Annual Report

of the

Department of Health

of

The City of New York

for the

Year 1915

ANNUAL REPORT, DEPT. OF HEALTH:

1915

ANNUAL REPORT

OF THE

DEPARTMENT OF HEALTH

OF

THE CITY OF NEW YORK

FOR THE

CALENDAR YEAR 1915

NEW YORK CITY
1916

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New York, January 31, 1916.

To His Honor

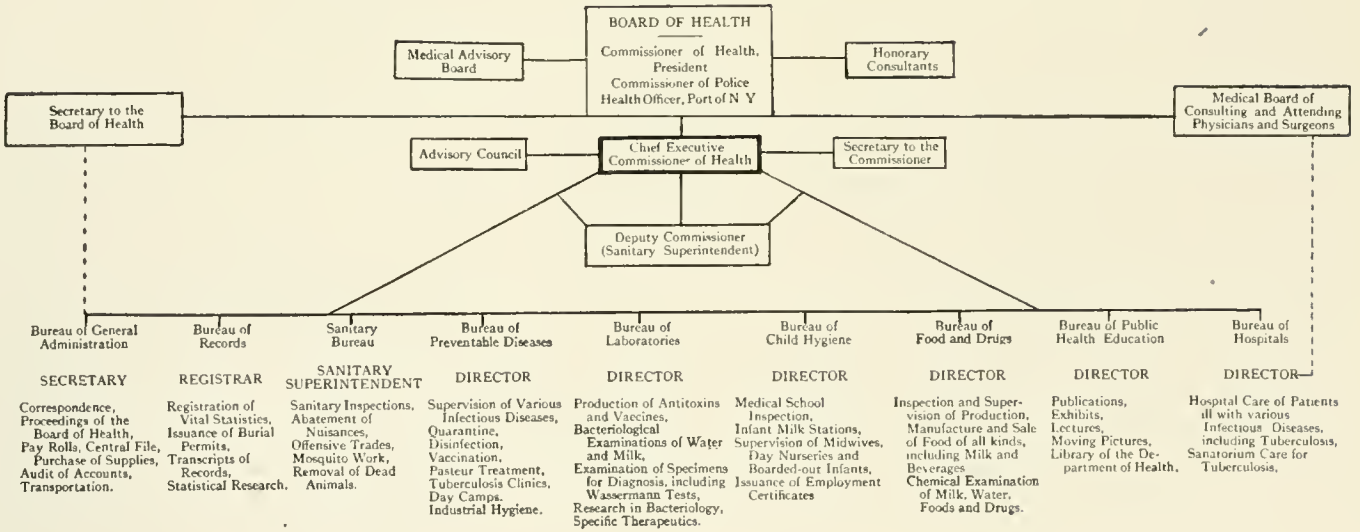
The Mayor of the City of New York.

Sir: On behalf of the Board of Health, I have the honor to transmit herewith, as required by Section 1168 of the Charter of the City of New York, a report of all the operations of the Department of Health of the City of New York, for the year ending December 31, 1915.

Very respectfully,

HAVEN EMERSON, M. D.,
Commissioner of Health.

ORGANIZATION OF DEPARTMENT OF HEALTH IN 1915.



DIRECTORY OF THE DEPARTMENT OF HEALTH

OFFICES

Headquarters: S. W. Corner Centre and Walker Streets, Borough of Manhattan
Telephone, 6280 Franklin.

Borough of The Bronx, 3731 Third Avenue.....Telephone, 1975 Tremont.
Borough of Brooklyn, Flatbush Avenue and Willoughby Street.....Telephone, 4720 Main.
Borough of Queens, 372-374 Fulton Street, Jamaica, L. I.....Telephone, 1200 Jamaica.
Borough of Richmond, 514-516 Bay Street, Stapleton, S. I.....Telephone, 440 Tompkinsville.
Office Hours—9 a. m. to 5 p. m.; Saturdays, 9 a. m. to 12 m.

HOSPITALS FOR INFECTIOUS DISEASES

Manhattan—Willard Parker Hospital, foot of East 16th Street. Telephone, 1600 Stuyvesant.
The Bronx—Riverside Hospital, North Brother Island. Telephone, 4000 Melrose.
Brooklyn—Kingston Avenue Hospital, Kingston Avenue and Fenimore Street. Telephone, 4400 Flatbush.

LABORATORIES

Diagnosis Laboratory, Centre and Walker Streets. Telephone, 6280 Franklin.
Serological Laboratory, Centre and Walker Streets. Telephone, 6280 Franklin.
Research Laboratory. Chemical Laboratory. Vaccine Laboratory. Drug Laboratory.
Foot of East 16th Street. Telephone, 1600 Stuyvesant.

INFANTS' MILK STATIONS

Manhattan

1. 172 East 3d St
2. 513 East 11th St.
3. 306 Avenue A
4. 303 East 26th St.
5. 225 East 107th St.
6. 241 East 40th St.
7. 174 Eldridge St.
8. Vanderbilt Clinic
9. 326 East 11th St.
10. 114 Thompson St.
11. 315 East 112th St.
12. 244 Mulberry St.
13. 508 West 17th St.
14. 78 Ninth Ave.
15. 421 East 71th St.
16. 205 East 96th St.
17. 209 Stanton St.
18. 2287 First Avenue
19. 108 Cherry St.
20. 122 Mulberry St.
21. 27 Suffolk St.
22. 73 Cannon St.
23. 95 Forsyth St.
24. 206 Madison St.
25. 251 Monroe St.
26. 289 Tenth Ave.
27. 86 Clinton St.
28. 2155 Fifth Ave.

Brooklyn

1. 268 South 2d St.
2. 660 Fourth Ave.
3. 298 Hoyt St.
4. 176 Hudson Ave.
5. 2346 Pacific St.
6. 184 Fourth Ave.
7. 359 Manhattan Ave.
8. 49 Carroll St.
9. 69 Johnson Ave.
10. 233 Suydam St.
11. 329 Osborn St.
12. Dupont St.
13. 651 Manhattan Ave.
14. 185 Bedford Ave.
15. 296 Bushwick Ave.
16. 994 Flushing Ave.
17. 176 Nassau St.
18. 129 Osborn St.
19. 698 Henry St.
20. 552 Sutter Ave.
21. 167 Hopkins St.
22. 604 Park Ave.
23. 239 Graham Ave.
24. 49 Amboy St.

The Bronx—1. 511 East 149th St. 2. 1354 Webster Ave. 3. 2380 Hughes Ave.
Queens—1. 114 Fulton Ave., Astoria, L. I. 2. 22 Maspeth Ave., Maspeth, L. I.
3. 753 Onderdonk Ave., Ridgewood, L. I.
Richmond—1. 689 Bay St., Stapleton, S. I.

CLINICS FOR SCHOOL CHILDREN

Hours—2 to 5 p. m. Saturdays, 9 a. m. to 12 m.

Manhattan—Gouverneur Slip.....Refraction eye work only.
Pleasant Avenue and 118th St...Refraction eye work. Nose and throat clinic, including operation Trachoma operative treatment.
164 Second Avenue.....Dental work only.
449 East 121st Street.....Dental work and treatment of contagious eye disease.
P. S. 144, Hester and Allen Sts...Clinic and classes for chronic contagious eye diseases.
P. S. 21, 222 Mott Street.....Clinic and classes for chronic contagious eye diseases.
The Bronx—580 East 169th Street....Nose and throat clinic including operative treatment. Treatment of contagious eye diseases. Refraction eye work. Dental work.
Brooklyn—330 Throop Avenue.....Nose and throat clinic including operative treatment. Treatment of contagious eye diseases. Refraction eye work. Dental work.
1219 Herkimer Street.....Nose and throat clinic including operative treatment. Contagious eye disease treatment. Refraction eye work. Dental work.
124 Lawrence Street.....Nose and throat clinic including operative treatment. Contagious eye disease treatment. Refraction eye work. Dental work.
Richmond—689 Bay Street, Stapleton. Dental work only.

DIAGNOSTIC CLINICS FOR VENEREAL DISEASES

Manhattan—Centre and Walker Streets. Week days, 9 to 10 a. m. 307 West 33d Street. Wednesdays, 8 to 9 p. m.
Brooklyn—29 Third Avenue. Week days, 9 to 11 a. m. Tuesdays and Fridays, 8 to 9 p. m.

CLINICS FOR THE PASTEUR TREATMENT OF RABIES

Manhattan—Centre and Walker Streets. Week days, 1 to 4 p. m.
Brooklyn—29 Third Avenue. Week days, 11 a. m. to 2 p. m.
Sundays and Holidays (for Manhattan cases only), 10 a. m. to 12 m.
The Bronx—Third Avenue and St. Paul's Place. Daily including Sundays and Holidays, 11 a. m. to 1 p. m.
Queens—Cases attend Manhattan Clinics.
Richmond—Cases attend Manhattan Clinics.

TUBERCULOSIS CLINICS

Manhattan—Chelsea Clinic, 307 West 33d Street. Telephone, 3471 Murray Hill.
Stuyvesant Clinic, 111 East 10th Street. Telephone, 2859 Orchard.
Yorkville Clinic, 229 East 57th Street. Telephone, 2526 Plaza.
Harlem Italian Clinic, 420 East 116th Street. Telephone, 2375 Harlem.
Riverside Clinic, 481 West 145th Street. Telephone, 9067 Audubon.
Washington Clinic, 22 Vandam Street. Telephone, 412 Spring.
Day Camp, Ferryboat "Middletown," foot of East 91st Street. Telephone, 2957 Lenox.
The Bronx—Tremont Clinic, St. Paul's Place and Third Avenue. Telephone, 1975 Tremont.
Mott Haven Clinic, 493 East 139th Street. Telephone, 5702 Melrose.
Brooklyn—Prospect Clinic, Fleet and Willoughby Streets. Telephone, 4720 Main.
Germantown Clinic, 420 Herkimer Street. Telephone, 2220 Decatur
Brownsville Clinic, 64 Pennsylvania Avenue. Telephone, 2732 East New York.
Eastern District Clinic, 306 South 5th Street, Williamsburg. Telephone, 1293 Williamsburg.
Bay Ridge Clinic, 215 60th Street. Telephone, 2434 Sunset.
Parkville Clinic, 974 West Street. Telephone, 1866 Bath Beach
Day Camp, Ferryboat "Rutherford," foot of North 2d Street. Telephone, 2611 Greenpoint.
Queens—Jamaica Clinic, 10 Union Avenue, Jamaica. Telephone, 1386 Jamaica.
Flushing, 112 Broadway, Flushing. Telephone 731 Flushing.
Richmond—Richmond Clinic, Bay and Elizabeth Streets, Stapleton. Mon., Wed. and Fri., 2 to 4 p. m.

SANATORIUM FOR TUBERCULOSIS

Otisville, Orange County, N. Y. (via Erie Railroad from Jersey City). Telephone, 13 Otisville.

TUBERCULOSIS HOSPITAL ADMISSION BUREAU

Maintained by the Department of Health, the Department of Public Charities, and Bellevue and Allied Hospitals, 426 First Avenue. Telephone, 8667 Madison Square. Hours, 9 a. m. to 5 p. m.

BOARD OF HEALTH.

Commissioner of Health and President of the Board,

S. S. GOLDWATER, M. D.
(January 1 to November 22.)

HAVEN EMERSON, M. D.
(November 23 to December 31.)

Health Officer of the Port,

JOSEPH J. O'CONNELL, M. D.

Police Commissioner,

ARTHUR WOODS.

HONORARY AND CONSULTING OFFICERS.

Medical Advisory Board.

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SIMON FLEXNER M. D. . . . . *Consulting Pathologist.*

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The Sanitary Superintendent.
The Chairman of the Board of Governors of the Hospital for Diphtheria and Scarlet Fever.

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Consulting Pathologist.

SIMON FLEXNER, M. D.

Consulting Otologist.

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ELI LONG, M. D.
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JOHN B. RAE, M. D.

Assistant Attending Otologist.

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Attending Surgeon.

THOMAS ALLISON SMITH, M. D.

Loryngologist and Intubator

HENRY L. LYNAH, M. D.

Bacteriologist.

WILLIAM H. PARK, M. D.

Attending Dermatologist.

HOWARD FOX, M. D.

Special Anaesthetist.

(Instructor in Anaesthesia.)

JAMES T. GWATHMEY, M. D.

Consulting Neurologist.

EDWARD D. FISHER, M. D.

Attending Pathologist.

DOUGLAS SIMMERS, M. D.

Attending Physicians to Riverside Hospital.

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WILLIAM JOSEPH PULLEY, M. D.
BERTRAM H. WATERS, M. D.

Assistant Attending Physicians, Willard Parker Hospital.

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Assistant Attending Laryngologists, Riverside Hospital.

HAROLD HAYS, M. D.
L. G. KAEMPFER, M. D.

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DISTRIBUTION OF STAFF, 1915.

Bureau	Manhattan	Bronx	Brooklyn	Queens	Richmond	Total
General Administration	178	9	32	5	2	226
Sanitary	65	17	47	20	32	181
Records	31	4	14	2	1	52
Child Hygiene	259	66	235	44	13	617
Preventable Diseases	271	51	160	30	14	526
Food and Drugs	113	8	40	5	1	*188
Hospitals	293	306	203	...	...	†1053
Public Health Education	7	...	...	...	...	7
Laboratories	209	...	...	...	...	209
Total	1,426	461	731	106	63	3,059

*Country milk, 21. †Otisville, 251.

EXECUTIVE STAFF.

S. S. GOLDWATER, M. D. . . . . *Commissioner.*
January 1 to November 22.

HAVEN EMERSON, M. D. . . . . *Commissioner.*
November 23 to December 31.

HAVEN EMERSON, M. D. . . . . *Deputy Commissioner.*
January 1 to December 31.

JOHN S. BILLINGS, M. D. . . . . *Deputy Commissioner.*
December 5 to December 31.

FLOYD W. FISKE . . . . . *Secretary to Commissioner.*

ALFRED E. SHIPLEY, M. D. . . . . *Chief, Division of Research and Efficiency.*

SIMON TANNENBAUM, M. D. . . . . *Physician-in-Charge, Health District No. 1.*

REPORT OF THE DEPARTMENT OF HEALTH, CITY OF NEW YORK, FOR THE YEAR 1915.

INTRODUCTORY.

In the following report of the work of the Department of Health for the year 1915, only new and important activities and procedures are touched upon. No detailed descriptions of well established functions are given, such matters being reserved for the Handbooks of Procedure of the various Bureaus.

Statistical Tables and Charts.

The statistical tables of former years have been condensed and simplified. This has been rendered possible by the adoption of a system of graphic charts, one or more for each Bureau, showing a comparison of the more important activities for 1915 with a previous year or average of years. In the Annual Report for 1916 the average of a given five-year period will be adopted as the unit of comparison.

New General Procedures.

Census Areas as Districts—The forty acre tracts of the Federal Census were adopted as the most convenient basic district units, and each of the four field Bureaus of the Department reorganized its system of districting the City so that each district should contain one or more complete census areas. The Bureau of Records also computed the gross mortality statistics according to said areas.

Advisory Council—Based on the work done during 1914 and 1915, several of the sub-committees for the various Bureaus were reorganized, active members added and the range of activities extended. Several new committees were established, among them the following: Leprosy, new regulations and procedures were considered and approved. Industrial hygiene, see report of Division of Industrial Hygiene, Bureau of Preventable Diseases. Housing, preliminary work was done on the best method of obtaining information as to housing conditions throughout the City, and an illness census taken in Health District No. 1, special attention being paid to respiratory diseases. Alcohol; the general subject was considered and arrangements made for the publication of suitable literature, and the holding of an "Alcohol Week."

Medical Examination of Employees—This procedure has been extended and the great majority of the employees have been examined and re-examined. New and improved records have been adopted.

Sanitary Code—A number of new sections have been added and important amendments made to existing sections. Regulations, supplementary to Code sections, have been prepared and put in force.

Hours of Service—These have been fixed for the various classes of employees, part time as well as full time. New monthly time cards, uniform for all employees, have been introduced.

Service Records—A new and improved system of computing and recording service records (efficiency ratings), and of estimating advancement and promotion ratings, was adopted.

Absence Regulations—These have been amplified, tested by experience and codified until they now meet practically all combinations of circumstances. Particular attention was paid to the obtaining of proper and adequate certificates from physicians, and regular visits by Department physicians who give medical advice.

Department Rules—No general rules for Departmental employees having been issued for many years, they were carefully brought up to date and published. A new edition will appear annually hereafter.

Survey of Business Section of City—A sanitary survey of the buildings of an entire block in the business section of the City was begun, with a view to determining the conditions as to light, ventilation, cleanliness, etc., and their effect on the health of the workers.

Miscellaneous—Many other noteworthy and equally important new procedures and activities are described in the reports of the various Bureaus—a few examples are the reorganization of the Bureau of Food and Drugs; the organization of the Division of Industrial Hygiene, the Division of Institution Inspection, and Experimental Health District No. 1; system of police co-operation; census and survey of all stables in the City; new regulations regarding midwives; muzzling of dogs.

General Considerations and Recommendations.

During the year several important incidents had their effect upon the general death rate and the morbidity from infectious diseases in the City.

There was an extensive epidemic of measles, which, coming after two years of relatively low incidence of this disease, caused a considerable increase in deaths among infants and children, from broncho-pneumonia, the commonest complication of measles.

The non-employment of a very large number (estimated at 400,000 in 1914) of the wage earners of slender means, appeared to be a decided factor in the increase of infant mortality over that of 1914.

During the last six weeks of the year a serious epidemic of infectious colds, popularly described as grippe, but in reality due to the common types of mouth organisms, generally found as the infecting agent in acute bronchitis and pneumonia, caused a noticeable increase of deaths from all respiratory diseases at all ages, and further determined the loss of many lives among those adults already handicapped by degenerative diseases of the heart, arteries and kidneys. This epidemic continued well into the year 1916, and all told, appears to have been responsible for at least 2,000 deaths.

Serious error appears in the records of causes of death in two important instances, namely under the headings of alcoholism and syphilis, social prudery and a misplaced medical sympathy or delicacy continuing to permit false and misleading reports of deaths from these two common causes. Education and a keener social conscience must finally overcome the present unwillingness to admit and report deaths which have resulted from these preventable diseases.

The failure to accomplish the possible standard of health protection to which the Department aspires, are to be attributed in no small degree to the lack of a sufficiently liberal social program generously supported by the Board of Estimate.

In spite of clear and positive demonstration of the need for adequate service for school medical inspection, prenatal care of infants, and examination of industrial workers, the Department continues to labor at great disadvantage and with but incomplete results because of a lack of physicians and nurses to do the work. The example of many a smaller City in school medical inspection, the per capita allow-

ance of $1 from the tax levy for the prevention of disease in Seattle, etc., exhibit New York City to its great disadvantage, if measured by modern standards.

That sanitary control of preventable diseases and death is a matter of exact science is hardly to be doubted, and the health officer of New York City should be no more limited to a fraction of the necessary service than should the builder of a suspension bridge be expected to provide a safe span with three cables instead of the four he requires.

The needs of a community's health should be recognized by the financial officers, as they have been accepted by the laws and courts of the state, as superior to all other rights, material or aesthetic. Personal service to detect and control disease is a laudable excuse for an increase in the tax rate. The results warrant the expense. Economy of service has been practiced until study of new problems and investigation of promising preventive measures have become all but impossible without interfering with essential routine duties of the Department.

The City can have as much reduction of preventable disease as it wishes to pay for. Public health is purchasable; within natural limitations a city can determine its own death rate. Health insurance is as reliable and profitable an investment for the municipality as it is for the individual.

DIVISION OF RESEARCH AND EFFICIENCY.

Organization—The work of this Division, organized late in 1914, has been in the direction of administrative research and the development of more efficient methods of operation in and between Bureaus. Results have been secured not through a large staff directly attached to the Division, but through co-operation with the administrative officers and force in the various Bureaus.

General Departmental Features.

Experimental Health Districts—The work in the first experimental health district was organized and inaugurated by this Division, and a descriptive monograph published. Its work for the year is described elsewhere in the report of the Division of Health Districts. The Division aided in the extension and organization of the new health district system in the entire Borough of Queens.

Centralization Supply System—The methods of handling supplies in the various Bureaus of the Department were analyzed and the results used in planning the reorganization and unification of the supply system of the Department.

Standardization of Personal Service—The Division co-operated with the Bureau of Standards in placing the Department on a basis to conform with the standardization of personal service now being applied to the various City Departments. In the preparation of the 1916 budget the entire Department, with but few exceptions, was standardized on this new basis.

Campaign Against Overcrowded Cars—The Division inaugurated the campaign against overcrowded cars to prevent the spread of respiratory diseases, by organizing a system of inspection records and reports, and assignment of sanitary patrolmen to cover the various surface lines throughout the City to insure compliance with the orders issued.

1916 *Budget*—The field notes from the various Bureaus were analyzed for the preparation of the Departmental estimate of its budget. Many conferences were held with the Bureau of Standards in analyzing the needs and requests of the Department, and additional analyses prepared at its suggestion.

Compliance with Orders and Notices Issued—An investigation was begun of the Department's follow-up system of orders and notices issued.

Organization Charts—Co-operating with the Bureau of Standards, the Bureau organization charts were analyzed to insure accuracy.

Transportation Service—The entire transportation service of the Department was studied, resulting in the recommendation that a Division of transportation be established.

Standardization of Quantity and Quality of Work—Co-operating with the Board of Promotions, analyses were made of the quantity and quality of work performed by groups of employes with a view to their standardization. Very shortly after this was begun, the Civil Service Commission took up and continued to study this same question.

Printed Forms—To secure Departmental uniformity, a study was begun of the printed forms now in use in the various Bureaus, which will be completed before the 1916 annual requisition for printed forms is prepared.

Space Occupied in Manhattan and Brooklyn Borough Buildings—Analyses were made of the floor space in the Manhattan and Brooklyn buildings with a view to better distribution of the various Bureaus.

Bureau of General Administration.

Division of Stenography and Typewriting—The Division assisted in the organization and development of a Central Division of Stenography and Typewriting. Its work during the first six months of 1915 resulted in its extension to the Borough of Brooklyn.

Study of the Bureau—A study was begun of the General Administration administrative methods, distribution of personal service records and other matters connected with this Bureau.

Complaint File—A new form was devised for recording complaints received, giving more ready reference than the system heretofore in operation.

Watchman Service in Brooklyn Borough Office—Investigation of the watchman service in this office showed that it was overmanned and resulted in the transfer of some of the force to the Borough of Queens, and the cancellation of the contract with an outside concern for cleaning.

Bureau of Public Health Education.

Cost of Mailing Bulletins—An investigation of the postage rates required for mailing the Weekly and Monthly Bulletins showed that the present system of distribution was as economical as could be secured. Delivery of these packages by express was not considered advisable.

Monograph Service—Requests from this Bureau for a multigraph service to be installed in the Division of Stenography and Typewriting resulted in its establishment, and operation was commenced September, 1915.

Bureau of Records.

Stenographers and Typewriting Copyists—Analysis of the work of these employes showed that much time was given to clerical work. These employes, working out their title, are gradually being transferred to the Division of Stenography and Typewriting, and their places filled by clerks.

Physicians' Registry—An analysis was begun of the system in use to register physicians with the Department, and a modification of the system prepared.

Bureau of Child Hygiene.

Examinations by Private Physicians—A study was begun to determine the value of the examinations of children entering school as made by private physicians.

Respiratory Diseases in Schools—The Division co-operated in planning for a special study to determine the prevalence of conditions aggravating respiratory diseases in school children.

Bureau of Preventable Diseases.

Quarters for Wassermann Clinic—Plans were prepared for the Wassermann Clinic on the main floor of the Manhattan building.

Bureau of Food and Drugs.

Sampling Squad—The sampling squad was reconstructed for more effective administration.

Food Applications—An investigation of the present method of handling Food Bureau applications at the Manhattan headquarters resulted in their transfer to the respective Borough Offices, thus affording more convenience to the residents of the Borough.

Filing System—The methods in vogue for filing records were investigated and improved.

Sanitary Bureau.

Bureau Forms—Forms were approved for a new system of filing completed complaints.

Activities of the Health Squad—Analysis of the activities of the sanitary patrolmen showed a varied line of activities, some of which possibly might be transferred to the sanitary inspectors.

Bureau of Laboratories.

Analysis of Bureau—An analysis was made of this Bureau, including matters of organization, distribution of personal service and accounting methods, research studies, Civil Service limitations of the efficiency of the service, and similar matters, the information being used for the 1916 budget. Special studies were made of the service in culture stations, in the preparation of culture media, and the sale and distribution of laboratory products, and changes were suggested for improving these phases of the Bureau's activities.

Filing Methods—A proper method of filing the various report cards used in the Division of Diagnosis was outlined for immediate installation.

Preparation of Diagnostic Outfits—Studies were made which secured additional labor service for the preparation of diagnostic outfits for the diagnostic laboratory.

Bureau of Hospitals.

Drug Laboratory—The personal service budget of the Drug Laboratory was studied for the 1916 budget. Eventually the Drug Laboratory was transferred to the Department of Public Charities in order to secure a central city service.

Hospital Costs—Analysis was made of hospital costs to determine the apparent increase of expenditures for the past few years as contrasted with the stationary censuses for the same periods. The studies showed that the actual service given in terms of hospital days was very much greater than the increased cost of conducting this service.

DIVISION OF HEALTH DISTRICTS.

Health District No. 1.

Organization. Health District No. 1 was opened in its present quarters, 206 Madison Street, about January 1st, 1915. It is located in the lower East Side of the Borough of Manhattan, and includes one complete federal census tract or area of twenty-one (21) square blocks with a population of about 30,000, practically all Russian and Austrian Hebrews.

It was designated as an experimental district. First: to demonstrate the feasibility of combining the Health Department functions of the district under the direction of a local Health Officer; and second, to cultivate among the people of the district a co-operative spirit for the improvement of their health and sanitary conditions.

The work of the Bureaus of Child Hygiene and Preventable Diseases was consequently combined, producing a nursing staff capable of rendering to the family all of the nursing functions of the Health Department, thereby obviating duplication of visits by nurses, to the same family. This has familiarized the nurse with the health needs of the entire family and has resulted in a better understanding and closer connection. It has also made it possible to perform more than one Health Department function at one and the same visit, and has resulted in the saving of nursing service, giving an average of over seven (7) visits per nurse per hour, a record not possible under previous conditions and not equalled in any other part of the city.

Records. The records and files consisted of those required by the different Bureaus, with the addition of such as were demanded by the combination of the services of the respective Bureaus. The most important of these were the following:

Tally Sheets: Showing the quantity of work performed for, as well as the percentage of the total time given to each Bureau.

House Cards: Giving a record of every Health Department function performed in the house, constituting a complete record of that house.

Family Record Card: This card is entirely new in Health Department records, no effort having been made previously to treat the family as a unit, and was devised to meet that need. It contains on its face a full description of the sanitary condition of the house and rooms occupied by the family as well as the complete social record of all its members, and on the reverse is entered every Health Department function performed in the family. It thus constitutes a permanent record of the family, showing the Health Department functions served. It is also a valuable record of those children who, having had contagious diseases, and being immune, may therefore attend public schools. It has room for a number of subsequent addresses to which the family might move, and would be transferred to the Health District office of the new district.

Routine Activities. The work of the Bureaus of Child Hygiene and Preventable Diseases have been carried on in the prescribed manner. Special mention may be made, however, of the following:

The milk station enrollment of babies increased from less than one hundred to six hundred and fifty-one, with a total of only seven deaths from all causes for the entire year.

The medical school inspections, the main object of which is the examination of pupils for, and the correction of defects, have shown practically 100% of corrections of such defects in Public School 62 of this district, where 540 pupils were found to have 670 defects, which, with the exception of one case, were all corrected during the school term of four months. Correction of the defects of the pupils of this school during the school term is absolutely essential, in view of the fact that it graduates a class of 650 pupils at the end of every term.

New Activities.

Conferences with Food Handlers. An entirely new method of dealing with food handlers has been developed. Instead of following the old police method of Health Department inspection, any violations found being followed by prosecution in the courts, a system of education was substituted therefor. Groups of food handlers were invited to the Health District office where thorough instructions in the Department regulations regarding their business were given to them in their own language and all their questions properly answered. The response to these invitations was most cordial, over seventy-five (75%) per cent. of those invited attending.

Conferences with Janitors. The conferences with the food handlers were followed by similar meetings with janitors who were invited to the Health District office where the rules and regulations governing tenement houses were thoroughly explained in Yiddish by a Tenement House and Health Department Inspector. These meetings aroused much interest among the janitors, and their demands for instruction were so insistent that a little booklet was prepared for that purpose by the Health Officer, to be printed by the Health Department in English and in Yiddish for free distribution among the janitors.

Police Co-operation. This new activity is one of the most important which has been developed in Health District No. 1, and if made of city-wide application will be a most valuable adjunct to the work of the Department of Health.

The most difficult problem that has at all times confronted the Health Department has been the insufficient working force for the adequate performance of its work, especially as applied to field inspections. By enlisting the co-operation of the Police Department, having the patrolman make inspections while on his beat, thereby making him a *de facto* health officer, a long step was taken toward the solution of the problem. The *modus operandi* was as follows:

In order to familiarize the policemen with the work, short talks relating to the case in hand were given by the Health Officer, who would assign to the patrolmen of the outgoing platoon any cases on their beats that require a Health Department inspection. These assignments consisted of posting of placards, enforcing quarantine and private funerals in contagious diseases, visiting delinquent tuberculosis patients, and making reinspections in cases of violations found by sanitary and food inspectors. The cases assigned were described briefly on a card provided for that purpose, on the back of which, the patrolman entered the findings of his inspection, and in case of uncorrected violations, could be used against the offender in court as evidence of sufficient warning. The value of this work lies in the possibility of practically continuous supervision by uniformed policemen, which, in itself, is very effective, and in increasing the resources of the Department of Health by this additional field work without entailing any added expenditure by the City.

The results of the conferences with the food handlers and the janitors, and the co-operative police visits, can be summed up briefly and yet effectively. Before these procedures were introduced the number of violations found by sanitary and food inspectors were 19% of the inspections made; they were reduced to five (5%) per cent. after the introduction of this system.

The benefits of a city-wide application of this system to the city is so apparent that no comments are necessary.

Public Health Education.

The community work performed in the district has naturally been done by systematic public health education, in which lectures, clean food exhibits, short talks, conferences, articles for newspapers, distribution of health literature and the publication of a monthly bulletin have each played a part. The lectures were given in

English and Yiddish, and covered such subjects as Tuberculosis, Care of Babies, Patent Medicines, Industrial Hygiene, Clean Food, Venereal Diseases, First Aid to the Injured and Personal Hygiene. The hall loaned by the Educational Alliance for that purpose, holding over six hundred (600) was full at every lecture. A monthly periodical, "The East Side Chronicle," the front page being printed in Yiddish, was published and a copy sent to each of the five thousand (5,000) families of the district free of charge. All of this work has met with great approval by the people of the district, and the figures are given in the accompanying table.

Boys' Health League.

For the purpose of developing in the younger generation a sense of responsibility for local health conditions, a Boys' Health League has been formed upon a military basis with a Captain and three (3) Lieutenants in charge of a square block. This organization has received a course of lectures in personal hygiene, and on the Sanitary Code of the Department, and has been very useful in reporting sanitary violations, acting as ushers at lectures and distributing the monthly periodical and other health literature throughout the district.

Co-operation With Other Organizations.

The co-operation given by the various civic, social and charitable organizations and other City Departments has been very close and satisfactory. The investigator of the Department of Charities of this district used the Health Department office as her headquarters, had physical examinations of her applicants made by the medical inspector of the district, consulted the files for any information she might desire, and entered on the house and family cards all of the cases assigned to her for investigation.

The Health Officer was put on the executive boards of many organizations of the district, and was thus enabled to be quite active in all district affairs.

Experimental Work.

Health District No. 1 has also served as a sort of an experimental laboratory, carrying on an all-year Infant Saving Campaign, keeping every baby under a year under constant supervision at home in order to determine whether such supervision, as compared to the summer supervision as carried on at present by the Department of Health, would still further reduce the infant mortality. Studies of breast and bottle fed babies were also made. A special investigation of city born babies is being carried out, to be compared with the one recently made by the United States Government at Johnstown, Pa.

TABLE SHOWING WORK PERFORMED FOR EACH BUREAU BY HEALTH DISTRICT NO. 1.

1915.

Bureau of Child Hygiene

at Milk Station.

New Babies Enrolled	651
Visits of Babies	12,422
Babies Examined	9,494
Mothers Instructed	9,494
Pre-Natal Mothers Enrolled	30
Pre-Natal Cases Terminated	10
Pre-School Children Examined	448
Vaccinations	588

At Public and Parochial Schools.

Physical Examinations	2,676
Physical Re-Examinations	1,338
Inspections for Contagion:	
By Medical Inspectors	16,813
By Nurse	34,836
Pupils Instructed About Physical Defects:	
By Medical Inspectors	2,828
By Nurse	796
Parents Consulted About Physical Defects:	
By Medical Inspectors	429
By Nurse	128
Physical Defect Cases Terminated	1,144

Field Visits.

For Milk Station	6,142
For Medical School Inspection	3,558
For Infant Saving Campaign	3,304
For Miscellaneous	326
Total Visits	13,330

Bureau of Preventable Diseases.

To New Cases Tuberculosis	124
Diphtheria	142
Scarlet Fever	104
Whooping Cough	20
Measles	208
Typhoid Fever	10
Poliomyelitis	1
Revisits to Tuberculosis	1,162
Revisits to Contagious Cases	1,225
Total Visits	2,996

Bureau of Public Health Education.

Lectures in English and Yiddish	16
Average Attendance	590
Conferences of Food Handlers	7
Average Attendance	52
Conferences of Janitors	5
Average Attendance	48
Meetings of Little Mother Leagues	63
Average Attendance	12
Meetings of Boys' Health Leagues	34
Average Attendance	30
Lectures to Boys' Health Leagues	8
Average Attendance	200
Short Talks to Patrolmen	20
Lectures to Police Sergeants	3
Number of Monthly Issues of East Side Chronicle	8
Total Copies Distributed	40,000
Health Literature Distributed	85,300
Health Reels at Community Centre (P. S. 62)	6
Average Attendance	350
Baby Contest and Parade (Number of Contestants)	90
Clean Food Exhibit (10 days), Average Daily Attendance	300

Sanitary Bureau.

Inspections of Buildings	1,159
Violations Found	60
Violations Abated by Personal Effort	97
Court Cases	2

Bureau of Food and Drugs.

Inspections of Stands and Push Carts	2,980
Inspections of Stores	1,904
Violations Found	440
Violations Abated by Personal Effort	448
Court Cases	60

BUREAU OF GENERAL ADMINISTRATION.

EUGENE W. SCHEFFER, *Secretary.*

ORGANIZATION BUREAU GENERAL ADMINISTRATION—1915.

	Total	Commissioner's Office	General Administration	Manhattan	Bronx	Brooklyn	Queens	Richmond
Commissioner	1	1						
Secretary to Commissioner	1	1						
Stenographer to Commissioner	1	1						
Secretary	1		1					
Law Clerk	1		1					
Auditor	1		1					
Chief Clerk	1		1					
Clerks	68	1	41	10	3	5	3	2
Bookkeepers	4		4					
Stenographers	34		33				1	
Typewriting Copyists	26		24		1	1		
Telephone Operators	10			6	1	3		
Medical Inspector	1	1						
Food Inspector	1		1					
Assistant Engineer	1		1					
Sanitary Inspectors	5		5					
Inspector Repairs and Supplies	1		1					
Laboratory Assistants	2		2					
Messenger	1			1				
Stationary Engineer	1					1		
Firemen	3				1	2		
Foreman of Laborers	1			1				
Laborers	22			10	1	10	1	
Cleaners	29			20	2	7		
Automobile Enginemen	6		6					
Elevator Attendants	2					2		
Janitor	1					1		
Total	226	8	122	48	9	32	5	2

WORK OF THE YEAR.

The year 1915 marked the development of the organization and centralization of the business functions of the Department with the purpose of relieving other Bureaus of activities which could be more economically and effectively administered under central control.

The procedures in connection with the Secretarial work of the Board of Health, the auditing and accounting, purchase, inspection and storage of supplies, the care of buildings and grounds, supervision of construction and repair work, and other functions of lesser importance, were carefully studied and improvements made.

Improvements were effected in the arrangement of the Board calendar and in the methods of filing and indexing the minutes, whereby the work of the Board has been facilitated, such as the separation of routine matters from those requiring special

attention, thereby leaving the Board free to give full consideration to such questions of importance or policy which demand special scrutiny.

Greater care was exercised to secure Board action, as required by the Charter, in place of independent action on the part of officers of the Department, it having been found that numerous rules and regulations governing Departmental procedure were in force which had never been adopted by the Board.

The former custom of officials of the Department of communicating directly with other branches of the Municipal Government has been replaced by a centralization of such correspondence in the Bureau of General Administration.

Law Division.

The work of this Division was increased during the past year through its more extensive use as legal advisor to all branches of the service. It afforded great assistance in framing rules and regulations supplementary to the Sanitary Code, and in guiding the procedure of the employees in obtaining and preparing evidence in cases for prosecution.

The noticeable increase in the number of successful prosecutions in the courts is evidence of the more careful preparation of cases.

The following comparative table for the year 1914 and 1915 gives an idea of the amount of work accomplished by the Law Division in conjunction with the Bureau of Penalties of the Law Department:

Civil Actions.	1914.	1915.
Violations received and notices sent	11,345	7,439
Violations complied with before suit	10,096	7,270
Civil actions begun	326	123
Amount of penalties collected in civil actions	$1,642 00	$918 00
Criminal Actions—Magistrates Courts.		
New cases in Magistrates Courts	10,545	12,346
Held for Special Sessions	1,848	2,192
Discharged	1,365	1,582
Fined	6,044	6,756
Sentence suspended	1,362	1,789
Jail sentence	24	17
Amount of fines imposed	$14,270 25	$13,888 75
Criminal Actions—Courts of Special Sessions.		
Fined	793	1,241
Discharged	341	386
Sentence suspended	770	951
Jail sentences	15	15
Amount of fines imposed	$28,585 00	$29,326 00

The work of the Division includes a careful scrutiny of all proposed legislation for the purpose of securing the necessary influence to protect the interests of public health work in this City. Until 1915 this work was not systematized, and only sporadic efforts were made when matters were specially called to the attention of the Department.

Division of Purchase and Control of Supplies.

Due largely to a more rigid scrutiny of all requisitions coupled with a knowledge of stock on hand and the monthly consumption, together with the more careful preparation and segregation of the Budget, a notable saving was effected in supplies during 1915, notwithstanding increased activities and additional hospital accommodations.

Supplies.	1914.	1915.
Appropriation	$975,785 00	$871,272 00
Expenditures	851,006 24	835,780 13
Unexpended balance	$124,778 76	$35,491 87

It will be noted that in 1915, after the Budgetary appropriation had been reduced under 1914 by over $100,000, the Department effected a further saving of $35,491.87.

In order to show the Director of each Bureau precisely where that Bureau stood in the matter of supplies, and whether in a given month goods had been consumed in excess of the available appropriation for any particular purpose, a form was devised and put into use for monthly distribution showing the following facts:

1. Amount of annual appropriation for supplies (each appropriation item separately stated).
2. Amount of monthly appropriation calculated as one-twelfth of annual appropriation.
3. Amount of requisitions, item by item, during the month covered by the report.
4. Amount available for the period since the beginning of the fiscal year (on a pro rata basis).
5. Amount actually used since the beginning of the year.

Definite schedules for such items as traveling expenses are arranged in advance and maximum allowances fixed.

Transfers of overstocks were arranged for to those branches of the service in need of same, and a system of control installed whereby an oversupply cannot be maintained in any branch for any length of time.

Unnecessary inspections were eliminated, as for instance in the case of drugs, the laboratories' report on any deviation from contract specifications and other inspection being dispensed with.

Some economy was accomplished by the combination of the interests of the Department with other city departments through the Central Purchasing Committee.

To obtain uniformity and to eliminate unnecessary duplication, a committee was appointed to pass on all new or revised forms to be printed through the Board of City Record with the purpose of reducing the number of forms and the amount of printing.

Division of Audit and Accounts.

A more systematic handling of the accounts was put in force, which has accomplished the prompt payment of bills and closer co-operation with the Department of Finance.

In conjunction with the latter Department, expense accounting was developed, and central payroll methods and semi-monthly payment of salaries introduced.

Per capita costs for the care and treatment of patients, and the maintenance of employees were computed monthly for administrative guidance.

A complete inventory of equipment was made and a record of additions and deductions kept.

The accounting methods in connection with the sale of biological products were revised with the assistance of the Commissioners of Accounts. Long outstanding accounts were settled, collected or adjusted, and a definite procedure adopted between the revenue producing branches of the service and the Division of Audit and Accounts.

Periodical reports and audits were made of all receipts, including revenues from sales of Laboratory products, the issuance of transcripts of records, and fees for market inspection, which apparently had little or no supervision before 1914.

Division of Stenography and Typewriting.

On January 1, 1915, the stenographic and typewriting service in the Headquarters of the Department was completely centralized with the purpose of serving the entire Department in Manhattan.

On December 1, 1915, the Division's work was extended by the inauguration of the Brooklyn Branch.

The results of this change proved its value in providing for a more even distribution of service, eliminating unnecessary work and increasing the efficiency. It proved more economical, as increased work has been taken care of by a smaller staff. Five vacancies in Stenographers and Typewriting Copyists were not filled; furthermore a number of clerks in the various Bureaus who formerly combined typewriting with clerical service were enabled to devote their entire attention to clerical work, and otherwise necessary increases in the clerical staff were avoided.

Dictating machines were installed for twelve of the Departmental officials, saving considerable time and increasing the output of both the dictator and stenographer.

Mimeographic work, formerly done by the various Bureaus, was taken over by the Division and performed by specially trained employees. The scope of the multigraph work was enlarged, so that cards and line work are handled as well as letters and reports. An electrically driven machine is used, which turns out from three to four times as much work as the hand machines formerly used.

Form letters were adopted in all Bureaus for routine matters and specific instructions issued for their use, thus eliminating much unnecessary dictation and typewriting.

A complete record has been kept of the upkeep cost of each machine, so as to determine the period when it will be more economical to replace a machine than to continue repairs.

Division of Construction and Repairs.

The work of this new Division consists of the inspection of building and engineering construction, enforcement of contract specifications, the writing and enforcement of specifications for repair work and other building maintenance.

Until November, 1915, this work was under the supervision of the Chief Clerk. At that time a Division of Construction and Repairs was organized and an assistant engineer was appointed and placed in charge of the Division.

Through this organization it has been possible to exercise trained supervision over the operation of the heat, light and power plants of the Department.

Central Correspondence and Record File.

The work of the Central Filing Division was extended to provide for current filing of all correspondence of the Bureau of General Administration and Bureau of Records and for handling of correspondence and records of other Bureaus that deal with general Departmental and inter-Bureau matters.

Borough Offices.

An analysis of the laboring force in Brooklyn employed in the care of buildings and grounds resulted in a redistribution of the work, so that it could be performed by three laborers instead of six. Two of these extra employees were assigned to Queens, thereby enabling this function to be performed by Departmental labor instead of by contract.

Issuance of orders for abatement of complaints were placed under the direction of the various Assistant Chief Clerks instead of at the central office as formerly. This facilitated the current administration and afforded added convenience to the Borough residents.

Definite time schedules for telephone operators were adopted, rendering unnecessary the improper assignment of clerks and others to this service. Provision was made for additional facilities outside of office hours which eliminated the former frequent complaints from those having business with the Department on Saturday afternoons and holidays.

TABLE 1.

COMPARATIVE STATEMENT OF EXPENSES OF THE DEPARTMENT OF HEALTH

	1914.	1915.	Increase.	Decrease.
General Administration	$267,356 24	$287,568 36	$20,212 12	.....
Public Health Education	.....	18,405 05	18,405 05	.....
Bureau of Records	65,417 67	65,884 73	467 06	.....
Child Hygiene	657,965 58	671,809 99	13,844 41	.....
Preventable Diseases	615,729 37	536,611 58	.....	$79,117 79
Sanitary Inspection	277,276 39	293,393 63	16,117 24	.....
Food Inspection	214,710 16	248,710 65	34,000 49	.....
Research Laboratory	157,398 07	223,377 89	65,979 82	.....
Hospital Service—				
Administration	4,245 90	12,059 32	7,813 42	.....
Drug Laboratory	9,236 92	11,160 58	1,923 66	.....
Willard Parker	253,459 07	253,495 79	36 72	.....
Riverside	288,113 49	281,916 26	.....	6,197 23
Kingston Avenue	186,840 40	191,276 92	7,436 52	.....
Otisville	250,562 02	223,755 34	.....	26,806 68
Totals	$3,248,311 28	$3,322,426 09	$186,236 51	$112,121 70

TABLE 2.

COMPARATIVE STATEMENT OF RECEIPTS OF THE DEPARTMENT TURNED OVER TO THE GENERAL FUND.

	1914.	1915.
Laboratory Products	*$86,832 31	$55,199 80
Transcripts	33,626 41	36,175 55
Auction Fat	1,279 71	883 83
Miscellaneous	3 07	112 14
	$121,741 50	$92,371 32

*Receipts greatly increased, due to the very large amount of tetanus antitoxin sold abroad during this year.

SANITARY BUREAU.

HAVEN EMERSON, M.D., *Deputy Commissioner and Sanitary Superintendent*—January 1 to November 22.

ORGANIZATION SANITARY BUREAU—1915.

	City	Executive Office.	Sanitary Engineer.	Sanitary Police	Manhattan	Brooklyn	Bronx	Queens	Richmond
Assistant Sanitary Superintendents	5	1	..	..	..	1	1	1	1
Medical Inspectors	5	..	..	..	2	1	1	1	..
Sanitary Engineer	1	..	1	..	..	..	..	..	..
Sanitary Inspectors	69	2	1	..	23	22	7	9	5
Clerks	22	6	..	..	5	6	2	3	..
Stenographers and Typewriters	3	..	..	..	..	2	..	1	..
Typewriting Copyists	2	..	..	..	..	..	1	..	1
Foreman of Laborers	3	..	3	..	..	..	..	..	..
Laborers	16	..	16	..	..	..	..	..	..
Chauffeur	1	..	1	..	..	..	..	..	..
Driver	1	..	..	..	..	1	..	..	..
Lieutenant	1	..	..	1	..	..	..	..	..
Sergeants	2	..	..	2	..	..	..	..	..
Patrolmen	50	..	..	50	..	..	..	..	..
Total	181	9	22	53	30	33	12	15	7

The advances in preventive medicine have meant a corresponding advance in the study and knowledge of sanitation, and the enforcement of sanitary requirements, and have resulted in the adoption by the Board of Health of practically a new Sanitary Code, and regulations supplementary thereto, with a consequent broadening of the scope and activities of the Sanitary Bureau.

The year 1915, therefore, has been particularly busy and interesting for the Bureau. With each new activity the field broadened and professional and public interest in the more advanced and enlightened health standards was awakened.

Stables and Manure.

Permits for Stables. The Bureau, mindful of the pernicious activity of the common fly, early in the year inaugurated a vigorous campaign against prevailing conditions, in connection with its principal breeding place—manure. This entailed a survey and inspection of all horse stables in the City and the correction of insanitary conditions found therein. To better carry out such procedure, the Board of Health adopted a new Section (58) of the Sanitary Code, which made it incumbent upon owners of all stables to procure a permit from the Board of Health for the continued use of their premises as stables. Before such a permit could be obtained, the applicant was required to comply with certain regulations in the construction and maintenance of his stable. These regulations required that his premises be adequately lighted, ventilated, and water supplied; that the floor be of watertight, non-absorbent

material, graded to proper sewer or cesspool connections; that all manure be removed from the premises daily or baled, barreled or treated, as approved by the Department, and the manure so pressed or treated, removed twice a week.

As a result of the necessary inspection, the Department now has on file complete records of all stables in New York City.

These requirements won the approval of a large number of stable owners throughout the city. They soon found that by providing the necessary equipment it was an easy matter to comply with the maintenance clause of the regulations. They found that their stables could be readily and properly cleaned and kept clean. Conferences were held with several of these owners and the use of larvacides, such as borax and hellebore, as recommended by the U. S. Department of Agriculture, were explained. Quite a number of these men showed their willingness to co-operate with the Department in its fight against the fly, by their use of this material. The absence of flies, pupae, and larvae at one stable where manure was not properly baled, barreled, or removed, but where borax in ample amounts was used (1 lb. to 8 bu. of manure) demonstrated what can be accomplished by the intelligent use of these larvacides.

Unfortunately, some stable owners were so short-sighted both as to their own interests and those of the community, as to object to the just regulations of the Department. With these a campaign of education and enlightenment was attempted. Where this failed of the desired result, court action was instituted, or the power of the Board to declare the offending stables public nuisances, called into being. It may safely be said, as a result of this crusade, that the stables of New York City were never in better condition than they are today, and the good result will be shown by the lessened number of flies present in the city during the summer months.

Transportation and Disposal of Manure. The transportation of manure from the stable to its point of disposal has been regulated by permit, and very little nuisance has resulted. The vehicles in which manure is carried are required to be tight, of good sound construction, and each provided with a suitable cover of sufficient size to completely cover the manure within the vehicle and be securely fastened on all sides to the vehicle. Whenever violations of these requirements were found, warnings were given, and court action followed repeated infractions.

Manure is disposed of in several ways. In some cases it is carried by farmers to farms within or without the city limits. In others, it is transported to docks along the river front set apart for the purpose and dumped upon scows, or to railroad sidings and loaded upon cars. Where this work is properly done no great nuisance results, as the scows and cars are removed every 24 or 48 hours. When through failure of transportation facilities the manure is retained for periods of over four days, as sometimes happened during the late summer, the shipper was required to properly treat the manure with borax and to remove the scows at the earliest possible moment. As a rule, these docks are provided with suitable dumping boards and aprons to prevent the manure falling into the water. It is generally a simple matter to maintain these docks in a clean condition.

Considerable difficulty was experienced in keeping the railroad sidings and the surrounding ground surface clean. Manure and liquid filth would collect in the interstices of the granite block pavement adjoining the tracks and between the ties. Efforts to sweep this granite surface clean met with small success, due to its unevenness. These places formed ideal breeding spots for flies. The only satisfactory solution of the question seemed to lie in the cementing of the ground surface between and immediately adjoining the tracks and grading this to discharge all liquids into one or more drains connected with sewers or cesspools. With this in view, conferences were held with the representatives of the railroads and the shippers. After

the question of responsibility had been satisfactorily settled, two companies immediately complied with the Department's requests, and the results were exceedingly gratifying. It became an easy matter to keep these sidings clean by sweeping the droppings into a pile, returning them to the cars, and flushing down the ground surface with water at the end of each day's work. Photographs of these sidings were used to convince representatives of the other railroad companies engaged in this business, of the practicability of the Department's requirements. As a result, these companies have signified their intention of complying, and have submitted plans to the Department for approval.

Storage of Manure. During the summer months, the manure companies, especially those shipping to Long Island points, find it extremely difficult to secure a market for their product. This is due in great part to the small demand for manure at that season of the year, and to the growing tendency on the part of the officials of small villages, along the railroad lines, to place an embargo upon the receipt and unloading of manure at such times. In order to meet this condition the experiment was tried of allowing two of the foremost shippers of manure in the Borough of Brooklyn to store their manure on a plot of ground in a very sparsely built up section, adjacent to Newtown Creek. Regulations were drawn up for their guidance. These included the providing of proper surfaces upon which to store the manure, graded toward watertight gutters. These gutters in turn were graded to cesspool connected drains. The manure was to be treated with borax in the proportion of 1 lb. to 10 bu., the borax to be applied in powdered form and wet down with water. These companies jumped at the opportunity thus afforded, but unfortunately were so shortsighted as to refuse or neglect to properly comply with the official regulations. Flies began to breed rapidly and the Department found it necessary to sprinkle formalin on this manure in order to prevent further breeding, and to order the removal of the manure so stored. It is safe to say that these companies will not be permitted to again avail themselves of any such opportunity.

Horse Yards. The European War caused a demand for horses from this country, and a large number of these were shipped from the Port of New York. The lack of shipping facilities required the yarding of these horses in the city until ships were available. These yards were established on the middle west side of the Borough of Manhattan, and daily inspections were made by sanitary inspectors to compel the maintenance of sanitary conditions, the removal of manure, and the proper disposal thereof to prevent the breeding of flies.

City Water Supply.

Under the Charter of the City of New York, the Department of Health is required to keep the Watershed under supervision in order to preserve the wholesomeness of the water supply of the city. Periodic inspections of the watersheds supplying the principal reservoirs of the city were accordingly made by sanitary inspectors, to prevent pollution. Samples of the water supplied the City from the Croton and Ridgewood sheds, as well as from public and private wells were collected regularly for bacteriological examination and chemical analysis. These collections and the resulting laboratory work entailed much effort on the part of the Department, but the necessity for safeguarding the water supply of the city required such action.

Barren Island. On Barren Island the water supply is entirely from driven wells. The wells for the rendering plants and the public schools are over 700 feet in depth, and the water is of good quality. In most of the dwellings, however, the wells were shallow, receiving more or less surface wash and consequently the water was

of poor quality. Wherever these shallow waters proved upon analysis to be polluted, the use thereof was ordered discontinued. Failure to comply resulted in the destruction of the pumps. The company controlling one of the rendering plants ran pipes to a considerable number of the houses on the island and supplied them with water from its own well, which water was shown to be of good quality. Most of the other inhabitants of the island procured their water from the overflow pipe of the public school well and from the rendering plants.

Summer Camps. The water supply provided for the occupants of the summer camps has always been a source of worry to the Department. During the summer of 1914 camps were conducted at Gravesend Beach, Brooklyn, and Midland Beach, Richmond, and at both of these camps water from the wells in use was found on analysis to be unfit for human consumption. Efforts were made to provide a better supply in each case, but the summer ended before anything definite could be accomplished. Warned by this condition the Department inaugurated a campaign early in 1915, before the opening of the camp season. Samples of the water from these wells were collected and examined and the results of the analyses were made known to the camp owners at conferences held on the grounds, and in the respective Borough Offices of the Department. The help and co-operation of the owners were enlisted, and the powers of the Department used to bring into the fold all recalcitrant offenders. City mains were tapped at a considerable distance, and pipe run to each bungalow or tent requiring water. To show the amount of excavating, pipe, etc., necessary, it may be noted that at Midland Beach over 6,000 feet of such water pipe were laid.

Transportation Companies. Common carriers engaged in the transportation of passengers between the different states are required by the Federal Government to provide a supply of potable water and ice when necessary in their conveyances. It is also required that the quality of this water and ice shall, every six months, be vouched for by the local Board of Health after an analysis and examination and after a sanitary survey of the source thereof. As a consequence of these requirements, this Bureau made the necessary surveys, analyses and examinations, and issued certificates to nearly all the transportation companies running from this city into other states.

Water Boats. There are in the harbor of New York about 23 so-called "waterboats" licensed by the Department of Water Supply, Gas and Electricity. These are generally constructed of wood though some have large iron and steel tanks. They carry city water from designated hydrants to boats or ships around the Port of New York. In order to safeguard those who use this water for drinking purposes, the Bureau made a survey of these boats and their methods of operation, and took samples of water from the tanks for laboratory examination. Co-operation with the Department of Water Supply, Gas and Electricity has tended to maintain these waterboats in a sanitary condition.

Bottled Waters. A large number of bottled table waters are sold in New York City which have not heretofore been under close scrutiny. The Bureau has gathered information relative to such waters and ownership of same, in order to enforce Section 135 of the Sanitary Code, requiring the proprietors to procure a permit from the Department of Health for the sale of such waters in the City of New York.

Mosquitoes.

The Summer and early Fall of 1915 will stand out prominently in the minds of New Yorkers on account of the prevalence of mosquitoes. Of course, the real explanation of this pest was the exceedingly heavy rainfall. Every storm of any

magnitude assisted in the obstruction of the flow in natural water courses and ditches, preventing the proper flushing thereof, and allowed mosquitoes to develop. Catch basins and lakes in the parks, water fountains, low lying land, obstructed roof gutters and leaders, rain water barrels, in fact every vessel capable of containing water, became a potential danger—a breeding place for mosquitoes. To abate this nuisance the Department used every resource at its command. An educational campaign through the newspapers, various civic organizations, city departments, and public schools, supplemented the work of the sanitary inspectors and the laborers of the Mosquito Squad. The latter spread 81 barrels of oil in catch basins in the public parks, and over accumulations of water on vacant lots where the ownership could not be established. They piped several old ditches in the Borough of Queens, cleaned out 206,445 feet of ditches, dug 143,261 feet of new ditches, placed about 700 cu. yds. of fill and removed obstructions from drains in a large number of yards of vacant houses.

In addition to the above, swampy and marshy areas have been filled either at the instance of the Sanitary Engineer or the sanitary inspectors. This work comprised large tracts in The Bronx—on both sides of Westchester Avenue near Clason Point Road, along the Bronx River adjacent to Clason Point, the Hunts Point and the Kingsbridge Sections. In Queens Borough, there were large fills in the Jamaica Hillcrest Section, in the section adjacent to Flushing Creek at Flushing and Corona, and in the Ravenswood and Astoria sections. In Richmond, Prall's Island, and a large portion of the Chelsea Meadows have been filled. In Brooklyn, considerable filling has been done in the Flatbush, Gravesend and Ft. Hamilton Sections and adjacent to Hubbard's Creek.

Numerous mosquito breeding places were established in the different Boroughs by obstruction of the streets on account of subway or sewer construction. In ordinary seasons the water remaining on a street after rainfall would evaporate or seep away, but on account of the excessive rainfall this condition was altered. Depressions held water for a long time, allowing mosquitoes to breed therein. Either through the individual efforts of this Bureau, or through the co-operation of other city departments, the street gutters were cleaned, obstructions removed and the nuisance abated.

Sewers and Sewage.

The provision of proper sewers and the proper disposal of sewage will be of the greatest benefit to the city. The Bureau made every effort to remove sewage from all places where it could be reached by flies. The co-operation of the respective Borough Presidents, and the heads of the different city departments was secured.

Sunswick Creek Section, Borough of Queens. Here there were two sewers opening into vacant low land. At each rising tide sewage was forced back upon these lots, and exposed to flies and to the sun. Much against the wishes of the people of the vicinity, and especially of those who owned portions of the inundated land, the sewer openings were finally closed. In addition, all householders having pipes discharging sewage into this land were forced to disconnect the pipes, seal up the openings, and provide proper cesspool or sewer connections for their premises. While water still collected here it was rain water, and ordinary surface drainage, and not sewage. The surface of this water was oiled by the Mosquito Squad at frequent intervals, and a great portion of the low land harboring it filled with sweepings or ashes.

South Beach, Richmond. At this point there were several hotels and restaurants which had privy vaults. These were used during the summer season by a large number of visitors. The results were very offensive conditions and breeding places for flies. The privy vaults were disinfected, emptied, and replaced with properly

flushed cesspool connected watercloscts, giving general satisfaction to the proprietors of the establishments, their patrons, and the Department of Health.

County Jail and County Farm, Richmond. At the County Jail and at the County Farm (Poor Farm), Borough of Richmond, sewage was discharged on public and private property. The persons responsible (the Borough President of Richmond and the Commissioner, Department of Public Charities, respectively) had no means of abating these nuisances. However, through the efforts of this Bureau appropriations were procured from the Board of Estimate to correct these conditions. In the former case a complete subsoil filtration system was recommended, and installation begun; in the latter, tests were applied to all the plumbing fixtures of the colony and a knowledge of the actual conditions obtained. As a result a recommendation was made that the money appropriated be used for pipe to connect those fixtures, which discharged into the open fields, with the sewer formerly constructed exclusively for the Sea View Hospital and the Poor Farm, the excavating and laboring work to be done by the inmates of the farm. This was agreed to, and the work started.

Tibbitts Brook. This is a natural waterway in the Borough of The Bronx, starting at Van Cortlandt Park at the east side of Broadway running southwest across Broadway and finally emptying into a sewer at 230th Street. This brook receives sewage and drainage from Van Cortlandt Park, and the vacant lots, streets and dwellings in the neighborhood. A new sewer starting at Broadway and 240th Street, having been installed on Spuyten Duyvil Road, caused the ponding of water in a portion of this creek. A survey was made of the district, notices issued on the owners of the houses contributing sewage thereto, and on owners of vacant property on which this water ponds, requiring the abatement of the nuisance thereat. Conferences were held with the Park Commissioner and the sewer officials of The Bronx, and a tentative procedure looking toward the correction of the evil, so far as city property was concerned, was agreed upon. This required the piping of the sewage and drainage now entering this lowland from the Park to the siphon in the Spuyten Duyvil sewer and the filling in of the lowland. The Park Commissioner, keen to realize the danger if this condition were allowed to continue during the summer, is heartily co-operating in the effort to procure the necessary appropriation to properly drain and fill this lowland, and to have the offensive conditions removed before the warm weather returns.

Brooklyn Disposal Plant. The so-called sewage disposal plant of the 26th Ward of the Borough of Brooklyn was originally designed to handle about 8,000,000 gallons of sewage daily. The growth of this section has been so rapid that in 1915 over 20,000,000 gallons came daily to this station. The pumps in use were inadequate and insufficient to handle this volume of sewage and the greater part overflowed into the storm water sewer and discharged into Fresh Creek. This creek thus became an open sewer. At low tide the sludge collected on the banks was exposed to flies, and gave rise to offensive odors noticeable for a considerable distance inland. The Borough President co-operated in an effort to remedy this evil, and laborers from his office spread lime at regular periods over the banks of this creek. He assisted in procuring an appropriation for the installation of larger and better pumps at the disposal plant.

Sewage Screen, Dyckman Street. The Department obtained the co-operation and assistance of the Borough President of Manhattan in the establishment of a screen to remove the grosser particles in the sewage discharging into the Hudson River at Dyckman Street. The old sewer at the foot of Dyckman Street was inadequate and defective, and the sewage escaping there caused serious complaint. The Sewer

Bureau drew up plans and specifications for a screen chamber and a discharge sewer, and installation was begun.

Fort Totten. Attempts were made to interest the U. S. Military authorities in the proper disposal of the sewage from the Government Post at Fort Totten, Queens. Inspectors from this Department submitted sketches of a sewage treatment plant for the Post with specifications and cost estimates. The War Department expressed its willingness to co-operate with the city in this laudable effort, and to request the necessary appropriation.

Refuse Dumps: Ashes.

Dumps. The dumps for the refuse, ashes and street sweepings of the city, especially those inland, have always been a source of annoyance to people in their vicinity. The complaints were generally caused by the presence of flies, smoke or offensive odors. At most dumps trimmers are at work salvaging everything of a salable nature. The storage, on the dump, of this material, which includes bottles, paper, fat, bones, etc., offers an excellent breeding place for flies. Flies breed in those portions of the dump not covered with ashes or earth. To prevent this, the Department insisted on the periodic removal of the trim, the sprinkling thereof, and of the surface of the dump, with formalin. Further, the burning of the dump, or portions thereof, was prohibited and the construction of rude incinerators urged. It was found possible to burn old paper, barrels, boxes, etc., on such incinerators without any objectionable smoke, and at the end of the day water thrown on these fires prevented the smouldering, which has been the main source of trouble on most dumps.

In one instance the Department with its own laborers destroyed the large store of foul bottles, barrels of rancid fat, unclean papers, etc., on a dump, sprinkled the fly breeding places with formalin and spread earth over the surface of the dump. Public health and decency demanded drastic action in this case since a discontinuance of the dump as such, would have entailed a heavy loss financially on the city.

Ash Carts. New regulations relative to the construction of private ash carts were adopted during the year. Applicants for permits to transport ashes (other than steam ashes) were required to have their carts so constructed that two-thirds of the cart could be covered during the time that the cart is being loaded. Compliance with this regulation resulted in the prevention of the escape of the clouds of fine ash which generally accompanied the emptying of ash cans into the carts.

Smoke.

The campaign against the discharge of dense smoke was continued with excellent results. Conferences were held with the chief operating officers of a number of the railroad companies of the city in order to procure the discharge of less smoke by locomotives on the road and at round houses. In some instances coke or hard coal was substituted for soft coal as fuel. In one case plans of a smoke treatment apparatus were prepared and the company in charge to experiment to determine its efficacy.

For the first time an effort was made to control the discharge of dense smoke from the boats in the territorial waters of the city. Inspectors were assigned to obtain the name of the offending boats. Circular letters calling attention to the illegal discharge of smoke along with a copy of Section 211 of the Sanitary Code, were mailed to the owners of the boats in question. Finally, inspectors were sent out to arrest the captains of the offending boats, and a number were brought into court and fined. As a result, several of the large tug boat companies have hired special instructors to teach their firemen how to stoke with a minimum amount of smoke and are installing special devices to prevent the discharge of dense smoke.

Laundries.

To protect the employees and patrons of laundries from communicable diseases, all the proprietors were required to comply with the official regulations governing such business. A survey of laundries was begun and insanitary or unsafe conditions corrected wherever found. In conjunction with the Bureau of Laboratories tests were made to determine the germicidal effect of the washing of clothes as now conducted in these laundries. It was found in most cases, especially with woolen and silks, that the temperature of the water used was not sufficiently high to sterilize the washed garments. A study was instituted to determine the possible use of some germicides which will answer the purpose required without injury to the goods washed.

Baths.

Public Baths. At a conference with owners of public bathing establishments along the waterfront, during the Fall of 1914, the polluted condition of the waters of the Hudson and East Rivers was explained. It was decided then that there should be no permits granted by the Board of Health thereafter allowing of the operation of such baths in those rivers. It was further decided that any pool baths using the waters of these rivers would be required to filter and treat the water so used to render it safe for bathing purposes. These requirements were then adopted as reasonable by the Board of Health and were in force during the summer of 1915. As a result so-called "beach bathing in these waters has been practically eliminated, although court action was necessary in three cases for the enforcement of this safeguard. The installation of pool baths using filtered and treated water was encouraged and every aid possible brought to bear to induce the general public to make use of these safer bathing facilities. It has been decided that hereafter no permits will be granted for the maintenance of public bathing establishments in the waters of the City of New York between a line extending from Norton's Point, Brooklyn, to the Fort Wadsworth Reservation, Richmond Borough, and a line extending from Fort Totten, Queens Borough, to Fort Schuyler, Bronx Borough.

Mikveh Baths. In addition, a survey was made of the mikveh baths of the city, samples of the water from the pools examined and stricter regulations relative to the conduct of such baths adopted. Literature instructing the proprietors in the care of these bathing establishments has been prepared and it is believed that with the information thus provided a far higher sanitary standard will be maintained.

Miscellaneous Activities.

Fur Industry. A survey by the Bureau of Preventable Diseases showed that the beating and dressing of fur skins of animals was attended with considerable danger to those so employed, by reason of the dust. Sanitary inspectors served notice on all such establishments requiring the owners to install such devices as would effectually remove all dust and light particles from such furs and to safeguard the workmen.

Rats. To prevent plague infected rats from southern cities or from foreign ports being brought into the city by boats docking here, inspections of such vessels were made. Over 2,200 such inspections were made to see that ratguards were placed on all hawsers and a man stationed at the gangplank to prevent any rats from coming ashore. Night inspections were made to see that the gangplanks were raised. In accordance with an agreement with the Health Officer of the Port a record of every vessel, from a plague infected district, docking in this city was sent to the executive office of this Bureau.

Conditions in Office Buildings. The workers in the factories of the city have had considerable interest displayed in their physical welfare. Practically no effort has

been made to determine the conditions under which the employees in the office buildings work and to remedy harmful conditions of such employment. With this end in view a survey was begun of the offices in a downtown business section to determine the lighting, heating and ventilation conditions in such offices.

Odors and Gases. Nuisances caused by the discharge of offensive gases and odors or cinders from manufacturing plants in the city required considerable attention. In nuisances of this character successful court actions can be obtained only through the co-operation of the people affected. Notwithstanding the natural antipathy of most persons to appearing in court the Department has succeeded in procuring fines in the Court of Special Sessions. More to the point, were the efforts made by the offenders to so conduct their operations as to place them within the law and cease causing offense to their neighbors.

Barren Island. The garbage and offal reduction plants on Barren Island continued to be a nuisance to the people of the city, especially those living on the Rockaway Peninsula. Early in the year an expert was appointed to survey these plants and draw up recommendations for the prevention of the escape of odors therefrom to the mainland. This was done after a conference between the Mayor, the Board of Estimate, the inhabitants of the Rockaway Peninsula, the Street Cleaning Commissioner, and the Commissioner of the Department of Health. These recommendations were carried into effect and changes in the plants made in accordance therewith. Notwithstanding this compliance, the nuisance still continued, probably from neglect or refusal to use the appliances provided. Actions through the courts seeking the abatement of these nuisances are still pending.

Surveys of City Institutions. At the request of the Commissioners of the respective Departments surveys were made of a number of the institutions under the Departments of Corrections and Public Charities. In several instances sanitary inspectors of this Department supervised the correction of the insanitary conditions found.

During the year fires destroyed several stables and the live stock they contained In these cases orders were issued to the offal contractors to place a wagon in front of the destroyed stable at the disposal of the Inspector or Patrolman of the Health Squad there assigned. Where the remains of the horses were in an offensive condition they were disinfected before removal. By prompt action in each of these cases serious offense to the public was averted.

Comfort Stations. Comfort stations of a public or semi-public character received considerable attention from the Inspectors. These inspections were made to supervise not only the ordinary sanitary condition of such premises but to prevent the use therein of common drinking cups and common towels.

Seashore Resorts. During the summer months strict supervision was exercised over the playgrounds of the general public—the seashores. Here the bathing establishments, the camps, and houseboats with their hundreds of thousands of visitors, offered an exceedingly difficult situation from a sanitary standpoint. The co-operation of the proprietors of these establishments was sought and a campaign of education entered into for the elimination of insanitary conditions. It is a pleasing sign of the advance made to note that the old style tent is vanishing and being replaced by the more substantial bungalow with its individual, properly trapped, flushed and sewer or cesspool connected plumbing fixtures.

Wood Alcohol in Varnish. It appears that at one, two, or three year intervals the vats used to retain beer in breweries are scraped and given two coats of shellac. It was found that the shellac used often contains wood alcohol, and that this had serious and harmful effects on the painters at work in these vats. There is prac-

tically no natural ventilation provided for the vats, the only openings therein being a small manhole in front and an exhaust about 9 inches in diameter in the head of the vat. In these cases, for the protection of the workmen, blowers were installed which forced in a large amount of air at the manhole, and forced out the fume laden air at the top of the vat. In addition the Department succeeded in having grain alcohol shellac substituted for the wood alcohol schllac formerly in use.

At times the demand for watercraft was so great that boat owners were not able to lay up their boats for any length of time while being overhauled. As a result, it was found that practically no ventilation was provided in the staterooms, while painters were at work. A paint remover which was used to remove the old paint, contained arsenic and wood alcohol. In the closed rooms the dust and fumes were exceedingly dangerous to the men employed there. This Department ordered that all windows and doors of these rooms be kept open and electric fans provided to remove the dust and fumes. The officials in charge were also notified to provide materials for use which did not contain wood alcohol or arsenic.

Schools. The Bureau at the request of the Department of Education inspects and reports upon the suitability of premises leased for school purposes. Inspections were made of a number of schools (other than the public schools) for the purpose of determining the conditions under which these were conducted. The surroundings and methods in general were of a standard far inferior to those required of the public schools. Consequently the Board of Health ordained that in the interests of those attending these schools a permit for the continued operation thereof be required and that such permit be issued only after a compliance with reasonable standard requirements.

Dogs. During the year the constitutionality of the dog muzzling ordinance was upheld by the higher courts. The enforcement of this ordinance resulted in 3,290 arrests. The American Society for the Prevention of Cruelty to Animals collected and destroyed 36,537 dogs during 1915, this bureau co-operating to a great extent with that society.

Report Cards. The cards on which were entered facts relative to the stables of the city, having proved decidedly useful for ready reference and for statistical purposes, similar cards were prepared for several of the other activities of the Bureau, such as laundries, lodging houses, roof tanks, common utensils and towels, smoke, horse shoeing establishments, etc.

Permits. It was felt that the issuance of permits by this Bureau to run for a term of one year entailed unnecessary expense, and loss of time for the public and Department employees. It was decided therefore to return to the older plan of issuing permits which would remain in force until revoked, except in three or four matters of a seasonal nature. No lapse in the requirements of the Department will result as the surveys in progress will cause the regular periodic inspection of the premises and the abatement of any violations found.


SANITARY BUREAU
TOTAL COMPLAINTS
1910 57,111
1915 41,652
-28%
RESULT OF INSPECTIONS
NO CAUSE FOR ACTION
1910 19,957
1915 13,223
-32%
ABATED BY PERSONAL EFFORT
INCLUDED ABOVE
1915 7,728
REFERENCES
1910 5,139
1915 6,215
+21%
NOTICES OR ORDERS
1910 21,844
1915 14,307
-34%
PENDING END OF YEAR
1910 171
1915 179
+4%
TOTAL INSPECTIONS
1910 391,465
1915 243,774
-38%
BARBER SHOPS
1910 1,448
1915 3,313
+135%
LODGING HOUSES
1910 800
1915 3,097
+275%
VACANT LOTS
1910 3,936
1915 17,448
+465%
PRIVIES & CESSPOOLS
1910 6,268
1915 11,625
+83%
STABLES
1910 2,359
1915 49,014
+2400%
WATER SUPPLIES
1910 4,965
1915 7,170
+75%
SMOKE
1910 1,939
1915 7,801
+310%
HORSE TROUGHS
1910 491
1915 14,21
+190%
TOTAL ARRESTS
1910 5629
1915 1215
-78%

COMPLAINTS, NOTICES, INSPECTIONS, ETC.

	1914.	1915
Complaints disposed of	39,033	35,324
No cause for action	10,053	13,251
Abated by personal effort	5,981	7,741
Notices or orders issued	22,999	14,332
Total Inspections	277,719	243,744
Cesspools and privies	4,633	11,025
Animals	14,668	14,299
Baths	2,085	2,826
Common Towel Utensils	.....	630
Dwellings	55,034	50,600
Lodging Houses	2,416	3,097
Odors	2,757	2,623
Smoke	8,107	7,801
Stables	44,413	19,814
Water	11,477	7,170
Miscellaneous	132,099	93,289
Arrests	1,201	1,215
Pounds Offal Removed	3,854,640	3,676,039
Dead Cats and Dogs Removed	276,563	343,688
Other Dead Animals Removed	17,953	15,202

Statistical tables of the Sanitary Bureau were not published in the 1914 Annual Report of the Department of Health.

BUREAU OF PREVENTABLE DISEASES.

JOHN S. BILLINGS, M.D. . . . . *Director* (January 1 to December 5).
BERTRAM H. WATERS, M. D. . *Acting Director* (December 6 to December 31).

ORGANIZATION OF THE BUREAU OF PREVENTABLE DISEASES.

1915.

	Total.	General Administration.	Manhattan.	Bronx.	Brooklyn.	Queens.	Richmond.
Director	1	1	..	..	...	..	..
Chiefs of Divisions	6	6	...	..	...	..	..
Borough Chiefs	4	..	1	1	1	1	*
Chief Diagnostician	1	1	...	..	...	..	..
Physicians-in-Charge of Branch Offices	16	..	7	1	6	1	1
Physician-in-Charge, Hospital Admission Bureau	1	1	...	..	...	..	..
Physician-in-Charge of Ambulances and Stables	1	1	...	..	...	..	..
Physicians-in-Charge of Day Camps	2	..	1	..	1	..	..
Medical Inspectors	44	..	21	4	15	2	2
Attending Physicians	62	..	26	7	25	4	**
Dentist	1	1	...	..	...	..	..
Chief Veterinarian	1	1	...	..	...	..	..
Veterinarians	8	..	3	1	2	1	1
Clerks and Typists	56	12	25	5	9	4	1
Superintendent of Nurses	1	1	...	..	...	..	..
Supervising Nurses	22	..	12	2	6	1	1
Social Service Nurses	4	..	3	1	...	..	..
District and Clinic Nurses	191	..	96	19	63	9	4
Disinfectors	18	..	9	..	7	1	1
Laborers	12	..	3	2	3	3	1
Stablemen	8	..	7	..	...	1	..
Orderlies	6	..	5	..	1	..	..
Helpers, Cleaners and Domestics	29	..	18	2	8	..	1
Auto Enginemen	10	1	4	2	3	..	..
Drivers	20	..	3	4	10	2	1
Watchman	1	..	1	..	...	..	..
Total	526	26	215	51	160	30	14

*The Assistant Registrar, Bureau of Records, in Richmond, acts also as Borough Chief for the Bureaus of Child Hygiene and Preventable Diseases.
**The Physician-in-Charge of Branch Office, in Richmond, acts also as Attending Physician.

Work of the Year.

Reorganization. Certain modifications of the organization of the Department involved a rearrangement of that of the Bureau and its functions. The Diagnosis and Serological Laboratories were transferred to the Bureau of Laboratories, January 1, 1915, and early in the year (March), because of the new work in industrial hygiene and occupational diseases, the Bureau was designated the Bureau of Preventable Dis-

cases, and its Division of Contagious Diseases, the Division of Infectious Diseases (April).

In accordance with the policy of increasing the continuity of service and the efficiency of executive and advisory administrative officers, the Director of the Bureau and the Chief of the Division of Infectious Diseases became full time officers, and the "line and staff" organization was extended through all divisions, particularly that of Nursing.

DIVISION OF INFECTIOUS DISEASES.

Discontinuance of Fumigation. The discontinuance of disinfection by fumigation in the Bronx, Queens and Richmond having resulted in no increase of secondary cases of infectious disease, it was also stopped in Manhattan (January), and later, following a comparative study of conditions there and in Brooklyn, in the latter Borough also (July), cleansing and renovation replacing this procedure throughout the City for disinfection after the acute exanthemata and tuberculosis. So far this radical change in procedure has been entirely justified.

Measles Supervised by the Private Physician. Measles was classified as a minor infection, i. e., not supervised by the Department, responsibility for the termination of quarantine being delegated to private physicians, whose certificates are now accepted for return to school.

Contagious Disease Certificates. To improve the hitherto imperfect methods of determining immunity in, and of identifying those children who have had diphtheria, scarlet fever or measles, a certificate is now issued to every child suffering from those diseases on termination of illness.

Immediate Burial Not Required. The regulation requiring burial within twenty-four hours after death from infectious disease, was rescinded.

Daily Lists. The daily school lists of infecious diseases for all Boroughs are now combined in one publication.

Preventive Methods in Other Cities. A questionnaire study was made of the methods of control and prevention of infections and the management of "immunes" and "carriers" (Diphtheria) in other Cities.

Free Antitoxin. A study of the method of free distribution of diphtheria antitoxin resulted in the adoption of a new procedure (comparison of druggist's postal card notification of such distribution with the case records and the physician's receipt) which has had gratifying results in securing prompter and more complete reports of diphtheria. Questionnaires were obtained from all the large cities throughout the country.

Police Co-operation. The plan of police co-operation in many of the field activities of the Bureau, which had been so successfully instituted in Experimental Health District No. 1, was introduced in the Brownsville District, Brooklyn (August), and arrangements made for its eventual extension throughout the entire city. Courses of lectures of instruction to Sergeants and new Patrolmen at their Headquarters Training School were arranged for.

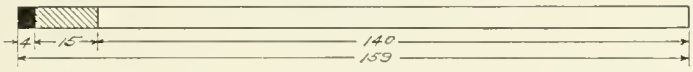
Control of Leprosy. As a result of conference with the leading dermatologists of the City the attitude of the Department as to the Sanitary Supervision of this disease was defined.

Control of Rabies. Better control of dogs and almost complete prevention of human rabies, have followed the co-operation of the police and the Courts in the enforcement of the muzzling and removal ordinances and a considerable publicity campaign.

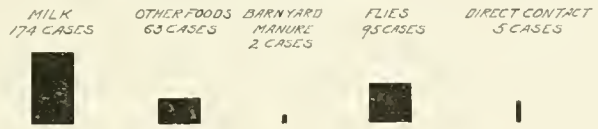
TYPHOID FEVER

NORMALIZED MONTHLY INCIDENCE OF TYPHOID FEVER

159 FOOD HANDLERS RECOVERED FROM TYPHOID, EXAMINED BEFORE RETURN TO WORK
19 BACILLUS CARRIERS FOUND
4 PERSISTENT OR CHRONIC CARRIERS

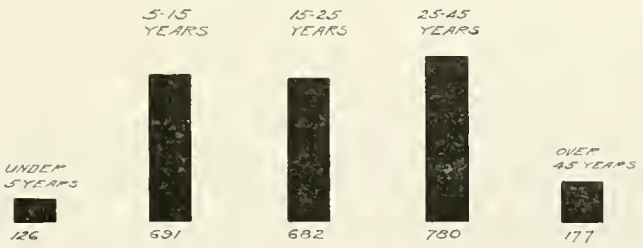


PRESUMED AND ESTABLISHED MEDIA OF CONVEYANCE IN 1915 OUTBREAKS OF TYPHOID FEVER



PROPORTION OF OUTBREAK, OUT OF TOWN AND CONTACT INFECTIONS IN THE TOTAL 2456 TYPHOID FEVER CASES

AGE INCIDENCE OF TYPHOID FEVER



Co-operation in the New York State Department of Health. Several modifications of procedure, among others the quarantining of scarlet fever for thirty days, instead of thirty-five as formerly, were made to conform with the practice of the New York State Department of Health.

Division of Epidemiology.

This Division was established to maintain accurate statistical current records and intensive studies of the incidence of the various infectious diseases. It replaces the former Division of Typhoid Fever.

By study of their grouping and comparison of the data in relation to census areas, early detection of spreading infections and prompt institution of sanitary preventive measures are rendered possible.

An outbreak of typhoid fever occurred (February) at Sloane Maternity Hospital caused by the "carrier" known as "Typhoid Mary."

A small group of cases of the same disease occurred in Brooklyn, caused by eating infected watermelons cast up on the beaches.

Late in the year, rather sharp outbreaks occurred in a number of City Institutions due to carriers.

The United States Public Health Service and the New York State Department of Health co-operate with this Department in the registration of carriers; a central record of typhoid carriers was established in the United States Public Health Service at Washington, D. C. A special card was prepared for reporting of carriers to this central file.

The first forcible removal for insanitary conditions and the impossibility of securing proper "typhoid precautions" was made on July 29th.

Division of Tuberculosis.

Following the discontinuance of St. Vincent's Hospital Tuberculosis Clinic and after certain readjustments of district boundaries and patients, required by the removal to a new location of the New York Dispensary, the work of this district was taken over by the Washington Clinic and Branch Office of the Department of Health (January).

The large increase in population of the northern portion of Manhattan as well as the extent of this area demanding attention, which St. Luke's Hospital Tuberculosis Clinic could not give, a new Clinic and Branch Office, known as "Riverside," was opened on May 17th. It is located at 481 West 145th Street and covers the district north of West 134th Street.

In Brooklyn, the Germantown Clinic and Branch Office was removed from Sumner Avenue to 420 Herkimer Street (April); and the Day Camp Rutherford, to a Pier at the foot of North 2nd Street, Williamsburg (July).

A new edition of The Hand Book of Help for Consumptives, giving complete information regarding the tuberculosis work and clinic and institution facilities of the City, was sent to all physicians.

A reception ward for the preliminary observation of accepted Otisville patients was opened in Riverside Hospital.

During the year a clinic history file of "not found," "homeless" cases for the entire City was established at Headquarters which, after the opening of the new Riverside Branch Office at 145th Street, was removed to the former quarters of that office at 2228 Broadway, and a card system devised for the recording and transfer of these histories.

Following the enactment of Section 95 of the Sanitary Code, excluding tuberculous school teachers from their class rooms, letters were sent to all Principals

requesting information as to their known tuberculous teachers, and those frequently, or for long periods, absent because of ill health. A number of interviews were held with teachers in whose cases the disease was "apparently arrested" and certificates issued permitting their return to, or continuance in, their work. A number on leave of absence were informed that such a certificate must be secured before resuming teaching.

A group of children, in several of the public schools of the Gouverneur Hospital Tuberculosis Clinic, who were considered by the school medical inspector to be tuberculous or suspicious, were carefully re-examined and proper disposition made for them.

The positions of Attending and Assistant Attending Physicians in the Tuberculosis Clinics were placed under Civil Service regulations, and, by examination, an eligible list established for Clinic Physicians with graded salaries.

To instruct and stimulate the Tuberculosis Clinic Staff, and to train Volunteer applicants for appointment, a course of instruction in physical diagnosis and clinic and branch office routine was established at the Chelsea Clinic.

In many Clinics, staff meetings are held to which physicians of the neighborhood are invited.

The large number of push cart peddlers examined, soon resulted in the exclusion, by refusal of a license, of those with open lesions (positive sputum), and this, in turn, led to the establishment of a card file of all consumptive handlers of food. Such records were later assigned to the Division of Industrial Hygiene.

Early in the year, the registration of all applicants at the Tuberculosis Clinics with the Social Service Exchange, was initiated.

The ferryboat "Stapleton" was presented to the Department, and plans were drawn for proper alterations to convert her to a Tuberculosis Camp, to replace the "Middletown."

At the request of the owner, a group of male patients selected by the Hospital Admission Bureau, was sent to his farm at Dover Plains and employed by him picking apples.

Hospital Admission Bureau. Following the establishment by the Department of Public Charities of a Bureau of Social Investigations, under the charge of a Director, the Hospital Admission Bureau was reorganized and placed under the direction of this Officer and the Director of the Bureau of Preventable Diseases, as a Supervisory Committee.

All routine activities were placed under the immediate direction of the Physician-in-Charge.

All investigations of the social and economic condition of institution applicants were assigned to the field nurses of this Bureau; one clerical employee of the Department of Charities was detailed to the Hospital Admission Bureau to represent that Department and to supervise the financial status of applicants.

The following scheme of classification was established for all City and subsidized tuberculosis institutions, based upon the social and physical qualifications and needs of applicants, to provide for their appropriate treatment and distribution, as follows:

CLASSIFICATION OF INSTITUTIONS.

Class A—For patients only temporarily dependent through illness.

Stage of Disease.	*Name of Institution.*
1. Incipient	Ray Brook
2. Early Favorable	Otisville
	Bedford
	Home Hospital

Stage of Disease.	*Name of Institution.*
3. Moderately Advanced	Seton
	Sea View
	Brooklyn Home
	Home Hospital
4. Advanced	St. Joseph's
	St. Anthony's
	Montefiore Home
	Home Hospital

Class B—For patients of a chronic dependent type.

Stage of Disease.	*Name of Institution.*
1. Moderately Advanced and Favorable	St. Vincent's, S. I.
2. Far Advanced and Detention	Metropolitan
	Riverside
3. Homeless Paupers with Negative Sputum	Farm Colony
	City Home
Preventoria for Children	Farmingdale
	Nanuet

In addition, only patients with active lesions (positive sputum) are admitted to City and subsidized hospitals (not including sanatoria). When cases become inactive and sputum is negative three times in succession, they are discharged.

A dental laboratory was installed at the Bureau and a mechanical dentist assigned to assist the dentist in service provided for institution applicants, with a considerable saving in the amount formerly paid to private laboratories for plates, etc.

Division of Industrial Hygiene.

To meet the increasing demand for the study and supervision of industrial hazards, a Division of Industrial Hygiene was established in February, 1915.

While the efficiency of the Division has been hampered by an insufficient appropriation, yet much has been accomplished. On March 1st, an Occupational Clinic was established at 49 Lafayette street, in quarters provided by the Department of Licenses and fitted up by the Borough President of Manhattan. To this was transferred from the Tuberculosis Clinics the routine examination of all bakers and peddlers, and the examination of all food handlers not authorized and made by private physicians elsewhere has been carried on here. In this work, valuable co-operation has been furnished by the American Museum of Safety, to whose representative many physical defectives have been referred for advice as to obtaining proper treatment and for follow-up studies. An exhibit of industrial injuries and diseases, installed by them, is a part of the Clinic equipment.

A special survey of the welfare methods of the National Cash Register Co. at Dayton, Ohio, was made, together with important studies of the felt and fur industries, of welfare conditions and work in department stores, and of conditions at the Flushing garbage dump.

Investigations have also been made of the occurrence of wood alcohol poisoning among brewery vat varnishers, and of anthrax among handlers of hides.

Late in the year arrangements were made for an intensive study of painters employed in City contracts, and in various fields, by lectures and other forms of education and publicity. The work of the Division has been placed upon a solid foundation which requires only adequate field staff and thorough co-operation with the Labor Bureau of New York State to ensure adequate and definite results.

Division of Venereal Diseases.

During 1915 the work of this Division, in addition to that of the Diagnostic Clinics and Medical Adviser, was devoted largely to public education.

Metal signs, giving warning against quack institutions and practitioners, have been widely distributed throughout the City in public places, subway and elevated toilets, comfort stations, the toilets of saloons and lodging houses, lithographing and printing establishments and like localities.

Advertisements of the Department's free Diagnostic and Advisory Clinics were inserted in German papers and in one widely circulated evening paper. The latter has lately discontinued all quack advertisements. Conferences were held with the publishers of foreign newspapers in the endeavor to induce similar action by them. In this, efficient co-operation has been given by the State Department of Commerce and Labor through representatives of its Division interested in immigrants and aliens.

All dispensaries conducting venereal disease clinics have been inspected, and a preferred list prepared of those having approved facilities and methods of diagnosis and treatment, to which applicants desiring treatment are referred. In several instances, this has acted as a stimulus to those clinics rated below standard.

Division of Institution Inspection.

This Division, early in the year, began the investigation of the physical condition of food handlers (including nurses) in all institutions.

A survey was made of the various Homes for the Aged throughout the City, to determine their sanitary condition and the adequacy of their equipment, for the care and comfort of their inmates. Their general condition was found to be quite satisfactory.

A like investigation was made for the Department of Public Charities of the Children's Institutions, under its official supervision.

The investigation and issuing of permits to all non-incorporated private hospitals of the City was assigned to this Division, and a survey of them was begun July 1st.

In this, the Police Department have co-operated in informing this Department of the opening or existence of those not already known and licensed in accordance with provisions of the Sanitary Code.

Late in the year the Divisions of Institution Inspection of the Bureaus of Child Hygiene and Preventable Diseases were combined into one Division, thus eliminating considerable duplication of visits.

Miscellaneous Activities.

Important changes, especially valuable for statistical purposes, were made in the boundaries of all district units in all Boroughs, whereby they now conform to the boundaries of known census areas. At the same time, those in Manhattan and The Bronx and one in Brooklyn were appropriately renamed, in order thus to indicate more definitely their location.

A new extended itemized Weekly Report of all the activities of the Bureau was begun on January 1st.

The "Hotel DeGink," that successful solution of the jobless but willing-to-work army of the winter of 1914-1915, inaugurated and operated by the men themselves, was supervised, so far as its sanitary conditions were concerned, by this Bureau.

A new Hand-Book of Rules for Employees of the Bureau, combined with the general rules of the Department was prepared and distributed to all employees.

The Manhattan Stable of the Department was burned with the lost of twelve (12) horses (November 2nd).

CHART.

PREVENTABLE DISEASES.

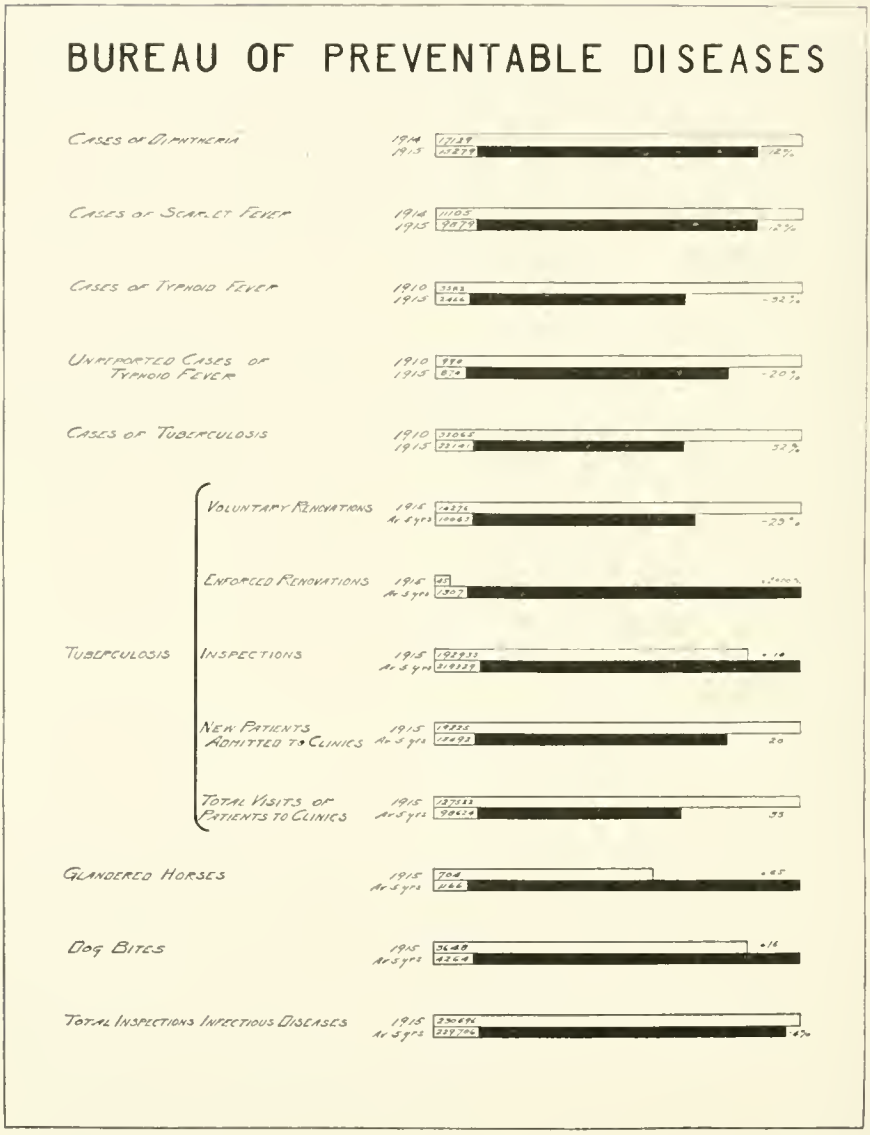


TABLE No. 1.

INFECTIOUS DISEASES—CASES AND DEATHS.

1915.

	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.	Total.	Cases per 1,000 Population.	Deaths.	Deaths per 1,000 Population.	Case Fatality, Per Cent.
Diphtheria	4,578	4,327	2,610	3,764	15,279	2.79	1,278	.23	8.36
Measles	8,475	24,539	3,371	1,801	38,186	6.98	630	.11	1.65
Scarlet Fever	3,887	4,110	735	1,147	9,879	1.81	291	.05	2.95
Whooping Cough	1,208	1,897	2,242	1,424	6,771	1.24	397	.07	5.89
Typhoid Fever	281	272	1,123	779	2,455	.45	332	.06	13.52
Cerebro-Spinal Meningitis	48	70	36	20	174	.03	119	.02	68.40
Acute Poliomyelitis	14	15	26	40	95	.02	13	.006	....
Tuberculosis	6,161	6,067	5,240	4,673	22,141	4.05	8,825	1.61	....
Small Pox	0	2	0	0	2	...	...	...	....
Mumps	1,329	1,175	144	331	2,979	...	...	...	....
Chicken Pox	3,898	3,282	443	1,098	8,721	...	...	...	....
German Measles	455	1,540	261	85	2,341	...	...	...	....
Syphilis	5,225	4,080	3,629	4,401	17,335	...	...	...	....
Gonorrhoea	2,507	2,305	2,278	2,619	9,709	...	...	...	....
Total	38,066	53,681	22,138	22,182	136,067	...	...	...	....

TABLE No. 2.

INFECTIOUS DISEASES—GENERAL FIGURES.

1915.

Cases removed to hospital	7,497	Rooms disinfected	6,833
Visits to cases	230,696	Visits removal infected goods	3,423
Cultures taken	47,497	Visits return infected goods	2,538
Diphtheria immunizations performed	7,546	Other visits	20,324
Vaccinations performed	412	Total visits	26,285
Houses visited—Disinfections performed	4,501	Total calls for ambulance	7,189
Houses visited—Disinfections postponed	533	Lots of goods disinfected	2,943
		Lots of goods destroyed	635
		Lots of goods removed	3,519

TABLE No. 3.

TYPHOID FEVER—1915—1914.

	1915.	1914.
Cases reported	2,720	2,745
True cases	2,456	2,260
No cases	264	485
Deaths	333	331
Blood Sent to Laboratory—		
Positive	1,847	1,688
Negative	16,567	6,990
Treated at home	992	1,218
Treated at hospital	1,464	1,042
Contact	161	157
Probably out of town infection	171	162
Additional cases with out of town history	201	171
Total with out of town history	372	333
Number of People Exposed to Cases in Families and Institutions—		
Immunization refused	7,563	5,776
Immunization accepted	4,150	1,653

TABLE No. 4.

TUBERCULOSIS LIVING CASES—1915.

	Manhattan.	Bronx.	Brooklyn.	Queens	Richmond.	Total.
Cases in file January 1, 1915	18,236	3,413	9,280	1,133	332	32,394
Under care of private physician	1,495	414	1,165	261	51	3,386
Under care of non-department clinics	2,238	...	...	...	...	2,238
Cases in city institutions	3,841	461	1,102	179	88	5,671
City cases out of town and in sanatoria	1,408	277	650	93	52	2,480
Homeless—Not found cases	4,145	626	2,297	77	24	7,169
Cases "At Home" and under care of Department of Health Clinics	5,109	1,635	4,066	523	117	11,450
New cases reported during 1915	12,648	11,870	6,140	1,306	177	22,141
Total cases added to register in 1915	19,582	2,564	7,328	1,314	263	30,991
Total cases enrolled in 1915	37,818	5,977	16,608	2,447	535	63,385
Cases removed from register in 1915	14,829	2,188	6,806	973	169	24,965
Cases in file December 31, 1915	22,993	3,782	9,805	1,474	366	38,420
Under care of private physicians	1,545	461	1,274	271	56	3,607
Under care of non-department clinics	1,754	...	...	...	...	1,754
Cases in city institutions	4,340	597	1,052	169	110	6,268
City cases out of town and in Sanatoria	1,521	381	689	119	55	2,765
Homeless—Not found cases	7,629	772	2,720	188	30	11,339
Cases "At Home" and under supervision of Department of Health Clinics	6,204	1,571	4,070	727	115	12,687
Visits by physicians	...	...	...	...	...	5,055
Visits by nurses	...	...	...	...	...	187,878
Total	...	...	...	...	...	192,933
Renovations compelled by nurses	...	...	...	...	...	15
Renovations made voluntarily	...	...	...	...	...	14,276

TABLE No. 5.

TUBERCULOSIS CLINICS.

1915.

Under observation for diagnosis January 1, 1915	1,536	Found not tuberculous and discharged	11,743
New patients examined	19,225	Deaths of cases attending clinics	277
Re-admitted for diagnosis	3,458	Transferred to other clinics	1,740
Total diagnosis	24,219	Entered hospitals	1,667
Found not tuberculous and transferred or discharged	11,996	Entered sanatoria	697
Suspected cases transferred to other clinics	610	Discontinuing, not found	517
Found tuberculous	6,068	Discontinuing, not coming for treatment	9,393
Discontinuing, not coming for diagnosis	2,651	Under treatment December 31, 1915	6,962
Under observation for diagnosis December 31, 1915	2,894	Total visits of patients	127,522
Under treatment January 1, 1915	4,950	Prescriptions filled for clinic patients	173,216
New cases under treatment	19,225	Number of clinic physicians	67
Old cases re-admitted	8,821	Number of volunteer physicians	41
Total cases under treatment	32,996	Home visits by clinic physicians	2,853

TABLE No. 6.

DIVISION OF INDUSTRIAL HYGIENE.

Factories investigated	248
Complaints investigated	59
Peddlers examined	6,682
Diseased	1,697
Bakers examined	5,755
Diseased	2,045
Food Handlers examined	10,633
Diseased	3,599

TABLE No. 7.

ANIMAL DISEASES, 1915.

Horses examined	35,334	Cases of rabies	103
Horses tested with mallein	1,008	Persons examined for dog bite	3,327
Horses vaccinated	39	Cats examined	..
Horses condemned	704	Cats destroyed	..
Post-mortem examination of horses	189	Number of persons examined in anti-rabic clinics	1,389
Cows examined	2	Number of anti-rabic injections	4,887
Dogs examined	6,075	Number of tetanus injections	84
Dogs destroyed	786		

BUREAU OF CHILD HYGIENE.

S. JOSEPHINE BAKER, M. D. . . . . *Director*

ORGANIZATION BUREAU CHILD HYGIENE—1915

	Total.	General Administration.	Clinics for School Children	Institutions and Day Nurseries, Midwives and Foundlings.	Research and Efficiency.	School Medical Inspection.	Vaccination.	Employment Certificates.	Milk Stations.
Director	1	1	..	..	..	..	..	..	..
Assistant Director	1	1	..	..	..	..	..	..	..
Chiefs of Divisions	6	..	..	2	1	1	..	1	1
Borough Chiefs	4	..	..	..	..	1	..	..	..
Supervisors	14	..	..	..	..	11	..	..	3
Medical Inspectors	158	..	19	12	1	99	2	7	18
Surgeons	2	..	2	..	..	..	..	..	..
Dentists	10	..	10	..	..	..	..	..	..
Nurses	281	1	26	11	..	186	..	3	54
Nurses' Assistants	57	..	..	..	..	..	..	..	57
Clerks	26	4	3	2	1	13	..	3	..
Hospital Clerks	4	..	1	..	..	..	..	..	..
Stenographer and Typewriter	1	1	..	..	..	..	..	..	..
Typewriting Copyists	3	..	..	..	..	3	..	..	..
Orderlies	2	..	2	..	..	..	..	..	..
Hospital Helpers	3	..	3	..	..	..	..	..	..
Laborer	1	..	1	..	..	..	..	..	..
Cleaners	34	..	5	..	..	..	..	..	29
Domestics	7	..	7	..	..	..	..	..	..
Watchmen	2	..	2	..	..	..	..	..	..
Total	617	8	84	27	3	317	2	14	162

Division of Midwives and Foundlings.

Control and Supervision of Midwives—New regulations of the Department governing the practice of midwifery by midwives were adopted and went into effect on April 1, 1915. These regulations were made, as far as practicable, similar to those of the State. For the first time translations into Hungarian and Slavic were published.

During the year seventeen local and two general meetings of midwives were held, at which about one thousand of these women were instructed in their duties to the public and to the Department of Health.

Splendid co-operation was received from the Police Department in relation to cases of midwives arrested for illegal or criminal practice. The editor of the "Midwives Journal" published notices of all changes in the Departmental regulations or procedures, thus furnishing a most effective means of reaching many midwives. In conjunction with Knauth Bros., makers of surgical supplies, a new bag for midwives was devised. This outfit is complete in every detail and contains only those articles allowed and prescribed by the regulations of the Department of Health.

Ophthalmia Neonatorum—Cases of sore eyes reported by midwives are still vigorously followed up, the routine procedure being an inspection by an ophthalmologist, smear for bacterial diagnosis and follow-up by nurses to determine whether the case is under treatment and the result of such treatment.

A special study of suppurative conjunctivitis was conducted by the Research Laboratory, based chiefly upon the reports of such cases received by the Division of Midwives and Foundlings from practicing midwives.

Supervision of Foundlings in Private Homes—The number of permits allowing women to board babies continued to increase, even though new and more stringent regulations went into effect on April 1, 1915.

The special experiment in relation to the boarding out of "special marasmus babies" from the New York Foundling Hospital was continued during the year with the same general results as were noted during the six months of 1915. This class of babies whose mortality rate in the institution was most excessive was found to do far better in the private home under the care of a foster-mother specially paid for this work and under the supervision of inspectors and nurses from this Division.

A new ruling was made during the year that any person caring for more than three children, during the day only, must have a permit to conduct a day nursery.

For a period of three months all applications for permits to board children were referred to the Social Service Exchange in Manhattan, or to the Confidential Exchange in Brooklyn. This procedure was discontinued at the end of the trial period, as the results did not justify the amount of work entailed.

Division of Institutions and Day Nurseries.

Institutions for Dependent and Delinquent Children—As the result of the third annual examination of the children in these institutions 70 per cent. of those found defective were cured.

Sanitary and hygienic inspection of the eighty-four child-caring agencies located within the five boroughs of the City of New York was made during the year, and 14,043 specific items for correction were found, of which 654 were corrected forthwith.

Children in the Boroughs of Manhattan, Brooklyn, Queens and Richmond to the number of 10,257 were examined for ear conditions. Two thousand seven hundred and sixty-one, or 26.8 per cent., were found to have ear defects, such as impacted cerumen, purulent discharge, eczema of the canal or foreign bodies. Treatment of these conditions by the inspector resulted in the cure of 84.6 per cent. and the improvement of the remaining 15.4 per cent.

That these results were obtained was due to a large extent to the cordial co-operation of the institution authorities and physicians who did all in their power to make the work of the inspectors of the Bureau effective.

Supervision of Day Nurseries—The operation of the new medical rules and regulations for the conduct of day nurseries went into effect on January 1, 1915. Under them each child received a medical examination upon entrance and twice a month thereafter, the records of these examinations being kept on file in the nursery.

The taking of smears for the detection of specific vaginitis resulted in 508 examinations being made, of which 11 were positive, 23 doubtful and 2 suspicious.

Division of Baby Welfare.

Reduction of Infant Mortality—During 1915 there were 13,866 deaths from all causes under one year of age, a numerical increase of 554 over the preceding year, and an increase in the rate per one thousand births from 94 in 1914 to 98 in 1915. Studies instituted to locate the cause of this increase showed to be due chiefly to an

increased mortality from respiratory diseases. Special effort was made by the field force of the Bureau to determine the cause of this increase and to control the situation.

Infants' Milk Stations—The service at the Infants' Milk Stations was augmented by the opening of three additional stations, one in the Borough of Manhattan and two in the Borough of Queens, making a total of fifty-nine stations maintained and supervised during 1915. In addition private organizations or individuals financed the rental and equipment of eight stations, the Department of Health providing a doctor and nurse and affording other co-operation as indications arose. These welfare stations were located as follows:

Location	*Maintained by*
P. S. 78—South St., Jamaica, Queens	Jamaica Woman's Club
P. S. 58—Walker Ave., Woodhaven, Queens	Woodhaven Relief Association
Ravenswood Health Center, Hamilton and Washington Aves., Queens	Mothers' Club of P. S. 83, Long Island City
P. S. 1—Jackson Ave., L. I. City	Mothers' Club of P. S. 1
P. S. 18—Corona Ave., Corona, Queens	Mothers' Club of P. S. 18
Luna Park, Coney Island, Brooklyn	Luna Park Company
3177 Villa Ave., The Bronx	Special Nurses' Fund
.....	Mr. Pasquale Z'Ambra
Barren Island, Brooklyn	Mrs. John Jacob Astor

Special emphasis was placed upon the development of Infants' Milk Stations as educational centers for the care of infants and young children and the keynotes of the work were Prevention of Disease and Breast Feeding. The proportion of breast-fed babies was slightly higher than in 1914, indicating that the cases advised during the year were rather more difficult ones in which to secure the best results.

The earlier the period at which the infant can be brought under the control of the Milk Station the better the results will be. It was therefore encouraging to note that 85 per cent. of children enrolled at the stations during 1915 were under one year, as compared with only 70 per cent. for 1914.

During the year 46,000 babies were in attendance at the stations with a death rate of only about 1 per cent.

The importance of the milk station as a prophylactic center was evidenced in the following directions: The constant and regular attendance showed that the mothers appreciated the value of education in the selection of good milk, the co-operation of the mothers with the nurses increased, Little Mothers' League meetings were held in the stations, neighborhood societies worked in unison with the stations, and assistance was often supplied through the stations for shelter, employment, outings, milk, etc.

Co-operation—A large measure of the success attained was due to the mutual co-operation between the Infants' Milk Stations and private physicians, hospitals, dispensaries, relief, social, charitable, philanthropic and all other organizations interested in child welfare. This co-operation became more and more effective as a result of the unifying efforts of the Babies' Welfare Association. There was much better understanding on the part of private physicians as to the desire of the Department to have stations supplement their work instead of supplanting it. In general a larger number of cases were referred to the stations by them and by outside agencies. Several physicians, upon request, were granted the privilege of acting as volunteer assistants at the stations, and of treating, under the supervision of the Medical Inspector in Charge, a selected number of cases. In this way, by offering the educa-

tional advantages of milk station service to doctors, their knowledge of infant feeding was increased and indirectly, the reduction of infant mortality was assisted.

Added impetus was given to the efficiency of relief work in Manhattan and The Bronx through the assistance of the Social Service Exchange, to which nurses referred all cases of relief, whether emergent or regular, and at which office the social status of the applicants was noted. A more intimate and direct connection with the relief affording agencies was established, and emergency relief was increased in efficiency and promptness.

Free Ice. A large amount of free ice was distributed, through the co-operation of the Herald Free Ice Fund, Knickerbocker Ice Company, and the Association of Wholesale and Retail Ice Dealers. St. John's Guild afforded daily excursions and hospital treatment at New Dorp, Staten Island. Various district nursing associations referred many mothers to milk station service.

Physical Examination of Children of Pre-school Age. The physical examination and follow-up of children of the pre-school age, two to six years, for the detection of physical defects, with subsequent follow-up to secure the necessary correction or cure, was perfected during the year. These children were enrolled at the Infants' Milk Stations by means of regular home visits by milk station and school nurses, and were subjected to thorough physical examination. All necessary advice and instruction were given when physical defects were found.

Prenatal Instruction and Supervision. Despite lack of definite appropriation for this important phase of the work of the Bureau, the service was extended by the assignment of a special corps of nurses from the regular service. Renewed efforts were made to reach the mother as early in pregnancy as possible and to have her place herself under medical care at the earliest opportunity. In normal cases visits were made by special nurses every three weeks up to the fifth month, and every ten days thereafter until delivery. In abnormal cases visits were made more frequently. The co-operation of the physician, midwife or institution was enlisted. After the birth of the child the mother and baby were visited every two days for the first week and twice a week until the end of the month, at which time the mother and baby were referred to the Infants' Milk Station for future supervision, with the consent of the physician in attendance.

These special nurses supervised 2,482 mothers during the year, of which 1,442 were delivered. There were 1,453 births, including twins, 1,385 living babies born, and 68 stillbirths. 953 per thousand babies were born alive. The death rate under one month per thousand births was 26, as compared with 36.2 for the entire city. The stillbirth rate was 41.8, as compared with 45.4 for the entire city. There were no deaths of mothers. 94 per cent. of the babies were entirely breast fed at the end of the first month. 61 per cent. of the mothers delivered were attended by midwives, just the cases requiring prenatal supervision and instruction.

The instruction during the prenatal and postnatal period dealt with general and personal hygiene, sanitation, food, clothing, sleep, bathing, fresh air, care of the breasts, skin, bowels and kidneys. Special emphasis was given to the necessity and advisability of maternal nursing. Periodic urinary examinations were made with the consent or at the suggestion of the physician or institution in charge. With the appearance of any unfavorable symptoms during the prenatal period the case was referred for proper medical attention. In addition to the prenatal supervision by the special nurses, all the nurses of the Infants' Milk Stations instructed expectant mothers. During the year some 1,838 mothers were so instructed.

Little Mothers' Leagues. The policy of assigning nurses especially fitted for this work materially improved the efficiency of this function of the Bureau. There are

at present 150 fully organized and active Little Mothers' Leagues in the City, all actually engaged, under the supervision of the nurse, in spreading information as to the proper care of babies.

Summer Visiting. The procedure followed in previous years of having 150 babies under the care of each school nurse was changed. During the summer of 1915 the infant mortality campaign was carried on by the combined force of the Divisions of Baby Welfare and School Medical Inspection, the work radiating from the various milk stations. The results were eminently satisfactory.

A number of Infants' Milk Stations were operated by private agencies, the Bureau supplying nurses and inspectors to carry on the work along practically the same lines as in the regular milk stations.

Division of School Medical Inspection.

Current Work. The control of this function of the Bureau progressively increases in difficulty and constitutes a grave administrative problem. During the year each inspector was responsible for 9,400 children and each nurse 4,600, the increase being due to the natural increase in registration in the elementary, public, parochial and high schools.

Several new fields of work were entered in an experimental way, and in addition special surveys were made either of the Bureau's own initiative or at the suggestion of school authorities or social agencies. During the last term of 1915 the parents of the new admissions to schools were urged to have a physical examination of the child made by a private physician, the report to be submitted on blanks furnished for the purpose and having the same weight as if made by an inspector of the Department. Only 16 per cent. of all these new admissions were examined by the private physicians. The percentage of defects found does not differ materially from the percentages found by the medical inspectors of the Department.

The trend of the current work was in the direction of supervision of special classes of school children for the reason that the Bureau is no longer able to satisfy the needs of principals, teachers, and scholars by devoting its energies exclusively to the prevention of contagion and the discovery and correction of gross physical defects. The demand for closer attention and supervision of those children coming under the heading of special classes, increased very rapidly, and the need for social service work kept pace with it. Although a large part of the field time of the nurse is spent in this kind of work the results have well repaid the expenditure of time.

Experimental Work. A number of new procedures were initiated, and although not complete are noted as indicative of their amount and scope. Extension of a modified system of school medical inspection to include all high schools.

Organization of additional health leagues with extension of the scope of their work.

Co-operative experiments in school medical inspection on a large scale conducted in conjunction with the Department of Education.

Consolidation of the work of the nurses of the Bureaus of Preventable Diseases and Child Hygiene in the Borough of Richmond.

Establishment of eye clinics in selected schools for the purpose of treating trachoma, including the testing of vision and the prescribing of glasses.

Extension of school consultations, including Saturdays, for this work.

Special physical examination of all truants.

Survey and report upon the drinking facilities provided at Public and Parochial Schools.

Special surveys to determine the percentage of children suffering from cardiac diseases, malnutrition and pretubercular conditions.

Division of Children's Clinics.

Current Work. There was no increase in the number of these clinics, although the amount of work was greater than formerly. The clinics were operated to capacity during the entire year, operations being booked as long as two or three months in advance. That the work was appreciated by those taking advantage of it was shown by the fact that none of these cases failed in keeping their appointments.

The per capita cost of the service showed a slight decrease owing to the increased registration.

The combined operation for removal of tonsils by use of McKenzie tonsillotome and cold wire snare was used in all the clinics. This operation diminished the amount of hemorrhage and greatly lessened the shock.

In June the use of thromboplastin as a haemostat was begun, and the results of this tissue haemostatic were excellent. The material was supplied by the research laboratory of the Department.

Dental Clinics. No additional provision was made for the dental service of the Bureau, and the previous policy was therefore continued, although efforts were continuously directed toward the solution of the dental problem. It is possible that a future adoption of a modified system, including the dentist and specially trained subordinates, will overcome the present obstacle of prohibitive cost.

Division of Employment Certificates.

Current Work, Issuance of Employment Certificates. This work increased during the year, both in the number of examinations made and number of certificates issued.

On October 1st, 1916, the Department of Labor transferred to the Department of Health the issuing of so-called "over age certificates" to children over sixteen years of age about whose age there was any question. During the year the Department of Health issued about seven hundred such certificates.

In the cases where a cardiac lesion was found permission to work was withheld until the child reached its sixteenth birthday. In the meantime the case was kept under observation by the school nurse and the parent advised to place the child in a vocational school if he or she showed an aversion to academic training. Where possible the child was sent to a convalescent home during this period.

During the course of the physical examination if defects were found which would respond to immediate treatment the application was temporarily withheld. On the other hand, if conditions were discovered which did not fall into the above class the application was refused for physical incapacity, for the reason that the examining physician under these circumstances could not certify, as required by law, that the child had reached the normal development of a child of its age, and was in sound health and physically able to perform the work which intended to be done.

A standard of the normal development of a child between 14 and 16 years was obtained through the co-operation of the Metropolitan Life Insurance Company, by the examination and tabulation of the records of 10,000 cases of children who had obtained employment certificates.

The Division of Research and Efficiency.

This division assisted materially in working out many of the new features already mentioned. A pin map was prepared during the year which showed the location of the infant deaths throughout the entire city.

A system was put into effect to determine the cost and efficiency of the treatment of trachoma in schools and in clinics. A card for use in the special study of Breast and Bottle Babies for a five year period was also prepared and introduced.

In addition to many educational pamphlets, a monograph giving in detail the activities of the Bureau was prepared and published.

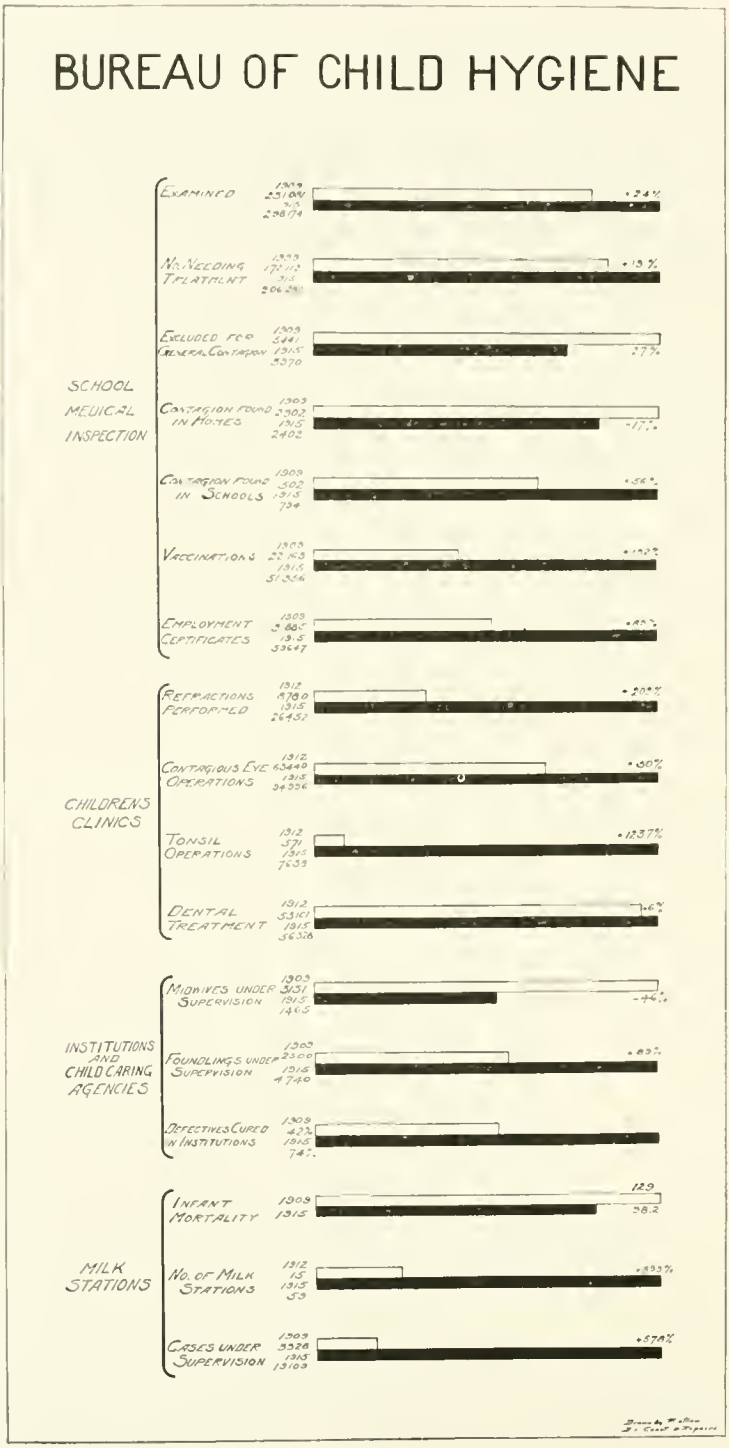

BUREAU OF CHILD HYGIENE
SCHOOL MEDICAL INSPECTION
EXAMINED
1909 251,004
1915 298,174
+24%
NO. NEEDING TREATMENT
1909 172,112
1915 206,281
+19%
EXCLUDED FOR GENERAL CONTAGION
1909 5441
1915 5370
-7%
CONTAGION FOUND IN HOMES
1909 2902
1915 2402
-17%
CONTAGION FOUND IN SCHOOLS
1909 502
1915 734
+46%
VACCINATIONS
1909 22,163
1915 51,356
+132%
EMPLOYMENT CERTIFICATES
1909 26,850
1915 33647
+25%
CHILDRENS CLINICS
REFRACTIONS PERFORMED
1912 4780
1915 26452
+453%
CONTAGIOUS EYE OPERATIONS
1912 63440
1915 94356
+50%
TONSIL OPERATIONS
1912 571
1915 7633
+1237%
DENTAL TREATMENT
1912 53101
1915 56358
+6%
INSTITUTIONS AND CHILD CARING AGENCIES
MIDWIVES UNDER SUPERVISION
1909 3451
1915 1465
-44%
FOUNDLINGS UNDER SUPERVISION
1909 2500
1915 4740
+89%
DEFECTIVES CURED IN INSTITUTIONS
1909 42%
1915 74%
MILK STATIONS
INFANT MORTALITY
1909 129
1915 98.2
NO. OF MILK STATIONS
1912 15
1915 59
+293%
CASES UNDER SUPERVISION
1909 3328
1915 13103
+57%

TABLE No. 1.

PHYSICAL EXAMINATIONS—1915.

	School Medical Inspection							Institutions and Day Nurseries			
	First Examination	Re-examination						First Examination	Re-examination		
		Received Treatment—Improved				Required Treatment	Left School				
		Glasses.	Medical.	Surgical.	Other.				O. K.	+	−
Regular examinations	278,174	....	....	....	....	....	....	13,798	....	....	....
Normal	.....	....	....	....	....	....	....	4,740	....	....	....
Teeth defects only	122,344	....	....	....	....	....	....	.....	....	....	....
General defects	83,943	....	....	....	....	....	....	9,058	....	....	....
Re-examined	102,328	....	....	....	....	....	....	....	....	....	....
Athletic contest	47,024	....	....	....	....	....	....	....	....	....	....
For charitable institution	24,814	....	....	....	....	....	....	....	....	....	....
Defective vision	25,311	16,475	2,843	73	43	8,434	5,689	1,695	988	97	528
Not tested	95,833	....	....	....	....	....	....	....	....	....	....
Defective hearing	1,996	....	1,101	63	3	118	107	488	38	81	14
Defective nasal breathing	27,969	....	8,647	10,579	45	3,783	1,838	3,921	3,020	551	64
Hypertrophied tonsils	32,356	.....	8,669	12,374	33	5,133	2,370	745	555	183	109
Defective nutrition	17,800	.....	11,190	39	2,020	413	795	685	526	129	4
Cardiac disease	4,394	....	2,187	0	4	92	223	786	411	257	1
Pulmonary disease	748	....	449	1	2	8	41	758	787	26	0
Orthopedic defects	2,006	....	750	82	60	117	135	372	106	131	40
Nervous defects	1,813	....	1,225	1	26	67	119	489	49	50	3
Defective teeth	179,935	....	....	....	22,539	79		4,901	3,741	851	378

TABLE No. 2.

CERTIFICATES AND PERMITS—1915.

	Employment Certificates	Supervision of		
		Midwives	Children Boarded Out	Day Nurseries
Applications brought forward	204	147	676	8
Applications received first	39,113	69	4,047	20
Applications received renewal		1,399	2,436	93
Total		1,615	7,159	121
Applications granted	37,131	1,442	6,699	119
Applications denied	2,364	0	167	2
Applications pending	152	173	293	0
Applications expired		1,171	3,974	
Applications revoked		69	2,801	6
Applications in force		1,465	4,740	101
First inspections		1,563	6,848	47
Re-inspections		8,491	29,326	1,503
Special visits		6,540	8,515	194
Total inspections		16,597	44,689	1,744
Special Inspections				391
Children examined				3,750

TABLE No. 3.

GENERAL SUPERVISION—1915.

	Reduction of Infant Mortality.	Schools.	Milk Stations.	Little Mothers' Leagues.
Number		784	59	151
Under supervision (children)	19,109	938,454	18,647	12,934
Attendance			1,182,286	76 678
Diarrhœal deaths	90		154	
Deaths, other causes	91		326	
Quarts of milk sold			2,993,998	

TABLE No. 4.

HOME VISITS—1915.

	School Medical Inspection.				Milk Stations.	Reduction Infant Mortality.
	Contagious.	Physical Defects.	Dispensaries.	Special Visits.		
Nurse	11,144	204,583	6,529	49,305	272,831	111,779
Inspector	15,239	57,344	30	11,947	189	620

TABLE No. 5.

GENERAL CONTAGION—1915.

	Found in Schools (Excluded).	Found in Homes (Unreported).
Diphtheria	93	5
Scarlet fever	115	75
Measles	539	1,135
German measles	268	66
Chicken pox	1,622	537
Whooping cough	259	350
Mumps	961	234
Tuberculosis	107	...
Gonorrhœa	1	....
Syphilis	2	....
Miscellaneous	3	...
Total	3,970	2,402

TABLE No. 6.

MINOR CONTAGION—1915.

	Found in School.	Excluded.
Pediculosis	260,077	5,685
Trachoma	9,639	89
Conjunctivitis	30,127	3,018
Ringworm	4,367	111
Scabies	2,354	213
Impetigo	17,885	347
Favus	213	19
Molluscum Contagiosum	64	2
Miscellaneous	147	6
Follicular conjunctivitis	4,983	17

TABLE No. 7.

CLINICS FOR SCHOOL CHILDREN—1915.

	Refraction.	Contagious Eye.	Nose and Throat.	Dental.
Cases brought forward	2,969	....	1,479	557
New cases received	11,212	10,003	9,711	7,606
Total registered	14,181	10,003	10,890	8,163
Cases discharged	6,825	.....	8,483	6,725
Cured	5,819	.....	7,572	5,668
Dropped	1,006	.....	911	1,059
Pending	7,356	.....	2,407	1,438
Operations	.	110	7,638	.....
Treatments	9,713	91,996	34,173	56,328
Refractions	26,452	.....	.....	.....
Extraction teeth, deciduous	....	.....	.....	13,555
Extraction teeth, permanent	....	.....	.....	2,311
Fillings teeth, temporary	....	.....	.....	2,196
Fillings teeth, permanent	....	.....	.....	20,452

TABLE No. 8.

MISCELLANEOUS, 1915.

Institutions:

Permits in Force	95
Monthly Sanitary Inspections	1,033
Special Inspections	205
Medical Visits	1,097
Special Reports Received	558

Reduction of Infant Mortality:

Stillbirths	465
Attendant in Ophthalmia Cases:	
Physician	31
Midwife	17
Institution	72
Other	2
Sore Eyes	106
Deaths from Septicemia:	
Physician	226
Midwife	43

School Medical Inspection:

Consultation with Parents:	
Nurse	101,357
Inspector	12,936

Vaccinations:

School Inspector	12,269
Borough Office	32,045
Milk Stations	7,042
Total Vaccinations	51,356
Certificates Issued	34,895

Treatment Obtained:

Private Physician	60,585
Clinics for School Children	9,408
Department Dental Clinics	2,258
Other Clinics	37,470
Other Treatment	2,370

Employment Certificates:

Refused—Insufficient Education	79
Under Age	109
Physical Incapacity	1,280
Malnutrition	424
Cardiac	429
Pulmonary	9
Miscellaneous	388
Duplicates	1,554

BUREAU OF FOOD AND DRUGS.

LUCIUS P. BROWN . . . . . *Director.*

ORGANIZATION BUREAU FOOD AND DRUGS—1915.

	Total.	General Administration.	Food.	Milk.	Meat.	Drug.	Laboratory.
Director	1	1	..	..	..	..	..
Food inspectors (including milk inspectors)	128	6	69	36	..	1	..
Veterinarians	14	..	..	1	13	..	..
Pharmacist	1	..	..	..	..	1	..
Clerks	22	18	2	1	..	1	..
Stenographer and typewriter	1	1	..	..	..	..	..
Typewriting copyist	1	..	..	..	..	..	1
Chemists	11	..	..	..	..	..	11
Laboratory assistants	6	..	..	..	..	..	6
Laborer	1	..	..	1	..	..	..
Helpers	2	..	..	..	..	..	2

General Activities.

Reorganization. On the first day of January, 1915, the plan of reorganization of the Bureau of Food and Drugs made during the preceding year was placed in effect. The Division of Food and Drug Inspection assumed the functions of the old divisions of City Milk Inspection, Food and Drug Inspection and Sanitary Inspection, thus assuming charge of the inspection and supervision of all foods of whatsoever character handled in any manner.

This materially increased the effectiveness of the work of the Bureau, particularly by its elimination of the duplication of inspection. The former plan under which it was possible for a milk inspector, a food inspector, and a sanitary inspector to all visit the same premises within an hour of one another was not only a duplication of effort, but an unnecessary annoyance to the dealer in food stuffs.

Instruction and Control of Inspectors. Under the former plan of organization, each inspector specialized on a limited class of foods or on sanitary conditions in food-handling establishments. To broaden the knowledge of these men, systematic instruction was given them all, by those of their fellows who were specially expert in certain lines, this instruction being by lectures, demonstrations and actual field work.

Realizing the comparatively recent introduction of governmental supervision of food supplies, and that the usual violations of food laws are due rather to ignorance than to intent, the inspectors were instructed that their efficiency would not be measured by the number of arrests, or of inspections made, but by the actual improvements obtained in their districts: that one food handler educated means one less man to watch. They were further required to make their reports on special cards for each class of establishment inspected, these being based upon the violations of (or compliance with) the regulations of the Board of Health. A duplicate card was left at each food handling establishment, appropriately marked and the markings explained. This instructed the proprietor, reduced clerical work and subse-

quent correspondence, and ensured uniform reports. In all cases in which prosecutions were indicated, but the facts submitted were not clear, a system of hearings was instituted, the person charged with a violation being summoned to headquarters to give an explanation. This has greatly reduced the number of prosecutions, most of the violations being shown as due to ignorance. Its benefit in the instruction of food dealers will be apparent at once.

A most important betterment was the adoption of the district system as used in the other field Bureaus, based on the forty-acre tracts of the Federal Census of 1910. Each inspector was given a certain district, depending upon the number and character of food-handling establishments, for the condition of which he was held responsible, and suitable numbers of these were grouped under the management of supervisors, each of whom was responsible for his larger unit thus created, and therefore for the work of the inspectors under him.

To control and oversee the work in the field, four specially qualified inspectors were designated as Supervisors at Large.

Census of Food Handling Establishments. To further systematize the work of the bureau a census was made of the various food handling establishments from the smallest sidewalk stand and push cart to the largest bakery or slaughter house, all of which come under the supervision of the Bureau of Food and Drugs. This census is, so far, necessarily inexact, and the figures obtained seem rather too low than too high. It has proven of the greatest value in planning future work, and its inaccuracies do not invalidate its usefulness. The figures obtained are set forth in the following table:

CENSUS OF FOOD HANDLING ESTABLISHMENTS—1915.

Character of Establishments	No. of Retail Places.	No. of Wholesale Places.	Total No. of Places.
Bakeries	3,819	.....	3,819
Butcher Shops	6,522	318	6,840
Butter and Eggs	180	185	365
Cafes	7,188	.....	7,188
Carbonated and Mineral Waters	.....	126	126
Coffee and Tea	66	.....	66
Cold Storage Plants	.....	15	45
Commission Houses	.....	309	309
Confectionery	9,851	131	9,982
Creameries shipping raw milk	.....	.....	750
Cream and condensed milk	750	.....	750
Dairies (outside city)	50,000	.....	50,000
Dairies (certified milk)	37	.....	37
Dairies (within city)	115	.....	115
Dairies (Grade A, raw)	40	.....	40
Dairies (Stores)	439	.....	439
Delicatessen	4,000	.....	4,000
Department Stores	19	.....	19
Distributing milk plants	600	.....	600
Drug Stores	2,424	76	2,500
Eggs	.....	185	185
Egg-breaking establishments	.....	3	3
Fat rendering plants	.....	2	2
Fish	990	.....	990
Frozen Products	.....	79	79
Fruit and Vegetables	2,549	.....	2,549

CENSUS OF FOOD HANDLING ESTABLISHMENTS—1915—*Continued.*

Character of Establishments	No. of Retail Places.	No. of Wholesale Places.	Total No. of Places.
Groceries	13,444	364	13,808
Hotels	536	.....	536
Liquors	.....	533	533
Markets	60	37	97
Milk platforms	12	.....	12
Milk wagons	7,000	.....	7,000
Miscellaneous	470	.....	470
Pasteurizing plants (city)	50	.....	50
Pasteurizing plants (outside city)	450	.....	450
Piers and wharves	.....	108	108
Poultry	.....	91	91
Push Carts	.....	10,000	10,000
R. R. Terminals and Ferries	.....	32	32
Restaurants	4,627	.....	4,627
Cattle slaughter houses	.....	30	30
Poultry Slaughter Houses	.....	200	200
Smoke house and meat preserving	.....	163	163
Stands	4,000	.....	4,000
Stock yards	.....	1	1
Supply houses	.....	23	23
Syrup	.....	38	38
Warehouses	.....	148	148
General produce	.....	270	270
Total	120,238	13,479	133,620

Co-operation with Associations. Every opportunity has been taken to come in contact with associations of various classes of food dealers to discuss and explain the regulations governing any particular business. The effect of this policy has been most happy, particularly in promoting friendly relations with the various classes of dealers involved. In addition to this, talks and lectures have been given to civic bodies in which the work of the Bureau was described. Instruction was likewise given to the members of the Police Department in its Training Schools.

Diseased Food Handlers. There has for many years been on the Statute Books of various States of the Union a provision that no person having an infectious disease should be allowed to work in a food handling or food manufacturing establishment. Little, however, had been done in New York City towards actually enforcing such provisions, until the examination of bakers under the Labor Law, by the Bureau of Preventable Diseases, demonstrated that the system might be extended to other classes of food handlers. Naturally those coming in most direct contact at once with the food and the public, viz.: waiters and cooks in hotels and restaurants, were selected for the beginning of the new work. The results obtained up to date have been satisfactory. These food handlers are notified by the Bureau inspectors that they must procure a certificate of freedom from infectious disease. They are examined free of charge at the Occupational Clinic of the Bureau of Preventable Diseases, but examination by private physicians is permitted, provided such physicians follow the procedure required by the Department of Health.

As soon as this work with employees of hotels and restaurants (some 90,000 in number) has been completed, it will be extended to employees of other food handling establishments. Preparatory thereto, notice has been given that such certificates will be required from persons handling milk after pasteurization.

Patent Medicines. During the year several prosecutions were brought against persons selling patent medicines, claims for the therapeutic effects of which were palpably and viciously false. These prosecutions were so well sustained by the courts that the larger number of these nostrums have been either withdrawn from the market, or the advertising has been brought within the bounds of reason. Section 117 of the Sanitary Code, passed in December, 1914, became effective January 1st, 1916. Regulations further defining the scope of this section were passed during 1915, and the section itself was further modified in the direction of decreased stringency. The most noteworthy feature of these regulations and of this section is that they require only the names (and not the quantities) of only those ingredients which are physiologically active to be registered with the Department. This is far from requiring the disclosure of the formula of the nostrum, as has been erroneously stated.

Up to January 1st about 2,500 patent medicines had been registered.

Inspection of Meat Killed Outside New York City. Systematic inspection of meat at West Washington Market revealed that of the country-killed carcasses being shipped into the City a large proportion were diseased. Further investigation showed that such cattle, sheep and hogs were slaughtered in the country without supervision. An agreement was reached with the dealers that the Department should conduct the necessary inspections, and the dealers should pay its cost (five cents for each carcass or part thereof). This arrangement was confirmed by an ordinance passed by the Board of Aldermen on May 4th, 1915. This ordinance conforms to similar ordinances elsewhere, and provides that no carcass or part thereof shall be sold or offered for sale in the city unless it shall bear the "Inspected and Passed" stamp of either the Department of Agriculture, or of the New York City Department of Health.

The passage of this ordinance marks a distinct forward step in meat inspection in New York City and puts it on the same common sense basis as prevails in practically every large city in the United States, *i. e.*, a meat-inspection service under city supervision but costing the city nothing, and paid for by the butchers and dealers, who derive from it the chief economic benefit.

Shore Resort Work. The temporary character of such shore resorts as Coney Island, South Beach, etc., offers great temptation to carelessness in sanitation and in the sale of foods and drinks. Consequently particular effort was made to control them, a special squad of inspectors being detailed to those on the south shore of Long Island. The dealers at the various resorts heartily co-operated with the Bureau, as a consequence of which prosecutions were few, and conditions during the summer approached the ideal.

Division of Food and Drug Inspection—Force and Methods of Work.

The force of supervisors and inspectors already mentioned totals eighty-seven. Aside from their routine work, a small special detail is assigned to emergency and night work of a somewhat special character. In addition, it is often found necessary to make regular raids on certain industries with a large force. In such a raid in October, fifty-six men were detailed to cover food-handling establishments, especially with reference to the use of rotten eggs. As a result 50 violations of the Code were found and about 1,100 pounds of unfit food condemned in bakeries.

The Supervisor makes his headquarters at the Branch Office or Departmental Clinic nearest his district, which thus serves as a centre for meeting and for the dissemination of instructions from supervisors to men and of reports from the inspectors to the supervisors.

Co-operation with Other Governmental Agencies. Close co-operation was established with the local laboratory of the United States Bureau of Chemistry and the local representatives of the Bureau of Animal Industry. This co-operation has been found mutually advantageous.

Inspection of Foods on Their Arrival in the City. It is obvious that if the quality of the food, both fresh and manufactured, entering the city is good, not only is there a greater probability that the citizens will get good food, but there will also be much less work for the inspectors in the field. Further, if only fresh and wholesome goods come into the city, the responsibility for the sale of those of an opposite character will be much more easily placed.

To this end, a squad of inspectors has been detailed to supervise the receipt of foodstuffs at the 150 piers of the city, used for foreign and coastwise commerce and for commerce coming across the Hudson River over the railroads. The results have been most happy. All food stuffs bearing any evidence of unsoundness are immediately held by the inspector who gives to the person owning them instructions for immediate overhauling and reconditioning. The unfit material is then destroyed, under orders of the inspector, by removal to the offal dock or by being dumped at sea. About 13,000,000 pounds of improper food were prevented in this way from coming into the city, a large portion of which would have been sold and part of it at least have gone into consumption.

Constructive work has been done in improving the methods of handling foodstuffs during unloading from vessels, and the sanitary conditions on the piers. Steamship companies and shippers have co-operated most effectively in this work. The removal of damaged cargoes from piers without reconditioning has been prohibited, giving the retailer further protection, and tending to stabilize the food market by removing the temptation to sell damaged goods at prices far under those of sound material.

In the inspection of these unsound foodstuffs every effort is made by the dock squad to avoid useless condemnation and to promote the conservation of any foods fit for use.

In this work, close co-operation has been maintained with inspectors of the United States Bureau of Chemistry; in whose province belongs much of the work done as just described. But inasmuch as it is impossible to distinguish which goods will be used in the City and which will go into the general commerce of the country, the City inspection must in this way insure that all shall be properly examined.

Pursuant to these general ideas, the other New York terminals of the railways have been given special attention, with a view to greatly extending this most useful class of inspection in future. The practice of allowing dead poultry to accumulate in cars while unloading is going on, has been discontinued, thus preventing them from finding their way, by underground trade channels, to unscrupulous dealers, especially restaurant keepers. The detectives of the railroads interested have co-operated in this work.

The great size of the city and its peculiar geographic situation afford unusual facilities for the application of this departure from the usual methods of city food inspection.

Markets. These are classified as wholesale and retail markets. The wholesale markets receiving most attention have been West Washington Market and Fulton Street Market in Manhattan, and Fort Greene and Wallabout Markets in Brooklyn.

At Fulton Market, which handles fish exclusively and through which 90 per cent. of the fish supply of the city comes, extensive improvements were made during the past year. As many inspectors, expert on fish, have been provided as necessary to insure that the quality of the fish is absolutely satisfactory. The general sanitary conditions of the market have been greatly improved. Formerly, the ordinary fish shipping

box was used for the display of fish, foul river water was used for washing purposes, the floors were filthy, and conditions in general bad. Through the efforts of the Bureau, the fish boxes have been replaced by sanitary, metal framed, movable stands, the insanitary floor of the market has been replaced by water-tight floors and the river water used for washing purposes has been replaced by city water.

From 250,000 to 750,000 pounds of fish pass through this market every day, when the fish supply is up to the normal in quantity. It is safe to say that as at present handled, the quality of the fish supply of New York is excellent.

Hearty co-operation was received from the fish dealers themselves and the results have been most excellent, old employees of the market stating that the market is in better condition than for forty years.

At West Washington Market equally pronounced changes for the better have been made. The rigid inspection of incoming material already described has resulted in successful prosecution of several firms having for sale tuberculous meat. The former careless method of covering meat in transit with unclean horse blankets is entirely discontinued. The refrigerators are now kept clean and vehicles used for transporting meat are subjected to rigid inspection.

Among the principal retail markets are Washington Market and those public markets under the supervision of the President of the Borough of Manhattan. Washington Market, known usually as the "Old Washington Market," has been reconstructed by the City. It is now a model of its kind, so much so that applications are daily received for information regarding it from other cities of the country.

Special Work in Food Sanitation.

Kitchens. Much attention has been given to the hotels and restaurants in the hotel district in uptown Manhattan and the downtown restaurant district. Conditions were not altogether satisfactory on the first investigation, but every effort has been made by the owners of establishments to correct their deficiencies in accordance with the recommendations of the Bureau. Among other interesting facts brought out by this investigation was that probably 90% of the hotel kitchens are located in cellars, this fact alone being quite sufficient to condemn them as not conforming to the most approved requirements in sanitation. The hotels of newer construction have their kitchens above ground and usually on the top floors of the building. Legislation should be enacted for hotels similar to that now in force for bakeries prohibiting the locating of future hotel and restaurant kitchens in cellars.

Bakeries and Ice Cream Cone Factories. The State Labor Law having special reference to bakeries is enforced by this Bureau for the City of New York. Under it macaroni factories are classed as bakeries, and many drying rooms in cellars, contrary to the law, have been found, and the use of such cellars has been forbidden and discontinued. In addition, a large number of such factories were temporarily discontinued by the Bureau, because of insanitary conditions.

Classed likewise as bakeries are the ice cream cone factories. Many cases involving these establishments were taken to court, and a considerable number were forced to discontinue.

Ice Cream. Special attention was given to ice cream factories, samples of ice cream being taken for bacteriologic analysis. Investigation showed that in almost all cases where high counts prevailed, the conditions in the manufacture of the ice cream were insanitary. As far as possible the Bureau has had these conditions corrected, but much still remains to be done in the regulation of this class of establishment.

Soda Fountains. The so-called "soft-drink" factories and soda fountains were given special attention, particular endeavor being made to force the installation of

hot water or other sterilizing facilities. Progress has been made along these lines. This was the first time such work was ever undertaken in the City.

Push Carts. The itinerant dealer in any food commodity has always given trouble to the authorities no matter under what governmental agency they work. One of the most perplexing of these problems is involved in the handling of the push carts of New York City, and in properly controlling them without undue severity. It is obvious that they are without facilities for keeping the wares and the persons of the vendors in a cleanly and sanitary condition, or for sterilizing glasses when beverages are sold. It is estimated that there are at least 10,000 of such peddlers in the City who deal in food each day. Unfortunately, a dealer in food today may be a dealer in shoe strings or underwear tomorrow. On the East Side alone there are about 27 streets devoted to push cart markets.

The natural supposition that so widely spread a custom has an economic basis behind it has been confirmed by investigation by this Bureau and others. Neither property owners, store-keepers, nor tenants object to the push cart. The majority of merchants maintain that their business is improved because of the fact that the push carts bring more people to the street, the landlord is benefited by increased store rentals and more room rentals. It is a curious fact that people of very limited means can buy from push carts in small quantities and more cheaply, ordinarily speaking, than from the stores. Owners of stores, not infrequently, operate push cart stands in front of their premises as an extension to the business. However, all this does not improve sanitary conditions in the sections in which push cart markets are located.

Sidewalk Stands. These offer very much the same difficulties from a sanitary standpoint as the push carts. It is estimated that there are about 10,000 stands of this character, and while gas and water connections can be made in stoop-line stands the largest number are itinerant. This subject is being considered by the Bureau of Licenses. A system of control under license, said license not to be issued unless the regulations of the Department of Health have been complied with, and subject to revocation if not lived up to, together with a medical examination of the attendants, should go far to solve the problem.

Exposed Foods. Connected with the last two subjects is the exposure of foodstuffs to flies, dust and dirt, as provided against in Section 142 of the Sanitary Code. This has been enforced as strictly as possible with reference to outside exposures, these furnishing the most crying need for regulation. As soon as these outside exposures have been thoroughly well regulated, close attention will be given to the unnecessary display inside stores of materials which might carry contagion through flies or dirt settling on them. The great change in customs involved in the strict enforcement of this regulation implies years spent in education.

Drinking Utensils. The same is true to a certain extent as regards the cleansing of drinking utensils; nevertheless, more speedy progress can be made in the latter. During the summer of 1915, special details of from eight to ten inspectors made afternoon and evening inspections in districts where drinking utensils were not properly cleansed after use. As a result many prosecutions were brought, in cases of flagrant violations. The principal work of these inspectors was educational. The results of individual work in handling this situation have been most excellent.

Wrapping Food in Newspapers. This is an insanitary practice which has grown to large proportions in this city of late. Investigation by the Bureau showed that the source of second hand newspapers was often repugnant to all principles of sanitation: viz., from elevated and railroad trains, street cars, street corner stands and like sources and often contaminated with sputum.

FOOD ADULTERATION AND THE MISBRANDING OF FOOD.

Cold Storage. During the latter part of the year special efforts were made to enforce the cold storage law of the State, the duty within the City of this Bureau. Instructions were given for the proper stenciling of all containers and strict observation of the regulations for marking so that purchasers might know the character of food bought.

Eggs. Special attention was given to eggs, and much work was done to further circumscribe the sale of so-called "rots and spots" for use in the manufacture of food. Except in the case of so-called "musty" eggs the bad smell of an egg not too far "gone" will cook out of bread, cake, and the like, especially when such eggs are used for glossing hard rolls and bread. It will be readily seen that there is, therefore, much temptation for the dishonest baker to use such. They are also used for admixture in frozen eggs by dishonest egg breakers and freezers. Both the small and large places have been watched. The permit of one egg breaker was permanently revoked, and another fined $500. With the close attention that will be given the subject by this Bureau during 1916, it is believed that the courts will give such staunch support that this particular variety of rascality can be forever banished from the city.

Use of "Chu-en" Root and Copper Sulphate. This Department has heretofore been active in suppressing the use of soap bark and saponin as an agent for producing "fluffiness" in certain candies and foam on soda water. It was believed that the use of such material had been entirely discontinued, until investigation showed that another root of the same properties, namely, the so-called "chu-en" root, containing a high percentage of saponin and sapotoxin, was being used instead. The use of this material has been discouraged by the same methods as in the case of soap bark.

The use of copper sulphate for the greening of canned vegetables has been practically eliminated in New York during the past year.

Artificial Mineral and Distilled Waters. The manufacture of these waters in the City of New York is a large business, and includes many small dealers. They are made in imitation of well-known waters, such as the springs of Vichy, in France, Selters, in Germany, etc. It was a practice for the Department heretofore to furnish a formula for these goods to which they must conform, with permission to label them as "Artificial" waters. This practice has been discontinued, and the whole subject is now undergoing readjustment.

The distilled waters sold throughout the city have not been found free from fault. When colon bacilli were found on bacteriologic examination, the manufacturers were notified that their faulty methods must be corrected; as a rule they have complied.

Saccharine. In the spring of 1915, a case was brought to test that regulation of the Department prohibiting the use of saccharine in food. At the trial, experts from all over the country testified for both sides. The Court of Special Sessions transferred the case to the Court of Appeals for decision. Up to the close of the year no decision had been rendered.

Gluten Bread. A beginning has been made in the analysis of the various breads and flours used as food by persons suffering from diabetes. As is well known, diabetic patients need a ration in which the carbodydrates are nearly or quite absent, and it is hardly necessary to call attention to the despicable character of the fraud practiced by furnishing to one of these sick people an ordinary bread. The samples analyzed by the Department varied from 6% of gluten up to 80%, and prosecution of flagrant cases has resulted.

Food Poisoning. Numerous cases of food poisoning (so-called ptomaine poisoning) have been investigated, but the results have not been satisfactory, as the reports of the cases are always delayed twenty-four hours or more. By the time the in-

spector can reach the spot, the samples of food have been lost and the patient is well on the road to recovery or the cemetery. Physicians notably fail to observe the requirements of Section 93 of the Sanitary Code, requiring the immediate reporting of cases of this character.

Wood Alcohol. As a result of continued work in checking the sale of wood alcohol, and insisting on its proper labeling, the situation regarding this poison is now good. In 900 samples of such materials as bay rum and barbers' supply materials, about 15% were found to contain wood alcohol. Prosecutions and hearings were held; in four cases jail sentences were imposed, the courts as usual giving splendid co-operation in this work. The most flagrant violators were the barbers' supply houses and the barbers themselves. Mere technical mislabeling is not prosecuted. A number of cases were found in which the federal requirements in reference to the sale of denatured alcohol were not complied with, and these were reported to the United States Internal Revenue Collector for the district.

Headache Powders. Among the most vicious of the patent medicines are the headache powders. These, as is well known, contain for the most part the potent drugs, acetanilid, phenacetin and antipyrin. A large number of samples were taken of these products throughout the city, and in the majority of cases the drug present was found in quantities either above or below the amount stated on the package. Hearings held on these cases have usually resulted in correction of the manufacturing.

Division of Milk Inspection.

Bacterial Control of Milk. For several years the importance of the control of the milk supply through the medium of bacteriologic examinations of all milk and cream offered for sale has been emphasized by the Department. The number of samples taken in this work was doubled during the year 1915, and has resulted in the practical abandonment of the inspection of dairies producing milk for sale as Grade B milk, an added inducement for this action being that any considerable dependence on such dairy inspection tended to give a false sense of security, for the reason that the Department has only a limited field force, and there are some 40,000 odd dairies furnishing this grade of milk to the city. It is obvious that it would be impossible for the inspectors of the Department to get to these dairies, even as often as once a year. Following out the same line of action, increased sampling of the farmers' milk as delivered to the creamery has been done.

Milk Standard. The New York standard for milk is 11½% of solids and 3% of fat, the difference, solids, not fat, being 8½%. On deficiency in solids not fat, alone, the State Agricultural Department does not prosecute. The New York City standard recognizes the 8½% standard of solids not fat, and began to enforce it gradually in 1915. The dealers have recognized that the Department would take no very drastic action along these lines, and have therefore co-operated very willingly, one of the steps taken being the purchase of milk on the butter fat basis, fairest both to the farmer and to the consumer. The consumer does not buy milk for the water in it, and the honest farmer is not obliged to compete with the farmer who is watering his milk, either through the pump or through a specially bred type of cow. It is felt that this process of decreasing the quality of the milk, which has been gradually proceeding since the lowering of the State standard, has reached a point where a halt must be called, and that the purchaser of the milk is entitled to a reasonable food value.

Tuberculin Testing of Cattle. An increased severity in the requirements of tuberculin tests of cattle has resulted in showing more reactors than the old regulations indicated, and gives therefore a better protection of the milk supply.

Much valuable aid has been received from the State Department of Agriculture, particularly in determining the status of certain veterinarians, while the Department of Health has furnished the State with information as to the presence of contagious diseases among milk handlers and on dairy farms. Co-operation has also been instituted to a certain extent with the Boards of Health of Newark and Jersey City with satisfactory results.

Foot and Mouth Disease. Concurrent with the country-wide outbreak of foot and mouth disease in 1914, there was an outbreak within the city limits, as a result of which about 2,500 cattle were slaughtered in the Boroughs of Brooklyn and Queens, and the whole city was placed under quarantine in April, 1915. This was not an unmixed evil, for while all exposed cattle were slaughtered, the necessary disinfection of the stables resulted in the tearing out of the interior woodwork wherever it was possible, as a result of which the Department was able to strictly enforce its regulations governing construction of cow barns within the city.

Typhoid Fever Outbreak. During July, 1915, a typhoid outbreak occurred in the Borough of Brooklyn, involving some 112 cases, which was found to be due to infection through a pasteurized milk supply furnished by a company having a plant at Newton, N. J. This company's supply was at once shut out of the city. Investigation amongst the creamery employees failed to show any typhoid fever infection, but the water supply from a drilled well was badly polluted, and it contaminated the milk, apparently through the bottle filler, after pasteurization. Immediately on shutting off the milk supply, further infection stopped, and the milk was not readmitted to the City until proper changes were made in the water supply.

Change of Method of Inspection of Grade B Dairies. Mention has already been made of this fact, but it is proper to further note that in discontinuing routine inspection the dealers themselves have been notified that they will be expected to keep the dairies supplying Grade B Milk up to the mark, and that the Bureau would periodically supervise such work. They have given willing and satisfactory co-operation, as shown by follow-up inspections. This change in procedure has made it possible to give more time to the supervision of Grade A dairies.

Slaughter House Inspection.

There was practically no change in the slaughter house service except that one slaughter house applied for and received government inspection, and a new slaughter house was opened and placed under municipal inspection. During the year 61,011 animals were slaughtered, of which 139 carcasses were condemned, and a total of 623,689 pounds (including organs) condemned.

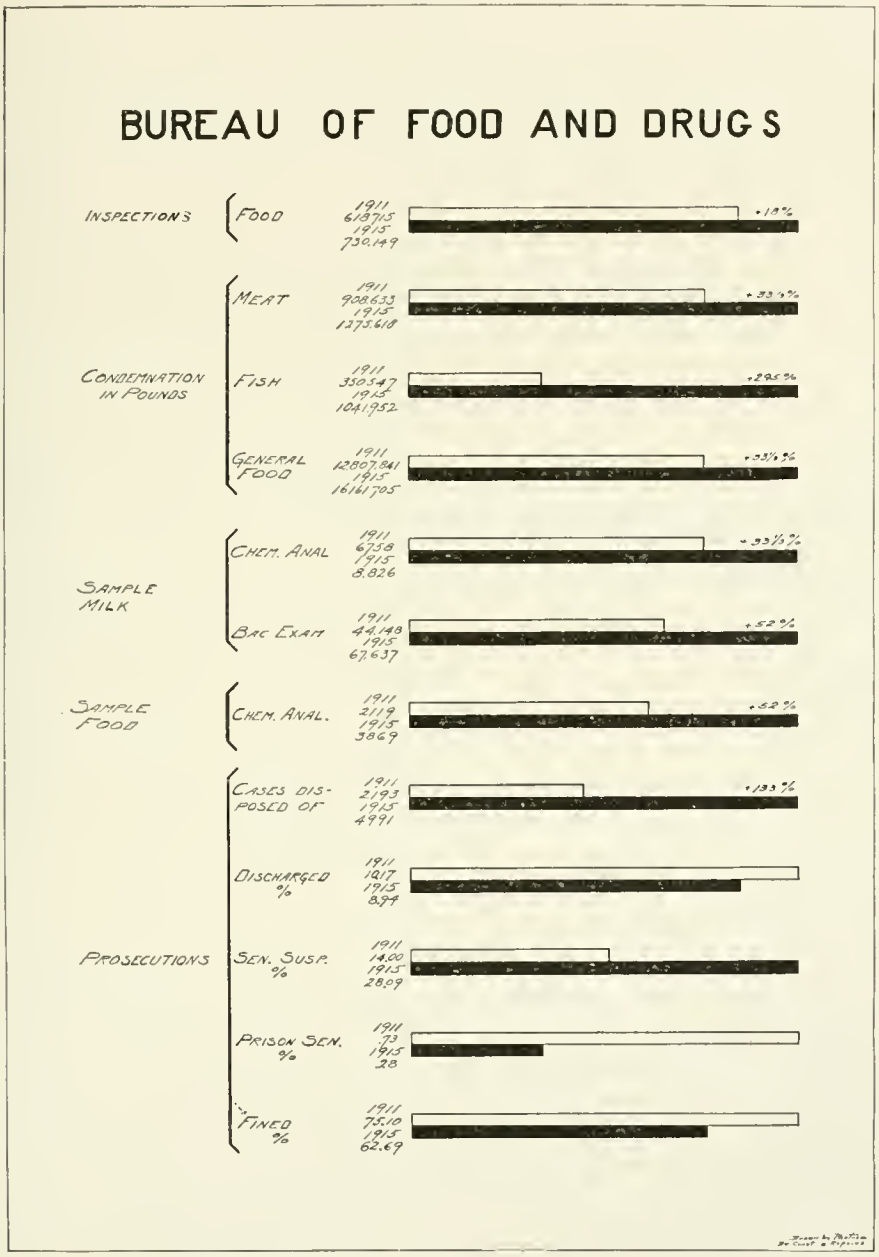
In the stock yards, sanitary conditions have been improved during the year, the carcasses of all animals dying in transit being removed to the city offal docks for final disposition.

Chemical Laboratory.

About the first of July the work of the bureau was enlarged by the transfer of the chemical laboratory from the Bureau of Laboratories to the Bureau of Food and Drugs.

Many changes in policy in the chemical laboratory were made during the year. Formerly the inspector stated on the card which accompanied his samples taken for analysis what the sample should be analyzed for. This is now made a part of the duty of the chemist, who must by his position and training necessarily have a better knowledge of what to look for in samples than the inspector. Certain tests formerly made by chemists have been placed in the hands of laboratory assistants, thus leaving the time of the chemists free for other and more important work. Inasmuch as a

very small proportion of these tests show an illegal condition there is no loss in efficiency of the laboratory but a great gain in time and number of samples examined. It is the duty of the chemist to check the work of the laboratory assistants on any cases which require to be taken to court. The work of the chemical laboratory for



the past year shows the same variety as reported in previous years, although there has been a little more concentration than formerly. Samples of practically every class of food and drugs have been analyzed.

Clerical Force.

The clerical force of the Bureau was reorganized during the past year, and the duties of the various clerks and the work of the Bureau generally systematized. As tending towards the promotion of system, each clerk is given a written description of his duties in the form of an official communication, and is required to perform them according to such instructions. "Follow-up" systems of various kinds have been installed in both field and clerical work, and systems of recording and tabulating reports have been initiated which show at a glance what each man is doing, as well as what is being done in each function and each Borough.

TABLE No. 1.

INSPECTIONS OF FOOD ESTABLISHMENTS—1915.

Character of Establishment.	Retail Establishments.	Wholesale Establishments.	Total Inspections.
Bakeries	23,985		23,985
Butchers	34,760	11,880	46,640
Cafes	9,681		9,681
Carbonated and Mineral Waters		1,467	1,467
Cold storage plants		898	898
Commission houses		32,921	32,921
Confectionery	22,472	703	23,175
Creameries	2,430		2,430
Dairies	24,067		24,067
Delicatessen	5,537		5,537
Drug stores	11,675		11,675
Eggs, wholesale		877	877
Egg breaking		532	532
Fat rendering		478	478
Fish	3,262	10,152	13,414
Frozen products		1,417	1,417
Groceries	50,468		50,468
Hotels	1,041		1,041
Markets	4,586	282	4,868
Milk platforms		2,159	2,159
Miscellaneous	18,082	17,109	35,191
Pasteurizing Plants—city		68	68
Pasteurizing plants—outside city		5,209	5,209
Piers and wharves		9,550	9,550
Push carts	202,618		202,618
R. R. terminals		5,645	5,645
Restaurants	19,910		19,910
Slaughter houses—cattle		1,925	1,925
Slaughter houses—poultry		6,108	6,108
Smoke house and meat preserving		1,194	1,194
Stands	129,633		129,633
Stock yards		92	92
Stores—general	53,216		53,216
Supply houses		495	495
Warehouses		1,565	1,565
Total	617,423	112,726	730,149

TABLE No. 2.

CONDEMNATION OF UNWHOLESOME FOODSTUFFS.

1915.

Character of Foodstuffs.	Pounds.
Fruit	10,827,745
Vegetable	3,134,637
Canned goods	1,108,246
Groceries	137,607
Drugs	1,216
Eggs	46,853
Milk	55,441
Cream	5,812
Condensed milk	69,080
Butter	6,678
Cheese	2,483
Confectionery	46,173
Beef	563,416
Veal	170,250
Mutton or lamb	35,093
Pork	96,056
Poultry	386,388
Game	15,400
Fish	1,032,166
Shell fish	9,786
Assorted meats	9,016
Miscellaneous	449,401
Total	18,479,275

TABLE No. 3.

PROSECUTIONS.

1915.

	Magistrates' Court.	Court of Special Sessions.
New arrests	4,381	.....
Held on bail	1,369	.....
Discharged	242	204
Fined	2,404	729
Sentence suspended	362	1,040
Amount of fines	$6,703	$26,518
Prison sentence	4	10

BUREAU OF LABORATORIES.

WILLIAM H. PARK, M. D., *Director.*

ORGANIZATION OF BUREAU OF LABORATORIES—1915

	Total.	Division of Administration.	Division of Media Preparation.	Division of Diagnosis.	Division of Microbal Sanitary Examinations.	Division of Production.	Division of Applied Therapy.	Division of Special Investigation.
Director	1	1	..	..	..	..	..	..
Assistant Directors	8	1	..	1	1	4	1	..
Bacteriologists	20	..	2	2	4	5	4	3
Chemists	1	..	..	..	..	1	..	..
Bacteriological Diagnostieians	6	..	..	5	..	1	..	..
Laboratory Assistants	75	4	4	27	7	15	8	10
Inspector of Foods	1	..	..	..	1	..	..	..
Clerks	13	7	..	6	..	..	..	..
Hospital Clerk	1	..	..	..	..	1	..	..
Stenographer and Typewriter	1	1	..	..	..	..	..	..
Typewriting copyists	2	1	..	1	..	..	..	..
Librarian	1	1	..	..	..	..	..	..
Helpers	57	6	14	10	10	15	2	..
Laborers	22	..	1	8	..	13	..	..
Total	209	22	21	60	23	55	15	13

Organization. The work of the Bureau of Laboratories was carried on under the broad divisions indicated in the reports for the last two years, with the exception that the work of media preparation was assigned to a separate Division, the Division of Chemistry was transferred to the Bureau of Foods and Drugs, and the Division of Diagnosis was enlarged by the transfer of the routine or direct diagnoses from the Bureau of Preventable Diseases to this Bureau. The Bureau, therefore, has still seven divisions, namely: I. Administration; II. Media Preparation; III. Diagnosis; IV Microbal Sanitary Examinations; V. Production of Serums and Vaccines; VI. Applied Therapy; VII. Special Investigations.

Division of General Administration.

Working Force. The Laboratory force was increased in 1915 to care for the serological laboratories, the examinations made in the previous years of the bloods of persons suspected to have venereal diseases having been paid for by private means.

The hours of service of the bacteriologists and other employees have been changed by placing on full time those receiving $3,000 or more per annum and fixing the hours of service of the bacteriologists on part time to six hours. This has made the service hours more definite, but has not increased to any considerable extent the total hours

of service, as most of the bacteriologists gave more than the required time on account of their interest in the work.

The different workers have been placed in more definite relation to the various Divisions of the Bureau, so that it is possible to estimate more accurately the amount of work done by the different Divisions.

Report of Librarian. At the close of the year the Library contained about 500 books and 1,425 completed volumes of periodicals (560 unbound), the books being arranged on the shelves by subjects, and author and subject cards made for each.

Thirty-four current medical journals were subscribed for; sixteen American, nine British, six German and three French. As each journal was received it was carefully looked over and the important subjects, in which the laboratory workers were interested, classified, and the cards filed by subjects. About 680 periodicals have been received during the year, and about 1,600 exchanges.

About 500 reprints have been added during the year to the 4,500 on hand, arranged by authors, put in folders and filed in cabinets, each with its author and subject card.

Collected Studies. Volume VIII of the Collected Studies, representing various phases of the work of the laboratory, was completed for publication, to be sent to about 1,600 investigators in bacteriology, pathology and hygiene throughout the world.

Conferences. Bi-monthly laboratory conferences were held, at which the journals and books were discussed. Papers were presented by members, dealing with recent scientific subjects and special investigations in the laboratory. Authorities on subjects of scientific interest to the laboratory force were frequently invited and participated in the sessions.

Division of Media Preparation and of Sterilization.

The media preparation, including sterilization for the whole Bureau, was made a separate division because the large volume of work done necessitated a comparatively large force of workers. The amount of work is shown in the following table:

1915

Diphtheria toxin broth	916 litres
Tetanus toxin broth	1,222 litres
Tuberculin broth	180 litres
Stock broth	2,448 litres
Agar—for milk work	1,330 litres
—for typhoid carriers	291 litres
—for antigen, vaccines, stock transplants, general use	2,271 litres
Miscellaneous media	662 litres
Total	9,320 litres, an increase of 779 litres
Tubes and bottles filled—Total	275,706, an increase of 30,385.

In August a Bristol Recording Gauge was attached to one of the two steam autoclaves and records every running of the apparatus for sterilizing culture media. Since both the time and pressure are recorded the work can be followed with an accuracy impossible before.

Division of Microbal Sanitary Examinations.

The work in this Division included the routine bacteriological examinations of milk, of water and of disinfection tests, and the microbal examination of other foodstuffs.

The following examinations of oysters were made:

Number of Shell Fish Examined.	Number of Fermentation Tubes Inoculated.	Number of Agar Plates Inoculated.	No. of Lots (5 Oysters Each) Scoring		Number of Different Samples Tested.
			Less than 50.	Over 50.	
1,270	3,810	762	199	55	251

Following inquiries from various milk companies, the Commissioner signified his willingness to allow representatives of milk companies to come into the Milk Laboratory for the purpose of comparing their methods with those of the Department.

Five companies availed themselves of this privilege; and increased confidence in the work of the Department Laboratory and greater co-operation between the laboratories and the Department has been the outcome.

Division of Diagnosis.

The diagnoses, depending upon laboratory methods, were subdivided into direct and indirect diagnoses. The direct diagnoses include those carried on in a routine way, and according to certain definite rules in the laboratories at headquarters, while the indirect diagnoses include those requiring a more varied technic best carried out in the laboratories at 16th Street.

The more important direct diagnoses for the year were as follows:

	Diphtheria.	Tuberculosis.	Malaria.	Widals.	Wassermann.	Gonorrhoea.	Glanders.
Positive ...	24,963	13,738	400	1,847	14,426	1,268	1,039
Totals...	151,115	61,080	3,288	20,102	49,212	10,640	5,357

The more important indirect diagnoses were as follows:

	Rabies.	Meningitis.	Typhoid Carriers.	Diph. Virulence.
Positive	125	379	204	309
Totals	467	379	1,329	1,010

In addition, many other special diagnoses were made, including infections with B. anthracis, B. pertussis, B. influenzae streptococcus, amebas, hookworm, etc.

Division for the Production of Serums and Vaccines.

All serums and vaccines are produced for free distribution to citizens of the City. The following is a list of the products with the amounts produced during the year:

Product.	Produced.
Diphtheria Toxin	225,800 c. c.
Diptheria Antitoxin Plasma	585,000 c. c.
Of which was refined (Globulin)	483,995,000 units
Tetanus Toxin	813,238 c. c.
*Tetanus Antitoxin Plasma and Serum	3,200,050 c. c.
Of which was refined (Globulin)	7,007,500 units
Antimeningitis Serum	376,100 c. c.
Antipneumococcus Serum	56,350 c. c.
Antigonococcus Serum	52,700 c. c.
Antistreptococcus Serum	148,690 c. c.
Normal Horse Serum	86,050 c. c.
Pertussis Vaccine	57,810 c. c.
Streptococcus Vaccine	17,200 c. c.
Pneumococcus Vaccine	7,400 c. c.
Staphylococcus Vaccine	8,660 c. c.
Gonococcus Vaccine	33,400 c. c.
Typhoid Vaccine	75,150 c. c.
Glanders Vaccine	3,110 c. c.
Mallein Vaccine	0
Eye Mallein	1,200 c. c.
Tuberculin Vaccine	3,420 c. c.
Gonococcus Antigen	660 c. c.
Rabies Vaccine	56,323 c. c.
Smallpox Vaccine	4,307 c. c.
Meningitis Vaccine	540 c. c.
Schick Toxin	1,200 c. c.
Bacillus Emulsion Rec'd in Exchange	50 c. c.

The demands of the war continued to absorb all tetanus antitoxin and antimeningitis serum that could be spared.

Division of Applied Therapy.

The number of consultations in regard to the use of serums and vaccines held with physicians and hospitals by telephone, letter and, on request, by visits to the patients, continued to increase. The use of tissue extract (thromboplastin) for the control of hemorrhage from various causes gave good results.

Tetanus. Continued studies on the *early treatment* of tetanus by the intraspinal use of antitoxin, as the result of an experimental study on animals made during the past year in the laboratory, gave additional proof of the superiority of this method over all others.

Whooping Cough. The extensive study of the treatment of whooping cough with pertussis vaccine produced in this Bureau, was continued in co-operation with several physicians in clinical practice. The results were fairly good, particularly in early cases and as a prophylactic measure. During the year, 2,839 cases were treated.

Pneumonia. The study of the treatment of pneumonia with a serum and vaccine was continued throughout the year, especially in co-operation with the attending physicians of a number of hospitals. In this connection, the types of pneumococci have been studied.

Meningitis. The work on the treatment of meningitis was continued during the past year, though its transfer to the Bureau of Preventable Diseases was recommended. The following table shows the work done:

* Average strength or serum 150 units per c. c.

CEREBROSPINAL MENINGITIS.

	Consultations	New Cases.	Lumbar Punctures.	Inoculations.
Epidemic cerebrospinal meningitis	369	38	169	118
Tuberculous meningitis	79	72	62	2
Other meningitis	12	22	42	25
Anterior poliomyelitis	22	13	19	3
Scarlet fever	3	3	3	.
Pneumonia	27	27	23	.
Other diseases	82	71	60	2
Totals	624	246	379	180

Total fluids examined, 538.

There was an increase of 21% over the cases seen in 1914 and of 88% over the cases seen in 1913. The increase in fluids over 1914 has been 55%.

Of the 38 cases of epidemic cerebrospinal meningitis, two are still under treatment. Of the remaining 36 cases, 23 recovered and 13 died, a case fatality of 36.1%.

Rabies. The plan begun in January, 1914, of administering antirabic treatment by the Bureau of Preventable Diseases at its Clinics in Manhattan, The Bronx, and Brooklyn, instead of at the laboratory has been continued, and has proven very satisfactory. The laboratory disburses the vaccine daily to the Clinics and keeps in touch with them.

There was but one case of human rabies reported during 1915, as compared with eight in 1914. The Pasteur preventive treatment had not been given, and the case proved fatal.

As compared with 1914, there was a marked decrease in number of patients requiring antirabic treatment, of brains examined for rabies, of rabid brains found, of rabid animals received at the A. S. P. C. A. Shelter, and of cases of human rabies, all going to show the effect of the enforcement of the muzzling ordinance and of other measures enacted by the Department to control dogs. A still stricter enforcement of the ordinance compelling the use of an efficient muzzle and a more general destruction of unmuzzled dogs found at large should reduce the figures still further.

Division of Special Investigations.

The problems under investigation during the year have been carried on partly in close relationship with the routine work of the various Divisions and partly as independent work. The following were the results of the more important investigations.

Rabies. The diagnosis of suspicious cases of rabies was made more definite owing to a better knowledge of the degenerative changes in the brain tissue and to a scheme for recording degrees of degeneration.

Mouth Infections. A study of mouth infections including pyorrhoea alveolaris established (1) the heterogeneity of the bacteriologic flora and thus showed the inadvisability of treating these conditions with stock vaccines; (2) the presence of amebas in practically all mouths but in much larger numbers in mouths showing gingivitis and pyorrhoea alveolaris; (3) emetin has a restricted use as an amebicide in treatment.

Septic Sore Throat. Bacteriologic studies on the etiology and epidemiology of septic sore throat established the importance of the human type of streptococcus in

this disease. Studies on "Streptococcus viridans" infections led to scepticism as to present methods of specific therapy.

Subdural Injections. The comparative importance of pressure and of the toxicity of trikresol in subdural injections of sera was investigated and it was shown that pressure is often the determining factor of importance, and that without a considerable increase in pressure, the antiseptic is without danger.

Viability of Organisms. Tests of the length of life of virulent organisms on various public utensils resulted in the making of better ordinances for the control of such utensils.

Laundries. Investigation of laundries resulted in improved methods for testing their efficiency.

Diphtheria Immunization. Active immunization against diphtheria was performed in a large number of children in hospitals, orphan asylums, homes, etc., and it was shown that a large majority of susceptible children can be successfully immunized against that disease.

Schick Test. The Schick test was used on almost all patients admitted to the Scarlet Fever ward of the Hospital. The great value of the test was definitely established, not only by the laboratory, but by corroborative work in different parts of the United States. The Schick test bids fair to be permanently accepted as one of the most valuable and accurate of the clinical tests in medicine. The work with the test is being actively continued, not only as a routine procedure to determine the presence or absence of immunity to diphtheria, but also in various phases of research work, especially in active immunization against diphtheria, in the dosage of antitoxin, in the study of problems in immunity, etc.

Schick Outfit. To facilitate the distribution of the toxin for the Schick test, an outfit was devised by a member of the laboratory staff, which remains good for several months if kept in a cold place; the dilution of the toxin is easily accomplished, and the simplicity of the outfit makes it very convenient and accessible to the general practitioner and hospital worker.

Virulence Test for Diphtheria Bacilli. The work of testing the virulence of diphtheria bacilli by the single economical intracutaneous method was continued and from 65-75 per cent. of the guinea pigs were saved, an important factor, considering the present high price of these animals. This virulence test proved itself not only very accurate and economical, but also saving in time and labor.

Blood Injections in Scarlet Fever. A method was devised for the intramuscular injection of whole blood in toxic and septic cases of scarlet fever. A greatly simplified method for the transfusion of citrated blood in children was also devised.

Intradermal Tuberculin Test. The intradermal tuberculin test of cows was tried out in two herds consisting of 72 cows, and the unreliability of the test, as at present carried out was apparent.

Cultured Milk. Examination of cultured milk and a comparison with ordinary buttermilk resulted in changing the methods or marketing these preparations and has prevented fraudulent or exaggerated advertisements.

Thromboplastin. A tissue extract Thromboplastin was prepared having a marked effect in stopping hemorrhage.

Peptones. Studies on the efficacy of the different domestic peptones in our important culture media were continued, several manufacturers submitting samples after attempts to improve their products. One firm offered to co-operate by having work carried on under the direction of the laboratory, and plans were made accordingly.

Harris Anti-Rabic Method. Work with the Harris modification of the Pasteur method of preparing antirabic virus was continued. The results showed conclusively that in rabbits at least, immunity is produced more quickly by this method than by the Pasteur method. In the few tests made for duration of immunity, it was found that this was at least as great in the new method as in the old.

Bacteriological tests of the vaccine powder showed occasional slight contamination by air organism which is pure broth culture, was shown to be inocuous to guinea pigs. Considerable care is necessary to avoid bacterial contamination but when this is exercised, the few air bacteria that may get into the virus are negligible. Considerable variation in the strength of different lots of the virus was found. The importance of the strength of the virus in the production of immunity is a point yet to be worked out.

In general, it would seem that this is a practical method that may be of distinct advantages in cases that are liable to have a short incubation. If it can be shown that weak or avirulent virus kept in the dry powdered form will produce as good an immunity a still further improvement in the method will be made.

Dialysis of Rabies Virus. Work was done on the dialysis method as recommended by Cumming of Ann Arbor. Briefly this method consists in using a 2% emulsion of fixed virus rendered avirulent by exposure to formalin, the formalin being subsequently removed by dialysis. The results of this method were about as good as that of the Harris method from the standpoint of the quickness with which immunity was produced. The 1% emulsion, originally advised by Cumming was not found to be satisfactory. The virus after standing about three weeks at ice box temperature was found to have lost considerable of its immunizing power.

Preservatives of Rabies Virus. Experiments were made to determine the best preservative to add to the emulsions of Pasteur antirabic virus. As this virus is sometimes not used for thirty-six hours or more, some form of preservative is necessary. Glycerine proved to be too painful to be satisfactory. Various strengths of carbolic acid, chinosol, menthol and camphor were tried. It was necessary to find, if possible, an antiseptic which would be sufficiently strong to prevent bacterial growth, but one which would not appreciably affect the strength of the virus itself. The best agent was found to be 1/5 of 1 per cent. carbolic acid. This is at present being used.

Nitric Acid as a Caustic. Further tests were made of the efficacy of nitric acid as a cautery for the wounds produced by rabid animals. In these tests, the infecting agent was a virulent extract of the salivary glands of rabid dogs. Guinea pigs were used as the test animal and the conditions of the experiment made to conform as nearly as possible to actual clinical conditions. It was found that when the cauterization was performed even 24 hours after infection of the wound 37.5 per cent. of the animals were saved. Tincture of iodine used in the same manner 24 hours after infection failed to save any of the animals. These results are confirmatory of earlier tests reported from the Laboratory.

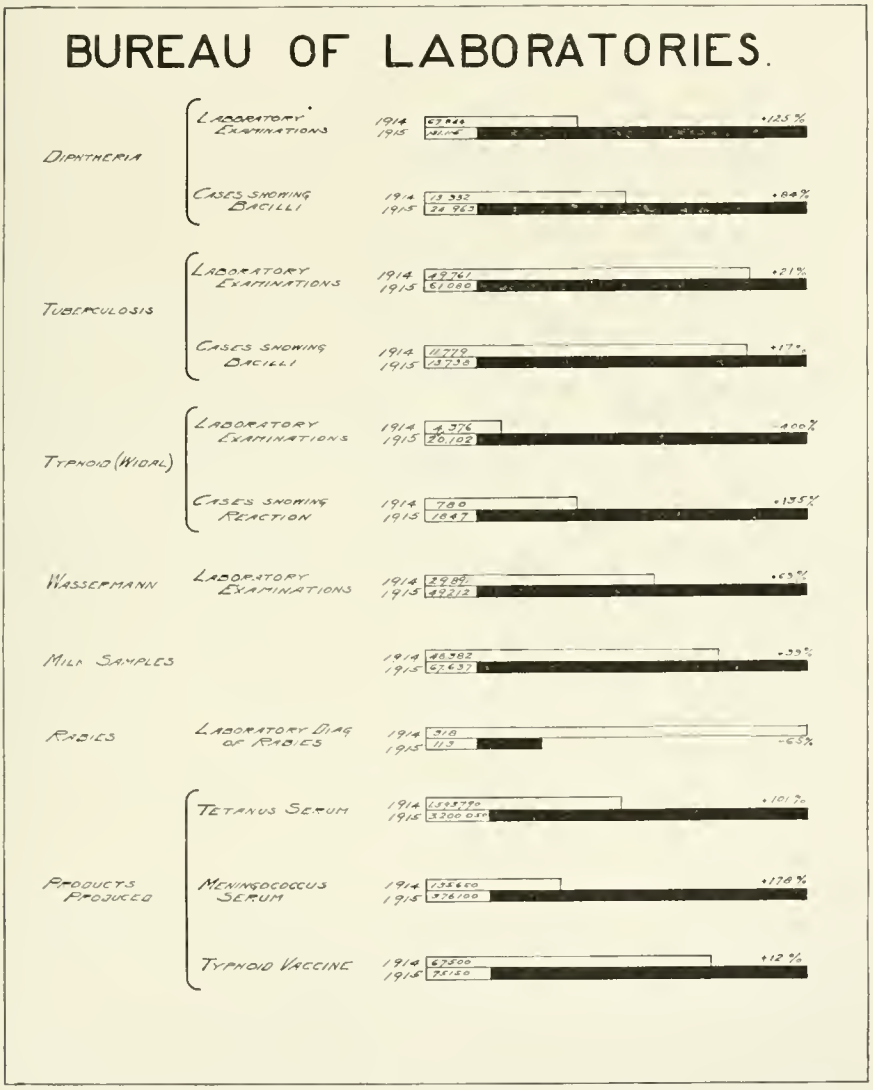
Terminal Diphtheria Cultures. In order to determine the efficacy of requiring two negative cultures before dismissal, forty-one post-diphtheria cases were examined for B. diphtheria after each case had given two or three consecutive negative cultures. Out of this number, eleven (11) or 26.8% gave positive cultures.

Tuberculosis Antibodies in Milk. The subject of the presence of antibodies in the milk of tuberculous cows or in cows which had been immunized was taken up. No definite facts have been obtained as yet. The preliminary results were embodied in an article entitled "The Utilization of Reactor Milk in Tubercular Medicine."

Goats' Milk in Tuberculosis. The status of goats' milk in the treatment of tuberculosis and for infant feeding was studied in a herd of twenty-five goats supplied by

the Federal Government. The results to date were encouraging, and indicated that it might be substituted with advantage for cows' milk in certain cases.

Brilliant Green as Typhoid Differentiator and to Sterilize Vaccine. Extended work with Brilliant Green, an aniline dye, resulted in the perfection of a method for the isolation of typhoid baccilli from feces, an examination which is daily becoming of more importance due to the prevalence of typhoid carriers.



Brilliant green dye in various dilutions was also used for the rapid sterilization of vaccine virus. Enough work was done to show that this dye can be added to vaccine in sufficient strength to kill off non spore bearing organisms in one week, without injuring the virus.

Paratyphoid Fever. The studies on the paratyphoid group were continued resulting in improved methods for isolation and identification of food poisoning and other types.

Pneumonia. The study of the treatment of pneumonia with serum and vaccine was continued throughout the year, especially in co-operation with attending physicians and a number of hospitals. In this connection the types of pneumococci were studied and their relation to the types isolated from common colds established. The value of vaccines in treatment of common colds of pneumococcic origin when treated with the invading type yielded slightly encouraging results.

Testicular Virus. Experimental work was done on the production of germ-free Rabbit Testicular virus, using seed supplied by Noguchi, in the earlier generations and seed from these animals in the later generations. It was found not difficult to produce bacteria-free testicular virus that was efficient when used in strong emulsion on the human being. When this virus was diluted sufficiently to make a practicable quantity of virus, the duration of efficiency of the virus was impaired. It is hoped to find some method of overcoming this tendency, and ultimately to produce a germ-free vaccine that can be diluted to a practical degree without loss of efficiency.

Picric Acid in Vaccination. In testing the value of tincture of iodine as a germicide in smallpox vaccination, experiments performed during the year showed that half strength tincture of iodine U. S. P. applied to the formed vaccine vesicles five days after vaccinating and every other day thereafter until five applications have been made altogether, had very little effect in reducing the inflammatory reaction that usually accompanied cases of successful smallpox vaccination. Better results were obtained from the use of a 4% solution of picric acid in 95% alcohol, painted over the scarifications, vesicles and their surrounding skin at 2, 3, 5, 7, 12 and 14 days after vaccinating. The local inflammatory reaction was reduced to a marked degree in all cases where picric acid solution was applied; the vesicles were hardened, dried and shrunken at an early date and secondary infection of the vesicles was thus diminished. The percentage of secondary infection in picric acid cases was 0.96% while the controls had 5.76%.

Differentiation of the Meningococcus. It was found that by means of complement fixation the meningococcus may be clearly differentiated from allied organisms. A differentiation of individual meningococcus strains is possible by the use of refined technique but the relationship of strains is so close that it is difficult to obtain absolutely clear cut and consistent results. Of the twenty-nine strains studied, fourteen seemed to form one group and eight a second group. Three seemed to be closely related to the first group, but acted so irregularly that they could not be classed with it, two showed a relationship with each other only and two no relationship to any other strain.

Differentiation of Streptococci. Work on the differentiation of streptococcus strains was continued. Owing to the difficulty of obtaining in rabbits an immune serum of high complement-fixing powers, progress was slow. Enough was accomplished, however, to demonstrate that there is a wide variation in the strains and that complement fixation may be used for differentiation.

Complement-Fixation in Diphtheria. A study of the complement-fixing power of the blood of diphtheria convalescents and of children and animals immunized with diphtheria vaccine led to negative conclusions, namely, that with the technique thus far employed, complement fixation is of little value as a means of measuring immunity to the diphtheria bacillus.

Human Complement. A brief investigation of the fixability of human complement was made, and the results suggested a possible relationship between the non-

fixability of human complement by some antigen-antibody combinations and the ineffectiveness of some therapeutic immune serums.

Titration of Media. An extensive study on media titration gave helpful points in the preparation of more efficient media.

Purulent Conjunctivitis. A study of purulent conjunctivitis in infants led to the better understanding of the relative importance of the gonococcus in these infections, showing that other organisms exclusive of the gonococcus were the cause of a larger number of these cases than was thought.

TABLE No. 1.

EXAMINATION OF WATERS AND CONDENSED MILK—1915.

	Total Examinations.	Good.	Usable.	Suspicious.	Polluted.
Examination of drinking waters	1,050	525	154	181	190
Examination of bath waters	182	33	10	22	117
Before entering pool	110	28	6	14	62
After entering pool	72	5	4	8	55
Examination of special waters					
Oyster beds and sea waters	80	29	22	21	8
Bathing beaches	4	2		2	
River waters (dairy inspection)	11	4	4	0	3
Wells (dairy inspection)	4			2	2

Examination of Condensed Milk—

Total number of samples	31
Total number of plates	93
Total examinations	93

Examination of Ice Cream—

Total number of samples	202
Total number of plates	606
Total examinations	606

TABLE No. 2.
ANTIRABIC TREATMENT—1915.

Year.		Patients Treated.	Biting Animal Proved Rabid.	Percentage of Positive Cases.	Mortality.			
					Gross.		Corrected.	
					Human Rabies Deaths.	Percentage of Cases in Which Biting Animal Was Rabid.	15 Days or More After End of Treatment.	Percentage of Cases in Which Biting Animal Was Rabid.
1912	In city	452	294	65	1	0 34	1	0 34
	Out of city	501	411	82	2	0 49	0	0
	Total	953	705	73 9	3	0 43	1	0 14
1913	In city	528	373	70 6	3	0 8	1	0 27
	Out of city	447	359	80	1	0 28	0	0
	Total	975	732	75	4	0 55	1	0 13
1914	In city	509	355	69 7	2	0 56	1	0 28
	Out of city	343	258	75 2	1	0 39	0	0
	Total	852	613	71 9	3	0 49	1	0 16
1915	In city	220	124	56 2	0	0 0	0	0
	Out of city	206	164	79 6	1	0 6	0	0
	Total	426	288	67 6	1	0 34	0	0
	Grand Total	3,206	2,338	72 9	11	0 47	3	0 12

Note: Cases treated less than one week, pending diagnosis in biting animal, are not included in this table.

Mortality statistics are based on number of persons bitten by rabid animals and not on total number treated

TABLE No. 3

EXAMINATIONS OF RAW AND PASTEURIZED MILK AND CREAM—1915.

	Samples of Raw Milk Examined.	Samples of Pasteurized Milk Examined.	Samples—Raw Cream Examined.	Samples—Pasteurized Cream Examined.	Samples—Can Rinsings Examined.	Controls—Can Rinsings Examined.	Samples—Water from Farms.	Controls H_2O.	Controls Agar.	Agar Plates Examined Milk.	Agar Plates Examined Cream.	Fermentation Tubes Examined.
First quarter	4,222	10,953	47	1,210	222	94	119	270	138	21,280	2,514	4,008
Second quarter	3,546	11,732	130	2,024	252	110	104	422	130	20,904	1,308	1,696
Third quarter	3,707	8,913	69	1,343	138	77	66	342	130	17,395	2,824	1,223
Fourth quarter	6,263	9,962	150	2,258	50	38	115	373	131	23,523	4,866	1,482
Total	17,738	41,560	396	6,835	662	349	404	1,407	529	83,102	14,512	8,409

BUREAU OF HOSPITALS.

ROBERT J. WILSON, M.D. . . . . *Director of Bureau*

ORGANIZATION BUREAU OF HOSPITALS—1915.

	Total.	General.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Otisville.	Drug Laboratory.
Director	1	1	..	..	..	..	..
Hospital Physicians	27	..	5	6	7	9	..
Medical Inspectors	3	..	..	1	2	..	..
Internes	21	..	8	7	6	..	..
Inspector of Foods	1	..	..	..	..	1	..
Dentist	1	..	..	..	..	1	..
Chemist	1	..	..	..	..	..	1
Pharmacist	1	..	..	..	..	..	1
Nurses	191	..	79	52	46	14	..
Chaplains	4	..	..	..	1	3	..
Architectural Draftsman	1	..	..	..	..	1	..
Clerks	3	..	..	..	..	1	2
Hospital Clerks	22	2	3	5	8	4	..
Typewriting Copyist	1	..	1	..	..	..	..
Telephone Switchboard Operators	4	..	..	1	..	3	..
Laboratory Assistants	4	..	..	1	..	1	2
Disinfector	1	..	1	..	..	..	..
Storekeepers	2	..	1	..	..	1	..
Butchers	3	..	1	1	1	..	..
Dietitian	1	1	..	..	..	..	..
Matrons	3	..	1	1	1	..	..
Domestics	330	..	101	75	122	30	2
Laborers	189	..	27	31	29	97	5
Helpers	63	..	3	..	..	60	..
Orderlies	80	..	20	6	49	5	..
Drivers	4	..	..	2	2	..	..
Gardeners	2	..	1	..	1	..	..
Dairyman	1	..	..	..	..	1	..
Elevatormen	9	..	9	..	..	..	..
Stationary Engineers	12	..	3	5	3	1	..
Stationary Firemen	23	..	8	6	7	2	..
Electrician	1	..	1	..	..	..	..
Blacksmith	1	..	..	..	..	1	..
Plumbers	2	..	..	..	..	2	..
Tinsmith	1	..	..	..	..	1	..
Watchmen	2	..	1	..	..	1	..
Captains	3	..	..	..	3	..	..
Deckhands	5	..	..	..	5	..	..
Marine Engineers	4	..	..	..	4	..	..
Marine Firemen	4	..	..	..	4	..	..
Carpenters	17	..	2	3	1	11	..
Boatmen	4	..	..	..	4	..	..
Total	1,053	4	276	203	306	251	13

Statistical Summary.

During 1915 there were treated in the three contagious disease hospitals of the Department 10,226 cases, of which 4,556 were at the Willard Parker Hospital, with an average census of 370 representing 111,796 patient days; 2,644 at the Kingston Avenue Hospital, with an average census of 200, representing 75,224 patient days; 3026 at Riverside Hospital, with an average census of 359, representing 129,772 patient days. At the Otisville Sanatorium there have been treated 1,435, with an average census of 577, representing 210,904 patient days.

General Progress.

Chronic Intubation Cases at Otisville. On July 1, 1915, twenty-three intubation cases suffering from chronic laryngeal stenosis were transferred from the Willard Parker Hospital to the Willard Parker Hospital Annex, on the grounds of the Otisville Sanatorium. On September 15th, the weather becoming too cold for their further continuance at Otisville, they were retransferred to the Willard Parker Hospital. The change of environment, and the benefits of mountain air and outdoor life, resulted in the extubation of thirteen out of the twenty-three cases while at Otisville. After their return to the city it was necessary to re-intubate seven, but six cases, in which the prognosis had been doubtful, seem to have been permanently cured, as the result of this change of environment, and the treatment they were given.

Schick Test. The studies on the Schick test, mentioned in the report for 1914, gave such successful results that the test has now been adopted as a routine procedure in the hospitals, and all patients and employees liable to exposure to diphtheria are tested immediately upon admission to the hospitals. The value of this test is best appreciated when the following are considered: a positive Schick reaction means that employees and patients must be immunized against diphtheria, and a negative Schick reaction means that the employees and patients are immune, and that besides the saving of unnecessary annoyance to the patients of the immunizing doses of antitoxin, there has been also saved to the Department the cost of the immunizing doses, which, in the course of a year, would amount to hundreds of dollars.

The Use of Sulphur in the Treatment of Diphtheria. The employment of the insufflation of sulphur in cases of diphtheria, with the idea that it would hasten recovery and rapidly clear up cases of diphtheria, was tried, but proved to be ineffective.

Persistence of Diphtheria Bacilli in the Throat. In co-operation with the Bureau of Laboratories, there has been carried on at the Willard Parker Hospital a study of the length of time diphtheria bacilli persist in the throats of patients, with a view to recommending changes in the present procedure in the matter of quarantine in this disease and of final cultures for the discharge of patients. These studies have shown that the practice of beginning the taking of cultures for discharge, from the date of disappearance of membrane, leads to much useless expenditure of culture material and laboratory work. A definite quarantine period of twelve days, during which time no cultures for discharge would be examined, would seem advisable.

Blood Transfusion in Tuberculosis. The study of the results of transfusion of blood from normal donors to favorable cases of tuberculosis at the Otisville Sanatorium has been completed, and the results obtained do not warrant its continuance.

Transfusion of Blood in Scarlet Fever. A study of the results of transfusion of blood from donors convalescing from scarlet fever, but otherwise normal, to septic cases of this disease, was made during the early months of 1915. The results in some instances were of such a favorable character as to warrant the continuance of this

mode of treatment in those instances where consent can be obtained from the parents, or where adult patients request this treatment, after its possible value has been explained to them.

Whooping Cough Clinic. The whooping cough clinic at Sixteenth Street and Avenue C has continued to give the favorable results it had promised. In connection with this clinic, there have been admitted to the wards of the Willard Parker Hospital as many cases of whooping cough, complicated with broncho-pneumonia, as vacancies would allow. The favorable results attained by such hospital treatment of these serious and often apparently hopeless cases, show that more provision should be made for their care, and this the Hospital Service will attempt to give.

In connection with the whooping cough clinic, the Bureau of Hospitals has maintained a social service consisting of one nurse who has gathered valuable statistics in connection with this work. The results of vaccine therapy in whooping cough are quite promising.

Measles. The splendid results obtained in the treatment of measles, by assigning special nurses to the very serious cases, prove that this method warrants the extra expenditure necessary for the additional nurses.

X-Ray Work in Tuberculosis. On January 1, 1915, means were provided for the purchase and equipment of an X-Ray laboratory at the Otisville Sanatorium. Since its completion much radiographic work in tuberculosis had been done. As an aid to diagnosis it has been as helpful as in other institutions.

By an arrangement made with the Department of Public Charities, by which the Department of Health furnishes the necessary material, all suitable cases of tuberculosis at Riverside Hospital have been submitted to X-Ray examinations at the laboratory of the Metropolitan Hospital. As an aid to diagnosis, and in obtaining a complete clinical picture, this arrangement has been of great benefit to the hospital.

Laryngoscopy in Tuberculosis. With a view to determining the amount of tuberculosis involvement by the laryngoscope, a laryngologist has been examining the patients at Riverside Hospital, in the hope that the study may result in the discovery of some mode of treatment that may relieve the intense suffering that many of these patients now have to endure.

Bronchoscopy in Laryngeal Diphtheria. The results of bronchoscopy in cases of laryngeal diphtheria (membranous croup), where the membrane involved the trachea and bronchi, have been particularly gratifying.

Occupation for Tuberculosis Patients. The Medical Board of Riverside Hospital and the Attending Physician at the Otisville Sanatorium have reported favorably upon the adoption of graduated exercises in the treatment of tuberculosis at these institutions.

Dosage of Antitoxin. Upon the recommendation of the Medical Board of the Willard Parker Hospital, a definite scheme of dosage of diphtheria antitoxin and method of administration was adopted for use in all of the hospitals of this department. While this modified only slightly the methods of administration and dosage in the various hospitals, it did a great service in establishing a uniform standard.

Medical Education.

Clinics. The various members of the Medical Board of the Willard Parker Hospital have held clinics in infectious diseases for the medical departments of Columbia, Cornell and New York Universities. In addition to these, clinics have been given for the benefit of the students of the New York College for Women, and for the New York Post Graduate School. At the Kingston Avenue Hospital, various mem-

bers of the staff have given clinics for the Long Island College Hospital. Clinics have also been given to students for the degree of Public Health, these students being also allowed to study the administrative methods of hospital management.

Hospital Staff Societies. The medical societies, composed of the staffs of the various Department hospitals, have continued their monthly meetings. Members of the medical staffs have also continued the prosecution of their studies in connection with the various medical and surgical departments of the hospitals throughout the city.

Society for the Study and Prevention of Infectious Diseases. A new society for the study and prevention of infectious diseases, made up of the Assistant Attending and Hospital Physicians, has been organized for the purpose which the name implies.

Clinics for Nurses. The hospital staffs have continued to give clinics to the field nurses of the Department, from time to time, as requested by the Directors of the Bureaus of Child Hygiene and Preventable Diseases.

New Buildings.

Queensboro Hospital. The Queensboro Hospital was completed, with the exception of lighting fixtures, and the keys turned over to the hospital authorities in December. This building will be ready for occupancy about March 1, 1916, provision having been made for its equipment. The plans for the sewage disposal plant in connection with this hospital are still held subject to approval, but, in order to have the building available, a temporary sewage disposal plant has been constructed with Departmental labor which will suffice for the needs of the institution for about six months.

Kingston Avenue Hospital. The diet kitchen and pumping station have been completed. The new diphtheria building has been completed up to the roof.

Willard Parker Hospital. The maids' dormitory has been completed; the Staff House and Nurses' Home is in course of construction.

Riverside Hospital. The roofs have been completed on Pavilions 8 and 9, and the interior work is being rapidly pushed. These buildings should be ready for occupancy by July 1, 1916.

Excavation for the foundation and cellar of the new Venereal Disease pavilion has been completed, and materials are on the grounds for the rapid erection of this building as soon as weather conditions will permit. The maids' dormitory is not yet completed.

Otisville Sanatorium. The foundation has been laid for Shack No. 112. As soon as the weather will permit in the spring, this building will be rapidly pushed to completion, and should be ready for occupancy about December 1, 1916.

The new recreation building has been completed up to the roof, and the iron work completed. This building should be ready for occupancy by July 1, 1916.

The bath houses and lavatories for the Hippodrome buildings at the Women's Unit have been completed, thus providing all modern improvements for the children in these buildings.

The following have been completed: addition to clinical laboratory, addition to piggery, gardener's cottage, new hennery, and stable for antitoxin horses. Although the money was available work on the Staff House and School House was not begun.

Bronx Hospital. The funds provided for the new hospital for contagious diseases to be located in The Bronx, are not sufficient to erect a building commensurate with the needs of that Borough. The amount necessary to provide such a hospital in that Borough has been brought to the attention of the Board of Estimate and Apportionment, and building operations are awaiting its decision.

ADMINISTRATION.

Many changes in administration have taken place during the year 1915. Of these the following, which have been of particular benefit to the service, may be mentioned.

Menu Committee. A menu committee has been appointed, made up of the executive officials of the various hospitals and the dietitian, who has been placed in charge of the kitchens and dining rooms of the contagious disease hospitals. As the result of the work of this committee in the rearrangement of the menus and proper apportioning of foods, there was a direct saving in the first nine months of the year of $9,440.38.

Payment of Employees. Payment of all employees in the contagious disease hospitals by check, instead of by cash as heretofore, was instituted early in the year. This procedure, previously believed not feasible, because of the large number of small salaried employees, proved very satisfactory, arrangements having been made with banks acting as depositaries of city funds whereby a representative of the Bureau could cash the small checks and pay the employees in cash as in the past, taking their personal receipts therefor. This mode of payment worked so well that in October it was extended to the Otisville Sanatorium, the city designating the First National Bank of Middletown as the city depository for this purpose.

Social Service Work. Two important advances in social service work have been made in connection with the Bureau of Hospitals: first, by the Bureau of Preventable Diseases in follow-up work in cases of tuberculosis that have been admitted to and discharged from the Otisville Sanatorium and Riverside Hospital, and second, by the Bureau of Hospitals in the study of the cases treated at the Whooping Cough Clinic, and in special cases of contagious diseases in which it was desirable to complete the histories of cases discharged from the hospital wards. The results of this work in both instances warrant its further extension during the year 1916.

Nurses Accompanying Ambulance Surgeons on Calls. An important new procedure adopted at the Willard Parker Hospital during the year, was the sending of nurses as well as ambulance surgeons in response to calls for the removal of cases of infectious disease. The result has been most satisfactory. In the first place, it instills confidence in the hospital in the minds of the parents before the child leaves home; secondly, it insures the proper care of the child while in transit; thirdly, it relieves the hospital of the responsibility of caring for the child's personal clothing, which is left at home, the patient being dressed in hospital clothing and wrapped in warm blankets before removal from the premises.

New Offices for Willard Parker Hospital. The administrative offices of the Willard Parker Hospital, which, together with the Bureau office, have heretofore occupied three small rooms in the Nurses' Home at the Willard Parker Hospital, have been transferred to commodious quarters on the ground floor of the old disinfecting building, which were fitted up by Department labor, at a cost of $2,109.27. This change will be of great benefit, in that it will insure better co-operation, all the offices of the various divisions of this hospital being now under one roof.

Committee on Efficiency. In order to equitably and accurately rate the efficiency of the Civil Service employees in the various hospitals, an efficiency committee, composed of the Director, the three Resident Physicians, and the Executive Clerk of the Bureau, has been established, and has held regular meetings at which the tentative ratings prepared by the various members of the committee were submitted, and the particular work, performed by the various employees critically examined to see how such ratings were arrived at. A high rating, for an employee in any one class, was only given after it was shown that such employee really performed more or better work than other employees of that class.

Pupil Nurses. Beginning October 1st, pupil nurses were received from the Presbyterian Hospital, Newark, New Jersey, making two such schools now affiliating with the Department hospitals, the other being St. Barnabas' Hospital, also in Newark. The number of pupil nurses attending (five) during the year was too small to show exactly what benefit the hospital service gained from such an arrangement, but there is no question that in training these young women in the proper care of infectious diseases, the hospitals are doing good service.

Harrison Law. While all Municipal Hospitals are exempt from the provisions of the Harrison Law in regard to the keeping of records relative to narcotic drugs, this seemed too important a matter to neglect. The required blanks have been obtained and the hospitals have complied with the law.

Tax Free Alcohol. Permission to use tax free alcohol in the hospitals of the Department has been previously requested from the United States Government on several occasions. During the year 1915 the Federal Government consented to the use of tax free alcohol in the main hospitals, but not in the dispensaries and milk stations. Through the efforts of the chemist in charge of the Drug Laboratory, the Government was shown that these dispensaries were equally entitled to use tax free alcohol, and the Department now enjoys the use of such alcohol in its dispensaries, milk stations and hospitals, at a saving of about $5,000 per year.

New York City Visiting Committee. The New York City Visiting Committee continued to visit the contagious disease hospitals and the Otisville Sanatorium. Their recommendations have been carried out as far as possible.

Conferences with Hospital Staffs. Semi-weekly conferences were held by the Director at each of the hospitals with the Resident Physicians and heads of all hospital activities. Conferences were also held with the medical staff of the hospitals.

Employees. The average daily census of employees during the year has been 322 at the Willard Parker Hospital, 220 at the Kingston Avenue Hospital, 319 at the Riverside Hospital, 250 at the Municipal Sanatorium, Otisville, New York. There have been eight deaths among the employees, not from contagious diseases, and there has developed among the employees nineteen cases of contagious diseases.

Dispensaries for Employees. Early in 1915 dispensaries were established in the three contagious disease hospitals for the treatment of minor injuries and ailments of employees. These dispensaries have been in charge of a member of the resident staff detailed for two hours daily to this duty. These clinics have aided the hospitals as well as the employees, as they furnish information as to the actual physical condition of the employees.

Lectures for Employees. The course of lectures begun in the Fall of 1914 was continued during 1915 and the interest of the employees in them seemed unabated, the lectures being well attended and the employees expressing themselves as having been greatly benefited thereby.

General Improvements.

Willard Parker Hospital. The condition of work on the sea wall between 15th and 16th streets has progressed very slowly during the year. Funds have just been provided for its completion.

The unfinished work on the contract for the pipe tunnel connecting the various buildings of the Willard Parker Hospital was completed. The exteriors of pavilion one and the office building were painted.

The following work was done by Department Labor: The interior of the old coal conveyor engine house at the northeast corner of Avenue D and 15th street, in the grounds of the Willard Parker Hospital, was re-arranged and is now used for the hospital morgue. On the top floor, now used as a necropsy room, a cement floor was laid. On the ground floor the chapel was built in, and the whole building partitioned with fireproof material, a decided improvement over former conditions.

The ground floor of the old disinfecting station was thoroughly renovated and is now used as the offices of the Willard Parker Hospital.

Windows have been placed in the partitions between the walls in twelve wards at the Reception Hospital, thus enabling nurses to have four wards under observation at one time. A porch has also been built on both the north and south sides, so that nurses may gain access to the wards without going up and down the steps as heretofore.

Painting has been done in the wards and dormitories of all of the buildings at the Willard Parker Hospital.

The form of construction of the sea wall being constructed for the Department of Health, around the Willard Parker Hospital, made it necessary to saw off the piles at low water mark, leaving many butts of piles ranging in length from ten to twenty-five feet. The possibility of utilizing these pile butts for the manufacture of rough lumber was at once apparent and a small saw mill was purchased at a cost of $190.00, and the piles converted into 54,200 square feet of lumber. Much of this lumber was utilized in rough building work at all of the hospital plants, including the temporary sewage disposal plant at the Queensboro Hospital.

About eighteen inches of earth were removed from the block surrounding the new measles building and used as fill, back of the new sea wall between 15th and 16th streets.

Kingston Avenue Hospital. An auxiliary steam pump was installed in the sewage disposal plant to provide for the pumping of sewage in the event of a breakdown in the electrical installation. A pumping station was built in the early Spring to pump the excess storm water, accumulating at the corner of Kingston avenue and Rutland road, to the nearest sewer. The inadequacy of this makeshift was shown at the time of the disastrous flood occurring at the Hospital. The roofs of two buildings were repaired.

The grounds were leveled and graded and lawns made around the new isolation pavilion (No. 6).

A dike three feet high was erected for a distance of 500 feet on the south side of Rutland road, inside the hospital grounds, to prevent a recurrence of the disastrous flood which submerged the grounds and first floor of Ward 12, the engine room and storehouse in the cellar of the nurses' home. This flood, in addition to causing considerable suffering to patients, resulted in the loss of several thousands of dollars besides putting out of commission the laundry and sewage disposal plant of the Kingston Avenue Hospital for two days. During this time it was necessary to call to the aid of the hospital the Fire Department, which kindly provided engines for pumping out the flooded water to the Clarkson street sewer.

The entire interiors of three buildings, the exteriors of five buildings and 2,800 square feet of iron fence were painted.

Riverside Hospital. The Department of Water Supply, Gas and Electricity laid a ten-inch water main under the East River to replace the old six-inch main which had leaked for the last two years.

The New York Edison Company laid a new electric light and power cable replacing the old one which had been giving trouble during the past year.

An incinerator was built to destroy the garbage and refuse at this hospital in a shorter period of time and with less consumption of fuel than the old one, which was abandoned after the construction of the new power house.

A run-way was built connecting the coal house with the engine room.

A rock-ballast road, about one thousand feet in length, was constructed over the new filled ground connecting the storehouse with cement pavilions Nos. 1, 3, 4 and 5. Two acres of the new ground were graded and filled in with the top soil excavated from the dormitory and venereal buildings.

The exterior of pavilion number twelve and the interior of six buildings were painted.

Otisville Sanatorium. The grounds at both units of the Otisville Sanatorium have been greatly improved by grading and the building of cement walks and stairways, which have largely taken the place of old wooden ones formerly in use; ten thousand evergreen trees were planted around the sanatorium buildings; the main roads running from the male unit to the State road and from the storehouse to the Tymeson House were regraded.

With the exception of hay, the farm products were far above average. The newly reclaimed black land on the Palmer Place yielded a good crop.

A greenhouse in connection with the present Gardener's Cottage has been completed and will provide the institution with the means of extending its agricultural functions.

The dairy produced an average of 500 quarts of milk per day, or 186,370 quarts for the year. Fifty calves were born at the dairy barn. One bull and 22 heifers were raised; 8 male calves were sent to the Vaccine Laboratory; 2 bulls and 5 cows which had reacted in a tuberculin test were butchered; 3 cows which were no longer fitted for dairy purposes and 9 male calves were slaughtered for food purposes.

The hennery now consists of 1,003 fowl, of which 750 are 1915 layers and 253—1914 layers.

The piggery, which was established in 1914 with an initial herd of three brood sows and a boar, now consists of 26 broods, six months or over; 22 boars over six months of age; 84 sows and boars under six months of age, making a total of 132 on December 31, 1915.

During the year 15 hogs were slaughtered, netting 2,847 pounds of pork for the use of the institution.

In the Fall of 1915 a canning outfit was purchased and the following vegetables canned or otherwise preserved:

300 No. 3 cans Tomatoes.
1,165 No. 10 cans Tomatoes.
30 gals. Sweet-sour Cucumbers.
71 gals. Ketchup.
35 gals. Green Tomato Relish.
50 gals. Pickled Green Tomatoes.
12 barrels Sauerkrout.

A modern ice conveyor and elevator operated by power was put in use supplanting the obsolete method of hoisting ice by horsepower. Three thousand tons of ice were harvested and stored, and in addition six carloads harvested and transferred to Riverside Hospital.

The sewage disposal plant is almost completed and will be ready for use early this year.

Steamboats and Launches.

The steamboats and launches have been kept in good condition and repaired from time to time. The following is the number of passengers and patients and amount of freight carried during the year:

Boat.	Passengers.	Patients.	Freight.
S. S. Riverside	4,019	500	18,252
S. S. Franklin Edson	126,713	1,204	18,565
S. S. Pelham	52,341	396	16,598
Launch Duchess	18,458	70	None

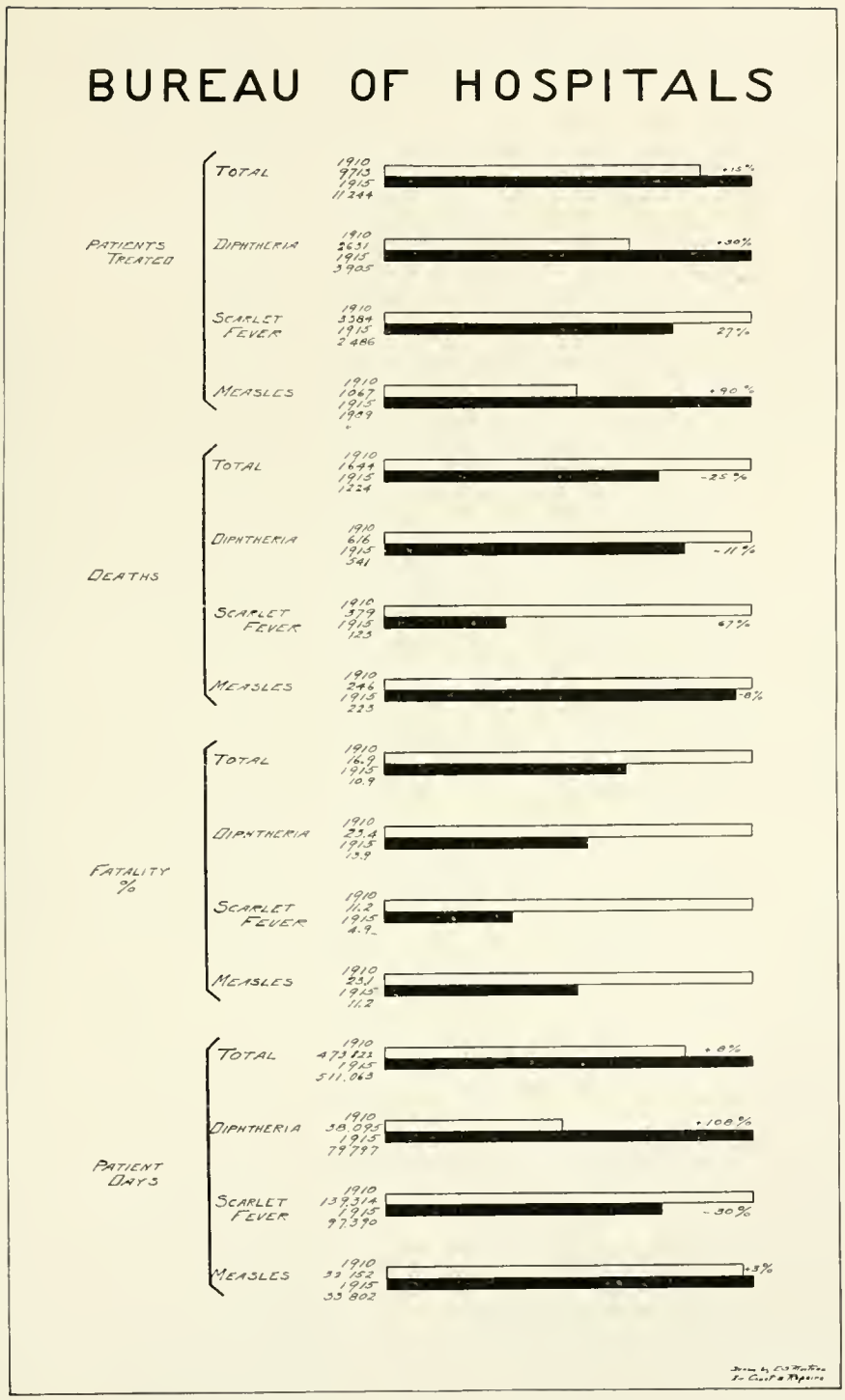

BUREAU OF HOSPITALS
PATIENTS TREATED
TOTAL
1910 9713
1915 11244
+15%
DIPHTHERIA
1910 2631
1915 3905
+30%
SCARLET FEVER
1910 3384
1915 2486
-27%
MEASLES
1910 1067
1915 1939
+90%
DEATHS
TOTAL
1910 1694
1915 1224
-25%
DIPHTHERIA
1910 616
1915 341
-11%
SCARLET FEVER
1910 379
1915 123
-67%
MEASLES
1910 246
1915 223
-8%
FATALITY %
TOTAL
1910 16.9
1915 10.9
DIPHTHERIA
1910 23.4
1915 13.9
SCARLET FEVER
1910 11.2
1915 4.9
MEASLES
1910 23.1
1915 11.2
PATIENT DAYS
TOTAL
1910 473 121
1915 511.063
+8%
DIPHTHERIA
1910 38.095
1915 79.797
+108%
SCARLET FEVER
1910 139.314
1915 97.390
-30%
MEASLES
1910 33 152
1915 33 802
+3%

TABLE No. 1.

ADMISSIONS, DISCHARGES, DEATHS—1915.

	Census December 31, 1914.				Admissions.				Diseases Treated				Transferred to Other Hospitals.				Discharged.				Died.				Census December 31, 1915.			
	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Total.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Total.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Total.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Total.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Total.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Total.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Total.
Diphtheria	90	82	29	201	1865	1119	740	3724	1955	1201	769	3925	70	50	....	120	1537	904	599	2040	261	165	116	542	87	82	54	223
Diphtheria and scarlet fever	5	.	1	6	36	25	13	74	41	25	14	80	5	13		18	25	7	12	44	9	5	2	16	2	.	.	2
Diphtheria and measles	1	2	1	4	97	59	37	193	98	61	38	197	7	27	..	34	60	18	20	98	30	15	16	61	1	1	2	4
Diphtheria and minor diseases	.	.	1	3	26	16	4	46	28	16	5	49	2	10	..	12	17	6	4	27	6	..	1	7	3	.	.	3
Scarlet fever	127	72	26	225	1068	741	489	2298	1195	813	515	2523	41	49	3	93	1045	664	464	2173	52	49	22	123	57	51	26	134
Scarlet fever and measles	..	..	..	..	15	31	1	47	15	31	1	47	..	2	..	2	13	26	1	40	2	3	..	5	..	..	..	..
Scarlet fever and minor diseases	4	..	..	4	34	22	3	59	38	22	3	63	2	16	..	18	32	5	3	40	2	1	..	3	2	..	..	2
Measles	21	28	5	54	1130	458	396	1984	1151	486	401	2038	19	29	..	48	925	427	358	1710	160	23	40	223	47	7	3	57
Measles and minor diseases	1	1	....	2	25	35	....	60	26	36	..	62	1	8	..	9	20	25	..	45	4	3	..	7	1	..	..	1
Pertussis	1	3	2	6	51	55	2	108	52	58	4	114	1	....	..	1	27	34	4	65	13	12	..	25	11	12	..	23
Varicella, rubeola and other diseases	..	4	..	4	19	55	1	75	19	59	1	79	1	5	..	6	14	50	1	65	3	4	..	7	1	..	..	1

TABLE No. 2.

PATIENTS AND PATIENT DAYS—1915.

	Patients.				Patient Days.				Average Days Per Patient.				Largest Number of Patients at One Time.			Smallest Number of Patients at One Time.		
	Willard Parker Hospital.	Kingston Ave. Hospital	Riverside Hospital.	Total.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Total.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Total.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.	Willard Parker Hospital.	Kingston Ave. Hospital.	Riverside Hospital.
Diphtheria	1,944	1,192	769	3,905	38,953	25,823	16,471	81,247	20.	21 6	21 4	21	159	99	68	64	34	21
Diphtheria and scarlet fever	28	13	14	55	1,036	586	558	2,180	37.	45.	39 8	40.6	8	10	6	1	1	1
Diphtheria and measles	47	39	38	124	1,025	1,143	830	2,998	21 8	26.	21 8	23.2	18	13	10	1	1	1
Diphtheria and minor diseases	22	1	5	28	394	46	216	656	17 2	46.	52.5	38 6	4	2	3	1	1	1
Scarlet fever	1,189	782	515	2,486	48,372	31,800	19,495	99,667	40 6	40 6	37 8	39 6	251	176	151	31	16	9
Scarlet fever and measles	.	.	1	1	.	.	35	35	.	.	35	35.	.	.	1	.	.	1
Scarlet fever and minor diseases	13	5	3	21	178	76	204	458	15.	15.2	71	33 6	4	3	2	1	1	1
Measles	1,137	451	401	1,989	16,384	11,174	6,676	34,234	14 4	24 7	16 6	18 5	105	77	57	5	1	2
Measles and minor diseases	25	17		42	563	605		1,168	15.	33		24	5	14		1	1	.
Pertussis	47	52	4	103	994	1,571	145	2,710	21 1	30.	36 2	39 1	11	1	2	1	1	1
Varicella, rubeola and other diseases	14	107	1	122	205	922	14	1,141	13.	8 6	14.	11.8	3	14	1	1	1	1

TABLE No. 3.

TUBERCULOSIS—1915.

	Otisville.	Riverside.	Total.
Census, December 31, 1914	563	237	800
Admissions	872	616	1,488
Total treated	1,135	853	2,288
Total died	7	206	213
Total discharged	861	411	1,272
Census, December 31, 1915	567	236	803
Total discharged or died	868	617	1,485
Under 1 mo.	63	171	234
1–3 mo.	153	230	383
3–6 mo.	251	127	378
Over 6 mo.	401	89	490
Discharged to home	858	390	1,248
Patient days	210,964	84,862	295,826
Average days per patient	147.01	99.48	129.3
Largest number at one time	613	262	875
Smallest number at one time	557	206	763
Average patients per day	577.98	232.5	810.5
Incipient cases	364	36	400
Arrested	38	.....	38
Apparently arrested	94	.....	94
Quiescent	139	.....	139
Improved	80	23	103
Unimproved	12	.....	12
Transferred	1	21	22
Died	....	.....	....
Moderately advanced cases	413	106	519
Arrested	10	.....	10
Apparently arrested	39	.....	39
Quiescent	174	.....	174
Improved	131	65	196
Unimproved	55	37	92
Transferred	1	.....	1
Died	3	4	7
Far advanced cases	91	475	566
Arrested	1	.....	1
Apparently arrested		.....	2
Quiescent	20	.....	20
Improved	37	113	150
Unimproved	26	160	185
Transferred	1	.....	1
Died	4	202	206

TABLE NO. 4.

INFECTIONS WITHIN HOSPITALS—1915.

	Total Cases of Infectious Diseases in Hospital.	Total Cases of Diphtheria in Hospital.	Diphtheria Developing 7 Days After Admission.	Percentage.	Total Cases Scarlet Fever in Hospital.	Scarlet Fever Developing 10 Days After Admission.	Percentage.	Total Cases Measles in Hospital.	Measles Developing 14 Days After Admission.	Percentage.
Willard Parker Hospital.....	4,678	2,121	97	3 9	1,289	2	.06	1,290	39	1 1
Kingston Ave. Hospital.....	2,813	1,303	51	3 5	891	6	.3	615	23	1 0
Riverside Hospital.....	2,604	826	7	.4	533	..	..	440		
Total.....	10,095	4,250	155	2 0	2,713	8	.1	2,345	62	8

Percentages calculated as follows:
T=Total cases of infections diseases in hospital.
T′=Total cases in hospital of disease in question.
M=Infections in hospital of disease in question.
P=Percentage of infections in hospital of disease in question.

$$P = \frac{M}{T-(T'-M)}$$

BUREAU OF PUBLIC HEALTH EDUCATION.

CHARLES F. BOLDUAN . . . . . *Director.*

ORGANIZATION, BUREAU PUBLIC HEALTH EDUCATION.

1915.

Director	1
Medical Inspectors	2
Clerks	3
Typewriting Copyist	1

Lectures.

Altogether 140 public lectures were arranged for and delivered under the auspices of the Bureau. Of these, thirty were lectures on fake patent medicines, thirty were lectures delivered in public schools and high schools, and eighty were miscellaneous lectures delivered before various audiences on request.

The following courses of lectures were arranged for and given:

Ten lectures to the nurses of the Henry Street Settlement.

Courses of lectures (still being continued) at the Police Training School; one to sergeants, the other to newly appointed patrolmen. This was in connection with the general plan of police co-operation.

Six lectures at the Hoe Apprentice School.

Not included in the above were addresses and lectures delivered by the Director of the Bureau before various organizations, such as high school pupils, biology teachers, women's health clubs, etc.

Several of the lectures and addresses supplied, were given out of the city. Among these mention should be made of the lecture, "Patent Medicines," given during the meeting of the American Public Health Association at Rochester, and the one on "Public Health Aspects of Alcohol," delivered at Washington, D. C., before the Society for the Study of Alcohol and Other Narcotics.

The educational work of the Department was described at the meeting of the American Public Health Association in Rochester.

Public Health Exhibits.

The Bureau prepared an exhibit showing the activities of the entire Department, as part of the Municipal exhibit of New York City at the Panama-Pacific Exposition. This exhibit earned for the Department a Grand Prize, the only award of its kind to a Department of the City of New York.

In co-operation with the Bureau of Food and Drugs, a pure food show was conducted at the University Settlement, which was attended by thousands of people and received extended press notices.

Smaller (travelling) exhibits of various features of the Department's work were shown at the following:

Public School 59, 228 East 57th street—Patent Medicines.

Haddonfield, New Jersey—Child Welfare—Tuberculosis.

East Side Forum—Food—General Activities of Department.

National Housewives' League—Food—Patent Medicines.

Connecticut Research Association, Greenwich, Connecticut—Food—Patent Medicines.

Department of Health, Greenwich, Connecticut—Child Hygiene.
Brooklyn, A. I. C. P.—All Departmental Activities.
Dental Association—Dental Hygiene.

The Department's Permanent Health Exhibit at Headquarters was demonstrated to groups of pupils from various high schools and colleges in the city.

Publications.

Fifty-two weekly press bulletins were issued giving a summary of mortality for the preceding week.

Twenty-six miscellaneous press bulletins were issued dealing with various Department matters. Material was supplied for over fifty special "write-ups" regarding the Department's activities, these articles being published in the Scientific American, the Forecast, the Popular Science Monthly, the Literary Digest, the Survey, the American City, the Magazine Section of the New York Times, the Evening Telegram, the Evening Sun, the Evening Mail, the Magazine Section of the New York American, the Call, the Tribune, the World, etc.

A complete index for the 1915 volume of the Weekly Bulletin was prepared and published.

The following were published:

Fifty-two numbers of the Weekly Bulletin.
Twelve numbers of the Monthly Bulletin.
Twelve numbers of Staff News.
Twelve Numbers of Otisville Ray.
Seven numbers of School Health News.
Sixteen numbers were added to the Reprint Series.

Monograph No. 4, revised and enlarged, was edited and published by this Bureau.

Monograph No. 6 was enlarged and revised and made ready for publication. Three new monographs were edited and published.

Number 2 of the "Keep Well" leaflets was published and material has been sent to the printer for Nos. 3, 4, 5, 6 and 7 of the series.

The publication of a series of popular health leaflets for different sections of the city was commenced under the name of "Health Chronicles." Fourteen of these neighborhood leaflets are now being issued, an edition of 5,000 being supplied to each neighborhood.

The Department contributed a health article regularly to a monthly factory publication entitled "Threads and Thoughts."

The Bureau also prepared and published special health leaflets such as "How to Feed the Family," "Story of Mrs. Jones' Rheumatism," "How to Make a Home-Made Fly Trap," "How to Make a Home-Made Milk Refrigerator," "Fresh Air" leaflets, "Water Inside and Outside," "Don't Spit" leaflets, a list of Health Books, etc., etc.

In connection with the crusade against alcohol, five popular leaflets dealing with various phases of the alcohol question, were prepared.

The Bureau also prepared a series of book marks dealing with various health matters in a popular way.

A revised tuberculosis folder was published and 200,000 of these distributed.

In cooperation with Health District No. 1, 250,000 miscellaneous health leaflets were distributed.

In connection with the activities of "Tuberculosis Week" 200,000 leaflets entitled "Medical Examination Day" were distributed throughout the city.

The Bureau co-operated with the Metropolitan Life Insurance Company in the preparation and distribution of a simplified health code based on the sanitary code of this Department.

The Bureau had charge of the editing and printing of the revised Sanitary Code.

Thousands of requests for literature were filled.

In connection with the opening of the educational lunch room, a publicity campaign regarding foods and food values was carried on. This was so effective that requests for leaflets describing the work of the lunch room were received from all parts of the United States and Canada and even from Japan.

Moving Picture Activities.

In co-operation with the Tuberculosis Committee of the Charity Organization Society, ten free moving picture shows on health topics were given in the parks of Manhattan and Bronx. In connection with the Staten Island Baby Week, health reels were loaned and shown in moving picture theatres in various parts of Staten Island.

Moving picture shows were given to patients in the Riverside Hospital, and 270 health reels loaned to schools, settlement houses, theatres, etc.

Miscellaneous Activities.

The Bureau prepared for publication a monthly publication to be sent to all the druggists in this city.

In co-operation with the Secretary of the Committee for the Prevention of Tuberculosis of the Charity Organization Society, a questionnaire was sent to the various social, civic and other agencies in this city, in order to determine, if possible, just what educational work was now being carried on in New York City.

In co-operation with the Association for Improving the Condition of the Poor, the Bureau assisted in furthering the work of the food exhibit of that organization.

Hundreds of letters addressed to the Department requesting information on health matters have been answered and hundreds of visitors to the Department asking for information have been interviewed.

BUREAU OF RECORDS.

WILLIAM H. GUILFOY, M.D. . . . . *Registrar of Records*

ORGANIZATION BUREAU OF RECORDS—1915.

	Total.	General Administration.	Manhattan.	Bronx.	Brooklyn.	Queens.	Richmond.
Registrar	1	1	..	..	..	..	..
Assistant Registrars	5	1	1	1	1	..	1
Medical Clerks	6	..	3	1	2	..	..
Clerks	19	6	5	..	7	1	..
Tabulator	1	1	..	..	..	..	..
Stenographers and Typewriters	3	..	..	..	2	1	..
Typewriting Copyists	11	..	7	2	2	..	..
Bookbinders	2	2	..	..	..	..	..
Bookbinders Seamstress	1	1	..	..	..	..	..
Photographer	1	..	1	..	..	..	..
Laborers	2	..	2	..	..	..	..
Total	52	12	19	4	14	2	1

Population.

With the beginning of the European war the Department of Health realized the effect that the discontinuance of immigration and the increase of emigration would have upon the population of the City, and further that, not only would the total number of inhabitants be less than the estimated population, but that the age and sex distribution would also be changed. Accordingly, efforts were made to secure trustworthy data that would make it possible to re-cast such estimates. Failing in this because of the impossibility to obtain such reliable data, it was decided to await the result of the census of New York State for 1915. The disappointment was keen when it appeared that the State census enumerated only those persons having a permanent residence in the City, and present at the time the census was taken. In other words, several hundred thousand persons were excluded from the census whose births, deaths and marriages are credited to the City. Briefly, the following persons were omitted by the State enumerators: (1) persons on Federal reservations, and in navy yards, army posts, marine hospital stations, etc.; (2) guests of hotels; (3) inmates of institutions; (4) residents of the City temporarily absent; (5) persons, like day laborers, who regularly leave the City for out-of-town employment during the summer months. As no record was kept of the persons thus excluded the census was useless for the purpose of computing birth, marriage and death rates, and the Department was compelled to again resort to an estimate of the population. That obtained by the geometrical method was admittedly too high. The estimate obtained by the arithmetical method was then examined and it was found to more nearly approximate what was felt to be the correct figure. This method of estimating the population of the City was adopted and will be adhered to until the Federal census of 1920 is available. The following table gives the estimated population of the City for the decennium 1910-1920:

(The Federal Bureau of the Census also discarded the State Census as worthless for computing mortality rates and determined to use the estimate obtained by the arithmetical method based on the Federal Censuses of 1900 and 1910.)

ESTIMATED POPULATIONS.

CITY OF NEW YORK.

YEARS 1910-1920.

BASED ON FEDERAL CENSUSES OF 1900 AND 1910.

	MANHATTAN.	BRONX.	BROOKLYN.	QUEENS.	RICHMOND.	CITY.
July 1, 1910....	2,341,699	435,843	1,611,218	286,806	86,369	4,794,935
July 1, 1911....	2,390,453	459,182	1,691,587	300,076	88,288	4,929,586
July 1, 1912....	2,439,207	482,521	1,738,956	313,346	90,207	5,064,237
July 1, 1913....	2,487,961	505,860	1,786,325	326,616	92,126	5,198,888
July 1, 1914....	2,536,715	529,199	1,833,694	339,886	94,045	5,333,539
July 1, 1915....	2,585,469	552,538	1,881,063	353,156	95,964	5,468,190
July 1, 1916 ...	2,634,223	575,877	1,928,432	366,426	97,883	5,602,841
July 1, 1917 ...	2,682,977	599,216	1,975,801	379,696	99,802	5,737,492
July 1, 1918....	2,731,731	622,555	2,023,170	392,966	101,721	5,872,143
July 1, 1919...	2,780,485	645,891	2,070,539	406,236	103,610	6,006,791
July 1, 1920 ...	2,829,239	669,233	2,117,908	419,506	105,559	6,141,445

The estimate of 5,468,190 for the Greater City, July 1, 1915, was probably too low, but for that reason was less open to criticism. In testing the accuracy of the above estimate the birth rate was used, probably the best method of checking an estimate of population. In order that there might be no dispute, it was assumed that the birth rate of the City remained the same during 1915 as during 1914, viz., 25.19. This assumption was not, however, entirely correct; first, because the birth rate of the City has been falling steadily for the past few years, as has the birth rate of every large city in the world, and secondly, because the loss of population has been at the marriageable and child bearing ages. Since 141,256 births were reported during 1915, the population would roughly have been 5,607,000, approximately 140,000 more than the estimate. [See charts "Increase in Population, 1898-1915," and "Population and Deaths by Age Groups," pages 119 and 120.]

BIRTHS.

One hundred and forty-one thousand two hundred and fifty-six (141,256) births were reported during 1915, an increase of 609 over the number reported in 1914, but a decrease of a little more than one-half of a point in the rate. During the past year practically complete registration of the births occurring in the City has been attained, only those at which neither a physician or a midwife was present remaining unreported. But even the most of these have been reported eventually through the co-operation of the milk stations, field nurses and private organizations sending nurses among the poor. While many complaints were made against physicians and midwives during the past year in connection with the registration of births, they were, for the most part, for tardiness in filing certificates rather than for failure to record them. In the Borough of Manhattan 148 complaints were made against physicians and midwives during 1915, for failure to report within ten days the births at which they attended, as compared with 455 complaints made for the same cause during 1914, showing conclusively that the physicians and midwives of the City are co-operating with the Department of Health and complying with the law, thus necessitating fewer complaints. It may be now said, without fear of contradiction, that the registration of births in the City of New York, as regards completeness, is

second to none. [See Chart "Births and Deaths, 1898-1915," and Tables Nos. 1, 2 and 3.]

New Procedures. Preparations were made for the following two new departures, in the handling of birth certificates, to be inaugurated on January 1st, 1916: (1) Sending a copy of birth certificate to the parents of every child whose birth is reported. This is in addition to the post card of acknowledgment sent to the physician. (2) The re-distribution of the births occurring in hospitals, to the residence of the mother. In other words, the births occurring in a maternity hospital are indexed—first, under the name of the child; second, under the name of the hospital where the birth occurred, and thirdly, under the residence of the mother.

Marriages.

Fifty thousand nine hundred ninety-seven (50,997) marriages were reported during 1915, 2,054 less than were reported during 1914, causing a decrease of .54 in the rate. The cause of this decrease was to be found in the financial depression that existed during the latter part of 1914 and the early part of 1915 and the loss of persons at the marriageable ages by reason of the discontinuance of immigration and the return of young adult males to their countries of birth in answer to their call to arms. The rate based on the number of unmarried persons, fifteen years and over, in the population was 53.4 per 1,000. Unquestionably this rate was too low because the number of unmarried persons in the population was estimated by applying the percentages of the 1910 census to the estimated population of 1915; but, as has already been stated, these were the age groups that were depleted, hence the percentages of the 1910 census were too high and the rate consequently too low.

The marriage rate among the negro males was 13.1; among the negro females 13. The rate among the native white males was 6.90 and among the females 7.79, while the marriage rate for the foreign white was 14.36 for the males, and 13.18 for the females. While it was true that the age constitution of both the negro and the foreign populations was more favorable to a higher marriage rate because of the excess of persons at the marriageable ages, it was nevertheless true that the natives, particularly the native males avoided the responsibility of marriage. [See Tables Nos. 1 and 4.]

Deaths.

During 1915 there were 76,193 deaths as compared with 74,803 during the previous year. The rate, however, during 1915 was .10 lower than during 1914, the increase in actual number of deaths being due solely to the increase in population. The deaths were divided amongst the Boroughs as follows:

DEATHS BY BOROUGHS—1915.

Borough.	Total Reported.	Rate Per 1,000.
Manhattan	36,308	14.04
The Bronx	7,486	13.55
Brooklyn	25,859	13.75
Queens	5,011	14.19
Richmond	1,529	15.93
City	76,193	13.93

[See also Charts "Crude Death Rates, 1868-1915" and "Decennial Mortality, 1866 to 1915," page 121.]

The highest rate was in the Borough of Richmond, which was caused by the number of institutions for old persons in that Borough and the unfavorable age constitution of the population. Manhattan had the next highest rate, followed by Brooklyn. In view of the overcrowding in the tenement districts of both these Boroughs, and the larger number of infants, it was to be expected that the death rate would be higher in these Boroughs, than in the Borough of The Bronx and the Borough of Queens where there was less overcrowding and living conditions were uniformly better and the circumstances of the inhabitants more favorable. The newly arrived immigrants swarm to the tenement districts of Manhattan and Brooklyn, and it is in these "melting pots" that the future citizens are produced. Having progressed to higher social strata they migrate to the outlying Boroughs and their places are taken by another influx.

Examining the causes under which the deaths of the City have been classified [see Tables Nos. 5, 6 and 7 and Chart "Deaths, 1900-1915, by Disease Groups], one is immediately struck by the fact that of the 76,000 deaths reported, 54,000 were caused by ten diseases—in other words, that these ten diseases were responsible for 71% of the mortality of the city—and that the other 179 causes appearing in the international classification were responsible for only 29%. [See also Tables 8, 9, 10, 11, 12, 13 and 14, and Chart "Death Rates for Contagious Diseases."]

Of these ten causes, Organic Heart Disease led all others in the magnitude of its mortality, and when combined with Chronic Brights Disease, its most frequent complication, their mortality was twice that of Pulmonary Tuberculosis, and more than three times that of Cancer.

Pulmonary Tuberculosis caused 8,825 deaths. While this figure is still high, there is a great deal of satisfaction to be gained from the fact that it is being steadily lowered each year.

Lobar Pneumonia caused 6,086 deaths and Broncho-Pneumonia 4,836; in other words, Pneumonia, both forms considered together, caused one in every seven deaths. The Congenital group caused 4,576 deaths; 3,509 deaths were reported as due to accidents.

To a very large extent all these harvesters of death are preventable, nor should their prevention be impossible. They do not come in epidemics; in fact, if they did, the shock of their tremendous mortality would lead to active efforts to eradicate them, but since they are constantly present in the community, the fear of them has ceased through familiarity, or at least their yearly destruction of human life has come to be looked on with indifference.

Pulmonary Tuberculosis alone is on the decrease, due to the persistent and widespread campaign waged against it. The mortality of Cancer, on the other hand, has increased despite the improvement in diagnosis and surgical treatment. This is to be attributed to the fact that unless the sufferer presents himself or herself early, surgical treatment can at best be only palliative. Two causes are responsible for the sufferer's delay in seeking medical advice—first, because the location of the cancer is often deep-seated and its presence is therefore not discovered until it has reached the secondary or metastatic stage; the second is the inherent fear of an operation. Until these two factors are removed, but little headway can be expected in the reduction of the mortality of cancer, unless great progress is made in discovering the etiology of this disease. [See Tables 21 and 22.]

That overcrowding is a most important etiological factor in the spread of pneumonia and other diseases was forcibly brought to the attention of the public by the Department's efforts to abate overcrowding in the subway, elevated and surface cars of the City. The Department of Health, with the co-operation of the Advisory Committee on Housing, is making an intensive study of the effect of overcrowding in

the tenement districts of the City on the incidence and mortality of the respiratory diseases. When sufficient supporting data has been collected to warrant the enactment of the necessary restrictive regulations, a decrease in the mortality of the respiratory diseases, should be hoped for.

The mortality of the Congenital group of diseases was astounding, particularly so when it is considered that the deaths from this cause were recruited from but one year of life, viz., the first—and that the mortality was equal to that of cancer. That the mortality of infants from these causes can be reduced is unquestioned, and it is hoped that the prenatal work of the Department begun in 1915 will shortly bear fruit. It must be remembered, however, that while the care of the pregnant woman is important, the even more important duty of raising healthy, robust children who are to be the fathers and the mothers of the next generation must not be lost sight of.

Prenatal care of the prospective mother with a rachitic pelvis will not greatly lessen the dangers of her labor to herself or to her child, nor will prenatal care of a mother have an appreciable effect upon the offspring of a syphilitic father. While prenatal care of the prospective mother is of necessity the first step in the reduction of infant mortality from these causes, it is absolutely necessary if their mortality is to be reduced to normal or reasonable limits, that preventive efforts antedate the pregnancy. In a word, each generation must be guarded from its conception to its conceiving.

Diseases of the heart, kidneys and vascular system are for the most part avoidable by following simple rules of hygiene, to wit: moderation in work, food and exercise. The Welfare Bureaus of the larger corporations, the Workmen's Compensation Act, compulsory examination of applicants for employment, the enforced prohibition of the use of alcohol by large railways and other corporations, are all powerful stimuli that have begun to reduce the incidence and mortality of these diseases. As public opinion is awakened to the great financial loss occasioned by these diseases and to the accessible means of controlling them, it may be hoped that diseases of the heart, kidneys and vascular system will no longer occupy a place among the ten most prominent causes of death.

Accidental Deaths. Formerly, the most discouraging feature in tabulating the deaths due to accidents [See Table 23] was the difficulty experienced in securing a definite statement from the coroner's physician as to the nature of the violence causing death. In order to overcome this so far as possible, the Sanitary Code was amended (1) to make the coroner's physician as well as the coroner, responsible for the filing of a proper certificate of death; (2) to compel the coroner and coroner's physician "where death shall have resulted from accident, homicide or suicide, to specify, how, when and where the injuries causing death, were received." While the difficulty is appreciated of at times stating definitely whether the violence causing death was accidental, homicidal, or suicidal, in the majority of cases sufficient data is available to permit the coroner's physician making a statement that will make it possible to properly classify the cause of death. That this is true, is borne out by the fact that deaths have frequently been reported as due to falls and the distance that the deceased fell has been stated in feet and inches, but inquiries as to how the deceased came to fall or from where he fell, have been met with the statement that such facts could only be determined at inquest.

There can be no doubt but that at least one-half of the thirty-six hundred accidental deaths could have been avoided by the exercise of reasonable care either on the part of the individual killed, or on the part of someone else. To state the fact in other terms, two thousand persons were killed in 1915 and every other year through their own or another's carelessness.

If the humane side of the question is ignored, and only the economic loss occasioned by these accidents computed, the total is appalling. For every death from accident there are at least twenty persons injured. In other words, seventy-two thousand (72,000) persons are incapacitated each year through accidents. If the average duration of incapacity is assumed to be one week, and the average wage of the individual, ten dollars per week, both of which assumptions are the minimum rather than the average, accidents cause a loss in salary alone of $720,000. The actual loss is probably nearer a million and a half dollars.

Interest in the prevention of accidents has been awakened, however, the pioneers in this field being large employers of labor who have found it cheaper to prevent accidents than to pay damages. While their motives were primarily selfish, the results have been none the less excellent. That the gospel of safety taught in the shops exerts an important influence in the home cannot be doubted, and that it should be spread still further is evidenced by the number of accidents that occur in the home. For example, 420 persons died as the result of burns and scalds alone, practically all of these accidents happening at home.

The Police Department has compiled and studied the statistics of street accidents for 1915, and as a result of their analysis, regulations will no doubt be adopted and enforced that will reduce the number of accidents of this type.

Complicating Diseases. Table No. 24, showing the deaths from certain diseases with complicating causes, contains much interesting and valuable information worthy of a more detailed study than can be accorded it here. Attention can be called only to a few facts that stand out most prominently.

It is astonishing to note that in over twenty thousand (20,000) deaths, chronic organic heart disease, diseases of the arteries and chronic nephritis, were either the primary or contributing cause of death, or, in other words, almost one-third of all the persons who died during 1915 died either directly or indirectly as the result of one of these diseases.

A greater number of persons who died from cancer or appendicitis, were operated upon than in 1914. While it might be argued from this that more operations were fatal the correct interpretation is probably that more operations were performed, because surgical technique is constantly improving with a consequent decrease in mortality. Therefore, there must be an increase in the number of operations and this increase is larger than is indicated by the actual increase in the number of deaths.

The frequency with which broncho-pneumonia complicates measles and whooping cough, and, to a lesser extent, diphtheria, is clearly shown in the table.

Nationality and Infant Mortality. Tables Nos. 25 and 26 show the deaths and death rate of infants under one year, among the different prominent nationalities of the City. It is rather astonishing to find that among the nationalities whose financial and social conditions are the lowest, that the mortality rate is also lowest, reference being had particularly to the Austro-Hungarians and the Russian-Poles. The low rate enjoyed by these people is due to two causes: (1) The intensive work that has been done amongst them by the Department of Health, and other organizations interested in infant welfare, and (2) equally important, the fact that the mothers nurse their infants during the first year of life and do not resort to artificial feeding as do their more enlightened (?) sisters of other races, whose infants show an abnormally high death rate. [See also Tables 26 and 27, and chart, "Death Rate, Infants, 1900-1915."]

Mortality Among Negroes. In Table No. 29 the death rates of the white and negro population of the City are contrasted by age groups. The rate for the negro is higher at every age period, the difference being greatest between the tenth and fourteenth years, when the white rate is 2.10, and the negro rate 7.53 or more than

three times the white rate. The next greatest difference in rate is between the fifteenth and nineteenth years, and the least difference after the sixtieth year.

The fact that the infant mortality among the negroes is more than double that among the whites stands out very prominently, and shows the necessity of infant welfare and other preventive work among this portion of the population.

The mortality of the male negro is greater than that of the female at every age period, save between the tenth and fourteenth years, when the female rate is more than two points higher, while among the whites of the same age group the male rate is higher than the female, as it is at all other age groups. The cause of this phenomenon is not clear. In fact, the table shows the need of more intensive study of the negro mortality in the City, and it is planned to make such study of the mortality statistics for 1915, and to present them in one of the Department publications during the early part of 1916.

Deaths of Non-Residents. Table No. 30 shows the deaths of non-residents for 1915. The striking features of this table are (1) that 1,043 of the 1,483 deaths occurred in the Borough of Manhattan, and (2) that 1,034 deaths occurred in institutions. Both of these features may be explained in this way. First, that the majority of visitors to the City stay in the Borough of Manhattan, which is the hotel, theatrical and shopping center of the City, and secondly, when taken ill they perforce seek treatment and care in the hospitals. This explanation holds good as regards the acute diseases; in chronic diseases, particularly cancer, it is probable that the sufferers came to the City in search of medical or surgical treatment. Heart disease stands out prominently on the list and while it is probable that many of its victims came in search of treatment, on the other hand, many, no doubt, came in pursuit of business or pleasure and succumbed to the strenuous life of the metropolis.

Division of Statistical Research.

The Division of Statistical Research of the Bureau of Records was created June 1, 1915. Although no additional clerical assistance was secured, considerable new work of importance was accomplished. Among the important achievements of the Division, were the following:

Districting of City. The districting of the entire city into forty-acre tracts, and the combining of these smaller areas into larger homogeneous districts that will afford morbidity, mortality and birth statistics of sufficient magnitude to preclude frequent variation due to paucity of data, was completed. On January 1, 1915, the tabulation of the deaths occurring in the Borough of Manhattan according to sanitary areas was commenced, as planned in 1914. Not only was this work carried to completion, and the death rates from the various causes and among the different age and nationality groups computed, but the mortality and the mortality rates were also computed for the larger areas. These tabulations and the analysis will be published in the monograph series of the Department.

Illness Census. Of equal importance was the census of illness taken in the Experimental Health District No. 1, by the officers of the Sanitary Squad under the supervision of the Division of Statistical Research, August 1, 1915. The returns of this census were tabulated, and the results published in the Monthly Bulletin of the Department. This was the first illness census taken in the City, if not, indeed, in the country.

Tabulation of Deaths by Occupations. Another new achievement was the tabulation of the deaths of 1914 by the occupation of the deceased. The results will appear shortly in one of the Department publications.

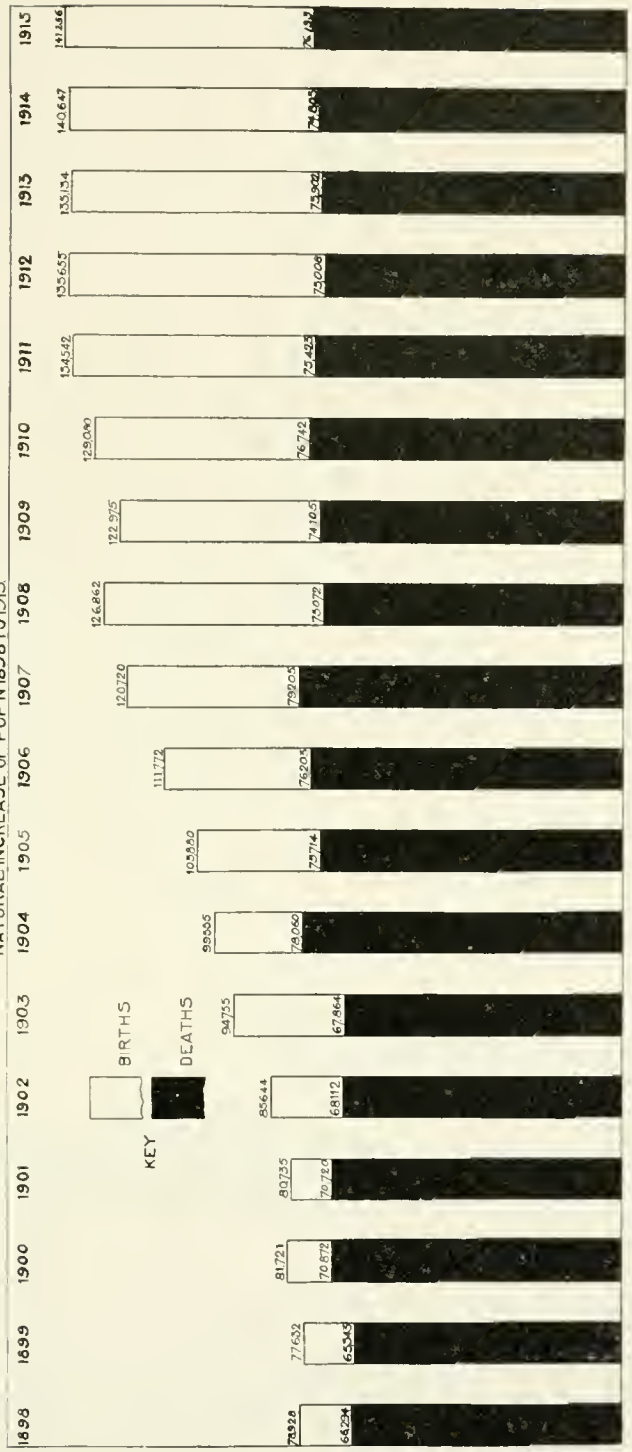
Tabulation of Births. Plans were completed for tabulating births by means of a punch card and an electric sorter and counter, commencing January, 1916. This will permit a revision of the birth tables with a view of extending their scope to include tabulations showing the effect of the parents' ages, occupations and nationality upon fecundity, etc., and the tabulation of the births that occur in each month in contradistinction to the number reported during each month.

In tabulating the infant mortality by sanitary areas the need of knowing the number of births in each district at once became evident. In the poorer sections of the City a large percentage of the expectant mothers enter the free hospitals for their confinement, and since they return to their homes soon after the birth of their children, these births should be credited to the district in which their homes are located, and to which deaths among them will be charged. A careful survey of the maternity hospitals having shewed that the addresses given by the expectant mothers were not only correct, but also that the hospitals had sufficient means of determining the correctness of the addresses, it was decided to distribute the births occurring in the various maternity hospitals in the City to the home addresses of the parents. In order to secure additional information for the proposed birth tables, the birth certificates were revised, and will be put in circulation during 1916.

Still Births. A new still birth certificate was put in circulation and beginning January 1st, 1916, the still births will also be tabulated by means of a punch card and an electric sorter and counter. It is hoped that by means of the more extensive tabulations made possible by the new procedure, valuable information as to the effect of occupation, age and nationality of the mother, upon the cause of still birth will be obtained. The need of such information in the planning of prenatal work has been felt for some time.

[Note.—The general work of the Bureau of Records is shown in Tables 31 and 32. The usual meteorological tables for 1915 are also given.]

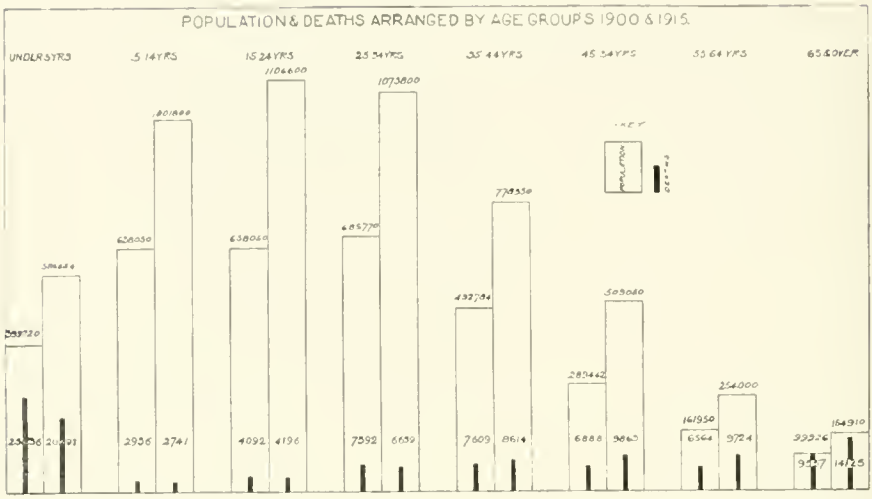
CHART I.



This chart depicts the tremendous gain in the natural increase of population since 1898. The entire column represents the number of births; the shaded portion represents the number of deaths; the difference between the two, or the unshaded portion, represents the natural increase.

It is only fair to state that in the earlier years the registration of births was not complete. Therefore, the natural increase of these years as shown in chart is unfairly low. In no year, however, was the error more than 10 per cent. and between 1905 and 1908 less than 5 per cent. In 1915 the registration of births was complete.

CHART II.



This Chart seeks to show the increase in population in the different age groups as well as the increase or decrease in mortality in each group. Since the number of deaths is relatively low as compared with the population, it was necessary to show the deaths on a different scale.

In the age group under five years and in that between five and fourteen years, there has been both a relative and actual saving of life; between fifteen and twenty-four years there was a relative saving of life; between twenty-five and thirty-five there was both a relative and actual saving of life; after the thirty-fifth year there was a relative saving of life which grows gradually less in each succeeding age period.

CHART III.

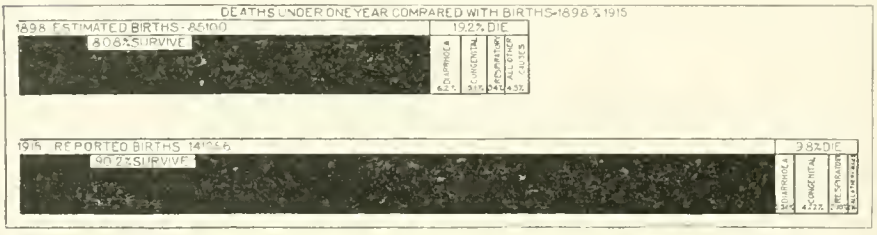


CHART IV.

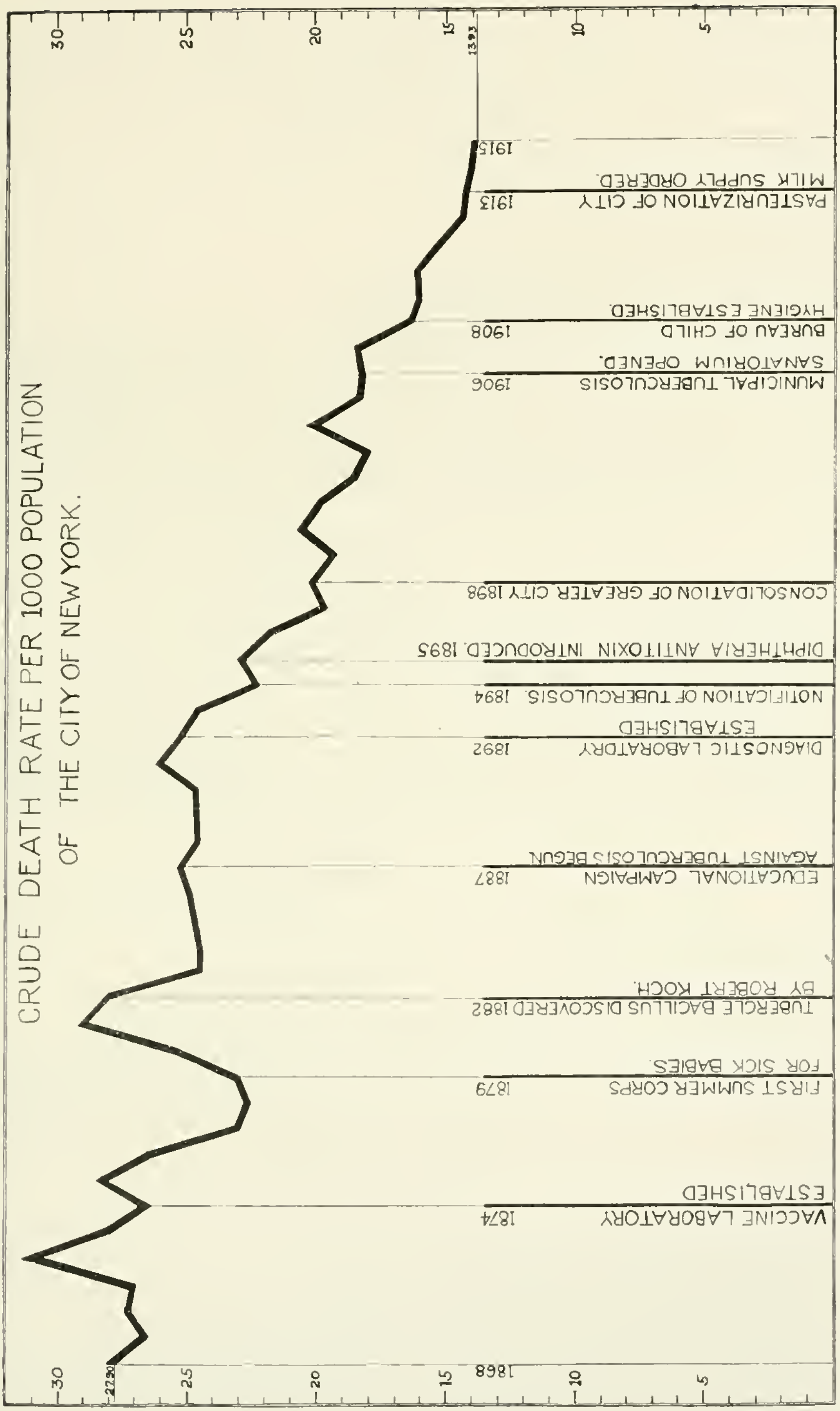

CRUDE DEATH RATE PER 1000 POPULATION
OF THE CITY OF NEW YORK.
30
25
20
15
10
5
13.93
27.90
1868
1874 VACCINE LABORATORY ESTABLISHED
1879 FIRST SUMMER CORPS FOR SICK BABIES.
TUBERCLE BACILLUS DISCOVERED 1882 BY ROBERT KOCH.
1887 EDUCATIONAL CAMPAIGN AGAINST TUBERCULOSIS BEGUN
1892 DIAGNOSTIC LABORATORY ESTABLISHED
NOTIFICATION OF TUBERCULOSIS. 1894
DIPHTHERIA ANTITOXIN INTRODUCED. 1895
CONSOLIDATION OF GREATER CITY 1898
1906 MUNICIPAL TUBERCULOSIS SANATORIUM OPENED.
1908 BUREAU OF CHILD HYGIENE ESTABLISHED.
1913 PASTEURIZATION OF CITY MILK SUPPLY ORDERED.
1915

CHART V.

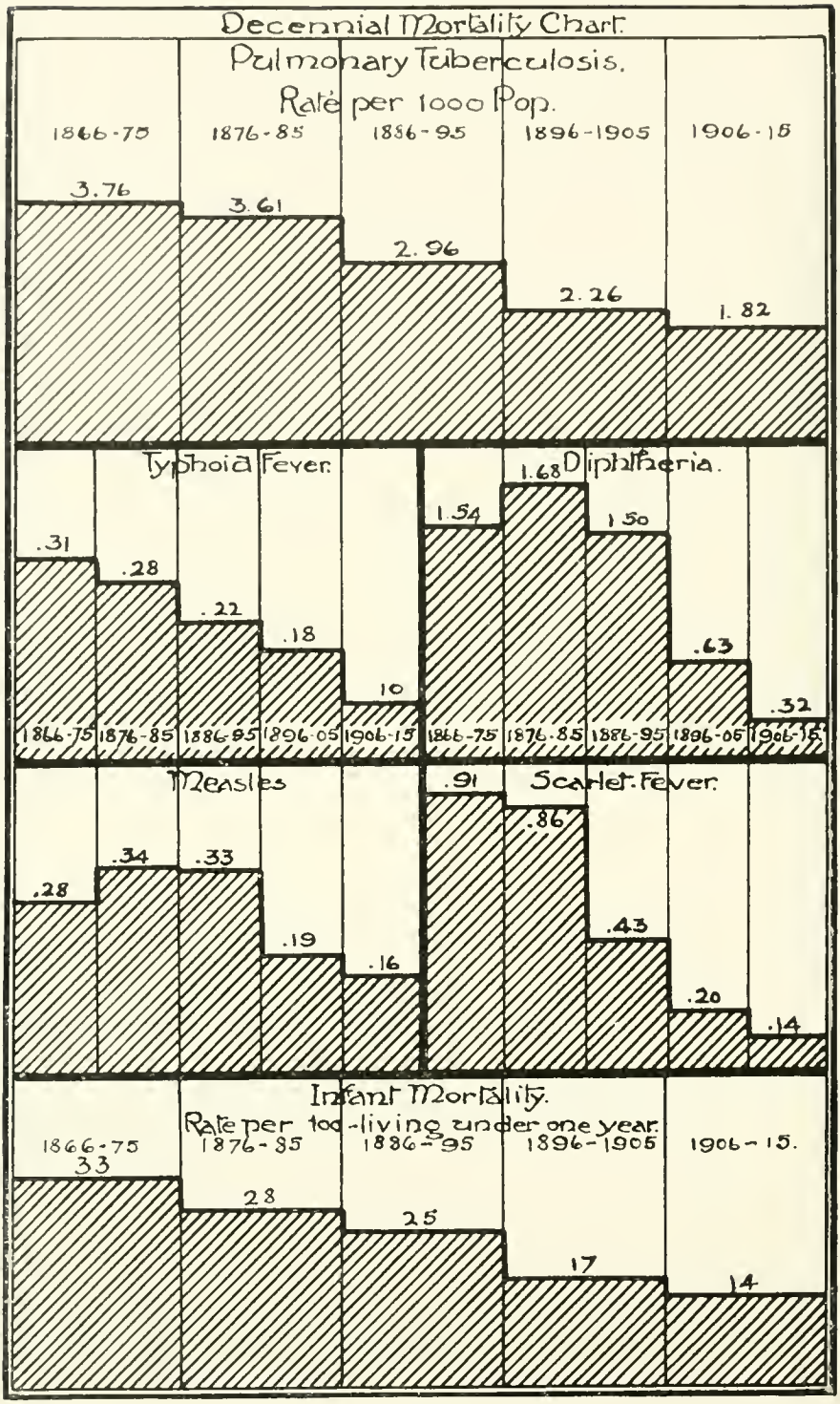
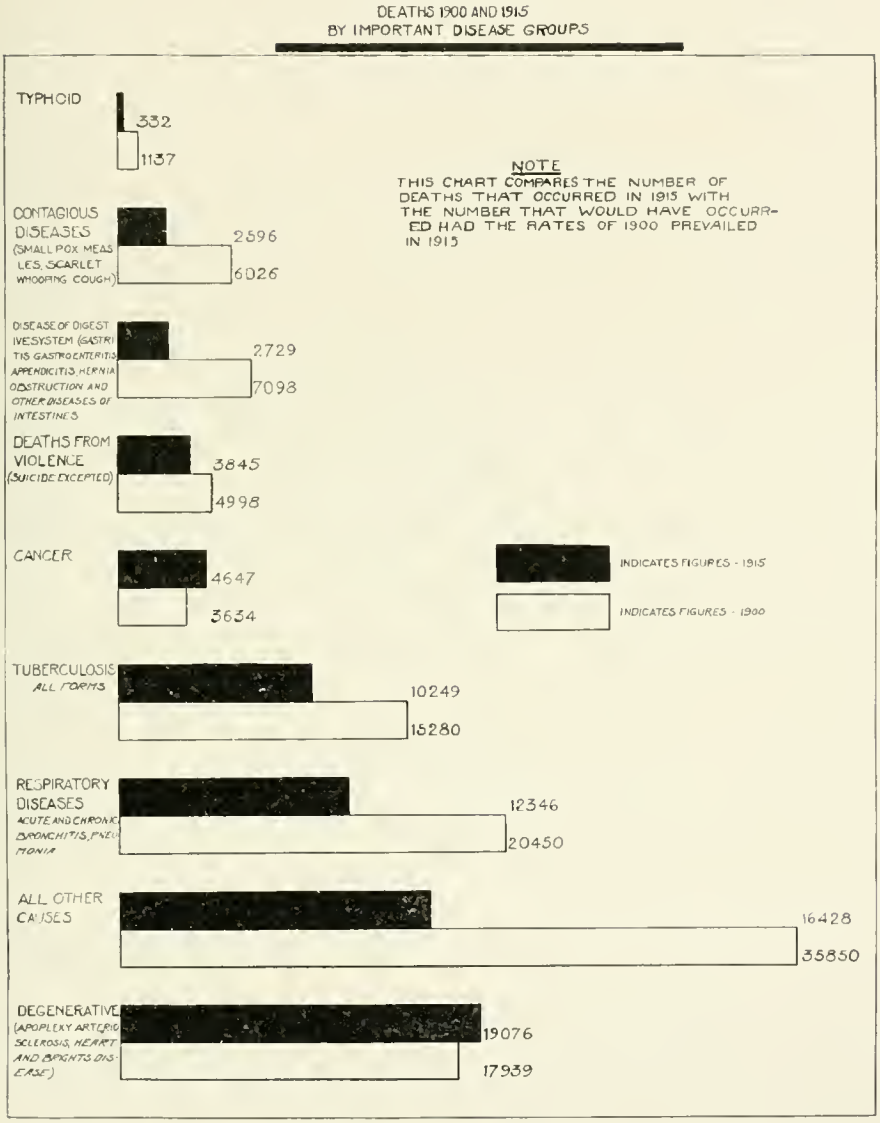

Decennial Mortality Chart.
Pulmonary Tuberculosis.
Rate per 1000 Pop.
1866-75
1876-85
1886-95
1896-1905
1906-15
3.76
3.61
2.96
2.26
1.82
Typhoid Fever.
.31
.28
.22
.18
.10
1866-75
1876-85
1886-95
1896-05
1906-15
Diphtheria.
1.54
1.68
1.50
.63
.32
1866-75
1876-85
1886-95
1896-05
1906-15
Measles
.28
.34
.33
.19
.16
Scarlet Fever.
.91
.86
.43
.20
.14
Infant Mortality.
Rate per 100-living under one year.
1866-75
1876-85
1886-95
1896-1905
1906-15.
33
28
25
17
14

CHART VI.



This chart compares the number of deaths reported for 1915 with the number that would have occurred had the death rates of 1900 prevailed. In other words, had the death rates of 1900 prevailed during 1915 the number of deaths represented by the unshaded horizontal line would have occurred.

CHART VII.

DEATH RATE PER 10,000 POPULATION.

FORMER CITY OF NEW YORK (MANHATTAN AND BRONX) AND FORMER CITY OF BROOKLYN (BO OF BKLYN)

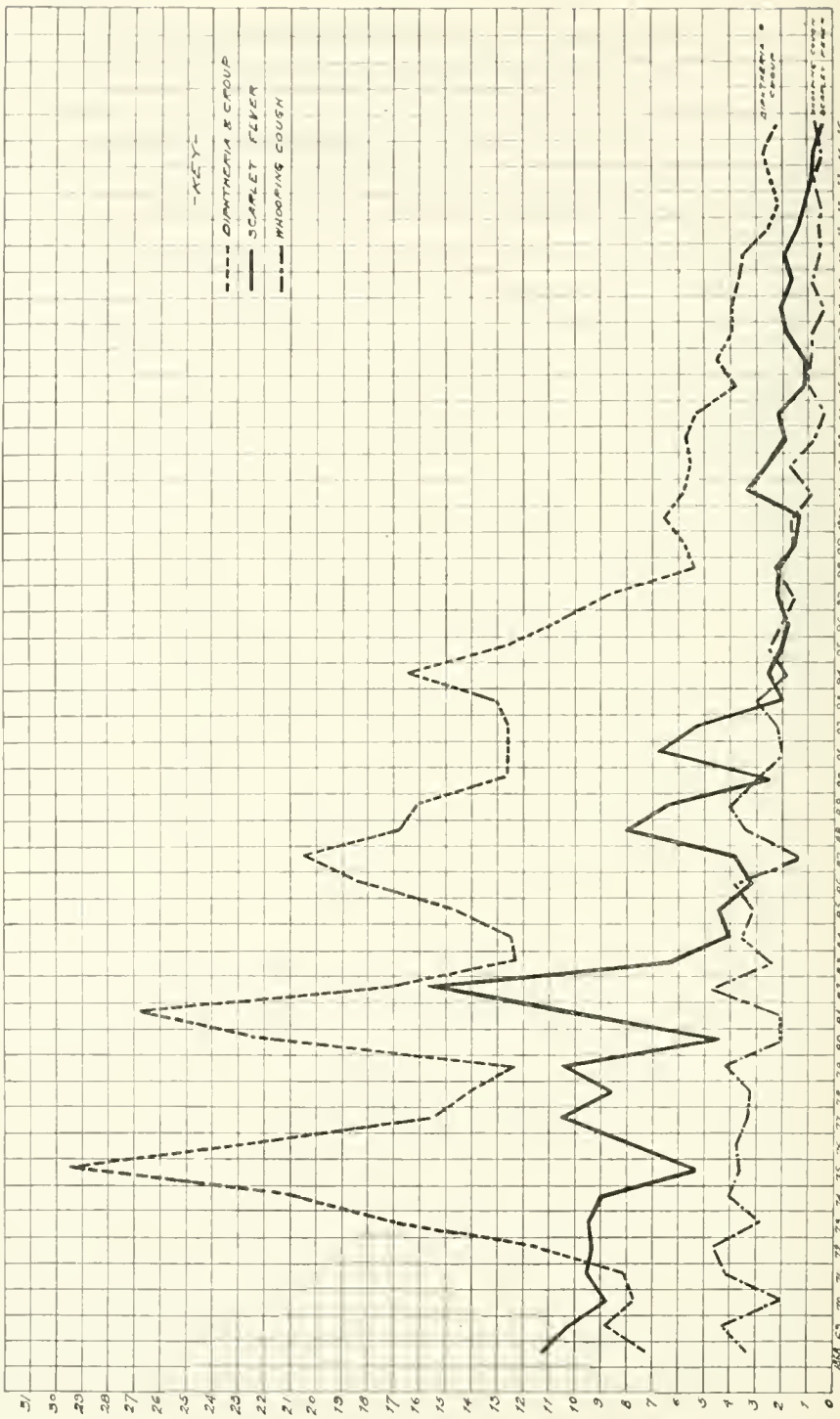
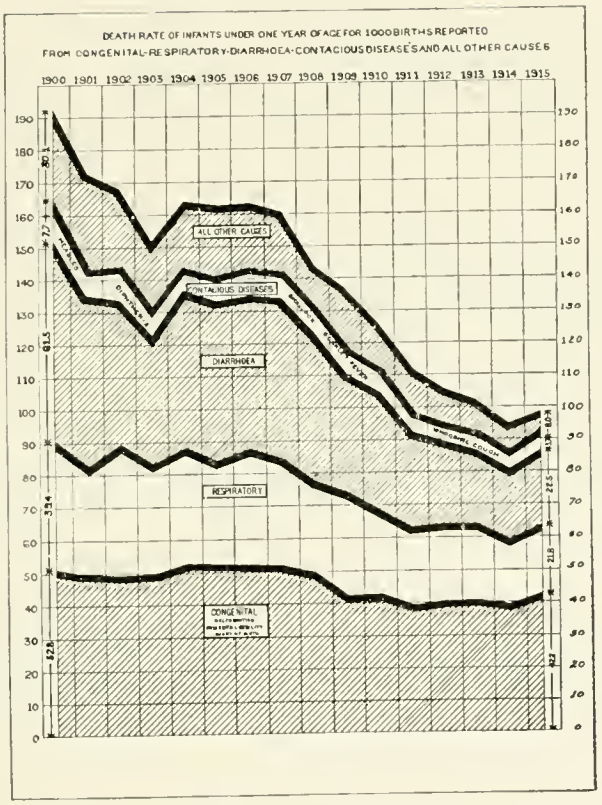


CHART VIII.



The uppermost line of this chart represents the yearly death rate from all causes under one year. The rate of each of the principal disease groups is shown as a part of the whole rate; and the rate of each group taken separately is stated in the first and last columns. Because registration was not sufficiently complete prior to 1908 the rates for the earlier years have been computed upon the estimated population under one year. In the later years, however, the rates have been computed upon the number of births reported.

TABLE

PARTICULARS REGARDING MARRIAGES, BIRTHS,

	Total.	White.		Colored.		Chinese.		Native Parents.		Foreign Parents.		Parentage of Mixed Nativities.		Parentage Unknown or Not Stated.	
		M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.
Marriages	50,997	49,586	49,613	1,385	1,373	26	11	.....	.....	.....	.....	.....	.....	.....	.....
Births	141,256	70,887	67,723	1,354	1,260	15	17	18,941	18,040	44,563	42,503	8,237	7,968	515	489
Deaths	76,193	40,350	33,080	1,377	1,304	78	4	8,362	7,238	28,492	23,469	3,482	2,916	1,469	765
Stillbirths	*6,413	3,461	2,589	155	108	..	1	1,030	821	2,056	1,451	366	295	164	128

*Sex undertermined, 99.

BOROUGH OF

Marriages	29,451	28,402	28,425	1,027	1,016	22	10	.....	.....	.....	.....	.....	.....	.....	.....
Births	65,215	32,409	30,928	971	882	13	15	6,567	6,104	23,121	22,205	3,324	3,144	381	372
Deaths	36,308	19,346	15,133	921	831	71	3	3,559	3,034	14,322	11,218	1,467	1,255	993	560
Stillbirths	‡3,000	1,611	1,142	107	72	.	...	393	287	1,091	756	149	116	83	54

‡Sex undetermined, 68.

BOROUGH OF

Marriages	4,152	4,117	4,118	35	34	.	..	.....	.....	.....	.....	.....	.....	.....	.....
Births	16,001	8,186	7,724	49	42	..	..	2,306	2,210	4,766	4,376	1,133	1,154	30	26
Deaths	7,486	3,930	3,436	55	65	..	..	670	615	2,916	2,544	352	314	17	28
Stillbirths	†696	393	282	5	2	.	...	109	98	216	142	57	35	16	8

†Sex undetermined, 14.

BOROUGH OF

Marriages	14,718	14,424	14,426	291	291	3	1	.....	.....	.....	.....	.....	.....	.....	.....
Births	48,482	24,450	23,440	289	299	2	2	7,336	7,163	14,418	13,666	2,889	2,828	98	84
Deaths	25,859	13,542	11,627	350	335	4	1	3,109	2,813	9,138	7,871	1,321	1,129	328	150
Stillbirths	§2,176	1,147	943	10	32	..	...	387	328	617	667	130	118	53	62

§Sex undetermined, 20.

BOROUGH OF

Marriages	2,071	2,045	2,046	25	25	1	..	.....	.....	.....	.....	.....	.....	.....	.....
Births	9,219	4,697	4,463	34	25	..	...	2,271	2,133	1,726	1,688	734	667	...	...
Deaths	5,011	2,616	2,287	42	66	...	...	734	600	1,597	1,481	270	253	57	19
Stillbirths	‖132	244	180	2	3	2	..	116	93	98	60	25	20	7	4

‖Sex undetermined, 3.

BOROUGH OF

Marriages	605	598	598	7	7	.	.	.....	.....	.....	.....	.....	.....	.....	.....
Births	2,336	1,145	1,168	11	12	.	.	461	430	532	568	157	175	6	7
Deaths	1,529	916	597	9	7	..	.	290	176	519	355	72	65	44	8
Stillbirths	109	66	42	1	.....	...	..	26	14	31	22	5	6	5	...

No. 1.

DEATHS AND STILLBIRTHS REPORTED—1915.

Single.		Married.		Widowed.		Divorced.		Not Stated.		Month of Utero-gestation.										
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	1	2	3	4	5	6	7	8	9	10	Not Stated.
47,165	47,460	.....	.....	3,324	2,942	508	595	....	....											
21,142	14,919	15,583	10,331	4,733	9,034	59	62	288	42	2	24	133	262	461	580	741	673	2,254	371	912

MANHATTAN.

27,269	27,431	.....	.....	1,847	1,607	335	413	....	....											
10,828	7,436	7,206	4,562	2,092	3,902	41	41	174	25	1	17	69	116	190	238	311	279	679	332	768

THE BRONX.

3,843	3,882	.....	.....	269	225	40	45	....	....											
1,879	1,383	1,620	1,177	477	930	4	8	5	3	..	2	8	27	51	68	94	92	314	16	24

BROOKLYN.

13,595	13,670	.....	.....	1,009	934	114	114	....	....											
6,724	4,914	5,366	3,612	1,707	3,415	12	9	87	13	...	2	44	109	176	217	264	229	1,015	21	99

QUEENS.

1,891	1,902	.....	.....	164	151	16	18	...	...											
1,267	925	1,085	778	298	645	1	4	7	1	1	3	10	7	37	42	62	55	194	...	21

RICHMOND.

567	575	.....	.....	35	25	3	5	....	....											
444	261	306	202	159	141	1	....	15	....	...	...	2	3	7	15	10	18	52	...	....

TABLE

BIRTHS

Month.	Total.	White.		Colored.		Chinese.		Native Parents.	
		M.	F.	M.	F.	M.	F.	M.	F.
January	12,360	6,281	5,852	116	108	3	..	1,694	1,487
February	11,213	5,573	5,431	100	107	2	..	1,479	1,421
March	13,183	6,574	6,348	137	118	1	5	1,727	1,690
April	12,142	6,125	5,766	124	126	.	1	1,654	1,577
May	11,0 0	5,542	5,331	110	104	2	1	1,495	1,399
June	11,934	5,973	5,731	122	106	.	2	1,610	1,569
July	11,366	5,752	5,408	104	99	1	2	1,589	1,458
August	12,206	6,029	5,954	120	101	2	.	1,629	1,635
September	11,606	5,773	5,610	114	106	1	2	1,486	1,461
October	11,308	5,757	5,324	114	112	1	.	1,587	1,456
November	10,878	5,480	5,215	89	94	.	.	1,445	1,373
December	11,970	6,029	5,757	104	79	.	1	1,550	1,514
Total	141,256	70,888	67,727	1,354	1,260	13	14	18,945	18,040

NO. 2.

REPORTED—1915.

Foreign Parents.		Mixed Parentage.		Unknown Parentage.		At-tended by Mid-wives.	At-tended by Phy-sician.	Appar-ently Illegiti-mate.	Twins	Trip-lets.
M.	F.	M.	F.	M.	F.					
3,922	3,735	719	692	65	46	4,199	8,161	146	91	2
3,540	3,446	610	633	46	38	3,981	7,232	134	117	.
4,172	3,972	760	746	53	63	4,690	8,493	180	126	2
3,816	3,587	725	677	54	52	4,305	7,837	169	115	3
3,474	3,350	633	646	52	41	3,842	7,248	158	85	1
3,720	3,517	706	696	59	57	4,271	7,663	180	113	1
3,566	3,402	657	612	45	37	4,350	7,016	113	106	1
3,779	3,650	708	738	35	32	4,340	7,866	120	96	1
3,692	3,560	678	654	32	43	4,168	7,438	112	108	2
3,610	3,373	671	599	4	8	3,936	7,372	147	84	..
3,437	3,242	657	646	30	48	3,594	7,284	122	79	..
3,831	3,669	713	629	39	25	4,239	7,731	122	98	3
44,559	42,503	8,237	7,968	514	490	49,915	91,341	1,703	1,218	16

TABLE No. 3.

BIRTHS BY NATIVITIES OF PARENTS.

	Manhattan.		The Bronx.		Brooklyn.		Queens.		Richmond.		City.	
	Parents.	Mothers.	Parents.	Mothers.	Parents.	Mothers.	Parents.	Mothers.	Parents.	Mothers.	Parents.	Mothers.
Austro-Hungary	7,770	2,157	1,047	479	2,499	856	354	155	125	34	11,795	3,681
Bohemia	200	72	9	10	2	4	26	17	. .	. .	237	103
British America	806	305	10	37	21	79	11	33	6	11	854	465
England	221	475	55	140	151	325	39	67	20	27	486	1,034
France	72	131	6	13	12	35	8	9	2	.	100	188
Germany	758	541	258	175	592	430	245	187	50	31	1,903	1,364
Ireland	3,094	1,214	535	218	1,140	539	195	144	63	46	5,027	2,161
Italy	14,692	254	2,840	37	10,431	183	1,287	36	467	8	29,717	518
Russia Poland	11,095	1,122	2,938	383	9,419	731	773	54	207	19	24,432	2,309
Scotland	67	153	40	35	66	94	24	31	5	5	202	318
Sweden	206	154	56	39	239	117	41	33	8	11	550	354
Switzerland	22	70	14	18	5	21	4	5	.	1	45	115
United States	12,765	4,445	4,516	1,574	14,415	3,988	4,404	915	892	221	36,992	11,143
Other foreign	1,907	440	341	178	1,561	525	78	44	54	23	3,941	1,210
Unknown	8	2	.....	.....	.....	2	.....	.....	.....	..	8	4
Total	53,683	11,535	12,665	3,356	40,553	7,929	7,489	1,730	1,899	137	116,289	24,967

TABLE

MARRIAGES

Date.	Total.	White.		Black		Chinese.		Single.		Widowed.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
January	4,476	4,336	4,336	138	139	2	1	4,107	4,152	316	278
February	4,108	4,024	4,028	83	79	1	1	3,818	3,824	253	231
March	3,381	3,283	3,289	92	89	6	3	3,107	3,096	236	223
April	3,543	3,442	3,444	100	99	1	...	3,229	3,243	265	241
May	3,879	3,764	3,769	111	109	4	1	3,690	3,706	173	162
June	5,558	5,443	5,443	113	114	2	1	5,119	5,211	386	285
July	4,023	3,913	3,913	108	109	2	1	3,702	3,703	276	263
August	3,614	3,510	3,512	102	102	2	..	3,329	3,384	254	188
September	3,901	3,778	3,780	121	119	2	2	3,597	3,612	262	241
October	5,113	4,920	4,923	190	190	3	.	4,744	4,796	310	262
November	4,483	4,380	4,380	102	102	1	1	4,158	4,156	288	285
December	4,918	4,793	4,796	125	122	....	....	4,565	4,577	305	283
Total	50,997	49,586	49,613	1,385	1,373	26	11	47,165	47,460	3,324	2,942

NO. 4.

REPORTED—1915.

Divorced.		Native.		Foreign.		Religious Marriages.				Civil Marriages.	
M.	F.	M.	F.	M.	F.	Catholic.	Protestant.	Jewish.	Ethical Culture.	Aldermanic.	Judicial.
53	46	1,558	1,760	2,918	2,716	1,394	667	1,481	2	923	9
37	53	1,509	1,706	2,599	2,402	1,700	581	924	1	900	2
38	62	1,180	1,385	2,201	1,996	766	512	1,317	.....	782	4
49	59	1,459	1,622	2,084	1,921	1,514	624	503	3	892	7
16	11	1,329	1,502	2,550	2,377	1,230	649	999	1	992	8
53	62	2,296	2,652	3,262	2,906	1,914	1,001	1,611	4	943	85
45	57	1,816	2,018	2,207	2,005	1,567	781	772	.....	883	20
31	42	1,513	1,637	2,101	1,977	962	824	967	.....	764	97
42	48	1,632	1,865	2,269	2,036	1,415	721	747	.....	1,014	4
59	55	1,944	2,208	3,169	2,905	1,733	837	1,123	3	1,410	7
37	42	1,789	1,984	2,694	2,499	1,571	1,205	916	.....	768	23
48	58	1,903	2,142	3,015	2,776	1,247	1,214	1,041	3	1,406	7
508	595	19,928	22,481	31,069	28,516	17,013	9,616	12,401	17	11,677	273

TABLE

MORTALITY FROM THE PRINCIPAL CAUSES

Cause of Death.	Manhattan												
	Jan.	Feb.	Mar	Apr.	May	June.	July.	Aug.	Sept	Oct.	Nov	Dec.	Total.
Total, all causes	3,253	2,963	3,556	3,741	3,235	2,797	2,829	2,841	2,642	2,601	2,559	3,291	36,308
1. Typhoid fever	10	3	7	3	7	7	16	18	20	18	17	9	135
2 Typhus fever	.	.	.	.	.	.	.	.	.	.	.	.	.
3. Malarial fevers	.	.	.	.	.	.	.	.	2	1	1	.	4
4. Small pox	.	.	.	.	.	.	.	.	.	.	.	.	.
5. Measles	13	14	25	67	79	82	51	29	17	4	12	15	408
6. Scarlet fever	14	12	13	32	28	20	8	3	.	1	1	2	134
7. Whooping cough	9	9	10	28	23	25	20	29	27	14	13	14	221
8. Diphtheria and croup.	63	60	73	65	81	72	50	25	25	23	26	44	607
9. Influenza	21	18	29	50	17	4	2	2		3	10	16	202
10. Asiatic cholera	.	.	.	.	.	.	.	.	.	.	.	.	.
11. Cholera nostras	.	.	.	.	.	.	.	.	.	.	.	.	.
12. Other epidemic diseases	21	24	28	12	32	23	21	4	15	7	8	16	241
13. Tuberculosis pulmonalis	430	397	440	451	369	351	326	325	345	331	317	384	4,466
14. Tuberculosis meningitis	26	27	40	44	50	47	40	38	31	25	23	24	415
15. Other forms of tuberculosis	37	28	43	54	36	29	35	25	20	20	19	19	365
16. Cancer, malignant tumors	185	165	228	189	206	165	179	161	172	197	190	183	2,220
17. Meningitis, simple	11	11	17	18	18	22	20	11	13	7	12	10	170
17a. (of which) Cerebro-Spinal Meningitis	4	4	9	6	5	6	10	4	3	2	1	3	57
18. Apoplexy and softening of brain	34	30	39	32	29	30	37	33	33	26	18	20	361
19. Organic heart disease	385	394	403	402	335	312	312	298	314	361	369	491	4,376
20. Acute bronchitis	33	25	30	27	24	18	10	10	14	17	25	53	286
21. Chronic Bronchitis	7	4	1	2	2	8	8	3	3	2	3	12	55
22. Pneumonia (excluding broncho-pneumonia,	312	235	431	455	246	174	114	111	92	137	200	435	2,942
22a. Broncho-pneumonia	279	229	312	311	248	251	155	121	113	134	141	236	2,530
23 Other respiratory diseases	23	20	27	22	28	20	18	11	8	18	16	21	232
24. Diseases of stomach (cancer excepted)	16	14	21	15	22	16	15	11	15	17	16	20	198
25. Diarrheal diseases (under 5 years)	57	66	71	101	92	96	252	463	299	176	90	63	1,826
26. Appendicitis and typhylitis	32	13	27	31	35	29	29	30	25	16	21	34	322
27. Hernia and intestinal obstruction	26	24	18	24	23	19	18	23	19	21	14	28	257
28. Cirrhosis of the liver.	48	47	36	37	39	19	22	17	24	12	13	26	340
29. Bright's disease and acute nephritis	226	243	242	247	216	165	184	185	154	194	200	244	2,500
30. Diseases of women (not cancerous)	9	8	10	20	12	8	20	11	10	6	7	14	135
31. Puerperal septicaemia.	6	5	6	11	14	13	16	15	7	5	11	8	117
32. Other puerperal diseases	18	18	23	17	15	13	15	16	14	17	8	19	193
33. Congenital debility and malformations	195	199	214	188	233	179	197	210	219	191	159	168	2,352
34. Old age	17	23	26	17	15	8	13	7	10	13	6	15	170
35. Violent deaths (suicide excepted)	165	135	142	181	161	171	190	167	183	163	130	166	1,954
a. Sunstroke	.	.	.	.	.	1	7	6	7	.	.	.	21
b. Other accidents	152	119	118	164	142	159	179	158	153	147	118	152	1,761
c. Homicides	13	16	24	17	19	11	4	3	23	16	12	14	172
36. Suicides	47	42	57	47	45	39	61	29	33	42	35	31	508
37. Other causes	473	416	463	505	451	356	373	391	364	376	425	420	5,013
38 Causes not known or ill-defined	5	5	4	6	4	6	2	9	2	6	3	1	53
Under 1 year	570	545	623	632	636	526	589	775	638	519	413	461	6,927
1 year, under 2 years	126	130	166	207	224	218	195	165	150	84	88	113	1,866
Total, under 5 years	813	765	912	1,014	1,025	895	936	1,056	859	676	567	669	10,187
65 years and over.	588	547	638	623	478	417	389	391	368	434	479	646	5,998
70 years and over	419	381	423	423	309	277	264	279	256	292	316	432	4,071
Males	1,867	1,709	1,989	2,145	1,786	1,558	1,599	1,545	1,476	1,422	1,434	1,811	20,341
Females	1,386	1,254	1,567	1,596	1,449	1,239	1,230	1,296	1,166	1,179	1,125	1,480	15,967
Colored	169	120	177	155	155	124	148	156	139	140	122	147	1,752
Chinese	6	8	8	12	5	5	4	6	6	8	5	4	77
Institutions	1,617	1,531	1,793	1,911	1,660	1,494	1,548	1,554	1,423	1,372	1,314	1,646	18,863
Tenements	1,469	1,255	1,550	1,598	1,396	1,173	1,107	1,158	1,080	1,091	1,112	1,478	17,467
Dwellings	125	109	118	109	114	57	67	59	67	102	90	110	1,127
Hotels, etc	56	59	66	70	35	30	39	27	28	44	49	70	573
Others	62	67	73	94	81	78	98	89	97	64	73	75	951
Death rate	.	.	.	.	.	.	.	.	.	.	.	.	.
Non-residents	86	70	99	104	87	81	72	73	81	96	100	94	1,043

No. 5.

WITH AGES OF DECEDENTS, FOR 1915.

	The Bronx.											
Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
691	609	752	712	614	559	582	544	592	562	565	704	7,486
1	. .	2	.	...	2	3	5	4	6	1	1	25
...	...	...	...	...	...	...	...	...	...	...	...	...
...	1	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...
1	3	5	8	15	8	4	1	...	...	...	...	45
2	6	1	4	4	3	1	1	...	...	...	1	23
1	3	5	4	4	4	6	6	8	1	...	1	43
21	18	21	16	16	10	10	7	3	3	7	11	143
4	3	7	10	6	. .	...	...	...	1	...	11	42
. .	. .	. .	. .	. .	...	...	...	...	...	...	...	...
2	3	3	8	9	4	4	1	2	2	2	4	44
85	77	83	96	69	58	83	78	60	75	83	80	927
3	6	7	6	15	7	7	11	7	1	3	4	77
3	3	3	7	5	4	1	6	7	3	3	3	48
35	32	51	40	33	37	35	40	50	51	51	43	498
3	2	3	3	1	8	3	1	3	1	..	3	31
1	1	2	2		3	2		3	1	...	...	15
9	8	8	9	11	13	8	8	7	7	5	5	98
102	69	123	106	88	81	76	68	77	79	81	111	1,061
6	2	2	5	3	2	2	1	3	1	1	6	34
1	2	1	. .	.	3	1	1	1	...	1	1	12
74	68	96	96	46	41	20	13	26	35	46	97	658
60	42	57	48	22	31	21	10	20	22	24	50	407
5	3	5	6	10	5	3	2	6	4	5	6	60
7	6	2	2	3	2	7	4	4	5	3	4	49
13	9	10	13	14	18	38	75	65	20	16	5	296
4	11	8	8	6	2	2	6	12	9	6	5	79
7	5	9	1	5	4	3	5	8	5	4	3	59
.	3	5	6	5	3	9	4	5	2	7	9	58
47	45	43	34	37	30	39	21	26	42	51	59	474
1	4	2	1	5	5	5	2	4	1	3	5	38
2	5	4	4	6	1	2	5	2	1	1	7	40
5	3	6	4	4	4	7	1	1	6	3	2	46
36	48	46	37	41	44	45	27	13	39	35	29	470
4	1	5	6	...	3	3	2	4	4	1	1	34
28	13	25	29	21	24	37	33	31	30	19	26	316
. .	. .	. .	. .	. .	. .	. .	2	1	. .	. .	. .	3
25	13	24	28	21	23	35	29	28	29	19	25	299
3		1	1	.	1	2	2	2	1	...	1	14
14	6	3	1	12	14	5	6	11	7	5	11	98
105	99	100	90	98	84	92	90	89	98	97	100	1,142
.	.	1	1	...		.	3	3	1	1	...	10
117	101	117	100	111	105	114	113	141	79	79	92	1,269
29	23	31	35	33	25	26	26	32	18	16	15	309
172	146	170	166	172	156	158	157	186	114	109	124	1,830
143	126	142	129	102	105	75	86	96	119	114	160	1,397
88	84	111	88	66	73	51	55	71	83	85	118	973
374	321	410	387	322	295	315	288	311	305	296	361	3,985
317	288	342	325	292	264	267	256	281	257	269	343	3,501
9	4	9	10	11	11	14	12	9	7	14	10	120
280	257	337	370	296	287	291	259	244	248	240	294	3,403
292	252	318	287	237	212	236	193	235	235	224	280	2,971
128	118	140	110	100	89	78	87	102	96	94	127	1,269
4	1	2	5	1	2	1			1	1	2	20
9	7	8	11	16	8	25	16	17	9	16	10	152
...	...	...	...	...	...	...	...	...	...	...	...	...
10	10	11	15	7	7	8	13	9	7	14	7	118

MORTALITY FROM THE PRINCIPAL CAUSES,

Cause of Death.	Brooklyn.												
	Jan.	Feb.	Mar	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
Total, all causes	2,311	2,016	2,541	2,596	2,247	1,997	1,889	2,068	1,844	1,912	1,953	2,425	25,859
1. Typhoid fever	10	8	6	1	8	9	10	32	26	15	9	12	116
2. Typhus fever	..	..	..	..	..	..	..	..	..	..	..	..	..
3. Malarial fevers	..	..	..	..	..	1	..	..	1	2	1	..	5
4. Small pox	..	..	..	..	..	..	..	..	..	..	..	..	..
5. Measles	2	6	14	26	29	35	9	7	..	1	1	3	133
6. Scarlet fever	9	16	20	13	22	12	7	1	1	2	1	2	106
7. Whooping cough	2	4	4	9	5	10	8	19	15	8	4	6	91
8. Diphtheria and croup	43	49	56	41	39	44	27	23	18	25	34	40	432
9. Influenza	16	9	37	51	24	14	6	1	6	7	10	52	233
10. Asiatic cholera	..	..	..	..	..	..	..	..	..	..	..	..	..
11. Cholera nostras	..	..	..	..	..	..	..	..	..	..	..	..	..
12. Other epidemic diseases	7	8	18	13	12	9	11	9	2	9	4	4	106
13. Tuberculosis pulmonalis	268	239	256	273	265	219	205	220	172	213	212	200	2,742
14. Tuberculous meningitis	20	11	31	28	21	21	13	22	16	18	19	9	229
15. Other forms of tuberculosis	18	9	19	21	21	19	14	14	9	11	9	13	177
16. Cancer, malignant tumors	122	120	125	126	115	136	131	137	111	132	131	147	1,533
17. Meningitis, simple	10	9	6	11	13	6	4	7	10	4	3	6	89
17a. (of which) Cerebro-spinal meningitis	5	4	2	5	6	4	3	3	6	..	3	..	41
18 Apoplexy and softening of the brain	42	31	45	41	39	35	19	17	18	32	28	40	387
19. Organic heart disease	422	320	392	377	331	310	287	243	236	290	345	425	3,988
20. Acute bronchitis	54	40	32	37	30	25	13	15	17	22	32	39	356
21. Chronic bronchitis	9	3	12	10	12	4	2	10	5	3	12	7	89
22. Pneumonia (excluding broncho-pneumonia)	225	185	286	308	177	129	73	59	75	87	146	302	2,052
22a. Broncho-pneumonia	155	136	193	222	180	129	59	82	64	91	88	136	1,533
23. Other respiratory diseases	19	19	27	34	21	17	13	8	15	10	17	18	218
24. Diseases of stomach (cancer excepted)	14	10	15	11	17	12	13	15	11	11	8	17	154
25. Diarrheal diseases (under 5 years)	43	48	59	63	59	66	213	375	278	132	68	35	1,439
26. Appendicitis and typhlitis	14	21	23	25	18	20	26	28	22	13	23	22	255
27. Hernia and intestinal obstruction	24	22	16	24	11	10	17	14	19	17	11	15	200
28. Cirrhosis of the liver	27	15	18	22	28	12	21	22	18	25	20	23	251
29. Bright's disease and acute nephritis	185	190	175	197	170	150	136	147	140	175	152	199	2,016
30. Diseases of women (not cancerous)	9	7	5	14	8	13	17	6	5	11	9	10	114
31. Puerperal septicaemia	3	3	15	5	10	7	1	2	12	2	5	6	71
32. Other puerperal diseases	20	13	19	18	11	15	18	19	12	13	11	13	182
33. Congenital debility and malformations	108	91	120	122	119	109	91	119	113	100	88	141	1,324
34. Old age	11	9	8	9	11	6	9	6	6	9	6	9	99
35. Violent deaths (suicide excepted)	89	70	99	98	88	105	120	126	109	94	121	111	1,230
a. Sunstroke	..	..	..	..	..	2	4	10	6	..	..	..	22
b. Other accidents	84	68	97	91	83	100	112	112	93	88	118	104	1,150
c. Homicides	5	2	2	7	5	3	4	4	10	6	3	7	58
36. Suicides	26	15	15	16	23	20	25	26	20	20	23	22	251
37. Other causes	315	308	375	324	309	278	268	234	259	307	300	340	3,617
38. Causes not known or ill-defined	..	2	..	3	1	..	..	3	3	1	2	1	16
Under 1 year	377	296	400	403	364	328	363	550	441	336	290	328	4,476
1 year, under 2 years	79	90	122	145	138	102	87	129	100	73	53	84	1,202
Total under 5 years	511	478	623	656	599	523	522	757	602	469	400	482	6,622
65 years and over	531	412	574	553	460	361	350	316	327	422	447	587	5,339
70 years and over	372	295	391	376	326	259	241	221	225	292	308	402	3,708
Males	1,254	1,119	1,315	1,370	1,213	1,089	1,003	1,155	993	1,030	1,052	1,213	13,806
Females	1,087	927	1,226	1,226	1,034	908	886	913	851	882	901	1,212	12,053
Colored	49	54	70	66	47	57	57	64	54	44	63	60	685
Chinese	..	..	1	..	..	1	1	..	..	1	..	1	5
Institutions	639	555	716	711	637	576	573	646	536	545	549	669	7,352
Tenements	896	822	976	985	851	824	702	830	742	743	710	931	9,712
Dwellings	635	538	700	692	586	439	448	417	409	479	508	649	6,500
Hotels, etc	7	2	2	8	4	2	1	3	2	..	3	2	36
Others	35	25	44	52	41	50	57	53	56	43	58	55	589
Non-residents	20	12	19	20	14	21	18	23	18	21	24	24	234

WITH AGES OF DECEDENTS, FOR YEAR 1915—Continued.

QUEENS.

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
460	390	480	472	418	384	396	410	377	371	367	486	5,011
1	1	2	1	...	1	2	3	2	4	.	3	20
...	.	...	...	...	...	...	...	...	.	.	...	...
...	...	...	...	...	1	...	...	...	.	...	...	1
...	.	...	.	.	.	.	.	.	.	...	.	.
1	...	3	1	8	1	.	1	.	...	2	2	20
6	2	4	5	1	3	1	1	.	...	.	2	25
3	2	2	6	2	3	1	3	5	1	2	4	34
7	9	6	4	6	5	10	6	7	8	6	4	78
2	4	7	13	2	1	.	...	.	1	3	7	40
.	.	...	.	.	...	.	...	.	...	...	.	.
...	...	...	...	...	...	...	...	.	...	...	...	.
2	2	5	2	2	1	2	1	2	1	...	3	23
44	49	54	55	47	41	48	37	43	41	32	51	542
4	.	3	4	6	8	9	2	4	4	3	2	49
1	5	3	2	3	1	5	4	3	6	3	3	39
39	21	37	28	29	22	25	20	20	22	25	25	313
2	1	...	1	3	1	3	2	.	4	1	3	21
...	...	...	...	1		1	...	...	2	1	1	6
4	9	8	8	10	3	5	13	3	9	9	7	88
74	57	80	67	60	61	43	40	53	36	67	82	720
6	2	2	9	1	...	1	1	...	1	1	5	29
1	1	.	..	1	2	...	1	.	...	...	1	7
41	30	36	43	23	29	13	6	10	18	22	50	321
34	28	29	32	26	23	17	18	9	13	22	43	294
2	1	2	4	4	2	1	1	5	...	6	5	33
2	4	2	1	3	1	2	3	3	4	3	3	31
9	3	6	10	10	11	53	79	44	34	14	9	281
8	5	7	4	2	6	3	10	4	6	1	3	59
4	3	4	3	5	..	2	2	6	7	2	3	41
4	2	3	5	4	4	5	5	6	9	3	5	55
34	30	32	36	32	30	45	24	18	31	26	36	374
...	...	...	2	3	2	1	1	1	1	2	..	13
2	3	1	2	..	2	...	2	1	2	2	1	18
4	3	8	3	1	...	2	1	3	5	3	1	34
33	18	35	34	29	21	27	33	28	27	19	28	332
2	3	5	5	..	4	2	1	3	1	4	7	37
16	23	24	16	15	17	19	30	32	17	17	16	242
.	.	.	.	.	1	1	1	.	.	.	.	3
15	20	23	16	14	15	15	28	32	17	16	14	225
1	3	1	. .	1	1	3	1	.	..	1	2	14
7	8	10	8	8	12	3	7	1	6	2	8	80
61	61	62	55	76	57	45	51	60	52	68	64	712
...	...	1	1	.	1	...	2	.	..	...	...	5
80	50	75	85	64	64	101	127	85	77	62	76	946
12	9	12	11	18	20	16	17	12	19	7	16	169
108	72	105	109	96	96	138	167	115	110	80	107	1,303
101	85	101	91	96	74	56	57	71	55	85	117	989
67	57	78	67	65	47	35	36	48	35	59	86	680
250	205	238	241	227	215	213	224	193	202	212	238	2,658
210	185	242	231	191	169	183	186	184	169	155	248	2,353
8	9	5	11	6	9	10	9	7	10	11	13	108
...	...	...	...	...	...	...	...	...	...	...	...	...
112	122	112	112	104	84	103	106	95	93	89	119	1,251
109	67	98	132	105	88	94	95	81	90	93	103	1,155
217	185	231	214	201	189	177	171	190	168	185	245	2,373
4	1	4	5	5	3	...	4	2	2	2	1	33
19	14	9	11	13	16	23	37	15	7	14	9	187
5	7	3	9	4	4	3	5	2	6	7	3	58

MORTALITY FROM THE PRINCIPAL CAUSES,

Cause of Death.	Richmond.												
	Jan	Feb.	Mar.	Apr.	May.	June.	July.	Aug	Sept	Oct.	Nov.	Dec	Total.
Total, all causes	127	118	133	160	111	125	122	148	88	136	118	143	1,529
1 Typhoid fever	1		1						1	1	1	1	6
2. Typhus fever													
3. Malarial fevers													
4 Small pox													
5. Measles			2	5	7	7	1			2			24
6. Scarlet fever	1	1						1					3
7 Whooping cough		1		1		1	1	1					5
8 Diphtheria and croup	2	2	1	1	3	2		1		1	3	2	18
9 Influenza			1	5			2					1	9
10. Asiatic cholera													
11 Cholera nostras													
12. Other epidemic diseases				1							1	1	3
13 Tuberculosis pulmonalis	12	10	17	10	6	10	11	18	15	12	15	12	148
14. Tuberculous meningitis		2	1		1	1		1	2		2		10
15 Other forms of tuberculosis	1	2	2	4	1		1	2	1	1			15
16. Cancer, malignant tumors	6	4	7	12	8	9	6	11	2	4	6	8	83
17. Meningitis, simple									1	1			2
17a. (of which) Cerebro-spinal meningitis													
18 Apoplexy and softening of brain	1	4		5	2	2	1		4	3	2	1	28
19 Organic heart disease	19	23	22	19	17	23	21	18	16	24	22	24	248
20 Acute bronchitis	1		1								1	3	6
21 Chronic bronchitis	1												1
22. Pneumonia (excluding broncho-pneumonia)	12	13	13	25	5	10	3	2		8	6	16	113
22a. Broncho-pneumonia	11	10	10	4	5	4	8	2		2	5	9	70
23. Other respiratory diseases		1						2		1	2		6
24. Diseases of stomach (cancer excepted)	4	1					1		1	2		2	11
25. Diarrheal diseases (under 5 years)			1	2	1	10	18	21	14	11	2	2	82
26. Appendicitis and typhlitis					1	1	1	1	1	1		2	8
27. Hernia and intestinal obstruction					1	1	2	2				1	7
28 Cirrhosis of the liver		2		2	2	1	2	1	4	1	1	1	17
29. Bright's disease and acute nephritis	13	9	16	20	13	8	5	13	4	24	12	20	157
30. Diseases of women (not cancerous)												1	1
31. Puerperal septicaemia	1		1			1							3
32. Other puerperal diseases							3	2		1			6
33. Congenital debility and malformations	9	6	7	12	10	11	9	9	8	8	4	5	98
34. Old age	4	2		3	1			3		4	1	1	19
35. Violent deaths (suicide excepted)	2	4	4	4	13	3	5	16	5	5	8	8	77
a. Sunstroke													
b. Other accidents	1	4	4	4	13	3	5	16	4	4	8	8	74
c. Homicides	1								1	1			3
36. Suicides	2	3	2		2	1	2	3	2	3	1		21
37. Other causes	24	18	24	25	12	19	19	18	7	16	22	19	224
38 Causes not known or ill-defined													
Under 1 year	16	16	16	19	16	29	34	33	21	21	11	19	248
1 year, under 2 years	5	2	5	4	8	4	4	2	2	4	2	2	44
Total under 5 years	25	22	24	31	28	42	43	41	23	29	20	21	349
65 years and over	41	35	33	51	31	29	26	35	17	45	27	43	413
70 years and over	29	28	23	42	20	20	23	27	12	32	19	35	311
Males	72	66	91	94	62	74	64	100	51	80	73	98	925
Females	55	52	42	66	49	51	58	48	37	56	45	45	604
Colored	3	1	2	1	1	2	3	1		1		1	16
Chinese													
Institutions	89	72	87	108	74	85	117	127	61	65	68	95	1,048
Tenements	8	6	15	5	9	9	7	8	9	9	7	11	103
Dwellings	54	58	59	75	45	59	45	54	43	70	52	61	676
Hotels, etc	3	1		2	1	1	4	2	2	2	4	2	25
Others	3	2	4	4	13	7	7	16	7	4	6	4	77
Non-residents	3		4		7		5	5	1	1	3	1	30

WITH AGES OF DECEDENTS, FOR YEAR 1915.

CITY OF NEW YORK.

Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Total.
6,872	6,126	7,462	7,681	6,625	5,862	5,818	6,011	5,543	5,582	5,562	7,049	76,193
23	12	18	5	15	19	31	58	53	44	28	26	332
...	...	...	...	...	...	...	...	...	...	...	...	...
...	1	...	...	...	2	...	...	3	3	2	...	11
...	...	...	...	...	...	...	...	...	...	...	...	...
17	23	46	109	134	140	66	37	18	7	13	20	630
32	37	38	54	55	38	17	7	1	3	2	7	291
15	19	21	48	34	43	36	58	55	24	19	25	397
136	138	157	130	145	123	97	62	53	60	76	101	1,278
43	34	81	129	49	19	10	3	6	12	23	117	526
...	...	...	...	...	...	...	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...
32	37	54	66	55	37	38	15	21	19	15	28	417
839	772	850	885	756	679	673	678	635	672	659	727	8,825
53	46	82	82	93	84	69	74	60	48	50	39	780
60	47	70	88	66	53	56	51	40	41	34	38	644
387	342	448	395	391	369	376	369	355	406	403	406	4,647
26	23	26	33	35	37	30	21	27	17	16	22	313
10	9	13	13	12	13	16	7	12	5	5	4	119
90	82	100	95	91	83	70	71	65	77	62	76	962
1,002	863	1,020	971	831	787	739	667	696	790	884	1,133	10,383
100	69	67	78	58	45	26	27	34	41	60	106	711
19	10	14	12	15	17	11	15	9	5	16	21	164
664	531	862	927	497	383	223	191	203	285	420	900	6,086
539	445	601	617	481	438	260	233	206	262	280	474	4,836
49	44	61	66	63	44	35	24	34	33	46	50	549
43	35	40	29	45	31	38	33	34	39	30	46	443
122	126	147	189	176	201	574	1,013	700	373	189	114	3,924
58	50	65	68	62	58	61	75	64	45	51	66	723
61	54	47	52	45	34	42	46	52	50	31	50	564
79	69	62	72	78	39	59	49	57	49	44	64	721
505	517	508	534	468	383	409	390	342	466	441	558	5,521
19	19	17	37	28	28	43	20	20	19	21	30	301
14	16	27	22	30	24	19	24	22	10	19	22	249
47	37	56	42	31	32	45	39	30	42	25	35	461
381	362	422	393	432	364	372	398	411	365	305	371	4,576
38	38	44	40	27	21	27	19	23	31	18	33	359
300	245	294	328	298	320	371	372	360	309	295	327	3,819
...	...	...	...	...	4	12	19	14	...	...	...	49
277	224	266	303	273	300	346	343	310	285	279	303	3,509
23	21	28	25	25	16	13	10	36	24	16	24	261
96	74	87	75	90	86	96	71	67	78	66	72	958
978	902	1,024	999	946	794	797	784	779	849	913	943	10,708
5	7	6	11	5	7	2	17	8	8	6	2	84
1,160	1,008	1,231	1,239	1,191	1,052	1,201	1,598	1,326	1,032	855	973	13,866
251	254	336	402	421	369	328	339	296	198	166	230	3,190
1,629	1,483	1,834	1,976	1,920	1,712	1,797	2,178	1,785	1,398	1,176	1,403	20,291
1,404	1,205	1,488	1,447	1,167	986	896	884	879	1,075	1,152	1,553	14,136
975	845	1,026	996	786	676	615	617	612	735	787	1,073	9,743
3,817	3,420	4,043	4,237	3,610	3,231	3,194	3,312	3,024	3,039	3,067	3,811	41,805
3,055	2,706	3,419	3,444	3,015	2,631	2,624	2,699	2,519	2,543	2,495	3,238	34,388
238	188	263	243	220	203	232	242	209	202	210	231	2,681
6	8	9	12	5	6	5	6	6	9	5	5	82
2,737	2,537	3,045	3,212	2,771	2,526	2,632	2,692	2,359	2,323	2,260	2,823	31,919
2,774	2,402	2,957	3,007	2,598	2,306	2,116	2,284	2,147	2,168	2,146	2,803	29,706
1,159	1,008	1,248	1,200	1,046	833	815	788	811	915	930	1,192	11,945
74	64	74	90	46	38	45	36	34	49	59	78	687
128	115	138	172	164	159	210	211	192	127	167	153	1,936
124	99	136	148	119	113	106	117	111	131	148	129	1,483

TABLE No. 6.

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR 1915.

	General Diseases.																					
	1		2		3		4		5		6		7		8		9		10		11	
	Typhoid Fever.		Typhus Fever.		Relapsing Fever		Malarial Fever.		Smallpox.		Measles.		Scarlet Fever.		Whooping Cough.		Diphtheria and Croup.		Influenza		Miliary Fever	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	332		.		. .		11		.		630		291		397		1,278		526			
	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M	F.
Total, by sexes	214	118	....	....	....	....	9	2	....	....	343	287	155	136	165	232	670	608	242	284	.	
Under 1 year..	....	1	.	....	.	.	....	....	....	.	86	68	3	6	89	119	70	77	17	19		.
1 year	3	....	.	.	.	.	.	....	.	.	160	133	24	18	47	69	176	138	8	5		
2 years.....	1		.	.	.	.	.	....	.	.	53	41	31	20	18	19	115	89	5	4		
3 years....	1	2	.	....	.	....	.	.	.	.	18	18	24	27	4	13	73	86	4	4		
4 years	1	1	.	.	.	.	1		.	.	9	5	10	11	1	6	82	61	1	2		
T't'l under 5 y'rs	6	4	.	.	.	.	1		.	.	326	265	92	82	159	226	516	451	35	34		
5 to 9 years....	7	13	....	....	....	....	....	....	....	....	13	17	39	40	5	6	120	114	2	2		
10 to 14 years	17	11	.	.	.	.	.	.	.	.	1	2	13	6	1		17	21	4	7		
15 to 19 years.	32	17	.	.	.	.	.	.	.	.	1	1	3				1	5	4	4		
20 to 24 years..	41	22	.	.	.	.	1	....	.	.	....	.	2	5	.		3	3	9	6		
25 to 29 years	29	12	.	.	.	.	.	.	.	.	2	1	1	.	.		2	4	8	8		
30 to 34 years..	20	7	.	.	.	.	1	.	.	.	.	1	3	1	....		2	3	9	7		
35 to 39 years..	13	11	.	.	.	.	.	1	.	.	.	.	1	1	....		2	2	12	8		
40 to 44 years	15	3	.	.	.	.	1	.	.	.	.	.	1	.	.		4	1	12	10		
45 to 49 years	10	7	.	.	.	.	.	.	.	.	.	.	.	.	.		1		16	12		
50 to 54 years.	8	6	.	.	.	.	1	.	.	.	.	.	.	1	.	.	.	2	17	17	.	
55 to 59 years.	4	3	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	1	23	21	.	
60 to 64 years	4	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	1	1	20	26	.	
65 to 69 years	1	2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	1	.	24	33	.	
70 to 74 years	2	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	.	20	29	.	
75 to 79 years	2	.	.	.	.	.	.	1	.	.	.	.	.	.	.	.	.	.	13	27	.	
80 to 84 years	....	....	....	....	....	....	1	.	....	....	....	....	....	....	....	....	....	....	7	17	.	
85 yrs. and over	....	....	....	....	....	....	.	.	....	....	....	....	....	....	....	.	....	....	7	16	.	
Colored . . .	2	3	....	....	.	....	.	1	....	....	2	5	.	2	12	13	14	12	4	12	.	
Chinese	1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	....	
Japanese	1	.	..								.	.	.	.			.	.			....	

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR 1915.—Continued.

	General Diseases—*Continued.*																					
	12. Asiatic Cholera.		13. Cholera Nostras.		14. Dysentery.		15. Plague.		16. Yellow Fever.		17. Leprosy.		18. Erysipelas.		19. Other Epidemic Diseases.		20. Pyaemia, Septicaemia.		21. Glanders.		22. Malignant Pustule	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	....		....		45		....		....		....		353		19		71		1		9	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes..	....	....	....	....	25	20	....	....	....	....	....	....	207	146	10	9	45	26	1	....	6	3
Under 1 year...	....	....	....	....	6	5	....	....	....	....	....	....	74	68	4	4	5	4	....	....	....	....
1 year.....	....	....	....	....	6	2	....	....	....	....	....	....	2	4	5	2	....	....	....	....	....	....
2 years.....	....	....	....	....	1	1	....	....	....	....	....	....	1	4	....	1	1	1	....	....	....	....
3 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....
4 years.....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....
T't'l under 5 y'rs	....	....	....	....	14	8	....	....	....	....	....	....	77	76	9	7	6	7	....	....	....	....
5 to 9 years....	....	....	....	....	....	1	....	....	....	....	....	....	1	1	....	....	1	1	....	....	....	1
10 to 14 years..	....	....	....	....	....	1	....	....	....	....	....	....	1	1	1	....	2	....	....	....	....	....
15 to 19 years..	....	....	....	....	....	....	....	....	....	....	....	....	2	..	....	1	4	2	....	....	....	1
20 to 24 years..	....	....	....	....	2	....	....	....	....	....	....	....	1	7	....	....	3	....	....	....	....	1
25 to 29 years..	....	....	....	....	....	1	....	....	....	....	....	....	8	3	....	....	2	2	1	....	1	..
30 to 34 years..	....	....	....	....	1	....	....	....	....	....	....	....	9	5	....	....	8	1	....	....	1	
35 to 39 years..	....	....	....	....	2	2	....	....	....	....	....	....	11	6	....	1	5	..	....	....	....	
40 to 44 years..	....	....	....	....	1	....	....	....	....	....	....	....	18	11	....	....	2	1	....	....	....	..
45 to 49 years..	....	....	....	....	....	....	....	....	....	....	....	....	13	5	....	....	2	6	....	....	1	
50 to 54 years..	....	....	....	....	....	1	....	....	....	....	....	....	19	2	....	....	3	2	....	....	2	
55 to 59 years..	....	....	....	....	2	1	....	....	....	....	....	....	15	5	....	....	2	1	....	....	....	
60 to 64 years..	....	....	....	....	1	2	....	....	....	....	....	....	10	5	....	....	3	1	....	....		
65 to 69 years..	....	....	....	....	....	1	....	....	....	....	....	....	6	11	....	....	2	1	....	....		
70 to 74 years..	....	....	....	....	....	1	....	....	....	....	....	....	8	3	....	....	....	1	....	....	1	
75 to 79 years..	....	....	....	....	1	1	....	....	....	....	....	....	4	3	....	....	....	....	....	....	....	..
80 to 84 years..	....	....	....	....	1	....	....	....	....	....	....	....	1	2	....	....	....	....	....	....	....	
85 y'rs and over	....	....	....	....	....	....	....	....	....	....	....	....	3	....	....	....	....	....	....	....	....	
Colored.....	....	....	....	....	....	....	....	....	....	....	....	....	4	2	....	....	2	1	....	....	....	
Chinese.....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	....	....	....	....	....	....	

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR 1915.—Continued.

	General Diseases—*Continued.*																					
	23. Hydrophobia.		24. Tetanus, Trismus.		25. Mycoses.		26. Pellagra.		27. Beriberi.		28. Tuberculosis of Luugs.		29. Acute Miliary Tuberculosis.		30. Tuberculous Meningitis.		31. Abdominal Tuberculosis.		32. Pott's Disease.		33 White Swelling.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	1		33		7		4		. . .		8,825		282		780		134		62		34	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes.	1	....	19	14	6	1	....	4	...	....	5,873	2,952	169	113	394	386	67	67	41	21	22	12
Under 1 year...	....	....	5	4	1	....	....	....	....	....	28	18	17	7	90	81	3	7	1	1	1	
1 year.....	....	....	....	1	....	....	....	....	....	....	26	26	13	11	77	68	10	4	..	..	..	1
2 years.....	....	....	1	1	....	....	....	....	....	....	15	12	8	2	43	49	4	1	1	2	..	..
3 years.....	....	....	....	....	....	....	....	....	....	....	5	9	4	2	30	29	1	1	2	1	1	3
4 years.....	....	....	....	1	....	....	....	....	....	....	9	3	..	1	21	25	3	1	4	1	.	.
T't'l under 5 y'rs	....	....	6	7	1	....	....	....	....	....	83	68	42	23	261	252	21	14	8	5	2	4
5 to 9 years....	....	....	....	3	....	....	....	....	....	....	30	34	. .	7	49	52	3	7	4	1	6	1
10 to 14 years..	....	....	....	....	....	....	....	....	....	....	29	80	1	6	14	21	3	2	2	4	. .	1
15 to 19 years..	1	....	2	1	....	....	....	....	....	....	263	268	8	10	11	17	2	2	6	2	3	2
20 to 24 years..	....	....	2	....	1	1	....	....	....	....	499	474	15	18	10	9	5	9	6	4	3	
25 to 29 years..	....	....	3	2	....	....	....	1	....	....	634	449	16	10	10	9	10	10	4	1	1	2
30 to 34 years..	....	....	2	....	1	....	....	1	....	....	775	354	13	9	12	8	4	5	..	4	1	1
35 to 39 years..	....	....	1	1	1	....	....	1	....	....	858	360	18	5	7	9	5	5	1	.	2	
40 to 44 years..	....	....	1	....	....	....	....	....	....	....	785	253	19	8	12	4	2	5	2	....	....	
45 to 49 years..	....	....	1	....	....	....	....	....	....	....	691	190	20	4	5	3	4	4	1	....	4	
50 to 54 years..	....	....	1	....	1	....	....	....	....	....	519	137	6	3	1	1	....		3	....		1
55 to 59 years..	....	....	....	....	....	....	....	....	....	....	321	97	5	4	2	....	5	1	3	....		
60 to 64 years..	....	....	....	....	....	....	....	1	....	....	190	96	3	3	....	....	....	2	..	....		
65 to 69 years..	....	....	....	....	1	....	....	....	....	....	106	35	....	2	....	....	....	1	....	....		..
70 to 74 years..	....	....	....	....	....	....	....	....	....	....	57	38	1	....	....	1	3	....	....	....		..
75 to 79 years..	....	....	....	....	....	....	....	....	....	....	21	13	2	....	....	....	....	....	1	....	....	
80 to 84 years..	....	....	....	....	....	....	....	....	....	....	10	4	....	....	....	....	....	....	..	....	....	
85 y'rs and over	....	....	....	....	....	....	....	....	....	....	2	2	....	1	....	....	....	....	....	....	....	....
Colored.....	....	....	1	....	....	....	....	1	....	....	313	233	17	15	18	25	6	10	2	1	....	
Chinese.....	....	....	....	....	....	....	....	....	....	....	28	1	....	....	....	....	....	....	....	....	....	.
Japanese.....	....	....	....	....	....	....	....	....	....	....	9	....	1	....	....	1	....	....	....	....	.	.

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR 1915.—Continued.

	General Diseases—*Continued.*																					
	34 Tuberculosis of Other Organs.		35 General Tuberculosis.		36 Rachitis.		37 Syphilis.		38A Soft Chancre.		38B Gonococcic Infection.		39 Cancers, &c., of the Mouth.		40 Cancer of Stomach, Liver.		41 Cancer of Intestines, Rectum.		42 Cancer of Female Genital Organs.		43 Cancer of Breast.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	79		53		61		534		8		19		158		1,801		694		657		399	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes..	46	33	26	27	29	32	330	204	8	....	1	18	149	9	952	849	314	380	....	657	6	393
Under 1 year...	7	5	6	6	21	17	96	107	2	....	1	1	....	....	1	....	....	....	....	....	....	..
1 year.....	3	2	8	7	3	12	4	5	....	....	..	1	....	....	..	....	....	....	....	....	..	..
2 years.....	....	2	1	3	....	1	3	2	....	....	....	....	....	....	1	..	....	1	....	1	....	..
3 years.....	....	....	....	1	2	1	2	2	....	....	....	....	....	....	..	..	....	....	....	....	....	..
4 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	..	1	....	....	....	....	..
T't'l under 5 y'rs	10	9	15	17	26	31	105	116	2	....	1	2	....	....	2	....	1	1	....	1	....	..
5 to 9 years....	2	....	....	2	1	....	1	1	....	....	....	....	....	1	1	....	1	....	....	....	....	..
10 to 14 years..	1	3	1	..	1	....	1	1	....	....	....	....	....	..	..	..	1	....	....	....	....	..
15 to 19 years..	2	2	....	2	....	....	3	2	1	....	....	2	....	..	..	1	1	....	....	3	....	..
20 to 24 years..	3	3	1	2	....	....	8	3	....	....	....	3	2	1	2	1	3	7	....	1	....	1
25 to 29 years..	5	3	....	1	....	....	13	12	....	....	....	4	2	....	7	4	7	10	....	22	....	2
30 to 34 years..	2	1	1	1	....	....	27	12	1	....	....	4	2	....	17	17	7	16	....	27	....	13
35 to 39 years..	2	3	2	....	1	....	34	9	....	....	....	2	4	....	40	41	14	17	....	48	1	39
40 to 44 years..	5	2	1	....	....	....	45	14	1	....	....	1	4	....	64	64	21	29	....	85	..	46
45 to 49 years..	5	3	3	1	....	1	37	10	....	....	....	....	14	....	117	83	28	25	....	101	..	56
50 to 54 years..	3	1	....	....	....	....	17	10	2	....	....	....	30	....	150	111	43	39	....	118	1	57
55 to 59 years..	2	....	2	....	....	....	16	5	....	....	....	....	29	2	157	127	49	48	....	81	..	53
60 to 64 years..	2	....	....	1	....	....	14	4	....	....	....	....	20	1	139	119	47	55	....	69	2	44
65 to 69 years..	1	2	....	....	....	....	5	4	1	....	....	....	15	1	119	120	42	50	....	49	2	25
70 to 74 years..	1	....	....	....	....	....	3	1	....	....	....	....	12	1	77	96	30	46	....	33	..	23
75 to 79 years..	....	1	....	....	....	....	1	....	....	....	....	....	11	1	39	39	14	22	....	14	....	21
80 to 84 years..	....	....	....	....	....	....	....	....	....	....	....	..	3	..	13	24	4	7	....	4	....	11
85 y'rs and over	....	....	....	....	....	....	....	....	....	....	....	..	1	1	8	7	1	8	....	1	....	2
Colored.....	4	....	5	4	2	5	44	27	....	....	....	3	2	....	8	12	3	12	....	30	1	9
Chinese.....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	3	....	....	....	....	....	....	1
Japanese.....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR 1915—Continued.

	General Diseases—*Continued.*																					
	44 Cancer of Skin.		45 Cancer of Other Organs.		46 Other Tumors (except of Female Genital Organs).		47 Acute Articular Rheumatism.		48 Chronic Rheumatism and Gout.		49 Scurvy.		50 Diabetes.		51 Exophthalmic Goitre.		52 Addison's Disease.		53 Leukaemia		54 Anaemia Chlorosis.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes		Both Sexes		Both Sexes.	
Total, all ages..	78		860		25		273		57		10		1,109		57		17		141		171	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F	M.	F.	M.	F.	M.	F.
Total by sexes..	49	29	554	306	16	9	137	136	27	30	6	4	462	647	8	49	10	7	95	46	62	109
Under 1 year...	....	....	3	1	1	....	....	2	....	....	4	2	....		..	..	..	..	2			1
1 year.....	....	....	1	2	....	....	1	1	....	..	1	1			..	..	..	..	1	2	1	2
2 years.....	....	....	4	1	....	....	3	..	....	..	..	1	1		....	..	..	..	3	..		
3 years.....	....	....	1	....	1	....	1	5	....	..	..	..	....	3	....	..	..	..	2	3		
4 years.....	....	....	2	3	....	1	5	5	....	..	..	..	..	..	..	..	..	..	2	3	1	
T't'l under 5 y'rs	....	....	11	7	2	1	10	13	....	....	5	4	1	3	..	..	..	..	13	8	2	3
5 to 9 years....	....	....	6	5	2	....	29	29	....	..	1		4	4					5	2		3
10 to 14 years..	....	....	6	1	....	....	29	21	2	1	....		6	8				1	4		1	
15 to 19 years..	....	....	2	8	1	....	12	8	..	....	....		7	6		3			5	4		6
20 to 24 years..	....	....	15	3	1	1	11	9	1	1	....		8	8	1	4		1	7	5	2	2
25 to 29 years..	....	....	13	10	....	....	7	6	1	..	....		12	10	1	4		1	8	4	3	6
30 to 34 years..	1	....	19	8	....	....	6	4	....	1	....		12	13		6	2		6	4	5	4
35 to 39 years..	4	....	34	15	....	....	6	5	....	....	....		20	10	1	8	1		5	1	5	6
40 to 44 years..	5	1	38	32	2	....	3	5	2	....	....		29	28	2	5	2	1	7	4	5	9
45 to 49 years..	5	2	63	36	1	....	2	12	1	1	....	..	30	53	2	5	3	2	5	2	9	16
50 to 54 years..	4	3	77	41	2	3	6	5	....	2	....	..	68	83		5			7	4	10	13
55 to 59 years..	9	5	70	37	1	1	6	6	5	5	....	....	66	102	1	4			9	5	4	14
60 to 64 years..	7	2	58	31	3	2	3	3	3	3	....	....	77	98	....	2	1		6	1	5	13
65 to 69 years..	7	2	58	36	1	1	3	5	3	3	....	..	53	94	..	1	1	1	3		5	3
70 to 74 years..	3	3	45	15	....	....	1	3	8	5	....	..	35	62	..				4	1	4	6
75 to 79 years..	1	2	23	13	....	....	1	1	1	5	....	..	22	55	..	1			1	1	2	2
80 to 84 years..	....	5	12	6	....	....	....	1	....	3	....	..	12	8	..	1						2
85 y'rs and over	3	4	4	2	....	....	2	....	....	....	....	..	....	2	....	..						1
Colored.....	....	1	6	6	1	....	3	6	....	....	....	....	5	17	....	....		..	1		..	1
Chinese.....	1	....	1	..	....	....	....	....	....	....	....	....	1	..	....	....		..	1		....	
Japanese.....	....	....	1	....	....	....	....	....	....	....	....	....	..	..	....	..	1	..	..	..	....	

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR 1915.—Continued.

	General Diseases—*Continued.*										Diseases of Nervous System and Organs of Sense.											
	55 Other General Diseases.		56 Alcoholism Acute and Chronic.		57 Lead Poisoning.		58 Other Chronic Poisonings of Occupation.		59 Other Chronic Poisonings.		60 Encephalitis.		61 Simple Meningitis (nf which).		61A Cerebro-Spinal Meningitis.		62 Locomotor Ataxia.		63 Other Diseases of Spinal Cord (of which).		63A Anterior Poliomyelitis.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	56		562		13		1		19		35		313		119		90		198		13	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total, by sexes	26	30	445	117	12	1	1	....	15	4	23	12	182	131	65	54	73	17	114	84	6	7
Under 1 year...	11	9	....	....	....	....	....	....	....	....	3	4	37	34	10	11	....	....	5	4	3	2
1 year.....	1	1	....	....	....	....	....	....	....	....	....	1	29	21	10	13	....	....	4	5	1	2
2 years.....	....	1	....	....	....	....	....	....	....	....	....	....	6	10	3	1	....	....	....	3	....	....
3 years.....	....	....	....	....	....	....	....	....	....	....	....	1	8	5	1	4	....	....	3	1	1	1
4 years.....	2	1	....	....	....	....	....	....	....	....	....	....	4	6	3	3	....	....	1	....	....	....
T't'l under 5 y'rs	14	12	....	....	....	....	....	....	....	....	3	6	84	76	27	32	....	....	13	13	5	5
5 to 9 years....	3	1	....	....	....	....	....	....	....	....	1	....	19	11	11	5	....	....	6	2	....	....
10 to 14 years..	1	2	....	....	....	....	....	....	....	....	1	1	9	4	5	2	....	....	....	2	....	....
15 to 19 years..	1	3	1	....	....	....	....	....	2	....	....	....	14	7	5	6	....	....	4	3	....	....
20 to 24 years..	1	1	3	1	2	....	....	....	5	....	2	2	9	2	2	....	....	....	4	....	....	....
25 to 29 years..	4	....	26	10	1	....	....	....	3	1	3	....	14	2	6	....	1	1	3	2	....	....
30 to 34 years..	....	2	45	15	1	....	1	....	1	1	2	1	8	7	1	5	2	1	3	2	....	....
35 to 39 years..	1	....	81	23	2	1	....	....	....	1	3	....	2	4	....	1	4	....	7	3	....	....
40 to 44 years..	....	....	97	23	....	....	....	....	1	....	1	1	3	7	2	....	7	2	9	6	1	1
45 to 49 years..	1	3	53	13	1	....	....	....	2	1	2	....	7	4	2	2	12	2	8	6	....	....
50 to 54 years..	....	2	56	13	1	....	....	....	....	....	1	....	4	2	....	1	13	3	11	10	....	1
55 to 59 years..	....	1	31	4	2	....	....	....	1	....	....	1	3	2	2	....	11	1	10	5	....	....
60 to 64 years..	....	....	30	8	2	....	....	....	....	....	1	....	4	....	2	....	12	3	14	6	....	....
65 to 69 years..	....	1	14	4	....	....	....	....	....	....	1	....	2	2	....	....	6	2	12	8	....	....
70 to 74 years..	....	1	6	3	....	....	....	....	....	....	....	....	....	....	....	....	4	....	2	6	....	....
75 to 79 years..	....	....	2	....	....	....	....	....	....	....	....	....	....	1	....	....	1	2	3	5	....	....
80 to 84 years..	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	....	1	5	....	....
85 yrs. and over	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
Colored.....	....	1	8	3	....	....	....	....	....	1	....	1	6	7	....	1	1	1	1	1	....	....
Chinese.....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	Diseases of Nervous System and Organs of Sense.																					
	64 Apoplexy, Cerebral Hemorrhage.		65 Softening of Brain.		66 Paralysis, Unspecified.		67 General Paresis.		68 Other Forms of Insanity.		69 Epilepsy		70 Convulsions (not Puerperal).		71 Convulsions of Infants.		72 Chorea.		73A Hysteria.		73B Neuralgia and Neuritis.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	946		16		56		263		82		134		....		68		13		10		19	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total, by sexes.	480	466	8	8	29	27	202	61	34	48	80	54	....	....	40	28	4	9	5	5	12	7
Under 1 year..	2	5	....	....	....	....	....	....	....	....	3	1	....	....	34	22	....	....	....	....	....	....
1 year.....	1	....	....	1	1	....	....	....	....	....	....	....	....	....	3	4	....	....	....	....	....	....
2 years.....	....	....	....	....	....	....	....	....	....	....	1	3	....	....	3	1	1	....	....	....	....	....
3 years.....	....	1	....	....	....	....	....	....	....	....	2	1	....	....	....	1	....	....	....	....	....	....
4 years.....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
T't'l under 5 y'rs	3	6	....	1	1	....	....	....	....	....	7	5	....	....	40	28	1	....	....	....	....	....
5 to 9 years....	....	....	....	....	....	....	....	....	....	....	4	2	....	....	....	....	....	2	....	....	....	....
10 to 14 years..	3	....	....	....	....	1	....	1	....	....	5	4	....	....	....	....	2	2	....	....	1	....
15 to 19 years..	3	....	....	....	1	....	1	....	1	2	7	3	....	....	....	....	....	2	....	....	....	....
20 to 24 years..	2	2	....	....	....	....	2	....	4	9	4	5	....	....	....	....	1	....	....	....	1	....
25 to 29 years..	5	3	....	....	....	....	8	1	3	7	5	9	....	....	....	....	....	....	....	....	1	....
30 to 34 years..	3	4	....	....	....	....	12	5	4	2	9	8	....	....	....	....	....	....	....	1	2	....
35 to 39 years..	8	8	1	....	....	....	39	6	8	3	13	1	....	....	....	....	....	2	....	1	2	2
40 to 44 years..	25	13	....	....	....	....	38	10	2	5	8	4	....	....	....	....	....	....	1	....	2	....
45 to 49 years..	30	26	2	....	....	1	36	7	....	5	4	5	....	....	....	....	....	....	1	....	1	2
50 to 54 years..	57	49	....	....	1	3	27	7	2	6	2	2	....	....	....	....	....	....	1	1	....	....
55 to 59 years..	67	49	1	....	2	1	18	7	3	3	3	2	....	....	....	....	....	....	1	1	1	....
60 to 64 years..	66	57	2	....	6	2	7	2	3	3	5	2	....	....	....	....	....	....	1	....	1	....
65 to 69 years..	78	62	2	2	2	5	5	4	....	1	3	....	....	....	....	....	....	1	....	1	....	2
70 to 74 years..	47	81	....	2	7	7	6	3	3	....	1	....	....	....	....	....	....	....	....	....	....	1
75 to 79 years..	40	54	....	1	5	2	1	1	1	1	....	1	....	....	....	....	....	....	....	....	....	....
80 to 84 years..	27	31	....	1	3	5	2	4	....	....	....	1	....	....	....	....	....	....	....	....	....	....
85 yrs. and over	16	21	....	1	1	....	....	3	....	1	....	....	....	....	....	....	....	....	....	....	....	....
Colored.....	6	17	....	....	1	1	8	3	....	....	3	....	....	....	....	....	....	....	....	....	1	....
Chinese.....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	Diseases of Nervous System and Organs of Sense.										Diseases of Circulatory System.											
	74 Other Nervous Diseases.		75A Follicular Conjunctivitis.		75B Trachoma.		75C Other Diseases of Eye and Appendages.		76 Diseases of Ear.		77 Pericarditis.		78 Acute Endocarditis.		79 Organic Heart Disease.		80 Angina Pectoris.		81 Diseases of Arteries, Aneurism, etc.		82 Embolism Thrombosis	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	183		1		1		....		249		63		435		10,383		286		2,210		116	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total, by sexes	106	77	....	1	1	....	....	....	148	101	32	31	218	217	5,092	5,291	191	95	1,123	1,087	50	66
Under 1 year..	11	9	....	....	....	....	....	....	33	14	....	1	8	2	11	13	....	....	....	....	....	1
1 year.....	2	3	....	....	....	....	....	....	5	14	....	....	4	3	4	4	....	....	....	....	1	....
2 years.....	6	3	....	....	....	....	....	....	8	1	....	....	2	1	4	4	....	....	....	....	....	1
3 years.....	1	2	....	1	....	....	....	....	5	1	....	....	1	2	5	10	....	....	....	....	....	....
4 years.....	2	1	....	....	....	....	....	....	3	4	....	....	3	4	6	5	....	....	....	....	....	....
T'tl under 5 y'rs	22	18	....	1	....	....	....	....	54	34	....	1	18	12	30	36	....	....	....	....	1	2
5 to 9 years..	7	4	....	....	....	....	....	....	12	7	4	3	15	22	74	83	....	....	....	....	....	1
10 to 14 years	6	4	....	....	1	....	....	....	4	9	....	3	9	18	74	94	....	....	....	....	....	1
15 to 19 years	8	1	....	....	....	....	....	....	14	3	1	3	11	12	74	96	....	....	....	....	....	1
20 to 24 years	9	5	....	....	....	....	....	....	6	7	....	....	15	15	99	113	1	....	4	....	1	1
25 to 29 years..	8	4	....	....	....	....	....	....	14	2	3	5	14	21	110	126	1	2	1	4	2	2
30 to 34 years..	7	4	....	....	....	....	....	....	7	3	4	5	18	17	174	166	1	....	10	1	4	1
35 to 39 years..	7	8	....	....	....	....	....	....	12	4	2	4	14	13	224	203	2	....	21	13	4	2
40 to 44 years..	14	7	....	....	....	....	....	....	4	5	2	1	20	17	314	279	12	6	30	28	2	2
45 to 49 years..	5	8	....	....	....	....	....	....	7	9	2	3	23	12	393	348	19	4	63	57	3	8
50 to 54 years..	2	5	....	....	....	....	....	....	5	5	3	1	22	15	478	414	29	14	107	84	6	4
55 to 59 years..	5	4	....	....	....	....	....	....	3	3	6	1	12	15	550	472	36	10	127	89	6	6
60 to 64 years..	3	5	....	....	....	....	....	....	4	5	2	....	7	8	625	624	33	10	151	120	4	5
65 to 69 years..	....	....	....	....	....	....	....	....	1	....	2	....	8	9	575	645	21	19	144	131	6	6
70 to 74 years	2	....	....	....	....	....	....	....	1	2	1	....	5	4	521	621	17	16	162	181	4	5
75 to 79 years.	....	....	....	....	....	....	....	....	....	1	....	1	5	3	411	424	12	3	144	163	4	8
80 to 84 years..	1	....	....	....	....	....	....	....	....	1	....	....	1	2	235	322	5	9	79	125	3	6
85 yrs. and over	....	....	....	....	....	....	....	....	....	1	....	....	1	2	131	225	2	2	80	91	....	5
Colored.....	....	2	....	....	....	....	....	....	6	1	3	4	9	10	140	156	....	1	26	23	2	2
Chinese.....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	4	....	....	....	3	....	....	....
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	Circulatory System—*Continued.*						Diseases of Respiratory System.															
	83 Diseases of Veins (Hæmorrhoids, Varices, Phlebitis, etc.).		84 Diseases of Lymphatics (Lymphangitis, etc.).		85 Hæmorrhage.		86 Diseases of Nasal Fossæ.		87 Diseases of Larynx.		88 Diseases of Thyroid Glands.		89 Acute Bronchitis.		90 Chronic Bronchitis.		91 Broncho Pneumonia.		92 Lobar Pneumonia.		93 Pleurisy.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	47		51		5		9		28		31		711		164		4,836		6,086		274	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total, by sexes	9	38	28	23	2	3	4	5	21	7	4	27	356	355	82	82	2,496	2,340	3,519	2,567	165	109
Under 1 year...	....	....	19	13	....	....	1	....	7	....	....	....	235	210	3	1	1,139	938	303	253	15	14
1 year.....	....	....	1	3	....	....	....	....	1	1	....	....	45	41	2	....	540	496	210	193	19	15
2 years.....	....	....	....	....	....	....	....	....	1	1	....	....	10	6	....	....	144	113	89	79	9	4
3 years.....	....	....	....	1	....	....	1	....	3	....	....	....	2	4	....	1	58	54	40	26	7	3
4 years.....	....	....	....	....	....	....	....	1	....	....	....	....	2	1	....	....	29	23	28	23	1	2
T't'l under 5 y'rs	....	....	20	17	....	....	2	1	12	2	....	....	294	262	5	2	1,910	1,624	670	574	51	38
5 to 9 years	....	....	3	1	....	....	....	....	2	2	....	....	3	5	....	1	41	49	54	55	5	2
10 to 14 years..	....	1	2	....	....	....	....	....	....	....	....	1	1	1	....	1	5	13	30	55	1	1
15 to 19 years..	....	1	....	2	....	....	....	....	....	....	1	1	....	....	3	1	13	8	82	51	2	3
20 to 24 years..	1	1	1	1	....	....	....	....	....	....	....	1	....	....	1	1	9	11	123	74	5	7
25 to 29 years..	1	2	....	....	1	....	....	....	2	....	1	4	....	1	2	1	14	12	179	107	9	6
30 to 34 years..	....	3	....	....	....	....	1	1	....	....	1	2	....	5	1	2	18	18	208	114	9	5
35 to 39 years..	....	2	....	....	....	....	....	....	1	....	....	2	2	1	1	....	23	18	260	119	11	7
40 to 44 years..	....	4	....	1	....	....	1	....	1	1	....	2	1	1	4	1	30	24	305	157	13	5
45 to 49 years..	1	6	....	....	....	....	....	....	....	....	1	2	1	1	2	1	51	30	285	159	8	1
50 to 54 years..	2	1	2	....	....	....	....	1	1	....	....	4	1	2	5	....	49	34	308	161	13	9
55 to 59 years..	1	3	....	....	....	1	....	....	....	....	....	1	3	3	4	6	48	49	266	184	11	5
60 to 64 years..	....	6	....	1	....	....	....	....	1	....	....	2	8	2	8	14	60	82	260	183	7	2
65 to 69 years..	1	4	....	....	....	....	....	1	....	....	....	2	8	14	9	8	45	93	184	202	5	6
70 to 74 years..	1	3	....	....	....	1	....	....	....	....	....	1	10	11	13	14	71	85	142	144	11	2
75 to 79 years..	....	....	....	....	1	....	....	....	....	....	....	....	9	12	8	6	50	86	92	116	2	6
80 to 84 years..	....	1	....	....	....	....	....	1	....	1	....	2	9	22	6	12	39	49	47	74	2	3
85 yrs. and over	1	....	....	....	....	1	....	....	1	1	....	....	6	12	10	11	20	55	24	38	....	1
Colored.....	....	2	1	1	....	....	....	....	2	....	....	1	12	16	2	2	93	88	165	88	5	5
Chinese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	8	....	1	....
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....

DEATHS BY SEX, AGE AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915—Continued.

	Diseases of Respiratory System—*Continued.*										Diseases of Digestive System.											
	94 Congestion of Lungs Pulmonary Apoplexy.		95 Gangrene of Lung.		96 Asthma.		97 Pulmonary Emphysæmia.		98 Other Diseases of Respiratory System.		99A Diseases of Teeth and Gums.		99B Other Diseases of Mouth.		100 Angina and Other Diseases of Pharynx.		101 Diseases of Œsophagus.		102 Ulcer of the Stomach.		103 Other Diseases of Stomach (Cancer excepted).	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	40		9		85		28		45		19		9		122		4		286		157	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total, by sexes.	19	21	6	3	39	46	19	9	31	14	12	7	4	5	64	58	3	1	198	88	90	67
Under 1 year...	1	3	....	....	....	....	....	....	....	1	4	3	1	....	17	13	....	....	1	1	28	17
1 year.....	2	....	....	....	1	....	....	....	....	1	....	....	....	1	9	10	....	....	....	....	7	3
2 years.....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	5	....	....	....	....	3	....
3 years.....	....	....	....	....	1	....	1	....	....	....	....	....	1	....	4	2	....	....	....	....	1	1
4 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	3	....	....	....	....	....	....
T't'l under 5 y'rs	3	3	....	....	2	1	1	....	....	2	4	3	2	1	35	33	....	....	1	1	39	21
5 to 9 years....	....	....	....	....	....	....	....	....	1	....	2	1	....	2	4	7	....	....	1	1	1	1
10 to 14 years..	....	....	....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	1
15 to 19 years..	....	....	....	....	....	....	....	....	....	2	1	....	....	....	2	2	....	....	2	2	....	....
20 to 24 years..	....	....	....	....	....	1	....	....	....	1	....	....	....	....	4	3	....	....	7	6	....	....
25 to 29 years..	....	....	1	....	....	1	2	....	2	1	1	....	....	....	4	2	....	....	14	6	1	2
30 to 34 years..	....	....	....	....	1	1	....	....	....	....	....	....	....	1	5	1	....	....	22	6	....	1
35 to 39 years..	....	....	1	....	3	1	....	....	6	1	....	....	....	....	1	1	1	....	32	8	5	1
40 to 44 years..	....	1	....	....	2	1	....	....	3	....	2	....	....	1	1	....	....	....	24	11	3	3
45 to 49 years..	....	....	2	....	1	2	1	....	3	1	....	2	....	....	....	....	....	....	22	13	5	3
50 to 54 years..	....	....	1	....	5	1	....	....	5	2	....	....	1	....	1	1	2	....	24	8	6	....
55 to 59 years..	....	1	....	2	3	6	2	....	6	1	....	....	....	....	3	3	....	....	19	3	4	7
60 to 64 years..	....	....	1	....	4	5	3	2	2	....	....	1	....	....	....	1	....	....	11	11	9	4
65 to 69 years..	4	2	....	....	3	11	2	1	2	1	....	....	....	....	2	....	....	....	10	4	6	5
70 to 74 years..	2	1	....	1	5	7	2	2	....	....	1	....	....	....	....	1	....	....	4	5	6	4
75 to 79 years..	1	6	....	....	6	5	3	2	1	....	....	....	....	....	1	1	....	....	5	1	2	8
80 to 84 years..	6	2	....	....	3	....	1	1	....	1	....	....	....	....	....	1	....	1	....	1	3	3
85 yrs. and over	3	5	....	....	1	3	2	1	....	1	....	....	....	....	....	1	....	....	....	1	....	3
Colored.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	2	....	....	3	2	3	2
Chinese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	Diseases of Digestive System—*Continued.*																					
	104 Diarrhœa and Enteritis (under 2 years).		105 Diarrhœa and Enteritis (2 years and over).		106 Ankylostomiasis.		107 Intestinal Parasites.		108 Appendicitis and Typhlitis.		109 Hernia, Intestinal Obstruction.		110A Diseases of Anus and Stercoral Fistulæ.		110B Other Diseases of Intestines.		111 Acute Yellow Atrophy of Liver.		112 Hydatid Tumor of Liver.		113 Cirrhosis of Liver.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes		Both Sexes.	
Total, all ages..	3,734		469		....		2		723		564		26		56		13		2		721	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total, by sexes.	2,048	1,686	234	235	....	....	1	1	435	288	259	305	17	9	29	27	6	7	....	2	458	263
Under 1 year...	1,757	1,416	....	....	....	....	....	1	1	1	41	31	2	..	4	3	1	1	....	..	..	..
1 year	291	270	....	..	....	....	....	..	2	1	6	2	1	..	..	..	..	..	..	..	..	....
2 years.....	....	....	67	48	....	....	....	....	9	3	....	..	..	..	1	..	..	..	..	..	1	..
3 years.....	....	....	29	18	....	....	....	....	3	2	....	2	....	....	..	..	..	..	..	..	..	..
4 years.....	..	..	18	10	....	....	1	..	6	4	3	1	..	....	..	..	..	..	..	..	1	..
T't'l under 5 y'rs	2,048	1,686	114	76	....	....	1	1	21	11	50	36	3	....	5	3	1	1	....	....	2	.
5 to 9 years ...	...	....	19	15	....	....	....	....	27	18	5	2	....	....	1	2	1	..	..	..	1	1
10 to 14 years..	....	....	3	3	....	....	....	....	35	35	3	1	....	..	..	1	..	..	..	..	..	2
15 to 19 years ..	....	....	3	3	....	....	....	....	32	15	6	2	1	..	..	..	..	..	..	..	2	1
20 to 24 years ..	....	....	3	4	..	....	....	..	35	27	3	7	1	2	..	1	..	..	..	..	1	..
25 to 29 years..	....	....	4	4	....	....	....	..	37	25	8	10	....	1	..	2	..	..	..	1	4	3
30 to 34 years..	....	....	5	4	....	....	....	....	39	25	4	14	2	....	..	2	1	..	..	1	14	15
35 to 39 years..	....	....	2	9	....	....	....	....	36	32	17	9	1	1	3	1	..	2	..	..	26	40
40 to 44 years..	....	....	11	5	....	....	....	....	39	24	15	25	2	1	2	1	1	2	....	..	56	27
45 to 49 years..	....	....	10	6	....	....	....	....	32	20	13	33	1	..	3	..	1	1	....	..	71	37
50 to 54 years..	....	....	10	11	....	....	....	....	40	20	35	21	1	1	1	..	..	..	..	..	80	41
55 to 59 years..	....	....	7	9	....	....	....	....	23	8	26	26	1	1	4	5	..	..	..	..	79	29
60 to 64 years..	....	....	10	8	....	....	....	....	13	13	15	42	2	..	1	..	..	..	..	..	44	21
65 to 69 years ..	....	....	10	17	....	....	....	....	12	6	15	31	....	1	4	1	..	1	....	..	33	18
70 to 74 years..	....	....	9	20	....	....	....	....	11	7	19	20	....	1	2	3	..	..	..	..	25	16
75 to 79 years ..	....	....	5	12	....	....	....	....	2	1	19	14	....	..	..	2	1	....	....	..	15	7
80 to 84 years ..	....	....	3	9	....	....	....	....	..	1	4	6	1	..	2	2	....	....	....	....	2	3
85 yrs. and over	....	....	6	20	....	....	....	....	1	....	2	6	1	..	1	1	..	....	....	..		2
Colored	70	60	6	11	....	....	....	....	15	9	10	10	....	2	4	....	....	....	....	1	3	4
Chinese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	

	Diseases of Digestive System—*Continued.*										Diseases of Genito Urinary System.											
	114 Biliary Calculi.		115 Other Diseases of Liver.		116 Diseases of Spleen.		117 Simple Peritonitis (Non-Puerperal).		118 Other Diseases of Digestive System (except Tuberculosis and Cancer).		119 Acute Nephritis.		120 Bright's Disease.		121 Chyluria.		122 Other Diseases of the Kidneys and Appendages.		123 Calculi of Urinary Tract.		124 Diseases of Bladder.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes	
Total, all ages..	160		179		10		40		49		445		5,076		1		110		44		61	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes..	44	116	95	84	6	4	15	25	30	19	228	217	2,609	2,467	....	1	58	52	29	15	49	12
Under 1 year...	....	....	3	1	1	1	....	4	1	....	13	20	5	3	....	....	6	3	....	....	....	..
1 year.....	....	....	2	....	....	1	....	....	....	....	6	11	3	1	....	....	1	1	....	....	....	..
2 years.....	....	....	....	....	1	....	....	1	....	....	4	5	2	2	....	....	....	....	....	....	....	1
3 years.....	....	....	1	....	....	....	1	1	....	....	4	7	3	6	....	....	....	....	....	....	....	..
4 years.....	....	....	1	....	....	....	1	....	....	....	4	1	1	....	....	....	2	....	....	....	1	..
T't'l under 5 y'rs	....	....	7	1	2	2	2	6	1	....	31	44	14	12	....	....	9	4	....	....	1	1
5 to 9 years....	....	....	3	1	....	....	1	2	....	....	11	9	3	6	....	....	....	1	1	....	1	..
10 to 14 years..	....	....	1	1	....	....	..	1	1	....	7	5	9	10	....	....	1	....	..	....	..	..
15 to 19 years..	....	1	....	2	....	....	....	....	....	....	8	10	13	24	....	....	....	2	....	....	....	..
20 to 24 years..	..	..	3	....	1	1	1	1	1	2	7	8	39	36	....	....	....	1	..	....	....	3
25 to 29 years..	1	2	5	....	....	....	2	2	5	2	17	11	48	48	....	....	2	4	1	1	..	..
30 to 34 years..	3	8	6	6	2	....	1	4	4	....	20	16	77	69	....	....	3	8	2	2	1	..
35 to 39 years..	2	12	9	5	....	....	1	4	3	3	12	19	137	111	....	....	8	3	1	..	1	
40 to 44 years..	4	9	8	17	....	....	4	2	4	2	22	16	178	178	....	....	4	4	2	3	1	
45 to 49 years..	10	13	14	6	....	....	....	....	2	2	20	13	252	204	....	....	5	7	5	1	..	..
50 to 54 years..	5	13	10	11	....	1	....	1	3	3	19	16	290	256	....	....	3	6	4	2	2	2
55 to 59 years..	5	20	7	5	....	....	....	....	2	1	10	14	326	245	....	....	5	1	3	3	5	2
60 to 64 years..	4	16	7	12	1	....	1	....	2	4	11	11	322	298	....	....	7	6	5	1	7	
65 to 69 years..	6	11	5	10	....	....	1	1	1	....	13	11	281	288	....	....	5	2	..	1	6	..
70 to 74 years..	3	3	5	3	....	....	....	....	1	....	13	9	266	271	....	....	4	....	2	....	9	1
75 to 79 years..	1	4	3	1	....	....	1	1	....	....	4	2	193	207	....	1	2	3	1	....	3	1
80 to 84 years..	..	4	....	2	....	....	....	....	....	....	1	2	97	132	....	....	....	....	1	....	6	1
85 y'rs and over	....	....	2	1	....	....	....	....	....	....	2	1	64	72	....	....	....	....	1	1	6	1
Colored	....	2	2	....	....	....	....	....	....	....	17	12	60	91	....	....	....	....	....	....	3	..
Chinese.....	....	....	1	....	....	....	....	....	....	....	2	....	6	....	....	....	....	....	....	....	....	..
Japanese.....	....	....	..	....	....	....	....	....	....	....	....	....	2	1	....	....	....	....	....	....	....	

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	Diseases of Genito Urinary System—*Continued.*																				Puerperal Diseases.	
	125 Diseases Urethra, Urinary Abscess, &c.		126 Diseases of the Prostate.		127 Non-Venereal Diseases of Male Genital Organs.		128 Uterine Hemorrhage (not Puerperal).		129 Uterine Tumor. (not Cancer).		130A Metritis.		130B Other Diseases of Uterus.		131 Ovarian Cysts and Tumors.		132 Salpingitis and Other Diseases of Female Genital Organs.		133 Diseases of Breast (not Puerperal or Cancer).		134 Accidents of Pregnancy.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes		Both Sexes.		Both Sexes.	
Total, all ages..	55		173		7		1		105		32		17		43		99		4		118	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes..	52	3	173	....	7	....	....	1	....	105	....	32	....	17	....	43	....	99	....	4	....	118
Under 1 year...	1	....	....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....
1 year.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
2 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
3 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
T't'l under 5 y'rs	1	....	....	....	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....
5 to 9 years....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
10 to 14 years..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
15 to 19 years..	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1
20 to 24 years..	....	....	....	....	....	....	....	....	....	1	....	3	....	....	....	4	....	10	....	....	....	22
25 to 29 years..	2	....	1	....	....	....	....	....	....	4	....	3	....	5	....	7	....	22	....	1	....	31
30 to 34 years..	1	....	1	....	....	....	....	1	....	11	....	4	....	3	....	2	....	18	....	....	....	32
35 to 39 years..	5	....	1	....	....	....	....	....	....	17	....	5	....	1	....	7	....	19	....	1	....	23
40 to 44 years..	4	1	2	....	....	....	....	....	....	21	....	6	....	2	....	3	....	18	....	....	....	9
45 to 49 years..	5	....	2	....	1	....	....	....	....	28	....	2	....	....	....	5	....	8	....	....	....	....
50 to 54 years..	5	1	8	....	1	....	....	....	....	8	....	4	....	2	....	6	....	1	....	....	....	....
55 to 59 years..	10	1	11	....	....	....	....	....	....	6	....	1	....	2	....	3	....	3	....	....	....	....
60 to 64 years..	5	....	21	....	1	....	....	....	....	3	....	2	....	1	....	2	....	....	....	....	....	....
65 to 69 years..	4	....	32	....	....	....	....	....	....	3	....	....	....	....	....	1	....	....	....	....	....	....
70 to 74 years..	4	....	34	....	1	....	....	....	....	1	....	2	....	....	....	3	....	....	....	....	....	....
75 to 79 years..	5	....	29	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....
80 to 84 years..	....	....	25	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....
85 y'rs and over	1	....	6	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Colored.....	1	....	3	....	....	....	....	....	....	14	....	1	....	....	....	1	....	4	....	....	....	3
Chinese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	Puerperal Diseases—*Continued.*																		Diseases of Skin and Cellular Tissue.			
	135 Puerperal Hæmorrhage.		136 Other Accidents of Labor.		137 Puerperal Septicæmia.		138 Puerperal Albuminuria and Convulsions.		139A Puerperal Phlegmasia Alba Dolens.		139B Puerperal Embolism and Sudden Death.		140A Sequel of Delivery.		140B Puerperal Insanity.		141 Puerperal Diseases of Breast.		142 Gangrene.		143 Carbuncle.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	63		91		249		144		29		9		3		....		4		64		55	
	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes..	....	63	....	91	....	249	....	144	....	29	....	9	....	3	....	....	....	4	34	30	39	16
Under 1 year...	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	5	2
1 year.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
2 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....
3 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....
4 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
T't'l under 5 y'rs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	2	5	2
5 to 9 years....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	....
10 to 14 years..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....
15 to 19 years..	....	1	....	....	....	18	....	8	....	1	....	1	....	2	....	....	....	....	....	....	....	....
20 to 24 years..	....	10	....	10	....	78	....	39	....	6	....	2	....	....	....	....	....	2	....	1	3	1
25 to 29 years..	....	19	....	28	....	65	....	39	....	7	....	2	....	1	....	....	....	....	....	1	4	1
30 to 34 years..	....	18	....	26	....	50	....	36	....	7	....	2	....	....	....	....	....	....	1	1	2	1
35 to 39 years..	....	8	....	21	....	24	....	17	....	6	....	1	....	....	....	....	....	....	1	1	5	....
40 to 44 years..	....	7	....	6	....	13	....	5	....	2	....	1	....	....	....	....	....	1	....	1	1	....
45 to 49 years..	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1	2	2	4	2
50 to 54 years..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	1	3	4
55 to 59 years..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2	3	2
60 to 64 years..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	4	2	....
65 to 69 years..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4	2	2	2
70 to 74 years..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6	3	....	....
75 to 79 years..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5	5	3	....
80 to 84 years..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3	3	....	1
85 y'rs and over	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....
Colored.....	....	2	....	5	....	10	....	5	....	2	....	....	....	....	....	....	....	....	1	1	....	
Chinese.....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	..
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	Diseases of Skin and Cellular Tissue—*Cont.*				Diseases of Locomotory System.								Malformations.		Diseases of Infancy.							
	144 Phlegmon, Acute Abscess.		145 Other Diseases of Skin and Adnexa.		146 Diseases of Bones (Non-Tuberculous).		147 Arthritis. Other Diseases of Joints (except Tuberculosis and Rheumatism).		148 Amputation.		149 Other Diseases of Organs of Locomotion.		150 Congenital Malformations		151 Congenital Debility, Icterus and Sclerema.		152 Other Diseases Peculiar to Infancy (of which)		152A Injury During Birth		153 Neglect.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	107		54		93		22		....		....		728		3,848		1,013		430		5	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes.	61	46	27	27	62	31	12	10	....	....	....	....	425	303	2,142	1,706	611	402	272	158	3	2
Under 1 year..	14	16	14	11	7	2	3	1	....	....	....	....	387	277	2,142	1,706	611	402	272	158	3	2
1 year.....	3	2	....	2	1	1	....	....	....	....	....	....	18	16	....	....	....	....	....	....	....	....
2 years.....	2	2	....	....	4	1	....	....	....	....	....	....	9	3	....	....	....	....	....	....	....	....
3 years.....	1	....	....	....	4	4	....	....	....	....	....	....	4	1	....	....	....	....	....	....	....	....
4 years.....	....	....	....	....	2	1	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....
T't'l under 5 y'rs	20	20	14	13	18	9	3	1	....	....	....	....	419	298	2,142	1,706	611	402	272	158	3	2
5 to 9 years....	2	....	....	....	4	3	....	1	....	....	....	....	3	3	....	....	....	....	....	....	....	....
10 to 14 years..	1	....	1	....	9	3	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....
15 to 19 years..	....	....	....	....	8	2	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....
20 to 24 years..	1	1	1	....	5	3	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....
25 to 29 years..	....	1	1	2	2	2	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....
30 to 34 years ..	5	....	....	1	1	1	1	2	....	....	....	....	1	....	....	....	....	....	....	....	....	....
35 to 39 years..	1	1	....	....	3	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
40 to 44 years ..	5	5	1	....	3	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
45 to 49 years ..	2	3	1	....	4	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....
50 to 54 years..	8	4	3	3	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....
55 to 59 years..	5	2	....	1	1	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....
60 to 64 years..	3	2	2	3	3	3	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
65 to 69 years..	3	2	....	1	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....
70 to 74 years..	2	3	2	1	....	1	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
75 to 79 years..	1	1	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
80 to 84 years..	2	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
85 y'rs and over	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Colored.....	2	....	....	1	2	1	....	....	....	....	....	....	8	8	82	77	19	11	3	1	....	....
Chinese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	Old Age.		External Causes.																			
	154 Senile Debility.		155 Suicide by Poison.		156 Suicide by Asphyxia.		157 Suicide by Hanging or Strangulation.		158 Suicide by Submersion.		159 Suicide by Firearms.		160 Suicide by Cutting Instruments.		161 Suicide by Precipitation from Height.		162 Suicide by Crushing.		163 Suicide by Other Methods.		164 Poisoning by Food.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	359		114		381		112		28		183		51		79		5		5		13	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes..	127	232	64	50	259	122	93	19	21	7	170	13	48	3	43	36	4	1	4	1	9	4
Under 1 year...	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
1 year.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1
2 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..
3 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
4 years.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
T't'l under 5 y'rs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1
5 to 9 years....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	2
10 to 14 years..	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
15 to 19 years..	....	....	1	5	6	6	1	....	....	....	3	....	....	....	2	4	....	....	....	....	1	....
20 to 24 years..	....	....	3	13	13	12	2	1	....	1	14	3	2	1	4	3	....	1	1	1	....	....
25 to 29 years..	....	....	5	6	19	12	11	....	2	1	24	....	4	....	4	14	1	....	1	....	....	....
30 to 34 years..	....	....	8	6	22	14	5	2	3	....	18	4	5	....	6	4	....	....	....	....	....	....
35 to 39 years..	....	....	10	3	32	18	9	1	2	1	15	2	6	....	8	2	....	....	....	....	1	..
40 to 44 years..	....	....	6	3	33	18	6	2	5	1	20	1	10	....	7	1	....	....	....	....	1	1
45 to 49 years..	....	....	12	5	28	9	17	6	3	1	20	1	6	....	2	3	3	....	1	....	....	....
50 to 54 years..	....	....	8	6	28	7	10	2	2	....	26	1	1	1	4	1	....	....	....	....	....	....
55 to 59 years..	2	1	2	....	31	7	13	2	1	1	8	....	4	1	1	3	....	....	....	....	1	....
60 to 64 years..	2	5	4	....	20	5	5	1	1	....	10	....	3	....	3	....	....	....	....	....	2	....
65 to 69 years..	8	12	3	1	12	7	10	1	1	1	6	....	3	....	....	....	....	....	1	....	1	....
70 to 74 years..	14	32	2	2	9	4	....	1	....	....	3	....	3	....	1	....	....	....	....	....	1	..
75 to 79 years..	30	50	....	....	5	3	1	....	....	....	1	1	1	....	1	....	....	....	....	....	....	....
80 to 84 years..	21	64	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....
85 y'rs and over	50	68	....	....	....	....	2	....	....	....	1	....	....	....	....	1	....	....	....	....	....	..
Colored.....	....	6	....	....	....	1	....	....	....	1	2	....	2	....	....	1	....	....	....	....	....	....
Chinese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	External Causes—*Continued.*																			
	165A Bites of Venomous Animals.		165B Other Acute Poisonings.		166 Conflagrations.		167 Burns and Scalds.		168 Absorption of Deleterious Gases.		169 Accidental Submersion.		170 Pistol and Gunshot Wound.		171 Cuts and Stabs.		172 Deaths by Falls.		173 Deaths in Mines and Quarries.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages..	1		75		62		422		355		458		11		16		925		2	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes..	1	....	43	32	31	31	188	234	235	120	431	27	9	2	12	4	654	271	2	....
Under 1 year...	....	....	2	3	....	1	7	11	30	21	1	2	....	....	1	....	6	6	....	....
1 year.....	....	....	1	....	1	....	34	19	1	....	1	....	....	....	....	....	9	10	....	....
2 years.....	1	....	1	2	1	2	34	24	2	1	1	....	....	....	....	....	10	7	....	....
3 years.....	....	....	2	....	3	2	28	21	....	....	1	....	1	....	....	....	11	15	....	....
4 years.....	....	....	....	....	1	1	18	12	....	2	1	....	....	....	....	....	10	11	....	....
T't'l under 5 y'rs	1	....	6	5	6	6	121	87	33	24	5	2	1	....	1	....	46	49	....	....
5 to 9 years....	....	....	....	1	3	1	26	46	2	....	31	....	1	....	....	1	46	22	....	....
10 to 14 years..	....	....	....	....	2	3	4	6	3	1	23	1	2	....	1	1	25	6	....	....
15 to 19 years..	....	....	5	1	1	6	2	3	2	7	34	2	3	1	....	....	15	6	....	....
20 to 24 years..	....	....	6	8	3	5	5	10	10	7	47	2	....	....	....	....	41	8	..	..
25 to 29 years..	....	....	6	5	5	1	5	7	18	6	39	4	....	....	1	1	67	6	1	....
30 to 34 years..	....	....	5	5	....	2	7	6	13	6	43	2	....	....	1	....	46	8	....	....
35 to 39 years..	....	....	4	2	3	1	1	7	18	10	41	2	1	....	1	....	75	13	....	....
40 to 44 years..	....	....	4	2	3	2	5	4	22	7	40	1	1	....	2	....	55	10	....	..
45 to 49 years..	....	....	2	1	2	....	6	10	27	4	48	2	....	1	1	....	54	15	..	..
50 to 54 years..	....	....	2	....	3	1	2	6	16	10	31	4	....	....	1	....	60	14	..	....
55 to 59 years..	....	....	....	1	....	1	....	6	21	6	19	1	....	....	2	....	33	9	1	....
60 to 64 years..	....	....	2	....	....	1	....	13	13	9	13	1	....	....	....	....	20	25	..	....
65 to 69 years..	....	....	1	....	....	....	3	8	14	5	11	1	....	....	....	....	22	19	..	..
70 to 74 years..	....	....	....	1	....	1	....	7	7	8	5	1	....	....	1	....	20	20	....	....
75 to 79 years..	....	....	....	....	....	....	....	4	8	3	1	....	....	....	....	....	14	15	....	....
80 to 84 years..	....	....	....	....	....	....	....	2	5	4	....	1	....	....	....	1	9	14	....	
85 y'rs and over	....	....	....	....	....	....	1	2	3	3	....	....	....	....	....	....	6	12	....	
Colored.....	....	....	3	2	2	1	6	7	9	2	10	1	....	....	1	....	17	7	....	....
Chinese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Japanese.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	External Causes—*Continued.*																			
	174 Deaths by Machinery.		175 Deaths by Other Crushing Agencies, Wagons, &c.		176 Deaths by Animals not Snakebites, Hydrophobia or Stings.		177A Physical Exhaustion.		177B Hunger and Thirst.		178 Excessive Cold.		179 Sunstroke.		180 Lightning.		181 Other Electrical Accidents.		182 Homicides by Firearms.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages	58		814		15		5		....		1		49		....		23		125	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes.	54	4	664	150	14	1	3	2	....	....	1	....	26	23	....	....	23	....	95	30
Under 1 year	....	....	....	....	....	....	....	1	....	....	....	....	3	3	....	....	....	....	....	....
1 year	....	....	3	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
2 years	....	....	12	3	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
3 years	....	....	15	12	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1
4 years	....	....	23	8	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
T'l under 5 y'rs	....	....	53	25	2	1	....	1	....	....	....	....	4	3	....	....	....	....	....	....
5 to 9 years	1	....	104	27	....	....	....	....	....	....	....	....	....	....	....	....	1	....	3	1
10 to 14 years	2	1	69	10	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	2
15 to 19 years	5	1	25	6	2	....	....	....	....	....	....	....	1	2	....	....	1	....	11	4
20 to 24 years	6	....	40	9	....	....	1	....	....	....	....	....	3	1	....	....	2	....	15	6
25 to 29 years	14	....	59	3	....	....	....	....	....	....	....	....	4	1	....	....	2	....	18	6
30 to 34 years	4	1	62	4	....	....	1	....	....	....	....	....	....	1	....	....	5	....	19	4
35 to 39 years	6	....	44	4	1	....	....	....	....	....	....	....	2	....	....	....	4	....	11	5
40 to 44 years	7	....	48	10	1	....	1	....	....	....	1	....	2	1	....	....	3	....	8	....
45 to 49 years	6	1	48	7	4	....	....	....	....	....	....	....	2	....	....	....	4	....	5	....
50 to 54 years	2	....	31	8	1	....	....	....	....	....	....	....	3	....	....	....	....	....	3	....
55 to 59 years	....	....	31	11	1	....	....	....	....	....	....	....	4	4	....	....	1	....	....	1
60 to 64 years	1	....	16	8	1	....	....	....	....	....	....	....	....	3	....	....	....	....	1	....
65 to 69 years	....	....	10	9	....	....	....	....	....	....	....	....	1	3	....	....	....	....	....	....
70 to 74 years	....	....	12	6	1	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....
75 to 79 years	....	....	7	2	....	....	....	....	....	....	....	....	....	3	....	....	....	....	....	....
80 to 84 years	....	....	5	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
85 y'rs and over	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Colored	....	....	8	3	....	....	....	....	....	....	....	....	2	2	....	....	....	....	2	3
Chinese	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Japanese	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	External Causes—Continued.														Ill Defined Causes.					
	183		184		185		186a		186b		186c		186d		187		188		189	
	Homicides by Cutting or Piercing Instruments.		Homicides by Other Methods.		Dislocation and Fractures.		Criminal Abortion.		Foreign Body in Larynx.		Explosions.		Other External Violences.		Organic Lesions Not Defined.		Sudden Death.		Ill Defined Causes.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total all ages..	49		87		133		48		20		15		37		....		. ..		84	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total by sexes.	37	12	52	35	103	30	....	48	13	7	14	1	27	10		. . .	...		45	39
Under 1 year...	1	2	8	16	2	....	....	....	4	3	....	.	1	.	...	..	.	...	6	
1 year	....	...	..	2	1	..	....	....	2	....	....	.	....	1	....	.	...	...	22	24
2 years	....	1	1	. .	1	....	....	....	1	...	....	.	...	2	....		...	...		4
3 years	..	...	....	1	....	....	....	....	1	...	....	.	...	.	....		...	...	1	2
4 years	1	....	..	.	....	....	....	....	..	...	....	..	....	.	....		...	...	3	.
T't'l under 5 y'rs	2	3	9	19	4	..	....	..	8	3	....	..	1	3	..	.	...	...	32	30
5 to 9 years ...	1	1	1	3	1	1	....	....	....	..	2	..	3	1	.	.	....	....	1	1
10 to 14 years..	....	....	1	1	6	....	....	....	....	....	2	....	2	.	.	.	...		....	
15 to 19 years..	...	....	1	1	1	....	....	5	1	...	2	...	3	.	.	.	...	.	2	
20 to 24 years..	8	....	5	1	6	1	....	10	....	..	1	.	1	1	....	.	...	.		
25 to 29 years..	8	1	5	.	17	6	....	16	....	1	2	....	2	1	.	.	...	.		2
30 to 34 years..	8	2	4	2	9	2	....	5	1	....	1	....	1	....	.	.	...	.	1	1
35 to 39 years..	5	3	4	. .	17	..	....	6	....	....	1	....	5	....	....	.	...	.	2	2
40 to 44 years .	2	1	4	2	8	2	..	6	....	....	1	....	2	1	....	.	...	.	2	
45 to 49 years..	1	....	7	1	5	2	....	....	2	....	1	....	1	.	....	.	...	.	1	1
50 to 54 years .	2	....	2	2	9	..	....	....	1	1	....	....	2	....	....	.	...	.	....	....
55 to 59 years..	....	1	2	..	6	....	....	....	....	....	....	....	2	2	....	.	...	.	3	1
60 to 64 years..	....	....	2	1	6	3	....	....	....	1	....	1	....	1	....	.	...	...	....	....
65 to 69 years	....	....	1	.	2	3	....	....	....	....	....	....	....	....	....	.	...	.	....	....
70 to 74 years	....	....	1	2	1	2	....	....	....	....	....	....	1	....	....	.	...	.	1	....
75 to 79 years..	....	....	..	..	3	3	....	....	....	....	1	....	..	....	....	.	...	.	....	1
80 to 84 years..	....	....	..	..	1	2	....	....	....	1	....	....	1	....	....	.	...	.	....	....
85 y'rs and over	....	..	..	..	1	3	....	....	....	....	....	....	....	....	....	.	...	.	....	....
Colored.. ..	2	1	2	1	...	..	..	1	....	....	....	....	2	..	....	....	....	....	2	3
Chinese.. ..	..	..	1	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....
Japanese.. ..	..	..	....	....	..	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

	Summary.																					
	I General Diseases.		A Tuberculous Diseases.		B Cancer.		II Diseases of the Nervous System and Organs of Sense.		III Diseases of Circulatory System.		IV Diseases of Respiratory System.		V Diseases of Digestive System.		VI Diseases of Genito Urinary System.		VII Puerperal Diseases.		VIII Diseases of the Skin and Cellular Tissue.		IX Diseases of Locomotory System.	
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.	
Total, all ages.	22,037		10,249		4,647		2,677		13,596		12,346		7,345		6,273		710		280		115	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Total, by sexes	12,470	9,567	6,638	3,611	2,024	2,623	1,541	1,136	6,745	6,851	6,761	5,585	4,048	3,297	3,205	3,068	....	710	161	119	74	41
Under 1 year.	655	640	153	125	4	1	128	93	38	30	1,704	1,420	1,862	1,493	28	28	....	....	31	29	10	3
1 year.	584	518	137	119	1	2	45	49	10	10	820	747	318	288	10	13	....	....	3	4	1	1
2 years.	314	260	72	71	5	3	25	21	6	6	253	204	83	57	6	8	....	....	3	2	4	1
3 years	176	211	43	46	1	....	19	14	6	13	113	88	40	26	7	13	....	....	1	2	4	4
4 years	156	132	37	31	3	3	11	11	9	9	60	50	35	18	8	1	....	....	....	....	2	1
T'l under 5 y'rs	1,885	1,761	442	392	14	9	228	188	69	68	2,950	2,509	2,338	1,882	59	63	....	....	41	37	21	10
5 to 9 years	336	349	94	104	8	6	49	28	96	110	106	114	66	53	16	16	....	....	3	1	4	4
10 to 14 years	160	201	51	117	7	1	32	28	85	117	37	72	45	45	17	15	....	....	3	....	9	3
15 to 19 years	381	383	295	305	3	12	53	21	86	115	101	66	49	28	21	37	....	32	....	....	9	2
20 to 24 years	682	617	542	519	22	14	44	32	122	131	138	96	63	54	46	66	....	169	5	3	6	4
25 to 29 years	845	625	680	485	29	48	65	31	133	162	212	133	86	62	71	106	....	192	5	5	2	2
30 to 34 years	1,018	551	808	383	46	76	59	38	211	193	239	148	109	88	105	134	....	171	8	3	2	3
35 to 39 years	1,197	642	895	382	97	160	106	42	267	237	308	149	139	128	165	183	....	100	7	2	3	2
40 to 44 years	1,209	645	826	272	132	257	111	60	380	338	360	193	176	130	213	252	....	44	7	6	3	2
45 to 49 years	1,151	657	733	205	227	303	115	75	504	438	355	197	184	136	290	268	....	2	9	7	5	1
50 to 54 years	1,058	683	532	143	305	369	129	93	649	533	388	214	219	132	332	304	....	....	18	12	1	2
55 to 59 years	845	634	340	102	314	353	128	79	738	597	343	258	180	117	370	281	....	....	9	7	1	1
60 to 64 years	652	593	195	102	273	321	129	85	822	774	354	292	120	133	379	324	....	....	10	9	1	3
65 to 69 years	471	488	107	40	243	283	112	90	757	814	262	341	105	106	341	306	....	....	9	7	1	1
70 to 74 years	322	372	62	39	167	217	73	102	711	831	256	268	86	83	333	287	....	....	10	7	3	1
75 to 79 years	162	223	24	14	88	112	51	69	577	602	172	239	55	62	237	215	....	....	10	7	....	....
80 to 84 years	64	95	10	4	32	57	36	48	323	465	113	168	15	33	130	136	....	....	5	6	....	....
85 yrs. and over	31	48	2	3	17	25	18	27	215	326	67	128	13	35	80	75	....	....	2	....	....	....
Colored	490	474	365	288	20	70	34	34	181	199	283	200	119	105	84	123	....	27	3	2	2	1
Chinese	40	2	28	1	5	1	2	....	8	....	12	....	5	....	8	....	....	2	....	....	....	....
Japanese	13	2	10	2	1	..	..	....	....	....	....	1	....	....	2	1	....	..	....	....	....	..

DEATHS BY SEX, AGE, AND CAUSE OF DEATH FOR YEAR ENDING DECEMBER 31, 1915.—Continued.

SUMMARY—*Continued*

	X Malformations.		XI Diseases of Infancy.		XII Diseases of Old Age.		XIII External Causes.		A Suicides.		B Homicides.		C Accidents.		XIV Ill Defined Causes.		Total Males.	Total Females	Total Both Sexes
	Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.		Both Sexes.				
Total, all ages.	728		4,866		359		4,777		958		261		3,558		84				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Females.	
Total, by sexes	425	303	2,756	2,110	127	232	3,447	1,330	706	252	184	77	2,557	1,001	45	39	41,805	34,388	76,193
Under 1 year	387	277	2,756	2,110	....	....	66	69	....	....	9	18	57	51	6	....	7,674	6,192	13,866
1 year	18	16	....	....	....	....	54	35	....	....	....	2	54	33	22	21	1,885	1,705	3,590
2 years	9	3	....	....	....	....	65	42	....	....	1	1	64	41	....	4	768	608	1,376
3 years	4	1	....	....	....	....	64	52	....	....	....	1	64	51	1	2	435	426	861
4 years	1	1	....	....	....	....	55	35	....	....	1	1	54	34	3	....	340	258	598
T't'l under 5 y'rs	419	298	2,756	2,110	....	....	304	233	....	....	11	23	293	210	32	30	11,102	9,189	20,291
5 to 9 years	3	3	....	....	....	....	227	107	1	....	5	5	221	102	1	1	907	786	1,693
10 to 14 years	1	1	....	....	....	....	114	32	1	....	2	3	141	29	....	....	533	514	1,047
15 to 19 years	1	....	....	....	....	....	128	58	13	15	12	5	103	38	2	....	831	742	1,573
20 to 24 years	....	....	....	....	....	....	237	106	39	36	28	7	170	63	....	....	1,343	1,278	2,621
25 to 29 years	....	1	....	....	....	....	343	98	71	33	31	7	241	58	....	2	1,762	1,419	3,181
30 to 34 years	1	....	....	....	....	....	301	80	67	30	31	8	203	42	1	1	2,054	1,410	3,464
35 to 39 years	....	....	....	....	....	....	325	81	82	27	20	8	223	46	2	2	2,519	1,568	4,087
40 to 44 years	....	....	....	....	....	....	308	75	87	26	14	3	207	46	2	....	2,772	1,745	4,517
45 to 49 years	....	....	....	....	....	....	318	70	92	25	13	1	213	44	1	1	2,932	1,852	4,784
50 to 54 years	....	....	....	....	....	....	249	64	79	18	7	2	163	44	....	..	3,043	2,037	5,080
55 to 59 years	....	....	....	....	2	1	183	53	60	14	2	2	121	37	3	1	2,800	2,029	4,829
60 to 64 years	....	....	....	....	2	5	127	74	46	6	3	1	78	67	....	....	2,599	2,292	4,891
65 to 69 years	....	....	....	....	2	12	101	58	36	10	1	....	64	48	....	..	2,170	2,223	4,393
70 to 74 years	....	....	....	....	14	32	72	59	18	7	4	2	50	50	1	....	1,881	2,042	3,923
75 to 79 years	....	....	....	....	30	50	43	32	9	4	....	....	34	28	....	1	1,337	1,490	2,827
80 to 84 years	....	....	....	....	21	64	23	29	2	....	....	....	21	29	....	....	730	1,044	1,774
85 yrs. and over	....	....	....	....	50	68	14	21	3	1	....	....	11	20	....	....	490	728	1,218
Colored	8	8	101	88	....	6	70	34	4	3	6	5	60	26	2	3	1,377	1,304	2 681
Chinese	....		....	....	....	....	3	....	....	....	1	....	2	....	....	....	78	4	82
Japanese	....	1	....	....	....	....	2	....	....	....	....	....	....	....	....	....	17	5	22

TOTAL DEATHS BY AGE-GROUPS, YEAR 1915.

	Manhattan.			The Bronx.			Brooklyn.			Queens.			Richmond.			City of New York		
	Males.	Females.	Total Both Sexes.	Males.	Females.	Total Both Sexes.	Males.	Females.	Total Both Sexes.	Males	Females.	Total Both Sexes.	Males.	Females.	Total Both Sexes.	Males.	Females.	Total Both Sexes.
Total by Sexes	20,341	15,967	36,308	3,985	3,501	7,486	13,896	11,963	25,859	2,658	2,353	5,011	925	604	1,529	41,805	34,388	76,193
Under 1 year	3,845	3,082	6,927	693	576	1,269	2,480	1,996	4,476	517	429	946	139	109	248	7,674	6,192	13,866
1 year	952	914	1,866	150	159	309	664	538	1,202	98	71	169	21	23	44	1,885	1,705	3,590
2 years	393	300	693	67	56	123	247	200	447	46	36	82	15	16	31	768	608	1,376
3 years	210	213	423	39	38	77	146	138	284	27	33	60	13	4	17	435	426	861
4 years	159	119	278	30	22	52	118	95	213	27	19	46	6	3	9	340	258	598
Total under 5 years	5,559	4,628	10,187	979	851	1,830	3,655	2,967	6,622	715	588	1,303	194	155	349	11,102	9,189	20,291
5 to 9 years	390	344	734	95	72	167	342	295	637	66	62	128	14	13	27	907	786	1,693
10 to 14 years	241	217	458	63	49	112	181	199	380	38	44	82	10	5	15	533	514	1,047
15 to 19 years	381	317	698	102	81	183	271	277	548	63	56	119	14	11	25	831	742	1,573
20 to 24 years	649	605	1,254	142	152	294	441	405	846	94	93	187	17	23	40	1,343	1,278	2,621
25 to 29 years	888	663	1,551	161	177	338	574	454	1,028	100	97	197	39	28	67	1,762	1,419	3,181
30 to 34 years	1,002	679	1,681	198	146	344	693	478	1,171	123	91	214	38	16	54	2,054	1,410	3,464
35 to 39 years	1,292	763	2,055	243	169	412	787	521	1,308	137	90	227	60	25	85	2,519	1,568	4,087
40 to 44 years	1,462	847	2,309	229	171	400	868	587	1,455	175	105	280	38	35	73	2,772	1,745	4,517
45 to 49 years	1,496	901	2,397	257	196	453	955	594	1,549	169	128	297	55	33	88	2,932	1,852	4,784
50 to 54 years	1,517	912	2,429	318	216	534	959	726	1,685	185	150	335	64	33	97	3,043	2,037	5,080
55 to 59 years	1,395	895	2,290	263	218	481	903	746	1,649	185	133	318	54	37	91	2,800	2,029	4,829
60 to 64 years	1,222	1,045	2,267	290	251	541	857	786	1,643	160	175	335	70	35	105	2,599	2,292	4,891
65 to 69 years	979	948	1,927	196	228	424	776	855	1,631	158	151	309	61	41	102	2,170	2,223	4,393
70 to 74 years	819	877	1,696	188	193	381	674	791	1,465	127	141	268	73	40	113	1,881	2,042	3,923
75 to 79 years	545	616	1,161	148	154	302	495	572	1,067	86	109	195	63	39	102	1,337	1,490	2,829
80 to 84 years	306	429	735	61	100	161	277	421	698	46	78	124	40	16	56	730	1,044	1,774
85 years and over	198	281	479	52	77	129	188	289	477	31	62	93	21	19	40	490	728	1,218
Colored	921	831	1,752	55	65	120	350	335	685	42	66	108	9	7	16	1,377	1,304	2,681
Chinese	74	3	77	...	....	....	4	1	5	...	....	....	...	...	....	78	4	82
Japanese	12	4	16	1	...	1	3	...	3	1	1	2	...	....	....	17	5	22

TABLE No. 7.

VITAL STATISTICS OF PRINCIPAL CITIES OF UNITED STATES—1915.

	Estimated Population 1915.	Total Deaths from All Causes.	Death Rate per 1,000.	Typhoid Fever—Death Rate per 100,000.	Measles—Death Rate per 100,000.	Scarlet Fever—Death Rate per 100,000.	Whooping Cough—Death Rate per 100,000.	Diphtheria and Croup—Death Rate per 100,000.	Pulmonary Tuberculosis—Death Rate per 100,000.	Other Tuberculous—Death Rate per 100,000.	Cancer and Sarcoma—Death Rate per 100,000.	Broncho and Lobar Pneumonia—Death Rate per 100,000.	Total Births.	Birth Rate per 1,000.	Death Rate Under One Year per 1,000 Births.
Baltimore	584,609	10,002	17.10	21.9	3.2	5.6	3.6	13.5	187.3	33.3	106.0	201.4	13,634	23.32	119.8
Boston	748,431	12,021	16.06	5.3	5.3	10.6	14.8	29.1	138.2	25.1	114.2	194.7	19,647	26.25	103.9
Buffalo	461,887	6,853	14.83	10.0	11.0	5.4	1.9	16.9	131.8	21.7	93.7	161.3	12,683	27.46	108.3
Chicago	2,447,845	34,894	14.25	5.4	9.8	2.9	2.4	27.7	148.3	23.5	85.0	156.2	54,425	22.24	114.0
Cincinnati	406,706	6,358	15.63	7.4	3.4	1.0	4.7	11.6	194.5	25.8	97.4	141.1	7,791	19.16	78.5
Cleveland	670,000	8,841	13.20	8.1	11.5	10.7	11.0	24.3	109.1	19.6	72.8	142.8	17,316	25.85	110.6
Denver	253,000	3,358	13.27	6.7	.8	3.2	6.4	2.4	230.0	15.8	78.3	175.9	3,504	13.85	131.3
Detroit	554,717	8,704	15.69	13.0	9.2	4.5	15.0	20.9	117.2	19.5	74.5	182.6	20,917	37.71	104.4
Indianapolis	285,000	3,909	13.72	11.9	....	2.1	2.5	7.4	146.3	39.6	84.6	150.5	5,195	18.23	88.7
Los Angeles	500,000	5,844	11.69	4.8	1.8	1.6	1.4	7.2	172.4	28.2	88.0	86.6	7,925	15.85	67.4
Louisville	254,087	3,815	15.01	11.1	....	....	2.0	4.7	148.8	27.2	64.2	154.3	3,598	14.16	113.4
Milwaukee	415,000	4,862	11.72	4.6	2.4	5.8	9.6	23.1	85.1	12.0	81.0	153.5	10,850	26.15	98.2
New Orleans	378,000	7,752	20.51	20.9	.8	.5	5.0	29.4	256.1	37.8	100.3	176.7	7,889	20.87	119.6
Philadelphia	1,683,664	26,280	15.61	6.5	10.9	1.5	2.8	18.7	158.4	25.1	90.9	185.7	40,324	23.95	104.6
Pittsburgh	571,984	8,725	15.25	10.3	12.9	9.4	7.7	26.6	100.7	28.9	85.8	248.3	16,000	27.98	110.0
Providence	249,000	3,664	14.72	8.4	8.8	7.2	18.5	21.7	121.7	36.5	92.0	218.1	.....	.....	.....
Rochester	250,000	3,485	13.94	6.0	3.6	2.8	10.8	6.4	102.8	10.0	98.4	147.6	6,766	27.06	83.8
San Francisco	500,000	7,251	14.50	8.6	3.8	1.2	4.2	22.6	158.6	32.6	117.0	127.0	7,632	15.26	78.7
St. Louis	788,000	10,269	13.03	6.6	5.8	2.5	4.2	23.1	116.1	17.3	84.9	145.9	14,742	18.71	82.1
Seattle	330,834	2,462	7.44	2.4	....	.3	.9	.6	44.1	17.8	60.8	55.3	4,953	14.97	53.1
Washington, D. C.	357,749	6,505	18.19	11.7	1.4	2.2	5.3	8.1	195.1	21.5	109.6	187.6	7,067	19.76	110.1
New York City	5,468,190	76,193	13.93	6.1	11.5	5.3	7.3	23.4	161.1	26.0	85.0	199.7	141,256	25.83	98.2

TABLE No. 8.

*CORRECTED MORTALITY FROM ALL CAUSES—1915.

Place of Death	Residents of					Total
	Manhattan	The Bronx	Brooklyn	Queens	Richmond	
Manhattan	.....	936	1,124	236	67	2,363
The Bronx	1,195	.....	110	25	3	1,333
Brooklyn	113	15	.....	295	6	429
Queens	99	11	442	.....	1	553
Richmond	284	41	143	9	.....	477
Plus	1,691	1,003	1,819	565	77	5,155
Minus	2,363	1,333	429	553	477	5,155
Net gain or loss	—672	—330	+1,390	+12	—400	.....
Deaths reported	36,980	7,816	24,469	4,999	1,929	76,193
Death rate	14.30	14.15	13.01	14.16	20.10	13.93
Corrected deaths	36,308	7,486	25,859	5,011	1,529	76,193
Corrected rate	14.04	13.55	13.75	14.19	15.93	.....

* Corrected death rate means that the death rate of each borough is corrected by the exclusion of the deaths of residents of other boroughs occurring within its limits and the inclusion of the deaths of residents of the borough occurring in other boroughs.

TABLE No. 9.

CORRECTED MORTALITY OF CHILDREN UNDER FIVE YEARS OF AGE.

Place of Death	Residents of					Total
	Manhattan	The Bronx	Brooklyn	Queens	Richmond	
Manhattan	.....	200	195	64	15	474
The Bronx	109	.....	4	.....	.....	113
Brooklyn	15	4	.....	40	1	60
Queens	6	.....	7	.....	.....	13
Richmond	44	5	10	.....	.....	59
Plus	174	209	216	104	16	719
Minus	474	113	60	13	59	719
Net gain or loss	—300	+96	+156	+91	—43	.....
Deaths reported	10,487	1,734	6,466	1,212	392	20,291
Death rate	40.2	29.1	30.7	30.6	39.7	35.0
Corrected deaths	10,187	1,830	6,622	1,303	349	20,291
Corrected rate	30.9	30.7	31.4	32.9	35.3	.....

TABLE No. 10.

CORRECTED PULMONARY TUBERCULOSIS MORTALITY.

Place of Death	Residents of					Total
	Manhattan	The Bronx	Brooklyn	Queens	Richmond	
Manhattan	.....	86	333	36	3	458
The Bronx	780	.....	72	21	3	876
Brooklyn	9	1	.....	18	1	29
Queens	40	1	344	.....	.....	385
Richmond	188	33	107	9	.....	337
Plus	1,017	121	856	84	7	2,085
Minus	458	876	29	385	337	2,085
Net gain or loss	+559	—755	+827	—301	—330	.....
Deaths reported	3,907	1,682	1,915	843	478	8,825
Death rate	1.51	3.04	1.02	2.39	4.98	1.61
Corrected deaths	4,466	927	2,742	542	148	8,825
Corrected rate	1.73	1.68	1.46	1.53	1.54	.....

TABLE No. 11.

CORRECTED DIARRHOEAL DISEASE MORTALITY UNDER FIVE YEARS.

Place of Death	Residents of					Total
	Manhattan	The Bronx	Brooklyn	Queens	Richmond	
Manhattan	.....	38	22	15	3	78
The Bronx	2	.....	1	.....	.....	3
Brooklyn	7	.....	.....	8	.....	15
Queens	1	.....	2	.....	.....	3
Richmond	30	5	7	.....	.....	42
Plus	40	43	32	23	3	141
Minus	78	3	15	3	42	141
Net gain or loss	—38	+40	+17	+20	—39	.....
Deaths reported	1,864	256	1,422	261	121	3,924
Death rate	7.1	4.3	6.7	6.6	12.2	6.8
Corrected deaths	1,826	296	1,439	281	82	3,924
Corrected rate	7.0	5.0	6.8	7.1	8.3	.....

TABLE No. 12.

CORRECTED MEASLES MORTALITY

Place of Death	Residents of					Total
	Manhattan	The Bronx	Brooklyn	Queens	Richmond	
Manhattan	.....	4	4	.....	1	9
The Bronx	27	.....	.....	.....	.....	27
Brooklyn	1	.....	.....	.....	1	2
Queens	.....	.....	.....	.....	.....	.....
Richmond	1	.....	.....	.....	.....	1
Plus	29	4	4	.....	2	39
Minus	9	27	2	.....	1	39
Net gain or loss	+20	—23	+2	.....	+1	.....
Deaths reported	388	68	131	20	23	630
Death rate	.15	.12	.07	.06	.24	12
Corrected deaths	408	45	133	20	24	630
Corrected rate	.16	.08	.07	.06	.25	.....

TABLE No. 13.

CORRECTED SCARLET FEVER MORTALITY

Place of Death	Residents of					Total
	Manhattan	The Bronx	Brooklyn	Queens	Richmond	
Manhattan	.....	1	1	.....	.....	2
The Bronx	10	.....	1	.....	.....	11
Brooklyn	....	.....	.....	4	.....	4
Queens	.....	.....	.....	.....	.....	.....
Richmoud	.....	.....	.....	.....	.....	.....
Plus	10	1	2	4	.....	17
Minus	2	11	4	.....	.....	17
Net gain or loss	+8	—10	—2	+4	.....	.....
Deaths reported	126	33	108	21	3	291
Death rate	.05	.06	.06	.06	.03	.05
Corrected deaths	134	23	106	25	3	291
Corrected rate	.05	.04	.06	.07	.03	.....

TABLE No. 11.

NUMBER OF DEATHS FROM INFECTIOUS AND CERTAIN OTHER PREVENTABLE DISEASES, BY WARDS—1915.

BOROUGH OF MANHATTAN.

Wards	Area in Acres.	Population, U. S. Census 1910.	Number of Persons to the Acre.	Typhoid Fever.	Small Pox.	Measles.	Scarlet Fever.	Diphtheria and Croup.	Pulmonary Tuberculosis.	Lobar Pneumonia.	Broncho-Pneumonia.	Diarrhœal Diseases.	All Causes.	Deaths of Children Under 5 Years.
First	154.0	9,750	63.0	4	....	4	1	3	47	26	20	25	306	90
Second	81.0	933	11.5	....	....	....	....	.....	4	2	1	.....	35	6
Third	95.0	1,915	20.2	1	....	1	....	.....	9	5	1	2	53	7
Fourth	83.0	21,336	257.1	4	....	10	1	8	77	36	62	30	439	183
Fifth	168.0	5,666	33.7	....	....	1	1	.....	33	15	4	8	153	22
Sixth	86.0	19,670	228.7	....	....	6	1	3	97	44	23	18	363	69
Seventh	198.0	102,101	515.6	3	....	25	7	27	119	85	112	72	1,172	436
Eighth	183.0	33,182	181.4	....	....	18	4	8	77	54	44	35	555	171
Ninth	322.0	64,909	201.6	9	....	9	7	27	161	104	81	52	1,217	299
Tenth	110.0	66,439	604.0	5	....	10	5	16	92	70	66	51	770	264
Eleventh	196.0	136,548	696.7	3	....	17	13	25	134	78	80	72	1,137	447
Twelfth	6,154.0	806,648	558.4	37	....	113	37	117	1,240	1,025	741	536	11,940	2,914
Thirteenth	107.0	64,651	604.3	2	....	17	4	15	59	14	56	37	588	238
Fourteenth	96.0	38,321	399.3	2	....	14	4	21	65	87	93	56	661	329
Fifteenth	198.0	30,584	154.5	1	....	4	1	4	64	41	40	26	449	119
Sixteenth	349.0	55,926	160.2	1	....	9	2	10	149	86	40	40	1,079	185
Seventeenth	331.0	172,334	520.6	6	....	22	10	43	226	149	211	149	2,034	773
Eighteenth	450.0	62,821	139.6	6	....	31	4	29	197	97	90	50	1,366	100
Nineteenth	1,481.0	292,950	197.7	19	....	44	18	113	692	318	366	334	5,196	1,623
Twentieth	444.0	73,308	165.1	3	....	17	2	20	232	116	94	78	1,481	354
Twenty-first	411.0	62,345	151.7	6	....	10	3	17	184	133	74	61	1,389	342
Twenty-second	1,529.0	209,154	136.8	23	....	26	9	71	508	327	228	210	3,925	916
Total	13,226.0	2,331,491	176.3	135	....	408	134	607	4,466	2,942	2,530	1,942	36,308	10,187

BOROUGH OF THE BRONX.

Twenty-third	4,267.0	268,880	63.0	12	....	31	15	96	549	349	225	174	4,111	998
Twenty-fourth	22,255.8	162,062	7.3	13	....	14	8	47	378	309	182	151	3,375	832
Total	26,522.8	430,942	16.2	25	....	45	23	143	927	658	407	325	7,486	1,830

Wards	Area in Acres.	Population, U. S. Census 1910.	Number of Persons to the Acre.	Typhoid Fever.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria and Croup.	Pulmonary Tuberculosis.	Lobar Pneumonia.	Broncho-Pneumonia.	Diarrhœal Diseases.	All Causes.	Deaths of Children Under 5 Years.
First	233.0	21,851	93.8	3	....	2	3	4	58	22	15	26	374	66
Second	97.7	6,894	70.6	....	....	1	....	3	36	18	13	14	192	38
Third	161.4	15,910	98.6	....	....	2	1	3	42	31	9	14	343	62
Fourth	111.3	10,477	94.1	....	....	....	....	2	58	29	9	12	249	35
Fifth	119.4	19,101	162.5	....	....	1	....	3	43	38	17	33	317	112
Sixth	302.9	46,437	153.3	7	....	7	3	12	83	93	57	58	845	258
Seventh	458.5	44,037	96.0	3	....	4	5	8	84	73	51	43	820	172
Eighth	1,843.2	82,687	44.9	29	....	4	1	40	163	133	85	107	1,545	419
Ninth	623.6	50,501	81.0	6	....	2	2	11	90	68	42	52	1,007	214
Tenth	318.7	41,238	129.4	2	....	4	3	11	108	68	63	61	773	217
Eleventh	252.6	21,659	85.7	1	....	1	1	2	62	34	26	31	474	137
Twelfth	663.1	29,262	44.1	2	....	4	....	14	76	72	24	47	575	171
Thirteenth	230.3	30,091	130.7	2	....	2	2	5	57	34	21	16	446	102
Fourteenth	282.6	33,329	117.9	1	....	5	4	5	77	44	89	79	643	294
Fifteenth	244.8	35,887	146.6	1	....	8	1	12	40	47	89	33	534	217
Sixteenth	244.8	68,244	278.7	5	....	7	3	12	66	60	51	52	679	235
Seventeenth	823.3	70,346	85.5	5	....	4	2	14	128	91	71	116	1,066	331
Eighteenth	873.0	35,708	40.9	1	....	5	3	9	62	48	50	54	578	220
Nineteenth	413.8	44,860	108.4	2	....	2	1	6	65	45	28	24	571	116
Twentieth	461.4	27,463	59.5	....	....	2	....	11	55	37	20	20	512	98
Twenty-first	483.2	78,741	163.0	4	....	4	6	21	105	69	67	44	908	226
Twenty-second	1,361.6	81,283	59.7	9	....	8	2	28	141	91	88	75	1,382	320
Twenty-third	736.0	65,561	89.1	5	....	5	3	16	77	69	43	43	1,070	159
Twenty-fourth	1,198.5	80,466	67.2	6	....	5	4	16	102	70	53	49	1,051	224
Twenty-fifth	567.8	63,597	112.0	5	....	4	4	14	87	63	44	47	1,014	196
Twenty-sixth	3,590.2	177,963	49.5	7	....	10	21	50	210	177	128	99	2,100	653
Twenty-seventh	400.7	76,000	189.6	3	....	5	13	14	111	52	74	56	839	265
Twenty-eighth	884.4	77,451	87.6	4	....	9	6	30	154	102	57	58	1,430	260
Twenty-ninth	3,800.0	72,351	19.0	10	....	6	8	26	116	110	57	60	1,414	302
Thirtieth	5,401.1	76,406	14.1	17	....	5	2	21	122	96	63	68	1,193	290
Thirty-first	6,312.3	30,988	4.9	4	....	5	2	7	45	48	21	44	645	162
Thirty-second	5,479.5	17,419	3.2	2	....	....	....	2	19	20	10	15	270	51
Total	38,977.8	1,634,508	41.9	146	....	133	106	432	2,742	2,052	1,535	1,550	25,859	6,622

BOROUGH OF QUEENS.

Wards	Area in Acres.	Population, U. S. Census 1910.	Number of Persons to the Acre.	Typhoid Fever.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria and Croup.	Pulmonary Tuberculosis.	Lobar Pneumonia.	Broncho-Pneumonia.	Diarrheal Diseases.	All Causes.	Deaths of Children Under 5 Years
First	4,650 0	61,763	13 3	5	....	4	2	18	100	75	75	87	1,134	330
Second	14,700 0	105,219	7 21	5	....	8	13	32	151	89	107	94	1,530	437
Third	22,000 0	37,171	1 17	....	....	....	3	5	78	52	32	31	705	151
Fourth	36,600 0	67,412	1 8	7	....	7	7	23	205	79	66	68	1,378	334
Fifth	3,770 0	12,476	3 3	3	....	1	....	....	8	26	14	18	264	51
Total	81,720 0	284,041	3 5	20	....	20	25	78	542	321	294	298	5,011	1,303

BOROUGH OF RICHMOND.

Wards	Area in Acres.	Population, U. S. Census 1910.	Number of Persons to the Acre.	Typhoid Fever.	Smallpox.	Measles.	Scarlet Fever.	Diphtheria and Croup.	Pulmonary Tuberculosis.	Lobar Pneumonia.	Broncho-Pneumonia.	Diarrheal Diseases.	All Causes.	Deaths of Children Under 5 Years.
First	3,330 0	27,201	8 1	4	....	10	....	7	37	38	27	28	543	124
Second	4,130 0	16,871	4 1	....	....	2	3	6	39	18	10	11	299	47
Third	10,050 0	19,812	2 0	2	....	5	....	21	28	24	15	25	312	80
Fourth	8,180 0	10,662	1 3	....	....	1	....	3	10	15	12	17	211	39
Fifth	10,900 0	11,423	1 0	....	....	....	....	....	14	18	6	7	161	39
Total	36,600 0	85,969	2 3	6	....	24	3	18	148	113	70	88	1,529	349

TABLE No. 15.

DEATHS ACCORDING TO NATIVITY OF DECEASED AND PARENTS OF DECEASED, 1915.

Country.	Nativity of Deceased.						Nativity of Parents of Deceased.					
	Borough of					City of New York.	Borough of					City of New York.
	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.		Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmood.	
United States	20,875	4,119	16,122	3,171	967	45,254	6,593	1,285	5,922	1,334	466	15,600
Ireland	4,239	663	2,564	351	141	7,958	7,139	1,240	4,679	643	259	13,960
Germany	2,624	924	2,053	796	152	6,549	3,775	1,371	3,338	1,204	191	9,879
Italy	1,865	363	1,150	163	52	3,593	4,949	846	3,113	403	142	9,453
Russia	2,136	575	1,373	75	14	4,173	3,622	918	2,493	173	40	7,246
England	654	143	577	105	48	1,527	707	155	696	123	63	1,744
Austria-Hungary	1,627	342	496	110	22	2,597	2,727	492	798	181	49	4,247
Scotland	212	43	183	33	13	484	244	51	264	39	20	618
British America	237	54	177	30	19	517	161	31	119	26	12	349
Switzerland	83	21	51	17	2	174	83	26	53	25	2	189
France	205	26	73	21	16	341	221	33	83	30	19	386
Bohemia	137	17	3	23	1	181	211	22	10	27	2	272
Roumania	162	50	79	3	....	294	220	81	108	18	2	429
Poland	40	16	76	27	6	165	77	29	174	91	19	390
Syria	10	....	20	1	2	33	20	1	39	3	3	66
Sweden	182	39	242	23	18	504	216	52	317	32	12	629
Norway	58	16	237	13	17	341	66	19	329	17	15	446
Denmark	41	11	64	7	6	129	39	19	77	15	4	154
Finland	50	15	36	4	8	113	75	26	58	3	10	172
Holland	45	9	21	7	2	84	54	11	32	6	2	105
Cuba	34	2	6	....	....	42	32	2	6	1	1	42
Other West Indies	201	8	71	4	5	289	366	7	92	2	4	471
Belgium	23	1	12	2	2	40	25	1	12	4	1	43
Spain	44	2	28	1	1	76	66	7	39	1	....	113
Greece	75	5	8	1	2	91	122	7	17	3	1	150
China	72	....	6	....	....	78	77	....	6	....	....	83
Australia	4	2	2	....	1	9	1	3	1	....	....	5
Other foreign	197	13	49	6	1	266	245	10	56	8	1	320
Unknown	176	7	80	17	11	291	1,553	75	478	76	52	2,234
Mixed nationalities	....	....	....	....	....	....	2,622	666	2,450	523	137	6,398
Total	36,308	7,486	25,859	5,011	1,529	76,193	36,308	7,486	25,859	5,011	1,529	76,193

TABLE No. 16.

DEATH ACCORDING TO CAUSE—ANNUAL RATE PER 1,000, AND AGE WITH METEOROLOGY AND NUMBER OF DEATHS IN INSTITUTIONS BY WEEKS—1915.

Week Ending—	Jan. 2.	Jan. 9.	Jan. 16.	Jan. 23.	Jan. 30.	Feb. 6.	Feb. 13.	Feb. 20.	Feb. 27.	Mar. 6.	Mar 13.	Mar 20.	Mar. 27.	Apr 3.	Apr. 10.	Apr. 17.	Apr. 24.	May 1.	May 8.	May 15.	May 22.	May 29.	June 5.	June 12.	June 19.	June 26.	July 3.
Total deaths.....	1,592	1,714	1,612	1,458	1,460	1,464	1,546	1,571	1,518	1,548	1,622	1,743	1,750	1,831	1,934	1,998	1,748	1,638	1,609	1,472	1,492	1,449	1,430	1,479	1,392	1,277	1,247
Annual death rate	14.30	15.40	14.49	13.10	13 12	13 15	13 89	14 11	13.64	13 91	14 57	15 66	15 72	16.45	17.38	15 98	15.71	14.72	14 46	13.23	13 41	13 02	12 85	13 29	12 51	11 47	11.20
Typhoid fever....	4	2	5	9	4	3	4	1	3	5	4	3	5	3	2	3	.	2	5	4	1	2	3	7	7	1	4
Malarial fevers...	..	..	...	..	.	..	..	1	..	.	.	..	.	..	.	..	.	....	....	.	.	.	..	.	1	.	1
Small-pox.....	..	..	...	.	.	..	..	..	..	..	.	..	.	..	.	..	.	..	..	.	.	.	..	.	.	.	.
Measles.....	8	4	3	3	5	2	2	6	13	4	5	7	13	27	20	20	31	31	35	30	33	26	34	15	29	30	19
Scarlet fever.....	5	8	6	5	9	11	4	11	10	7	7	13	7	13	12	17	13	7	16	12	13	11	8	7	11	7	9
Whooping cough..	1	4	5	2	4	3	6	3	6	4	3	3	6	11	15	10	10	8	5	9	11	7	7	8	12	12	7
Diphtheria and croup.....	37	37	25	22	34	27	33	39	38	27	29	41	38	39	26	23	45	27	24	32	46	32	37	24	30	25	22
Influenza.....	5	10	10	15	4	10	7	14	4	10	18	11	28	26	47	35	28	12	14	8	10	11	7	8	4	2	2
Cerebro-spinal meningitis.....	3	..	2	5	2	2	3	2	2	4	5	2	2	2	1	2	8	2	..	7	1	1	7	2	2	2	2
Tuberculosis pulmonalis.....	199	197	174	184	190	198	201	202	171	203	164	189	214	204	200	181	228	207	165	154	177	180	176	159	148	160	151
Other tuberculous	28	28	21	26	29	25	23	28	21	36	30	36	39	36	52	32	34	40	32	41	31	35	32	34	35	23	40
Acute bronchitis..	23	25	21	22	18	24	17	17	16	16	10	14	19	20	22	23	13	14	15	21	7	8	10	14	9	7	12
Pneumonia.....	146	176	168	147	127	98	129	142	156	144	175	200	225	248	242	236	200	154	151	103	115	87	94	106	102	67	64
Broncho pneumonia	137	146	122	109	112	94	106	119	108	128	120	133	155	139	163	159	112	142	110	105	100	115	131	110	108	87	64
*Violent deaths..	87	85	73	73	49	57	70	59	61	66	65	71	59	92	96	82	93	104	110	94	73	82	92	95	94	96	96
Under one year...	262	287	275	233	266	253	262	222	281	245	271	297	287	313	302	279	264	279	269	292	267	265	250	279	230	238	202
Under five years..	375	400	380	332	372	349	371	359	403	365	398	436	433	476	467	432	462	447	435	460	451	420	409	437	400	367	344
Five to sixty-five	904	963	898	832	782	847	854	909	818	877	912	953	960	989	1,080	978	968	923	899	745	780	769	784	784	754	701	710
Sixty-five years and over.....	313	351	334	294	306	268	321	303	297	306	312	354	357	366	387	368	318	268	275	267	261	260	237	258	238	209	193
In institutions...	618	655	646	583	629	605	636	620	633	635	689	717	702	767	761	697	788	701	681	622	639	592	602	646	592	544	578
Inquest cases....	260	278	225	196	177	215	223	210	201	220	225	238	187	215	246	222	190	224	210	201	151	187	192	182	188	185	199
Mean barometer..	30 08	30 07	29.92	29.84	30.09	29.96	30 09	30 21	29.84	20 90	29.75	29.64	29.72	29.79	29 98	29 97	29 97	29 76	29.67	29.85	29 91	29 82	29.95	29.82	29.97	29 81	29 82
Mean humidity...	68 4	63.1	77.	77 8	68 6	86.6	56.3	54 6	65.	56.	50.9	39.4	53.1	51.	55 1	56 4	52 1	77.	63 6	45 4	71 7	53 1	57 1	61 6	79.7	62.4	68.3
Inches of rain or or snow.....	.65	.94	1 16	2 27	.72	8 17	..	.58	1.77	7.97	.96	.	.02	..	..	.66	.26	.37	.51	1.11	1 40	.19	.03	.19	1.19	.31	2.20
Mean temperature (Fahrenheit)...	29.3°	37.°	37.6°	39.9°	29.7°	31.°	33.3°	39.0°	39.4°	31.4°	35.°	38.3°	41.°	37.°	51.1°	53.9°	50.4°	59.°	59.°	62.6°	55.9°	60.6°	61.°	69.°	72.4°	66.6°	71.9°
Max. temperature (Fahrenheit)..	47.°	56.°	48.°	58.°	38.°	55.°	49.°	58.°	53.°	41.°	49.°	51.°	59.°	51.°	70.°	68.°	82.°	92.°	79.°	79.°	79.°	75.°	78.°	87.°	90.°	78.°	84
Min. Temperature (Fahrenheit)...	7.°	19.°	25.°	21.°	12.°	18.°	13.°	22.°	19.°	19.°	23.°	25.°	22.°	21.°	31.°	39.°	43.°	46.°	47.°	47.°	46.°	43.°	47.°	58.°	62.°	55.°	54.°

TABLE No. 16—Continued.

DEATH ACCORDING TO CAUSE—ANNUAL RATE PER 1,000, AND AGE WITH METFOROLOGY AND NUMBER OF DEATHS IN INSTITUTIONS BY WEEKS—1915.

Week Ending—	July 10.	July 17.	July 24.	July 31.	Aug. 7.	Aug. 14.	Aug. 21.	Aug. 28	Sept. 4.	Sept 11	Sept 18.	Sept. 25.	Oct. 2.	Oct. 9.	Oct. 16.	Oct. 23.	Oct 30.	Nov. 6.	Nov. 13.	Nov 20.	Nov. 27.	Dec. 4.	Dec. 11.	Dec. 18.	Dec. 25.	Jan. 1.
Total deaths.....	1,251	1,376	1,299	1,328	1,451	1,322	1,366	1,361	1,287	1,355	1,291	1,236	1, 209	1,260	1,287	1,296	1,194	1,220	1,324	1,332	1,318	1,282	1,520	1,569	1,724	1,752
Annual death rate	11.24	12.36	11 67	11 94	13 04	11 88	12.27	12.23	11.56	12.17	11.66	11.11	10.86	11.32	11.56	11 64	10 73	10.96	11.90	11.90	11.84	11.52	13.66	14.10	15.49	15.71
Typhoid fever....	3	6	6	14	7	9	15	21	12	11	13	17	7	11	12	8	8	10	6	8	5	7	5	7	2	7
Malarial fevers...	...	...	..	..	...	..	...	..	..	2	.	..	1	2	...	. .	1	1	...	..	1	..	..	...	.	.
Small-pox.....	...	...	..	..	.	..	.	..	..	..	..	..	..	..	..	.	..	...	...	..	..	..	..	..	..	.
Measles.....	17	20	11	8	16	7	1	4	12	10	3	2	1	1	3	1	2	2	2	3	3	5	2	5	5	7
Scarlet fever....	4	5	2	3	...	2	3	..	1	1	..	.	..	1	..	..	4	..	..	1	1	..	1	4	1	1
Whooping cough..	6	9	6	13	16	15	7	15	18	12	10	12	12	3	6	6	..	3	3	5	6	4	3	7	6	9
Diphtheria and croup.....	20	33	16	22	15	18	17	7	9	15	16	8	13	20	10	11	12	23	16	17	18	11	29	25	26	20
Influenza.....	4	2	1	2	...	...	1	1	4	1	2	...	1	1	3	7	...	1	4	6	9	10	12	12	24	74
Cerebro-spinal meningitis.....	1	5	6	4	3	2	1	..	2	1	6	2	2	..	2	1	1	2	..	1	1	1	2	1	...	1
Tuberculosis pulmonalis....	170	145	157	137	165	167	150	139	161	162	131	120	163	148	156	147	150	139	156	162	173	135	165	157	146	207
Other tuberculous	23	23	25	38	21	29	34	35	13	17	26	31	29	23	34	15	7	15	27	18	15	26	14	12	20	21
Acute bronchitis..	5	5	6	7	4	8	7	8	5	6	11	7	6	9	13	9	9	13	16	10	17	13	18	18	36	29
Pneumonia.....	57	49	46	49	41	41	37	56	43	38	50	51	49	64	61	64	71	71	83	98	108	141	165	185	251	272
Broncho pneumonia	73	76	42	49	58	51	51	53	53	53	45	48	39	46	63	64	55	73	65	66	67	71	89	114	117	123
*Violent deaths...	82	96	95	67	116	71	91	72	56	94	80	96	75	79	66	74	70	85	78	60	71	47	76	72	93	68
Under one year...	235	267	271	344	394	348	369	363	353	322	285	290	279	258	229	241	186	179	232	199	198	176	223	234	221	233
Under five years..	369	409	393	484	539	481	496	477	471	443	387	405	365	333	319	327	261	260	311	275	268	247	319	327	330	340
Five to sixty-five	706	727	681	673	697	661	666	689	600	712	678	625	670	673	742	718	677	727	729	780	778	739	877	897	977	1,163
Sixty-five years and over.....	176	240	225	171	215	180	209	195	216	200	226	206	174	254	226	251	256	233	274	277	272	296	324	345	417	349
In institutions....	554	505	571	608	662	579	604	643	535	569	581	499	513	541	545	507	506	482	542	554	526	533	629	667	659	667
Inquest cases....	192	199	193	190	238	174	235	194	158	224	185	197	184	190	197	194	169	190	219	205	200	159	200	214	250	262
Mean barometer..	29.82	29.71	29.91	29.91	29.88	29 86	29.88	26.81	29.97	29.88	30.01	29 96	29.83	29.92	30 20	29.93	29.93	29.85	30.04	29 76	29.98	29.91	29.85	29.69	29.95	29.92
Mean humidity...	61.	71.3	70.1	70.	81.4	68.7	61	65.	65.7	72.6	71.7	66.7	64.7	73.	66.6	62.	62.3	55.9	49.3	60.1	68.6	63.7	61.1	69.	62.9	69.4
Inches of rain or snow.....	1.39	.28	.24	1.03	4 87	.62	.34	.51	.92	.04	.02	2.28	.92	.93	.14	.03	.28	.05	.17	1.19	.10	.13	.01	3.02	.01	1.24
Mean temperature (Fahrenheit)...	72.6°	76.1°	73.°	76.4°	70.3°	76.1°	72.4°	70.6°	67.°	76.7°	78.°	63.9°	57.°	57.4°	60.7°	60.7°	54.7°	49.6°	49.7°	44.9°	42.9°	38.°	30.1°	32.1°	38.4°	32.6°
Max. temperature (Fahrenheit)...	84.°	92.°	92.°	93.°	88.°	89.°	89.°	86.°	88.°	94.°	93.°	77.°	70.°	69.°	79.°	78.°	70.°	71.°	65.°	60.°	56.°	55.°	42.°	57.°	55.°	55.°
Min. temperature (Fahrenheit)...	59.°	62.°	60.°	59.°	59.°	65.°	55.°	56.°	57.°	66.°	66.°	48.°	45.°	45.°	40.°	40.°	37.°	38.°	34.°	31.°	31.°	26.°	21.°	20.°	25.°	13.°

*Includes suicides.

TABLE No. 17.

DEATHS OF IMMIGRANTS. 1915.

	Total	Males	Females	White	Colored	Chinese	Under 1 Year	1 to 4 Years	5 to 14 Years	15 to 34 Years	35 to 54 Years	55 to 74 Years	75 Years and Over
Typhoid fever	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhus fever	..	..	..	..	..	..	..	..	..	..	..	..	..
Malaria	..	..	..	..	..	..	..	..	..	..	..	..	..
Small pox	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	5	3	2	5	..	..	..	4	1	..	..	..	..
Scarlet fever	2	..	2	2	..	..	1	1	..	..	..	..	..
Whooping cough	1	..	1	1	..	..	..	1	..	..	..	..	..
Diphtheria and Croup	1	..	1	1	..	..	..	1	..	..	..	..	..
Tuberculosis (all forms)	5	4	1	5	..	..	..	..	..	2	2	1	..
Pneumonia (all)	7	6	1	7	..	..	1	3	..	2	..	1	..
Other acute infectious diseases	1	1	..	1	..	..	..	..	..	..	..	1	..
All other causes	18	14	4	17	1	..	1	..	1	7	4	4	1
	40	28	12	39	1	..	3	10	2	11	6	7	1

TABLE No. 18.

DEATHS OF PERSONS 100 YEARS OF AGE AND OVER.

Date of Death 1915	Name	Age			Nativity	Cause of Death	Borough of					City of New York
		Years	Months	Days			Manhattan	Bronx	Brooklyn	Queens	Richmond	
Jan. 4	Matilda Stevenson	100	..	..	Scotland	Chr. Myocarditis	1	..	..	..	..	1
Jan. 12	Maria Wicks	102	..	..	United States	Arterio Sclerosis	..	..	1	..	..	1
Feb. 6	Rifka Mehlman	105	..	..	Russia	Senility	1	..	..	..	..	1
Feb. 9	Michele Tepedino	103	2	4	Italy	Senility, Jaundice, Marasmus	..	..	1	..	..	1
Mar. 18	Aone Exiner	104	..	..	Russia	Arterio Sclerosis	1	..	..	..	..	1
Mar. 29	Pincus Zatulove	101	..	..	Russia	Chr. Bright's disease	..	1	..	..	..	1
May 3	Julius Horowitz	100	..	..	Roumania	Heart disease and old age	1	..	..	..	..	1
May 6	Jacob Berestitzsky	104	..	..	Russia	Gangrene and old age	1	..	..	..	..	1
May 11	Joseph DeLong	101	6	14	United States	Senile debility	..	..	1	..	..	1
July 21	Rosa Cardillo	100	.	..	Italy	Acute diarrhoea	..	..	1	..	..	1
July 28	Jane Vandewater	100	7	1	United States	Senility	..	..	..	1	..	1
Aug. 9	Elias Sotel	100	..	..	Syria	Arterio Sclerosis	..	..	1	..	..	1
Sept. 3	Jeanette Schwartz	106	3	14	Germany	Senility	..	..	1	..	..	1
Nov. 14	Sarah Cook	100	..	..	United States	Fall from window	..	1	..	..	..	1
Dec 11	Susan Gillis	114	11	13	United States	Senility	..	..	1	..	..	1
Dec. 15	Emily Osborne	100	..	..	United States	Senility, Ac. Bronchitis	..	1	..	..	..	1
Dec. 23	Harriet L. Peck	101	8	..	United States	Senility, Arterio Sclerosis	..	..	1	..	..	1

TABLE No. 19.

*DEATHS BY SUICIDE—1915

	Austria-Hungary		Bohemia		England		France		Germany		Ireland		Italy		Russia		Other Foreign		United States		Unknown		Sex		
	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	M.	F.	M	F	M.	F.	M.	F	M.	F.	M	F	M.	F.	Total
Cuts and stabs	5	.	1	..	2	..	.	.	6	.	3	..	2	1	6		7	.	16	2			48	3	51
Drowning	1	2	..	..	1	..	..	1	3	1	2	1	3		3	.	2		4	2	2		21	7	28
Gunshot	8	1	.	1	2	2	2	..	32	1	8		10	2	14		12	1	73	5	9	..	170	13	183
Hanging	10	2	2	1	2	.	1	..	27	3	1	1	12	1	13	4	10		21	7	4		93	19	112
Leaps	3	5	..	..	1	.	2	.	3	4	1	2	6	2	10	8	8	2	8	13	1		43	36	79
Railroads	..	.	..	.	.	.	..	..	1	.	.	.	.	.	3	.	.	.	.	1	.	..	4	1	5
Arsenic	1	..	..	..	1	.	..	..	1	..	.	.	.	.	1	..	..	.	1	.	.	.	5	.	5
Bichloride of mercury	1	.	..	..	.	2	..	..	2	1	1	1	1	2	2	2	..	..	3	5	.	.	10	16	26
Carbolic acid	1	..	..	..	1	.	..	..	5	3	2	1	.	.	1	3			4	7	1	..	15	14	29
Cyanide of Potassium	..	..	..	.	..	1	..	.	3	..	..	.	.	.	1	..	1	1	8	3	.	.	13	5	18
Opium	.	.	..	.	..	.	..	..	1	..	..	..	..	..	2	.	..	..	..	..	.	.	3		3
Oxalic acid	1	2	.	.	..	.	..	..	..	..	..	.	.	.	1	1	.	.	1	..	.	.	3	3	6
Other poisons	.	2	..		2	..	1	..	2	2	..	1	1	..	1	..	1	1	5	6	..	..	14	12	26
Other methods	1										1				3	1			1				5	1	6
Illuminating gas	26	15	1	3	9	1	..	..	65	29	10	7	9	1	39	15	18	7	67	40	15	4	259	122	381
Total	58	29	4	5	21	6	6	1	151	44	29	14	34	9	100	34	59	12	212	94	32	4	706	252	958

*The 958 suicides occurred in the Boroughs as follows: Manhattan, 508; The Bronx, 98; Brooklyn, 251; Queens, 80; Richmond, 21.

TABLE No. 20.

DEATHS IN INSTITUTIONS—1915.

Borough of Manhattan.

Babies' Hospital	445	New York Foundling Hospital	783
Bellevue Hospital	3,535	New York Nursery and Child's Hospital	206
Beth Israel Hospital	186	New York Polyclinic Hospital	324
Central and Neurological Hospital	801	Post-Graduate Hospital	458
City Hospital	675	Presbyterian Hospital	281
Columbus Hospital	67	Reception Hospital	5
Flower Hospital	310	Red Cross Hospital	40
French Hospital	123	Roosevelt Hospital	314
German Hospital	318	St. Francis Home	43
Gouverneur Hospital	551	St. Gregory's Hospital	95
Hahnemann Hospital	73	St. Luke's Hospital	387
Har Moriah Hospital	55	St. Mark's Hospital	91
Harlem Hospital	973	St. Mary's Hospital	73
Home for Aged (Little Sisters of Poor)	81	St. Vincent's Hospital	475
House of Relief	147	Skin and Cancer Hospital	55
Knickerbocker Hospital	178	Sloane Hospital for Women	71
Lying-in Hospital	229	Sydenham Hospital	80
Manhattan State Hospital	582	Washington Heights Hospital	75
Metropolitan Hospital	2,028	Willard Parker Hospital	558
Misericordia Hospital	162	Workhouse Hospital	91
Mount Sinai Hospital	759	Other Institutions	1,574
New York Hospital	396		
New York City School and Hospital	111	Total	18,864

Borough of The Bronx.

Fordham Hospital	513	St. Francis Hospital	244
Home for Incurables	83	St. Joseph's Hospital	582
Lebanon Hospital	412	Seton Hospital	344
Lincoln Hospital	427	Other Institutions	174
Montefiore Hospital	222		
Riverside Hospital	402	Total	3,403

Borough of Brooklyn.

Angel Guardian Home	27	Lutheran Hospital	41
Bethany Deaconess Hospital	28	Methodist Episcopal Hospital	264
Brooklyn Hospital	225	New York City Home for Aged and Infirm	293
Bushwick Hospital	157	Norwegian Hospital	170
Consumptive Home	47	Samaritan Hospital	26
Cumberland Street Hospital	208	St. Catherine's Hospital	391
Coney Island Hospital	194	St. Christopher's Hospital	106
Eastern District Hospital	92	St. John's Hospital	151
German Evangelical Hospital	24	St. Mary's Hospital	342
German Hospital	296	St. Peter's Hospital	216
Home for Aged (Little Sisters of Poor)	53	Swedish Hospital	83
Infants' Hospital	2	Williamsburg Hospital	150
Jewish Hospital	436	Other Institutions	851
Kings County Hospital	1,646		
Kingston Avenue Hospital	282		
Long Island College Hospital	384	Total	7,348
Long Island State Hospital	167		

Borough of Queens.

Flushing Hospital	163	St. Mary's Hospital	88
Jamaica Hospital	63	Other Institutions	131
St. Anthony's Hospital	510		
St. John's Hospital	242	Total	1,251
St. Joseph's Hospital	54		

Borough of Richmond.

City Farm Colony	86	St. Vincent's Hospital	118
Marine Hospital	38	Other Institutions	84
S. R. Smith Infirmary	216		
Sailors' Snug Harbor	109	Total	1,048
Sea View Hospital	397		

Recapitulations.

Borough of Manhattan	18,864	Borough of Richmond	1,048
Borough of The Bronx	3,403		
Borough of Brooklyn	7,348	City of New York	31,914
Borough of Queens	1,251		

TABLE No. 21.

PULMONARY TUBERCULOSIS AND CANCER.

Deaths and Death Rates per 100,000 Population According to Nativities of Deceased and Parents of Deceased—Death Rates Calculated on Returns of U. S. Census, 1910.

1915.

Country.	Nativity of Deceased.				Nativity of Parents of Deceased.			
	Pulmonary Tuberculosis.		Cancer.		Pulmonary Tuberculosis.		Cancer.	
	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.	Deaths.	Death Rate.
Austria-Hungary	453	170	278	104	517	130	289	72
China	27	583	6	130	29	628	5	108
Denmark	11	138	9	113	14	131	10	94
England	140	179	158	202	153	137	175	157
Finland	40	540	5	68	41	424	5	52
France	37	203	49	268	44	178	53	214
Germany	500	179	670	240	1,069	176	984	162
Greece	38	473	3	37	30	345	3	34
Ireland	988	391	622	246	2,278	405	988	176
Italy	498	146	256	75	706	133	270	51
Norway	87	390	37	166	102	323	36	114
Roumania	44	131	49	146	49	108	47	103
Russia	543	112	498	103	637	88	526	73
Scotland	51	221	54	234	54	152	64	181
Sweden	100	286	45	129	118	228	46	89
Switzerland	18	172	21	201	22	161	22	161
United States	4,934	174	1,722	61	1,706	168	705	70
Other foreign	302	496	163	268	....	....	....	....
Unknown	14	....	2	....	132	....	41	....
Other foreign and mixed foreign	....	....	....	....	542	260	215	103
Native mother or native father	....	....	....	....	582	155	163	43
Total	8,825	185	4,647	97	8,825	187	4,647	97

TABLE No. 22.

PULMONARY TUBERCULOSIS AND CANCER DEATHS FIFTEEN YEARS AND OVER, BY SEX, AGE, AND CIVIL CONDITION FOR YEAR 1915.

DEATH RATES PER 100,000 OF POPULATION ESTIMATED AT VARIOUS AGE GROUPS.

PULMONARY TUBERCULOSIS.

AGE GROUPS.	Males.												Females.											
	Single.		Married.		Widowed.		Divorced.		Unknown.		Total.		Single.		Married.		Widowed.		Divorced.		Unknown.		Total.	
	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
15 to 24 years	681	138.5	81	151.0	..	....	..	....	....	...	762	139.2	521	111.3	213	152.9	7	381.0	1	....	....	...	742	121.2
25 to 44 years	1,537	531.9	1,359	205.4	144	881.8	7	334.7	5	...	3,052	313.7	308	149.3	932	142.6	169	322.8	5	119.3	2	...	1,416	154.4
45 yrs. and over	592	1185.0	975	276.9	339	608.4	5	350.1	6	..	1,917	415.9	77	157.0	257	101.4	276	170.6	..	.....	2	...	612	131.4
Total.....	2,810	336.4	2,415	225.7	483	660.0	12	335.3	11	...	5,731	288.2	906	125.2	1,402	133.9	452	209.9	6	98.3	4	...	2,770	138.9

CANCER.

15 to 24 years	23	4.7	2	0.4	....	....	...	.....	....	...	25	4.6	21	4.5	4	2.9	1	54.5	..	....	....	...	26	4.2
25 to 44 years	65	22.5	228	34.5	10	61.2	...	.....	1	...	304	31.2	97	47.0	375	57.4	63	120.3	6	143.1	....	...	541	59.0
45 yrs. and over	183	366.3	1,130	321.0	349	626.4	2	140.0	2	...	1,666	361.4	236	481.1	843	332.7	954	589.8	5	346.2	2	...	2,040	437.9
Total....	271	32.4	1,360	127.1	359	490.6	2	55.9	3	..	1,995	100.3	354	48.9	1,222	116.7	1,018	472.7	11	180.3	2	...	2,607	130.7

ALL CAUSES—15 YEARS AND OVER.

	8,600	1029.7	15,583	1456.6	4,733	6466.0	59	1648.4	288	...	29,263	1471.3	4,430	610.6	10,331	987.0	9,034	4194.2	62	1016.0	42	...	23,899	1198.2

TABLE No. 23.

DEATHS FROM ACCIDENTS AND NEGLIGENCE—1915.

	Borough of					City of New York.
	Manhattan.	Bronx.	Brooklyn.	Queens	Richmond.	
Fractures and Contusions:						
Crushed by derricks, stones, etc	28	5	5	2	....	40
Crushed by falling bodies	32	6	19	3	1	61
Crushed by machinery	10	2	9	....	1	22
Crushed by elevators	34	1	....	....	1	36
Kicked by horses	3	1	6	1	....	11
Explosions	5	1	10	1	....	17
Injuries by animals	4	....	....	....	....	4
Not specified by Coroners	72	12	88	3	1	176
Falls:						
Down elevators, shafts, ship's hold, etc	54	1	23	....	1	79
Down stairs	85	7	33	8	....	133
From buildings	74	9	16	2	....	101
From fire escapes	32	2	6	1	....	41
From scaffolds	16	5	23	1	....	45
From windows	68	15	37	3	....	123
From wagons, cars, etc	18	8	17	4	1	48
From streets and sidewalks	31	5	21	1	....	58
Others	136	15	50	16	....	217
Not specified by Coroners	30	5	35	6	4	80
Street Vehicles:						
Run over by wagons, trucks, etc	78	5	35	....	1	119
Run over by automobiles	202	36	78	27	3	346
Others	8	1	7	....	....	16
Railroads:						
Electric surface	37	13	29	6	....	85
Steam	20	8	5	19	9	61
Elevated	14	1	4	....	....	19
Subways	18	2	3	1	....	24
Wounds:						
By firearms	2	....	5	3	1	11
By cutting and piercing instruments	3	....	10	3	....	16
Burns and Scalds:						
By stoves	25	9	14	5	3	56
By lamps	4	....	4	2	....	10
By fluids	88	17	47	11	3	166
By playing with matches	14	6	15	3	3	41
By steam	1	....	....	....	....	1
By others	29	2	1	13	....	45
Not specified by Coroners	20	12	66	....	3	101
Conflagration	28	1	30	2	1	62
Electric current	8	3	8	3	1	23
Drowning	194	42	148	43	30	457
Freezing	1	....	....	....	....	1
Illuminating gas	85	13	166	16	2	282
Chloroform and ether	2	....	4	....	....	6
Coal gas	2	1	....	....	....	3
Other gases, not specified	31	5	18	8	2	64
Poison:						
By food	8	2	3	1	....	14
By insect or snake bite	....	....	2	....	....	2
By bichloride of mercury	12	1	1	....	....	14
By carbolic acid	3	1	....	....	....	4
By cocaine	1	....	1	....	....	2
By opium	14	2	7	....	....	23
By wood alcohol	....	....	1	....	....	1
By alcohol	1	....	....	1	....	2
By other poisons	14	2	9	3	....	28
Foreign body in larynx	12	2	4	1	1	20
Criminal abortion	28	8	12	2	....	50
Sunstroke	22	3	22	3	....	50
Starvation	3	....	2	....	....	5
Other violence, not specified	18	4	13	....	1	36
Hydrophobia	....	....	1	....	....	1
Tetanus	11	....	9	2	2	24

RECAPITULATION.

	Borough of					City of New York.
	Manhattan.	Bronx.	Brooklyn.	Queens.	Richmond.	
Fractures and contusions	188	28	137	10	4	367
Falls	544	72	261	42	6	925
Street vehicles	288	42	120	27	4	481
Railroads	89	24	41	26	9	189
Wounds	5	....	15	6	1	27
Burns and scalds	181	46	147	34	12	420
Conflagrations	28	1	30	2	1	62
Electric current	8	3	8	3	1	23
Drowning	194	42	148	43	30	457
Neglect and exposure	4	....	2	....	....	6
Illuminating gas	85	13	166	16	2	282
Other gases	35	6	22	8	2	73
Poison	53	8	24	5	....	90
Suffocation	12	2	4	1	1	20
Criminal abortion	28	8	12	2	....	50
Sunstroke	22	3	22	3	....	50
Other violence	18	4	13	....	1	36
Hydrophobia	....	....	1	....	....	1
Tetanus	11	....	9	2	2	24
	1,793	302	1,182	230	76	3,583

TABLE No. 24.

DEATHS FROM CERTAIN DISEASES WITH CONTRIBUTING CAUSES—1915.

Determining Cause of Death.	Total Number of Deaths.	Contributing Causes. Typhoid Fever.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Septicæmia.	Pulmonary Tuberculosis.	Other Tuberculous Diseases.	Syphilis.	Cancer.	Acute Rheumatism.	Chronic Rheumatism.	Diabetes.	Alcoholism.	Meningitis.	Locomotor Ataxia.	Apoplexy.	Paralysis.	General Paresis.	Other Forms Mental Alienation.	Epilepsy.
		...	107	7	39	48	47	91	216	60	382	97	323	81	259	192	314	341	42	1,995	199	49	117	46
Typhoid fever	332								1	5	3	2						8						1
Measles	630				19	3		2	1	2	1							2		2				
Scarlet fever	291		8		1	41		1			1							3						
Whooping cough	397									1	6	1						5		2				
Diphtheria and croup	1,278		98	7	5		1	2	3	3	3		1	1				2						
Influenza	526													2	3	4	2	15	1	6				
Pulmonary tuberculosis	8,825				2		3	2	1		256	11	3		2	45	44		2	3	1	2	28	5
Other tuberculous diseases	1,424				1		3	2	3	3	84	4			1	5	7			1			3	1
Cancer	4,647						3	8	1	19	2	3	308		5	15	3		2	7		2	6	
Acute rheumatism	273						1	2	2			1			2			1		6			1	
Diabetes	1,109						1	4	3	4				1	1			1	2	23	2			2
Alcoholism	563						1	3		3	1	4			1			4		5	2	1	3	3
Locomotor ataxia	62											1								11	1			
Pericarditis	63														1					1				
Acute endocarditis	435							1	13		1			3	4	1	1	3	1	5				
Organic heart disease	10,383						12	11	7	1	6	21	2	54	194	30	34	4	10	180	30	7	18	14
Angina pectoris	286														1	1				1				
Diseases of arteries	2,210								1			7			5	2	2			1,255	42	1	9	3
Broncho pneumonia	1,836				2	2	3	8	2		3	5		3	4	5	18	56	4	7	6	5	10	3
Lobar pneumonia	6,086						10	14	5	3	2	11		6	6	28	106	59		22	7	9	9	4
Diarrhœa (under 2 years)	3,734		1		7				1		1	5	2					16						
Appendicitis	723							1	6	2	2		2			3			1					
Cirrhosis of liver	721							3				1			1	5	20		1	4	1			
Acute nephritis	445						2	1	1			12		2		1	2	2		7	2		2	
Chronic nephritis	5,076					1	2	5		2	4			5	20	28	29	8	3	360	26	2	2	2

TABLE No. 24—Continued.

DEATHS FROM CERTAIN DISEASES WITH CONTRIBUTING CAUSES—1915.—Continued.

Determining Cause of Death.	Contributing Causes.																							
	Neuritis.	Other Nervous.	Diseases of Ear.	Pericarditis.	Acute Endocarditis.	Organic Heart Disease.	Angina Pectoris.	Diseases of Arteries.	Embolism and Thrombosis.	Acute Bronchitis.	Broncho Pneumonia.	Lobar Pneumonia.	Pleurisy.	Asthma.	Emphysema.	Diarrhœa.	Hernia.	Cirrhosis of Liver.	Peritonitis.	Acute Nephritis.	Chronic Nephritis.	Congenital Debility.	Senility.	Operations (Surgical).
	54	72	109	124	641	2,103	93	2,582	391	339	1,796	709	510	149	93	447	143	398	435	452	3,795	499	277	1,917
Typhoid fever	.	1	.	.	9	5	.	1	3	.	18	20	3	.	.	.	.	.	8	3	2	.	.	1
Measles	.	.	3	.	4	1	.	.	.	9	443	30	2	.	.	16	.	.	.	2	1	5	.	.
Scarlet fever	.	.	3	.	3	.	.	.	.	1	26	8	3	.	.	2	.	.	1	30	5	.	.	.
Whooping cough	.	.	2	.	3	.	.	.	.	7	265	18	.	.	1	14	.	.	.	.	.	6	.	.
Diphtheria and croup	.	.	2	.	84	14	.	.	.	4	271	20	4	.	.	10	.	1	1	17	2	.	.	2
Influenza	1	1	6	.	21	53	3	11	1	31	85	124	8	3	1	6	1	2	.	19	16	2	5	.
Pulmonary tuberculosis	2	5	4	5	46	185	.	18	2	1	11	36	19	4	2	16	3	34	1	34	126	.	1	3
Other tuberculous diseases	.	1	4	.	6	14	.	1	2	3	31	14	1	.	.	22	4	5	3	5	17	3	.	23
Cancer	1	1	.	2	18	170	.	41	7	5	26	29	4	.	.	3	31	12	19	19	127	.	4	650
Acute rheumatism	.	.	.	12	48	15	.	1	3	1	1	6	5	.	.	1	.	.	.	9	5	.	1	.
Diabetes	.	1	5	1	8	79	4	30	4	6	10	20	4	.	1	3	2	6	.	6	118	.	.	18
Alcoholism	20	2	.	.	.	72	.	4	2	2	21	57	2	.	.	2	.	40	.	6	44	.	1	.
Locomotor ataxia	1	.	.	.	.	3	.	1	.	2	2	4	.	.	.	1	.	.	.	1	9	.	.	.
Pericarditis	.	.	.	.	3	6	.	1	.	.	1	3	8	.	.	.	.	2	1	.	9	.	.	.
Acute endocarditis	1	1	1	7	.	1	72	8	24	8	11	10	5	3	3	2	.	6	2	35	22	1	1	.
Organic heart disease	7	5	1	33	6	.	72	1,190	138	78	97	57	51	66	33	54	6	137	.	93	2,708	1	65	1
Angina pectoris	.	.	.	.	1	40	.	136	2	1	.	.	.	1	1	.	.	.	1	.	20	.	.	.
Diseases of arteries	1	1	.	1	1	25	5	.	61	11	10	1	1	5	9	7	.	.	.	.	9	.	41	2
Broncho pneumonia	2	7	26	7	32	128	.	78	6	15	.	.	72	12	4	98	1	4	1	31	82	66	20	.
Lobar pneumonia	2	8	19	32	105	372	.	96	24	.	.	.	266	15	5	39	.	24	8	48	179	17	15	1
Diarrhœa (under 2 years)	.	5	14	.	10	1	.	.	1	62	172	28	1	.	.	.	3	.	.	8	.	79	.	.
Appendicitis	.	.	.	1	3	.	.	2	6	.	2	14	1	.	.	1	16	.	221	4	6	.	1	274
Cirrhosis of liver	3	.	.	1	21	58	.	24	.	2	8	5	6	1	.	7	2	.	2	9	102	.	.	10
Acute nephritis	3	1	1	2	17	18	.	11	2	6	10	9	3	.	1	9	.	5	1	.	14	.	2	1
Chronic nephritis	4	.	3	12	83	507	4	739	29	27	42	24	17	14	10	23	5	95	1	13	.	1	9	2

TABLE No. 25.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE ACCORDING TO NATIVITIES OF BOTH PARENTS—DEATH RATES PER 1,000 BIRTHS REPORTED BY NATIVITIES OF BOTH PARENTS—1915.

	Births Reported by Nativities of Both Parents.	Deaths Under One Year by Nativities of Both Parents.	Death Rate 1,000 Births Reported by Nativities of Both Parents.
Austria-Hungary	11,797	942	79.8
Bohemia	237	32	135.0
England	486	67	137.9
France	100	8	80.0
Germany	1,903	220	115.6
Ireland	5,027	600	119.3
Italy	29,717	3,068	103.2
Russia-Poland	24,432	1,903	77.9
Scotland	202	16	79.2
Sweden	550	36	65.5
Switzerland	45	10	222.2
United States	36,992	3,935	106.3
Other foreign, Mixed native and foreign, Unknown	29,768	3,029	101.8
Total	141,256	13,866	98.2

TABLE No. 26.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE ACCORDING TO NATIVITY OF PARENTS FOR YEAR 1915.

Country	Manhattan	The Bronx	Brooklyn	Queens	Richmond	New York City
United States	1,533	385	1,506	422	89	3,935
Ireland	376	69	124	23	8	600
Germany	104	21	68	26	1	220
Italy	1,618	274	982	143	51	3,068
Russia	847	193	625	63	11	1,739
England	27	8	22	7	3	67
Austria-Hungary	659	66	160	39	18	942
Scotland	5	2	5	3	1	16
British America	2	3	6	2	3	16
Switzerland	5	3	....	1	1	10
France	4	....	2	2	....	8
Bohemia	26	4	1	1	....	32
Roumania	33	11	21	....	1	66
Poland	18	9	72	57	8	164
Syria	6	1	12	....	....	19
Sweden	14	2	17	2	1	36
Norway	3	1	45	2	3	54
Denmark	2	2	6	3	....	13
Finland	21	4	10	....	....	35
Holland	1	....	1	....	....	2
Cuba	3	....	1	....	....	4
Other West Indies	100	....	25	....	....	125
Belgium	3	....	1	....	....	4
Spain	16	2	8	....	....	26
Greece	36	2	3	1	....	42
China	....	....	....	....	....	....
Australia	....	....	2	....	....	2
Other Foreign	65	1	9	2	....	77
Mixed Foreign	210	35	139	20	5	409
Native Father (Foreign Mother)	247	49	163	43	13	515
Native Mother (Foreign Father)	400	109	348	77	21	955
Unknown	543	13	92	7	10	665
Total	6,927	1,269	4,476	946	248	13,866

TABLE No. 27.

DEATHS FROM ALL CAUSES AND DIARRHOEAL DISEASES UNDER ONE YEAR OF AGE, BY WEEKS—1915.

Week Ending	All Causes.							Diarrhoeal Diseases.						
	Under 1 Month.	1 Month and Under 2 Months.	2 Months and Under 3 Months.	3 Months and Under 6 Months.	6 Months and Under 9 Months.	9 Months and Under 12 Months.	Total Under 1 Year.	Under 1 Month.	1 Month and Under 2 Months.	2 Months and Under 3 Months.	3 Months and Under 6 Months	6 Months and Under 9 Months	9 Months and Under 12 Months.	Total Under 1 Year.
January 2	110	28	20	37	35	32	262	8	3	3	3	3	3	23
January 9	125	35	18	48	34	27	287	5	5	4	7	2	4	27
January 16	125	32	14	43	40	21	275	4	7	1	7	1	1	24
January 23	114	25	20	29	25	20	233	4	1	1	4	1	..	11
January 30	103	23	23	45	40	31	265	1	4	4	3	5	6	23
February 6	114	32	19	42	29	18	254	3	5	4	6	5	4	27
February 13	110	29	16	57	23	27	262	7	6	3	10	3	3	32
February 20	97	23	18	38	26	20	222	2	3	1	9	..	2	17
February 27	122	25	23	44	39	28	281	7	4	3	6	12	..	32
March 6	107	20	16	34	35	33	245	4	3	..	8	4	2	21
March 13	112	18	20	55	38	28	271	1	2	4	14	5	4	30
March 20	107	27	22	52	46	43	297	3	6	3	18	6	1	37
March 27	114	18	14	42	52	47	287	5	2	1	5	5	2	20
April 3	130	21	18	52	47	45	313	2	6	4	12	7	5	36
April 10	103	33	23	52	47	44	302	6	3	3	13	9	2	36
April 17	103	20	13	47	57	39	279	8	4	3	10	11	7	43
April 24	108	24	25	30	40	37	264	8	3	6	7	3	3	30
May 1	99	21	19	49	52	39	279	4	2	2	6	10	6	30
May 8	111	29	19	35	30	45	269	6	5	6	8	4	2	31
May 15	109	31	21	44	47	40	292	4	7	2	15	7	3	38
May 22	99	17	18	47	32	54	267	1	4	7	13	4	5	34
May 29	107	24	14	42	36	42	265	3	7	3	7	8	1	29
June 5	87	19	9	47	37	51	250	4	4	2	9	5	7	31
June 12	115	25	26	24	48	41	279	9	5	6	8	6	5	39
June 19	93	21	8	42	27	39	230	2	4	3	9	7	4	29
June 26	98	24	12	35	34	35	238	5	6	4	13	7	9	44
July 3	69	15	17	33	25	43	202	5	8	9	12	7	7	48
July 10	82	22	18	49	40	24	235	6	7	7	24	16	6	66
July 17	82	25	17	53	45	45	267	7	7	5	28	24	18	89
July 24	67	21	25	49	57	52	271	6	6	12	33	38	25	120
July 31	90	23	20	81	73	57	344	13	8	13	50	51	31	166
August 7	90	37	30	79	90	68	394	6	22	12	61	63	44	208
August 14	70	30	36	81	85	46	348	5	15	13	63	62	25	183
August 21	80	39	30	95	76	49	369	9	18	21	55	59	31	193
August 28	90	20	32	96	71	54	363	5	8	23	70	48	33	187
September 4	79	29	36	90	81	38	353	6	11	14	58	50	22	161
September 11	102	31	22	72	46	49	322	7	12	9	39	25	29	121
September 18	84	30	24	76	39	32	285	9	13	11	47	20	19	119
September 25	91	21	27	63	53	35	290	4	13	14	37	36	22	126
October 2	79	33	27	56	44	40	279	5	15	12	32	30	22	116
October 9	69	24	26	61	50	28	258	2	13	14	31	28	14	102
October 16	82	19	13	50	32	33	229	3	7	5	22	11	13	61
October 23	102	19	19	46	33	22	241	7	2	8	18	13	2	50
October 30	78	11	18	49	17	13	186	5	2	9	16	7	5	44
November 6	74	15	18	35	23	14	179	2	3	8	15	8	4	40
November 13	95	19	27	38	27	26	232	5	4	7	13	11	9	49
November 20	100	16	15	30	19	19	199	7	5	6	8	8	4	38
November 27	91	19	16	33	22	17	198	1	5	..	11	10	1	28
December 4	98	11	19	17	17	14	176	2	1	2	6	3	2	16
December 11	102	23	19	29	30	20	223	4	2	3	7	7	1	24
December 18	110	22	26	32	25	19	234	4	4	7	4	1	3	23
December 25	89	24	11	44	31	22	221	2	6	1	8	2	1	20
Total, 52 weeks	5,067	1,242	1,056	2,549	2,147	1,805	13,866	253	328	328	998	781	484	3,172

TABLE No. 28.

DISPOSITION OF THE DEAD AND ALL STILL-BORN INFANTS—1915.

Cemeteries.	Number of Interments.
Borough of Manhattan—	
Holy Redeemer Vault	1
Marble	11
Marble Vault	2
St. Mark's Churchyard	1
Trinity	66
Trinity Church	9
Total	90
Borough of The Bronx—	
City	5,580
Pelham Bay	16
St. Peter's	20
St. Raymond's	2,901
Woodlawn	2,413
Total	10,930
Borough of Brooklyn—	
Canarsie	53
County Farm	552
Cypress Hills	647
Evergreen	866
Flatlands	5
Friends	16
Graveseod	16
Greenwood	4,028
Holy Cross	6,444
Holy Trinity	1,915
Maimonides	115
Mount Hope	126
New Lots	8
New Utrecht	9
National	97
Salem Fields	211
United Jewish Congregation	49
Washington	1,618
Total	16,775
Borough of Queens—	
Acacia	252
Ahawath Chesed	56
Aqueduct	1
Bayside	387
Bethel	150
Calvary	20,462
Cedar Grove	470
Cypress Hills	780
Evergreens	3,327
Flushing	304
Fresh Pond	878
Grace Churchyard	16
Linden Hill	1,802
Lutheran	5,544
Machpelah	128
Maple Grove	656
Montefiore	1,395
Mount Carmel	603
Mount Hebron	888
Mount Judah	466

Cemeteries.	Number of Interments.
Borough of Queens—Continued.	
Mount Lebanon	87
Mount Nebo	208
Mount Olivet	1,821
Mount St. Mary's	352
Mount Zion	3,331
Methodist Churchyard	1
Prospect	20
Springfield	46
St. George's Churchyard	2
St. James' Churchyard	1
St. John's	2,186
St. Michael's	2,476
St. Monica's	27
Union Fields	406
Union Fields (Hungarian)	40
Zion	9
Total	49,578
Borough of Richmond—	
Baron Hirsch	511
Bethel	62
City Farm Colony	42
Fairview	73
Fountain	9
Hillside	11
Lake	33
Merrill	1
Moravian	336
Mount Loretto	4
Mount Richmood	1,219
New Springville	5
Ocean View	74
Sailor's Snug Harbor	73
St. John's Lutheran	4
St. Joseph's	14
St. Luke's	12
St. Mary's, Third Ward	43
St. Mary's, Fourth Ward	120
St. Michael's	3
St. Peter's	283
Silver Lake	31
Silver Mount	74
Staten Island	38
Sylvan	3
United Hebrew	332
West Baptist	6
Woodland	132
Woodrow Church	6
Others	7
Total	3,561
Summary—	
Borough of Manhattan	90
Borough of The Bronx	10,930
Borough of Brooklyn	16,775
Borough of Queens	49,578
Borough of Richmond	3,561

TABLE

DEATHS FROM ALL CAUSES
DEATH RATE PER 1,000 POPULATION
CITY OF

	Estimated Population 1915						Total Deaths All Causes		
	White			Negro			White		
	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes
Under 1 year.....	*70,888	*67,727	*138,615	*1,354	*1,260	*2,614	7,384	5,951	13,335
Under 5 years.....	289,269	284,660	573,929	3,725	3,982	7,707	10,680	8,805	19,485
5 to 9 years.....	248,717	247,785	496,502	2,757	3,129	5,886	882	767	1,649
10 to 14 years.....	239,073	239,731	478,804	2,564	3,015	5,579	517	488	1,005
15 to 19 years.....	244,548	272,989	517,537	3,048	4,153	7,201	796	706	1,502
20 to 29 years.....	563,993	585,504	1,149,497	13,788	18,034	31,822	2,921	2,502	5,423
30 to 39 years.....	462,973	431,604	894,577	12,433	12,915	25,348	4,293	2,789	7,082
40 to 49 years.....	323,317	299,623	622,940	6,192	6,542	12,734	5,469	3,424	8,893
50 to 59 years.....	179,966	173,652	353,618	2,467	2,958	5,425	5,695	3,947	9,642
60 years and over..	119,885	139,626	259,511	1,305	1,990	3,295	9,078	9,646	18,724
Total.....	2,678,323	2,677,702	5,356,025	48,374	56,892	105,266	40,331	33,074	73,405

* Total births reported.

No. 29.

BY SEX, COLOR AND AGE—1915
ESTIMATED AT DIFFERENT AGE GROUPS
NEW YORK.

Total Deaths All Causes			Death Rate Per 1,000 Population Estimated at Different Age Groups						Percent of Increase In Mortality of Negroes Over Whites		
Negro			White			Negro					
Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes
290	238	528	†104.17	†87.88	†96.22	†214.19	†188.90	†201.99	105.62	114.95	109.93
422	380	802	36.92	30.96	33.95	113.28	95.44	104.17	206.83	208.57	207.12
25	19	44	3.55	3.10	3.32	9.07	6.07	7.47	155.50	95.81	125.00
16	26	42	2.16	2.04	2.10	6.24	8.62	7.53	188.88	322.55	258.57
33	34	67	3.25	2.59	2.90	10.83	8.19	9.30	233.23	216.22	220.69
174	194	368	5.18	4.27	4.72	12.62	10.76	11.56	143.63	151.99	144.92
254	188	442	9.27	6.46	7.91	20.43	14.56	17.44	120.39	125.39	120.49
211	171	382	16.91	11.43	14.28	34.08	26.14	30.00	101.56	128.69	110.08
125	119	244	31.65	22.73	27.27	50.67	40.23	44.98	60.09	76.99	64.94
117	173	290	75.72	69.08	72.15	89.66	86.94	88.02	18.41	25.85	22.00
1,377	1,304	2,681	15.06	12.35	13.70	28.47	22.92	25.47	89.04	85.58	85.91

†Death rate per 1,000 births reported.

TABLE No. 30.

DEATHS OF NON-RESIDENTS FROM CERTAIN CAUSES—1915.

Causes of Death.	Manhattan.	The Bronx.	Brooklyn.	Queens.	Richmond.	City of New York.
Typhoid fever	9	....	4	1	....	14
Pulmonary tuberculosis	51	51	12	11	6	131
Other tubercular diseases	31	1	4	....	....	36
Cancer	213	5	19	1	1	239
Alcoholism	11	....	....	....	2	13
Heart diseases	137	10	36	8	4	195
Ac. Respir. diseases	86	10	16	7	1	120
Diarrhoeal diseases	30	1	10	....	1	42
Appendicitis	21	1	3	3	....	28
Cirrhosis of liver	5	....	1	....	1	7
Diseases of women	9	1	4	....	....	14
Congenital debility	39	....	4	2	....	45
Accidents	57	6	39	8	8	118
Suicides	29	2	4	....	3	38
Other causes	315	30	78	17	3	443
Total	1,043	118	234	58	30	1,483
Under 5 years	105	7	22	7	1	142
5 to 25 years	90	18	20	9	4	141
25 to 45 years	304	41	62	20	12	439
45 to 65 years	377	31	76	13	10	507
65 years and over	167	21	54	9	3	254
Total	1,043	118	234	58	30	1,483
Institutions	752	95	130	41	16	1,034
Houses	224	17	66	11	4	322
Other places	67	6	38	6	10	127
Total	1,043	118	234	58	30	1,483

TABLE

GENERAL

	Borough of—	
	Manhattan.	*The Bronx.
Number of deaths	36,980	7,816
Death rate	14 30	14.15

*The death rate in the Borough of the Bronx is materially increased by the deaths in institutions,

Borough.	Estimated Population.	Certificates Received and Tabulated.			
		Marriages.	Births.	Deaths.	Stillbirths.
Manhattan	2,585,469	29,451	65,218	36,980	3,000
The Bronx	552,538	4,152	16,001	7,816	696
Brooklyn	1,881,063	14,718	48,482	24,469	2,176
Queens	353,156	2,071	9,219	4,999	432
Richmond	95,964	605	2,336	1,929	109
City of New York	5,468,190	50,997	141,256	76,193	6,413

	Borough of—	
	Manhattan.	The Bronx.
Number of deaths in institutions	18,864	3,403
Number of deaths in tenements	15,465	2,972
Number of deaths in dwellings	1,127	1,269
Number of deaths in hotels and boarding houses	573	20
Number of deaths in streets, rivers, etc.	951	152
	36,980	7,816

Corrected Interborough Deaths.	Residents of	
	Manhattan.	The Bronx.
Died in Manhattan	.....	936
Died in The Bronx	1,195	....
Died in Brooklyn	113	15
Died in Queens	99	11
Died in Richmond	284	41
Net change	—672	—330
Corrected actual borough death rate	14 04	13.55

No. 31.

FIGURES—1915.

Borough of—			City of New York.
Brooklyn.	Queens.	Richmond.	
24,469	4,999	1,929	76,193
13.01	14 16	20.10	13.93

most of the inmates having been transferred from the Borough of Manhattan.

Rate Per 1,000.				Transit Permits Issued.	Coroners' Cases	Searches Made.	Transcripts Issued.
Marriages.	Births.	Deaths.	Stillbirths.				
11.39	25.22	14 30	1.16	1,135	5,609	94,314	38,693
7 61	28 96	14 15	1 26	52	1,081	13,344	5,744
7.83	25 77	13 01	1.16	595	3,205	55,234	21,461
5 86	26 11	14 16	1.22	32	728	6,914	4,224
6.30	24 34	20.10	1 14	24	262	2,439	1,154
9 93	25.83	13.93	1.17	1,838	10,885	172,245	71,276

Borough of—			City of New York.
Brooklyn.	Queens.	Richmond.	
7,348	1,251	1,048	31,914
10,016	1,155	103	29,711
6,500	2,373	676	11,945
36	33	25	687
569	187	77	1,936
24,469	4,999	1,929	76,193

Residents of—			City of New York.
Brooklyn.	Queens.	Richmond.	
1,124	236	67	2,363
110	25	3	1,333
. .	295	6	429
442	.....	1	553
143	9	....	477
+1,390	+12	−400	.....
13.75	14.19	15.93	.....

TABLE No. 32.

SEARCHES AND TRANSCRIPTS—1915.

	Free Searches			Paid Searches			Total Paid Searches	Total Searches Free and Paid
	School	Employment	Total	Births	Marriages	Deaths		
Manhattan—								
Searches	28,893	22,070	50,963	13,254	4,545	25,552	43,351	94,314
Transcripts	....	....	...	10,086	3,072	25,535	38,693	....
Not founds	..	....	....	1,900	758	668	3,326	....
The Bronx—								
Searches	4,581	3,667	8,198	463	154	4,529	5,146	13,344
Transcripts	....	....	....	435	100	5,209	5,741	....
Not founds	....	....	....	44	40	45	129	....
Brooklyn—								
Searches	16,460	16,584	33,044	4,834	2,013	15,343	22,190	55,234
Transcripts	....	....	....	2,767	1,281	17,413	21,461	....
Not founds	....	....	....	1,816	339	431	2,586	....
Queens—								
Searches	2,275	1,183	3,458	543	76	2,837	3,456	6,914
Transcripts	....	....	....	440	61	3,723	4,224	....
Not founds	....	....	....	110	15	49	174	....
Richmond—								
Searches	968	348	1,316	264	37	822	1,123	2,439
Transcripts	....	....	....	192	27	935	1,154	....
Not founds	....	....	....	74	10	13	97	....
City of New York—								
Searches	53,127	43,852	96,979	19,358	6,825	49,083	75,266	172,245
Transcripts	....	....	....	13,920	4,541	52,815	71,276	....
Not founds	....	....	....	3,944	1,162	1,206	6,312	....

Population, Deaths and Death Rates per 1,000 Population, City of New York, Principal Causes, Years 1898 to 1915, Inclusive

Year	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
Population	3,272,418	3,356,722	3,446,042	3,554,079	3,665,825	3,781,423	3,901,023	4,025,742	4,166,556	4,314,237	4,469,218	4,632,078	4,794,935	4,929,586	5,064,237	5,198,888	5,333,539	5,468,190
Total deaths	66,294	65,343	70,872	70,720	68,112	67,864	78,060	73,714	76,293	79,205	73,072	74,105	76,742	75,423	73,008	73,902	71,803	76,193
Death rate	20.26	19.47	20.57	19.90	18.58	17.95	20.01	18.31	18.29	18.36	16.35	16.00	16.01	15.30	14.41	14.21	14.03	13.93
Total deaths under 5 years	25,499	23,801	25,836	24,256	21,388	22,044	25,542	24,539	25,777	25,794	24,141	24,519	21,268	22,242	20,978	20,711	19,530	20,291
Rate on general population	7.79	7.09	7.49	6.82	6.65	5.83	6.55	6.09	6.19	5.98	5.40	5.29	5.06	4.51	4.11	3.98	3.66	3.71
Rate population under 5 years	67.2	61.1	64.6	59.3	58.4	51.6	58.5	54.9	56.2	54.9	50.0	49.5	47.7	42.6	39.1	37.6	34.5	35.0
Typhoid fever	676	546	718	727	764	653	661	649	639	740	536	564	558	545	499	362	334	332
Rate	.21	.16	.21	.20	.21	.17	.17	.16	.15	.17	.12	.12	.12	.11	.10	.07	.06	.06
Typhus fever	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Rate	.0003	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.0002	.....
Malarial fever	250	167	216	195	125	90	91	53	64	69	34	40	27	38	20	13	20	11
Rate	.08	.05	.06	.05	.03	.02	.02	.01	.02	.02	.01	.01	.006	.008	.004	.003	.004	.002
Smallpox	1	18	12	410	310	5	7	9	6	9	1	2	5	3	2	.....	.....	.....
Rate	.0003	.005	.003	.12	.08	.001	.002	.002	.001	.002	.0002	.0004	.0010	.0006	.0004	.....	.....	.....
Measles	651	587	816	449	710	508	895	520	1,145	728	972	997	785	659	671	628	560	630
Rate	.20	.17	.24	.13	.19	.13	.23	.13	.27	.17	.22	.22	.16	.13	.13	.12	.11	.12
Scarlet fever	703	533	465	1,162	940	734	851	473	491	796	1,333	786	953	741	615	507	452	291
Rate	.21	.16	.13	.33	.26	.19	.22	.12	.12	.19	.29	.17	.20	.15	.12	.10	.08	.05
Diphtheria and croup	1,778	1,924	2,277	2,068	2,015	2,190	2,048	1,544	1,898	1,740	1,758	1,714	1,715	1,281	1,125	1,333	1,491	1,278
Rate	.54	.57	.66	.58	.55	.58	.53	.38	.46	.40	.39	.37	.36	.26	.22	.26	.28	.23
Whooping-cough	716	514	584	289	606	324	197	408	367	393	188	401	294	384	287	420	279	397
Rate	.22	.15	.17	.08	.17	.09	.05	.10	.09	.09	.04	.09	.06	.08	.06	.08	.05	.07
Cerebrospinal meningitis	357	394	306	267	265	271	1,403	2,025	812	643	351	326	294	203	196	202	207	119
Rate	.11	.12	.09	.08	.07	.07	.36	.50	.19	.15	.08	.07	.06	.04	.04	.04	.04	.02
Pulmonary tuberculosis	7,724	8,015	8,154	8,135	7,569	8,020	8,512	8,535	8,955	8,999	8,869	8,643	8,692	8,790	8,591	8,601	8,918	8,825
Rate	2.36	2.39	2.37	2.29	2.07	2.12	2.18	2.12	2.16	2.09	1.98	1.87	1.81	1.78	1.70	1.65	1.67	1.61
Other tuberculous diseases	1,541	1,562	1,476	1,255	1,314	1,284	1,257	1,123	1,239	1,263	1,288	1,268	1,382	1,460	1,390	1,430	1,372	1,424
Rate	.47	.47	.43	.35	.36	.34	.32	.28	.30	.29	.29	.27	.29	.29	.27	.27	.26	.26
Bronchitis	1,923	1,988	1,964	1,683	1,898	1,560	1,735	1,417	1,319	1,048	819	1,051	928	877	732	693	601	711
Rate	.59	.59	.57	.47	.52	.41	.44	.35	.32	.24	.18	.23	.20	.18	.15	.13	.11	.13
Pneumonia	8,094	8,531	10,482	9,168	9,377	9,714	12,369	9,783	10,868	11,806	9,508	10,614	10,519	10,055	9,979	10,042	9,678	10,922
Rate	2.47	2.54	3.04	2.58	2.56	2.57	3.17	2.43	2.61	2.74	2.13	2.29	2.19	2.04	1.97	1.93	1.81	2.00
Diarrhœa under 5 years	6,570	5,569	5,978	6,071	5,190	4,443	5,647	6,136	6,016	6,611	6,190	5,380	5,918	4,696	4,149	3,668	3,579	3,924
Rate on whole population	2.01	1.66	1.73	1.71	1.42	1.17	1.45	1.52	1.44	1.53	1.38	1.16	1.23	.95	.82	.71	.67	.72
Rate on population under 5 years	17.3	14.3	15.0	14.9	12.4	10.4	12.9	13.7	13.1	14.1	12.8	10.9	11.6	9.0	7.7	6.7	6.3	6.8
Cancer	2,006	2,136	2,291	2,463	2,450	2,608	2,709	2,875	3,005	3,227	3,243	3,488	3,710	3,873	4,071	4,223	4,467	4,647
Rate	.61	.64	.66	.69	.63	.69	.69	.71	.72	.75	.73	.76	.77	.78	.80	.78	.84	.85
Bright's and nephritis	4,686	5,113	5,352	5,500	5,461	5,636	6,220	5,944	6,108	5,685	5,049	5,522	5,638	5,017	5,724	5,615	5,617	5,521
Rate	1.43	1.52	1.55	1.55	1.49	1.49	1.59	1.48	1.47	1.32	1.13	1.19	1.17	1.02	1.13	1.08	1.05	1.01
Heart disease	3,847	3,751	3,858	4,626	4,859	4,771	4,996	5,140	5,557	7,237	7,130	6,854	6,870	7,965	8,890	9,674	10,058	10,383
Rate	1.18	1.12	1.12	1.30	1.33	1.26	1.28	1.28	1.33	1.68	1.59	1.48	1.43	1.62	1.76	1.86	1.89	1.90
Puerperal diseases	568	558	711	648	642	637	727	815	763	783	698	719	761	738	676	668	679	710
Rate	.17	.17	.21	.18	.18	.17	.19	.20	.18	.18	.16	.16	.16	.15	.13	.13	.13	.13
Violence	3,677	3,385	3,913	4,636	3,752	4,068	5,191	4,476	4,741	4,911	4,737	4,403	4,638	5,183	4,762	4,937	4,985	4,777
Rate	1.12	1.01	1.14	1.30	1.02	1.08	1.33	1.11	1.14	1.14	1.06	.95	1.00	1.05	.94	.95	.93	.87

It is to be noted that the estimated populations from 1910-15 given on the preceding page are the result of an adoption by the Department of Health of the arithmetical method in operation at the office of the Bureau of the Census, Washington, D. C., as to estimation of the population; with this recasting of the population there has been a readjustment made of the death rates from all and individual causes of death specified in the above table. This reversal of method in estimating the population of the City in the intercensal years—the geometrical method having been used for many years—is found to be necessary as a result of the disturbance of the increase in the population since the beginning of the European war, August 1, 1914.

The results of the State Census of 1915 for the City of New York were rejected by reason of inaccuracies and especially incompleteness. See also Population, page 190.

U. S. Department of Agriculture Weather Bureau.

NEW YORK, N. Y.

ANNUAL METEOROLOGICAL SUMMARY.

1915.

With Comparative Data.

The mean temperature, 52.6°, is 0.9° above normal. January, February and April were notably warm; September, October and November above normal; and the other months below normal. The annual range was 82°, from 10° January 30 to 92° July 31. This is the least of record. The warmest 10-day period was September 8-17 with a mean of 77.7°.

Precipitation, 40.83 inches, is 3.80 inches below normal. Deficiencies occurred in March, April, September, October and November with drouths of 10 days or more in March, April and December; and excesses in other months, particularly January and February.

The total wind movement, 147,558 miles, is probably a little below normal for this exposure.

Records were broken (in addition to that mentioned above) in March for longest March drouth, greatest sunshine, least cloudiness and greatest monthly wind movement; in April for greatest April snowfall, highest temperature and greatest number of thunderstorms; and in December for maximum wind and greatest total wind movement in December.

Weather by Months.

January—Was generally **warm and wet,** though the first four and last three days were moderately cold. The **lowest temperature of the year,** 10°, occurred on the 30th. Precipitation was above normal in frequency and amount. Appreciable precipitation occurred on nine consecutive days, 17th-25th, **the greatest number** for the year, and for this station since 1907. Total snowfall, 4.0 inches, less than half the normal, occurred on eight days, but each snow disappeared quickly. Sleet, snow and rain on the 24th-25th caused very **slippery streets.** Southeast to south gales occurred 6th-7th with a maximum of 84 miles from the south, an unusual velocity from that direction and next to the highest January wind at this station. Northeast gales on the 12th became north on the 13th and were very destructive along the beaches facing the open ocean. A rainfall of 2.26 inches in 24 consecutive hours occurred during this storm.

February—The first six days were **unusually stormy** with northeast to southeast gales, causing damage on exposed beaches. Heavy rain on the 1st turned to sleet and snow with much lower temperature on the 2d followed by 2.0 inches of snow on the 3d. In 24 consecutive hours on the 1st and 2d, 2.87 inches of precipitation occurred. The total, 5.03 inches, is 1.29 above normal. Snow and sleet disappeared from the ground on the 6th. The mean temperature, 35.2° is 4.5° above normal. The periods, 5th-7th, 11th-16th and 20th-25th were **notably warm** with a maximum of 60° on the 15th. The coldest period was 9th-10th with a minimum of 13° on the 10th. Sunshine, 100 per cent. occurred on five consecutive days, 17th-21st, though sunshine for the month is below normal. **Fog was** general and **unusually dense** on the 6th. Relative humidity was below normal; 15 per cent. was recorded at 5 p. m. on the 15th.

March—Except for a heavy snowfall of 7.7 inches on the 6th-7th, which disappeared by the 10th, and a few warm days near the middle, was **dry and cold.** The 15-day period, 8th-22d, without precipitation, is a **new record for March drouth.** Three days with appreciable precipitation is the **least number of record.** The total, 1.14 inches, is 2.96 below normal. Sunshine, 79 per cent., with 100 per cent. on 15 days; cloudiness, 3.8; relative humidity, 53 per cent.; are each **new records for March**; and total wind movement, 16,661 miles, for all months. Northwest wind prevailed 64 per cent. of the time. Relative humidities of 19 per cent. were recorded on the 16th and 29th.

April—Weather was extreme, varying from the **heaviest April snowfall,** 10.2 inches on the 3d-4th, to the **highest April temperature,** 91°, on the 29th. This snow was the heaviest of the winter, 1914-15. Sunday, the 4th, is remembered as **"The White Easter."** From a minimum of 28° on the 3d, the temperature rose steadily, the snow disappeared by the 6th, and the rest of the month was generally warm, the mean, 53.4°, making it the **third warmest April.** The monthly range of temperature, 63°, is the largest of record. Thunderstorms on six days, 10th, 11th, 23d, 26th, 27th and 29th, is a new April record.

May—Showers were about normal in frequency and amount. Cool weather prevailed, except 6th-14th and 22d-23d, with a maximum of 76° on the 22d. The last week was **unusually cool,** with a minimum of 41° on the 27th, equaling the previous low record for the last decade. Sunshine was below and cloudiness above normal. Relative humidity averaged 62 per cent., 8 per cent. below normal, with a minimum of 17 per cent. at 5 p. m. on the 15th. An unusually brilliant **solar halo,** radius 22°, was observed through the middle of the day on the 20th, and some of the time portions of the halo of 46° were visible.

June—Was cool, having only one unusually warm day, the 14th, with a maximum of 89°. The minimum was 46° on the 3d. Precipitation was above normal in frequency and amount. **Heavy rains** occurred on the 15th and 30th. Easterly winds of less than average velocity prevailed. Damaging local thundersqualls with **light hail** occurred on the 27th, the maximum wind at the station being 60 miles from the east at 6.33 p. m. Brilliant primary and secondary **rainbows** were observed toward evening on the 27th.

July—Was **generally cool,** except near the middle and toward the close. The latter period culminated in a maximum temperature of 92°, the **highest of the year,** on the 31st, and caused **many heat prostrations.** The lowest temperature was 59° on the 9th. Precipitation was well distributed and slightly in excess in both amount and frequency. Rain fell at an **excessive** rate on the 5th and 22d, but on the latter date was confined largely to lower Manhattan and Jersey City. Thunderstorms occurred on 10 days, three more than normal. Those on the 8th and 17th were attended by **severe local wind squalls,** with a maximum of 77 miles from the west on the 17th.

August—The first nine days were rainy, but from first beginning to last ending the period was slightly shorter than the one noted in January. The rate of fall was **excessive** on the 4th. During the rest of the month showers were normally frequent but light, and mostly occurred at night. **Severe local thunderstorms** occurred on the 8th over most of Greater New York and on the 9th in northern Manhattan and the Bronx. Easterly gales prevailed on the 3d-4th. The maximum, 64 miles from the southeast, is **unusual** from that direction. Much damage occurred on the beaches facing the ocean. Accompanied by heavy rain, it interfered seriously with transportation and **prostrated crops.**

September—Was **unusually warm** from the 9th to the 17th. Such a period of high temperature has not occurred so late in the season in the previous 44 years of record. On the four days, 14th-17th, the maximum temperatures were the **highest of record** on these dates. **Many prostrations** occurred and some schools were closed. After the 21st, the weather was generally cool with a **light frost** on the 23d. Precipitation was deficient in frequency and amount. During a brief windsquall on the 17th, a velocity of 72 miles from the west occurred. On the 26th-27th southwest to northwest gales prevailed, the maximum being 72 miles from the northwest. Eight days had 100 per cent. of sunshine.

October—The first 11 days were cool, followed by 11 warm days with a maximum of 77° on the 15th. The lowest was 37° on the 25th. **Heavy frost** occurred on the 11th and 25th; and **light frost** on the 28th. Precipitation was normally frequent but deficient in amount. **Dense fog** occurred, 13th-15th and 19th-21st, the density and extent on the 21st being such as to interfere seriously with traffic both by water and rail. Sunshine was above normal, 100 per cent. occurring on nine days.

November—Precipitation, though normally frequent, amounted to only 1.09 inches, less than one-third of the normal. Light **flurries of snow** occurred on the 22d and 23d. Temperatures were generally above normal and changes were slight except on the 3d and 30th, when considerable changes to colder occurred. Only two other Novembers have not had lower minima (30°). **Gales** occurred on several days, the most notable being on the 19th, when a velocity of 71 miles from the southeast was recorded—probably the **highest of record** from that direction; it caused much damage, particularly to plate glass and signs. Heavy wagons were overturned. **Dense fog** on the 26th seriously impeded harbor and street traffic.

December—Temperatures were continuously below normal till the 17th. Warm periods, 17th-19th and 23d-28th. The mean temperature on Christmas was the **highest since 1895,** and the maximum since 1893. **Heavy snow,** preceded by light sleet near the coast and heavier **sleet** inland, occurred on the 13th-14th. The average depth over the Greater City was 6.0 inches. Train service north, east and west was seriously impeded and **wires were prostrated** by an accumulation of ice. A moderate snow and sleet, 2.1 inches, occurred on the 26th. The ground was snow-covered 11 days, three more than normal; and the total amount, 8.1 inches, is 1.5 inches above normal. **Gales** occurred 9th-11th, 13th-15th, 18th and 25th-26th. That of the 26th, with a maximum of 90 miles from the northwest, is a **new record for December,** as is also the total monthly movement, 15,885 miles. Much damage resulted from this storm. **A thunderstorm** on this date is the third recorded in December since thunderstorm records began in 1880. **Dense fog** interfered with harbor traffic on the 18th.

Miscellaneous Data for 1915.

Barometric Pressure (reduced to sea level)—Mean, 30.01 inches; highest, 30.58 inches, February 11th; lowest, 28.98 inches, December 26.

Temperature—Greatest daily range, 42°, April 25; least daily range, 4°, February 3. Greatest monthly range, 63°, in April; least monthly range, 32°, in August. Highest mean temperature of three consecutive days, 80°, July 29-31; lowest mean temperature of three consecutive days, 22°, January 29-31.

Precipitation—Longest period without a measurable amount of precipitation (.01 in. or more), 15 days, March 8-22.

Greatest number of consecutive days with precipitation (.01 in. or more), 9. January 17-25 and August 1-9.

Snow—Greatest snowfall in 24 hours, 10.2 inches, April 3-4.

Greatest depth of snow on the ground, measured at 8 p. m., 9.0 inches, April 3.

Last snow in spring occurred April 4; first snow in autumn occurred November 22.

Frost—In Spring: Last killing frost occurred April 4. Last light frost occurred April 22.

In Autumn: First light frost occurred September 23; first killing frost occurred November 16.

Thunderstorms—First, April 10; last, December 26.

Hail—June 27.

ANNUAL METEOROLOGICAL SUMMARY, YEAR 1915, WHITEHALL BUILDING, 17 BATTERY PLACE, NEW YORK, N. Y.

Month.	Temperature.* Mean. Maximum.	Mean. Minimum.	Mean. Monthly.	Extremes. Maximum.	Extremes. Date.	Extremes. Minimum.	Extremes. Date.	Precipitation.** Total.	Maximum in 24 Hours.	Date.	Snowfall.	Rel. Hum. [per cent.]. 8 A. M.	8 P. M.	Sunshine. Number of Hours.	Percent. of Possible.	Average Cloudiness‡ [Scale of 0 to 10].	Wind.† Average Hourly Velocity.	Prevailing Direction.	Maximum. Velocity.	Direction.	Date.	Number of Days. Winds 40 or More Miles per Hour.	Clear ‡	Partly Cloudy.‡	Cloudy.‡	Precipitation [.01 in. or more].	Thunderstorms.	Dense Fog.	Snow [0.1 inch or more].	Max. Temp. 32 Degrees and Below.	Max. Temp. 90 Degrees and Above.	Min. Temp. 32 Degrees and Below.	Min. Temp. Zero and Below.
January...	40	28	34	57	19	10	30	5.61	2.26	12–13	4 0	74	71	143	48	6.5	17 5	nw	84	s	7	12	10	5	16	17	0	4	9	6	0	22	0
February..	42	29	35	60	15	13	10	5.03	2 87	1–2	2 5	69	63	159	53	5.9	19 9	nw	60	se	6	9	9	7	12	9	0	2	3	5	0	17	0
March....	44	28	36	55	25	18	3	1.14	1.08	6–7	7 7	58	47	292	79	3.8	22 4	nw	62	nw	3	15	19	7	5	3	0	0	2	0	0	23	0
April.....	63	44	53	91	27	28	3	2.10	1.18	3–4	10 2	66	58	251	63	5 7	16 6	nw	70	sw	11	8	7	14	9	11	6	2	2	0	1	2	0
May.....	65	50	58	76	22	41	27	3 23	1 11	12–13	0 0	65	60	245	55	6.3	15 2	nw	57	nw	21	6	8	9	14	12	3	1	0	0	0	0	0
June.....	74	59	67	89	14	46	3	3.66	1.63	30	0 0	73	68	274	61	6.3	13 4	ne	60	e	27	3	8	7	15	12	7	3	0	0	0	0	0
July.....	80	65	72	92	31	59	9	4.60	1.35	21–22	0 0	77	68	289	63	6.8	12 3	sw	77	nw	17	5	6	10	15	15	10	2	0	0	1	0	0
August....	77	64	70	87	16	55	18	5.37	2 23	3–4	0 0	80	70	249	58	6 8	14 1	nw	64	se	4	4	3	16	12	15	6	1	0	0	0	0	0
September.	77	61	69	90	9	44	28	2.52	1 27	18–19	0 0	76	66	262	70	4.8	14.9	nw	72	nw	26	5	11	13	6	6	1	0	0	0	1	0	0
October...	64	50	57	77	15	37	25	2.25	0 88	1–2	0 0	78	68	223	65	5 5	15.4	nw	65	nw	30	2	12	7	12	11	1	0	0	0	0	0	0
November.	52	38	45	68	1	30	23	1 09	0 50	14–15	T.	72	59	159	54	6 2	19 3	nw	71	se	19	12	7	9	14	8	0	4	0	0	0	3	0
December.	39	28	34	55	18	17	31	4 23	1 73	13–14	8 1	72	64	138	48	6.8	21.4	nw	90	nw	26	10	4	12	15	8	1	2	4	4	0	24	0
Year.....	60	45	53	92	July 31	10	Jan. 30	40.83	2.87	Feb. 1–2	32.5	72	64	2,685	60	6 0	16 9	nw	90	nw	Dec. 26	91	104	116	145	127	35	26	20	15	3	91	0

Elevation of Instruments (feet): *414. **407. †454.

‡Daylight hours only.

NORMAL AND COMPARATIVE DATA BASED ON RECORDS OF 20 TO 44 YEARS.

Month.	Temperature.							Precipitation.				Rel. Hum. [per cent.]		Sunshine.				Wind		Number of Days.																		
																					Clear.* [Scale 0 to 3.]				Cloudy.* [Scale 8 to 10			Precipitation [.01 or more].						Max. Temp.		Min. Temp.	
	Maximum.	Minimum.	Mean.	Highest Mean.	Lowest Mean.	Daily Range.	Daily Variability.	Monthly.	Greatest Monthly.	Least Monthly.	Snowfall.	8 A. M.	8 P. M.	Number of Hours.	Possible.	Percent. of Possible.	Cloudiness.* [Scale 0 to 10.]	Hourly Velocity.	Prevailing Direction.	Wind 40 Miles or more per Hour.	Average.	Greatest.	Least	Partly Cloudy.* [Scale 4 to 7.]	Average.	Greatest.	Least	Average.	Greatest.	Least	Thunderstorms.	Dense Fog.	Snow.	32 Degrees and Below.	90 Degrees and Above	32 Degrees and Below	Zero and Below.
January	38	24	30	40	23	14	6	3.79	6.15	1.15	8.7	76	71	152	298	51	6.0	13	nw	6	8	11	3	11	12	19	7	12	21	4	†	4	6	9	0	24	†
February	38	24	31	40	23	14	6	3.74	7.81	0.82	10.3	73	68	184	298	61	5.5	14	nw	8	8	14	1	10	10	17	3	10	19	4	†	2	5	8	0	22	†
March	45	31	38	48	29	14	5	4.10	7.90	0.86	7.6	73	67	209	371	56	5.8	13	nw	7	8	15	2	12	11	17	4	15	20	5	1	3	4	2	0	17	0
April	57	41	48	54	41	14	5	3.30	7.02	1.00	0.8	70	65	238	400	59	5.6	13	nw	6	9	15	1	11	10	21	5	11	16	4	2	2	1	0	0	3	0
May	68	52	59	65	54	16	4	3.18	9.10	0.33	0.0	72	67	268	449	60	5.7	11	nw	3	9	17	1	12	10	18	4	11	21	5	3	2	0	0	†	0	0
June	77	61	68	72	64	16	4	3.26	7.70	0.86	0.0	74	69	284	452	63	5.3	10	sw	2	9	18	2	14	7	20	2	16	17	4	5	1	0	0	1	0	0
July	82	67	74	78	70	16	3	4.54	9.63	0.23	0.0	75	69	287	458	63	5.4	9	s	2	9	15	2	14	8	19	2	12	19	3	7	1	0	0	3	0	0
August	80	66	72	77	69	14	3	4.53	10.42	1.18	0.0	77	71	260	427	61	5.5	9	s	1	9	17	2	13	9	16	3	10	17	4	5	†	0	0	1	0	0
September	74	60	66	72	61	14	4	3.59	14.51	0.15	0.0	78	72	231	374	62	4.9	10	w	2	11	20	2	10	9	17	1	9	17	2	2	1	0	0	1	0	0
October	63	49	56	61	50	14	4	3.71	11.55	0.58	0.0	76	69	203	344	58	5.0	12	nw	4	11	19	2	10	10	17	3	9	15	4	1	2	0	0	0	†	0
November	51	38	44	50	37	13	5	3.44	9.82	0.75	1.2	75	69	163	297	55	5.6	13	nw	6	9	17	2	10	11	18	5	9	17	3	†	2	1	1	0	7	0
December	41	28	34	42	25	13	5	3.45	6.66	0.95	6.0	75	70	147	287	51	5.8	13	nw	6	8	15	3	11	12	19	3	10	18	4	†	3	4	6	0	20	†
Year	60	45	52	54	49	14	4	44.63	58.68	33.50	35.2	74	69	2,626	1,455	58	5.5	12	nw	53	108	138	65	138	119	155	73	128	152	100	27	24	21	26	7	95	1

*Daylight hours only.

†Less than one.

DAILY MAXIMUM TEMPERATURE, 1915.

Day.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1	32	43	37	48	59	75	82	83	70	57	**68**	42
2	31	29	44	49	62	67	73	84	77	55	66	37
3	30	26	33	42	63	62	83	73	83	60	49	40
4	33	31	41	50	53	69	83	77	87	63	48	35
5	42	45	41	48	58	70	75	77	78	67	52	38
6	52	53	37	52	70	72	76	66	76	59	49	37
7	55	42	38	54	64	75	78	77	77	59	52	34
8	43	35	46	67	75	77	73	83	82	65	57	38
9	34	29	41	66	69	79	79	81	**90**	59	64	42
10	35	33	44	69	68	75	79	80	86	57	54	29
11	38	43	43	64	74	73	79	81	87	60	57	33
12	45	48	40	63	69	84	72	74	76	68	58	35
13	45	42	49	52	73	73	80	84	82	72	59	37
14	42	45	49	58	68	**89**	85	84	86	74	51	34
15	48	**60**	49	60	67	71	87	79	88	**77**	52	31
16	44	50	48	67	56	74	77	**87**	88	63	45	38
17	51	38	42	61	54	78	89	77	88	72	46	43
18	56	33	45	68	59	81	84	71	77	70	49	**55**
19	**57**	40	53	78	65	76	88	76	72	71	59	40
20	41	51	51	79	64	77	77	82	78	68	46	36
21	35	48	42	63	57	73	74	73	73	75	54	37
22	29	46	47	54	**76**	65	69	79	63	64	41	38
23	52	49	48	66	72	64	75	82	64	53	43	48
24	34	52	52	67	62	71	76	82	71	54	45	46
25	37	49	**55**	88	73	76	79	82	70	55	47	54
26	39	38	49	75	65	75	79	76	69	65	56	54
27	38	30	42	**91**	64	76	81	63	62	67	51	42
28	38	37	47	53	72	80	81	69	63	59	54	44
29	27	..	43	69	66	79	86	65	68	66	52	38
30	24	..	37	60	57	74	88	74	67	55	42	31
31	39	..	46	..	74	..	**92**	70	..	58	..	31
Means	40	42	44	63	65	74	80	77	77	64	52	39

Note—Highest monthly temperatures in bold-face figures.

DAILY MINIMUM TEMPERATURE, 1915.

Day.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec
1	20	29	22	32	44	58	65	71	58	50	49	27
2	24	22	28	34	46	48	63	71	60	50	47	32
3	19	22	**18**	**28**	48	**46**	65	58	63	49	41	32
4	19	19	18	31	47	52	68	56	64	52	38	26
5	26	24	26	36	47	56	65	62	65	59	40	25
6	35	39	32	42	51	58	62	59	66	52	37	25
7	37	32	31	43	55	59	64	62	69	50	33	28
8	32	26	27	41	60	58	61	68	70	50	38	29
9	28	15	24	51	52	58	**59**	66	69	44	43	26
10	25	**13**	29	50	48	58	64	66	73	42	39	22
11	27	26	32	50	51	61	65	66	68	42	41	21
12	35	36	26	48	55	66	61	68	68	48	49	21
13	31	32	26	39	56	59	62	70	68	52	41	31
14	28	35	33	38	52	62	64	70	71	62	43	24
15	37	44	28	42	47	65	70	71	72	61	37	19
16	33	35	31	39	45	62	70	69	70	55	32	24
17	39	27	26	47	47	62	66	60	70	52	33	29
18	48	21	25	45	47	65	68	**55**	66	56	31	39
19	35	23	33	55	46	64	70	58	63	57	44	34
20	31	31	35	62	50	62	68	65	62	60	40	29
21	24	35	32	46	48	59	63	67	54	58	38	**26**
22	20	35	33	44	55	59	63	70	50	52	33	24
23	29	38	35	48	58	56	62	67	50	40	**30**	37
24	27	47	38	46	54	54	62	68	53	38	38	35
25	29	37	37	46	52	57	61	65	58	**37**	34	38
26	28	25	25	47	47	62	61	60	54	50	37	28
27	33	18	22	53	**41**	56	62	58	46	47	43	26
28	26	23	32	44	53	55	68	59	**44**	43	42	37
29	15	..	31	45	51	62	68	57	46	48	35	26
30	**10**	..	20	48	49	65	73	58	48	46	30	21
31	18	..	26	..	48	..	75	58	..	44	..	**17**
Means	28	29	28	44	50	59	65	64	61	50	38	28

Note—Lowest monthly temperatures in bold-face figures.

MONTHLY AND ANNUAL MEAN TEMPERATURE.

Year.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
1871...	30 4	31 8	43 6	53 6	60 8	69 1	71 9	73 0	**60 8**	54 9	39 3	29 7	51 6
1872...	29 4	30 3	**28 9**	47 3	61 1	70 6	76 0	75 5	65 2	55 3	40 4	27 4	50 6
1873...	28 1	28 8	35 6	45 7	56 0	68 8	73 5	71 4	64 9	56 3	**37 3**	36 3	50 2
1874...	34 5	31 4	38 0	**41 3**	58 2	70 0	73 6	70 6	68 1	55 1	42 8	33 8	51 4
1875...	25 3	23 2	32 6	42 6	58 5	67 5	72 7	71 9	64 4	52 3	38 9	33 0	**48 6**
1876...	33 9	31 8	35 2	46 1	58 0	70 7	76 4	72 5	61 8	**49 7**	44 5	**25 1**	50 5
1877...	27 6	35 6	36 6	48 0	59 0	68 8	73 8	74 3	66 2	56 6	45 5	39 3	52 6
1878...	32 1	34 6	43 8	52 7	58 2	65 8	74 6	72 9	67 0	57 4	43 6	32 4	52 9
1879...	26 8	27 6	38 4	45 9	60 8	68 8	73 1	70 9	63 2	59 8	43 1	37 3	51 3
1880...	39 8	36 3	35 7	48 7	**64 8**	70 7	73 2	70 7	65 7	53 8	39 7	27 7	52 2
1881...	25 8	29 5	36 9	46 0	60 2	64 2	72 6	73 1	**72 2**	59 1	46 3	40 7	52 2
1882...	30 5	35 6	39 8	46 1	**53 5**	68 2	73 8	71 7	66 9	58 5	41 7	32 2	51 5
1883...	27 8	31 4	33 6	46 6	59 1	69 5	73 3	70 8	63 1	53 7	45 0	33 7	50 6
1884...	26 2	35 1	37 5	47 6	58 8	68 7	**70 1**	71 5	69 6	56 1	43 2	34 6	51 6
1885...	29 2	**23 1**	29 7	47 7	56 2	67 3	74 2	70 8	64 1	54 5	44 8	36 0	49 8
1886...	28 5	28 5	36 9	50 3	58 5	65 6	72 9	71 0	67 1	56 5	45 3	30 8	51 0
1887...	30 1	33 7	34 3	47 7	62 9	68 2	76 7	71 4	63 1	54 7	43 7	36 1	51 9
1888...	26 0	31 8	32 9	48 4	59 3	71 8	72 6	74 8	66 2	51 2	46 8	36 0	51 5
1889...	37 6	28 0	41 5	51 6	62 0	70 4	73 5	71 5	65 8	52 0	46 9	41 4	53 5
1890...	**40 2**	**40 4**	37 5	51 0	60 6	70 4	73 4	72 3	66 8	55 5	45 9	31 4	53 8
1891...	34 7	37 5	37 8	52 0	59 9	69 6	70 8	73 6	70 1	54 2	43 8	**41 8**	53 8
1892...	30 3	33 0	34 6	49 9	59 4	72 0	74 8	73 9	66 0	55 4	42 6	31 3	51 9
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1898...	32 2	33 0	43 7	46 8	56 6	68 9	74 1	74 3	68 9	57 6	44 6	34 4	52 9
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Means	30 9	30 7	37 9	48 8	60 0	68 9	74 0	72 5	66 5	55 8	44 0	34 2	52 0

Note—Highest and lowest monthly and annual mean temperatures in bold-face figures.

EXTREMES OF TEMPERATURE.

Month.	Temperature.					
	Maximum.	Day.	Year.	Minimum	Day.	Year.
January	67	12	1890	—6	10	1875
February	69	5	1890	—6	11	1899*
March	78	30	1910	3	5	1872
April	91	27	1915	20	5	1874
May	95	31	1895	34	1	1880‡
June	97	6	1899	45	2	1907
July	99	3	1898	50	15	1873
August	96	16	1888	51	27	1885
September	100	7	1881	39	30	1912
October	88	1	1881†	31	15	1876‖
November	74	1	1882§	7	30	1875
December	68	23	1891	—6	31	1880

*Also in 1896, 17th day.
†Also in 1879, 16th day.
§Also in 1909, 12th day.
‖Also in 1914, 28th day.
‡Also in 1876, 1st day.

Notes.

Rain fell on February 1, removing practically all of the snow that fell on January 31. Sleet began to fall with the rain at 9.40 p. m., and precipitation continued as sleet only, after 10.50 p. m. From this time till between 12 midnight and 1 a. m. of February 2, the sleet froze to walks and pavements and other exposed surfaces, giving them a rough, semi-transparent covering of about 0.3 inch of ice. After this the sleet became of a dry character, and by 8 a. m. 1.7 inches of loose dry sleet lay on top of the ice covering. Such of this sleet as could be readily removed from the surface, when melted, showed a water content of 0.86 inch or a density of .50 (water=1). At 10.25 a. m. of the 2d the sleet changed to snow which ended at 6.35 p. m., amounting to 0.5 inch.

On February 3 dry snow began at 7.42 a. m. and was nearly continuous till 2 a. m. of the 4th. It amounted to 2.0 inches.

Lower temperatures prevailed during the latter part of the 2d and the 3d, reaching as low as 19° soon after midnight of the 3d. This froze the sleet and snow where not stirred by traffic into a hard and solid mass.

On March 6 snow began falling at 5.25 a. m. As the day advanced the temperature rose slightly to 35° at noon and the snow fell at an increasingly rapid rate. During the afternoon the temperature fell slightly and the snow began to accumulate considerably, though melting from beneath proceeded steadily throughout the storm. By 6 p. m. the depth of snow was 4.0 inches; by 8 p. m., 5.2; by midnight, 6.9; and by 5 a. m. of the 7th the depth was increased by 0.8 inch, making the total for the storm 7.7 inches. This is believed to have been nearly uniform throughout Greater New York, except that in the south portions of Brooklyn less melting seems to have occurred, and accumulated depths slightly in excess of 12 inches are reliably reported. At 5 a. m. of the 7th rain began to mingle with the snow, the temperature having risen to 36° at 2 and 3 a. m., and snow or snow and rain continued at intervals till 10.02 p. m. of the 7th; but there was no accumulation after 5 a. m., the snow melting as it fell. The average density of this snow was .14.

The snowstorm of April 3-4 is the greatest of record for the month of April and also for the winter, 1914-15. On the 3d occasional flakes began falling at 8.35 a. m. with a temperature of 38°, after which the temperature began to fall, reaching 30° at noon, with the snow falling at an increasingly rapid rate. During the afternoon the air was so filled with snow and the northeast gale was so strong that harbor traffic was almost suspended and railway traffic was much impeded. By 2 p. m. 5.0 inches of snow had accumulated; by 8 p. m., 9.0; and by 11 p. m. 10.0 inches, when the snow ended. It began again at 12.30 a. m. of the 4th and ended at 7.35 a. m., adding 0.2 inch to the accumulation. The lowest temperature during this storm, 27°, occurred at 6 and 7 p. m. of the 3d, after which the tendency was to warmer, passing the freezing point at midnight and reaching 35° at the ending of the snow. The average density of this snow was .12.

On December 13 light snow began at 4.10 a. m. with a temperature of 35°, and was followed during the day by oscillating temperature (maximum 37° at

11 a. m.), and rain, sleet and snow separately, or in combination, being entirely snow after 4.40 p. m., with temperatures generally of freezing or lower. The snow ended about 4 a. m. of the 14th. Measurements made in the early morning showed in lower Manhattan 3.0 inches; South Brooklyn, 5.5; East New York, 6.5; Central Park, 6.0; 197th Street and Webster Avenue (Bronx), 8 to 10; Mount Vernon (noon) 10.4. Density determinations showed in lower Manhattan .35, and in Central Park .15. The density seems to have been inversely proportional to the snow depth, the subsurface heat of the central portion of the city having reduced the snow to less depth and greater density. The average depth over the Greater City was about 6.0 inches. The total water content did not vary much, though slightly greater in the northern portions of the city. Near the coast during the early hours of the storm, temperatures were generally above freezing and the precipitation was largely in the form of rain, but inland to the northward temperatures were lower and precipitation was almost wholly sleet and snow which materially increased the accumulation. Train service to the north and northeast was practically suspended for several hours during the night of the 13th-14th. Surface traffic in the city was seriously impeded. Several deaths were reported by the city press as resulting from the storm. Aerial wires were much damaged by accumulations of ice or ice and snow in northern New Jersey and eastward over southeastern New York and Connecticut. The diameter of these accumulations was observed to be 1 inch or more. The accumulation on the windward sides of telephone and telegraph poles and trees ranged from 3.5 to 4.5 inches. Harbor traffic was impeded by precipitation and fog during the afternoon.

About 3 a. m. December 26, on a shift from south to northwest wind and the beginning of a decided fall intemperature, light thunder was heard. Vivid flashes of lighting and loud thunder occurred from 6.25 to 6.30 a. m. in the southern portion of the Greater City and later to the northward as the wind shift progressed in that direction in connection with an energetic general storm center. Buildings on Staten Island were struck by lightning. Only two other thunderstorms have been recorded in December since 1880 when thunderstorm records began. Following the passage of the general storm center about 5.20 a. m., the barometer rose rapidly and the wind increased to a destructive gale which reached its maximum, 90 miles from the northwest, at 9.43 a. m. Rain had been falling during the night. At 5.45 a. m. sleet began to mingle with the rain, and about 7 a. m. the rain and sleet changed to a snowsquall which ended at 9.45 a. m., amounting to 2.0 inches of snow and 0.1 inch of sleet. The average density of the accumulation was .18.

Sleet.

As a general principle precipitation is classified according to its form just before striking the ground or objects near the ground, rather than by its effects after coming to a state of rest, for the character of the surface upon which and the local conditions under which it is deposited vary so widely (within a few feet sometimes) that classification then becomes impossible.

"Only the precipitation that occurs in the form of frozen or partly frozen rain should be called sleet." True sleet, then, rarely adheres in large quantities to vertical surfaces, but does collect on horizontal surfaces. If frozen hard and dry, it frequently lies on the frozen ground like coarse salt, making walking difficult but without much danger from slipperiness. When there is a considerable proportion of "partly frozen rain," and a few hours of cold weather follow, it

becomes frozen into a solid mass, hard to remove from walks and pavements. Sleet probably results from rain forming in clouds having a temperature slightly above 32°, then falling through a considerable layer of air sufficiently cold to freeze the rain drops as they approach the ground. It is more frequent in the middle and latter part of the winter. When dry sleet accumulates on the ground either with or without snow it is not included in the measurement of snowfall except in the Monthly Meteorological Summary, where it is carried in the column, "Snowfall, midnight to midnight," with an explanatory note. It is included (with explanatory note) in the depth of, "Snow on the ground at 8 p. m."

There are two phenomena recognized by effects and external appearance, and often confused with sleet in the popular mind, but which result from mixtures of snow, sleet and rain. One of these is designated in the nomenclature of the International Meteorological Committee, "Silver frost," English "Silver thaw." * * * "This refers to an accumulation of snow and sleet on the limbs of trees, in which the snow is the main feature, so that the appearance is silvery white and rough." The other form is designated as, "Glazed frost." * * * "This refers to an accumulation of snow and ice on the trees, in which the ice is in excess and the external appearance smooth and transparent."

In the United States we have a phenomenon which falls most nearly in the class of "Glazed frost," yet differs in that there is no snow mixed with the precipitation. It consists entirely of super-cooled rain, and the surfaces on which it is deposited must have a temperature somewhat below 32°. By super-cooled rain is meant rain having a temperature below 32° which has not begun to congeal, but which turns instantly to ice when it strikes objects. The term, "Ice storm," is coming to be applied to this phenomenon, though it has not been used extensively by the Weather Bureau, probably because it relates to a condition caused by precipitation rather than to the form in which the precipitation occurs.

"Silver frosts," "Glazed frosts" and "Ice storms" render sidewalks and pavements slippery and dangerous, and, when heavy, cause great destruction to aerial telephone, telegraph and electric wires generally. The accumulation sometimes amounts to a pound or more per foot of wire. The damage results not only from the great weight, but from the increased area exposed to the force of the wind which is usually strong at some time during such storms.

"Hail is formed by accretions consisting of concentric layers of ice, or alternate layers of ice and snow." This form of precipitation is confined almost wholly to the summer months, and is nearly always associated with thunderstorms, heavy rains and strong convectional air currents.

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