1
B59	839-845	All other accidents except falls	12	8	4	1	1	1	1	1	1	1	1	1
B60	846-855	Falls	6	6	0	1	1	1	1	1	1	1	1	1
B61	856-865	Self-inflicted injuries	5	5	0	1	1	1	1	1	1	1	1	1
B62	866-875	Suicide	4	4	0	1	1	1	1	1	1	1	1	1
B63	876-885	Homicide	1	1	0	1	1	1	1	1	1	1	1	1
B64	886-899	Police intervention, execution and operations of war	1	1	0	1	1	1	1	1	1	1	1	1
B65	900-999	ALL CAUSES	617	364	253	36	3	6	3	46	183	341	341	341

July 1, 1933, Estimated Population, 88,000.

Total Resident Deaths, 617.

Rate per 1,000 Population, 9.1.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF PASSAIC CITY FOR 1933
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	White		Non-white		Age Groups by Years								
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-138	Infective and parasitic diseases	11	6	4	1	1	3	0	1	.....	.....	.....	.....	.....
B2	001-008	Tuberculosis of respiratory system	6	4	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
B3	010-019	Tuberculosis other forms .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B4	020-229	Tuberculosis of the respiratory tract .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B5	030-039	Typhoid fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B6	040	Cholera .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B7	045-048	Dysentery, all forms .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B8	050-061	Scarlet fever and streptococcal sore throat .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B9	065	Diphtheria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B10	067	Whooping cough .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B11	068	Measles .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B12	080	Acute poliomyelitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B13	085	Scarlet fever .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B14	084	Measles .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B15	100-108	Diphtheria and other diphtherial diseases .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B16	110-117	Malaria .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B17	Residual (890-899, 941, 942, 944, 949, 952-954, 956-974, 981-983, 986-996, 120-138)	.....	8	7	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B18	140-226	Neoplasms	133	77	47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B19	210-230	Malignant neoplasms	127	76	47	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B20	240-289	Benign and unspecified neoplasms	8	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B21	290-299	Allergic, endocrine system, metabolic and nutritional diseases	24	9	15	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B22	300-326	Diseases of the blood and blood-forming organs	16	9	12	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B23	330-334	Residual (240-243, 250-254, 270-277, 284-289)	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B24	400-408	Diseases of the circulatory system .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B25	410-411	Residual (294-296)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B26	420-422	Arteriosclerotic and degenerative heart disease .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B27	430-434	Chronic rheumatic heart disease .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B28	440-444	Other diseases of heart .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B29	450-452	Other diseases of the respiratory system .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B30	470-527	Other diseases of the respiratory system .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B31	490-498	Influenza .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B32	500-502	Residual (490-491, 493-494)	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B33	530-537	Diseases of the digestive system .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B34	540-541	Ulcer of stomach and duodenum .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B35	550-553	Appendicitis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B36	560-561, 570	Intestinal obstruction and hernia .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B37	580, 591, 572	Diarrhea of newborn, enteritis and colitis, except enteritis of newborn .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B38	581	Cirrhosis of liver .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B39	590-597	Diseases of the genitourinary system .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B40	600-604	Nephritis and nephrosis .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B41	610	Hypertrophy of prostate .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B42	640-689	Residual (600-603, 611-617, 620-626, 630-637) .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B43	720-749	Diseases of the skin and cellular membrane .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B44	750-759	Diseases of the bones and organs of movement .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B45	760-769	Congenital malformations .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B46	770-779	Other diseases of early infancy and adolescence .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B47	780-783	Birth injuries .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B48	784-788	Infections of the newborn .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B49	790-776	Other diseases peculiar to early infancy and immaturity .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B50	800-809	Sturdy unqualified and ill-defined conditions .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B51	810-815	Accidents, poisoning and violence .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B52	820-825	Motor vehicle accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B53	830-835	All other accidents except falls .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B54	840-845	Falls .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B55	850-855	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B56	860-865	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B57	870-875	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B58	880-885	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B59	890-895	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B60	900-905	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B61	910-915	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B62	920-925	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B63	930-935	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B64	940-945	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B65	950-955	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B66	960-965	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B67	970-975	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B68	980-985	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B69	990-995	Other accidents .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
B70	001-000	ALL CAUSES	638	364	244	18	12	20	1	4	7	45	209	392	.....

July 1, 1933, Estimated Population, 85,000. Total Resident Deaths, 638. Rate per 1,000 Population, 10.8.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF SOMERSET COUNTY FOR 1953
Classified by International Abridged List of Causes (6th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	White		Non-white		Age Groups by Years									
			Total	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown		
															Male	Female
B1	001-198	Infective and parasitic diseases	16	9	5	1									9	5
B2	001-008	Tuberculosis of respiratory system	12	8	5	1									7	4
B3	010-070	Tuberculosis, other forms	1	1											1	1
B4	020-029	Syphilis and its sequelae	1													
B5	040	Typhoid fever														
B6	043	Cholera														
B7	045-048	Dysentery, all forms	1		1										1	
B8	050-061	Scarlet fever and streptococcal sore throat														
B9	065	Diphtheria														
B10	067	Whooping cough														
B11	083	Meningococcal infections														
B12	080	Plague														
B13	084	Acute poliomyelitis														
B14	086	Smallpox														
B15	100-108	Measles														
B16	110-117	Typhus and other rickettsial diseases														
B17		Malaria														
B18	140-239	Residual (030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138)	1		1										1	
B19		Neoplasms	154	80	69	4	1	1	2						18	71
B20		Malignant neoplasms	151	80	66	4	1	1	2						17	69
B21		Benign and unspecified neoplasms	3		3										1	2
B22		Allergic, endocrine system, metabolic and nutritional diseases	33	9	24										3	15
B23		Diabetes mellitus	26	6	20										2	11
B24		Residual (240-243, 250-254, 270-277, 290-299)	7	3	4										1	13
B25		Diseases of the blood and blood-forming organs	4	2	2										1	4
B26		Anemias	2	2											1	1
B27		Residual (294-298)	2		2										1	1
B28		Mental, psychoneurotic and personality disorders	5	4	1										1	1
B29		Diseases of the nervous system and sense organs	141	70	69	1	1	1							9	28
B30		Vascular lesions affecting central nervous system	132	64	66	1	1								5	24
B31		Nonmeningococcal meningitis	9	6	3										1	103
B32		Residual (341-345, 350-357, 360-369, 370-389, 390-395)	363	206	148	8	1	1							4	4
B33		Diseases of the circulatory system	13	6	7										13	96
B34		Rheumatic fever	13	6	7										2	7
B35		Chronic rheumatic heart disease	266	153	106	7									7	74
B36		Arteriosclerotic and degenerative heart disease	16	14	1										8	184
B37		Other diseases of heart	34	16	17	1	1								1	5
B38		Hypertension with heart disease	10	5	5										3	28
B39		Hypertension without mention of heart	24	12	12										2	21
B40		Residual (450-456, 490-498)	32	24	7	1	1								8	17
B41		Diseases of the respiratory system	3	3											1	1
B42		Influenza														
B43		Pneumonia	23	16	7										2	6
B44		Bronchitis	1	1											1	1
B45		Residual (470-475, 510-527)	1	1											1	1
B46		Diseases of the digestive system	36	21	15										13	20
B47		Ulcer of stomach and duodenum	8	6	2										4	3
B48		Appendicitis	1	1											1	1
B49		Intestinal obstruction and hernia	5	3	2										1	1
B50		Gastritis, duodenitis, enteritis and colitis, except diarrhea of newborn	1	1											1	1
B51		Chirrhosis of liver	12	7	5										2	5
B52		Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	9	4	5										2	5
B53		Diseases of the genito-urinary system	21	15	6										3	12
B54		Nephritis and nephrosis	13	8	5										2	6
B55		Hyperplasia of prostate	8	5	3										1	5
B56		Residual (600-609, 611-617, 620-626, 630-637)	3	1	2										1	2
B57		Pregnancy, childbirth and the puerperium														
B58		Diseases of the skin and cellular tissue														
B59		Diseases of the bones and organs of movement														
B60		Congenital malformations	1	1												
B61		Certain diseases of early infancy	14	8	6										3	1
B62		Birth injuries, postnatal asphyxia and atelectasis	24	15	9	1	1								1	1
B63		Infections of the newborn	14	11	3										7	14
B64		Other diseases peculiar to early infancy and immaturity unqualified	4	2	2										1	4
B65		Symptoms, sensibility and ill-defined conditions	6	4	2										6	8
B66		Accidents, poisonings and violence	8	5	3										1	1
B67		Motor vehicle accidents	41	29	12										7	12
B68		All other accidents except falls	14	9	5										1	4
B69		Falls	10	8	2										4	4
B70		Deaths of newborn														
B71		Deaths of infants														
B72		Deaths of children														
B73		Deaths of adolescents														
B74		Deaths of young adults														
B75		Deaths of adults														
B76		Deaths of old people														
B77		Deaths of unknown age														
B78		ALL CAUSES	893	497	370	20	6	39	8	64	262	513				

July 1, 1953, Estimated Population, 104,000.

Total Resident Deaths, 868.

Rate per 1,000 Population, 8.6.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF SUSSEX COUNTY FOR 1953
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-138	Infective and parasitic diseases	8	0	0	0	0	0	1							
B11	001-008	Tuberculosis of respiratory system	0	0	0	0	0	0							4	3
B12	010-019	Tuberculosis, other forms	0	1	0	1	0	0							2	2
B13	020-029	Syphilis and its sequelae	1	0	0	0	0	0							1	0
B14	030-039	Typhoid fever	0	0	0	0	0	0							1	0
B15	040	Dysentery, all forms	0	0	0	0	0	0							1	0
B16	045-048	Dysentery, all forms	0	0	0	0	0	0							1	0
B17	060-081	Scarlet fever and streptococcal sore throat	0	0	0	0	0	0							1	0
B18	090	Diphtheria	0	0	0	0	0	0							1	0
B19	095	Croup	0	0	0	0	0	0							1	0
B20	097	Measles	1	0	0	0	0	0							1	0
B21	063	Plague	0	0	0	0	0	0							1	0
B22	080	Acute poliomyelitis	0	0	0	0	0	0							1	0
B23	084	Smallpox	0	0	0	0	0	0							1	0
B24	086	Scarlet fever	0	0	0	0	0	0							1	0
B25	100-108	Typhus and other tick-borne diseases	0	0	0	0	0	0							1	0
B26	110-117	Malaria	0	0	0	0	0	0							1	0
B27	140-229	Residual (890-930, 041, 042, 044, 046, 052-054, 065-074, 081-085, 086-088, 120-128)	57	30	27	27	27	27	2	2	2	2	2	2	23	30
B28	140-205	Malignant neoplasms	97	50	47	47	47	47	5	5	5	5	5	5	23	24
B29	240-259	Benign and unspecified neoplasms	8	3	3	3	3	3							1	1
B30	200	Diabetes	0	0	0	0	0	0							4	4
B31	200-209	Diseases of the blood and blood-forming organs	0	0	0	0	0	0							2	2
B32	290-293	Anemias	0	0	0	0	0	0							3	3
B33	300-328	Mental, psychotic and personality disorders	4	2	2	2	2	2							1	1
B34	330-358	Diseases of the nervous system and sense organs	5	2	2	2	2	2							1	1
B35	360-374	Vascular lesions affecting central nervous system	44	10	10	10	10	10	2	2	2	2	2	2	11	39
B36	370-380, 380-398	Nonmeningococcal meningitis	2	1	1	1	1	1							0	3
B37	400-403	Rheumatic fever	5	1	1	1	1	1							1	1
B38	404-408	Rheumatic fever	204	154	154	154	154	154	1	1	1	1	1	1	8	140
B39	410-416	Chronic rheumatic heart disease	159	103	103	103	103	103	0	0	0	0	0	0	50	140
B40	420-422	Arteriosclerotic and degenerative heart disease	1	0	0	0	0	0							1	1
B41	430-432	Hypertension with heart disease	24	12	12	12	12	12	1	1	1	1	1	1	4	11
B42	430-443	Hypertension without mention of heart disease	7	6	6	6	6	6	2	2	2	2	2	2	8	18
B43	444-447	Residual (440-450, 460-468)	7	6	6	6	6	6	2	2	2	2	2	2	3	13
B44	470-527	Influenza	6	5	5	5	5	5							3	6
B45	480-483	Pneumonia	2	1	1	1	1	1							1	1
B46	490-507	Bronchitis	2	1	1	1	1	1							1	1
B47	510-527	Residual (470-475, 510-527)	1	1	1	1	1	1							1	1
B48	530-587	Ulcer of the digestive system	2	1	1	1	1	1							1	1
B49	540-541	Ulcer of stomach and duodenum	2	1	1	1	1	1							1	1
B50	550-553	Appendicitis	2	1	1	1	1	1							1	1
B51	560, 561, 670	Intestinal obstruction and hernia	2	1	1	1	1	1							1	1
B52	680, 671, 572	Gastritis, duodenitis, enteritis and colitis, except other diseases	2	1	1	1	1	1							1	1
B53	581	Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)	7	6	6	6	6	6							2	10
B54	590-687	Diseases of the genito-urinary system	10	10	10	10	10	10							1	1
B55	690-694	Gonorrhoea	6	6	6	6	6	6							1	1
B56	695	Hyperplasia of prostate	2	2	2	2	2	2							1	1
B57	700-710	Residual (690-690, 691-697, 698-699, 699-699)	2	2	2	2	2	2							1	1
B58	720-740	Pregnancy, childbirth and the puerperium	1	1	1	1	1	1							1	1
B59	750-759	Diseases of the skin and cellular tissue	1	1	1	1	1	1							1	1
B60	760-770	Congenital malformations of organs of movement	1	1	1	1	1	1							1	1
B61	780-778	Certain diseases of early infancy	0	0	0	0	0	0							0	0
B62	780-782	Birth injuries, postnatal asphyxia and atelectasis	0	0	0	0	0	0							0	0
B63	790-792	Diseases of the newborn	5	2	2	2	2	2							1	1
B64	790-778	Other diseases of the newborn	2	2	2	2	2	2							2	2
B65	790-798	tority unqualified during early infancy and lacta	0	0	0	0	0	0							0	0
B66	800-809	Symptoms, seatility and ill-defined conditions	3	1	1	1	1	1							1	1
B67	810-819	Accidents, poisonings and violence	24	10	8	10	8	8	2	2	1	1	6	5	1	1
B68	820-829	Motor vehicle accidents	3	1	1	1	1	1							1	1
B69	830-839	All other accidents except falls	9	6	3	6	3	3	2	2	1	1	2	2	2	2
B70	840-808	Falls	3	3	3	3	3	3							3	3
B71	850-854	Self-inflicted injuries	2	2	2	2	2	2							2	2
B72	855-859	Police intervention, execution and operations of war	1	1	1	1	1	1							1	1
B73	860-869	Residual (840-840, 850-859)	1	1	1	1	1	1							1	1
B74	870-899	ALL CAUSES	413	236	174	3	206	3	20	3	2	2	26	107	252	252

July 1, 1953, Estimated Population, 36,000. Total Resident Deaths, 413. Rate per 1,000 Population, 11.5.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF UNION COUNTY FOR 1933
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years							
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown	
B1	001-138	Infective and parasitic diseases	71	33	20	11	1	1	1	1	1	1	1	1	1	1
B2	001-008	Tuberculosis of respiratory system	50	29	13	8	1	1	1	1	1	1	1	1	1	1
B3	010-019	Tuberculosis, other forms	3	1	1	1	1	1	1	1	1	1	1	1	1	1
B4	020-029	Syphilis and its sequelae	7	2	3	1	1	1	1	1	1	1	1	1	1	1
B5	030-039	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B6	040-048	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B7	050-061	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B8	065	Diphtheria	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B9	070-079	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B10	080	Whooping cough	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B11	085	Plague	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B12	090	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B13	095	Smallpox	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B14	100-108	Trachoma and other rickettsial diseases	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B15	110-117	Malaria	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B16	140-200	Residual (090-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-195)	731	383	307	18	58	23	1	1	1	1	1	1	1	1
B17	140-200	Xenoplasma neoplasms	231	88	10	5	6	1	1	1	1	1	1	1	1	1
B18	210-239	Neoplasms, unspecified	20	10	5	5	5	1	1	1	1	1	1	1	1	1
B19	240-289	Benign and unspecified neoplasms	92	52	24	1	5	1	1	1	1	1	1	1	1	1
B20	290	Diseases of the blood and blood-forming organs	10	6	4	4	4	2	2	2	2	2	2	2	2	2
B21	290-293	Residual (284-299)	10	6	4	4	4	2	2	2	2	2	2	2	2	2
B22	300-306	Diseases of the nervous system and sense organs	434	197	107	19	21	19	1	1	1	1	1	1	1	1
B23	310-334	Vascular lesions affecting central nervous system	308	177	184	18	19	19	1	1	1	1	1	1	1	1
B24	340-402	Residual (284-299)	126	63	33	7	30	67	30	1	1	1	1	1	1	1
B25	400-406	Chronic rheumatic heart disease	48	25	17	4	1	1	1	1	1	1	1	1	1	1
B26	410-416	Arteriosclerotic and degenerative heart disease	150	77	51	4	26	1	1	1	1	1	1	1	1	1
B27	420-434	Other diseases of heart disease	174	62	47	12	8	1	1	1	1	1	1	1	1	1
B28	430-444	Residual (410-416)	139	70	47	12	8	1	1	1	1	1	1	1	1	1
B29	444-447	Hypertension without mention of heart	122	70	47	12	8	1	1	1	1	1	1	1	1	1
B30	450-453	Diseases of the respiratory system	121	75	44	8	4	1	1	1	1	1	1	1	1	1
B31	460-483	Influenza	7	3	3	1	1	1	1	1	1	1	1	1	1	1
B32	490-503	Pneumonia	58	49	24	7	4	1	1	1	1	1	1	1	1	1
B33	500-502	Bronchitis	20	17	11	1	1	1	1	1	1	1	1	1	1	1
B34	500-507	Diseases of the digestive system	154	92	65	4	3	1	1	1	1	1	1	1	1	1
B35	510-529	Diseases of the stomach and duodenum	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B36	530-533	Appendicitis	1	1	1	1	1	1	1	1	1	1	1	1	1	1
B37	500, 501, 570	Intestinal obstruction and hernia	22	12	8	1	1	1	1	1	1	1	1	1	1	1
B38	543, 571, 572	Diarrhea, duodenitis, enteritis and colitis, except enteritis of the newborn	47	4	5	1	1	1	1	1	1	1	1	1	1	1
B39	581	Residual (530-539, 542, 544, 545, 573-578, 580, 582-587)	49	27	18	1	1	1	1	1	1	1	1	1	1	1
B40	590-637	Diseases of the genito-urinary system	45	22	21	1	1	1	1	1	1	1	1	1	1	1
B41	640-680	Pregnancy, childbirth and the puerperium	72	51	17	3	3	1	1	1	1	1	1	1	1	1
B42	690-710	Diseases of the skin and cutaneous tissue	20	13	8	1	1	1	1	1	1	1	1	1	1	1
B43	720-739	Diseases of the eye and organs of vision	14	10	4	4	4	1	1	1	1	1	1	1	1	1
B44	740-760	Congenital malformations	8	4	2	2	2	1	1	1	1	1	1	1	1	1
B45	760-770	Certain diseases of early infancy	45	30	11	2	2	2	2	2	2	2	2	2	2	2
B46	780-782	Birth injuries, postnatal asphyxia and atelectasis	136	61	54	9	12	9	1	1	1	1	1	1	1	1
B47	790-796	Birth injuries of the newborn	62	30	27	2	3	2	2	2	2	2	2	2	2	2
B48	796-798	Other diseases of the newborn	6	4	2	2	2	2	2	2	2	2	2	2	2	2
B49	800-805	Other diseases of the newborn	68	27	25	7	9	9	9	9	9	9	9	9	9	9
B50	805-806	Symptoms, senility and ill-defined conditions	134	8	6	6	6	1	1	1	1	1	1	1	1	1
B51	806-809	Accidents, poisonings and violence	102	98	54	0	1	1	1	1	1	1	1	1	1	1
B52	810-814	Motor vehicle accidents	38	29	7	2	2	1	1	1	1	1	1	1	1	1
B53	820-824	All other accidents except falls	33	21	8	5	1	1	1	1	1	1	1	1	1	1
B54	830-834	Falls	48	16	27	3	3	1	1	1	1	1	1	1	1	1
B55	840-844	Homicide	39	28	4	0	0	0	0	0	0	0	0	0	0	0
B56	850-854	Police intervention, execution and operations of war	6	0	0	0	0	0	0	0	0	0	0	0	0	0
B57	860-869	Residual	3874	2018	1884	152	120	204	25	24	44	247	1206	2122	2122	2122

July 1, 1933, Estimated Population, 414,000. Total Resident Deaths, 5,874. Rate per 1,000 Population, 9.4.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF ELIZABETH FOR 1953
Classified by International Abridged List of Causes (8th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	White		Non-white		Age Groups by Years						
			Total		Male	Female	<1	1-4	5-14	15-24	25-44	45-64	65+ Unknown
			Male	Female	Male	Female							
B1	001-183	Infective and parasitic diseases	95	13	8	1	1	1	1	0	12	5	1
B12	004-068	Tuberculosis of respiratory system	20	11	6	5	1	1	0	0	0	5	1
B13	010-019	Tuberculosis, other forms	2	1	1	1	1	1	1	0	1	2	1
B14	020-029	Syphilis and its sequelae	2	1	1	1	1	1	1	1	1	1	1
B15	030-039	Spinal fever	1	1	1	1	1	1	1	1	1	1	1
B16	040-049	Dysentery, all forms	1	1	1	1	1	1	1	1	1	1	1
B17	045-048	Scarlet fever and streptococcal sore throat	1	1	1	1	1	1	1	1	1	1	1
B18	050-061	Diphtheria	1	1	1	1	1	1	1	1	1	1	1
B19	065-068	Whooping cough	1	1	1	1	1	1	1	1	1	1	1
B20	069-071	Measles	1	1	1	1	1	1	1	1	1	1	1
B21	075-077	Parvovirus infections	1	1	1	1	1	1	1	1	1	1	1
B22	080-089	Acute poliomyelitis	1	1	1	1	1	1	1	1	1	1	1
B23	090-094	Smallpox	1	1	1	1	1	1	1	1	1	1	1
B24	095-104	Scabies	1	1	1	1	1	1	1	1	1	1	1
B25	100-103	Yaws and other venereal diseases	1	1	1	1	1	1	1	1	1	1	1
B26	105-117	Malaria	1	1	1	1	1	1	1	1	1	1	1
B27	140-239	Neoplasms	210	120	84	4	8	8	10	166	166	166	166
B28	240-249	Leukemia	2	1	1	1	1	1	1	1	1	1	1
B29	250-259	Myeloid and unspecified neoplasms	6	3	3	2	2	2	2	2	2	2	2
B30	260-269	Alleged, endocrine system, metabolic and nutritional diseases	20	5	22	2	2	2	2	2	2	2	2
B31	270-279	Diabetes mellitus	20	6	20	2	2	2	2	2	2	2	2
B32	280-289	Residual (030-039, 041, 042, 044, 049, 052-054)	6	2	3	2	2	2	2	2	2	2	2
B33	290-299	Residual (030-039, 041, 042, 044, 049, 052-054)	4	1	1	1	1	1	1	1	1	1	1
B34	300-309	Mental, psychoneurotic and personality disorders	11	1	1	1	1	1	1	1	1	1	1
B35	310-319	Alcoholism	7	4	4	4	4	4	4	4	4	4	4
B36	320-329	Alleged, endocrine system, metabolic and nutritional diseases	119	63	44	6	6	6	6	6	6	6	6
B37	330-334	Nonmeningococcal meningitis	2	1	1	1	1	1	1	1	1	1	1
B38	340-349	Diseases of the circulatory system	12	7	4	4	4	4	4	4	4	4	4
B39	350-359	Residual (030-039, 041, 042, 044, 049, 052-054)	364	209	239	18	18	18	18	18	18	18	18
B40	360-369	Diseases of the respiratory system	11	6	4	4	4	4	4	4	4	4	4
B41	370-379	Chronic rheumatic and degenerative heart disease	420	207	155	0	0	0	0	0	0	0	0
B42	380-389	Other diseases of heart	18	4	12	1	1	1	1	1	1	1	1
B43	390-394	Other diseases of heart	8	2	4	2	2	2	2	2	2	2	2
B44	400-409	Hypertension without mention of heart	20	10	20	2	2	2	2	2	2	2	2
B45	410-414	Residual (430-439, 460-468)	3	2	2	2	2	2	2	2	2	2	2
B46	415-417	Diseases of the respiratory system	1	1	1	1	1	1	1	1	1	1	1
B47	420-427	Influenza	1	1	1	1	1	1	1	1	1	1	1
B48	430-433	Residual (430-439, 460-468)	1	1	1	1	1	1	1	1	1	1	1
B49	440-443	Residual (430-439, 460-468)	1	1	1	1	1	1	1	1	1	1	1
B50	450-453	Residual (430-439, 460-468)	1	1	1	1	1	1	1	1	1	1	1

B51	460-463	Pneumonia	29	15	10	2	2	2	2	2	2	2	2	2
B52	464-468	Residual (430-439, 460-468)	2	2	2	2	2	2	2	2	2	2	2	2
B53	470-479	Ulcer of stomach and duodenum	6	4	3	1	1	1	1	1	1	1	1	1
B54	480-484	Appendicitis	8	3	1	1	1	1	1	1	1	1	1	1
B55	485-489	Intestinal obstruction and hernia	1	4	2	1	1	1	1	1	1	1	1	1
B56	490-494	Gastritis, duodenitis, enteritis and colitis, except chronic	1	1	1	1	1	1	1	1	1	1	1	1
B57	500-509	Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)	21	15	6	1	1	1	1	1	1	1	1	1
B58	510-514	Diseases of the genito-urinary system	22	13	8	1	1	1	1	1	1	1	1	1
B59	515-519	Uterus, female	27	10	6	2	2	2	2	2	2	2	2	2
B60	520-529	Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)	10	10	10	1	1	1	1	1	1	1	1	1
B61	530-534	Pregnancy, childbirth and the puerperium	3	2	1	1	1	1	1	1	1	1	1	1
B62	535-539	Diseases of the skin and cellular tissue	1	1	1	1	1	1	1	1	1	1	1	1
B63	540-549	Disorders of the reproductive organs	4	1	2	1	1	1	1	1	1	1	1	1
B64	550-553	Congenital malformations	1	8	2	1	1	1	1	1	1	1	1	1
B65	554-559	Certain diseases of early infancy	45	20	17	3	3	3	3	3	3	3	3	3
B66	560-561, 570	Birth injuries, postnatal asphyxia and atelectasis	22	9	9	1	1	1	1	1	1	1	1	1
B67	562-569	Infections of the newborn	2	2	1	1	1	1	1	1	1	1	1	1
B68	570-579	Residual (530-539, 542, 544, 545, 573-575, 580, 582-587)	20	9	7	2	2	2	2	2	2	2	2	2
B69	580-589	Symptoms, senility and ill-defined conditions	4	2	2	2	2	2	2	2	2	2	2	2
B70	590-594	Accidents, poisonings and violence	13	10	5	1	1	1	1	1	1	1	1	1
B71	595-599	Motor vehicle accidents	12	11	2	1	1	1	1	1	1	1	1	1
B72	600-604	All other accidents except falls	15	12	1	1	1	1	1	1	1	1	1	1
B73	605-609	Falls	11	8	8	1	1	1	1	1	1	1	1	1
B74	610-614	Self-inflicted injuries	8	6	2	2	2	2	2	2	2	2	2	2
B75	615-619	Police intervention, execution and operations of war	2	1	1	1	1	1	1	1	1	1	1	1
B76	620-624	ATI CAUSES	1220	670	408	35	35	35	35	35	35	35	35	35
B77	625-629	ATI CAUSES	1220	670	408	35	35	35	35	35	35	35	35	35

July 1, 1953, Estimated Population, 117,000.

Total Resident Deaths, 1,220.

Rate per 1,000 Population, 10.4.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF WARREN COUNTY FOR 1963
Classified by International Abridged List of Causes (5th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years									
			Total	Male	Female	Male	Female	<	1-4	5-14	15-24	25-44	45-64	65+	Unknown			
																Male	Female	
B1	001-138	Infective and parasitic diseases	9	8	1													
B2	001-008	Tuberculosis of respiratory system	1	1														
B3	010-019	Tuberculosis, other forms	1	1														
B4	020-029	Syphilis and its sequelae	1	1														
B5	040	Lymphoid fever																
B6	045-048	Dysentery, all forms																
B7	060, 061	Scarlet fever and streptococcal sore throat																
B8	065	Diphtheria																
B9	068	Whooping cough																
B10	067	Meningococcal infections																
B11	083	Acute poliomyelitis	1	1														
B12	080	Plague																
B13	084	Smallpox																
B14	085	Scarlet fever and streptococcal sore throat																
B15	100-108	Typhus and other tick-borne diseases																
B16	110-117	Malaria																
B17		Residual (890-030, 041, 042, 044, 049, 052-054, 059-074, 081-085, 086-086, 120-135)	111	60	44	1												
B18	140-200	Neoplasms	10	6	4													
B19	210-230	Residual (240-240, 270-277, 280-289)	10	6	4													
B20	240-250	Disease of the blood and blood-forming organs	4	2	2													
B21	260-263	Residual (264-266)	10	6	4													
B22	300-326	Diabetes mellitus	13	4	9													
B23	330-334	Residual (340-340)	3	2	1													
B24	400-468	Diabetes mellitus	10	6	4													
B25	470-472	Residual (480-480)	3	2	1													
B26	420-422	Residual (264-266)	2															
B27	430-434	Mental, psychoneurotic and personality disorders	98	54	44													
B28	440-443	Diseases of the nervous system and sense organs	5	3	2													
B29	444-447	Residual (341-346, 350-357, 360-361, 370-389, 390-395)	9	5	4													
B30	470-527	Residual (341-346, 350-357, 360-361, 370-389, 390-395)	333	207	142	2												
B31	500-562	Diseases of the circulatory system	1	1														
B32	570-572	Residual (580-580)	1	1														
B33	580-597	Ischemic heart disease	209	108	98													
B34	600-610	Residual (620-620)	38	18	24													
B35	610-617	Residual (620-620)	4	3	1													
B36	620-622	Residual (620-620)	3	3														
B37	630-634	Residual (640-640)	2	2														
B38	640-668	Residual (640-668)	1	1														
B39	670-676	Residual (680-680)	1	1														
B40	680-688	Residual (680-688)	1	1														
B41	700-716	Residual (720-720)	1	1														
B42	720-722	Residual (720-722)	1	1														
B43	730-738	Residual (740-740)	1	1														
B44	740-776	Residual (780-780)	1	1														
B45	780-795	Residual (800-800)	1	1														
B46	800-809	Residual (810-810)	1	1														
B47	810-835	Residual (840-840)	1	1														
B48	840-854	Residual (860-860)	1	1														
B49	860-864	Residual (870-870)	1	1														
B50	870-879	Residual (880-880)	1	1														
B51	880-889	Residual (890-890)	1	1														
B52	890-900	Residual (910-910)	1	1														
B53	910-915	Residual (920-920)	1	1														
B54	920-929	Residual (930-930)	1	1														
B55	930-939	Residual (940-940)	1	1														
B56	940-949	Residual (950-950)	1	1														
B57	950-959	Residual (960-960)	1	1														
B58	960-969	Residual (970-970)	1	1														
B59	970-979	Residual (980-980)	1	1														
B60	980-989	Residual (990-990)	1	1														
B61	990-999	Residual (1000-1000)	1	1														
B62		ALL CAUSES	486	263	223	24	6	10	84	104	440							

July 1, 1963, Estimated Population, 59,900. Total Resident Deaths, 688. Rate per 1,000 Population, 12.3.

TABLE 22. TABULATION OF DEATHS OF RESIDENTS OF MILITARY POSTS FOR 1933
Classified by International Abridged List of Causes (9th Revision)

Abridged List No.	Detail List No.	CAUSE GROUPS	Total		White		Non-white		Age Groups by Years								
			Male	Female	Male	Female	Male	Female	<1	1-4	5-14	15-24	25-44	45-94	85+	Unknown	
B1	001-138	Infective and parasitic diseases															
B1	001-008	Tuberculosis of respiratory system															
B2	001-009	Tuberculosis of genitourinary system															
B3	023-029	Syphilis and lues venerea															
B4	040	Typhoid fever															
B5	043	Cholera															
B6	045-048	Dysentery, all forms															
B7	051	Typhus fever and streptococcal sore throat															
B8	056	Whooping cough															
B9	067	Whooping cough															
B10	087	Whooping cough															
B11	088	Whooping cough															
B12	089	Whooping cough															
B13	084	Smallpox															
B14	085	Measles															
B15	100-109	Typhus and other rickettsial diseases															
B16	110-117	Residual (930-939, 941, 942, 944, 949, 952-954, 958-974, 981-983, 985-986, 120-135)	1														
B17		Residual (930-939, 941, 942, 944, 949, 952-954, 958-974, 981-983, 985-986, 120-135)															
B18	140-289	Neoplasms															
B19	140-205	Malignant neoplasms															
B20	290	Diabetes mellitus															
B21	290-299	Residual (240-243, 246-254, 270-277, 290-299)	1														
B22	300-329	Diseases of the blood and blood-forming organs															
B23	330-339	Residual (251-259)															
B24	400-468	Mental, psychoneurotic and personality disorders															
B25	410-416	Diseases of the nervous system and sense organs															
B26	420-422	Diseases of the nervous system and sense organs															
B27	430-434	Nonmeningeal meningitis															
B28	440-443	Residual (341-345, 350-357, 360-369, 370-389, 390-395)	4	2	2												
B29	444-447	Diseases of the circulatory system															
B30	470-527	Chronic rheumatic heart disease															
		Arteriosclerotic and degenerative heart disease															
		Other diseases of heart															
		Hypertension with heart disease															
		Residual (450-456, 460-468)	2	1	1												
		Diseases of the respiratory system															
		Influenza															

B31	490-493	Pneumonia															
B32	500-502	Bronchitis															
B33	530-537	Residual (470-475, 510-527)	1														
B34	540-541	Diseases of digestive system															
B35	590-593	Ulcer of stomach															
B36	594, 571, 670	Appendicitis															
B37	610, 611, 612	Intestinal obstruction and hernia															
B38	613, 614, 615	Diarrhea, dysentery, enteritis and colitis, except chronic															
B39	681	Cholecystitis															
B40	690-697	Residual (530-539, 542, 544, 545, 573-578, 580, 682-687)	1														
B41	610	Nephritis and genitourinary system															
B42	640-689	Hyperplasia of prostate															
B43	720-749	Residual (600-609, 611-617, 620-682, 690-697)															
B44	750-759	Disorders of the female genital tract and the puerperium															
B45	760-769	Diseases of the female genital tract and the puerperium															
B46	770-779	Diseases of the female genital tract and the puerperium															
B47	780-789	Congenital malformations															
B48	790-799	Certain diseases of early infancy															
B49	800-809	Other diseases of early infancy															
B50	810-819	Infections of the newborn															
B51	820-829	Other diseases peculiar to early infancy and immaturity unqualified															
B52	830-839	Symptoms, senility and ill-defined conditions															
B53	840-849	Alcoholism, poisoning and violence															
B54	850-859	Motor vehicle accidents															
B55	860-869	All other accidents except falls															
B56	870-879	Falls															
B57	880-889	Suicide															
B58	890-899	Homicide															
B59	900-909	Police intervention, execution and operations of war															
B60	910-919	ALL CAUSES	24	9	8	5	2	0	1	1	4	6	5	2			

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