



**CITY OF BALTIMORE**

---

**ONE HUNDRED AND FORTY-SECOND**

**ANNUAL REPORT**

**OF THE**

**DEPARTMENT OF HEALTH**

**1956**



*To the Mayor and City Council of Baltimore for the  
Year Ended December 31, 1956*

*Health can not be given to people;  
It demands their participation.*

RENÉ SAND

## DEPARTMENT OF HEALTH

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Commissioner, HUNTINGTON WILLIAMS, M.D., Dr.P.H.  
Assistant Commissioner, ROSS DAVIES, M.D., M.P.H.  
Secretary, REED GAITHER

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### ADMINISTRATIVE SECTION

Administration.....HUNTINGTON WILLIAMS, M.D., Dr.P.H.  
Health Information.....JOSEPH GORDON  
Laboratories.....CLINTON L. EWING  
Public Health Nursing.....ALICE M. SUNDBERG, R.N., M.P.H.  
Eastern Health District.....W. SINCLAIR HARPER, M.D., D.P.H.  
Western Health District.....ROBERT E. FARBER, M.D., M.P.H.  
Druid Health District.....H. MACEO WILLIAMS, M.D., M.P.H.  
Southeastern Health District.....JOHN A. SKLADOWSKY, M.D.  
Southern Health District.....ROBERT E. FARBER, M.D., M.P.H.

### SECTION OF PREVENTIVE MEDICINE

JANET HARDY, M.D., Director

Communicable Diseases.....MYRON G. TULL, M.D., M.P.H.  
Tuberculosis.....CHARLOTTE SILVERMAN, M.D., Dr.P.H.  
Venereal Diseases.....NELS A. NELSON, M.D., M.P.H.  
Child Hygiene.....KAY K. EDWARDS, M.D.  
Dental Care.....H. BERTON McCAULEY, D.D.S.

### MEDICAL CARE SECTION

J. WILFRID DAVIS, M.D., M.P.H., Director

### SANITARY SECTION

WILMER H. SCHULZE, Phar. D., Director

Milk Control.....IVAN M. MARTY  
Food Control.....FERDINAND A. KORFF  
Meat Inspection.....WILLIAM J. GALLAGHER, D.V.M.  
Environmental Hygiene.....GEORGE W. SCHUCKER  
Industrial Hygiene.....CHARLES E. COUCHMAN

### HOUSING BUREAU

FRANZ J. VIDOR, M.C.P., Director

### STATISTICAL SECTION

MATTHEW L. TAYBACK, Sc.D., Director

Biostatistics.....TODD M. FRAZIER  
Vital Records.....SIDNEY M. NORTON

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*Learn to Do Your Part in the Prevention of Disease*



# PREVENT PARALYTIC POLIO-NOW



VISIT YOUR FAMILY DOCTOR  
OR A  
POLIO PREVENTION CLINIC

The new vaccine is safe and it works

“Any child not protected against polio  
is a neglected child.”

*The Baltimore City Health Department*

CD 125

ANY CHILD NOT PROTECTED IS NEGLECTED

## CONSULTANTS

DR. ANDREW C. GILLIS,  
*Professor Emeritus of Neurology, School of Medicine,  
University of Maryland.*

DR. LOUIS P. HAMBURGER,  
*Assistant Professor Emeritus of Medicine, Johns Hopkins School of Medicine.*

DR. MAURICE C. PINCOFFS,  
*Professor of Preventive Medicine and Rehabilitation, School of Medicine,  
University of Maryland.*

DR. PERRY F. PRATHER,  
*Director, Maryland State Department of Health.*

DR. ERNEST L. STEBBINS,  
*Director, Johns Hopkins School of Hygiene and Public Health.*

DR. THOMAS B. TURNER,  
*Professor of Microbiology, Johns Hopkins School of Hygiene and Public Health.*

DR. ALLEN F. VOSHELL,  
*Professor of Orthopaedic Surgery, School of Medicine, University of Maryland.*

DR. WALTER D. WISE,  
*Professor Emeritus of Surgery, School of Medicine, University of Maryland.*

DR. SAMUEL WOLMAN,  
*Assistant Professor Emeritus of Medicine, Johns Hopkins School of Medicine.*

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## ADVISORY COMMITTEE ON SANITATION

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*Director, Civic Development Bureau,  
Baltimore Association of Commerce.*

DR. ANNA M. BAETJER,  
*Associate Professor of Environmental Medicine,  
Johns Hopkins School of Hygiene and Public Health.*

DR. CLARENCE B. MAYES,  
*Medical Director, United States Public Health Service  
in charge of the Baltimore Quarantine Station.*

MR. HANS FROELICHER, JR.  
*President, Citizens Planning and Housing Association.*

MR. GEORGE A. CARTER,  
*Director of Public Works of Baltimore.*

DR. ABEL WOLMAN,  
*Professor of Sanitary Engineering,  
Johns Hopkins School of Hygiene and Public Health.*

## MEDICAL STAFF

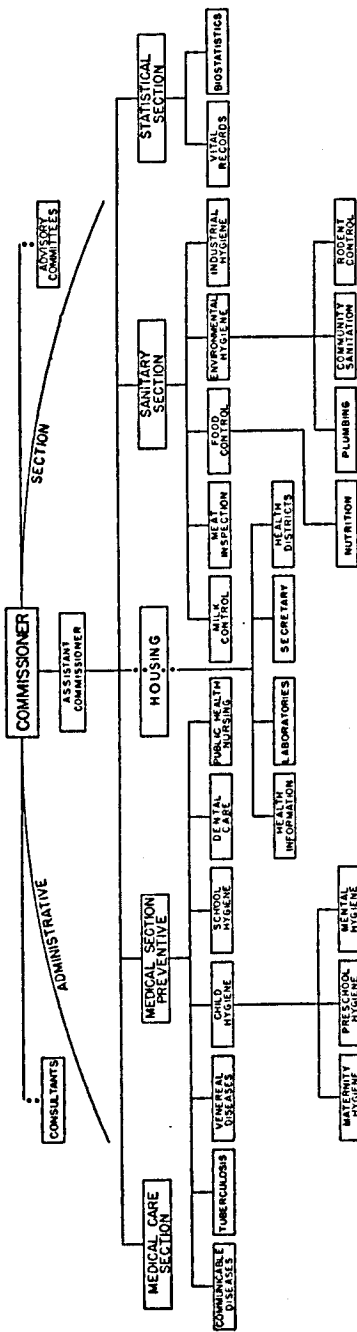
<p> GEORGE G. ADAMS, M.D. t  RUTH M. ALLEN, M.D. m  WILLIAM A. ANDERSEN, M.D. c  TOWNSEND W. ANDERSON, M.D. v  CHARLES E. ARRABAL, M.D. c  DAVID BACHARACH, M.D. v, s  DANIEL BAKAL, M.D. t  McDONALD M. BANDO, M.D. c  M. L. BARKSDALE, M.D. v  BARNETT BERMAN, M.D. t  WALTER P. BLOCK, M.D. c  LOUIS V. BLUM, M.D. t  KATHARINE H. BORKOVICH, M.D. t  GEORGE P. BROWN, M.D. v  G. RAYNOR BROWNE, M.D. v  W. BERKLEY BUTLER, M.D. v  THOMAS F. CAREY, JR., M.D. v  BARBARA K. CLARK, M.D. c, s  RAYMOND L. CLEMMENS, M.D. c  J. W. V. CLIFT, M.D. c  MORRIS M. COHEN, M.D. v  THEODORE COOPER, M.D. t  ERNEST S. CROSS, JR., M.D. v  IRVIN M. CUSHNER, M.D. m  CHARLES R. DAVIDSON, M.D. s  W. ALLEN DECKERT, M.D. m  LEON DONNER, M.D. s  MARY S. FARBER, M.D. s  HAROLD S. FARFEL, M.D. c  MAURICE FELDMAN, JR., M.D. s  MARY O. GABRIELSON, M.D. s  LOUIS C. GAREIS, M.D. m  HARRIS GOLDMAN, M.D., v, s  SYLVAN C. GOODMAN, M.D. v  PAUL H. HARDY, JR., M.D. c  LOUIS E. HARMON, M.D. v  AARON HARRIS, M.D. c  THOMAS W. HARRIS, JR., M.D. v  JAMES B. HAWKINS, JR., M.D. s  MARY L. HAYLECK, M.D. c  ERWIN HECKER, M.D. m  EMIL H. HENNING, JR., M.D. s  JOHN F. HOGAN, JR., M.D. v  JOHN H. HOLMES, III, M.D., c, s  CLEWELL HOWELL, M.D. c  HUGH P. HUGHES, M.D. s  RICHARD H. HUNT, M.D. v  MEYER W. JACOBSON, M.D. t  REUBEN D. JANDORF, M.D. v  JETHER M. JONES, JR., M.D. v  W. ATWELL JONES, M.D. v </p>	<p> KATHARINE V. KEMP, M.D. c  HOWARD C. KRAMER, M.D. v  IRVING KRAMER, M.D. c, s  ROBERT B. KUGEL, M.D. s  ALBERT L. LAFOREST, M.D. v  ARNOLD F. LAVENSTEIN, M.D. c  C. DUDLEY LEE, M.D. t  LUCILLE LIBERLES, M.D. c  G. F. MAGEE, M.D. ey  CHARLES F. MALONEY, M.D. c  CLARENCE W. MARTIN, M.D. v  MARY E. MATTHEWS, M.D. c  ROBERT MAZER, M.D. v, s  ISRAEL P. MERANSKI, M.D. v  JOHN C. MORGAN, M.D. t  GEORGE E. NAGER, M.D. ea  GEORGE C. PAGE, M.D. v  GEORGE H. PENDLETON, M.D. v  WINTHROP M. PHELPS, M.D. c  TALMADGE H. PINKNEY, M.D. v  WILLIAM G. POLK, M.D. v  WALTER RADAS, M.D. ey  CHARLES L. RANDOL, M.D. c  MARY C. RILEY, M.D. t  GILBERT W. ROSENTHAL, M.D. c  CECIL RUDNER, M.D. t  ALVIN D. RUDDO, M.D. ea  ROYD R. SAYERS, M.D. mi  BENSON SCHWARTZ, M.D. m  JAMES H. SHELL, JR., M.D. m  J. DOUGLASS SHEPPERD, M.D. v  ERNEST W. SHERVINGTON, M.D. v, s  M. S. SHILING, M.D. t  ISADORE A. SIEGEL, M.D. m  ROBERT T. SINGLETON, M.D. v  PERCIVAL C. SMITH, M.D. v  DAVID SOLOMON, M.D. m  MELCHIJAH SPRAGINS, M.D. c  ALVIN A. STAMBLER, M.D. s  HENRY G. SUMMERS, M.D. c  JOSEPH TALER, M.D. c  ARTHUR C. TIEMEYER, M.D. m  JOSÉ G. VALDERAS, M.D. m  HOWARD H. WARNER, M.D. s  WILLIAM E. WEEKS, M.D. c  GEORGE E. WELLS, JR., M.D. m  ERWIN WITKIN, M.D. m  GUSTAV H. WOLTERECK, M.D. c  CHARLES T. WOODLAND, M.D. v  H. ZASSENHAUS, M.D. s  STANLEY N. YAFFE, M.D. v </p>
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c = child hygiene, ea = ear clinic, ey = eye clinic, m = maternity hygiene, mi = medical investigator, s = school physician, t = tuberculosis clinic, v = venereal disease clinic.

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# ORGANIZATION CHART BALTIMORE CITY HEALTH DEPARTMENT



ONE HUNDRED AND FORTY-SECOND ANNUAL  
REPORT OF THE BALTIMORE CITY  
HEALTH DEPARTMENT  
1956

REPORT OF THE COMMISSIONER OF HEALTH

*The Honorable,*

THE MAYOR AND CITY COUNCIL OF BALTIMORE

GENTLEMEN:

Pursuant to the provisions of Section 81 of the City Charter and also in accordance with a resolution adopted by the City Council in the year 1817, I have the honor to transmit to you a summary of the one hundred and forty-second in a series of consecutive annual reports of the work done by the Baltimore City Health Department, and by the several bureaus thereof, for the year ended December 31, 1956. This report is the twenty-sixth to be published under the same editorial supervision.

**Introduction**

The major public health effort of the year was the widespread extension of the use of the new vaccine in Baltimore for the prevention of paralytic poliomyelitis. This work, carried on by private physicians, in schools and in Health Department clinics and supported generously by the U. S. Public Health Service, gave evidence of the safety and true effectiveness of the vaccine.

On April 9 Mayor Thomas D'Alesandro, Jr. approved City Ordinance No. 358, drafted by the Health Department to control and regulate the pollution of the air within the city limits. In the preparation and passage of this important legislation the Health Department was greatly assisted by the Baltimore Association of Commerce.

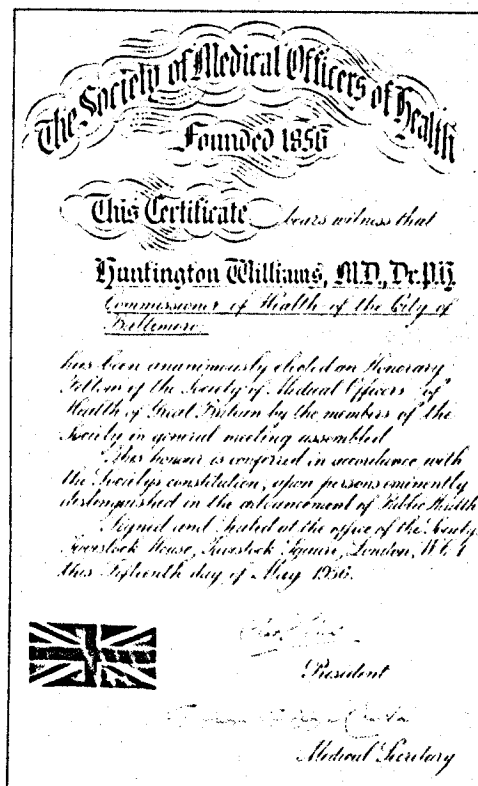
The Court of Appeals of Maryland on July 12 upheld a trial court decision and thereby established the legality of those city ordinances in Baltimore which provide for inspections by the City Health Department, the Building Inspection Engineer and the Fire Department. The test case resulted from the Health Department's continuing efforts to improve the hygiene of housing in the city. On January 1 the Department's mandatory regulation on bathtubs for dwellings became effective, and in August the Commissioner of Health adopted a regulation to control the occasional rock bottom recalcitrant infectious cases of tuberculosis, and a regulation to permit and control the sale of skim milk in the city.

The infant mortality for 1956 dropped approximately 3 per cent from

the prior year to 30.0, with 39.0, for the nonwhite population. Only 2 of the 10 maternal deaths were due to medical causes, a record of life saving made by obstetricians and those engaged in the prenatal care of mothers that was nothing less than phenomenal. There was only 1 case of diphtheria in the city for the year, a fatal case, which set a new low record for this disease. However, the rising trend of deaths and injuries from automobile accidents constituted one of the most costly medical, legal and engineering problems affecting the city's health. Lead poisoning among teething age children in slum areas with 48 cases and 3 deaths in 1956 also was a major challenge which was given special preventive attention during the year. Indeed a new post, Director of the Section of Preventive Medicine, was created in 1956 and on May 24 Dr. Janet B. Hardy was promoted to this position to be in over-all charge of the work, investigations and community educational efforts of most all of the chief medical services of the Department.

Dr. Ernest L. Stebbins, Director of the Johns Hopkins School of Hygiene and Public Health and a Consultant to the Health Department served as chairman of a committee to study the rising drug costs of the Medical Care Program at the request of the Mayor and reported on September 17, among other recommendations, that the Formulary that had been in use a year should be made mandatory for the physicians and clinics in this special program for relief clients. Toward the end of the year Dr. Stebbins also headed a committee of the Consultants at the request of the Budget Committee of the Board of Estimates to advise the latter on needed salary and organization changes in the major medical and related units of the City Health Department.

On April 24 the Commissioner of Health, jointly with Sir Allen Daley, formerly Medical Officer of Health of the London County Council, presented a paper on "Public Health Practice: An Ounce of Prevention is Worth a Pound of Cure" at the 63rd Congress of the Royal Society of Health held at Blackpool, England. The Commissioner also on May 14 delivered a Chadwick Public Lecture on "The Influence of Edwin Chadwick on American Public Health" at a meeting jointly convened by the Chadwick Trustees and the Section of Epidemiology and Preventive Medicine of the Royal Society of Medicine in London. There he attended the Centenary Meetings of the Society of Medical Officers of Health and on May 15 read a formal official greeting from the Executive Board of the American Public Health Association and received the scroll of honorary fellowship of the Society, to which he had been elected on November 11, 1955. On July 24 the Commissioner took the oath of office following reappointment by Mayor D'Alesandro for a new term of six years in accordance with the provisions of the City Charter.



### THE SOCIETY OF MEDICAL OFFICERS OF HEALTH OF GREAT BRITAIN ELECT AN HONORARY FELLOW

#### The Health of the City

The population of the city on July 1, 1956 was estimated to be 974,000; the white population was 694,000 and the nonwhite population was 280,000 or 29 per cent of the total. These estimates have been used in computing the rates published in this report.

The record of achievement in public health was noteworthy in the area of maternal and child health, and in the control of the acute communicable diseases of known bacterial origin. The infant mortality rates of 23.8 per 1,000 for white children and 39.0 for colored children compared favorably with those recorded throughout the nation. The maternal mortality rates of 2.9 per 10,000 white live births and 6.2 per 10,000 colored live births



indicated a remarkable performance by those physicians practicing obstetrics in Baltimore City. In the face of sharp increases in the number of women requiring maternal care since the war years, 1942-1945, a quality of effort has been maintained sufficient to drive the maternal mortality rate to phenomenally low levels.

Among the acute communicable diseases, poliomyelitis joined the ranks of those conditions for which a readily available and effective vaccine was at hand. A total of 26 cases of paralytic poliomyelitis was reported in 1956 chiefly among colored children who had not been inoculated with the poliomyelitis vaccine. When an 80 per cent inoculation rate is reached by children of both races and all ages, this disease should disappear as an entity of consequence from a treatment point of view. Control over the other common communicable diseases was sufficiently effective to produce record new lows in reported cases of diphtheria and whooping cough and to maintain the incidence of typhoid fever at the lowest level recorded in the city. In 1956, there was but 1 case of diphtheria, whooping cough dropped to an incidence of 90 cases and there were 5 new cases of typhoid fever.

### *Principal Causes of Death*

The number of deaths during 1956 due to accidents of various causes was the highest in Baltimore in recent years. A total of 539 persons lost their lives due in the main to accidents in the home, and to motor vehicle

RESIDENT DEATH RATES PER 100,000 POPULATION FOR THE SEVEN LEADING CAUSES OF DEATH: TOTAL, WHITE AND COLORED POPULATION—BALTIMORE  
1955-1956

TOTAL POPULATION			WHITE POPULATION			COLORED POPULATION		
CAUSE	Death Rate per 100,000		CAUSE	Death Rate per 100,000		CAUSE	Death Rate per 100,000	
	1956	1955		1956	1955		1956	1955
Diseases of the heart....	486.2	472.4	Diseases of the heart....	537.2	520.3	Diseases of the heart....	360.0	345.8
Cancer, all forms.....	188.5	181.1	Cancer, all forms.....	207.1	197.3	Cancer, all forms.....	142.5	138.2
Vascular lesions of the central nervous system.....	93.0	92.7	Vascular lesions of the central nervous system.....	93.1	94.6	Vascular lesions of the central nervous system.....	92.9	87.4
Accidents.....	55.3	51.7	Accidents.....	51.7	48.7	Certain diseases of early infancy.....	85.4	93.8
Certain diseases of early infancy.....	46.0	46.6	Diseases of arteries and veins.....	31.0	29.1	Accidents.....	64.3	59.5
Influenza and pneumonia.....	32.2	32.1	Certain diseases of early infancy.....	30.1	28.7	Influenza and pneumonia.....	41.1	43.3
Diseases of arteries and veins.....	28.4	27.3	Influenza and pneumonia.....	28.7	27.8	Tuberculosis, all forms.....	35.0	32.8

mishaps. An examination of the data tabulated by the Baltimore City Police Department indicated that persons injured in automobile accidents increased by 10 per cent in 1956 over 1955. Thus a total of 8,350 individuals was recorded as injured in Baltimore as a result of motor vehicle accidents in 1956. The equivalent figures for 1955 and 1954 were 7,633 and 6,987 respectively. It would appear a hopeless task to achieve control over this problem by public information and exhortation alone. Driver examination, motor vehicle inspection, compulsory safety devices, restriction of traffic in downtown areas and revision of penalties for driving offenses are some of the control mechanisms which require consideration by a qualified group of engineers, lawyers, medical researchers and other competent persons.

The leading causes of death for the years 1955 and 1956 are shown in the accompanying table.

### Administration

There follows a financial statement for the Baltimore City Health Department for the fiscal year ended December 31, 1956.

#### FINANCIAL STATEMENT

As of December 31, 1956

Total City Appropriations.....	\$2,402,628.95
Total City Expenditures.....	2,392,071.33
Appropriations by Ordinance of Estimates, January 1, 1956.....	\$2,313,834.00
Appropriation for Transportation.....	42,809.56
Supplementary Appropriations for Building Maintenance and Special Projects.....	45,985.39
	<hr/>
	\$2,402,628.95

### *Expenditures of the Baltimore City Health Department*

#### ADMINISTRATIVE SECTION

Administration.....	\$62,055.45
Health Information.....	42,139.98
Nutrition.....	10,434.13
Laboratories.....	146,610.90
Eastern Health District.....	190,274.73
Western Health District.....	77,910.90
Southeastern Health District.....	92,542.03
Druid Health District.....	178,816.35
Southern Health District.....	90,400.33
	<hr/>

\$891,184.80

## MEDICAL SECTION—PREVENTIVE

Communicable Diseases.....	\$ 18,743.13
Tuberculosis.....	116,735.90
Venereal Diseases.....	111,909.96
Child Hygiene.....	135,991.83
School Hygiene.....	34,215.99
Dental Care.....	100,107.50
Public Health Nursing.....	127,947.97
	<hr/>
	\$645,652.28

## MEDICAL CARE SECTION

Administrative.....	\$23,303.72
	<hr/>
	\$23,303.72

## SANITARY SECTION

Administration.....	\$ 27,994.60
Milk.....	77,844.32
Food.....	75,853.73
Meat.....	92,917.64
Rodent Control.....	55,099.59
Environmental Hygiene.....	145,458.59
Industrial Hygiene.....	46,223.38
Air Pollution.....	30,423.99
	<hr/>
	\$551,815.84

## STATISTICAL SECTION

Administration.....	\$17,926.02
Vital Records.....	65,192.01
Biostatistics.....	50,010.04
	<hr/>
	\$133,128.07

## HOUSING

Administration.....	\$143,858.53
	<hr/>
	\$143,858.53

## CIVIL DEFENSE

Administration.....	\$3,128.09
	<hr/>
	\$3,128.09

Total, Salaries and Expenses..... \$2,392,071.33

*Receipts*

Vital Records.....	\$38,007.10
Child Hygiene Licenses.....	47.00
Milk Permits.....	12,509.00
Plumbing Permits.....	18,747.00
Rooming House Permits.....	488.00
Meat Permits.....	24,705.00
Miscellaneous Revenue.....	334.80
	<hr/>
Total.....	\$94,837.90

*Additional Non-Health Department Expenditures*

There follow certain tabulations of expenditures for health work in Baltimore in 1956 which was closely related to or a part of the work of the City Health Department:

**I OFFICIAL EXPENDITURES**

City Civil Defense Organization—Health Service.....	\$ 31,793.53
City Department of Education—high school medical services.....	155,648.04
City Department of Welfare	
Tuberculosis Hospital Services	
Baltimore City Hospitals.....	775,035.69
Mt. Pleasant Sanatorium—city cases.....	15,657.35
Eudowood Sanatorium—city cases.....	27,812.40
Communicable disease hospital service.....	85,000.00†
State Department of Health Funds	
State Tuberculosis Sanatoria—city cases.....	1,413,848.92
Mt. Pleasant Sanatorium—city cases.....	21,638.39
Services for city crippled children.....	53,976.33
Medical care—public assistance clients.....	844,121.64
U. S. Public Health Service Funds	
General.....	176,417.84
Tuberculosis control.....	16,293.79
U. S. Children's Bureau Funds	
Maternal and Child Health Service.....	87,125.00
Services for crippled children.....	80,166.11
Cerebral palsy program.....	4,985.57
The Johns Hopkins rheumatic fever and congenital heart training program.....	13,000.00
The Johns Hopkins University training program in audiology and speech.....	30,416.00
The Johns Hopkins Hospital—epilepsy clinic.....	10,400.00
University of Maryland—epilepsy clinic.....	13,775.90
	<hr/>
	\$3,857,112.50†

**II NONOFFICIAL EXPENDITURES**

Baltimore Chapter—Muscular Dystrophy Association of America, Inc.....	\$ 963.69
Baltimore City Chapter—National Foundation for Infantile Paralysis.....	86,670.28
Baltimore Hearing Society.....	24,002.64
Baltimore League for Crippled Children and Adults, Inc.....	39,626.57
Eudowood Sanatorium.....	1,117.38
Food Establishments—sanitary control.....	98,000.00†
Heart Association of Maryland.....	120,000.00†
Instructive Visiting Nurse Association.....	172,587.24
Johns Hopkins University—Eastern Health District.....	6,350.06
Laboratory Services—hospital or private.....	165,000.00†
Maryland Association for Cerebral Palsy.....	15,040.38
Maryland Chapter—Arthritis and Rheumatism Foundation.....	45,033.24
Maryland Chapter, National Multiple Sclerosis Society.....	15,000.00†
Maryland Division, Inc.—American Cancer Society.....	213,880.00
Maryland Society for the Prevention of Blindness.....	16,135.00
Maryland Tuberculosis Association.....	130,000.00†
Mount Pleasant Sanatorium—city cases.....	119,133.24
Pasteurization Plants—farm and laboratory control.....	185,000.00†
Venereal disease control—hospital dispensaries.....	18,000.00
	<hr/>
Total.....	\$1,471,539.72†
	\$5,328,652.22

This \$5,328,652.22 added to the City Health Department expenditures of \$2,392,071.33 gives an estimated total of \$7,720,723.55 or \$7.93 per capita. This does not include large expenditures for water purification or sewerage, or for general hospital and medical care services rendered by the City Welfare Department, by private hospitals, agencies or individuals, or by State chronic disease hospitals.

† Approximate figure.

*Personnel*

On May 24 Dr. Janet B. Hardy, Director of the Bureau of Child Hygiene since March 30, 1951 was promoted to a newly established position of Director of the Section of Preventive Medicine. In this new post Dr. Hardy took charge of the Health Department's chief medical bureaus. Dr. Robert E. Farber, first appointed Health Officer of the Southern Health District on July 1, 1955, returned from a leave of absence on June 27 after being awarded a Master of Public Health degree at the Johns Hopkins School of Hygiene and Public Health. Dr. Farber was reassigned as Health Officer of the Western Health District. The Bureau of Venereal Diseases lost the excellent services of Dr. Nels A. Nelson, its director, when he retired on September 30 after ten years with the Health Department. This vacancy was filled temporarily by Dr. Milton Zises, a commissioned officer in the U. S. Public Health Service. On November 8, Dr. Kay K. Edwards, Assistant Director of the Bureau of Child Hygiene became director, but resigned on December 7 and moved to Texas.

A new position, Director of the Bureau of Medical Care Research in the Medical Care Section was filled on July 1 by Dr. Bertram W. Haines. In the Bureau of Laboratories Dr. Emanuel Kaplan, Chief of the Division of Chemistry became Assistant Director of the Bureau of Laboratories for Chemistry, and Miss Katharine E. Welsh, Principal Bacteriologist became Assistant Director in charge of Microbiology. Both changes became effective on January 1. Administrative changes in the Sanitary Section included the retirement on September 4 of Mr. Carroll H. Reynolds, Chief of the Division of Plumbing, after 37 years of service and the promotion of Mr. Walter Underwood, Principal Plumbing Inspector, to this position on October 25; Mr. William Sallow, Chief of the Division of Rodent Control, was promoted to Assistant Director of the Housing Bureau on October 25 and Mr. John A. Childs, Senior Sanitarian, was assigned as his replacement. In the Bureau of Industrial Hygiene Mr. Elkins W. Dahle, Jr., first appointed Civil Engineer on February 2 was promoted to Senior Civil Engineer on December 6, and Mr. John M. Brown, Junior Associate Engineer, resigned on September 18.

The following additional administrative changes took place in 1956: Mr. Walter Jones was appointed Public Information Assistant in the Bureau of Health Information on April 12 filling the vacancy made by the resignation of Mr. Joseph P. Connor on January 4; Miss Julianne Drake became Senior Public Information Assistant in the Housing Bureau on July 9; Miss Anna C. Scholl was appointed Senior Supervisor of Public Health Nursing, Administrative, on November 5, and Miss Elizabeth Streett became Supervisor of Public Health Nursing on December 3.

A number of additional administrative resignations took effect during

the year. These were as follows: Miss Martha Tacka, Supervisor of Public Health Nursing, January 10; Miss Terry J. King, Housing Bureau Educational Director, February 1; Mr. George W. Watson, Health Administrator, Western Health District, May 14; Dr. Robert B. Kugel, Associate Chief of the Division of School Health, July 13; likewise Mrs. Marcia H. Spears, Supervisor of Public Health Nursing on July 13; Mr. Ross W. Sanderson, Assistant Director of the Housing Bureau on August 24, and Dr. Charlotte Silverman, Director of the Bureau of Tuberculosis on October 22. Personnel records show a total of 162 persons newly employed by the Health Department in 1956 and a total of 150 who resigned or transferred to other city agencies. On December 31, 1956 the Health Department roster totaled 864 persons of whom 160 were employed on a part-time basis.

### Civil Defense

A report entitled "Emergency Medical and Hospital Care in the Arundel Park Fire and the Odenton Train Wreck" was prepared by a committee representing, jointly, the Baltimore City Civil Defense Health Service and The Hospital Council, Inc. of Baltimore. Recommendations contained in the report will serve as a basis for medical natural disaster planning during 1957.

Key persons attended five civil defense training courses conducted by instructors from federal agencies. The courses dealt with public health in civil defense, planning for medical services, sanitary engineering, and food and drug protection. In May a 200 bed emergency hospital was unpacked and put on public display for one week at the Fifth Regiment Armory. The Health Service during July also participated fully in "Operation Alert, 1956" a national civil defense exercise.

Recruitment of non-professional volunteers for casualty clearing stations rose perceptibly. However, a number of professional and administrative persons were lost to the organization and suitable replacements were not found before the year's end.

The policy regarding the storage of emergency medical supplies for casualty clearing stations was altered in 1956. Plans previously provided for such items to be distributed to each of the ninety-eight locations established for operation of such units. In accordance with the revised policy, only twenty stations within the city, chiefly at public schools, were used as storage sites. The remainder of the supplies and equipment are located at the Civil Defense storehouse at Liberty Reservoir, about 10 miles beyond the city limits. A room was built within the storehouse, with electric heaters, for the protection against freezing of the large quantity of blood plasma and plasma expander forming part of the medical stockpile.

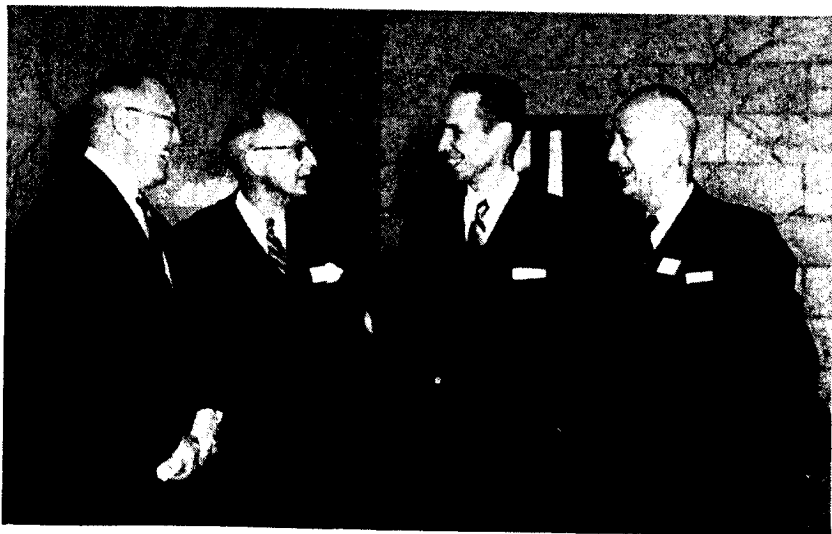
### Health Information

The poliomyelitis inoculation program continued in the forefront of Health Department work. This program which began in the spring of 1955 with the inoculation of school children was carried out with the assistance of physicians in the city, and information relating to the plans and procedures was conveyed to the public by every means of communication. A second program emphasizing home safety and accident prevention was likewise carried out with the assistance of the Maryland State Department of Health and the Baltimore Safety Council.

Special efforts were also made during the year in providing health information relative to other basic health services; namely, maternal and child health, tuberculosis control, housing, civil defense, nutrition, atmospheric pollution, environmental hygiene, prevention of child lead poisoning, diabetes detection, medical and dental care, milk control, food control, meat inspection, industrial hygiene and communicable disease control.

Other health information and educational activities were as follows:

1. The Health Department's five regular publications were published and distributed during 1956. The *Saturday Letter to the Mayor* which is the Commissioner of Health's weekly letter of important and newsworthy health information, with its statistical report, was issued to a mailing list of 265 persons or agencies. Newspaper reports on this letter and other special news releases totaled 748 articles with 9,013 column inches. The *Baltimore Health News* was prepared monthly and for its thirty-third year mailed to more than 10,000 individuals or agencies. The *Quarterly Statistical Report* was published for the eighth consecutive year and distributed to selected readers in Baltimore and elsewhere. The 141ST ANNUAL REPORT OF THE DEPARTMENT OF HEALTH—1955 and its summary, *Guarding the Health of Baltimore—1955* were printed and distributed to city officials, libraries and to other selected individuals and health agencies.
2. Eleven special letters were sent to physicians in the city. These were concerned with the poliomyelitis vaccine program, rabies antiserum, smallpox vaccination and gamma globulin.
3. Fourteen new health information leaflets or booklets were originated during the year, and eight publications were revised. The total number of items of health literature distributed in the city in 1956 was approximately 700,000 pieces.
4. The end of 1956 saw the presentation of the 904th "Keeping Well" radio program and the 415th "Your Family Doctor" television program. Both series were jointly sponsored by the City Health Department and the Medical and Chirurgical Faculty of Maryland.



AT THE SECOND ANNUAL MEETING OF THE  
MARYLAND PUBLIC HEALTH ASSOCIATION—OCTOBER 26

In the photograph are shown (left to right): Dr. Ernest L. Stebbins, *Director of the Johns Hopkins School of Hygiene and Public Health*; the Commissioner of Health; Dr. Leroy E. Burney, *Surgeon General of the U. S. Public Health Service*; and Dr. Pieter Muntendam, *Director General of Public Health, The Netherlands*.

Mr. Robert M. Keller, Health Administrator in the Civil Defense Health Service played the family doctor after Dr. Nels A. Nelson's retirement in September and since then has portrayed the family doctor on both the radio and television programs.

5. The second annual meeting of the Maryland Public Health Association was held in Baltimore on October 26. The chief speaker was Dr. Leroy E. Burney, Surgeon General of the U. S. Public Health Service.
6. A total of 132 health exhibits was on display during the year. Subjects for these included housing, medical care, dental care, poliomyelitis prevention, summer safety and the prevention of child lead poisoning. The housing exhibit was displayed at the 84th annual meeting of the American Public Health Association in Atlantic City in November and the tuberculosis exhibit was prepared for and shown at the annual meeting of the National Tuberculosis Association in New York in May.
7. Members of the City Health Department staff participated in 1,365 health meetings on local, state, regional, national and international levels. Members also participated in public health and medical teaching at the University of Maryland, Johns Hopkins University and



the schools of nursing in the city as well as in Department of Education teacher study-workshops.

8. Three hundred and thirty-nine film showings were arranged during the year. Films were shown in clinics, schools, in the general community, on television, for in-service training and at other special functions.
9. Library, editorial, duplicating and photographic services were continued as in past years.

### Laboratories

In fulfillment of the basic responsibilities of a public health laboratory service, the Bureau of Laboratories made 184,768 microbiological tests of 101,498 specimens and 24,447 bacteriologic and 34,825 chemical examinations on 16,259 samples of milk and food products and industrial or other materials. All services involved a total of 241,040 examinations of 117,757 specimens and samples. In comparison with 1955 figures, total examinations increased by 17,738 or 7.0 per cent and total samples and specimens by 1,050 or 0.9 per cent.

The distribution of 28,613 vials or 175,242 c.c. of poliomyelitis vaccine for use in Health Department inoculation clinics was almost 3 times greater than the amount dispensed in 1955. This marked increase was for the most part responsible for the increase of 18,000 packages of all types of biologicals distributed.

Services were restricted to public health microbiology and chemistry and involved examinations of specimens as an aid to physicians or hospitals in the diagnosis, prevention or treatment of the communicable diseases or for the control of lead poisoning. In addition, bacteriologic and chemical examinations were made of samples concerned with the regulating of environmental conditions.

Various kinds of foods were tested relative to the investigation of alleged outbreaks of food poisoning and results obtained in the examination of 30 samples demonstrated enterotoxin-producing staphylococci as the cause of the illness in one outbreak. Coliform bacteria in tremendous numbers and alpha streptococci were the possible causes in four other instances of food poisoning.

No samples of improperly pasteurized milk were found in the examination by the phosphatase test of 3,951 samples of milk or other dairy products. An increased tempo of air pollution control activities resulted in the testing of a number of samples of air and dust for microscopic appearance, total weight, acidity and a number of chemical compounds.

Special investigations included the following: The practical conclusion of a joint study with a local ice cream plant on the significance of coliform

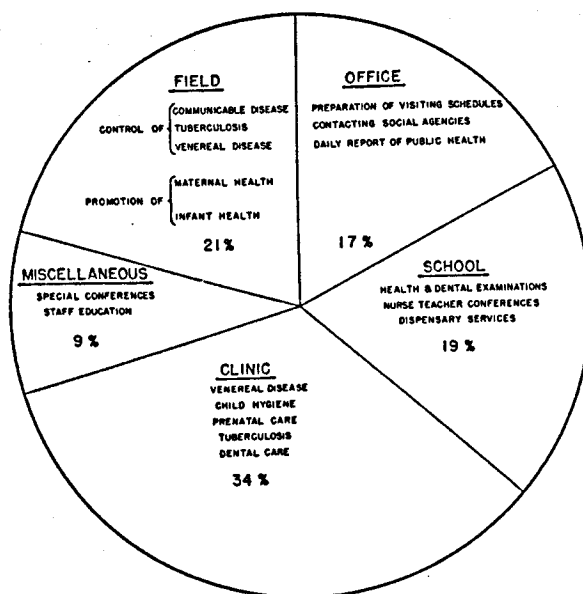
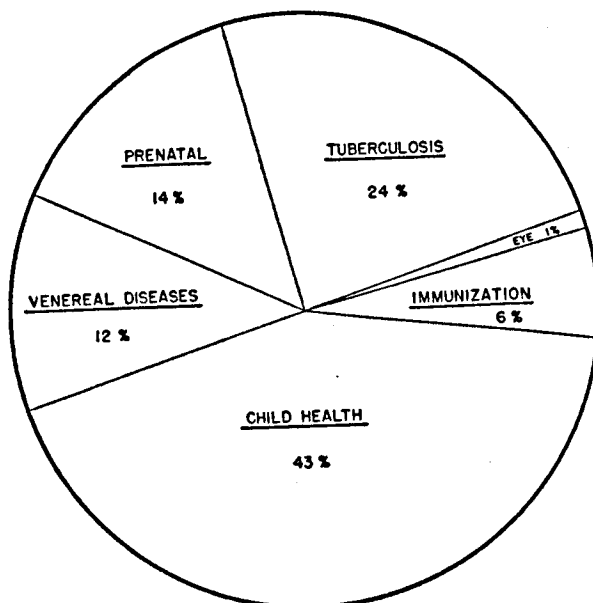
bacteria in the manufacture of ice cream; an evaluation of the nature of particulate matter in samples of air collected by the Division of Air Pollution Control, with the development of equipment, methods and standards; a comparison of the ethyl violet azide broth for the detection of enterococci with the American Public Health Association standard method for the detection of coliform bacteria as an index of contamination of drinking water; the keeping qualities of tap water under certain conditions of storage related to civil defense; an improvement in the method for detecting free silica in dust; the standardization of the ultraviolet absorption method for styrene in air; methods for the determination of sulfuric acid aerosol; a modified urease method for rodent urine stains; the determination of coumarin in synthetic vanilla; and variations in the phosphatase content of raw milk.

### Public Health Nursing

Through its generalized nursing program the Bureau of Public Health Nursing continued to focus on service to the family. The program can, therefore, be considered as one which is family-centered rather than disease centered. In providing these services Health Department nurses engaged in health teaching, performed epidemiologic investigations, demonstrated nursing care, and assisted with special studies; the program, of necessity, required a great deal of time for orientation and in-service education and involved special seminars in mental hygiene, tuberculosis and venereal disease control and pediatrics. The bureau continued to provide nursing service for public and parochial schools and in all Health Department clinics as in previous years.

Nurses participated in the handicapped children's program sponsored by the Bureau of Child Hygiene in various ways. They visited all infants who were malformed, premature or who had birth injuries; they urged parents to assume responsibility for their disabled children; they assisted in the interpretation of diagnoses and the need for medical care; they gave support and understanding to the family and helped parents to use the various community resources available to them; and through home visits and personal contact gave instruction in the care of the handicapped stressing the importance of continued medical supervision. As part of the in-service educational program Mrs. Barbara R. Norton, Senior Supervisor of Public Health Nursing in Pediatrics, discussed the nursing aspects of the handicapped children's program, arranged for the Baltimore League for Crippled Children and Adults to show a film which described the summer camping program, and demonstrated to the public health nurses the the nursing aspects of the health appraisal of the newborn in each health district.

## REPORT OF THE HEALTH DEPARTMENT—1956

DISTRIBUTION OF NURSING TIME  
BY MAJOR TYPES OF ACTIVITIES—1956DISTRIBUTION OF CLINIC NURSING TIME  
BY TYPE OF SERVICE—1956

The poliomyelitis vaccine program during 1956 was concentrated mainly in special clinics in the city's low rent housing projects and in Health Department clinics. Once again the nurses rendered valuable services and did a superb job in organizing teams and equipment. Polio vaccine doses given during 1956 totaled 224,375.

The volunteer program directed by Mrs. Elizabeth Hipp continued to grow and at the end of 1956 had a total enrollment of 1,092 public spirited citizens who graciously devoted part of their time to Health Department work. This represented an increase of 193 volunteers assisting in school and office work over those enrolled in 1955. As a result of their work volunteers undoubtedly became better acquainted with the city and its Health Department activities. The Women's Civic League Volunteer Unit, by far one of the most active groups gave 1,505 hours of work in clinics. Its members showed great interest and were faithful in keeping assignments. Two orientation meetings were planned and held in the Eastern Health District. In October a volunteer unit was formed in the Flag House Courts Housing Project. In the fall with the reopening of the public schools, a meeting was held with teachers of the civic experience classes at the Patterson Park High School to explore opportunities for students to help in the volunteer program. This resulted in plans for utilizing student services during the second semester in the Bureau of Laboratories and in the Bureau of Health Information.

HOME VISITS OF PUBLIC HEALTH NURSES—1956

SERVICE	TOTAL	WHITE	COLORED
All home visits.....	113,023	38,091	76,937
Maternity hygiene.....	19,325	2,765	16,560
Infant health supervision.....	32,230	11,715	20,515
Preschool health supervision.....	9,780	3,050	6,730
School health supervision.....	5,020	3,530	1,490
Tuberculosis.....	27,825	10,870	16,955
Venereal disease.....	5,453	161	5,292
Acute communicable disease.....	7,295	1,900	5,395
Other morbidity.....	4,160	1,335	2,825
All others.....	1,940	765	1,175

The public health nurses assisted Dr. Matthew Tayback, Director of the Statistical Section, in gathering data on poliomyelitis vaccine injections by visiting the homes of selected newborns according to socioeconomic status and obtaining data from children in a random sample of two grades in 30 schools. This data served as a guide in determining where to concentrate Health Department efforts to increase the number of inoculations for a more effective city-wide level of immunization. The nurses also visited approximately 500 families on medical care rolls for a special study con-

ducted by Dr. Bertram W. Haines, Director of the Bureau of Medical Care Research. Two hundred visits to 354 individuals on medical care were made to urge registration in the program. Many of these people were aged, ill or incapacitated or did not understand how to receive the benefits of the medical care program. This educational visit resulted in increased registration and the provision of medical care for those persons receiving public assistance.

Miss Anna C. Scholl, Senior Supervisor of Public Health Nursing in Administration, was appointed November 5, 1956 and was assigned to the Western Health District. Miss Elizabeth Streett, Supervisor of Public Health Nursing was appointed December 5, 1956 and assigned to the Eastern Health District.

Thirty-seven staff nurses were appointed during 1956; of these, eleven had graduated from schools of nursing that provided public health instruction and field experience in public health nursing. Three had had previous public health nursing experience. This was an important advance over prior years.

Two staff nursing supervisors were enrolled at schools of higher learning and engaged in work toward their master's degrees; one attended Teachers College, Columbia University, and the other the Johns Hopkins School of Hygiene and Public Health. Miss Elizabeth Quinlin, Acting Supervisor of Public Health Nursing in the Eastern Health District, completed her work at Catholic University of America and was awarded a Bachelor of Science degree in nursing. A number of staff nurses were granted educational leaves to work toward degrees in nursing. Schools attended included the University of North Carolina, Simmons College, and the Catholic University of America. Three supervisors attended a three week workshop on the "Teaching of Maternity and Newborn Nursing" at Teachers College, Columbia University. Three tuberculosis clinic nurses attended a workshop on tuberculosis nursing at the University of Pennsylvania. Three supervisors and seven staff nurses attended a workshop on the "Concepts of Human Behavior as Applied to Nursing" at the University of Maryland. The granting of educational leave is essential if the bureau is to improve the qualifications of both the individual nurse and the staff as a whole.

Two baccalaureate schools of nursing sent 46 students to the Health Department for an affiliation in public health. Three diploma schools sent 140 students for a similar experience. Observations were provided for 226 student nurses from other hospitals as a supplement to their hospital instruction and to give the students a chance to visit in homes, schools and clinics. Field observations were also conducted for medical students.

### Eastern Health District

Extensive use of the new building was made by patients, staff and students and the design of the building has proved adequate to the demands made upon it. The year 1956 was the first year that all facilities were in use and the clinics were able to service efficiently large clinic caseloads. Clinics were conducted in the wings at both ends of the building and also on the ground level; they were able to function practically continuously morning, afternoon and night in the north wing even though they had different caseloads and different categories of disease. The north wing contained the tuberculosis, the venereal disease and the immunization clinics.

On May 14 the working area in the district for the generalized sanitary inspection program was enlarged so that it contained all of Wards 5, 6, 7, 8 and 10 with a population of approximately 133,000 persons. This meant that the program gave service to about 46,000 more people than it did in 1955.



WAITING FOR POLIO VACCINE—EASTERN HEALTH DISTRICT

The poliomyelitis vaccine program, designed to prevent paralytic poliomyelitis, was carried on extensively by providing special clinics at public housing projects and the establishment of two additional clinic sessions a week, one at the district building and one in a branch library, during the summer months. This important work caused some curtailment of the school health and child health programs.

An additional service to the residents of the Eastern Health District was arranged toward the end of the year in cooperation with the Baltimore

branch office of the federal Office of Vocational Rehabilitation which assigned one of its counselors to be present in the district building at regular weekly intervals. Cases that might be aided by this service were referred to it by members of the district staff.

On June 1, Dr. Horst Carl Reich, a physician from Ulm, Germany, was appointed a resident in public health administration to work in the Eastern Health District. In addition, Mr. J. Douglass Shepperd, a medical student at the University of Maryland Medical School in the class of 1958, served in the district for ten weeks during the summer months. Both of these professional workers contributed valuably to the work of the district.

### *Communicable Diseases*

The incidence of communicable diseases as reported was as follows: Measles, 2,227 cases; meningococcal infections, 7 cases with 1 death; paralytic poliomyelitis, 10 cases with 2 deaths; scarlet fever, 109 cases; whooping cough, 37 cases; psittacosis, 1 case; diphtheria, 1 case with 1 death, the first death from diphtheria in Baltimore since May, 1952.

Tuberculosis control work continued as a major activity and public health nurses made 7,350 effective home visits in this service. The X-ray screening clinic took 6,520 films of contacts of active cases, volunteers, patients registered in the prenatal clinics of the Health Department, patients referred by private physicians and hospitals and applicants for pre-employment examination. Of this total, 232 or 3.5 per cent needed further follow-up. Of the total group surveyed, 3,834 or 58 per cent were white persons and 2,686 or 42 per cent were colored. As in the previous year about 9 per cent of those X-rayed had formerly received BCG vaccination and were X-rayed as part of their follow-up when they returned for their Mantoux testing. This X-ray and Mantoux testing in regard to BCG patients was discontinued in September as the patient clinic load had gradually assumed such proportions that it was impossible to operate within available space and time. The BCG program continued to give service to tuberculosis contacts and volunteers, although the follow-up became limited to a patch test four months after vaccination. The home treatment program provided service as in the past; however, the streptomycin clinic for ambulant patients was discontinued and the patients were given their drugs and other therapy at regular sessions of the chest clinic. At the end of the year there were approximately 300 patients under active treatment at home.

The venereal disease clinic continued three nights a week in addition to two day sessions for congenital syphilis and prenatal patients under investigation or treatment. These clinics admitted 2,882 patients of whom 190 had syphilis and 1,472 had gonorrhea. Other venereal diseases were diag-

nosed in 358 patients, and 862 had no venereal disease or did not complete the examination. There was no reported case of congenital syphilis in infants.

### *Maternal and Child Health*

Maternity clinics were held Monday, Wednesday and Thursday mornings as in the previous year, and at the end of the year the prenatal case-load was 915 patients. Of these 703 were registered for delivery at Baltimore City Hospitals, 194 at other hospitals and 18 by midwife, presumably to be delivered at home. A total of 6,583 antenatal and postnatal visits was recorded. Due to an acute shortage of physician time, Child Health Clinic No. 12 at 2468 Greenmount Avenue and No. 13 at Wolfe and 20th Streets were closed on November 26. The Mothers' Advisory Service continued and rendered service to 78 new patients as well as to 165 carried from previous years. The children were for the most part those referred by the field activities of the district staff. The school health service examined 5,213 children, of whom 1,754 were found to have one or more physical defects.

Preventive dental services continued in the schools and at the district building through the extraction clinic and the clinic for clients of the Baltimore City Medical Care Program. The eye and hearing clinics were maintained and gave service to patients referred by the school health service.

### *Education and Research*

The undergraduate medical curriculum of the Johns Hopkins School of Medicine was revised and the course entitled Public Health and the Physician was discontinued. Subsequently, medical students in small groups were assigned to attend the child health clinics held on Wednesday and Thursday afternoons in the district building. These medical students continued their case studies of tuberculosis as in previous years. The attendance of University of Maryland medical students at the district maternity clinic was discontinued because of the availability of other clinic facilities closer to the medical school.

Candidates for the degree of Master of Public Health and special students of the Johns Hopkins School of Hygiene and Public Health met in the district building for the course Public Health Administration 4-A and, in addition, students majoring in maternal and child health attended the child hygiene clinics in the district building and at other localities in the district. Candidates for the degree of Doctor of Public Health and other students of the School of Hygiene utilized district records as their curricula and study interests indicated.



Student nurses of the Johns Hopkins and Sinai Hospitals were assigned to work in the district throughout the calendar year for their eight-week course in public health nursing. This course was also attended by newly appointed City Health Department staff nurses and in its field aspects provided bedside nursing care to the outpatients of the Johns Hopkins Hospital.

Fifteen City Health Department sanitarians attended a twelve-week course in environmental hygiene provided by the City Health Department and held in two sessions. In addition, a short course in mosquito control was established during the summer months, and field practice was demonstrated to student nurses of the University of Maryland School of Nursing.

A residency training program in public health administration was set up in June and also a program for the medical student trainee. Neither of these programs had been in existence before and their inception proved valuable.

The Baltimore Study on the Hygiene of Housing entered its third year on March 1 and at the end of the year the fifth cycle of home interviewing was completed. The data from these cycles of home interviewing were analyzed for use in the continuance of the study. Dr. Marcia Cooper of the Johns Hopkins School of Hygiene completed a study of pica which was prepared for publication as a book entitled "Pica" and published by Charles C. Thomas, Springfield, Illinois. Dr. Horst Carl Reich, resident in public health administration mentioned previously, surveyed over 1,000 cases of tuberculosis and these data were processed in preparation for analysis and report. Mr. J. Douglass Shepperd, medical student trainee, completed a short study of families in the Eastern Health District who failed to utilize available and needed Health Department facilities. Studies of premature infants, the epidemiology of mental illness and lead poisoning were completed or continued in different form in cooperation with the Johns Hopkins Medical Institutions.

The seminar rooms, observation rooms and clinic facilities permitted excellent demonstrations of public health practice to students and staff, and to the visitors who came to the district from the United States and Canada and from Australia, Burma, China, Colombia, Germany, Guam, Haiti, India, Iran, Korea, The Netherlands, the Philippine Islands, Taiwan and Turkey.

### Western Health District

During the year the preliminary plans for the new Western Health District building were completed, and the building site, located at the northwest corner of Lombard and Penn Streets adjacent to the University of Maryland Hospital, was cleared and converted temporarily into a park-

ing area for the use of City Health Department and hospital personnel. The new building will provide administrative offices and space for a variety of needed clinic services for the residents of West Baltimore. In addition, educational and training facilities in public health will be available for the staff and students of the Medical, Nursing, Dental, and Pharmacy Schools of the University of Maryland.

The various clinic services offered in the district were well attended, and in addition to the regularly scheduled weekly inoculation clinic, two special poliomyelitis vaccine clinics were temporarily set up in strategic locations in the district. A special premature baby clinic was carried on in cooperation with the Department of Pediatrics at the University of Maryland Hospital.

The close cooperation established in previous years with the University of Maryland Medical and Nursing Schools continued. Junior medical students made field trips with the public health nurses, food sanitarians and housing inspectors, while the senior medical students continued to make their Home Survey Reports on welfare patients assigned to the University of Maryland Hospital medical care clinic.

A total of 27 student nurses from the University of Maryland School of Nursing completed their affiliation in public health training in the Western Health District, and other groups of students from St. Joseph's College, Catholic University, Maryland General Hospital, Sinai Hospital, Johns Hopkins Hospital, and Bon Secours Hospital observed for one day in the district.

During the year the public health nurses in the district conducted monthly educational conferences on methods of interviewing and child growth and development with special emphasis on handicapping conditions. Two staff nurses participated in a pilot study with Dr. Kurt Glaser of the child guidance clinic of the University of Maryland Hospital.

Mr. George W. Watson, the District Health Administrator, resigned in March, and Dr. Robert E. Farber was appointed District Health Officer in June. Also, Miss Martha Tacka, Supervisor of Public Health Nursing, resigned in the early part of the year. In December, Miss Anna C. Scholl was appointed Senior Supervisor of Public Health Nursing in anticipation of the expansion and extra activities that will be undertaken when the new district building is completed.

### **Druid Health District**

Fifty-two official clinic sessions were conducted weekly in the Druid Health District in 1956; thirty in the headquarters building and twenty-two at other strategic locations in the district. At 1313 Druid Hill Avenue the clinic schedule each week was as follows: prenatal, 4; children's venereal

disease, 2; adult venereal disease, 12; child health, 4; chest, 5; streptomycin, 2; and immunization, 1. In other localities 16 weekly child health sessions were conducted in Public School No. 161, Public School No. 141, St. Mary's Protestant Episcopal Church, Provident Hospital and the Gilmor Housing Project. Five chest clinics were held at 1516 Madison Avenue and a prenatal clinic was conducted in the Gilmor Housing Project. In answer to a request from Provident Hospital a well baby clinic was established there to assist in the training of physicians and nurses in the care of the well child. The tendency toward overcrowding in most of the clinics was still further aggravated until it reached a serious problem in providing the public with the usual satisfactory service. The scarcity of clinicians and clerks added considerable difficulty in maintaining adequate clinic services.

The Druid Health District participated in the poliomyelitis prevention program of the Health Department. Poliomyelitis vaccine was given in the prenatal and the child health clinics as well as at the several housing projects in the district. The weekly immunization clinic was so heavily attended that an additional session was found necessary. The space in the headquarters building was so inadequate that on July 24, and for the balance of the summer months, this clinic was moved to the new recreation center of the Union Baptist Church, one block to the south. Even here the clinics were vastly overcrowded. The number of doses of poliomyelitis vaccine given in the Druid Health District during the year 1956 was 10,928. In spite of the efforts made to prevent this disease, the Druid Health District had an unusual number of reported cases. Out of the total of 26 paralytic cases reported from the entire city 11 or 42 per cent occurred in this district. Nine of the 11 individuals infected had never received an injection of vaccine; one had had 1 dose only and the other had onset a week after her second dose. Fortunately no death occurred in this group.

Eighteen cases of child lead poisoning including 1 death were reported in the Druid Health District during the year. This represents 37.5 per cent of the 48 cases reported for the entire city. Weekly conferences were conducted with public health nurses in an effort to improve the tuberculosis program. Mrs. Ann Reed, a medical social worker appointed by the Maryland Tuberculosis Association to work in the Druid Health District, attended these conferences and gave valuable assistance. Student nurses from Provident, St. Joseph's, Johns Hopkins, Baltimore City, Maryland General, Henryton, Mercy and the University of Maryland Hospitals as well as students from the University of Maryland Medical School received experience in varying degrees by doing field and clinic work in the district.

### Southeastern Health District

Exclusive of 485 cases of measles very few communicable diseases were reported during the year. Among these were 19 cases of scarlet fever, 2 cases of whooping cough, 8 of infectious hepatitis, 99 cases of chickenpox, 152 cases of mumps and 1 case of psittacosis; the record also shows that for the second year in succession in the district's history there was no case of diphtheria, nor was there any case of paralytic poliomyelitis, meningococcal infection or typhoid fever.

The poliomyelitis vaccine inoculation program was conducted in special clinics in the Armistead Gardens, Flag House Courts, O'Donnell Heights and Perkins Homes Housing Projects from March 19 to May 31; 4,198 shots were administered to school children living in these projects. For the remainder of the year this service was provided for eligible residents, namely those persons 3 months to 19 years of age inclusive, and pregnant women, in an additional weekly immunization clinic established on May 31 at 3411 Bank Street as well as at the regular immunization clinic at 901 South Kenwood Avenue and the seven well baby clinics conducted each week throughout the district.

A new affiliation in public health nursing was inaugurated on January 3 for diplomate and collegiate student nurses from the University of Maryland School of Nursing under the direct supervision of Mrs. Mary Grotefend, Associate Professor of Public Health Nursing in this school, who was assigned to the district at that time. During the year 19 such nurses completed the prescribed two and three month courses and two of them later became members of the City Health Department staff. Practical observations in district field and clinic activities were made by senior students from Bon Secours, Maryland General, and Sinai Hospital Schools of Nursing as well as by medical students from the University of Maryland School of Medicine, students from Mount St. Joseph's College and from Catholic University in Washington, D. C.

The theme for the year for the monthly staff educational conferences for the public health nurses was their role in interviewing and included field trips to the School of Chimes, a school for mentally retarded children, and to the speech correction center at Public School No. 83. In addition, speakers from a number of City Health Department bureaus, the City Department of Public Welfare, the Baltimore League for Crippled Children and Adults, the Baltimore Chapter of the American Red Cross, the University of Maryland Hospital, the Vocational Rehabilitation Division of the Maryland State Department of Education and the Pine Street Police Station presented the activities of their respective agencies.

Dr. Janet B. Hardy, Director of the Health Department's Section of

Preventive Medicine, was the guest speaker at the October meeting of the East Baltimore Medical Society which continued to meet monthly in the district building for the fifteenth consecutive year. The District Health Officer continued civil defense activities as Health Deputy at the staff meetings of the Southwestern District Control Center; he participated in the surprise alert exercise in December for this center, in the refresher course for district coordinators given by the director of the Baltimore City Civil Defense Organization in April at the City Hall and in the monthly meetings of the Baltimore City Civil Defense Health Service. He attended, for the third consecutive year, the monthly luncheon meetings of the Southeastern Council of Community Services whose February session was held in the Southeastern Health District building at 3411 Bank Street, and the eighth anniversary celebration of the Canton Area Council, Inc.

### **Southern Health District**

The primary aims of the Southern Health District activities during the year 1956 were to safeguard and improve the health of the people in South Baltimore with constant attention paid to methods of improving services. The new poliomyelitis vaccine inoculation program was expanded by the institution of a weekly immunization clinic in the district building at 1211 Wall Street.

Even though the child health clinics were well attended, it was necessary to discontinue two of them in the fall because of the shortage of physicians. It was planned that as soon as additional physicians were available these clinics would be reopened. The shortage of physicians was particularly felt in the school health program when at one time as many as eleven out of the twenty-five schools in the district had no physician assigned. The prenatal clinics and chest clinics were well attended and continued their service to the community in the fields of maternal hygiene and tuberculosis control. Because of the low caseloads in the venereal disease clinics toward the end of the year it was decided to discontinue all such clinics in the district building effective December 31. The public health nurses continued to serve their vital roles in all the various activities of the district in the homes, in the schools and in the clinics.

During the year fifteen students from the University of Maryland School of Nursing and five from Mercy Hospital School of Nursing spent their public health affiliation of eight to thirteen weeks in the district. In addition other students from various schools of nursing and colleges in Baltimore observed in the district for one day. Twelve junior students from University of Maryland School of Medicine also made field trips with the public health nurses.

Special educational classes were reinstituted in the prenatal and well baby clinics in the district building, and the mothers' classes conducted on the

obstetrical wards at the South Baltimore General Hospital by the public health nurses were continued and were well received. During the year the staff educational conferences were centered around child growth and development with special emphasis on handicapping conditions.

There were no major staff changes during the year. Dr. Robert E. Farber returned from his leave of absence in June to serve as District Health Officer both in this District and the Western Health District. There were several changes in the nursing and clerical staffs, but at the end of the year both staffs were at full complement.

### Communicable Diseases

During the year 18,135 cases of communicable diseases were reported. Increases over the prior year were noted in measles, German measles, scarlet fever, mumps, meningococcal infections, and decreases were evident in diphtheria, typhoid fever, chickenpox, whooping cough and paralytic poliomyelitis.

#### *Poliomyelitis*

The reported cases of paralytic poliomyelitis were 26 for 1956. One death occurred in this group and one resident in the Armed Forces died in a Naval Hospital in Virginia. The reversal in the number of cases of paralytic poliomyelitis in 1956 by race was new and striking. Approximately 77 per cent of the cases occurred among Negroes. In the past twenty-three years the average proportion in the nonwhite race has been 15 per cent. This unusual transposition was attributed to the fact that a higher proportion of the white children had received one or more doses of poliomyelitis vaccine.

#### *Diphtheria and Meningococcal Infections*

There was 1 death due to diphtheria in the city in 1956, the first since May, 1952. There was no record of this child having received the diphtheria protective inoculation. No other case of the disease occurred, which established a new low record. Toxoid inoculations were administered to 35,690 children. Of these, 14,735 children received booster doses. The reported cases of meningococcal infections totaled 17 with 4 deaths.

CHILDREN RECORDED AS RECEIVING DIPHTHERIA TOXOID INOCULATION  
BALTIMORE 1951-1956

AGENCY	1956	1955	1954	1953	1952	1951
TOTAL.....	35,690	33,545	34,975	31,315	27,200	23,189
Physicians' practices.....	8,965	10,660	10,730	10,823	10,161	9,333
Preschool clinics.....	19,300	17,775	18,860	16,156	13,101	10,423
School clinics.....	7,425	5,110	5,385	4,336	3,938	5,433

*Other Communicable Diseases*

The reported number of measles increased from 925 cases recorded in 1955 to 4,943 in 1956; likewise, the number of cases of scarlet fever increased from 310 cases in 1955 to 318 cases in 1956. The reported number of cases of whooping cough decreased from 140 cases in 1955 to 90 in 1956. There was no death attributed to typhoid fever during the year, and for the 28th consecutive year there was no smallpox in Baltimore.

**Tuberculosis**

The epidemiology of tuberculosis as described by mortality statistics and data relating to newly reported cases, once again, in 1956 proved difficult to interpret. In spite of the availability of effective chemotherapy and adequate facilities to reduce the extent of infectious individuals in the community, the 1,171 newly reported cases in 1956 were almost identical with the 1,187 cases recorded in 1955. The reported incidence rate of tuberculosis per 100,000 population was 120 in 1956 and 123 in 1955. Comparative figures for the white population were 82 and 87 respectively and for the nonwhite population the rates were 216 in 1956 and 217 in 1955.

The number of fatalities from tuberculosis was 190 in 1956, 12 more than the total of 178 registered in 1955. No significant movement in the death rates was noted. For the total population the rate was 19.5 in 1956 and 18.4 per 100,000 population in 1955. The Negro death rate in 1956 of 35.0 was not much different from the 1955 figure of 32.8 and the same general situation was true for the white population, the rates being 13.1 in 1956 and 13.0 in 1955.

The home chemotherapy program was concerned primarily with persons discharged from hospital and who were not in a position to purchase drugs on a long term basis. The number of patients covered by this program in 1956 totaled 975 of whom 376 were white and 599 nonwhite. During the year 256 patients were discharged from this service and 663 persons were newly admitted. There appears to be good reason to follow carefully the chemotherapy discharges so that remission rates can be determined and the problem evaluated.

Case-finding activities in 1956 included as in previous years, mass community surveys, hospital screening chest microfilms of inpatients and outpatients, screening service in the chest clinics and a screening service in the central office of the Maryland Tuberculosis Association. In the mass surveys 50,451 persons were X-rayed among whom 193 were found to have definite evidence of tuberculosis. These surveys included 26,979 individuals examined in connection with institutional projects, 4,461 X-rayed in neighborhood projects, and 19,011 students covered by school surveys.

Vaccination with BCG was undertaken on a selective basis at the East-

ern Health District. During the year 568 persons were vaccinated including 510 children, 56 nurses and 2 hospital attendants.

There was little delay in securing hospital beds for tuberculosis patients. This was particularly true in State tuberculosis hospitals and the delay in obtaining hospitalization at Baltimore City Hospitals began to disappear toward the end of the year. Discharges from the various sanatoria numbered 957. Of these, 316 or 33 per cent were against the advice of the hospital authority. Among those leaving the hospital, 139 had a positive sputum when they were discharged.

The record of tuberculosis control in 1956 is not one which allows for complacency. The control effort could benefit from intensification of case finding and particularly concentration of the effort among those areas with high prevalence ratios.

### Venereal Diseases

For the third successive year the reported incidence of early infectious syphilis demonstrated a gradual upward trend. There were 223 cases of primary and secondary syphilis reported in 1956 as compared with 172 in 1955, which amounted to a 29.7 per cent increase. Total reports of all stages of acquired syphilis however remained essentially the same, 1,354 in 1956 as compared with 1,408 in 1955. The Baltimore increase in early syphilis was consistent with experience in many other areas throughout the United States and demonstrated the obvious need for continued intensive efforts in venereal disease control. Two cases of syphilis in infancy were reported, but for the sixth consecutive year no death from syphilis in infancy was recorded.

Reported infections with gonorrhea decreased 6.4 per cent to 6,452 in 1956 as compared with 6,890 in 1955. There were 1,000 repeaters, 19.8 per cent of the total number of infected persons, and they accounted for 21.8 per cent of the total number of gonococcal infections.

There were 10,658 persons admitted to the Health Department's venereal disease clinics as compared with 11,333 in 1955. Visits also decreased slightly to 23,323 in 1956 as compared with 26,161 in 1955. Because of budgetary limitations and the decrease in the patient load, all venereal disease clinic activities at the Southern Health District clinic and one adult session at the Calvert Street clinic were discontinued at the end of the year.

Approximately 5,300 venereal disease contacts were investigated in 1956. Efforts in this phase of the program were intensified in 1956. In cooperation with the Maryland State Department of Health, the Bureau of Venereal Diseases initiated a special study whereby the services of a male investigator well versed in venereal disease epidemiological procedures were



utilized to investigate and bring to examination those sex contacts of infectious venereal disease patients who could only be found at night and who frequented the numerous night clubs throughout the city. Although the study was in operation for only a short time it showed a moderate degree of success.

During the latter part of the year a new treatment schedule for syphilis and contacts of infectious syphilis was initiated. Using a relatively new form of penicillin, benzathine penicillin G, it was possible to reduce markedly the number of injections necessary to complete an effective course of therapy.

It is gratifying to note that it was unnecessary to invoke the City Isolation Ordinance during 1956. The Health Department and the Armed Forces continued to collaborate in the examination and treatment of selectees, separatees and contacts of infected military personnel found to have evidence of infection with a venereal disease.

Dr. Nels A. Nelson, Director of the Bureau of Venereal Diseases since August 1, 1946, retired on September 30, 1956. Dr. Milton Zises was assigned by the U. S. Public Health Service to assume his duties on a temporary basis.

### Preventive Medicine

The Section of Preventive Medicine was established in May, 1956 in order to bring about a more closely integrated program in the field of preventive medical services. Included within this Section were the Bureaus of Child Hygiene, Communicable Diseases, Dental Care and the Divisions of Maternity Hygiene, School Health, Nutrition, Mental Hygiene and the Division for the Handicapped. The Bureau of Venereal Diseases was added to the Section in September, 1956 and the Bureau of Tuberculosis in October, 1956.

#### *Maternity Hygiene*

The maternity hygiene interviewing service continued to assist all applicants to obtain prenatal and delivery care and to register patients for the Health Department prenatal clinics. During the year 5,766 patients were interviewed as compared with 4,880 in 1955. This represents an increase of 886 or 18 per cent over the previous year. Of those interviewed 2,068 patients or 36.0 per cent, were referred to voluntary hospitals, as compared to 1,093 or 22 per cent in 1955. Approximately 25 per cent of all resident patients who delivered in 1956 were rendered service by the interviewing staff. One hundred and twenty-three patients were admitted as emergencies direct to hospitals from the Health Department interviewing center at 414 North Calvert Street. These patients were in need of imme-

diate treatment for complications of pregnancy which could have been fatal if hospital care had not been obtained immediately.

During the year 23,782 babies were born to Baltimore mothers as compared with 23,291 born in 1955; 97 per cent of these births occurred in hospitals. Of all babies delivered 99 per cent were delivered by physicians and 1 per cent were delivered by midwives. Ten women died from causes associated with pregnancy as compared with 12 in 1955; 6 of the 10 were colored. An interesting aspect of the causes of maternal deaths is that 6 of the deaths were associated with criminal abortion. The maternal mortality rates were 2.9 per 10,000 live births for the white mothers and 6.2 per 10,000 live births for the nonwhite group. A total of 19,456 visits was made by 4,557 patients to the prenatal clinics, a decrease of 1,951 visits from the 21,407 visits made by the 4,547 patients served in 1955.

Poliomyelitis vaccination priorities were broadened to include pregnant women. As of July 9, poliomyelitis vaccination was offered to all prenatal patients registered in the Health Department prenatal clinics. A total of 2,414 prenatal inoculations was given during the remainder of the year.

### *Preschool Hygiene*

The infant mortality rate was 30.0 per 1,000 live births, a decrease from rates for most prior years. Prematurity continued to account for more than one-half of all infant deaths occurring in the first month of life. Congenital malformations and birth injuries were also important causes.

Attendance at the child health clinics increased from 80,156 visits in 1955 to 92,375 in 1956. As of November 26, ten weekly clinic sessions were closed because of a shortage of medical personnel to man the clinics. During the year 4,649 clinic physician sessions were conducted at 38 locations in the city.

Poliomyelitis vaccination became a routine procedure in the child health clinics in January, when the priorities were broadened to include this age group. During the year 110,331 inoculations were given in the child health clinics and in the immunization clinics.

A total of 19,300 children received inoculations of diphtheria and tetanus toxoid combined with whooping cough vaccine during the year in the child health clinics. In addition to the poliomyelitis vaccinations and triple antigen inoculations, 6,264 vaccinations against smallpox were recorded as compared with 14,454 in 1955.

### *Day Nurseries, Nursery Schools and Day Care Centers*

The Health Department's supervision of day care facilities for preschool children continued. At the close of the year 80 licensed day nurseries were operating with a capacity of 3,039 children.



PREVENTING PARALYTIC POLIO—DRUID HEALTH DISTRICT

### *Mental Health*

The Division of Mental Hygiene continued a program, oriented toward maintaining and fostering emotional health. To this end, close cooperation existed between the division and both public and private health, welfare, and educational agencies. The division chief gave consultative service and held orientation seminars for public health nurses. Group education and a Mothers' Counseling Service were carried on in connection with selected child health and prenatal clinics.

### *School Health*

The Division of School Health, in cooperation with the public and parochial school systems, was responsible for administering health services in the elementary public and parochial schools for approximately 138,000 pupils during 1956. Of the 15,460 children examined 7,875 were found to have physical defects. The program emphasized the importance of teacher observation and referral. Routine health examination of all entering pupils was continued by private and school physicians.

A total of 1,433 poliomyelitis inoculations was given in the schools to those children carried over from the 1955 program conducted under joint sponsorship with the National Foundation for Infantile Paralysis.

The special Health Department clinics for vision and hearing were continued. A total of 1,005 children was seen in the eye clinic and 500 children were cared for in the hearing clinic. The hearing clinic at 414 N. Calvert Street was discontinued due to a shortage of trained personnel and the caseload was transferred to the hearing clinic at the Eastern Health

District building and to various hospital outpatient services through the help of the Handicapped Children's Program.

The vision and hearing screening programs were continued and 26,358 children were screened by using the Massachusetts vision test kit. This latter program was made possible by the participation of 476 volunteer parents, trained by the Maryland Society for the Prevention of Blindness, under the supervision of the public health nurses. The auditory screening was carried out by three audiometrists using individual pure tone sweep checks. Tests for hearing loss were conducted with 23,361 children.

### *Handicapped Children*

The Division for the Handicapped completed its first full year of operation in 1956 and 1,684 children received physicians' services under the auspices of the program. In addition to these services, active liaison was maintained with the Division of Special Services of the Department of Education and with the school health program, particularly in respect to the two special schools for the handicapped. Dr. Kay K. Edwards, Director of the Bureau of Child Hygiene, was in charge of the program until December, 1956, when she resigned; consequently at the year's end there was no full-time director.

### *Nutrition*

Since nutrition is an integral part of many health programs, the division continued to provide a variety of services in the community as well as within the Health Department. Attempts were made to encourage additional activities so that all segments of the population would be reached. Each of the two nutritionists was responsible for nutrition education in approximately half of the city while the chief of the division, in addition, was responsible for activities planned on a city-wide basis.

Nutrition services included the following: In-service training of Health Department personnel, instruction of allied personnel in medical schools and hospitals, promotion of nutrition education in elementary and secondary schools, participation in Health Department and other radio and television programs, individual and group instruction in Health Department clinics, preparation of visual aids and other teaching materials, participation in community meetings and activities, and program planning with other official and nonofficial agencies and related professional organizations.

In-service training activities within the Health Department included group conferences with public health nurses, student nurses affiliating with the Health Department, sanitarians, and various administrative personnel responsible for program planning. Related activities included talks and conferences with junior and senior medical students at the University of

Maryland, student nurses at the Johns Hopkins, Lutheran, Maryland General, and Mt. Wilson Hospitals, graduate students at the Johns Hopkins School of Hygiene and Public Health, and specialists in preventive medicine from the Bethesda Naval Hospital. For an eight week period, the division provided supervised field experience for a student from the School of Public Health of the University of North Carolina who was working toward a Master of Public Health degree in public health nutrition.

Community activities included participation in the Department of Education training program for groups of seventh and ninth grade teachers, a science workshop for elementary teachers, and the health workshop for elementary school teachers at Morgan State College; weight control classes for the Baltimore Homemakers' Clubs; career guidance discussions for several groups of high school students; talks to parents, students and teachers in public and parochial schools and to several adult groups in the community. A special nutrition program was started at the Baer School for Handicapped Children that included counseling with students, parents and teachers regarding the special nutrition needs of individual children as well as encouragement of better eating habits for all children as a preventive measure.

Both group and individual instruction were available in Health Department clinics. Individuals were referred to the nutritionists by physicians and public health nurses for specific diet instruction. Occasional home visits were made with both staff and student nurses. Posters and displays with nutrition emphasis were prepared to be used as teaching aids. In addition, there were numerous individual conferences related to program planning, personal diet problems, and food budget assistance to families.

The division chief was appointed by the Director of the Maryland State Department of Health to serve on a committee to study the nutrition and dietary services available in Maryland. In addition to these direct services to individual and community groups the division assisted other agencies in planning programs concerned with nutrition and related subjects. Well rounded, community nutrition programs called for the effective working together of many agencies and the collaboration of many professions. The Division of Nutrition was transferred from the Administrative Section of the Health Department to the Section of Preventive Medicine on May 24, 1956.

### Dental Care

Two programs of dental care were administered, one for school children, the other for recipients of public assistance in the Baltimore City Medical Care Program. The school program was extended in the Walbrook area by the opening of a new dental clinic in the James Mosher School, Public

School No. 144, at Mosher Street and Wheeler Avenue. At the close of the year indigent children were receiving dental care without charge in 27 Health Department clinics throughout the city. As before, emphasis was placed on measures to save teeth. Only children entering school as kindergarten or first grade pupils were admitted as new patients, and then only after dental inspection and follow-up in which the services of private dentists were enlisted at every opportunity. Children above the first grade received the benefit of check-up and referral, either to a private dentist or to a Health Department clinic.

During the year there was a net increase of 3,504 children in the school dental program. At the end of 1956 it included 39,714 pupils from 83 public and parochial schools. Of this number 7,795 received constructive dental care in Health Department clinics. Another 1,170 received emergency treatment. A complete dental service, in which all the teeth that could be saved were restored, was given in 7,040 cases, 925 more than in 1955.

Clients of the Department of Public Welfare enrolled in the Baltimore City Medical Care Program were given access to emergency dental services in clinics conducted by the University of Maryland, Johns Hopkins, South Baltimore General, Sinai, Provident and Mercy Hospitals. For the first time, a substantial amount of preventive and constructive dentistry was provided for these people. The experience of the clinic established in 1955 at 620 North Caroline Street to do this work indicated a great need for dental fillings, particularly among the children and young mothers. A total of 18,599 treatment services, of which 6,779 were tooth extractions and 1,393 were fillings, was provided for 5,570 persons under this program in 1956. During the prior year 3,991 persons received 13,548 services.

Every means was employed to inform the public, particularly children, parents and teachers, of the advantages of dental health and the means to obtain and preserve it. The dental inspection of 4,743 children was made in the presence of a parent or guardian at which time parents and children were advised and motivated toward the care of the teeth. Posters, leaflets, folders, talks, demonstrations and special classroom projects were freely utilized in the dental health educational effort. The press, radio and television played an important role, particularly in observance of the 8th National Children's Dental Health Week, February 5-11. The program of fluoridation of the city water supply was continued through 1956, though interrupted somewhat for a few weeks by failure of the normal supply of hydrofluosilicic acid.

### Medical Care

Again in 1956, as in previous years the Baltimore City Medical Care Program was handicapped by a lack of adequate funds. The monthly average

number of persons on the rolls of the program during the year was 30,211 as compared to a monthly average of 28,548 during 1955. Because of inadequate State appropriations the monthly average number of persons waiting for medical care during the year was 535. Lack of funds also prevented the Medical Care Section from permanently extending the period of medical care coverage from six weeks to twelve weeks after a person ceased to be on welfare.

A noteworthy event in 1956 was a study of the program by the Baltimore City Advisory Committee on Medical Care which was conducted at the request of Mayor D'Alesandro. This Committee under Dr. Ernest L. Stebbins, Director of the Johns Hopkins School of Hygiene and Public Health, submitted its report to the Mayor on September 17. The report in general was favorable but included the following recommendations: (1) That the use of the Formulary issued in 1955 be made mandatory; (2) that a position be created in the Medical Care Section to supervise drug services; and (3) that participating physicians be paid retroactively instead of in advance. The Medical Care Section began promptly to plan for the adoption of these recommendations.

The neighborhood physician continued to be the keystone in providing medical care to persons under the program. The average number of private physicians participating in the program was 298. The physician chosen by the largest number of medical care clients was responsible during the year for an average of 1,727 patients, only 6 other physicians were responsible for an average of more than 750 persons. As in previous years there were few complaints by patients regarding physician services or by physicians about excessive demands of patients.

All medical care clinics were in operation throughout the year. These clinics were at the University of Maryland Hospital, the Johns Hopkins Hospital, South Baltimore General Hospital, Sinai Hospital, Provident Hospital, Mercy Hospital and Baltimore City Hospitals. Mr. Harry O. Kaylor replaced Mr. Charles H. Beal as director of the medical care clinic at Baltimore City Hospitals.

Dental care continued to be provided within strict financial limitations in dental clinics maintained at hospitals conducting medical care clinics and also at a Health Department dental clinic located in the Eastern Health District building. The dentists at the latter clinic were under the direct supervision of the Health Department and were paid from unused medical care clinic dental capitation funds on a clinic fee basis.

In order to control the rising cost of drugs, the Baltimore City Advisory Committee on Medical Care, as mentioned previously, recommended that the use of the Formulary issued in 1955 be made mandatory. The Formulary Committee of the Baltimore City Advisory Committee on Medi-

cal Care was reactivated to review the Formulary and bring it up-to-date. This committee was under the direction of Dr. John C. Krantz, Jr., Professor of Pharmacology at the University of Maryland School of Medicine.

The total expenditure for the Baltimore City Medical Care Program during 1956 was \$874,134.64. Of this sum \$844,121.64 was contributed by the State of Maryland. The remainder, or \$30,013.00, was contributed by the City of Baltimore. The city contribution paid approximately half of the administrative costs. The average cost of carrying one person for the entire year was \$28.93 as compared with \$28.31 for the preceding year.

#### *Medical Care Research*

On July 1, 1956, a Bureau of Medical Care Research was established and Dr. Bertram W. Haines was appointed director. The new bureau was created primarily to conduct studies to assess the adequacy of medical care and related services rendered under the program. Its chief activity during the last half of the year was to assist the Advisory Committee on Medical Care in its study of the program. The bureau also initiated an improved method of obtaining operational statistics to be used by the Director of the Section in making administrative decisions regarding the program.

#### **Milk Control**

A complete revision of all milk regulations under the city milk ordinance was made and distributed among the various farm and dealer groups, Health Departments and other interested groups. In this the State Department of Health rendered valuable assistance.

An important court case was lost by the Health Department when Section 15 of Article 12 of the Baltimore City Code of 1950 as regards ice cream, was stricken down by a decision of the Circuit Court of Baltimore City, filed on July 9, 1956. This opened the door to the sale of ice cream in Baltimore that was manufactured outside the city limits.

Approximately 10,000 Health Department inspections were made of milk and milk products plants, dairy farms and transportation agencies. About the same number of dairy farm inspections were made by Health Department approved milk plant field men and approximately 30,000 direct microscopic bacterial counts on individual farm milk supplies were reported to the Health Department by the pasteurization plants. In addition, more than 10,000 samples of milk and milk products were submitted by the inspection staff to the Bureau of Laboratories for investigational and control purposes.

Out of approximately 4,000 city-wide samples of pasteurized milk and milk products phosphatase-tested by the Bureau of Laboratories, not one sample indicated faulty pasteurization during 1956.



BALTIMORE CITY HEALTH DEPARTMENT  
Baltimore, Md. 21201

# NOTICE TO FOOD HANDLERS

Wash your hands  
after leaving  
the toilet and  
before handling  
food and  
food equipment



**USE PLENTY OF LIQUID GERMICIDAL SOAP,  
WARM WATER, AND AN INDIVIDUAL TOWEL**

**You are urged to do this because**

1. HUMAN FECAL MATTER IS DANGEROUS.
2. TOILET PAPER IS NOT SUFFICIENT TO PROTECT THE HANDS.
3. IF FECAL MATTER GETS INTO FOOD, TYPHOID FEVER, DYSENTERY AND FOOD POISONING MAY BE GIVEN TO THOSE WHO EAT THE FOOD.
4. CASES OF DISEASE HAVE BEEN TRACED TO CARELESS FOOD HANDLERS.

## PROTECT

YOUR FELLOW CITIZEN FROM DISEASE  
YOUR EMPLOYER FROM LAWSUITS  
YOURSELF AND YOUR JOB

Prepared by  
THE BUREAU OF FOOD CONTROL  
BALTIMORE, MARYLAND

FOOD HANDLERS—WASH THOSE HANDS

### Food Control

The Bureau of Food Control continued to concentrate its activities on the prevention of illness from food and on the urging of improvements in the sanitation and general cleanliness of the 11,000 food establishments in the city. The established policies and procedures, based on inspection, instruction of employees and owners, cooperation with the food industry in inaugurating alterations or changes in operation, and regulation or the enforcement of food laws, were chiefly responsible for the keeping of outbreaks of food poisoning to a minimum. Of 22 alleged outbreaks of food

poisoning reported only three proved to have been caused directly by food. These three outbreaks involved 49 persons.

Over 13,000 inspections were made by the eleven sanitarians in the bureau; 136,952 pounds of food were condemned in 625 instances and 16 court prosecutions resulted in the assessment of \$1,645 in fines. In supervising the 11,000 food establishments in the city, the bureau was aided by the participation of 243 retail, wholesale and manufacturing food establishments in the auxiliary inspection program established by the bureau several years previously.

An evaluation of the sanitary conditions in food establishments was made during 1956. From this study it was determined that the poultry killing establishments were at the lowest level and in need of the most improvement. The highest percentage of entirely satisfactory conditions was found in the institutional food departments. Certain types of retail stores were found also to be in better sanitary condition than others. Results of the evaluation were used as a guide for the assignment of inspection visits and will be helpful in determining the sanitary status in food establishments from year to year.

Other food control activities included: A study of the need for washing celery with more than one rinsing which was shown to be needed; the removal of several hundred jars of preserved peaches from channels of trade because of contamination with a mercury compound; the examination of smoked sausage for the presence of excessive quantities of nitrites; the use of the hydrogen ion concentration test of meat juices as an index of spoilage of meat on retail sale; the use of the phosphatase test to determine whether certain cheeses were made from properly pasteurized dairy products; the continuance of a search for organisms of the *Salmonella* group in smoked fish; the revision of the handwashing poster and its distribution to food establishments in the city; the instruction of 1,500 food handlers in the preventive aspects of food handling; and the investigation of each reported individual case of *Salmonella* and dysentery infection with the view to preventing further spread of the disease.

### *Food Plant Inspection*

Manufacturing and wholesale food establishments were visited systematically by personnel of the Division of Food Plant Inspection. The auxiliary inspection program, a self-policing procedure by participating food organizations, was continued and resulted in the reporting of 3,264 inspections by auxiliary inspectors. Since 1952 when this inspection program was placed in the Division of Food Plant Inspection over 11,000 sanitation-inspection reports have been received by the Health Department. The division estimated that approximately \$98,000 worth of inspection services

were provided in this way in 1956 without cost to the city. There were 19 additional companies who participated in this auxiliary inspection in 1956 over 1955.

The division continued to review all plans for new or remodeled food establishments and notified architects and contractors of City Health Department requirements. The division chief continued to review all prospective court cases and gave assistance in the assembling of exhibit material and testimony. He was also responsible for the assignment of the bureau's sanitarians to specific census tract areas and to specific types of food plants.

### **Meat Inspection**

During the year 35,230 inspections of cattle, calves, sheep, swine and goats resulted in the condemnation of 423 carcasses and 27,087 parts of carcasses as being unfit for human consumption. The most frequent diseases encountered during inspection which caused condemnation were: Hog cholera, pyemia, traumatic pericarditis, immaturity, septicemia and icterus; and of parts of carcasses were: Parasites, abscess, actinomycosis and cirrhosis.

Supervision of meat food products and the plant environment was maintained daily in seventy-six plants processing and manufacturing 16,906,169 pounds of meat food products. In addition, service was rendered to the federal and state agencies in the slaughtering of cattle reacting to Bang's disease, Johnne's disease and tuberculosis.

On January 6 the management of a wholesale slaughtering establishment was called in for a hearing at the office of Dr. Wilmer H. Schulze, Director of the City Health Department's Sanitary Section. This firm had its federal grading withdrawn due to the lack of cooperation with the Bureau of Meat Inspection. A hearing was also held in Dr. Schulze's office on May 22 with a wholesale meat dealer who sold uninspected meat in the city to persons with home freezing units. A similar hearing was held on May 23 which involved another dealer. In both instances orders were issued to operate in the city under inspection and these orders were obeyed.

On December 14 a meeting was held with local meat packers to discuss a new federal regulation scheduled to take effect January 1, 1957. This regulation will require all breeding cattle shipped interstate to be recorded on a special permit for immediate slaughter. The Bureau of Meat Inspection continued to cooperate with the Bureau of Communicable Diseases in the examination of dogs for rabies.

### **Environmental Hygiene**

#### *Community Sanitation*

A major advance in environmental hygiene became a reality on June 5 when the new Ashburton Filtration Plant treating the Patapsco River

water supply with a rated capacity of 120 million gallons a day was placed in operation.

Other activities in community sanitation included: The handling of 3,836 complaints related to environmental sanitation; evaluation of the sanitary quality and fluoride content of the city water supply through the analyses of 1,499 samples collected from consumer taps throughout the distribution system; continuing the program of warning the public of sewage pollution of streams flowing through the city by the posting of Health Department signs; cooperation in the investigation of three confirmed and 3 suspected cases of psittacosis; development and distribution of a safety leaflet entitled "What Do You Fall For?" in cooperation with the Maryland State Department of Health, the Baltimore Safety Council and bureaus of Public Health Nursing and Health Information of the City Health Department; periodic inspections of the operation of indoor and outdoor swimming pools; investigation of the operation of two sanitary landfills and the excavation, removal and replacement of a portion of a sanitary landfill to permit the construction of a highway; supervision of the licensing and operation of rooming houses, lodging houses and hotels which included the ordering of the closing of one hotel and the refusal to renew the license of another hotel; cooperation with the Maryland State Department of Health in the inspection of hospitals, and convalescent and nursing homes; inspection of railroad watering points in cooperation with the U. S. Public Health Service; cooperation with the Bureau of Child Hygiene in the inspection of foster homes, day nurseries and child care institutions; participation in the civil defense planning and training including the exercise held from July 20 to 22 and the attendance at civil defense courses in "Sanitary Engineering Practices in Civil Defense Disaster" given by the U. S. Public Health Service; participation in the testing of commercial and domestic garbage grinders; and attendance of staff members at a swimming, pool operator's course sponsored by the health departments of Virginian Maryland and the District of Columbia, and the Interstate Sanitation Seminar at William and Mary College at Williamsburg, Virginia.

### *Plumbing*

Prosecution of flagrant violations of the "Rules and Regulations Governing Plumbing and Drainage Work in Baltimore City" and an order by the Health Department not to occupy new homes until sanitary sewer facilities were provided resulted in findings of guilty for a plumbing contractor and a home builder in the Housing Court. The plumbing contractor was convicted of performing plumbing work and connecting properties to the sanitary sewer without the necessary plumbing permits. The Criminal Court reversed the guilty finding of the home builder for permitting four

houses to be occupied without a sanitary sewer outlet from the lateral sewers serving the properties after the houses had been vacated.

Tests were made of 9 commercial and 7 domestic garbage grinders by the Health Department and the Bureau of Sewers and 8 commercial and 7 domestic units were approved for installation in Baltimore. Location approval was given for the installation of 29 commercial grinders and a total of 342 domestic and commercial grinders were installed under plumbing permits. Properties connected to the sanitary sewerage system during 1956 were 2,598 which brought the total number of connected properties in the city to 206,105. Cross connections prevented or eliminated during the year totaled 614.

Mr. Carroll H. Reynolds, Chief of the Division of Plumbing, retired due to ill health on September 4 and Mr. Walter Underwood was appointed Acting Chief of the Division of Plumbing on July 27 during Mr. Reynolds' absence on sick leave and vacation. Mr. Reynolds had been with the Health Department since 1919 and had been Chief of the Division of Plumbing since it became a division of the Bureau of Environmental Hygiene in 1946. Mr. Underwood had been with the Health Department since 1920.

#### *Rodent Control*

Investigations were made of 49 rat bites, 9 mouse bites and 1 case of rickettsialpox during the year. This is the lowest annual number of rat bites reported to the City Health Department, the previous low being 66 bites in 1953. The age of persons bitten varied from an infant of five weeks to a sixty-seven year old man. Twenty-four bites or 49 per cent occurred in children under six years of age, and 9 or 18.4 per cent of the 49 bites were in infants less than a year old. In each case immediate action was taken to render assistance, to eliminate the rats and to ratproof the property.

"Rodent Control is Environmental Control" continued to be the slogan of the division and five additional blocks were added to the environmental control program during the year. Since the start of the environmental control program in 1948, 125 blocks have been included and rats and rat food sources have been eliminated and properties ratproofed and other environmental deficiencies corrected in 3,718 premises containing 6,152 dwelling units. Environmental control procedures were also used in the prevention or control of rat bites and in the handling of 2,163 complaints pertaining to rats.

Other activities in rodent control included: Cooperation with the Infectious Disease Section of the University of Maryland Hospital in the beginning of a study of Weil's disease; participation in the twelve-week in-service training course in environmental sanitation for Sanitary Section personnel in the Eastern Health District which included a three day course

in mosquito control conducted by the Chief of the Division of Rodent Control; participation in civil defense planning and training including the July civil defense exercise and in a civil defense training course in environmental sanitation; attendance of representatives at the Interstate Sanitation Seminar where the Chief of the Division of Rodent Control presented a paper entitled "New Concepts in Rodent Control"; and continuation of the educational programs through the press, radio and television and through addresses to a number of civic groups.

Mr. William Sallow, Chief of the Division of Rodent Control since 1948 was promoted to the position of Assistant Director of the Housing Bureau on October 25 and Mr. John Childs, Senior Sanitarian, was made Acting Chief of the Division of Rodent Control.

### Industrial Hygiene

While an increase of only 3 reported cases of occupational diseases was noted for 1956 over the total of 164 for the previous year many other cases were probably not recorded, and some of the known cases were of considerable danger and severity. The more important cases of which there were 27, were due to exposures to chrome, methyl bromide, lead, silica, chlorine, brucellosis and tuberculosis. One lead exposure involving six employees was in a glass company where the workers were exposed to automatically sprayed lead at a new operation used for decorating containers. The 27 cases were investigated and adequate control measures were instituted in practically all instances. The most deleterious exposure resulted from chrome which caused 4 cases of carcinoma and 10 cases of ulceration. Dermatitis, caused by exposure to a variety of substances, resulted in 65 cases or 39.6 per cent of the total number of all reported occupational disease cases.

A decided increase in the shipments of 105 radioactive isotopes for use in Baltimore City amounted to a rise of 77.9 per cent over the 59 shipments in 1955. Among the 105 shipments there were 29 different isotopes distributed to 36 different users. Not only was there a decided rapid growth in the number of shipments but also an increase in the quantities of radioactive materials received. There were 24 shipments involving 30 millicuries or more of radioactivity in each shipment. The predominant use of the isotopes still remained in research centers but the use in industries also increased.

Domestic exposures to carbon monoxide resulted in 3 fatalities from two gas-fired appliances and there were 6 non-fatal cases from a defective coal-fired furnace. The violations connected with the installation of one of the gas-fired appliances were so flagrant that court action was instituted against the owner of the house and resulted in fines totaling \$300.



#### A CHILD DIED HERE

The Commissioner of Health helps remove poisonous lead paint aided by Mr. Joseph Gordon, Director of Health Information.

Of the 48 known cases of lead poisoning in children, 3 died. This represented an increase of 11 non-fatal and 2 fatal cases over the 1955 records. One of the owners of slum properties where child lead poisoning predominated failed to comply with orders to remove the hazardous lead paint until he was taken to court and fined \$25. As a result a more determined and widespread preventive approach was planned to combat this public health menace. On August 14 a Committee on the Prevention of Child Lead Poisoning was formed and its 14 members represented many segments of the City Health Department. Three subcommittees were appointed on law enforcement, professional participation and community education. After a number of meetings of the committee and the subcommittees a plan was drafted to make a concerted and continuous effort encompassing professional and field personnel of the City Health Department towards preventing future lead poisoning in Baltimore children.

#### *Air Pollution Control*

On April 9 Mayor D'Alesandro signed Ordinance No. 358 designed to control air pollution sources in Baltimore City and it vested broad powers in the Commissioner of Health. Basically, all changes in existing or new conditions likely to pollute the atmosphere require under the ordinance a review of the plans and approval by the Commissioner prior to usage.

Another feature of the ordinance provided for the creation of an Air Pollution Reference Committee whose members are nominated by the President of the University of Maryland, the President of the Johns Hopkins University, the President of Loyola College in Baltimore City and the Chairman of the Engineers Joint Council of Maryland. Since the ordinance was passed six applications were received for review during 1956.

December 31 marked the termination of the City Health Department air pollution study at the Canton site of the Patapsco River Tunnel for the Maryland State Roads Commission. The wisdom in having this 21 month preventive study made before the scheduled opening of the tunnel on December 1, 1957 was demonstrated by these findings:

1. After the study began, but before the companies became fully cognizant of its importance, exposures to sulfur dioxide at times approached the maximum allowable concentration of 10 parts per million. One of these episodes lasted for a period of 12 hours.
2. Both companies manufacturing sulfuric acid had detailed studies made of their processes and have made modifications towards reducing exposures.
3. The frequency, severity and duration of the exposures were considerably reduced during the last part of the study as a result of modifications made in manufacturing.

At the invitation of the U. S. Public Health Service, the Health Department began its participation in the National Air Sampling Network on May 21. In this, air samples were collected once every two weeks in the center of the city and sent for analysis to the Robert A. Taft Sanitary Engineering Center in Cincinnati, Ohio. This work supplemented the Department's existing daily air sampling program in residential and industrial areas of the city. Dust loads and radiation were under study.

In connection with these air samples, it was of interest that the natural radiation content of the samples consisted of short-lived daughters from radon gas. These findings were in keeping with those of the U. S. Public Health Service, established in Cincinnati and in Colorado. It is known that this naturally occurring radiation has existed for many years. The purpose of these studies is to establish a base line by gathering information and determining the normal background radiation level as it exists in nature. When artificial radioactive materials such as radioisotopes are more extensively used, comparisons can be made to evaluate the changes.

### Housing

On December 31, Mayor D'Alesandro approved Ordinances No. 692 and No. 693 which established the Baltimore Urban Renewal and Housing Agency and provided for the transfer of the Health Department's Housing



Bureau and its personnel and appropriations to the Renewal Agency. Thus the Housing Bureau which originated in the Health Department as a Housing Division in 1943, and was enlarged to an Office of Housing and Law Enforcement in 1949 and reached bureau status in 1951, will on January 30, 1957 cease to be a unit of the Health Department. This reorganization was the result of recommendations made by an Urban Renewal Study Board, whose findings suggested the centralization of all housing activities including public housing and redevelopment into a single agency in order to combat slum conditions more effectively. The new agency will enforce the provisions of the city ordinance on the hygiene of housing, enacted in 1941, and the regulation adopted thereunder, as the agent of the Commissioner of Health.

All first inspections were completed in the Mount Royal Area during October. At that time notices on 301 properties were still outstanding, one-third of which involved building or electrical violations only. Area law enforcement was officially terminated in the Franklin II Area, while a new area in East Baltimore, known as Ensor, was designated for rehabilitation efforts and first inspections were started. Additional blocks in the Biddle II Area as well as in the Tenpin Area were inspected as part of a planned expansion of those areas. At the year's end four areas were active under this program.

In January, a new program, known as the block survey, was inaugurated and by December 31 a total of 56 blocks had been inspected. This program provided for the enforcement of specific provisions of the housing ordinance dealing with plumbing facilities, overcrowding and insanitary conditions in selected blocks scattered throughout the city. It was hoped that by means of this block survey program early symptoms of blight could be controlled and that by the very nature of the program a large coverage could be made with a minimum amount of staff time. Area reviews, complaints and the vacating of properties unfit for human habitation were other activities that continued throughout the year.

A federal Urban Renewal demonstration grant, of approximately \$2,500 was made available to the bureau to cover two-thirds of the cost for the preparation of a report entitled "A Record Control System for Housing Law Enforcement Activities." This report described in some 200 pages the records and procedures used by the Housing Bureau and contained a hypothetical case which took the reader through all actions from the initial complaint received to its final disposition. This report was the first demonstration grant in the country to be completed and published.

The number of properties on which first inspections were made increased 12 per cent over the previous year to 2,838. At the same time, the number of properties abated increased 26 per cent to 2,998. The number of active

properties at the year's end reached a new low of 1,564. The 3,834 notices issued by the bureau during the year contained 16,028 violations. The processing of these notices required 12,598 reinspections on properties, 124 administrative hearings and 239 summonses to the Housing Court. The number of cases taken to court increased by 34 per cent over the previous year and of the cases on which decisions were rendered 88 per cent resulted in convictions. The Maryland Court of Appeals upheld the conviction of an absentee landlord in Criminal Court for refusing the inspection of his property by housing, building and fire inspectors. This decision sustained the right of entry powers contained in the various city codes. For the first time, nuisances on four vacant properties were abated by the Bureau of Building Inspection at the request of the Housing Bureau with liens being placed on the properties.

Mr. Howard J. Whelan, Advisory Council member, died on March 13, 1956 and four other council members resigned during the year. Mr. Ross W. Sanderson, Jr. resigned as Assistant Bureau Director and was replaced by Mr. William Sallow.

The bureau staff continued to give lectures and tours to visitors from other parts of the United States and abroad, as well as to local groups, including high school and college students, and professional and community groups. Staff personnel also appeared on five radio and two television programs. An exhibit, depicting the evolution of the Baltimore housing law enforcement program, was prepared and displayed at the National Home Show in Baltimore and at the national convention of the American Public Health Association in Atlantic City. In addition to the demonstration project report on the bureau's record control system, the bureau published a pamphlet, entitled "The Baltimore Plan for Neighborhood Rehabilitation."

### Biostatistics

The Statistical Section established a system of routine reports and special surveys to guide the poliomyelitis vaccine program. The epidemiology of poliomyelitis was carefully studied to account for an unusual racial distribution of cases reported in 1956. On the invitation of the Baltimore Hospital Council, the Section Director was appointed technical advisor to the Council's Study Committee which was authorized to prepare a comprehensive report on the hospital requirements of the Baltimore Metropolitan Area. Information on demographic trends in the Baltimore area was prepared by the section staff. In preparation for the forthcoming 1960 decennial, the Section Director was designated Key Census Tract Person for the Baltimore Standard Metropolitan Area. Liaison was established with the appropriate authorities in Baltimore County and in Anne Arundel

County in order to revise existing census tracts and expand the area for which census tract statistics could be reported.

During the year the Bureau of Biostatistics conducted two studies which were concerned with the accuracy and completeness of fetal death certificates. The first study was made in cooperation with the obstetrical department of the Johns Hopkins Hospital and was designed to assess the accuracy of the causes of fetal deaths as reported to the Health Department. The second study was made to determine the extent to which the information requested in the medical supplement to the fetal death certificate was completed. Investigations of this type contributed to the attack on the problems of the lethal component of reproductive failure.

The Director of the Bureau of Biostatistics continued to serve as the Secretary of the Joint Anesthesia Study Committee of the Baltimore City Medical Society and the Baltimore City Health Department. A report of the activities of the committee, its organization and the results of the first three years experience was scheduled for publication in the *Journal of Anesthesiology*.

Other activities during the year included: Estimates of the population for Baltimore City, the processing of data collected in a census of nurses in Maryland and statistical services to other Health Department bureaus and to various official and nonofficial agencies concerned with the health of the community.

### Vital Records

The number of persons who sought assistance on matters involving the various bureau services in 1956 exceeded the totals of any previous year. A marked increase in requests for certified copies of birth certificates was noted; 23,152 transcripts were issued for such purposes as obtaining passports for foreign travel, for proof of citizenship by persons applying for positions with industrial firms engaged in the manufacture of equipment needed for national defense and for proof of age required of applicants for Social Security benefits.

The rising demand for proof of death to be used in connection with settling claims with the Veterans Administration and with private insurance companies and also for the transfer of real and personal property resulted in the issuance of 50,995 official transcripts of death certificates. The combined total of official transcripts issued in 1956 represented an increase of almost 7,000 over the number given out the previous year. In cases where certified copies of birth certificates were not required, the bureau issued a total of 5,525 Certifications of Birth—Short Form; these forms omitted information relating to parents but included the person's name, his date

and place of birth and the date the record was officially received for filing. A total of 3,783 Certificates of Record Search was issued for birth and death certificates not found to be on file after an intensive search of the indexes had been made.

A continually-increasing request for confidential verification of essential birth and death facts by government and accredited private agencies was responsible for the 8,121 birth and 906 death verifications issued. Requests for Statement of Age cards needed for admission of children in the public and parochial schools, for work permits, and by minors participating in officially-sponsored recreation programs resulted in the issuance of 2,429 such cards.

In accordance with the State law which provides for new certificates of birth to be made for persons whose parentage had been legally determined following adoption, legitimation or judgment of paternity, the bureau effected replacements for 631 cases of adoption, 226 legitimations and 4 judgments of paternity. Of considerable interest was the fact that 62 per cent of both the adopted and legitimated children were youngsters of preschool age.

A total of 378 delayed birth certificates and 9 unreported births was approved for filing by the Commissioner of Health. The number of delayed births registered in 1956 is expected to drop gradually with each succeeding year. This decrease should result from a new policy adopted by certain federal agencies whereby they will not accept official transcripts of delayed birth certificates made solely for satisfying some federal government regulation. Particularly concerned with the new policy are the Social Security Administration and the Passport Office of the U. S. Department of State. These agencies made it known that they prefer to review the evidence formerly submitted to the City Health Department in support of an application for a delayed birth certificate.

The extent to which bureau services were called on for assistance in 1956 was reflected in the 8,521 interviews held and in the 3,432 mail requests for information related to corrections to be made on birth or death certificates. Alterations were made on 9,029 birth certificates and on 299 death records. A total of 2,209 given names was added to original birth certificates, the majority of which were for persons born before 1910 when the official birth records had no provision for the inclusion of the given name.

On August 11 the Second United States Army Recruiting District presented the bureau director with a Certificate of Appreciation "in recognition of the fine spirit and public service of Sidney M. Norton whose valuable and important assistance has materially aided in building and maintaining the Regular United States Army."

### Conclusion

The work of the Baltimore City Health Department has been summarized for 1956. The year was a difficult one because low salaries made it impossible to fill many staff vacancies, medical and otherwise. Toward the end of the year conditions improved somewhat so that there was hope for more adequate performance in 1957. It has been my experience that in Baltimore as elsewhere the public administrative official is given (1) a job to do, (2) inadequate appropriations to do it, and (3) some degree of criticism for not doing it. At least such has been a partial picture of the recent experience in public health effort in Baltimore.

Respectfully submitted,

*Huntington Williams, M.D.*

*Commissioner of Health.*

Baltimore, Maryland  
May 1, 1957

## BIBLIOGRAPHY FOR THE YEAR 1956

- Bradley, J. Edmund;  
Powell, Albert E.;  
Neirmann, William;  
McGrady, Kathleen R.  
and Kaplan, Emanuel.....The Incidence of Abnormal Blood Levels  
of Lead in a Metropolitan Pediatric  
Clinic. *The Journal of Pediatrics*, July,  
1956, Vol. 49, No. 1, pp. 1-6.
- Chisolm, J. Julian, Jr.  
and Harrison, Harold E. ....The Exposure of Children to Lead. *Pedi-  
atrics*, December, 1956, Vol. 18, No. 6,  
pp. 943-958.
- Dent, E. DuBose, Jr.  
and Fisher, Russell S. ....Single Coronary Artery: Report of Two  
Cases. *Annals of Internal Medicine*, May,  
1956, Vol. 44, No. 5, pp. 1024-1030.
- Fisher, Russell S.....How Dangerous is Boric Acid? *Today's  
Health*, March, 1956, Vol. 34, No. 3, pp.  
26-29.  
The Use of Boric Acid in Dermatologic  
Practice. *American Medical Association  
Archives of Dermatology*, April, 1956, Vol.  
73, No. 4, pp. 336-341.
- Fisher, Russell S.  
and Freimuth, H. C. ....Common Poisonings and Their Manage-  
ment. *Medical Clinics of North America*,  
September, 1956, Vol. 40, No. 5, pp. 1489-  
1501.
- Freimuth, Henry C.....Insecticides and Their Toxic Effects.  
*Current Medical Digest*, February, 1956,  
Vol. 23, No. 2, pp. 56-60.
- Freimuth, Henry C.  
and Lovitt, W. V., Jr. ....Suicide with Natural Gas. *Journal of Foren-  
sic Medicine*, April-June, 1956, Vol. 3,  
No. 2, pp. 50-54.
- Galbreath, Margaret.....If You Ask Me. *American Journal of Nurs-  
ing*, March, 1956, Vol. 56, No. 3, p. 318.
- Gallagher, Robert G.;  
Zavon, Mitchell R.  
and Doyle, Henry N.....Radioactive Contamination in a Radium  
Therapy Clinic. *Baltimore Health News*,  
April, 1956, Vol. 33, No. 4, pp. 26-31.  
Reprinted from *U. S. Public Health Re-  
ports*, July, 1955, Vol. 50, No. 7, pp. 617-  
624.
- Harrison, Harold E.....Childhood Lead Poisoning. *New York State  
Journal of Medicine*, December 15, 1956,  
Vol. 56, No. 24, pp. 3928-3943.

- Nelson, Nels A.  
and Struve, Virginia R.....Prevention of Congenital Syphilis by Treatment of Syphilis in Pregnancy. *The Journal of the American Medical Association*, June 30, 1956, Vol. 161, No. 9, pp. 869-872.
- Scheele, Leonard A.....Working Together For Tomorrow's Health. *Baltimore Health News*, March, 1956, Vol. 33, No. 3, pp. 17-24.
- Silverman, Charlotte.....Home Care in Baltimore. *Bulletin of the National Tuberculosis Association*, February, 1956, Vol. 42, No. 2, pp. 27-28.
- Tayback, Matthew.....Demographic Trends in the South. Implications for Public Health Administration. A paper presented at the Annual Meeting of the Southern Branch, American Public Health Association, Tulsa, Oklahoma, April 6, 1956.  
The Extent of Illness and Disability in Older Aged Groups. A paper presented at the Eighth Annual Scientific Meeting of the Gerontological Society, Baltimore, Maryland, October 28, 1955.
- Turner, Ethel.....Nursing Service Provided by the Instructive Visiting Nurse Association to Patients Under the Baltimore City Medical Care Program. A report presented to the Baltimore City Advisory Committee on Medical Care, April 25, 1956.
- Vail, Edward H.....Air Pollution and Its Control—An Historical Review and Report of Studies Made in Baltimore, Maryland and Certain Other Cities. An unpublished thesis, 1956, 60 pp.
- Vidor, Franz J.....A Record Control System for Housing Law Enforcement Activities. Baltimore City Health Department, 1956, 204 pp.
- Williams, Huntington.....The Influence of Edwin Chadwick on American Public Health. *The Medical Officer*, London, May 25, 1956, Vol. 95, No. 21, pp. 273-279. (Also in *Baltimore Health News*, December, 1956, Vol. 33, No. 12, pp. 97-112; and in Appendix, *Annual Report of the Baltimore City Health Department*, 1956.)
- (Chairman of the Book Committee)..Calvert and Hillyer: 1897-1947. By Archibald Hart. The Calvert School, Baltimore, Maryland, 1947. 210 pp.  
..This Parish Under God: 1855-1955. By James Bready. The Church of the Redeemer, Baltimore, Maryland, 1955. 125 pp.

- Williams, Huntington  
and Daley, Sir Allen.....Public Health Practice: An Ounce of Prevention Is Worth a Pound of Cure. *Journal of the Royal Society of Health*, London, July, 1956, Vol. 76, No. 7, pp. 325-339. (Also in *Baltimore Health News*, June-July, 1956, Vol. 33, Nos. 6-7, pp. 41-59; and in Appendix, *Annual Report* of the Baltimore City Health Department, 1956.)
- Williams, Huntington  
and Hodes, Horace L.....Smallpox. *Current Therapy*, 1956. Edited by Howard F. Conn, M.D. Published by W. B. Saunders Co., Philadelphia, Pennsylvania, p. 47.
- Williams, Huntington;  
Nelson, Russell A.;  
Davis, J. Wilfrid;  
Powell, John W.;  
Keller, Robert M.;  
Murphy, Ralph B.;  
Tayback, Matthew L.;  
Welch, John M.  
and Beard, J. Howard.....Emergency Medical and Hospital Care in the Arundel Park Fire and the Odenton Train Wreck (A Civil Defense Committee Report). 1956, 45 pp.
- Williams, Huntington  
and Tayback, Matthew.....W. Thurber Fales, Chief Statistician and Philosopher-Guide Baltimore City Health Department, 1934-53. *Baltimore Health News*, September, 1956, Vol. 33, No. 9, pp. 69-76.
- Wilner, Daniel.....Housing Environment and Mental Health. A paper presented at the Annual Meeting of the American Association for the Advancement of Science, New York, New York, December 27, 1956.
- Wilner, Daniel M.;  
Walkley, Rosabelle Price  
and Tayback, Matthew.....How Does the Quality of Housing Affect Health and Family Adjustment? *American Journal of Public Health*, June, 1956, Vol. 46, No. 6, pp. 736-744.



**HEALTH DEPARTMENT PUBLICATIONS**

ANNUAL REPORT OF THE DEPARTMENT OF HEALTH—1955

GUARDING THE HEALTH OF BALTIMORE—1955

BALTIMORE HEALTH NEWS, Monthly, 1956 and bound volumes of issues 1954-1955 with index

**QUARTERLY STATISTICAL REPORT**

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ANNUAL REPORT OF THE BUREAU OF INDUSTRIAL HYGIENE: 1955

THE BALTIMORE PLAN FOR NEIGHBORHOOD REHABILITATION

BIBLIOGRAPHY FOR STUDENT NURSE PROGRAM

CONTROL OF BEDBUGS (Revised)

EVALUATION OF DRUG SERVICES WITHIN THE BALTIMORE CITY MEDICAL CARE PROGRAM

HOW TO ORGANIZE AND PRACTICE COMMUNITY RAT CONTROL

KEY TO INSECT GROUPS

LABORATORY SERVICES (Revised)

MANUAL OF VENEREAL DISEASE CLINIC PROCEDURES: 1956

MENINGOCOCCUS MENINGITIS (Revised)

MOTION PICTURES, FILMSTRIPS AND SLIDES (Revised)

THE NEW RABIES ANTISERUM

NURSE YOUR BABY (Revised)

OBJECTIVES AND PROCEDURES OF THE SCHOOL DENTAL PROGRAM:

INAUGURATED APRIL 27, 1950

PREVENT POLIO WITH POLIO VACCINE (For Medical Care Clients)

PUBLICATIONS OF THE BALTIMORE CITY HEALTH DEPARTMENT (Revised)

RODENT CONTROL (Revised)

REPORT OF THE BALTIMORE CITY ADVISORY COMMITTEE ON MEDICAL CARE: SEPTEMBER 17, 1956

REPORT OF THE MAYOR'S COMMITTEE ON HOUSING SAFETY REQUIREMENTS: APRIL 2, 1956

REPORT ON PHYSICIAN SERVICES SUPPLIED THROUGH THE BALTIMORE CITY MEDICAL CARE PROGRAM

SCARLET FEVER AND STREPTOCOCCAL SORE THROAT (Revised)

WHAT DO YOU FALL FOR?

## **ADMINISTRATIVE SECTION**

## **EXECUTIVE OFFICE**

### **Personnel**

Huntington Williams, M.D., Dr. P.H., Commissioner of Health  
Ross Davies, M.D., M.P.H., Assistant Commissioner of Health  
Royd R. Sayers, M.D., Senior Medical Supervisor for Occupational Diseases  
Robert M. Keller, Health Administrator, Civil Defense  
Reed Gaither, Assistant to the Commissioner of Health  
Beatrice Bryant, Principal Clerk Stenographer  
Mary L. Rentz, Principal Clerk Stenographer  
Helen von Wachter, Principal Clerk Stenographer  
Mary A. Williams, Senior Clerk Stenographer

Note: Personnel records as given here and at the close of each bureau report are in accordance with the Department staff roster as of December 31, 1956.

## ASSISTANT COMMISSIONER OF HEALTH

Ross Davies, M.D., M.P.H.

District visits were made by the Assistant Commissioner of Health during the year but on a less regular schedule than in previous years. As plans for Health Department programs were more fully organized and developed, and as control and supervision were assumed by the central administrative offices fewer problems needed to be discussed during the district visits, and due to these changes the need for visits became less urgent. Monthly visits, however, continued to be made on a limited basis and many of these conferences were attended by the Commissioner of Health.

The Assistant Commissioner of Health acted as administrator of the Western and Southern Health Districts until late in June when Dr. Robert E. Farber returned from a leave of absence and resumed his duties as health officer of these two districts; visits were also made to several clinics other than those in the Health District buildings. These visits were chiefly for the purpose of investigating needed repairs or physical changes in the clinic arrangements. Many reports of such repairs or changes received from the district offices were channeled by requisition to the proper city departments for action; these usually involved heating, lighting, plumbing, electrical or other defective equipment, or repairs to the building structure itself.

The Assistant Commissioner worked closely with the Commissioner of Health during the year and received many day-by-day assignments in that way. These assignments varied greatly in their nature and degree of urgency and often required a considerable amount of time for their handling. There was such great diversity in the nature of these referrals that no attempt will be made to enumerate them.

One function performed in the office of the Assistant Commissioner of Health for the past several years was the certification of vaccination and immunization records required for foreign travel; this activity reached such volume that a check was made during the year to evaluate its extent and it was found that approximately 2,000 such certificates were processed during 1956.

Visitors to the Health Department from other countries were usually routed to the Assistant Commissioner's office for interview to find out their interests and needs. Seventeen such visitors were received during the year from the following countries: Bolivia, China, Haiti, Iran, Iraq, Mexico, Nova Scotia, the Philippine Islands and Turkey. The length of time visitors spent with the Department varied from one day to several months.

Many departmental personnel problems were referred to the Assistant

Commissioner for help, guidance, or solution, and chief among these were cases of prolonged illnesses, leaves of absence and long-standing vacancies in quite a number of different classifications.

Another type of problem that took a considerable amount of time for solution was the need for additional office space. Since the area occupied by the Health Department in the Municipal Building was already overcrowded, any request for more office space presented a serious situation; one such problem solved during 1956 was the provision of two offices for the Medical Care Section by reducing the size of the Health Department's conference room.

A strike of the Baltimore Transit Company workers in January and February caused a serious transportation problem for many Health Department personnel who were dependent on public transport in getting to and from work. After several days schedules were drawn up to use City and private cars and all personnel who needed help were provided with means of transportation. Dr. Wilmer H. Schulze, Director of the Sanitary Section, and members of his staff assisted in the solution of many of these transportation problems.

## CIVIL DEFENSE HEALTH SERVICE

Two disasters which occurred early in the year were the subject of Civil Defense investigation and study. A fire destroyed a social hall on January 29 near Baltimore in Anne Arundel County, and on February 23, 1956 a train wreck occurred at Odenton, also near Baltimore. Both accidents caused an exceptional overload on the emergency facilities at several hospitals in the city. Following these occurrences, a report entitled, "Emergency Medical and Hospital Care in the Arundel Park Fire and the Odenton Train Wreck," was prepared by a committee representing, jointly, the Baltimore City Civil Defense Health Service and The Hospital Council, Inc. of Baltimore. The report was completed and published late in 1956 and will be used as a basis for planning for the efficient management of the medical problems which arise when mass casualties result from a sudden natural disaster, as opposed to one caused by enemy attack.

During 1956, key personnel of the Health Service attended the civil defense training courses listed below:

1. January 23, 24 and 25—conference on public health aspects of civil defense.
2. "Health Services Planning Course, Number One," at Federal Civil Defense Headquarters, Battle Creek, Michigan, July 9 to 13.
3. September 24 to 28 in Washington, D. C., "Sanitary Engineering Practices in Civil Defense Disaster." This was conducted by the U. S. Public Health Service. The course was so highly regarded by the four persons who attended that arrangements were made to present it again in Baltimore during the week of November 26, at which time most of the administrative and inspection personnel of the Health Department Sanitary Section attended.
4. A course on the protection of food and drugs in civil defense disasters, given by members of the Federal Food and Drug Administration in Baltimore during the week of October 22.

More than eighty Health Department employees participated in the national civil defense exercise, "Operation Alert, 1956." Civil defense main control and district control centers and the Health Service Operations Headquarters were staffed during the forty-eight hour duration of the exercise.

As a public education project the Health Service cooperated with the Civil Defense Organization in setting up a 200 bed emergency hospital for display at the Fifth Regiment Armory. The display was open for one week, from May 7 to 12, inclusive. A team of six professional persons from the Johns Hopkins Hospital and a group of fifteen Baltimore City public health nurses assisted voluntarily in mounting the exhibition.

Recruitment of nonprofessional personnel for casualty clearing stations took a sharp upswing due to the efforts of three volunteers in the Northeastern Civil Defense District. Training of these enrollees was started and will continue into 1957.

No concerted effort to recruit professional personnel was made due to the limitations of administrative staff. However, every request for speakers, films, and literature was complied with promptly.

Emergency medical supplies for twenty casualty clearing stations, purchased by the City Civil Defense Organization, were delivered during the year, bringing to seventy the number of stations that can be fully equipped. The policy regarding the storage of these supplies was altered in 1956. Plans previously provided for such items to be distributed to each of the ninety-eight locations established for operation of such units. In accordance with the revised policy, only twenty stations within the City were used as storage sites; the remainder of the supplies and equipment were placed at the Civil Defense storehouse at Liberty Reservoir outside the city limits. These twenty stations are as follows:

CASUALTY  
CLEARING  
STATION  
NUMBER

NORTHERN DISTRICT

18	School No. 233	Roland Avenue, near Deepdene Road
19	School No. 234	Rogers and Magnolia Avenues
20	School No. 241	Fallstaff Road and Gist Avenue
93	School No. 247	Cross Country Blvd. and Taney Road

NORTHEASTERN DISTRICT

28	School No. 41	Bayonne and Sefton Avenues
38	School No. 211	Belair Road and Frankford Avenue
40	School No. 213	Govane Avenue and Campbell Lane
42	School No. 236	Christopher Avenue and Old Harford Rd.
61	School No. 245	Sherwood Avenue and Leith Walk

EASTERN DISTRICT

4	United Steel Workers	1718-28 Dundalk Avenue
5	School No. 240	O'Donnell and Gusryan Streets

SOUTHERN DISTRICT

8	School No. 239	Cambria and Twelfth Streets
67	School No. 203	Fourth Street and Pontiac Avenue
68	School No. 208	Church Street and Fairhaven Avenue

SOUTHWESTERN DISTRICT

73	School No. 246	Frederick Road and Beechfield Avenue
98	Uplands Community House	Rear—4516 Manordene Road

## NORTHWESTERN DISTRICT

87	School No. 64	Garrison and Maine Avenues
88	School No. 69	Oakford and Granada Avenues
89	School No. 87	Alto Road and Mt. Holly Street
96	School No. 218	Liberty Heights and Woodbine Avenues

Each of these stations contained the following:

- 25 litters
- 24 burn dressings—22" x 36"
- 48 burn dressings—18" x 22"
- 2,000 hot drink paper cups
- 168 fibre blankets
- 11 wooden cases containing miscellaneous items, including medical instruments

A room was built within the storehouse at Liberty Reservoir, with electric heaters for the protection against freezing of the large quantity of blood plasma and plasma expander which formed part of the medical stockpile.



## BUREAU OF HEALTH INFORMATION

Joseph Gordon

*Director*

Activities of the Bureau of Health Information were classified in two broad categories, those concerned with the dissemination of health information and materials to the people of the city and those activities in which bureau staff members assisted the various units of the Health Department itself. These aims were accomplished largely through the assistance of Health Department personnel and the many official and nonofficial agencies interested in the health of Baltimore's residents. The major health information activities of the bureau in 1956 were as follows:

### *Community Health Programs*

Outstanding among community health education programs were the continuing efforts to have all eligible persons inoculated with the new poliomyelitis vaccine first used in the public schools in 1955, and a special drive to impress upon the public the need for preventing home accidents. Polio education programs were carried out with the assistance of the medical profession, the Department of Education, other official and nonofficial agencies, and through the many media of communications. The home safety program was conducted jointly with the Maryland State Department of Health and the Baltimore Safety Council and included the origination and distribution of a new leaflet "What Do You Fall For?". Assistance was also given to the City Department of Education in the preparation of a summer safety education kit for teachers for use in the public schools prior to the summer vacation.

Other community health programs of particular note were as follows: The tuberculosis X-ray service carried out with the assistance of the Maryland Tuberculosis Association and the Baltimore Police Department; the planning of a child lead poisoning prevention program; participation in the annual Diabetes Detection Drive conducted by the Medical and Surgical Faculty of Maryland; participation in workshops for teachers in the areas of community organization, science and health; the conducting of a series of sessions with senior students at Patterson Park High School and Mergenthaler Vocational-Technical High School enrolled in the course of civic experience; participation in the civil defense operation alert at Morgan State College, July 20-23 and the civil defense drill on September 13; assisting the Maryland Chapter of the American Cancer Society and the nursing associations with a cancer institute for nurses and, similarly,

a heart seminar sponsored by the Heart Association of Maryland and the American Academy of General Practice.

In addition to these programs the bureau actively cooperated with public and private agencies in such activities as industrial safety, careers in health directed at senior students in the public schools, nursing education, nutrition education, tuberculosis control and tours of Health Department facilities.

The director participated in a training course for sanitarians, health programs for Boy Scout and Girl Scout groups; he was Chairman of the Public Relations Committee of the Maryland Public Health Association and a visiting lecturer in courses in public health at the Johns Hopkins School of Hygiene and Public Health and at the University of Maryland School of Nursing.

### *Publications*

The City Health Department's five periodic publications were continued during 1956. These were the *Saturday Letter to the Mayor*, issued weekly; the *Baltimore Health News*, published monthly; the *Quarterly Statistical Report*; the 1955 ANNUAL REPORT OF THE DEPARTMENT OF HEALTH; and the *Guarding the Health of Baltimore*, a summary of the Annual Report.

The *Saturday Letter to the Mayor*, the Commissioner of Health's weekly letter which also serves as a news release and includes the vital statistics for the week, was issued weekly to a mailing list of 265 including the Mayor and City Council, members of the several Health Department Advisory Committees, staff personnel, all newspapers, radio and television stations, and to other interested persons. In addition to the fifty-two such letters, the Health Department issued twenty special news releases. Ten public news releases were concerned with the poliomyelitis vaccine program. Other releases dealt with a variety of timely health topics or special messages related to health. Compilation of newspaper publicity totaled 748 articles which provided 9,013 column inches.

The *Baltimore Health News* was prepared and distributed to a mailing list numbering more than 10,000 individuals and agencies. Included in the distribution were all physicians in the city, dentists, students, teachers in the public, parochial and private schools, news agencies, libraries, city officials and many others not only in Baltimore but elsewhere throughout the world. Particular articles worthy of mention included: "Working Together for Tomorrow's Health" by Dr. Leonard A. Scheele, Surgeon General of the U. S. Public Health Service; a report on radioactive contamination at the Kelly Clinic; a dissertation, "Public Health Practice—An Ounce of Prevention Is Worth a Pound of Cure" by the Commissioner of Health and Sir Allen Daley, formerly Medical Officer of Health of the London

County Council, which was presented at the 63rd Congress of the Royal Society of Health held at Blackpool, England; a paper "The Influence of Edwin Chadwick on American Public Health" by the Commissioner of Health delivered to a meeting jointly convened by the Chadwick Trustees and the Section of Epidemiology and Preventive Medicine of the Royal Society of Medicine at London; "W. Thurber Fales, Chief Statistician and Philosopher-Guide. Baltimore City Health Department, 1934-53" and "Questions and Answers on Bathtubs." Other articles dealt with "Baltimore's Health in 1955," air pollution, the prevention of poliomyelitis, lead poisoning, the Court of Appeals ruling upholding the right of entry for sanitarians during their inspections, the Maryland Public Health Association meeting and the new regulations on tuberculosis control and skim milk.

The *Quarterly Statistical Report* was prepared by the Statistical Section and printed by the Bureau of Health Information. This publication was published for the eighth year and was distributed to selected agencies interested in the vital statistics of the city and the trends in marriages, births, morbidity and mortality.

The 1955 ANNUAL REPORT OF THE DEPARTMENT OF HEALTH and its summary, *Guarding the Health of Baltimore—1955* were prepared and distributed to city officials, libraries and to other selected individuals and health agencies in the city, in and beyond the state and overseas. *Guarding the Health of Baltimore* was, in addition, distributed to each physician in the city. A total of 600 copies of the Annual Report and 4,000 copies of *Guarding the Health of Baltimore* were printed.

During the year the bureau, at the request of the Commissioner of Health, sent eleven special letters to physicians in the city. Eight of these were related to the poliomyelitis prevention program and the remainder were concerned with the use of rabies antiserum, smallpox vaccine and gamma globulin. A total of nine reprints of articles published by Health Department staff members was sent to physicians during the year as well as the *Maryland Review On Alcoholism* printed periodically by the Maryland State Department of Health. Assistance was given the Baltimore City Fire Department in the addressing of letters to all city physicians which informed them of the correct use of Fire Department ambulances.

Editorial assistance was given in the preparation of 14 new informational leaflets or booklets, and in the revision of 8 publications. A list of these new and revised publications will be found on page 60. Health literature distributed by the Department in 1956 totaled over 700,000 pieces.

#### *Radio and Television*

Both radio and television programs were conducted weekly throughout the year. These programs were sponsored jointly by the City Health De-

partment and the Medical and Chirurgical Faculty of Maryland. The end of the year saw the 904th "Keeping Well" radio program and the 415th "Your Family Doctor" television presentation.

The "Keeping Well" series was continued without interruption since its origin in January, 1932. In 1939 this program was changed from a five minute talk to a fifteen minute drama, and since November 1, 1954 has been a ten minute program followed by five minutes of music. It was a great loss when Dr. Nels A. Nelson, Director of the Bureau of Venereal Diseases retired on September 30, 1956. Dr. Nelson had very ably portrayed the family doctor in this series since 1949. Upon Dr. Nelson's retirement Mr. Robert M. Keller, Health Administrator in the Civil Defense Health Service offered to play the family doctor. Mr. Keller thereby became the Health Department's fictitious physician each week on both radio and television.

Inaugurated in December, 1948 "Your Family Doctor" continued as a fifteen minute weekly television presentation aimed at improving both personal and community health, as was likewise the radio series. The television series has continued as a fifteen minute program since its inception. Sixty-one guests participated in the 1956 television series; of these, sixteen were physicians, four were dentists and the remainder were other health workers.

Both health series were in the public service category and the bureau gratefully acknowledges the assistance given by the stations in the presentation of these programs. Titles of the 1956 television and radio programs are included in the tables immediately following the text of this bureau's report. Radio and television stations also cooperated with the presentation of special spot announcements and general news releases.

### *Exhibits*

One hundred and thirty-two exhibits were on display by the Department during the year. Mr. Federic M. Stiner, Exhibits Specialist in the Bureau of Health Information, constructed 85 of these. Exhibit topics included maternal and child health, nutrition, medical care, tuberculosis, dental care, poliomyelitis prevention, summer safety, housing, health information materials and the prevention of child lead poisoning. A large housing exhibit was displayed at the Baltimore National Home Week Exposition at the Fifth Regiment Armory in September and at the 84th annual meeting of the American Public Health Association in Atlantic City in November. The tuberculosis exhibit was displayed at the annual meeting of the National Tuberculosis Association in New York in May. In addition to these large exhibits Mr. Stiner prepared signs, drawings and television materials as requested by various Health Department units. Assistance

was also given in the preparation of an exhibit for the centennial celebration of the College Park Schools of the University of Maryland and the annual meeting of the Maryland State Nurses Association.

### *Film Services*

The demand for health films and other audio-visual materials continued during 1956. The bureau sponsored or arranged for 339 film showings during the year in clinics, schools, for in-service training, in the general community, on television and for other special functions. Child hygiene films were most in demand but all Health Department films were utilized. Seven new films were added to the library: "Bill's Better Breakfast Puppet Show," "Community Health in Action," "The Frustrating Fours and the Fascinating Fives," "Johnny's New World," "The Search," "Stop Rheumatic Fever," and "You and Your Neighborhood." The bureau gave assistance in the showing of films at cancer and heart seminars conducted by the local cancer and heart associations, at the Maryland State Nurses Association annual meeting in November, the annual meeting of the Maryland Society for the Prevention of Blindness and for other city agencies. The film service was made available with the cooperation of the Enoch Pratt Free Library Films Department, the Maryland State Department of Health and the film libraries of other agencies in the city and elsewhere.

### *Services to the Department*

Editorial and library services were continued. The bureau director and other staff members aided Health Department units with their printing problems, the preparation of new leaflets, brochures, reports, other publications and poster materials. Requests for books, journals and other publications were met through the assistance of the Enoch Pratt Free Library, the Johns Hopkins University Libraries, the University of Maryland School of Medicine Library and the library of the Medical and Chirurgical Faculty of Maryland.

The bureau's duplicating service completed 704 requisitions for printing, varitype and addressograph work. The varitypist prepared 2,282 master copies and the multilith operator reported the printing of 3,352,008 Departmental forms and text material. In addition to these duplicating services, bureau staff members supervised the printing of 128 forms by the Municipal Duplicating Bureau. The photographic service produced 564 photographic prints for publicity, television, court testimony or other purposes.

### *Staff Changes*

Mr. Walter W. Jones was appointed Public Information Assistant on April 12 filling the vacancy made by the resignation of Mr. Joseph P. Con-

nor on January 4, 1956. Miss Effa Lee Saxton was given a provisional appointment as clerk stenographer on November 5 and replaced Mrs. Julia A. Budd who was given a six months maternity leave of absence which began November 5.

### Personnel

Joseph Gordon, B.S., Director  
Walter W. Jones, A.B., Public Information Assistant  
Frederic M. Stiner, Exhibits Specialist  
Bessie R. Sothoron, Principal Clerk Stenographer  
Charles Scalion, Senior Duplicating Equipment Operator  
Margaret P. Shaver, Senior Typist  
Osborne B. Dixon, Senior Clerk  
Effa Lee Saxton, Clerk Stenographer

TABLE NO. 1  
SUMMARY OF EDUCATIONAL WORK DONE BY THE HEALTH DEPARTMENT IN 1956

SECTION OR BUREAU	PUBLICATIONS	NEWSPAPER PUBLICITY		PRINTED MATERIAL DISTRIBUTED		ARTICLES IN BALTIMORE HEALTH NEWS	ADDRESSES LECTURES AND SEMINARS LED		AUDIO-VISUAL MATERIALS				PERSONS REACHED	RADIO AND TELEVISION		MEETINGS ATTENDED		
		Articles	Column Inches	Requests	Pieces		Number of Groups	Persons Reached	Exhibits	Movies	Silent filmstrips	Sound filmstrips		Radio Broadcasts	Television Broadcasts	In-Service Training	Other Meetings	
Entire Department.....	36	748	9,013	21,410	708,266	42	1,365	27,365	132	339	33	8	61,771*	60	68	1	1,808	3,938
Administrative Section.....																		
Commissioner of Health.....	8	99	2,343	300	7,000	6	155	6,525							1		700	2,050
Civil Defense Health Service.....	1	135	1,485														10	70
Asst. Commissioner of Health.....				6	120												52	113
Health Information.....	1	118	379	462	531,023	5	19	465	59	59			1,025	15	23			
Baltimore Health News.....				75	122,570													
Rack Distribution.....				58	37,011													
Miscellaneous.....				53	371,645													
Laboratories.....	1	1	5	59	1,037	1	38	653	1				21				11	45
Public Health Nursing.....	2	14	341	26	460		37	909	1	18	10	1	1,215	2			30	100
Western Health District.....	1	5	13	5,250	11,350		270	4,105	17	128	11	6	33,416		3		50	210
Druid Health District.....		1	23														12	34
Southeastern Health District.....				22	75	1	17	375	2	20			27				29	61
Southern Health District.....							19	153	6	24	3	1	356		1		29	218
Section of Preventive Medicine.....				496	1,336		1						656				66	101
Communicable Diseases.....	1	58	588	1,352	128,885	1	10	261		1			2,000	1			18	10
Tuberculosis.....	1	36	326			1	43	314		13	2		1,147	1			30	40
Veneral Diseases.....	2					5	87	1,884	2	73			1,200	6			47	48
Child Hygiene.....		5	46	3	16,470		450	6,085	22	5			21,008	3	18		347	163
Nutrition.....	1	22	170	82	45,000		17	1,390	6	15			1,105	2	3		3	28
Dental Care.....																		
Medical Care Section.....																		
Administration.....	5	41	487		13,939	1			4					2	1			
Sanitary Section.....																		
Administration.....	1	17	167	45	144		13	322						8	2		11	64
Milk Control.....		17	172	12	131	1								3	1	1		
Food Control.....		12	113	8,150	12,031		32	1,507			3		40				29	26
Meat Inspection.....							3	36									3	14
Environmental Hygiene.....	2	15	266	614	6,019	1	34	630			6		62	3			22	68
Industrial Hygiene.....	2	2	57	823	1,699	4	20	330	1					2	1		24	82
Housing Bureau.....	2	61	861	3,605	6,414	2		1,390	8	15	2		428	9	2		13	87
Statistical Section.....																		
Administration.....	5	7	84	519		13	38							3	1		28	100
Biostatistics.....				10	15		2	15									6	
Vital Records.....		20	91	17	15		3	11							1		1	9

\* This figure does not include an estimated 125,000 persons in the Baltimore Metropolitan Area which are reached weekly through the "Your Family Doctor" television series and a large listening audience reached through the weekly "Keeping Well" radio programs.

TABLE NO. 2

RADIO DRAMAS BROADCAST UNDER THE JOINT AUSPICES OF THE BALTIMORE CITY  
HEALTH DEPARTMENT AND THE MEDICAL AND CHIRURGICAL FACULTY OF  
MARYLAND, 1958

"KEEPING WELL" SERIES  
WFBR

DATE	TITLE	SUBJECT
January 2	A Family Affair	(Red Cross Baby Care Program)
9	Eyes Right	(Sight Saving)
16	The Cold Ride	(Carbon Monoxide—Automobile Exhaust)
23	The Road Ahead	(Polio myelitis)
30	Jimmy's Time Machine	(Dental Health)
February 6	It Happened Last Year	(Health Report for 1955)
13	Connections That Count	(Bathtub Regulations)
20	Mid-Term Exam	(Heart Attacks)
27	You Can Beat It	(Alcoholism)
March 5	To Read is to Live	(Read the Label)
12	Johnny's Second Home	(Day Care of Children)
19	The Neglectful Farmer	(Brucellosis)
26	The Big Assist	(Auxiliary Food Inspection)
April 2	The Secret	(Breast Cancer)
9	The Hole in the Wall	(Child Lead Poisoning)
23	Community Services Week	(Accident Prevention)
30	The Soap Box Incident	
May 7	Kid Stuff	(Mental Health)
14	The Big Cleanup	(Community Sanitation)
24	The Friendly Neighbor	(Weed Control)
28	Urban Renewal	
June 4	Eighteen to Thirty-Five	(Nurse Recruitment)
11	Along for the Ride	(Rocky Mountain Spotted Fever)
18	Country Cousin	(Rodent Control)
25	Changing Habits	(Food Control)
July 2	The Big Celebration	(Accident Prevention)
9	Two to Go	(Safe Swimming)
16	Storm Signal	(Safe Boating)
23	The Gentle Reminder	(Dental Care)
30	The Vital Record	(School Preparation)
August 6	The Bottom of the Basket	(Picnic Lunches)
13	Love in the Sun	(Sunstroke)
20	The Chase	(Dog Bites)
27	Lawn Party	(Food Poisoning)
September 3	The Tie Up	(Safe Driving—Labor Day)
10	The Miss That Hit	(Better Breakfasts)
17	The Chimney Climber	(Air Pollution)
24	Six Months to Go	(Prenatal Care)
October 1	The Lost Voice	(Rheumatic Fever)
8	The Tell-Tale Spot	(Value of X-Ray)
15	Danger Signal	(Aches and Pains)
22	The Baltimore City Medical Care Program—I	(Organization and Services)
29	The Baltimore City Medical Care Program—II	(The Physician, the Hospital and the Pharmacist)
November 5	Dr. Ashley Makes a Speech	(Colds and Respiratory Ills)
12	Big Dan's Dilemma	(Diabetes)
19	The Strong Man's Weakness	(Tuberculosis)
26	Help for a Hospital	(Mercy Hospital Campaign)
December 3	Five Fatal Minutes	(Heart Attack)
10	Time to Give	(Volunteers)
17	Shopping for Santa	(Christmas Toys)
24	The Shorted Cord	(Christmas Safety)
31	Ten Steps to Tomorrow	(Health Resolutions)



TABLE NO. 3  
TELEVISION SERIES TELECAST UNDER THE JOINT AUSPICES OF THE BALTIMORE CITY  
HEALTH DEPARTMENT AND THE MEDICAL AND CHIRURGICAL FACULTY  
OF MARYLAND, 1956  
"YOUR FAMILY DOCTOR" SERIES  
WMAR-TV

DATE	TITLE	GUEST
January 6	How to Catch a Cold	Miss Peggy Pausé and Five ARC Workers Miss Julia Weeks
13	Medical Technologist	
20	A Family Affair	
27	Medical Questions and Answers	
February 3	Your Child's Dental Health	Dr. H. Berton McCauley Dr. Saul M. Blumenthal Dr. Barbara E. Seifert Mr. Joe Dellinger
10	Help for the Alcoholic	Mr. Ross Sanderson
17	The Doctor Examines Your Heart	
24	The New Housing Regulations for Safeguarding Health	
March 2	A Clear Picture	Mrs. A. Benton Leaf and Five ARC Nurse's Aides Dr. Robert B. Kugel
9	Nurse's Aide	
16	Health of the School Child	
23	Prevent That Accident!	
30	Checking for Injuries	Dr. Edward F. Lewison Dr. Howard W. Jones, Jr. Mrs. Mary Lanahan Mrs. Gertrude L. Nilsson Miss Alice M. Sundberg Mr. Robert C. Thompson
April 6	Cancer? Check It Now!	
13	Lead Poisoning in Children	
20	Community Services Week	
27	A Wonderful Spectacle	Mrs. Julia A. Budd
May 4	What Makes a Boy	
11	The Doctor Answers Some Questions	
18	Weighing In	
25	The Health Department and Urban Renewal	Mr. Franz J. Vidor Dr. Isaac Young
June 1	Exercise and the Heart	Dr. Irvin M. Cushner
8	The Expectant Mother	
15	Allergy	
22	Bicycle with Safety	
29	Then Came July 6th	Mr. Robert Gregson and Five ARC Swim Class Students Mr. Art Schuster and Three Children Miss Eleanor L. McKnight Mrs. Jane Ellen
July 6	Swim with Safety	
13	Boating with Safety	
20	Food Afloat	
27	Eye Injury	Miss Gloria Lazarus Larry Pucelli
August 3	Mrs. Hazard's House	
10	Care of the Teeth	
24	Stop Rheumatic Fever	
31	Losing to Win	Dr. Harry M. Robinson
September 7	Ringworm	
14	Disaster Aid—Public Health Aspects	
21	Food for Children	
28	Protect Your Food	Miss Eleanor L. McKnight Mr. Charles Courtney
October 5	X-Ray	Dr. Gunter Schultze Mr. George Koyné Dr. Louis A. M. Krause Dr. Ernest L. Stebbins Dr. Huntington Williams Dr. J. Wilfrid Davis
12	Cancer of the Throat	
19	Aches and Pains	
26	The Baltimore City Medical Care Program I	
November 2	The Baltimore City Medical Care Program II	Mr. Charles S. Austin, Jr. Dr. Frank F. Furstenberg Dr. J. Wilfrid Davis
9	Diabetes Detection	Mr. Frank T. Jones Mrs. Elizabeth Hipp Dr. Walter D. Wise
16	Tuberculosis	
23	Volunteers for Health	
30	Help for a Hospital	
December 7	Heart Attacks	Dr. William S. Love Dr. Warde B. Allan Mr. Earl Smith Miss Effa Lee Saxton
14	Respiratory Ills	
21	Christmas Safety	
28	World Health Organization	

## BUREAU OF LABORATORIES

Clinton L. Ewing

*Director*

The basic responsibilities of a health department laboratory service are: First, to assist physicians in the diagnosis, prevention or treatment of communicable diseases and, secondly, to aid other bureaus of the health department, especially those which relate to the control of environmental conditions. In 1956, activities related to the areas described above involved 184,768 microbiological tests of 101,498 specimens and 24,447 bacteriologic and 34,825 chemical examinations performed on 16,259 samples of milk and food products and industrial or other materials. All services furnished physicians, hospitals and various bureaus of the Health Department were reflected in 241,040 examinations of 117,757 specimens and samples. In comparison with 1955 figures, total examinations in 1956 increased by 17,738 or 7.0 per cent and total samples and specimens increased by 1,050 or 0.9 per cent.

In addition, 71,548 packages of biologicals were dispensed, representing an increase of 18,000 packages over the prior year. This was an increase of 33 per cent and was caused principally by the increase in the distribution of poliomyelitis vaccine.

Although there were only four resignations in 1956 in contrast to fourteen who left the bureau in 1955, there was little improvement in the personnel situation. There were two unfilled positions at the end of the year, the same number that existed on December 31, 1955. It has been many years since all positions were filled and when illnesses or vacations occurred it was difficult to supply the necessary laboratory services. Replacements were scarce because of low salaries and the highly competitive area in which the Health Department found itself.

Participation in evaluation studies and check work was continued and results indicated that the laboratory procedures as carried out in the bureau in general were very satisfactory. However, there were a few weak spots and steps were taken to strengthen these.

### Microbiology

The effective city-wide diphtheria immunization program was reflected in the small number of cultures submitted for examination for diphtheria bacilli. During the year, 234 such specimens were submitted, while in 1955 a total of 265 was received. In marked contrast, the number examined in 1926 exceeded 46,000. Virulent diphtheria bacilli were found in a throat

culture obtained from a four year old child who had died of diphtheria soon after admittance to one of the local hospitals.

The medical bacteriology laboratory reported 30 isolations of various types of *Salmonella* and *Shigella* bacteria. In addition, 24 cultures of bacteria were submitted from hospital laboratories for identification. The following tabulation presents the types of organisms found and the number of isolations and identifications of the bacteria:

BACTERIAL TYPES	NO. OF ISOLATIONS	NO. OF IDENTIFICATIONS
<i>Salmonella typhi</i> .....	3	17
<i>Salmonella derby</i> .....	2	..
<i>Salmonella heidelberg</i> .....	2	..
<i>Salmonella montevideo</i> .....	2	..
<i>Salmonella muenchen</i> .....	5	..
<i>Salmonella san-diego</i> .....	2	1
<i>Salmonella schottmuelleri</i> .....	1	..
<i>Salmonella saint paul</i> .....	3	..
<i>Salmonella typhimurium</i> .....	4	4
<i>Shigella alkalescens</i> .....	1	..
<i>Shigella flexneri</i> .....	4	2
<i>Shigella sonnei</i> .....	1	..

Two of the typhoid bacillus isolations were obtained from fecal specimens of a carrier, a grandmother who had infected her grandson. The other isolation was from a typhoid case. Sixteen typhoid cultures were bacteriophage typed in the laboratories of the Pennsylvania State Department of Health in Philadelphia. Results obtained were as follows:

BACTERIOPHAGE TYPES	NUMBER OF ORGANISMS
C <sub>1</sub>	2
E <sub>1</sub>	6
F <sub>1</sub>	2
Degraded Vi	3
Unknown	3

The sudden death of a four year old Negro child in November was attributed to dysentery. Autopsy specimens including a portion of the large intestine at the junction of the ileum and caecum were submitted by Dr. Russell Fisher, Chief Medical Examiner. *Shigella flexneri* was isolated from this material. Subsequently, fecal specimens were obtained from other members of this patient's family, some of whom became ill. No dysentery organisms were found in any of these specimens.

In the report for 1955 it was pointed out that there was an apparent leveling off in the number of specimens for STS (serologic test for syphilis).

However, in 1956 there was an upswing when 76,581 such specimens were submitted, an increase of 4 per cent. The total of 76,581 received in 1956 consisted of 75,751 bloods and 830 spinal fluids. A total of 86,074 examinations was made, or an increase of 2.3 per cent.

The continued absence of rabies in dogs in the city was gratifying. In 1956, the bureau received and examined the heads of 73 animals or 5 less than the number tested in 1955. The animals examined were as follows: 55 dogs, 8 cats, 4 rabbits, 3 hamsters, 2 squirrels and 1 opossum. Microscopic examinations and mouse tests of the brains of these animals did not reveal the presence of Negri bodies. The last positive dog was reported in February, 1947.

Each year considerable laboratory work is done in connection with the investigations made by the Sanitary Section of alleged food poisoning outbreaks. In 1956, this activity and other services involved 21,447 examinations of 6,545 samples of milk and dairy products, water, food utensil and hand swabbings, sea food and miscellaneous materials and represented a decrease of 12 per cent in the number of examinations and a decrease of 5 per cent in the number of samples as compared with work done in 1955.

Various kinds of food were tested in connection with the investigation of 15 alleged food poisoning outbreaks in 1956. A total of 30 samples was submitted. In one case, the laboratory work revealed a type of staphylococci that produce enterotoxin. This was a typical outbreak caused by chocolate eclairs containing cream filling contaminated with staphylococci. In two of the outbreaks, large numbers of coliform bacteria were found. These could have been responsible for the illnesses. In one investigation, alpha type of streptococci were isolated. No causative bacteria were found in the other eleven cases.

### Chemistry

Routine and investigative services involved 34,825 examinations of 11,719 samples associated principally with the activities of the Sanitary Section. These figures represent a decrease of 4.7 per cent in samples and 4.1 per cent in examinations when compared with the 1955 record. The decrease in samples was largely attributed to the fact that sanitarians who normally submit milk and other food samples were unavailable either because of illness or their participation in in-service training programs.

In contrast to 1955, no improperly pasteurized samples of milk were detected when 3,359 samples of bottled milk and 592 samples of dairy products were examined. In 1956, the Division of Dairy Farm Inspection resumed sampling of producers' milk. A total of 213 such samples was collected from 161 producers. Tests of these samples revealed that 34 obtained from 26 producers had been adulterated by the addition of water in amounts

ranging from 5 to 30 per cent. It was likewise found that 49 of the samples contained less than 3.5 per cent of fat as required by regulation.

Microanalytical tests for filth were made of 595 miscellaneous foods collected from 157 local establishments. Filth such as rodent contamination or insect infestation was found in 29 per cent of the samples principally from establishments showing visible evidence of insanitary conditions. Dr. Kaplan, the assistant director for chemistry, testified in two successful prosecutions instituted by the Bureau of Food Control in cases involving insanitary conditions and impure food.

The laboratories played an important part in the lead poisoning control program. For example, 800 specimens of blood were examined in 1956 as an aid in the diagnosis of this disease. This number represented an increase of 81 specimens, or 11.3 per cent, when compared with the 1955 record. The specimens obtained from 423 children and 163 adults were submitted by 16 hospitals and 42 practicing physicians. Excessive amounts of lead were detected in specimens from 101 children and 17 adults. Eleven of the adults were employed in glass decorating in a single establishment. Subsequent examinations of samples of air collected during the manufacturing operation revealed the presence of lead concentrations ranging as high as 1.97 mg. per cubic meter of air. The maximum allowable concentration of lead in air is 0.15 mg. per cubic meter. The blood lead laboratory service was instrumental in bringing this hazardous situation to light and control.

In the course of the investigations of lead poisoning in children, the Bureau of Industrial Hygiene submitted 424 samples of paint scrapings obtained from various slum locations in the homes of cases or suspected cases. This figure represented an increase over 1955 of 86 per cent. Lead was found in 66 per cent of samples collected from 161 homes.

Field studies and surveys made by the Division of Air Pollution Control resulted in the testing of 167 samples of air and dust for microscopic appearance, total weight, acidity, fluoride, sulfate, nitrate, titanium, oxides of nitrogen, chromium, hydrogen sulfide, sulfuric acid and sulfur dioxide.

### Biologicals

The history-making event that took place when the first poliomyelitis vaccine was obtained and used in Baltimore in April, 1955 was discussed in the report for that year. It was pointed out that in 1955 a total of 10,802 vials, or 82,418 cubic centimeters was dispensed in the period from April to the end of the year. In 1956, a total of 28,613 vials, or 175,242 cubic centimeters was dispensed. This represents an increase of 17,811 vials, or 92,824 cubic centimeters. All of this biological was dispensed for use in the Health Department poliomyelitis inoculation clinics and was supplied

through the generosity of the U. S. Public Health Service. That used by private physicians was purchased through normal commercial channels.

A total of 71,548 packages of all biologicals was dispensed in 1956 and represented an increase of 18,000 packages over the prior year. This increase was principally attributed to the marked increase in the amount of poliomyelitis vaccine given out. On January 16 the bureau began furnishing this vaccine for use in the child health clinics.

Since 1949 the bureau has provided a service whereby certain biologicals were mailed directly to physicians for use in the control of the communicable diseases. On October 1 smallpox vaccine was added to this list. The additional service apparently was a great help, especially to the busy practitioner, because in the last three months of 1956 a marked increase occurred in requests for this service.

### Special Investigations

The studies of coliform bacteria in the manufacture of ice cream made by the director in collaboration with Mr. H. B. Siegmund, Laboratory Director of the Hendler Ice Cream Company, and with the splendid assistance of the staff of the Health Department's Sanitary Bacteriology Laboratory, were continued in 1956. These investigations which began in 1952 concerned the presence of coliform bacteria in the foam which forms in the batch type pasteurizer, the efficiency of the Vacreator Vacuum Pasteurizer (a type of high-temperature short-time pasteurization equipment) and the importance of thorough and complete sterilization of equipment. In these studies, a laboratory procedure was employed which apparently was not used elsewhere to any extent in the United States. This test which is referred to as the Incubation Coliform Test (I.C.T.) was first introduced in 1936 by Vernon and Walker in England and was published in a report of an annual conference of the British Society of Agricultural Bacteriologists.

The standard procedure used in the United States for the detection of coliform bacteria in milk and dairy products, as recommended by the American Public Health Association, is a simple procedure whereby samples are plated with a special medium such as desoxycholate agar. The plates are incubated at 35° C. for twenty-four hours, after which the number of colonies are counted. With the Incubation Coliform Test (I.C.T.), samples are stored at room temperature overnight and then plated, as recommended by the American Public Health Association standard. It was found in many instances that the usual procedure of immediate plating failed to demonstrate coliform bacteria but when the samples were held overnight and plated these organisms were found.

In addition to proving that the Vacreator is an efficient pasteurizer, the

most recent studies demonstrated the extreme necessity for the proper cleaning and sterilization of all equipment used in the pasteurization process. Inasmuch as the studies were practically completed in 1956, plans were made for the preparation and publication of the results of the investigations.

An evaluation was made of methods for testing the nature of particulate matter in samples of air collected by the Division of Air Pollution Control using a high volume sampler and fiber glass web sheets as the collection medium. Methods studied included: microscopic appearance, total weight of dust, water extractable material, pH, soluble sulfate and fluoride. Apparatus was designed for the extraction of water soluble material. A turbidimetric microsulfate technique was devised. A perchloric acid distillation procedure for fluoride was standardized and attention devoted to the elimination of phosphate interference.

Mr. Sanford M. Belth, Principal Chemist, assembled equipment and studied techniques for the photomicrography of dusts as an aid in determining their source in air pollution investigations. He also made a study of sources of error in the determination of oxides of nitrogen in air by the phenoldisulphonic acid method.

Supplies and equipment were prepared and improvements were made in the method for the detection of lead in paint scrapings in anticipation of a large-scale sampling and testing program as a part of a survey proposed by the Lead Poisoning Prevention Committee.

Other investigations included a comparison of the ethyl violet azide broth for the detection of enterococci with the American Public Health Association Standard Method for the detection of coliform bacteria as an index of contamination of drinking water, the keeping qualities of tap water under certain conditions of storage related to civil defense, an improvement in the method for detecting free silica in dust, the standardization of the ultraviolet absorption method for styrene in air, methods for the determination of sulfuric acid aerosol, a modified urease method for rodent urine stains, the determination of coumarin in synthetic vanilla and variations in the phosphatase content of raw milk.

### **Educational Activities**

As in previous years, services of the bureau were described to some 300 visitors consisting of elementary and high school teachers and pupils, student nurses from the University of Maryland School of Nursing, students from the Johns Hopkins School of Hygiene and Public Health, public health workers from this and other countries, representatives of local laboratories and members of the staff of the Sanitary Section. The latter

group was also given two weeks of lectures and demonstrations in microbiology and chemistry.

A lecture was given by the director on the analysis of milk and water to approximately 90 students of the University of Maryland School of Medicine. He was assisted by Miss Katharine E. Welsh, Assistant Director for Microbiology, and by Miss Byrd G. Wenke. Dr. Emanuel Kaplan, Assistant Director for Chemistry, lectured on chemicals in food before the class in Public Health Nutrition of the Johns Hopkins School of Hygiene and Public Health. He also addressed the staff meeting of the Housing Bureau on lead poisoning in young children. Members of the staff of the Division of Chemistry attended the following meetings: American Industrial Hygiene Association in Philadelphia, the Central Atlantic States Association of Food and Drug Officials in New York City, the Research Equipment Exhibit and Instrument Symposium at the National Institutes of Health, Bethesda, Maryland and the Chemists' Conference of the United States Food and Drug Administration in Washington, D. C. They also participated in the course in Sanitary Engineering Practices in Civil Defense Disaster conducted in Baltimore during the week of November 26 which was given by personnel of the Robert A. Taft Sanitary Engineering Center.

### Staff Changes

The title of Dr. Emanuel Kaplan was changed as of January 1, 1956 from Chief of the Division of Chemistry to Assistant Director for Chemistry. On August 16, Miss Katharine E. Welsh was promoted from Principal Bacteriologist to Assistant Director for Microbiology. On March 12, Mr. Warren W. Thiell was appointed as a laboratory assistant and on September 13 he was promoted to the position of bacteriologist. Miss Patricia Vaise was appointed on July 9 as a laboratory assistant. On December 11, Mrs. Anna Johnson was reemployed as a laboratory assistant. She had been on a maternity leave. Mr. William Blackmon resigned as a laboratory assistant on May 10 and Mrs. Betty Chapman resigned as laboratory assistant on November 7. Mr. Carroll Bacon went on military leave on December 27.

### Personnel

Clinton L. Ewing, Director  
Emanuel Kaplan, Sc.D., Assistant Director for Chemistry  
Katharine E. Welsh, A.B., Assistant Director for Microbiology  
Mary McManus, B.A., Principal Bacteriologist  
Sanford M. Belth, B.S. Chem., Principal Chemist  
Grace Freeland, A.B., Senior Bacteriologist



Elizabeth Lovelace, A.B., Senior Bacteriologist  
Rosalinda McKenna, A.B., Senior Bacteriologist  
Robert S. Shaull, B.S., Senior Chemist  
Marilyn E. Tracy, A.B., Senior Chemist  
Eva L. Klugerman, B.A., Bacteriologist  
Wilbert R. Lewis, B.S., Bacteriologist  
Warren W. Thiell, Bacteriologist  
Duane B. Tilghman, B.S., Bacteriologist  
Byrd G. Wenke, Bacteriologist  
Anna G. Johnson, Laboratory Assistant  
Michael Madigan, Laboratory Assistant  
Susan Peters, Laboratory Assistant  
Mary Patricia Vaise, Laboratory Assistant  
Harry L. Carman, Senior Administrative Assistant  
John A. Wheeler, Principal Clerk  
Kathryn Hiltner, Senior Clerk Stenographer  
Katherine Wood, Senior Clerk Stenographer  
Ruby G. Hankins, Senior Clerk Typist  
Patricia Ann Lee, Senior Clerk Typist  
Michael J. Doonan, Senior Storekeeper  
William F. Gibson, Stores Clerk  
Warren H. Barnes, Equipment Operator  
Raymond Buettner, Laboratory Aide  
Charles A. Kitzman, Laboratory Aide  
Patrick J. McHugh, Laboratory Aide  
Louis Svatora, Laboratory Aide

TABLE NO. 1  
SPECIMENS SUBMITTED AND THE NUMBER OF LABORATORY PROCEDURES  
PERFORMED FOR EACH TYPE OF SPECIMEN

TYPE OF SPECIMEN AND TEST	NUMBER OF SPECIMENS	NUMBER OF TESTS
TOTAL.....	101,498	184,768
Animal heads.....	73	
Animal inoculation.....	..	73
Microscopic.....	..	892
Blood.....	76,985	
Agglutination.....	..	2,811
Complement-fixation.....	..	70
Culture.....	..	1,632
Microscopic.....	..	117
Serologic.....	..	84,474
Direct culture.....	5,587	
Agglutination.....	..	713
Animal inoculation.....	..	17
Culture.....	..	11,143
Microscopic.....	..	3,277
Exudates.....	5,455	
Animal inoculation.....	..	78
Culture.....	..	4,013
Microscopic.....	..	6,535
Feces.....		
Bacteria.....	563	
Occult blood.....	14	
Parasite.....	474	
Culture.....	..	6,101
Macroscopic.....	..	45
Microscopic.....	..	1,885
Fungi.....	6	
Culture.....	..	42
Microscopic.....	..	40
Helminths.....	537	
Macroscopic.....	..	2
Microscopic.....	..	529
Spinal fluid.....	851	
Animal inoculation.....	..	9
Culture.....	..	187
Microscopic.....	..	41
Serologic.....	..	1,600
Sputum.....	9,469	
Animal inoculation.....	..	172
Culture.....	..	29,450
Microscopic.....	..	9,912
Stomach lavage.....	1,018	
Animal inoculation.....	..	139
Culture.....	..	13,453
Microscopic.....	..	1,477
Urine.....	466	
Animal inoculation.....	..	90
Culture.....	..	2,741
Microscopic.....	..	1,008

TABLE NO. 2  
EXAMINATIONS FOR PHYSICIANS CLASSIFIED BY TYPE  
AND RESULT OF EXAMINATION

TYPE OF EXAMINATION	TOTAL	POSITIVE	NEGATIVE	DOUBTFUL	UNSATIS- FACTORY
TOTAL.....	117,474*	17,600	93,631	3,150	2,321
BRUCELLOSIS					
Total.....	517	5	443	7	62
Agglutination					
Blood.....	394	4	383	7	..
Culture					
Blood clot.....	123	1	60	..	62
DIPHTHERIA					
Total.....	248	15	232	..	1
Animal inoculation					
Virulence test.....	14	4	10	..	..
Microscopic					
Diagnostic.....	153	6	152	..	..
Institution.....	60	1	58	..	1
Release.....	16	4	12	..	..
ENTERIC INFECTIONS					
Total.....	3,014	423	2,385	200	6
Agglutination					
Blood, H antigen.....	1,095	26	944	125	..
Blood, O antigen.....	427	6	346	75	..
Culture					
Blood.....	83	15	65	..	3
Blood clot.....	66	..	66	..	..
Feces.....	1,037	128	906	..	3
Urine.....	306	248	58	..	..
GONOCOCCUS INFECTIONS					
Total.....	10,466	2,752	6,946	358	410
Exudate					
Culture.....	5,297	1,559	3,363	1	374
Microscopic.....	5,169	1,193	3,583	357	36
INFECTIOUS MONONUCLEOSIS					
Blood, agglutination.....	847	127	355	361	4
INTESTINAL PARASITES					
Total.....	956	151	789	2	14
Microscopic					
Cellulose tape slides.....	535	120	404	2	9
Feces.....	419	29	385	..	5
Worms.....	2	2	..	..	..

\* This includes 772 total protein tests (see syphilis examinations—Biochemico).

TABLE NO. 2 (Continued)  
EXAMINATIONS FOR PHYSICIANS CLASSIFIED BY TYPE  
AND RESULT OF EXAMINATION

TYPE OF EXAMINATION	TOTAL	POSITIVE	NEGATIVE	DOUBTFUL	UNSATIS- FACTORY
<b>METALLIC POISONING</b>					
Total.....	810	203	385	214	8
Biochemic					
Arsenic					
Hair.....	1	..	1	..	..
Lead					
Blood.....	800	200	379	214	7
Paint.....	2	1	1	..	..
Urine.....	7	2	4	..	1
<b>MYCOSIS</b>					
Total.....	76	56	20	..	..
Exudate.....	45	33	12	..	..
Sputum.....	29	21	8	..	..
Urine.....	2	2	..	..	..
<b>RABIES</b>					
Total.....	149	..	149	..	..
Animal inoculation					
Brain emulsion.....	76	..	76	..	..
Microscopic					
Animal brain.....	73	..	73	..	..
<b>RICKETTSIAL INFECTIONS</b>					
Total.....	503	7	429	61	6
Agglutination					
Blood					
Proteus OX <sub>1</sub> .....	217	1	178	38	..
Proteus OX <sub>19</sub> .....	216	2	193	19	..
Complement-fixation					
Blood					
Endemic typhus.....	1	..	1	..	..
Rickettsialpox.....	1	1	..	..	..
Rat Blood.....	68	3	55	4	6
<b>STREPTOCOCCUS INFECTIONS</b>					
Total.....	55	40	15	..	..
Culture					
Exudate.....	21	16	5	..	..
Sputum.....	20	13	7	..	..
Swab.....	14	11	3	..	..

TABLE NO. 2 (Concluded)  
EXAMINATIONS FOR PHYSICIANS CLASSIFIED BY TYPE  
AND RESULT OF EXAMINATION

TYPE OF EXAMINATION	TOTAL	POSITIVE	NEGATIVE	DOUBTFUL	UNSATISFACTORY
<b>SYPHILIS</b>					
Total.....	84,923	12,359	69,521	1,745	526
Biochemic					
Gum Mastic.....	830	56	688	76	10
Total protein.....	772*	..	..	..	..
Complement-fixation					
Eagle					
Spinal fluid.....	832	85	690	7	50
Flocculation					
Eagle-Strauss					
Blood.....	75,551	5,280	68,143	1,662	466
Titre.....	6,938	6,938	..	..	..
<b>TRICHOMONIASIS</b>					
Exudate, microscopic.....	115	87	28	..	..
<b>TUBERCULOSIS</b>					
Total.....	14,492	1,167	11,840	201	1,284
Animal inoculation					
Exudate.....	54	2	52	..	..
Sputum.....	244	13	227	3	1
Stomach lavage.....	160	6	154	..	..
Urine.....	78	4	74	..	..
Culture					
Exudate.....	64	3	58	1	2
Sputum.....	2,021	234	1,662	43	82
Stomach lavage.....	931	56	809	45	21
Urine.....	71	2	62	1	6
Microscopic					
Exudate.....	74	3	71	..	..
Sputum.....	9,543	801	7,489	83	1,170
Stomach lavage.....	1,040	21	994	23	2
Urine.....	212	22	188	2	..
<b>TULAREMIA</b>					
Blood, agglutination.....	14	..	13	1	..
<b>VINCENT'S INFECTION</b>					
Exudate, microscopic.....	13	..	13	..	..
<b>OTHER EXAMINATIONS</b>					
Total.....	276	208	68	..	..
Biochemic.....	44	16	28	..	..
Culture.....	229	189	40	..	..
Microscopic.....	3	3	..	..	..

\* This figure is included in grand total. Not classified as to results.

TABLE NO. 3  
BIOLOGICALS DISTRIBUTED TO PHYSICIANS, HOSPITALS AND INSTITUTIONS

PRODUCT	NUMBER OF PACKAGES	BASIC CONTENT	TOTAL AMOUNT
TOTAL.....	71,548		
Triple antigen			
Diphtheria and tetanus toxoids combined with pertussis vaccine.....	8,510	Cubic centimeter	63,825 c.c.
Diphtheria biologicals			
Antitoxin.....	43	Unit	526,000 units
Toxin for Schick test.....	8	Test	120 tests
Toxoid, alum-precipitated.....	30	Cubic centimeter	150 c.c.
Toxoid, fluid.....	3	Cubic centimeter	22.5 c.c.
Antibiotics			
Bicillin.....	289	Unit	653,818,000 units
Penicillin.....	1,465	Unit	4,395,000,000 units
Conjunctival tests			
Horse serum.....	9	Test	72 tests
Rabbit serum.....	2	Test	16 tests
Histoplasmin.....	47	Cubic centimeter	47 c.c.
Immune serum globulin, human			
Agammaglobulinemia.....	55	Cubic centimeter	110 c.c.
Infectious hepatitis.....	145	Cubic centimeter	290 c.c.
Measles.....	2,542	Cubic centimeter	5,084 c.c.
Pertussis biologicals			
Antipertussis serum, rabbit.....	18	Cubic centimeter	72 c.c.
Poliomyelitis vaccine.....	28,613	Cubic centimeter	175,242 c.c.
Rabies biologicals			
Antitoxin.....	7	Unit	7,000 units
Vaccine.....	3,143	Dose	3,143 doses
Silver nitrate solution, one per cent.....	95	Ampule	190 ampules
Smallpox vaccine.....	7,365	Point	36,825 points
Tetanus biologicals			
Antitoxin.....	313	Unit	1,595,000 units
Toxoid, alum-precipitated*.....	1,054	Cubic centimeter	5,270 c.c.
Toxoid, fluid.....	824	Cubic centimeter	6,180 c.c.
Tuberculin biologicals			
Koch's old.....	522	Cubic centimeter	2,610 c.c.
Patch test.....	15,850	Test	15,850 tests
Typhoid vaccine.....	131	Cubic centimeter	1,271 c.c.
Typhoid-paratyphoid vaccine.....	465	Cubic centimeter	5,268 c.c.

\* Replaced with aluminum phosphate adsorbed toxoid June 2.

TABLE NO. 4  
SUPPLY MATERIALS AND SPECIMEN CONTAINERS PREPARED AND DISTRIBUTED

Glassware and material cleaned (units).....	1,067,140
Sterilized.....	722,009
Bottles.....	53,733
Petri dishes.....	116,436
Pipettes.....	161,317
Tubes.....	134,626
Vials.....	23,538
Miscellaneous.....	232,359
Media prepared	
Liters.....	1,144
Bottles.....	4,483
Petri dishes.....	16,039
Tubes.....	29,369
Vials.....	22,166
Specimen containers	
Prepared.....	112,643
Distributed.....	104,837
Physicians supply stations.....	406
Health districts.....	64,444
Laboratory.....	40,021
Water distilled (gallons).....	1,943

TABLE NO. 5  
FOOD AND OTHER SAMPLES SUBMITTED FOR BACTERIOLOGIC ANALYSIS AND  
EXAMINATIONS PERFORMED

TYPE OF SAMPLE	NUMBER OF SAMPLES	NUMBER OF TESTS
TOTAL.....	6,545*	21,447
Cream, pasteurized (plant, store, truck).....	412	
Coliform count.....	..	420
Microscopic count.....	..	8
Plate count.....	..	423
Temperature check.....	..	279
Special tests.....	..	42
Check work with outside laboratories.....	24	
Plate count.....	..	6
Coliform count.....	..	24
Special tests.....	..	27
Equipment for sterility (bottles, containers).....	252	
Plate count.....	..	252
Food products.....	211	
Plate count.....	..	204
Coliform count.....	..	649
Special tests.....	..	1,601
Food poisoning investigations.....	30	
Plate count.....	..	26
Coliform count.....	..	74
Special tests.....	..	364
Goat milk (plant, store, truck) pasteurized and raw.....	56	
Plate count.....	..	84
Coliform count.....	..	45
Special tests.....	..	3
Temperature check.....	..	32
Hand swabbings.....	15	
Plate count.....	..	15
Coliform count.....	..	43
Special tests.....	..	42
Ice cream (plant, store, truck).....	485	
Plate count.....	..	485
Coliform count.....	..	485
Special tests.....	..	49

\* Of this number 5,289 samples were submitted for bacteriologic examination only; the other samples were submitted for bacteriologic and chemical analysis.

TABLE NO. 5.—Continued  
 FOOD AND OTHER SAMPLES SUBMITTED FOR BACTERIOLOGIC ANALYSIS  
 AND EXAMINATIONS PERFORMED

TYPE OF SAMPLE	NUMBER OF SAMPLES	NUMBER OF TESTS
Investigative work.....	232	
Plate count.....	..	213
Coliform count.....	..	537
Special tests.....	..	1,217
Milk, pasteurized (plant, store, truck).....	1,158	
Plate count.....	..	368
Coliform count.....	..	1,158
Special tests.....	..	294
Temperature check.....	..	872
Milk, chocolate, pasteurized (plant, store, truck).....	224	
Plate count.....	..	226
Coliform count.....	..	204
Special tests.....	..	28
Temperature check.....	..	184
Milk, raw (shipper, plant).....	340	
Plate count.....	..	360
Microscopic count.....	..	7
Special tests.....	..	10
Temperature check.....	..	230
Miscellaneous samples.....	56	
Plate count.....	..	62
Coliform count.....	..	102
Special tests.....	..	249
Procedure controls		
Special tests.....	..	3,468
Swabbings from utensils and equipment.....	894	
Plate count.....	..	894
Special tests.....	..	5
Water (tap, pool, well, spring, river, etc.).....	2,156	
Plate count.....	..	1,161
Coliform count.....	..	2,170
Special tests.....	..	1,746



TABLE NO. 6  
 SAMPLES SUBMITTED FOR CHEMICAL ANALYSIS AND THE NUMBER OF LABORATORY  
 PROCEDURES PERFORMED FOR EACH TYPE OF SAMPLE

TYPE OF SAMPLE	NUMBER OF SAMPLES	NUMBER OF TESTS
TOTAL.....	11,719*	34,825
Body fluids and excreta.....	1,641	
Lead test.....	..	2,421
Total protein test.....	..	772
Unclassified biochemic tests.....	..	10
Dairy products (milk, cream, ice cream, etc.).....	5,132	
Phosphatase test.....	..	7,874
Butterfat test.....	..	2,965
Added water tests.....	..	587
Sediment test.....	..	770
Unclassified tests.....	..	2,787
Food Products.....	1,017	
Filth test (rodent and insect infestation).....	..	2,154
Adulteration test.....	..	851
Decomposition tests.....	..	356
Unclassified tests.....	..	85
Industrial hygiene and air pollution control samples		
(Air, dusts, solvents, etc.).....	825	
Industrial poison tests.....	..	2,248
Air contaminant tests.....	..	3,002
Miscellaneous samples.....	125	
Unclassified tests.....	..	1,128
Solutions and outfits.....	524	
Unclassified tests.....	..	1,914
Water samples.....	2,455	
Fluoride test.....	..	3,290
Boiler water control tests.....	..	928
Sanitary analysis.....	..	229
pH test.....	..	454

\* Of this number, 9,714 samples were submitted for chemical analysis only; the other 2,005 samples were submitted for bacteriologic and chemical analysis.

## BUREAU OF PUBLIC HEALTH NURSING

Alice M. Sundberg, R.N., M.P.H.

### *Director*

Authorities today agree that public health nursing activities should be family centered and for effective results require the cooperation of nurses, physicians, teachers, social workers, and in fact, all members of the allied fields. In this work the public health nurse is concerned with the immediate health status, illness, or needs of one individual on first contact with the family, but soon finds herself concerned with the needs of the entire family for care, guidance and health teaching. As a result of this practice the nurses began to use, or initiated the use of, a family folder leading toward more continuity and improvement of service.

During the year 1956 the Bureau of Public Health Nursing made 8,682 less visits than in 1955. This trend in decreasing numbers of visits is observed in other health agencies but in Baltimore City was in part due to more selective visiting and a change to oral para-aminosalicylic acid and isoniazid medication for the tuberculosis patients. The time saved went into more child health conferences and school work.

The table following this report is a detailed summary of home visits of public health nurses and the two pie diagrams on page 22 show the proportion of total nursing time and a percentage breakdown of clinic activities.

The public health nurses continued to visit all infants who were malformed, premature or who had birth injuries; they visited 30 preschool children and 535 school children who had handicaps and assisted in the interpretation of diagnoses and need for medical care; and through these home visits and personal contacts nurses stressed the importance of continued medical supervision. Mrs. Barbara R. Norton, Senior Supervisor of Public Health Nursing for Pediatrics, discussed the nursing aspects of the handicapped children's program in each district.

Miss Jeanette Vroom, Supervisor of Public Health Nursing for Tuberculosis, planned a series of meetings on tuberculosis prevention and control for new staff nurses and continued to coordinate the clinical and nursing aspects of tuberculosis. Miss Virginia Struve, Supervisor of Public Health Nursing and Dr. Nels A. Nelson, Director of the Bureau of Venereal Diseases, who retired on September 30, conducted seminars in venereal disease prevention and control. Dr. Sibyl Mandell, psychologist and Chief of the Division of Mental Hygiene, continued to assist the public health nurses in the educational program and in the clinics.

The public health nurses assisted Dr. Matthew Tayback in gathering data on poliomyelitis vaccine injections to help formulate policies on the age and racial groups who most needed the injections. The poliomyelitis vaccine program received a capable, efficient management from the public health nurses. The inoculations in 1956 were given by the Health Department in its clinics, in schools and in the low rent housing projects. The total doses of poliomyelitis vaccine given by the Health Department was 224,375.

The volunteer program, under the direction of Mrs. E. Elizabeth Hipp, continued to grow with a total of 1,092 interested women helping in the Health Department program. This was an increase of 193 volunteers. One of the most active units, the Women's Civic League volunteer unit, gave 1,505 hours of work in the clinics. Two orientation meetings, one in February and the other in October, were planned and held in the Eastern Health District. A new unit in the Flag House Courts Housing Project was also organized in October. At the end of the year a plan was under way to utilize students of the civic experience class at the Patterson Park High School as volunteers in the Bureau of Laboratories and in the Bureau of Health Information.

The Health Department provided field experience for 46 students from collegiate schools of nursing and 140 students from three diploma schools of nursing. Observations, as a supplement to hospital instruction, were given to 226 students in homes, schools and clinics.

Many nurse replacements, usually employed without previous experience and education in public health, needed a great deal of orientation, supervision and in-service education. Special seminars in mental hygiene, pediatrics, venereal diseases and tuberculosis consequently were arranged for new staff members. Of the 37 staff nurses appointed during 1956, only 11 were qualified through education for first level positions in public health. For this reason 9 per cent of the total nursing time was spent in conference and educational activities. Supervisory positions were filled by Miss Anna Scholl and Miss Elizabeth Streett who were assigned to the Western Health District and the Eastern Health District, respectively.

Miss Elizabeth Quinlin, Acting Supervisor of Public Health Nursing in the Eastern Health District, was awarded a B.S. degree in Nursing by Catholic University of America. Educational leaves were also granted to a number of supervisors and staff nurses to work for master's degrees or bachelor's degrees, and for work conferences in specific areas of tuberculosis control, maternity and newborn health and human behavior. In order to improve the qualifications of the staff and help the individual nurse, these leaves were granted even though it made the staffing of clinics, schools and districts more difficult.

Miss Adelaide Smith, Miss Elsa Kittel, Miss Julia Hagenbuch, Miss Margaret King and Mrs. Margaret Harper retired during 1956. Thirty-seven appointments were made to fill vacancies due to the resignations and retirements of the nurses.

### Personnel

Alice M. Sundberg, B.A., M.P.H., Director  
M. Elizabeth Pickens, B.S., M.P.H., Assistant Director  
Mary I. Streckfus, Supervisor of Public Health Nursing  
Jeanette Vroom, M.A., Senior Supervisor of Public Health Nursing, Tuberculosis

#### *Public Health Nurses†*

Marianne P. Aiau	Betty Jean Knapp*
Katherine Brady	Elizabeth E. Lawson*
Ruth Berman*	Beulah McCausland
Mollie G. Fell	Helen McKee
Virgie Finneyfrock	Rose Ann Pacunas
Lillian G. Ford	Helen B. Reutter
Alberta R. Gottlieb*	Doris Rodenheiser
Emma E. Hipp	Carolyn Shaffer
Constance Jacobs	Sylvia D. Sweren*
Natalie Kieffer*	Helen L. Wells

Reba Kadis, Senior Clerk Stenographer

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\* Part-time employees.

† Other Bureau of Public Health Nursing staff are listed with the various Health District personnel and in the Bureaus of Venereal Diseases, Child Hygiene and Industrial Hygiene reports.



## BUREAU OF PUBLIC HEALTH NURSING

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Home visit, not seen.	5,805	2,550	3,255	540	870	505	285	60	1,465	680	70	325	310	440	355
Visit in behalf of case.	1,900	655	1,245	115	280	170	210	20	625	110	30	150	65	90	55
Preschool Health Supervision Service															
All visits.	9,780	3,080	6,730	410	1,525	685	935	90	3,545	1,150	125	385	265	330	335
Health Department clinic case.	5,075	1,440	3,635	175	800	340	540	30	1,970	675	80	155	130	65	115
Other case.	230	115	135	45	95	15	105	15	20	35	5	15	15	5	70
Home visit, diphtheria prevention.	1,320	770	550	60	70	195	105	15	235	200	5	105	65	195	5
Home visit, handicapped children.	30	10	20	5	430	105	190	45	15	225	30	55	50	40	135
Home visit, not seen.	2,400	565	1,835	95	430	105	190	45	1,000	225	30	55	50	40	135
Visit in behalf of case.	705	150	555	35	130	30	95	..	305	15	5	45	5	25	15
School Health Supervision Service															
All visits.	5,020	3,530	1,490	505	290	595	230	30	430	1,130	85	415	285	855	170
Effective visits.	3,915	2,845	1,070	280	225	475	165	15	295	1,000	85	310	205	755	95
Home visit, handicapped children.	535	335	200	180	20	40	30	10	60	35	..	45	30	25	60
Home visit, not seen.	440	275	165	25	30	60	30	5	50	85	..	55	45	45	10
Visit in behalf of case.	130	75	55	10	15	20	5	..	25	10	..	5	5	30	5
Tuberculosis Service															
All visits.	27,825	10,870	10,955	3,120	5,985	1,855	1,305	250	7,050	3,080	415	1,375	1,240	1,190	950
Pulmonary case	5,105	1,885	3,220	670	965	375	165	20	1,515	470	155	160	155	190	265
Exclusive of hospital care.	10,055	4,810	5,245	1,280	1,895	890	470	125	2,105	1,465	120	585	360	465	295
Post-hospital case.															
Childhood type															
Home visit.	500	120	380	25	175	15	25	..	115	60	..	5	50	15	15
Post-hospital care.	600	90	510	10	240	10	..	..	240	25	..	5	25	40	5
Suspect.	495	250	245	85	80	30	20	10	105	65	25	50	..	10	15
Other type.	355	40	315	15	160	30	30	..	120	15	..	..	5	10	..
Contact.	1,935	680	1,255	120	340	70	45	15	605	180	30	170	185	125	50
BCG, patch test, application and reading.	2,830	765	2,065	280	1,010	115	255	..	490	210	40	95	170	65	100
Home visit, not seen.	4,030	1,555	2,475	420	740	205	200	55	1,135	460	30	185	185	230	185
Visit in behalf of case.	1,920	675	1,245	215	390	145	95	25	620	130	15	120	105	40	20
Veneral Disease Service															
All visits.	5,453	161	5,292	46	1,517	24	468	11	2,660	27	105	28	283	25	239
Syphilis															
Delinquent patient follow-up.	1,216	52	1,164	12	331	8	112	1	603	10	10	9	59	12	49
Epidemiological investigation.	678	32	646	11	230	6	70	..	234	4	23	8	51	3	38
Gonorrhea															
Delinquent patient follow-up.	260	2	258	1	159	..	4	..	63	..	5	1	24	..	3
Epidemiological investigation.	1,607	22	985	8	263	..	86	3	510	7	35	1	31	3	60
Home visit, not seen.	2,070	46	2,024	9	406	10	198	7	1,212	5	31	8	90	7	87
Visit in behalf of case.	222	7	215	5	128	..	18	..	38	1	1	1	28	..	2
Acute Communicable Disease Service															
All visits.	7,295	1,900	5,395	695	3,335	130	345	45	1,140	700	80	130	310	200	185
Home visit, reported case															
Chickenpox.	140	30	110	20	55	..	5	..	30	..	..	5	15	10	10
Measles.	4,730	1,055	3,675	455	2,480	80	185	15	690	380	65	45	175	80	60
Whooping cough.	180	40	140	25	40	..	25	10	65	..	..	..	5	5	5
Scarlet fever.	170	45	125	15	55	..	5	..	40	15	..	..	5	10	5
Other.	205	110	95	25	70	..	..	..	10	70	..	5	10	5	5
Home visit, suspect															
Chickenpox.	35	15	20	5	5	5	5	..	10	..	..	5	..	..	..
Measles.	195	90	105	20	40	5	40	..	5	35	5	30	10	..	..
Whooping cough.	5	5	..	..	..	..	..	..	5	..	..	..	..	..	..
Scarlet fever.	30	20	10	..	..	..	..	..	..	10	..	10	..	..	..
Other.	80	55	25	5	15	5	..	..	..	30	5	..	..	15	..

TABLE NO. 1—Concluded  
SUMMARY OF HOME VISITS OF PUBLIC HEALTH NURSES—1956

SERVICE AND TYPE OF VISIT	ENTIRE CITY			EASTERN HEALTH DISTRICT		WESTERN HEALTH DISTRICT		DRUID HEALTH DISTRICT		SOUTHEASTERN HEALTH DISTRICT		SOUTHERN HEALTH DISTRICT		NORTHWESTERN HEALTH DISTRICT	
	Total	White	Colored	White	Colored	White	Colored	White	Colored	White	Colored	White	Colored	White	Colored
Acute Communicable Disease Service															
Home visit, contact															
Measles.....	285	100	185	30	105	5	30	5	30	55	..	..	10	5	10
Whooping cough.....	..	5	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet fever.....	25	..	25	..	5	..	..	..	5	..	..	..	5	..	10
Other.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Home visit, immunization															
Measles.....	275	95	180	30	65	10	30	..	50	40	5	10	20	5	10
Diphtheria.....	60	60	..	..	..	..	..	..	..	..	..	..	..	60	..
Other.....	5	5	..	..	..	..	..	..	..	..	..	..	..	..	..
Home visit, typhoid fever culture.....	60	15	45	..	50	..	15	..	25	..	..	..	..	..	20
Home visit, special follow-up.....	70	15	55	..	50	..	15	..	..	..	..	..	..	..	..
Home visit, not seen.....	573	105	470	30	235	5	5	10	145	35	10	15	40	5	25
Visit in behalf of case.....	165	55	110	35	85	10	5	..	20	10	..	..	..	10	..
Other Morbidity Service															
All visits.....	4,160	1,335	2,825	540	1,900	120	190	10	480	395	60	120	65	150	130
Sore eye case.....	50	40	10	..	..	5	5	..	5	10	..	15	5	10	..
Infant.....	145	70	75	20	45	5	..	..	10	35	5	..	..	..	..
Preschool child.....	275	145	130	60	100	20	5	..	20	60	5	..	..	..	..
School child.....	790	375	415	145	175	5	5	..	10	200	20	70	5	130	..
Adult.....	1,510	300	1,210	230	1,170	30	15	..	10	25	10	15	5	..	..
Mental hygiene.....	40	25	15	5	5	..	..	..	..	20	5	..	..	..	..
Lead poisoning.....	1,020	85	935	15	195	30	155	5	410	30	5	..	40	..	130
Home visit, not seen.....	220	75	145	45	130	5	..	..	15	15	..	10	..	..	..
Visit in behalf of case.....	110	20	90	20	80	..	..	..	..	..	..	..	10	..	..
All Other Service															
All visits.....	1,940	765	1,175	320	400	40	80	10	465	100	25	95	140	200	65
Sanitary investigation.....	40	10	30	..	20	..	10	..	..	5	..	..	..	5	..
Vital statistics investigation.....	130	50	80	15	15	..	..	5	30	5	5	5	50	20	10
Other special investigation.....	675	365	310	180	135	10	5	..	100	35	..	50	50	90	20
Medical care clients															
Lapsed medical care clinic appointment.....	200	50	150	5	30	15	10	..	75	..	10	15	15	15	10
Other visit to medical care patient.....	320	65	255	20	75	15	35	5	110	15	10	5	20	5	5
Tuberculin reading.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nursing care.....	10	5	5	5	5	..	..	..	5	..	..	..	..	..	..
Home visit, not seen.....	470	180	290	75	110	..	15	..	110	35	..	15	35	55	20
Visit in behalf of case.....	95	40	55	20	15	..	5	..	35	5	..	5	..	10	..

## EASTERN HEALTH DISTRICT

W. Sinclair Harper, M.D.

### *Health Officer*

The year 1956 was the first year that the new Eastern Health District building operated with all facilities in use. There was very extensive usage by patients, staff and students and the design of the building proved adequate to the demands made upon it. Since some of the service programs could not have been anticipated or planned for at the time the building was designed it is worthy of note that operations were able to function so well and that it was possible to service very large clinic caseloads efficiently. The design of the clinic wings at both ends of the building was such that clinics were able to be conducted practically continuously morning, afternoon and evening even though they had different caseloads and different categories of disease. This is particularly true in the north wing which gave service to patients with tuberculosis and venereal diseases and in addition cared for very large immunization clinics.

On May 14 the working area for the generalized sanitary inspection program was enlarged to include all of Ward 8. The total district area comprised all of Wards 5, 6, 7, 8 and 10 with a population of approximately 133,000 persons. Districts were re-established for each sanitarian in the generalized program, and it was found that these sanitarians were most valuable in the field courses for the various groups of public health students. This program as reconstituted gave service to about 46,000 more people than it did the previous year.

The vaccination program designed to prevent paralytic poliomyelitis in the eligible age groups was expanded on during the year by the provision of this service at public housing projects and at two additional clinic sessions during the summer months. The demands of this program on the available time of the staff necessitated some temporary curtailment of school health and well baby programs.

During the latter part of the year arrangements were made with the Baltimore branch office of the Office of Vocational Rehabilitation to have one of their counselors present in the building at regular intervals to give in-service training to the staff and service to cases referred in through the district field staff. Nutritional consultation services were provided to patients of the maternity and child health clinics.

For the first time in the history of the Eastern Health District, a physician taking his residency training in public health administration was appointed. This physician was Dr. Horst Carl Reich of Ulm, Germany.



However, because of visa regulations he was unable to complete his year and returned to Germany on September 27. Also for the first time a medical student, Mr. J. Douglass Shepperd of the University of Maryland School of Medicine, Class of 1958, served in the district for ten weeks during the summer. The purpose of the medical student program carried out under the aegis of the Maryland State Health Department was to provide opportunity for practical field experience for senior medical students by allowing their observation and participation in official health agency work.

During the summer months the interior of the building was painted and at intervals throughout the year various minor defects were corrected. There was not as much vandalism to the building as had been anticipated nor as much as suffered by other public buildings in the neighborhood.

### Service Activities

#### *Public Health Nursing*

The assimilation of the nursing staff from the previously designated Northeastern Health District and the eastern half of the former Northern Health District, begun in September, 1954 was completed and there was a unity of spirit and purpose in the entire nursing staff which bodes well for the future. There were more additions to the nursing staff in 1956 than resignations and there was adequate staff to carry out the work. It was evident that the new building, new facilities and new resources provided a measure of job satisfaction which was not possible before. Considerable help was available in the clinic situations, particularly the poliomyelitis vaccination clinics, from volunteer workers, and the large auditorium has provided more working contact with other community agencies. The categorized activities below indicate the major subdivisions of the generalized public health nursing program.

#### *Tuberculosis*

Public health nurses made 7,350 effective home visits for the treatment and supervision of adults and children with tuberculosis or suspected tuberculosis. The X-ray screening clinic took 6,520 films of contacts of active cases, volunteers, patients registered in prenatal clinics of the Health Department, patients referred by private physicians and hospitals and applicants for pre-employment examination, of whom 232 needed further follow-up. Of the total group surveyed during the year, 3,834 or 58 per cent were white persons and 2,686 or 42 per cent were colored. The percentage of white persons and colored persons X-rayed remained constant from the previous year, however the percentage of suspicious films decreased somewhat. As in the previous year, slightly over 9 per cent of

those X-rayed formerly had received BCG and were X-rayed as part of their follow-up when they returned for their Mantoux testing. The patient clinic load at the BCG clinics, which had gradually increased over the years, reached such proportions that operational limits were exceeded and it was therefore decided to discontinue the routine Mantoux testing follow-up of those who had been given BCG. This change allowed the clinic to operate within available time in terms of space and personnel; however, the practice of skin testing by tuberculin patch test four months after vaccination was continued. This was done in the home by the public health nurses and did not tax the clinic facilities. It was noted that there was a considerable increase in the demand for unused vaccine by hospitals in the community and by private practitioners. This was one result of the BCG program which was particularly gratifying. BCG vaccine was administered to 568 persons and in addition 1,198 follow-up Mantoux tests were given to those who had been vaccinated.

The home treatment program for those awaiting admission to hospital and those discharged from hospital was continued. However, as the waiting time for hospital beds was substantially decreased, patients who received this service were largely those who had been hospitalized or were those who were not amenable to hospitalization. The clinic for ambulant patients was discontinued and patients received their drugs and other therapy when they attended the regular sessions of the chest clinic. Tuberculosis morbidity remained a substantial problem and there were approximately 300 patients under treatment at home in the Eastern Health District. In addition to these known patients, there was reason to believe there were patients who were under treatment at home whose disease has not been reported.

### *School Health*

As in the previous year school health services in 1956 were somewhat restricted by the demands of the poliomyelitis vaccination program and limited physician time. Physical examinations were carried out on 5,213 children, 1,754 of whom were found to have one or more physical defects. Preventive dental services were provided for children attending the following schools—Public Schools Nos. 13, 20, 27, 37, 74, 99, 101, 102, 113, 116, 135, 139 and 147. These services were also provided to St. Andrew's and St. Francis Xavier Schools. The extraction dental clinic at the Eastern Health District building removed 296 permanent teeth and 1,444 deciduous teeth from 397 children. Preventive and restorative dental services for school children of patients registered under the Baltimore City Medical Care Program were continued and 115 clinic sessions were held which provided 2,351 dental services.

The eye clinic continued to provide services twice a week and registered 519 new patients and a total of 826 patient visits. The audiometric clinic which had operated at 414 N. Calvert Street was moved to the Eastern Health District building and also provided services twice a week.

#### *Maternal and Child Health*

Due to an acute shortage of physician time it was necessary to close Child Health Clinics No. 12 at 2468 Greenmount Avenue and No. 13 at Wolfe and 20th Streets on November 26. At the same time certain revisions in policies were also made by the utilization of a screening mechanism so that physicians were able to spend more time with the patients who needed physician examination and less on routine return visits and administering poliomyelitis vaccine. The district child health clinics recorded 26,092 visits; this was an increase of 6,485, or 33 per cent, over the previous year. Maternity clinics held Monday, Wednesday and Thursday mornings in the district building were very heavily attended and a total of 6,583 antenatal and postnatal visits was recorded; this was an increase of 743, or 13 per cent, over the previous year. The prenatal caseload as of December 31 was 53 white and 862 colored patients. Of these 915 patients, 703 were registered for delivery at Baltimore City Hospitals, 194 at other hospitals and 18 by midwife, presumably to be delivered at home.

The child guidance facility known as the Mothers' Advisory Service, carried on its functions as previously and admitted 78 new patients and continued supervision of 165 patients from the previous year. In addition to providing service to these patients the new observation room in this clinic was of great benefit in the educational programs. Dr. Marcia Cooper, clinical psychologist of the Johns Hopkins School of Hygiene and Public Health, performed this work. Dr. Sibyl Mandell, clinical psychologist, continued group counseling of maternity patients and participated in regular in-service training courses and conferences with the district staff.

#### *Acute Communicable Diseases*

The incidence of acute communicable diseases as reported was as follows: measles, 2,227 cases; meningococcal infections, 7 cases with 1 death; paralytic poliomyelitis, 10 cases with 2 deaths; scarlet fever, 109 cases; whooping cough, 37 cases; psittacosis, 1 case; and diphtheria, 1 fatal case. This was the first death from diphtheria in Baltimore since May, 1952.

The immunization clinic was held twice a week during the summer months and once a week for the remainder of the year as in previous years and the attendance increased substantially because of the demand for poliomyelitis vaccine. In previous years attendance in this clinic reached

a very low point during the school term and was extremely heavy just prior to the opening of school because of the demand for vaccination against smallpox. While there is still this demand, the poliomyelitis vaccination resulted in heavy attendance all year.

The venereal disease clinic continued three nights a week and in addition continued two day sessions for congenital syphilis and prenatal patients under investigation or treatment for venereal diseases. This service admitted 2,882 patients of whom 190 had syphilis, 1,472 had gonorrhea and 358 had other venereal disease. The remaining 862 patients had no venereal disease or did not complete examination. Patients made 5,776 visits to the clinic during the year. There was no case of congenital syphilis in infants. Following the resignation of Dr. Nels A. Nelson, Director of the Bureau of Venereal Diseases, new policies were established relating to treatment and to contacts.

### Educational Activities

Courses for all the major student groups of public health workers continued from the previous year with some changes particularly in regard to the medical students of the Johns Hopkins School of Medicine. Revisions of the undergraduate medical curriculum resulted in the discontinuance of the course known as Public Health and the Physician and instead of attending the district building on Monday and Thursday mornings the senior Johns Hopkins medical students attended and participated, under supervision, in the child health clinics held in the south wing of the district building on Wednesday and Thursday afternoons. They continued their home visiting case studies of tuberculosis in the district as in previous years.

Candidates for the degree of Master of Public Health and special students of the Johns Hopkins School of Hygiene and Public Health came to the district building for the course Public Health Administration 4-A and, in addition, students majoring in maternal and child health attended the child health clinics in the district building and at other localities in the district. Candidates for the degree of Doctor of Public Health and other students of the School of Hygiene came to the district building and utilized district records as their curriculum and study interest indicated.

Because of the availability of other clinic facilities the attendance of the University of Maryland medical students at the maternity clinics was discontinued. The Health Officer served as lecturer at the University of Maryland School of Medicine in the course Preventive Medicine and Public Health, given to the second year class.

Student nurses of the Johns Hopkins and Sinai Hospitals came to the

district throughout the calendar year for their eight-week course in public health nursing. A total of 68 nurses attended in 1956 and in the course of their studies rendered service to the residents of the Eastern Health District in their homes, in the schools and in the Health Department clinics. This is a full-time affiliate program and since the district was established in 1932 a total of 1,723 nurses have taken the course. In addition to these student nurses, newly appointed staff nurses of the City Health Department came for instruction; and in-service training programs were also provided for the Health Department staff nurses both at the district and bureau level.

Sanitarians of the City Health Department came to the district for their twelve week course in environmental hygiene. Two courses were held and in all were attended by 15 students. In addition to this course, a short course in mosquito control was provided during the summer for City Health Department sanitarians. Fifty student nurses from the University of Maryland School of Nursing came to the district throughout the year, two at a time for field experience with Health Department sanitarians.

A residency training program in public health administration was set up in June as well as a program for the medical student trainee. Neither of these had previously been in existence and their inception was a valuable extension of district activity.

### Research Activities

The Baltimore Study on the Hygiene of Housing, otherwise known as the Study of Health and Adjustment, entered its third year on March 1 under a grant from the U. S. Public Health Service. At the end of the year the fifth cycle of home interviewing was completed and the data on sickness and health from all five cycles of home interviewing was prepared for analysis. The mental health phase of this study was presented on December 27 by the director, Dr. Daniel Wilner, at the annual meeting of the American Association for the Advancement of Science in New York, in a paper entitled "Housing Environment and Mental Health."

Dr. Marcia Cooper completed her study of pica using case studies obtained from the Mothers' Advisory Service and this was prepared for publication in a hundred page book entitled "Pica", published by Charles C Thomas of Springfield, Illinois. Dr. Cooper also began a study of possible relationships between pica and nutritional status in one of the prenatal clinics.

Dr. Horst Carl Reich, Resident in Public Health Administration, surveyed over 1,000 cases of active tuberculosis and this data was processed

in preparation for analysis and completion of the study. Mr. J. Douglass Shepperd, a medical student trainee, completed a short study of families who had not utilized available and needed Health Department facilities. This was presented in a paper entitled "Non-utilization of Baltimore City Health Department Facilities in Selected Areas of the Eastern Health District" at the annual seminar for medical students held by the Maryland State Department of Health on August 30.

### Demonstration Activities

The seminar rooms, which can be converted into an auditorium by the use of movable partitions, was used extensively by student classes and for group meetings of different community agencies; furthermore, the observation rooms in the south wing of the building were of increasing value in some of the educational programs for staff and students. In addition to these resources, the large room on the lower floor was very valuable as a classroom for the sanitarians. These resources and the clinic facilities permitted excellent demonstrations of public health practice to the students, to associated professional workers and to the many visitors who came from the United States and Canada and from Australia, Burma, China, Colombia, Germany, Guam, Haiti, India, Iran, Korea, The Netherlands, the Philippine Islands, Taiwan and Turkey.

### Staff Changes

There were not as many staff changes as in the previous year. However, there was a continued shortage of clerical and custodial staff.

### Personnel

W. Sinclair Harper, M.D., C.M., D.P.H., District Health Officer  
Hugh P. Hughes, M.D., Health Officer  
Gertrude V. Boquist, B.S., Supervisor of Public Health Nursing  
Clara C. Plichta, B.S., Supervisor of Public Health Nursing\*\*  
Margaret Harrison, B.S., Supervisor of Public Health Nursing†  
Sue M. Starr, B.S., Acting Supervisor of Public Health Nursing  
Elizabeth N. Quinlin, B.S., Acting Supervisor of Public Health Nursing  
Julia A. Smith, B.S., Supervisor of Public Health Nursing†

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\*\* On leave of absence.

† Instructor of the Johns Hopkins Hospital School of Nursing assigned to the Eastern Health District.

*Public Health Nurses*

Eva M. Bailey	Jacqueline Hurley, B.S.
Josephine Barnett, B.A.	Gladys R. Johnson
Pauline K. Benfer	Margaret Y. Kenealy
Nancy B. Blochberger, B.S.	Catherine Kinney, B.S.
Mary Branan	Rose E. Lewis
Lillian Brill, B.S.	Effie L. Lingner
Altha E. Busch	Elizabeth W. Lingo
Mary E. Buschman	Pearl J. Lucey*
India R. Caless*	Lorraine McInerney, B.S.
LaFrieda V. Coomes	Theresa M. Novak
Alice E. Creaghan	Grace P. Orr
Isabel L. W. Dols*	Roseanna Popoli
Frances E. Fahey	Rita Porter*
Rose Marie Gac	Colleen E. Richardson
Mildred H. Gambrill	Lillian Roseman
Mary A. Goldberg	Florence Soden
Juanita W. Green	Mildred Taber*
Eleanor Grimes, B.S.	Margaret A. Tripoda
Elizabeth B. Hafele	Helen W. Urban
Marian B. Hagan	Jo Anne Wileman
Mina B. Hansen	Patsy Williams
Virginia E. Harris*	Pearl J. Winston
Ida D. Henderson	Edith M. Woodson
Eunice R. Holmes	Florence Zinz
Edna E. Herget, Principal Clerk Stenographer	
Elaine E. Smith, Senior Typist	
Louise E. Walle, Clerk-Typist	
Claudette Waddy, Clerk-Typist	
Sara Chapman, Clerk-Typist	
Mabel Thompson, Custodial Worker	
Dorothy Chapple, Custodial Worker	
William D. Lee, Custodial Worker	

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\* Part-time employee.

TABLE NO. 1  
RESIDENT BIRTHS, EASTERN HEALTH DISTRICT—1956

PLACE OF DELIVERY AND ATTENDANT	TOTAL	WHITE	COLORED
ALL BIRTHS.....	8,545	5,570	2,975
Hospital.....	8,386	5,537	2,849
Home.....	159	33	126
Private physician.....	104	28	76
Midwife.....	38	2	36
Other.....	17	3	14

TABLE NO. 2  
RESIDENT DEATHS FOR CERTAIN CAUSES AND GROUPS OF CAUSES CLASSIFIED BY  
COLOR—EASTERN HEALTH DISTRICT—1956

CAUSE OF DEATH	TOTAL	WHITE	COLORED
All Causes.....	3,868	3,152	716
Tuberculosis, all forms (001-019).....	56	36	20
Respiratory tuberculosis (001-008).....	54	36	18
Syphilis (020-029).....	13	4	9
Diphtheria (055).....	1	..	1
Meningococcal infections (057).....	1	1	..
Other infective diseases of bacterial origin (030-039, 052-054, 058-064, 070-074).....	6	3	3
Poliomyelitis, acute (080-081).....	2	2	..
Encephalitis (082-083).....	1	1	..
Other virus diseases (086-096).....	3	..	3
Malignant neoplasms (140-205).....	656	567	89
Lymphatic and hematopoietic (800-805).....	43	39	4
Benign and unspecified neoplasms (210-239).....	21	17	4
Diabetes (260).....	81	70	11
Anemias (290-293).....	8	7	1
Other diseases of the blood and blood-forming organs (294-299).....	2	2	..
Vascular lesions of the central nervous system (330-334).....	326	264	62
Rheumatic fever (400-402).....	1	..	1
Diseases of the heart (410-443).....	1,669	1,465	204
Chronic rheumatic heart disease (410-416).....	43	38	5
Arteriosclerotic and degenerative heart disease (420-422).....	1,330	1,124	106
Other diseases of the heart (430-434).....	30	26	4
Hypertensive heart disease (440-443).....	566	277	89
Other hypertensive diseases (444-447).....	34	25	9
Arteriosclerosis (450).....	58	53	5
Other diseases of the circulatory system (451-468).....	43	35	8
Nephritis and nephrosis (590-594).....	31	21	10
Influenza and pneumonia (480-483, 490-493).....	99	67	32
Pneumonia (490-493).....	98	67	31
Bronchitis (500-502).....	13	10	3
Ulcer of the stomach and duodenum (540-542).....	32	25	7
Appendicitis (550-553).....	5	4	1
Intestinal obstruction and hernia (560-570).....	24	21	3
Gastritis, duodenitis, enteritis and colitis (543, 571, 572).....	15	13	2
Cirrhosis of the liver (581).....	53	44	9
Hyperplasia of prostate (610).....	3	2	1
Puerperal causes (640-689).....	4	2	2
Congenital malformations (750-759).....	41	22	19
Certain diseases of early infancy (760-776).....	148	77	71
Pneumonia of newborn (765).....	5	5	..
Senility, ill-defined and unknown conditions (780-795).....	6	2	4
All other diseases.....	191	137	54
Accidents, total (800-982, 985).....	161	110	51
Motor vehicle accidents (810-836).....	51	37	14
All other accidents.....	110	73	37
Suicides (983, 970-979).....	40	37	3
Homicides (964, 980-985).....	20	6	14



TABLE NO. 3  
COMMUNICABLE DISEASES REPORTED IN THE EASTERN HEALTH DISTRICT—1956.

DISEASE	TOTAL	WHITE	COLORED
TOTAL.....	6,336	2,722	3,614
Chickenpox.....	428	225	201
Diphtheria.....	1	1	..
German measles.....	237	172	65
Gonococcal infections.....	1,685	120	1,565
Measles.....	2,227	1,286	941
Meningococcal infections.....	7	5	2
Mumps.....	803	551	252
Poliomyelitis, paralytic cases.....	10	4	6
Scarlet fever.....	109	66	43
Syphilis.....	324	45	279
Tuberculosis, all forms.....	365	195	170
Typhoid fever.....	2	1	1
Whooping cough.....	37	17	20
All other.....	103	34	69

## WESTERN HEALTH DISTRICT

Robert E. Farber, M.D., M.P.H.

### *Health Officer*

During the year substantial progress was made toward the design and construction of the new Western Health District building long needed since the district was established in 1935. The preliminary plans, prepared by Gaudreau and Gaudreau, architects, were completed, and the building site, located at the northwest corner of Lombard and Penn Streets adjacent to the University of Maryland Hospital, was cleared and converted temporarily into a parking area for the use of City Health Department personnel and the University of Maryland Hospital. Although no target date had been set for the groundbreaking, it was hoped that actual construction would begin in the fall of 1957. The new building will provide administrative offices and space for a variety of needed clinic services for the residents of West Baltimore as well as other Health Department services for physicians practicing in the area. In addition, educational and training facilities in public health will be available for the staff and students of the Medical, Nursing, Dental, and Pharmacy Schools of the University of Maryland.

### *Health of the District*

In general the health of the people in the Western Health District was good during the year. There were no major outbreaks of serious communicable diseases although there was one dysentery death due to possible food poisoning which was never confirmed but also affected 9 other members of the same family. In the spring there was an increase in the number of cases of measles, but otherwise the incidence of communicable diseases was about the same as in previous years.

There were 8 cases of lead poisoning in young children but fortunately no death was reported as caused by this preventable disease. At the end of the year a concerted effort was being made to attack this problem on a city-wide basis.

### *Service Activities*

The various clinical services offered in the district were well attended, but in spite of this one weekly child health clinic had to be closed because of the critical shortage of physicians. During the year a special effort was made to inoculate as many eligible persons, under 20 years of age or pregnant women as possible with the new poliomyelitis vaccine. In addition

to the regularly scheduled weekly inoculation clinic, two special inoculation clinics were temporarily set up in strategic locations in the district. At one of these 2,172 poliomyelitis vaccine injections were administered in 9 sessions, and in the other 6,039 injections were given in 28 sessions. During the entire year a total of 23,916 poliomyelitis vaccine inoculations was given.

A special premature baby clinic was conducted in cooperation with the Department of Pediatrics at the University of Maryland Hospital. In this clinic all premature infants born in the district were followed until they were past the critical early months at which time they were transferred to a regular child health clinic. Since prematurity is the leading cause of infant mortality, it is hoped that this clinic will help to meet the problem.

The public health nurses continued to serve their vital roles in the various activities of the Health Department; they visited in the homes, participated in school activities, and served in the clinics. In addition to their regularly assigned duties they undertook a survey to study the services of the Baltimore City Medical Care Program and also a survey for the Statistical Section of the Health Department to evaluate the extent and effectiveness of the poliomyelitis vaccine program.

#### *Educational Activities*

The close cooperation established in previous years with the University of Maryland Medical and Nursing Schools continued. Cooperating with Dr. Maurice C. Pincoffs, Professor of Preventive Medicine and Rehabilitation, the Health Department arranged field trips for junior medical students with public health nurses, sanitarians of the Bureau of Food Control and housing inspectors; the senior medical students continued to make their Home Survey Reports on selected welfare patients assigned to the University of Maryland Hospital's medical care clinic. These latter reports proved to be of benefit not only to the medical student but also to the community because through them many health and sanitary problems were discovered and, in certain instances, welfare patients were rehabilitated enough to be re-employed so that they no longer required public assistance.

Three medical students worked part time in the district during the summer between their junior and senior years. They assisted in the special poliomyelitis vaccine clinics and observed various other Health Department activities. Two of the students helped in a study of the prevalence of *Leptospira* infection in the rats found in the city, and the third student made a study of bedside blood chemistry techniques.

A total of 27 student nurses from the University of Maryland School of Nursing completed their affiliation in public health in the Western Health

District under the supervision of Miss Martha Baer, Instructor in Public Health Nursing. In addition, groups of students from St. Joseph's College, Catholic University, Maryland General Hospital, Sinai Hospital, the Johns Hopkins Hospital, and Bon Secours Hospital observed for one day in the district.

During the year the public health nurses in the district conducted monthly educational conferences concerned with methods of interviewing and child growth and development with special emphasis on handicapping conditions. Two staff nurses participated in a pilot study with Dr. Kurt Glaser of the child guidance clinic of the University of Maryland Hospital. In this study they worked with the parents of children with long term illnesses.

### *Staff Changes*

Mr. George W. Watson, the District Health Administrator, resigned in March, and Dr. Robert E. Farber was appointed District Health Officer in June. Also Miss Martha Tacka, Supervisor of Public Health Nursing, resigned in the early part of the year. In December, Miss Anna C. Scholl was appointed as Administrative Supervisor of Public Health Nursing in anticipation of the expansion and extra activities that will be undertaken when the new district building is completed.

There were several changes in the nursing and clerical staffs, but at the end of the year the nursing staff was up to full complement, and there was one vacancy for a clerk stenographer in the clerical staff.

### **Personnel**

Robert E. Farber, M.D., M.P.H., District Health Officer

Anna C. Scholl, M.N., M.S., Senior Supervisor of Public Health Nursing, Administrative

Henrietta R. L. Gintling, Supervisor of Public Health Nursing

### *Public Health Nurses*

Irene T. Barnhill	Doris E. McCurdy*
Grace Berger	Margaret D. Miller
Mary T. Brown	Pauline B. Oshrine
Mary Coln, B.S.	Elnora Robinson
Ella W. Dubin	Mary J. Schaeffer
Evelyn F. Godfrey	Joyce J. Simpson, B.S.
Mary M. Gormley	Judith L. Smith*
Ruth I. Guyton	Mary B. Tewell
Marion A. Johnson	Helen Wetzal, B.S.
Eva K. Lowry	Edna V. Yates

Mildred Marando

Elizabeth H. Garrison, Senior Clerk

Shirley Hanks, Clerk-Typist

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\* Part-time employee.

TABLE NO. 1  
RESIDENT BIRTHS, WESTERN HEALTH DISTRICT—1956

PLACE OF DELIVERY AND ATTENDANT	TOTAL	WHITE	COLORED
ALL BIRTHS.....	3,192	2,081	1,111
Hospital.....	3,104	2,051	1,053
Home.....	88	30	58
<i>Private physician.....</i>	<i>63</i>	<i>25</i>	<i>38</i>
<i>Midwife.....</i>	<i>18</i>	<i>3</i>	<i>15</i>
<i>Other.....</i>	<i>7</i>	<i>2</i>	<i>5</i>

TABLE NO. 2  
RESIDENT DEATHS FOR CERTAIN CAUSES AND GROUPS OF CAUSES CLASSIFIED BY  
COLOR—WESTERN HEALTH DISTRICT—1956

CAUSE OF DEATH	TOTAL	WHITE	COLORED
ALL CAUSES.....	1,511	1,195	316
Tuberculosis, all forms (001-019).....	26	15	11
<i>Respiratory tuberculosis (001-008).....</i>	<i>26</i>	<i>15</i>	<i>11</i>
Syphilis (020-029).....	12	3	9
Dysentery (045-048).....	1	..	1
Meningococcal infections (057).....	2	1	1
Other infective diseases of bacterial origin (030-039, 052-054, 058-064, 070-074).....	3	2	1
Encephalitis (082-083).....	1	1	..
Other virus diseases (086-096).....	1	1	..
Other infective and parasitic diseases (110-138).....	1	..	1
Malignant neoplasms (140-205).....	240	201	39
<i>Lymphatic and hemolopoietic (200-205).....</i>	<i>24</i>	<i>19</i>	<i>5</i>
Benign and unspecified neoplasms (210-239).....	7	5	2
Diabetes (260).....	20	17	3
Other diseases of the blood and blood-forming organs (294-299).....	1	1	..
Vascular lesions of the central nervous system (330-334).....	133	108	27
Rheumatic fever (400-402).....	4	3	1
Diseases of the heart (410-413).....	643	550	93
<i>Chronic rheumatic heart disease (410-418).....</i>	<i>19</i>	<i>17</i>	<i>2</i>
<i>Arteriosclerotic and degenerative heart disease (420-422).....</i>	<i>471</i>	<i>424</i>	<i>47</i>
<i>Other diseases of the heart (430-434).....</i>	<i>11</i>	<i>6</i>	<i>5</i>
<i>Hypertensive heart disease (440-443).....</i>	<i>142</i>	<i>103</i>	<i>39</i>
Other hypertensive diseases (444-447).....	8	5	3
Arteriosclerosis (450).....	15	13	2
Other diseases of the circulatory system (451-468).....	14	9	5
Nephritis and nephrosis (590-594).....	15	8	7
Influenza and pneumonia (480-483, 490-493).....	43	34	9
<i>Pneumonia (490-493).....</i>	<i>39</i>	<i>30</i>	<i>9</i>
Bronchitis (500-502).....	5	2	3
Ulcer of the stomach and duodenum (540-542).....	7	7	..
Appendicitis (550-553).....	1	1	..
Intestinal obstruction and hernia (560-570).....	15	13	2
Gastritis, duodenitis, enteritis and colitis (543, 571, 572).....	8	7	1
Cirrhosis of the liver (531).....	17	14	3
Hyperplasia of prostate (610).....	2	2	..
Congenital malformations (750-759).....	16	11	5
Certain diseases of early infancy (760-776).....	64	34	30
<i>Pneumonia of newborn (763).....</i>	<i>1</i>	<i>..</i>	<i>1</i>
Senility, ill-defined and unknown conditions (780-793).....	4	2	2
All other diseases.....	70	50	20
Accidents, total (800-962, 985).....	88	61	27
<i>Motor vehicle accidents (810-835).....</i>	<i>25</i>	<i>18</i>	<i>7</i>
<i>All other accidents.....</i>	<i>63</i>	<i>43</i>	<i>20</i>
Suicides (963, 970-979).....	14	14	..
Homicides (984, 980-985).....	10	2	8

TABLE NO. 3  
COMMUNICABLE DISEASES REPORTED IN THE WESTERN HEALTH DISTRICT—1956

DISEASE	TOTAL	WHITE	COLORED
TOTAL.....	1,712	736	976
Chickenpox.....	163	98	65
Diphtheria.....	..	..	..
German measles.....	30	16	14
Gonococcal infections.....	550	46	504
Measles.....	479	355	124
Meningococcal infections.....	5	2	3
Mumps.....	102	67	35
Poliomyelitis, paralytic cases.....	3	1	2
Scarlet fever.....	34	32	2
Syphilis.....	148	23	125
Tuberculosis, all forms.....	151	84	67
Typhoid fever.....	2	1	1
Whooping cough.....	7	..	7
All other.....	38	11	27

## DRUID HEALTH DISTRICT

H. Maceo Williams, M.D., M.P.H.

### *Health Officer*

Fifty-two official clinic sessions were conducted weekly in the Druid Health District in 1956; thirty in the headquarters building and twenty-two at other strategic areas in the district. At 1313 Druid Hill Avenue the clinic schedule each week was as follows: prenatal, 4; children's venereal disease, 2; adult venereal disease, 12; child health, 4; chest, 5; streptomycin, 2; and immunization, 1. In other localities 16 weekly child health sessions were conducted in Public School No. 161, Public School No. 141, St. Mary's Protestant Episcopal Church, Provident Hospital and the Gilmor Housing Project; 5 chest clinics were held at 1516 Madison Avenue and the prenatal was conducted in the Gilmor Housing Project. In answer to a request from Provident Hospital a child health clinic was established there to assist in the training of physicians and nurses in the care of the well child.

In the latter part of the year a children's venereal disease clinic was discontinued at the district building and an additional immunization clinic was added there, thus keeping the total to 52 clinic sessions each week. The tendency toward overcrowding in most of the clinics was still further aggravated until it reached a serious problem in providing the public with the usual satisfactory service. However, plans were advanced for providing a new Druid Health District building at North Avenue and Pennsylvania Avenue. The scarcity of clinicians and clerks added considerable difficulty in maintaining adequate clinic services. More and more responsibilities devolved upon the nurses who as always, responded most excellently, efficiently and enthusiastically.

The Druid Health District participated in the poliomyelitis prevention program of the Health Department. Poliomyelitis vaccine was given in the prenatal and the child health clinics as well as at the several housing projects in the district. The weekly immunization clinic was so heavily attended that an additional session was found necessary. The limited space in the headquarters building was so inadequate that on July 24, and for the balance of the summer months, it was moved to the new recreation center of the Union Baptist Church, one block to the south. Even here the clinics were vastly overcrowded. The number of doses given each month is as follows:

March.....	87
April.....	267

May.....	530
June.....	520
July.....	1,952
August.....	3,928
September.....	2,242
October.....	828
November.....	377
December.....	207
Total.....	<hr/> 10,928

In spite of the efforts made to prevent this disease the Druid Health District had an unusual number of reported cases. Out of a total of 26 cases reported from the entire city, 11 or 42 per cent occurred in this district. Nine of the 11 individuals infected had never received an injection of poliomyelitis vaccine, while one person received only one dose. Fortunately no death occurred in this group.

In an effort to eradicate disability and death from lead poisoning, a wholly preventable condition, a committee was appointed by the Commissioner of Health to undertake a survey among randomly selected segments of the population. Educational and legal means of combating the deleterious effects of lead intoxication will be employed during and after the survey. The District Health Officer was appointed as a member of the committee. This was a matter of some significance since out of the 48 cases of lead poisoning reported from the entire city in 1956, 18 or 37.5 per cent occurred in this district and 1 case resulted in death.

Weekly conferences were held with public health nurses and their supervisors in order that those cases of tuberculosis needing special observation and care could be selected from their records, while others whose condition appeared to be inactive could be discharged. The recently appointed medical social worker, Mrs. Ann Reed, proved to be of inestimable assistance in aiding the nurses as well as the patients in the control of tuberculosis. The staff is grateful to the Maryland Tuberculosis Association for once more filling this position. Until his retirement Dr. Nels A. Nelson continued his monthly meetings at the headquarters building with key personnel of the venereal disease bureau and the supervisors of nurses. Dr. Sibyl Mandell again rendered invaluable service to the district by meeting with the mothers who attended one of the child health clinics. Consultations with nurses and parents were given while at each session motion pictures were exhibited and then discussed. Selected student nurses from the University of Maryland and Provident and St. Joseph's Hospitals completed their affiliation in public health nursing in the Druid Health District. Other student nurses from the Johns Hopkins Hospital, Baltimore



City Hospitals, Maryland General, Henryton and Mercy Hospitals observed in the clinic and in the field for varying periods during the year. A number of students from the University of Maryland School of Medicine also received valuable experience in the district.

### Personnel

H. Maceo Williams, M.D., M.P.H., Administrative Health Officer  
 James B. Hawkins, M.D., Health Officer  
 Anna Persch, Supervisor of Public Health Nursing  
 Anita K. Henson, B.S., Supervisor of Public Health Nursing  
 Margaret Galbreath, B.S., Supervisor of Public Health Nursing

### *Public Health Nurses*

Constance D. Alston	Margaret E. Lytle
Christine Bland	Lois Merritt
Anna Evans Brazil	Dorothea W. Mills
Helen R. Carr	Juanita P. Mills
Raye E. Cohen	Lillian B. Mills
Ophelia Coleman	Vivian R. Pendleton**
Celia L. Cousins	Agnes C. Pilgrim
Marie W. Crook	Peggy Poole
Dorothy W. Davis	Joyce S. Saunders
Ethelyn V. Dever	Yetta D. Semiatin
Katie W. Fernandis	Nancy Shrop
Mary R. Fitchett	Lilyan F. Slater
Freda V. Fletcher, B.S.	Joan Swezey
Irma R. Givens, B.S.	Mary Swift
Mamie J. Greene	Jessica B. Taylor
Rebecca C. Jackson	Evelyn T. Ward**
Mildred M. Jones	Eleanor S. Willis
Edna B. Kenney	Leah P. Winters
Irene S. Kyler	Sylvia M. Wolkstein*
Doris M. Lytle*	Betty Wright
Vivian R. Dougherty, Clerk Stenographer	
Julia C. H. Coleman, Clerk Stenographer	
Bernard A. Smith, Senior Custodial Worker	
James C. Collins, Custodial Worker	
Ethel Clark, Custodial Worker	
William Chavis, Elevator Operator	

\* Part time employee.

\*\* On leave of absence.

# DRUID HEALTH DISTRICT

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TABLE NO. 1  
RESIDENT BIRTHS, DRUID HEALTH DISTRICT—1956

PLACE OF DELIVERY AND ATTENDANT	TOTAL	WHITE	COLORED
All Births.....	3,935	208	3,727
Hospital.....	3,713	200	3,513
Home.....	222	8	214
Private physician.....	146	8	138
Midwife.....	62	..	62
Other.....	14	..	14

TABLE NO. 2  
RESIDENT DEATHS FOR CERTAIN CAUSES AND GROUPS OF CAUSES CLASSIFIED BY  
COLOR—DRUID HEALTH DISTRICT—1956

CAUSE OF DEATH	TOTAL	WHITE	COLORED
ALL CAUSES.....	1,730	218	1,512
Tuberculosis, all forms (001-019).....	54	4	50
<i>Respiratory tuberculosis (001-008)</i> .....	49	4	45
Syphilis (020-029).....	15	..	15
Whooping cough (056).....	1	..	1
Other infective diseases of bacterial origin (030-039, 052-054, 058-064, 070-074).....	4	..	4
Other virus diseases (086-096).....	1	..	1
Malignant neoplasms (140-205).....	231	35	196
<i>Lymphatic and hematopoietic (200-205)</i> .....	12	4	8
Benign and unspecified neoplasms (210-239).....	5	1	4
Diabetes (260).....	29	7	22
Anemias (280-293).....	2	1	1
Other diseases of the blood and blood-forming organs (294-299).....	3	..	3
Vascular lesions of the central nervous system (330-334).....	156	21	135
Rheumatic fever (400-402).....	1	..	1
Diseases of the heart (410-443).....	677	100	577
<i>Chronic rheumatic heart disease (410-418)</i> .....	21	1	20
<i>Arteriosclerotic and degenerative heart disease (420-422)</i> .....	358	79	277
<i>Other diseases of the heart (430-434)</i> .....	17	..	17
<i>Hypertensive heart disease (440-443)</i> .....	283	20	263
Other hypertensive diseases (444-447).....	16	..	16
Arteriosclerosis (450).....	23	4	19
Other diseases of the circulatory system (451-468).....	21	2	19
Nephritis and nephrosis (580-584).....	32	..	32
Influenza and pneumonia (480-483, 490-493).....	55	6	49
<i>Pneumonia (490-493)</i> .....	55	6	49
Bronchitis (500-502).....	4	..	4
Ulcer of the stomach and duodenum (540-542).....	5	1	4
Appendicitis (550-553).....	2	1	1
Intestinal obstruction and hernia (560-570).....	17	1	16
Gastritis, duodenitis, enteritis and colitis (543, 571, 572).....	5	..	5
Cirrhosis of the liver (581).....	24	2	22
Puerperal causes (640-689).....	3	1	2
Congenital malformations (750-759).....	20	4	16
Certain diseases of early infancy (760-776).....	97	1	96
<i>Pneumonia of the newborn (763)</i> .....	6	..	6
Senility, ill-defined and unknown conditions (780-795).....	9	..	9
All other diseases.....	96	12	84
Accidents, total (800-962, 965).....	84	10	74
<i>Motor vehicle accidents (810-835)</i> .....	27	2	25
<i>All other accidents</i> .....	57	8	49
Suicides (963, 970-979).....	5	2	3
Homicides (964, 980-985).....	33	2	31

TABLE NO. 3  
COMMUNICABLE DISEASES REPORTED IN THE DRUID HEALTH DISTRICT—1956

DISEASE	TOTAL	WHITE	COLORED
Total.....	5,225	143	5,082
Chickenpox.....	208	8	200
Diphtheria.....	..	..	..
German measles.....	35	4	31
Gonococcal infections.....	3,273	47	3,226
Measles.....	524	34	400
Meningococcal infections.....	..	..	..
Mumps.....	117	12	105
Poliomyelitis, paralytic cases.....	11	..	11
Scarlet fever.....	27	3	24
Syphilis.....	646	7	639
Tuberculosis, all forms.....	276	22	254
Typhoid fever.....	..	..	..
Whooping cough.....	36	2	34
All other.....	72	4	68

## SOUTHEASTERN HEALTH DISTRICT

John A. Skladowsky, M.D.

*Health Officer*

The most important activity in the district in 1956 was the continuation of the mass poliomyelitis vaccine program with the establishment of special immunization clinics in the Armistead Gardens, Flag House Courts, O'Donnell Heights and Perkins Homes Housing Projects from March 19 to May 31 during which period a total of 4,198 inoculations was administered to school children in these projects. Thereafter, the regular weekly immunization clinic at 901 South Kenwood Avenue and an additional clinic at 3411 Bank Street as well as the seven district child health clinics continued to provide this protective service each week for all eligible residents in the district.

### *Acute Communicable Diseases*

With the exception of 485 cases of measles the incidence of communicable diseases was very low with only 2 cases of whooping cough, 8 cases of infectious hepatitis, 1 case of psittacosis, 99 cases of chickenpox, 19 cases of scarlet fever and 152 cases of mumps reported during the year. For the second successive year in the district's history no case of diphtheria was reported, nor was there any case of paralytic poliomyelitis, meningococcal infections or typhoid fever.

### *Educational Activities*

Miss Wilda Snyder, Supervisor of Public Health Nursing, on May 9 addressed a group of 46 parents at Public School No. 240 in O'Donnell Heights on the subject "Preparing Your Child for School"; on June 11 she attended a five-day workshop on the "Concepts of Human Behavior as Applied to Nursing" at the University of Maryland; and on September 18 she attended a meeting of the Interdivisional Committee on the Problems of Individuals at the headquarters of the Baltimore Council of Social Agencies to plan for the Pilot Program in the lower Broadway area which was launched on June 15. Miss Snyder began an eight-months leave of absence on September 27 to study for a Master of Public Health degree at the Johns Hopkins School of Hygiene and Public Health. Miss Marie Herold and Miss Lynette Benvegar, public health nurses, commenced similar courses in September at the University of North Carolina at Chapel Hill, N. C.

Mrs. Dorothy Martin, public health nurse, on October 2 took part in a

television program sponsored by the Housing Authority of Baltimore City over television station WAAM to depict a City Health Department child health conference in action in one of the housing projects.

For the fifth consecutive year in June and September special classes were provided for senior students from the Patterson Park High School and the Mergenthaler Technical-Vocational High School as part of their civic experience curriculum.

### *Nursing Activities*

On January 3 Mrs. Mary Grotefend, Associate Professor of Public Health Nursing at the University of Maryland School of Nursing, was assigned to the district to direct the affiliation of collegiate and diplomate nurses from this school. During the year 14 of the former and 5 of the latter students completed thirteen-week and eight-week courses respectively in public health nursing. Other student nurses from Bon Secours, Maryland General and Sinai Hospital Schools of Nursing, as well as medical students from the University of Maryland School of Medicine, two Sisters from Mount St. Joseph's College affiliated with the Instructive Visiting Nurse Association, and students from Catholic University, Washington, D. C., observed in clinics and in the field at varying intervals throughout the year. Two hundred and eight mothers registered in the prenatal clinics received individual and group instruction in mothercraft.

As part of their program in staff education the nursing supervisors and staff nurses attended a meeting of the Maryland State Department of Mental Hygiene at the City Department of Public Welfare on January 18 to hear Dr. Albert Kurland, Research Director of Spring Grove Hospital, discuss "New Drug Therapy for Emotional Disorders"; on January 31 they witnessed the "Community Agencies Group" at the Tuberculosis Division of Baltimore City Hospitals; and on April 23 they heard Dr. Leona Baumgartner, Commissioner of Health of New York City, speak on "Mr. and Mrs. Citizen—What Next?" at the Alcazar.

The monthly staff education conferences continued throughout the year and were devoted mainly to the public health nurses' role in interviewing. Three meetings were held in February when Miss Mazie Rappaport, Division Supervisor of the Protective Services Division in the City Department of Public Welfare, Miss Margaret Huffington and Mr. Robert Dockendorf of the Baltimore League for Crippled Children and Adults, and Mrs. Barbara Norton, Senior Supervisor of Public Health Nursing in the Division for the Handicapped in the Baltimore City Health Department, outlined the functions of their respective services. At the March meeting Mr. Oscar Hoar of the Baltimore Chapter of the American Red Cross, demonstrated artificial respiration. On April 5 Dr. Albert Shubart,

Assistant Resident in Medicine at the University of Maryland Hospital, discussed new drugs. Field trips were made on April 12 and 19 to the School of Chimes, a school for mentally retarded children. On May 10 Mr. James Smyth of the Division of Vocational Rehabilitation of the Maryland State Department of Education showed a film on the activities of his agency and discussed its functions; on May 17 Lieutenant Anthony Doyle of the Pine Street Police Station spoke on the work of his Protective Division; on May 31 Miss Lisolette Benjamin, Supervisor of the Eastern District of the City Department of Public Welfare, described her services; and on June 7 Mr. James E. Doran, Housing Enforcement Officer in the City Health Department's Housing Bureau, showed slides relating to his bureau's activities. Mr. James M. Laing, speech correction teacher at Public School No. 83, on November 28 discussed the specialized speech correction work conducted in this school which was visited by the staff nurses on December 5 and 6 for observation.

#### *Miscellaneous Activities*

The District Health Officer as District Health Deputy for the Southwestern Civil Defense District of the city continued regular participation throughout the year in this service by attending the monthly staff meetings at the Southwestern District Control Center; he also participated in the surprise alert, Operation Snowball, on December 12 conducted in this center at 214 Loudon Avenue, the refresher course for District Coordinators and their staffs on April 11 and 18 in the office of the Director of the Baltimore Civil Defense Organization at the City Hall and the monthly Civil Defense Health Service meetings in the Municipal Building. He attended for the third successive year the monthly luncheon meetings of the Southeastern Council of Community Services, which held its February 9 meeting in the district quarters at 3411 Bank Street where Miss Wilda Snyder, Supervisor of Public Health Nursing, and the District Health Officer described the functions and activities of the district. An article on this meeting appeared in the March 1, 1956 issue of *The Guide*.

On March 19 a group of eight den mothers of a local Cub Scout troop, affiliated with the Baltimore Area Council of the Boy Scouts of America, met in the auditorium of the district building and on June 11 twenty-three den mothers of the Old Towne Scout District of the Baltimore Area Girl Scout Council, Inc. gathered in the auditorium for their annual meeting.

On June 15 the District Health Officer became a representative member of the executive agencies participating in the Pilot Project organized in the lower Broadway section of the city by the Baltimore Council of Social Agencies to study the health and welfare problems of the people in this

area, and on April 24 he attended the eighth anniversary celebration of the Canton Area Council, Inc.

The East Baltimore Medical Society for the fifteenth consecutive year held monthly meetings in the district building; at its October meeting Dr. Janet B. Hardy, Director of the Section of Preventive Medicine, as guest speaker discussed the City Health Department's 1956 poliomyelitis vaccine program.

### *Staff Changes*

On June 7 Miss Elmira M. Price, clerk stenographer, was transferred to the Housing Bureau and on June 11 was replaced by Miss Marian J. Antczak, clerk stenographer.

### **Personnel**

John A. Skladowsky, M.D., District Health Officer  
Wilda L. Snyder, B.S., Supervisor of Public Health Nursing\*\*  
Marie Dandridge, B.S., Supervisor of Public Health Nursing

#### *Public Health Nurses*

Mary Bedwell	A. Adeline S. Ludwig*
Lynette A. Benvegar**	Beverly McCarriar
Bertha Bernard	Dorothy Martin
Helen L. Farwell	Margaret Mims
Rita Glisson	Virginia S. Pendleton
Marie Herold**	Marion E. Stromberg
Mary E. Kelly	Celia Trionfo
Natalie A. Leizear	Dena Valaco

Jessie K. Wallace

Marian J. Antczak, Clerk Stenographer  
James B. Davis, Custodial Worker  
Jerome N. Johnson, Custodial Worker

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\* Part time employee.

\*\* On leave of absence.

TABLE NO. 1  
RESIDENT BIRTHS, SOUTHEASTERN HEALTH DISTRICT—1956

PLACE OF DELIVERY AND ATTENDANT	TOTAL	WHITE	COLORED
ALL BIRTHS.....	2,107	1,975	132
Hospital.....	2,067	1,937	130
Home.....	40	38	2
Private physician.....	21	19	2
Midwife.....	15	15	..
Other.....	4	4	..

TABLE NO. 2  
RESIDENT DEATHS FOR CERTAIN CAUSES AND GROUPS OF CAUSES CLASSIFIED BY  
COLOR—SOUTHEASTERN HEALTH DISTRICT—1956

CAUSE OF DEATH	TOTAL	WHITE	COLORED
ALL CAUSES.....	1,044	966	78
Tuberculosis, all forms (001-019).....	26	20	6
<i>Respiratory tuberculosis (001-008)</i> .....	25	19	6
Syphilis (020-029).....	4	2	2
Other infective diseases of bacterial origin (030-039, 052-054, 058-064, 070-074).....	2	1	1
Malignant neoplasms (140-205).....	184	171	13
<i>Lymphatic and hematopoietic (800-806)</i> .....	19	18	1
Benign and unspecified neoplasms (210-239).....	3	3	..
Diabetes (260).....	34	32	2
Other diseases of the blood and blood-forming organs (294-299).....	1	1	..
Vascular lesions of the central nervous system (330-334).....	74	69	5
Rheumatic fever (400-402).....	1	..	1
Diseases of the heart (410-443).....	403	383	20
<i>Chronic rheumatic heart disease (410-416)</i> .....	18	11	1
<i>Arteriosclerotic and degenerative heart disease (420-422)</i> .....	311	302	9
<i>Other diseases of the heart (430-434)</i> .....	6	6	1
<i>Hypertensive heart disease (440-443)</i> .....	74	65	9
Other hypertensive diseases (444-447).....	5	3	2
Arteriosclerosis (450).....	15	15	..
Other diseases of the circulatory system (451-468).....	15	15	..
Nephritis and nephrosis (590-594).....	5	4	1
Influenza and pneumonia (480-483, 490-493).....	47	36	11
<i>Pneumonia (490-493)</i> .....	47	36	11
Bronchitis (500-502).....	1	1	..
Ulcer of the stomach and duodenum (540-542).....	5	5	..
Appendicitis (550-553).....	1	1	..
Intestinal obstruction and hernia (560-570).....	9	9	..
Cirrhosis of the liver (581).....	16	15	1
Puerperal causes (640-689).....	1	1	..
Congenital malformations (750-759).....	17	17	..
Certain diseases of early infancy (760-776).....	37	37	..
<i>Pneumonia of newborn (763)</i> .....	2	2	..
Senility, ill-defined and unknown conditions (780-793).....	7	5	2
All other diseases.....	51	46	5
Accidents, total (800-902, 965).....	62	58	4
<i>Motor vehicle accidents (810-835)</i> .....	18	18	..
<i>All other accidents</i> .....	44	40	4
Suicides (963, 970-979).....	16	16	..
Homicides (984, 980-985).....	2	..	2



TABLE NO. 3  
COMMUNICABLE DISEASES REPORTED IN THE SOUTHEASTERN HEALTH DISTRICT—1959

DISEASE	TOTAL	WHITE	COLORED
<b>TOTAL.....</b>	<b>1,227</b>	<b>1,051</b>	<b>176</b>
Chickenpox.....	99	93	6
Diphtheria.....	..	..	..
German measles.....	92	86	6
Gonococcal infections.....	176	75	101
Measles.....	485	465	20
Meningococcal infections.....	..	..	..
Mumps.....	152	143	9
Poliomyelitis, paralytic cases.....	..	..	..
Scarlet fever.....	19	18	1
Syphilis.....	49	30	19
Tuberculosis, all forms.....	130	117	13
Typhoid fever.....	..	..	..
Whooping cough.....	2	2	..
All other.....	23	22	1

## SOUTHERN HEALTH DISTRICT

Robert E. Farber, M.D., M.P.H.

### *Health Officer*

During the year 1956 the Southern Health District continued in its efforts to safeguard and better the health of the people in South Baltimore. Constant attention was paid to methods of improving services and meeting the increased demands for services, particularly in the rapidly expanding Cherry Hill Housing Project area.

### *Health of the District*

In general the health of the people in the district was good during the year. There were no major outbreaks of serious communicable diseases although there was a moderate increase in the number of cases of measles and mumps over the previous year.

### *Service Activities*

In an effort to expand the new poliomyelitis vaccine program, a weekly immunization clinic was instituted in the district building at 1211 Wall Street. Attendance at this clinic was exceptionally high from the beginning with as many as 600 immunizations being given in a single session. In addition to this regular weekly session several other single immunization clinic sessions were held at strategic locations throughout the district during the spring.

Even though the child health clinics were well attended, it was necessary to discontinue two of them in the fall because of the shortage of physicians. It was planned that as soon as additional physicians were available these clinics would be reopened. The shortage of physicians was particularly felt in the school health program, when at one time as many as eleven out of the twenty-five schools in the district had no physician assigned. These shortages were due to inadequate salaries.

The prenatal clinics both in the district building and in the Cherry Hill Housing Project were well attended. The chest clinic likewise carried a heavy caseload. The work in the latter clinic was greatly facilitated by the addition to the staff at each clinic session of an X-ray technician, thereby releasing a public health nurse to give better and more complete service to the patients.

Because of the low caseloads in the venereal disease clinics at the end of the year it was decided to discontinue all such clinics in the district building effective January 1, 1957.

The public health nurses continued to serve their vital roles in all the various activities of the district whether it were in the homes, in the schools, or in the clinics. In addition to their regularly assigned duties and the extra burden of the poliomyelitis vaccine clinics, the district public health nurses undertook a survey to study the services offered by the Medical Care Program and also a survey for the Statistical Section to evaluate the extent of the poliomyelitis vaccine program.

### *Educational Activities*

During the year fifteen students from the University of Maryland Hospital School of Nursing and five from Mercy Hospital School of Nursing spent their public health affiliation of eight to thirteen weeks duration in the district. In addition there were other students from the following schools of nursing—Union Memorial Hospital, St. Joseph's College, Maryland General Hospital, Bon Secours Hospital, Catholic University, South Baltimore General Hospital School of Practical Nursing, Lutheran Hospital, and the Johns Hopkins Hospital—who observed in the district for one day. Twelve junior medical students from the University of Maryland School of Medicine also made field trips with the public health nurses.

Special educational classes were reinstituted in the prenatal and child health clinics in the district building. These classes, which had been discontinued for more than a year, were resumed at the request of the clinic nurses who felt that the clinic program without the classes was not as effective as it might be. The mothers' classes conducted on the obstetrical wards at the South Baltimore General Hospital by the public health nurses were continued and were well received.

During the year the staff educational conferences centered around child growth and development with special emphasis on handicapping conditions. Among the speakers were Mrs. Nanette S. Kandel, Division Supervisor of the Protective Division of the Family and Children's Society, Mr. Thomas D. Braun, Supervisor of the Metropolitan District of the Vocational Rehabilitation Division of the Maryland State Department of Education, and Mrs. Barbara Norton, the Health Department's supervisor of pediatric nursing in the Division for the Handicapped.

### *Staff Changes*

There were no major staff changes during the year. Dr. Robert E. Farber returned from his leave of absence in June to serve as District Health Officer in both the Southern and Western Health Districts. There were several changes in the nursing and clerical staffs, but at the end of the year both staffs were at full complement.

**Personnel**

Robert E. Farber, M.D., M.P.H., District Health Officer  
Sylvia Miller, B.S., Supervisor of Public Health Nursing  
Ruth Collier, B.S., Supervisor of Public Health Nursing

*Public Health Nurses*

Joan C. Bathon, B.S.	Clara M. Kushto*
Anna E. Bowman	Rosalie Levy*
Beverly N. Butler, B.S.	Eleanor P. Lipsitz*
Theresa M. Byrne	Georgia L. Merrill
Patricia A. Byrnes	Louise E. Miller
Evelyn E. Cortez	Laura J. C. Phillips
Alice V. Crawford	Barbara V. Prindle
Ethel V. Finneyfrock	Helen R. Roff
Sally S. Fitch	Ida M. Sorenson
Mary F. Jenkins	Jane Stevens**
Lois A. Kelly	Anne D. Straughn

Helen M. Trexler

Mildred Herman, Senior Clerk Stenographer

Jeannie Williams, Clerk-Typist

Rudy Lee, Janitor

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\* Part time employee.

\*\* On leave of absence.

TABLE NO. 1  
RESIDENT BIRTHS, SOUTHERN HEALTH DISTRICT—1956

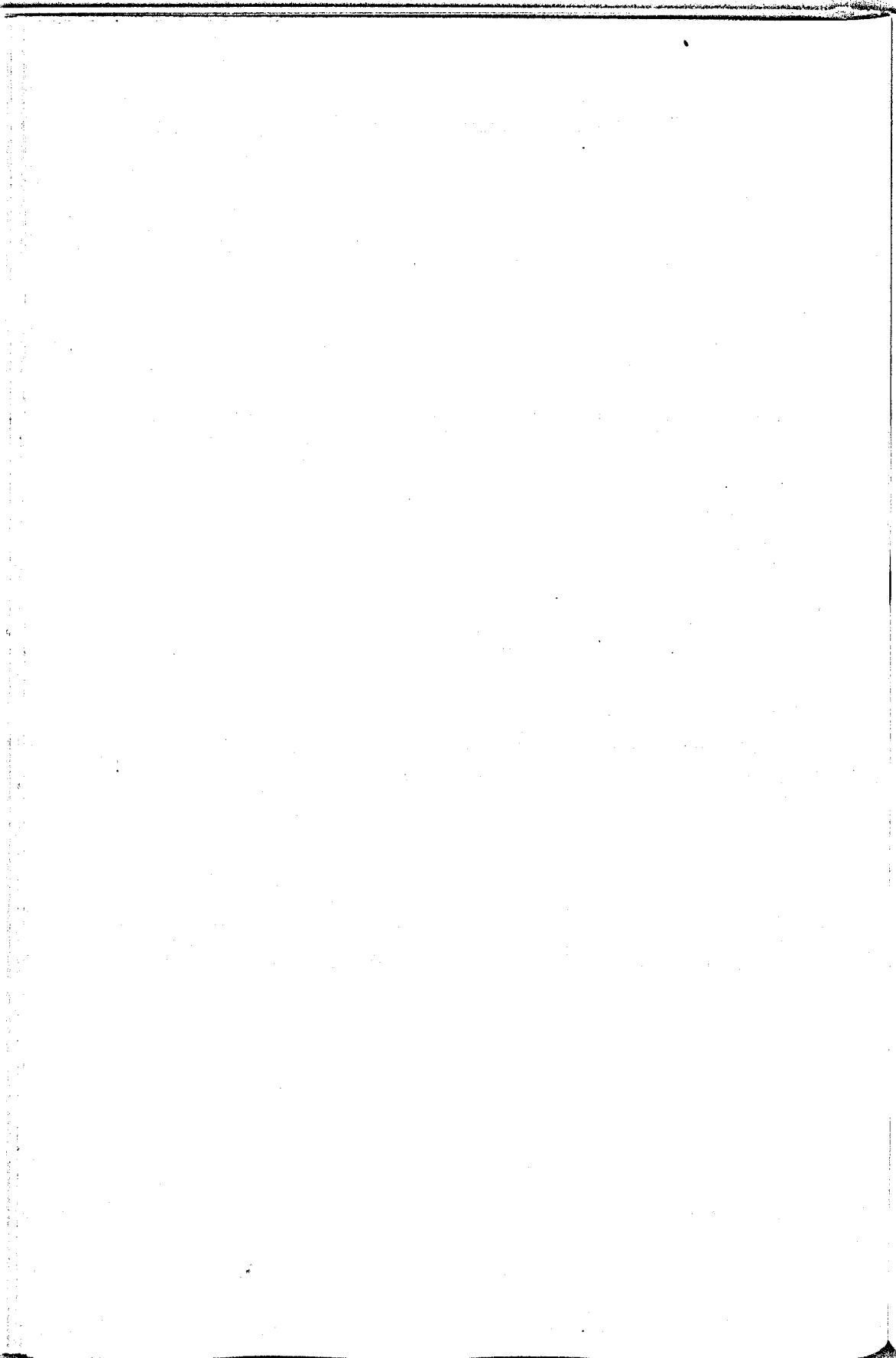
PLACE OF DELIVERY AND ATTENDANT	TOTAL	WHITE	COLORED
All Births.....	2,253	1,485	768
Hospital.....	2,171	1,445	726
Home.....	82	40	42
Private physician.....	66	32	34
Midwife.....	7	7	..
Other.....	9	1	8

TABLE NO. 2  
RESIDENT DEATHS FOR CERTAIN CAUSES AND GROUPS OF CAUSES CLASSIFIED BY  
COLOR—SOUTHERN HEALTH DISTRICT—1956

CAUSE OF DEATH	TOTAL	WHITE	COLORED
ALL CAUSES.....	836	665	171
Tuberculosis, all forms (001-019).....	15	6	9
Respiratory tuberculosis (001-008).....	12	6	6
Syphilis (020-029).....	4	3	1
Malignant neoplasms (140-205).....	140	112	28
Lymphatic and hematopoietic (200-205).....	13	9	4
Benign and unspecified neoplasms (210-239).....	6	6	..
Diabetes (280).....	25	23	2
Anemias (290-293).....	1	..	1
Other diseases of the blood and blood-forming organs (294-299).....	1	1	..
Vascular lesions of the central nervous system (330-334).....	44	29	15
Diseases of the heart (410-443).....	354	309	45
Chronic rheumatic heart disease (410-416).....	14	14	..
Arteriosclerotic and degenerative heart disease (420-422).....	285	255	30
Other diseases of the heart (430-434).....	6	6	..
Hypertensive heart disease (440-443).....	49	34	15
Other hypertensive diseases (444-447).....	4	3	1
Arteriosclerosis (450).....	6	5	1
Other diseases of the circulatory system (451-468).....	7	7	..
Nephritis and nephrosis (590-594).....	8	4	4
Influenza and pneumonia (480-483, 490-493).....	19	12	7
Pneumonia (490-493).....	19	12	7
Bronchitis (500-502).....	4	3	1
Ulcer of the stomach and duodenum (540-542).....	6	6	..
Appendicitis (550-553).....	2	1	1
Gastritis, duodenitis, enteritis and colitis (543, 571, 572).....	4	2	2
Cirrhosis of the liver (581).....	17	14	3
Hyperplasia of prostate (610).....	1	..	1
Congenital malformations (750-759).....	8	7	1
Certain diseases of early infancy (760-776).....	44	25	19
Pneumonia of newborn (763).....	3	1	2
Senility, ill-defined and unknown conditions (780-795).....	4	3	1
All other diseases.....	52	35	17
Accidents, total (800-962, 965).....	51	42	9
Motor vehicle accidents (810-835).....	7	5	2
All other accidents.....	44	37	7
Suicides (963, 970-979).....	8	7	1
Homicides (984, 980-985).....	1	..	1

TABLE NO. 3  
COMMUNICABLE DISEASES REPORTED IN THE SOUTHERN HEALTH DISTRICT—1956

DISEASE	TOTAL	WHITE	COLORED
TOTAL.....	825	349	476
Chickenpox.....	55	28	27
Diphtheria.....	..	..	..
German measles.....	13	12	1
Gonococcal infections.....	219	39	180
Measles.....	271	165	106
Meningococcal infections.....	2	1	1
Mumps.....	61	27	34
Poliomyelitis, paralytic cases.....	1	1	..
Scarlet fever.....	12	5	7
Syphilis.....	62	13	49
Tuberculosis, all forms.....	102	53	49
Typhoid fever.....	..	..	..
Whooping cough.....	3	..	3
All other.....	24	5	19



## SECTION OF PREVENTIVE MEDICINE



## SECTION OF PREVENTIVE MEDICINE

**Janet B. Hardy, M.D.**

*Director*

The Section of Preventive Medicine was established on May 24, 1956 in order to bring about a more closely integrated program in the field of preventive medical services. Dr. Janet B. Hardy became the Section Director on that date after having served as Director of the Bureau of Child Hygiene since March 30, 1951. Included within the new section were the Bureaus of Child Hygiene, Communicable Disease, Dental Care and the Divisions of Maternity Hygiene, School Health, Nutrition, Mental Hygiene and the Division for the Handicapped. The poliomyelitis vaccine program was a major concern of the Section Director throughout the year. The Bureau of Venereal Diseases was added to the section in September, 1956 and the Bureau of Tuberculosis in October, 1956. The section enjoyed a very close liaison with the Bureau of Public Health Nursing.

## BUREAU OF COMMUNICABLE DISEASES

Myron G. Tull, M.D., M.P.H.

*Acting Director*

The most noteworthy undertaking in the field of communicable disease control during 1956 was the energetic promotion of the poliomyelitis vaccine program, both that carried on by private physicians and the work in schools and in Health Department clinics. This program was under the immediate direction of the Director of the Section of Preventive Medicine and involved the active participation of the Bureau of Communicable Diseases.

A total of 26 cases of paralytic poliomyelitis was reported during 1956 as compared to 33 cases during 1955. There were 2 deaths from this disease compared to 3 deaths in 1955. Five of the patients had received one or more injections of poliomyelitis vaccine. The reversal in the number of cases of paralytic poliomyelitis in 1956 by race was striking; approximately 77 per cent of the cases occurred among Negroes. For the period 1935-1954 the average occurrence in the nonwhite race has been about 15 per cent. This unusual finding is attributed to the fact that a higher proportion of the white children had received one or more doses of poliomyelitis vaccine in 1955 and 1956, without which there probably would have been many more cases of the disease among the white population of the city.

### *Diphtheria*

One death from diphtheria occurred in the city in 1956, the first since May, 1952. This was the only case of diphtheria reported during the year, the lowest number of cases of this disease ever recorded in Baltimore. There was no record of this child having received the diphtheria protective toxoid inoculation. The number of children reported as having received diphtheria toxoid in 1956 was 35,690 and of these, 14,735 children received booster doses.

### *Meningococcal Infections*

The number of reported cases of meningococcal infections was 17 as compared to 13 in 1955. An analysis of the age distribution of cases indicated that in both of these years the heaviest proportion of these cases occurred in children below 10 years of age. In 1955 out of the 13 cases reported 11 occurred among children under 10 and in 1956 out of the 17 cases reported 12 occurred in children of this age group.

*Typhoid Fever*

There were 5 cases of typhoid fever reported during 1956. There was no death attributed to this disease. One new carrier was discovered during the year, and at the end of the year there were 66 known carriers in the city.

*Measles*

The reported number of cases of measles increased from 925 cases recorded during 1955 to 4,943 cases for 1956. There was no death due to this disease reported during the year.

*Other Communicable Diseases*

A total of 318 cases of scarlet fever was reported. This was an increase from 310 cases recorded during the preceding year. Whooping cough decreased from 140 cases reported during 1955 to 90 cases for 1956. The recorded cases of mumps increased from 721 cases for 1955 to 1,560 for this year. There were 1,295 cases of chickenpox reported in 1956, and 3 deaths were ascribed to this disease.

Table No. 1 lists the reported cases of communicable disease and deaths from the various diseases for 1953-1956 period, and Table No. 2 lists cases and resident deaths of certain communicable diseases for 1956 according to months.

Seventy-seven children were referred to the Bureau of Communicable Diseases as not having had successful takes after repeated attempts at smallpox vaccination. These children were vaccinated in the bureau office and the results were as follows: Primary reaction 41, vaccinoid reaction 27 and immune reaction 9.

**Personnel**

Myron G. Tull, M.D., M.P.H., Administrative Health Officer and Acting Director  
Howard H. Warner, M.D., Health Officer  
Alice V. Owings, Principal Clerk  
Marguerite G. Pierson, Clerk Stenographer

TABLE NO. 1  
REPORTED CASES AND RESIDENT DEATHS OF CERTAIN COMMUNICABLE DISEASES  
1953-1956

DISEASE	1956		1955		1954		1953	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Botulism .....	..	..	..	..	..	..	..	..
Chickenpox .....	1,295	3	1,009	..	1,871	..	1,670	1
Diphtheria .....	1	1	2	..	3	..	6	..
Dysentery .....	..	..	..	..	..	..	..	..
Amebic .....	4	..	18	..	4	..	8	..
Bacillary .....	73	1	140	..	68	1	78	..
All other .....	..	..	4	1	6	..	3	2
Encephalitis, acute infectious .....	3	2	..	..	2	1	3	1
Erysipelas .....	..	..	..	..	1	..	..	..
German measles .....	612	..	227	..	111	..	574	..
Hepatitis .....	..	..	..	..	..	..	..	..
Infectious .....	29	2	50	3	55	4	117	4
Serum .....	7	1	..	..	..	..	..	..
Measles .....	4,943	..	925	..	5,764	3	1,064	..
Meningococcal infections .....	17	4	13	4	15	5	33	7
Mononucleosis, infectious .....	1	..	2	..	1	..	6	..
Mumps .....	1,560	1	721	..	1,150	..	1,661	1
Paratyphoid fever .....	..	..	1	..	2	..	1	..
Poliomyelitis, paralytic cases .....	26	2	33	3	36	..	92	6
Psittacosis .....	3	..	2	..	..	..	1	..
Rocky Mountain spotted fever .....	..	..	1	..	5	1	3	1
Salmonella infection .....	36	..	40	..	30	2	24	..
Scarlet fever .....	318	..	310	..	462	..	1,387	..
Smallpox .....	..	..	..	..	..	..	..	..
Streptococcal sore throat .....	13	..	32	..	104	..	17	..
Tetanus .....	3	..	1	..	..	..	4	2
Trichinosis .....	..	..	1	..	..	..	2	..
Tuberculosis .....	..	..	..	..	..	..	..	..
Respiratory .....	1,082	179	1,115	168	1,288	187	1,263	245
Other forms .....	89	11	72	10	85	12	106	23
Tularemia .....	..	..	1	..	..	..	..	..
Typhoid fever .....	5	..	7	1	6	..	11	..
Typhus fever .....	..	..	..	..	..	..	1	..
Undulant fever .....	3	..	..	..	..	..	..	..
Well's disease .....	2	1	3	1	..	..	1	..
Whooping cough .....	90	1	140	1	513	..	290	1
Venereal diseases .....	..	..	..	..	..	..	..	..
Chancroid .....	13	..	21	..	27	..	41	..
Gonococcal infections, total .....	6,452	..	6,890	..	7,105	..	7,012	..
Ophthalmia .....	..	..	2	..	..	..	3	..
Syphilis, total .....	1,354	59	1,408	59	1,283	57	1,336	63
Congenital .....	23	..	40	..	42	..	59	..
Other venereal diseases .....	11	2	4	1	24	2	22	2

TABLE NO. 2  
CASES AND RESIDENT DEATHS OF CERTAIN DISEASES ACCORDING TO MONTHS—1956

DISEASE		TOTAL	JANUARY	FEBRUARY	MARCH	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER
Chickenpox.....	Cases	1,295	190	188	192	228	179	106	42	15	20	26	40	69
	Deaths	3	..	..	1	1	1	..	..	..	..	..	..	..
Diphtheria.....	Cases	1	..	..	..	..	..	..	..	..	..	1	..	..
	Deaths	1	..	..	..	..	..	..	..	..	..	1	..	..
Encephalitis, acute infectious.	Cases	3	..	..	..	..	..	3	..	..	..	..	..	..
	Deaths	2	..	1	..	..	..	1	..	..	..	..	..	..
German measles.....	Cases	612	33	39	71	129	181	101	17	10	18	6	4	3
	Deaths	0	..	..	..	..	..	..	..	..	..	..	..	..
Measles.....	Cases	4,943	1,296	1,493	1,130	550	255	94	52	21	19	11	11	11
	Deaths	0	..	..	..	..	..	..	..	..	..	..	..	..
Meningococcal infections.....	Cases	17	..	2	2	3	1	5	1	2	..	..	1	..
	Deaths	4	..	..	1	2	..	..	1	..	..	..	..	..
Mumps.....	Cases	1,560	175	202	232	226	255	149	75	60	31	47	42	66
	Deaths	1	..	..	..	..	1	..	..	..	..	..	..	..
Paratyphoid fever.....	Cases	0	..	..	..	..	..	..	..	..	..	..	..	..
	Deaths	0	..	..	..	..	..	..	..	..	..	..	..	..
Poliomyelitis, paralytic cases.	Cases	26	..	..	..	..	..	..	2	4	10	7	3	..
	Deaths	2	..	..	..	..	..	..	..	..	1	1	..	..
Rocky Mountain spotted fever.....	Cases	0	..	..	..	..	..	..	..	..	..	..	..	..
	Deaths	0	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet fever.....	Cases	318	48	52	51	44	46	15	15	8	2	15	9	13
	Deaths	0	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis, respiratory.....	Cases	1,082	80	87	81	86	131	91	104	94	78	86	81	83
	Deaths	179	22	14	12	19	17	17	20	13	9	9	15	12
Tuberculosis, other forms.....	Cases	89	6	13	6	17	6	5	6	7	7	6	3	7
	Deaths	11	..	..	1	..	2	2	..	..	3	..	2	1
Typhoid fever.....	Cases	5	..	..	1	..	..	..	..	2	..	..	..	2
	Deaths	0	..	..	..	..	..	..	..	..	..	..	..	..
Whooping cough.....	Cases	90	10	1	3	3	5	6	9	7	11	2	15	18
	Deaths	1	..	..	..	..	..	..	1	..	..	..	..	..

TABLE NO. 3  
CHILDREN RECORDED AS RECEIVING TOXOID INOCULATIONS BY DOSAGE,  
ACCORDING TO AGE AND RACE—1956

AGE	DOSE AND COLOR								
	Total			Primary			Booster		
	Total	White	Colored	Total	White	Colored	Total	White	Colored
ALL AGES.....	35,690	17,925	17,765	20,955	11,955	9,000	14,735	5,970	8,765
Under 6 months.....	3,250	2,140	1,110	3,240	2,135	1,105	10	5	5
6 months.....	5,735	3,625	2,110	5,705	3,605	2,100	30	20	10
7 months.....	3,300	1,870	1,430	3,280	1,850	1,430	20	20	..
8 months.....	2,060	1,135	925	2,045	1,125	920	15	10	5
9 months.....	1,330	690	640	1,305	680	625	25	10	15
10 months.....	740	370	370	735	370	365	5	..	5
11 months.....	495	215	280	485	200	285	30	15	15
Under 1 year.....	16,910	10,045	6,865	16,775	9,965	6,810	135	80	55
1 year.....	5,000	1,715	3,285	1,905	870	1,035	3,095	845	2,250
2 years.....	1,955	780	1,175	755	295	460	1,200	485	715
3 years.....	1,230	560	670	555	270	285	675	290	385
4 years.....	1,960	760	1,200	390	185	205	1,570	575	995
5 years.....	3,595	1,520	2,075	350	215	135	3,245	1,305	1,940
6 years.....	2,450	1,245	1,205	180	125	55	2,270	1,120	1,150
7 years.....	960	430	530	30	20	10	930	410	520
8 years.....	765	445	320	5	5	..	760	440	320
9 years.....	665	330	335	..	..	..	665	330	335
10 years.....	150	55	95	5	..	5	145	55	90
11 years.....	40	30	10	..	..	..	40	30	10
12 years and over.....	10	10	..	5	5	..	5	5	..

TABLE NO. 4  
CHILDREN RECORDED AS RECEIVING DIPHTHERIA TOXOID INOCULATION  
BY PLACE AND RACE: BALTIMORE CITY, 1956

RACE	TOTAL INOCU- LATIONS	PHYSICIANS PRACTICE	HEALTH DEPARTMENT CLINICS				HOSPITAL
			Total	Child Health	Home	School	
Total.....	35,690	8,965	19,300	30	280	18,990	7,425
White.....	17,925	8,065	6,000	25	70	5,905	3,860
Nonwhite.....	17,765	900	13,300	5	210	13,085	3,565

## BUREAU OF TUBERCULOSIS

Charlotte Silverman, M.D., Dr.P.H.

*Director*

### *Deaths*

The year 1956 was the first since 1940 that the number of resident deaths from tuberculosis exceeded the number in a previous year. The 190 deaths during 1956 were almost equally divided between white and Negro, 92 and 98 respectively. The increase was mainly in the number of colored deaths, 87 in 1955 compared to 98 in 1956. Table No. 1 presents the 1956 deaths according to age, race and sex distribution, and Table No. 2 indicates the place where these deaths occurred.

### *Death Rates*

The figures for 1956 indicated that the consistently downward trend since 1944 in the annual death rate of Baltimore City residents from tuberculosis might not continue. The death rate for all Baltimore City residents during 1956 was 19.5 per 100,000 population; for white 13.3 and for Negroes, 35.0; the comparable rates in 1955 were 18.4, 13.0 and 32.8. Colored residents who represented approximately 29 per cent of the city population in 1956 experienced 50 per cent of the tuberculosis deaths. Their death rate was therefore two and one-half times that of the white population. Progress was evident however in contrast to the situation of five to ten years ago, when the nonwhite death rate from tuberculosis was from four to five times that of the white population.

### *Reported Cases*

A hopeful sign was observed in 1955 when the number of newly reported cases of tuberculosis in Baltimore declined 13.6 per cent from 1954. But in 1956 the number of cases, 1,171 declined only 16 from 1955, a decrease of 1.4 per cent. This decrease, meagre as it is, occurred in the number of active pulmonary cases newly reported. In 1956 the number of cases newly reported was 1,082 compared with 1,115 during 1955.

Table No. 3 shows the race and age distribution according to the type and extent of the tuberculosis lesion. In 1956, there were 567 new white cases of all forms of tuberculosis, and 604 new colored cases. The increase of 27 in new colored cases over the number of 577 in 1955 occurred chiefly in the nonpulmonary forms of the disease. Thus, 67 nonwhite cases of

this type were reported in 1956 compared with 48 in 1955, an increase of 19.

The ratio of newly reported cases to resident deaths showed a slight decrease in both racial groups: 6.2 for the white and 6.4 for Negro compared with 6.7 for both races in 1955. Of 1,082 new pulmonary cases in 1956, 622 or 57.5 per cent were diagnosed as active advanced cases and 163 or 15.1 per cent were minimal cases. This indicates the need for more vigorous case finding in an effort to diagnose a larger percentage of cases at a point earlier than the advanced stage.

The newly reported cases for each race are analyzed in Table No. 4 to show sex and age distribution. Tuberculosis of the lungs or glands of the chest was reported in 1956 in 17 white children and 81 colored children under the age of 15 years. Tuberculosis in children was much more frequent among nonwhites. In 1956, the percentage of newly reported pulmonary cases under age 15 was 15.1 among the Negro cases and 3.1 among the white cases. The number of cases among colored children increased from 61 in 1955 to 81 in 1956 whereas the number of new cases of white children decreased from 24 in 1955 to 17 in 1956.

Newly reported cases are found more often among males; in 1956 of all the white pulmonary cases, 75 per cent were male; of nonwhite cases, 61.3 per cent were male. An overall decrease of 29 per cent from 1955 was observed in the number of white female pulmonary cases involving particularly the group under 15 years and 65 and over. Only in the group 55-64 years was there an increase. In general the data indicate that pulmonary cases are found in women at an earlier age than in men. For new pulmonary cases in 1956, the median ages were 51 years for white males, 39 years for white females, 41 years for colored males and 31 years for colored females.

The original sources of referral of cases registered in 1956 are presented in Table No. 5. In Table No. 6 reported cases are classified according to the agency responsible for the definitive report which led to registration with the Bureau of Tuberculosis. Private physicians were the original sources of referral in 20 per cent of the cases but made definite reports in only 9 per cent of the total registrants. Health Department chest clinics were responsible for the initial suspicion of tuberculosis in 14 per cent of all cases and made the definitive report of 38.5 per cent of all registered cases. Examinations at general hospitals led to the registration of approximately one-third of all newly reported cases. The mass survey X-ray program contributed 8.6 per cent of newly registered cases.

#### *Case Rates*

The total tuberculosis case rate for 1956 was 120 new cases per 100,000 population. Among white persons the rate was 82 and for colored 216



per 100,000 population. This represents a small decrease from 1955 when the comparable rates were 123 for the total population, 87 for the white population and 217 for nonwhites.

### *Diagnostic Services*

The combined services rendered by the four chest clinics of the Bureau of Tuberculosis are described in Table No. 7. Each of the four diagnostic clinics held five sessions a week which included two evening sessions for the convenience of employed persons. A total of 26,119 individuals was examined during 1956 in all of the clinics, as compared with 17,559 in 1955. Of the 26,119 persons examined, 13,707 were white and 12,412 were Negro. New registrants and individuals screened numbered 19,593 and represented 75 per cent of those examined. The remaining 6,526 or 25 per cent were registered prior to 1956 and required further diagnostic services or follow-up examinations. Of the new registrants and individuals screened, 65 per cent came to the clinics because pulmonary disease was suspected, 19 per cent were tuberculosis contacts and 16 per cent were apparently healthy prenatal patients or members of other groups referred for routine screening purposes.

Altogether 37,171 visits were made to the city chest clinics during 1956 and a total of 33,158 chest X-rays was taken. Comparable figures for 1955 were 29,915 clinic visits and 25,713 X-ray examinations.

The number of contacts examined, 3,759, falls somewhat short of the rule-of-thumb measure which states that the number of tuberculosis contacts examined should be four or five times larger than the number of tuberculosis cases reported annually. However, the number of contacts examined at the city health clinics does not include the unknown number of contacts X-rayed in the mass survey program, at the office of the Maryland Tuberculosis Association, in the general hospitals of Baltimore or by private physicians.

### *Collapse Therapy for Ex-Sanatorium Patients*

During 1956 each of the four chest clinics scheduled one or more sessions each week for artificial pneumothoraxy. The service was limited to patients whose collapse therapy has been initiated elsewhere, generally in a sanatorium. During 1956 these treatments were given 153 persons which included 40 new clinic patients and 113 former clinic registrants for whom treatment was continued. In all, 2,787 visits were paid to the pneumothoraxy clinics during the year, a decrease from 3,247 visits in 1955. The trend has been a steady decrease in this type of treatment which is now almost exclusively pneumoperitoneum therapy.

*Case-Finding Projects*

The combined efforts of all agencies in Baltimore resulted in the taking of 113,851 small chest X-ray films in 1956. This was a decrease of 11,900 from the number in 1955, but this total represented 12 per cent of the city's population.

Of this number, 50,451 or 44 per cent were apparently healthy persons who received screening service by means of the mobile and portable units in 93 surveys conducted by the Baltimore City Health Department under the direction of Dr. M. S. Shiling and with the assistance of the Maryland Tuberculosis Association. All of these surveys were arranged on request. An analysis of survey figures shows that 34,396 or 68 per cent of the people who were X-rayed were white and 16,055 or 32 per cent were Negro. Table No. 8 shows the number of persons examined in each of the 93 surveys of commercial and industrial firms, various community groups, high school and college groups and others. Of the total number of survey films, 1,434 or 2.8 per cent gave indication of either chest pathology or technical faultiness and those persons were advised that follow-up X-rays were desirable. Of this number 515 received large chest X-rays, 75 per cent in city chest clinics, 18 per cent with private physicians and 7 per cent in hospitals or other agencies. One hundred twenty-five of these chest plates were read as definite tuberculosis which yielded 73 new cases of the disease in the 1956 count. The remainder proved to be cases already known, those of residents outside of Baltimore City or of pulmonary insignificance. The 70 millimeter photoroentgen units in the three largest hospitals in Baltimore were used to X-ray 29,991 individuals. At the Johns Hopkins Hospital 22,218 chest films were taken. At the Baltimore City Hospitals 3,751 persons received small chest films and the University of Maryland Hospital offered this service to 4,022. Provident Hospital, a small general hospital for colored patients where a 35 millimeter unit has been in operation for several years, took 357 chest microfilms.

Screening services rendered by the four Baltimore City Health Department chest clinics led to examination of 12,461 persons including registrants of prenatal clinics, employees of governmental agencies, contacts of known cases, patients of private physicians and other miscellaneous groups. Of these 5,942 registrants were white, 6,519 were nonwhite.

The Maryland Tuberculosis Association by means of the 70 millimeter photofluorographic unit in its central office took films of 20,591 persons during the year. Duplicate reports of all films which were not read as negative were sent to the Bureau of Tuberculosis which cooperated in or undertook the follow-up examination.

*BCG Vaccination*

The BCG vaccination clinic which was started at the Eastern Health District in October, 1949, held weekly sessions during 1956. During the year 510 children having negative reactions to 0.1 mg. old tuberculin received the vaccine. In addition, fifty-one nurses from a general hospital, five nurses from the Health Department, and two state hospital personnel were vaccinated. BCG was provided the Baltimore City Hospitals for the vaccination of twenty-nine practical nurse students, and the Johns Hopkins Hospital for vaccination of medical students.

*Hospital and Sanatorium Facilities*

In 1956 there was little delay in securing hospital beds for tuberculosis patients. This was particularly true in State sanatoria, and the lag in obtaining hospitalization at Baltimore City Hospitals began to disappear toward the end of the year.

During 1956 the various tuberculosis hospitals in Baltimore and Maryland reported the deaths of 119 residents of Baltimore City, and during the same time they discharged alive a total of 957. Of live discharged patients residing in the city, 67 per cent were discharged with consent while 33 per cent failed to complete their treatment and left against medical advice. Among the 316 who left without permission, 139 or 44 per cent had positive sputum. Corresponding figures for 1955 were 1,062 live discharges of whom approximately 68 per cent were discharged with consent, 32 per cent failed to complete their treatment and approximately 37 per cent of the irregular discharges were sputum positive.

*Chemotherapy Program*

The chemotherapy program started in 1952 continued through 1956 for patients who could not afford to pay for drugs. In 1956, due to a reorganization in the Bureau of Tuberculosis, the administrative responsibility for drugs was decentralized to the chest clinic doctors. This program is now carried on through drug clinics scheduled during the regular clinic hours. The policy established in October, 1955 of using only the combination of PAS and isoniazid except in the few cases where streptomycin was absolutely necessary was followed. The majority of patients who received drugs were those discharged from the sanatoria although there are still a relatively small per cent of patients who receive them either because of family problems which postponed hospitalization or who were considered chronically recalcitrant and thus required therapy as a prophylactic measure. As of January 1, 1956 the total number of patients receiving chemotherapy was 312. There were 663 additional patients admitted to the program during the year which brought the total number to 975 of whom 376 were white and 599 were colored patients.

*Vocational Rehabilitation*

Vocational rehabilitation services were rendered during the year by the Division of Vocational Rehabilitation of the State Department of Education. During 1956 there were 745 Baltimore residents who were given rehabilitation service. Of this group, 260 were new referrals, the majority of whom were directed to this agency by the tuberculosis hospitals.

*Federal Assistance*

For the fiscal year ending June 30, 1957, a federal grant-in-aid of \$22,220 was made for tuberculosis control. These funds were used primarily to support the community mass X-ray case-finding surveys.

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TABLE NO. 1  
RESIDENT DEATHS FROM TUBERCULOSIS ACCORDING TO AGE—1956

AGE GROUP	GRAND TOTAL	WHITE			COLORED		
		Total	Male	Female	Total	Male	Female
NUMBER OF DEATHS							
All Ages.....	190	92	78	14	98	66	32
Under 15 years.....	5	..	..	..	5	1	4
15-24 years.....	6	..	..	..	6	1	5
25-34 years.....	14	3	3	..	11	7	4
35-44 years.....	29	10	7	3	19	12	7
45-54 years.....	37	21	19	2	16	13	3
55-64 years.....	53	27	23	4	26	22	4
65 years and over.....	46	31	26	5	15	10	5
PERCENTAGE DISTRIBUTION							
All Ages.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 15 years.....	2.6	..	..	..	5.1	1.5	12.5
15-24 years.....	3.1	..	..	..	6.1	1.5	15.6
25-34 years.....	7.4	3.3	3.8	..	11.2	10.6	12.5
35-44 years.....	15.3	10.9	9.0	21.4	19.4	18.2	21.9
45-54 years.....	19.5	22.8	24.4	14.3	16.3	19.7	9.4
55-64 years.....	27.9	29.3	29.5	28.6	26.6	33.3	12.5
65 years and over.....	24.2	33.7	33.3	35.7	15.3	15.2	15.6

TABLE NO. 2  
RESIDENT DEATHS FROM TUBERCULOSIS ACCORDING TO RACE AND PLACE  
OF DEATH—1956

PLACE OF DEATH	TOTAL		WHITE		COLORED	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
TOTAL DEATHS.....	190	100.0	92	100.0	98	100.0
Home.....	19	10.0	6	6.5	13	13.3
Tuberculosis sanatoria.....	103	54.2	61	66.3	42	42.8
Baltimore City Hospitals..	58	..	31	..	27	..
State sanatoria.....	38	..	26	..	12	..
Other sanatoria.....	7	..	4	..	3	..
General hospitals.....	54	28.4	21	22.8	33	33.7
Mental institutions.....	11	5.8	3	3.3	8	8.2
Other.....	3	1.6	1	1.1	2	2.0

TABLE NO. 3  
REPORTED CASES OF TUBERCULOSIS CLASSIFIED BY TYPE, EXTENT AND ACTIVITY OF LESION ACCORDING TO  
RACE AND BROAD AGE GROUPS—1956

CLASSIFICATION OF LESION	WHITE							COLORED									
	Under 15 years				65 years & over			Under 15 years				65 years & over					
	Total	15-24 years	25-34 years	35-44 years	45-64 years	Age Unsp.	Total	15-24 years	25-34 years	35-44 years	45-64 years	Age Unsp.					
ALL CASES.....	1,171	567	19	44	83	105	238	77	1	604	93	71	124	117	166	33	..
Pulmonary lesions.....	1,082	545	17	44	79	100	229	75	1	537	81	60	109	107	148	32	..
Minimal lesions—all types.....	328	186	3	22	39	32	71	19	..	142	9	24	32	32	37	8	..
Active.....	163	94	2	18	22	14	30	8	..	69	5	16	17	11	6	4	..
Inactive.....	117	82	..	2	13	17	39	11	..	35	..	4	6	12	10	3	..
Pleural effusion.....	48	10	1	2	4	1	7	..	..	38	4	4	9	9	11	1	..
Moderately advanced.....	385	220	1	16	26	47	98	32	..	165	5	19	39	39	52	11	..
Active.....	349	190	1	16	24	40	80	29	..	159	5	19	38	37	49	11	..
Inactive.....	36	30	..	5	14	7	18	3	..	6	..	14	1	2	3	..	..
Far advanced.....	273	123	13	1	..	21	59	23	1	150	3	14	34	34	52	13	..
Severe primary lesion.....	78	14	2	..	..	..	..	1	..	64	61	2	1	..	7	..	..
Acute miliary or disseminated.....	18	2	..	..	..	..	..	1	..	16	3	1	3	..	..	..	..
Nonpulmonary lesions.....	89	22	2	..	4	5	9	2	..	67	12	11	15	10	18	1	..
Meningitis.....	11	3	1	..	1	..	1	1	..	8	4	3	1	..	2	..	..
Spinal.....	10	3	..	..	1	..	1	1	..	7	2	4	2	1	..	..	..
Peritonitis.....	9	2	..	..	..	..	..	..	..	7	..	4	2	1	..	..	..
Other forms.....	59	14	..	..	2	4	6	1	..	45	6	4	11	7	16	1	..

CLASSIFICATION OF LESION	PERCENTAGE DISTRIBUTION																
	Under 15 years					65 years & over			Under 15 years					65 years & over			
	Total	15-24 years	25-34 years	35-44 years	45-64 years	65 years & over	Age Unsp.	Total	15-24 years	25-34 years	35-44 years	45-64 years	65 years & over	Age Unsp.	Total	15-24 years	25-34 years
Pulmonary lesions.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Minimal lesions—all types.....	30.3	34.1	17.7	60.9	49.4	32.0	31.0	25.3	..	26.4	11.1	40.0	29.4	23.9	25.0	23.0	23.0
Active.....	15.1	17.2	11.8	40.9	27.8	14.0	13.1	10.7	..	12.8	6.2	26.6	15.6	10.3	10.8	12.5	12.5
Inactive.....	10.8	16.1	4.6	16.5	17.0	17.0	14.6	..	..	7.1	4.9	6.7	5.5	11.2	6.8	9.4	9.4
Pleural effusion.....	4.4	1.8	5.9	4.6	6.1	1.0	0.9	42.7	..	30.7	6.2	31.7	35.8	36.4	35.1	34.4	34.4
Moderately advanced.....	35.6	40.4	5.8	36.4	32.9	47.0	42.8	38.7	..	29.6	6.2	31.7	34.9	34.6	33.1	34.4	34.4
Active.....	32.3	34.9	5.8	36.4	30.4	40.0	34.9	38.7	..	28.0	6.2	31.7	34.9	34.6	33.1	34.4	34.4
Inactive.....	3.3	5.5	..	11.3	2.5	7.0	7.9	4.0	..	1.1	3.7	23.3	0.9	1.8	2.0	..	..
Far advanced.....	25.2	22.6	76.5	2.3	..	25.8	30.7	100.0	..	11.9	75.3	3.3	31.2	31.8	35.2	40.6	40.6
Severe primary lesion.....	7.2	2.6	..	..	..	0.4	1.3	..	..	3.0	3.7	1.7	2.7	1.9	4.7	..	..
Acute miliary or disseminated.....	1.7	0.3	..	..	..	..	..	..	..	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Nonpulmonary lesions.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Meningitis.....	12.4	13.6	50.0	..	25.0	..	11.1	50.0	..	12.0	33.3	27.2	6.7	20.0	11.1	..	..
Spinal.....	11.2	13.6	..	..	25.0	..	11.1	50.0	..	10.4	16.7	36.4	13.3	10.0	88.9	100.0	100.0
Peritonitis.....	10.1	9.1	..	..	50.0	..	11.1	50.0	..	10.4	..	36.4	73.3	70.0	88.9	100.0	100.0
Other forms.....	66.3	63.7	50.0	..	..	66.7	66.7	..	..	67.2	50.0	36.4	73.3	70.0	88.9	100.0	100.0

TABLE NO. 4  
PULMONARY AND NONPULMONARY REPORTED CASES OF TUBERCULOSIS  
CLASSIFIED BY RACE, SEX, AND BROAD AGE GROUPS—1956

CLASSIFICATION AND AGE	WHITE			COLORED		
	Total	Male	Female	Total	Male	Female
<b>Pulmonary lesions</b>						
All ages.....	545	407	138	537	329	208
Under 15 years.....	17	8	9	81	45	36
15-24 years.....	44	19	25	60	22	38
25-34 years.....	79	56	23	109	54	55
35-44 years.....	100	71	29	106	72	34
45-54 years.....	108	84	24	82	60	22
55-64 years.....	121	100	21	66	49	17
65 years and over.....	75	68	7	33	27	6
Age Unspecified.....	1	1	..	..	..	..
<b>Nonpulmonary lesions</b>						
All ages.....	22	12	10	67	29	38
Under 15 years.....	2	1	1	12	8	4
15 years and over.....	20	11	9	55	21	34

## PERCENTAGE DISTRIBUTION

<b>Pulmonary lesions</b>						
All ages.....	100.0	100.0	100.0	100.0	100.0	100.0
Under 15 years.....	3.1	2.0	6.5	15.1	13.7	17.3
15-24 years.....	8.1	4.7	18.1	11.2	6.7	18.3
25-34 years.....	14.5	13.8	16.7	20.3	16.4	26.4
35-44 years.....	18.3	17.4	21.0	19.7	21.9	16.3
45-54 years.....	19.8	20.6	17.4	15.3	18.2	10.6
55-64 years.....	22.2	24.6	15.2	12.3	14.9	8.2
65 years and over.....	13.8	16.7	5.1	6.1	8.2	2.9
Age Unspecified.....	0.2	0.2	..	..	..	..
<b>Nonpulmonary lesions</b>						
All ages.....	100.0	100.0	100.0	100.0	100.0	100.0
Under 15 years.....	9.1	8.3	10.0	32.8	27.6	10.5
15 years and over.....	90.9	91.7	90.0	67.2	72.4	89.5

TABLE NO. 5  
TUBERCULOSIS CASES CLASSIFIED BY RACE AND ORIGINAL REFERRAL OR  
SOURCE OF REPORT—1956

ORIGINAL REFERRAL OR SOURCE OF REPORT	TOTAL		WHITE		COLORED	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
<b>TOTAL CASES.....</b>	<b>1,171</b>	<b>100.0</b>	<b>567</b>	<b>100.0</b>	<b>604</b>	<b>100.0</b>
Private physicians.....	236	20.2	142	25.0	94	15.6
Baltimore City Hospitals.....	74	6.3	27	4.8	47	7.8
Other Hospitals or sanatoria....	464	39.6	175	30.9	289	47.8
Hospital survey.....	4	..	2	..	2	..
Other.....	460	..	173	..	287	..
Health Department.....	165	14.1	92	16.2	73	12.1
Chest clinics.....	132	..	84	..	48	..
Other.....	33	..	8	..	25	..
Mass survey.....	100	8.6	60	10.6	40	6.6
Other agencies.....	80	6.8	52	9.2	28	4.6
Reported after death.....	52	4.4	19	3.3	33	5.5

TABLE NO. 6  
TUBERCULOSIS CASES CLASSIFIED BY RACE AND REPORTING AGENCY—1956

REPORTING AGENCY	TOTAL		WHITE		COLORED	
	Number	Per Cent	Number	Per Cent	Number	Per Cent
<b>TOTAL CASES.....</b>	<b>1,171</b>	<b>100.0</b>	<b>567</b>	<b>100.0</b>	<b>604</b>	<b>100.0</b>
Private physicians.....	108	9.2	90	15.9	18	3.0
Tuberculosis sanatoria.....	128	10.9	60	10.6	68	11.2
Baltimore City Hospitals....	81	..	29	..	52	..
Other sanatoria.....	47	..	31	..	16	..
General hospitals.....	385	32.9	135	23.8	250	41.4
Mental hospitals.....	4	0.4	4	0.7	..	..
Health Department chest clinics.....	451	38.5	236	41.6	215	35.6
Transferred from other states..	1	0.1	..	..	1	0.2
Death certificates.....	52	4.4	19	3.4	33	5.5
Other.....	42	3.6	23	4.0	19	3.1



TABLE NO. 7  
SUMMARY OF CHEST CLINIC AND MASS X-RAY SERVICES BY RACE AND SEX—1956

	TOTAL		WHITE				COLORED			
	Num- ber	Per Cent	Male		Female		Male		Female	
			Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent	Num- ber	Per Cent
<b>Clinic Registrants</b>										
Total.....	26,119	100.0	6,002	100.0	7,705	100.0	4,297	100.0	8,115	100.0
Screening service.....	12,461	47.7	1,866	31.1	4,076	52.9	1,477	34.4	5,042	62.1
Diagnostic service.....	13,658	52.3	4,136	68.9	3,629	47.1	2,820	65.6	3,073	37.9
New in 1956.....	7,132	27.3	2,443	40.7	2,078	27.0	1,339	31.2	1,272	15.7
Registered prior to 1956.....	6,526	25.0	1,693	28.2	1,551	20.1	1,481	34.4	1,801	22.2
Suspects.....	3,668	14.0	827	13.8	870	11.3	788	18.3	1,183	14.6
Previously diagnosed cases.....	2,868	11.0	868	14.4	681	8.8	693	16.1	618	7.6
<b>Age Distribution</b>										
Total screening and new diagnostic reg- istrants.....	19,593	100.0	4,309	100.0	6,154	100.0	2,816	100.0	6,314	100.0
Under 15 years.....	3,568	18.2	949	22.0	1,010	16.4	770	27.3	839	13.3
15-24 years.....	5,264	26.9	600	13.9	1,654	26.9	497	17.7	2,513	39.8
25-44 years.....	7,181	36.6	1,530	35.5	2,333	37.9	940	33.4	2,378	37.7
45-64 years.....	2,871	14.7	954	22.2	943	15.3	514	18.3	460	7.3
65 years and over.....	644	3.3	271	6.3	184	3.0	94	3.3	95	1.5
Age unspecified.....	65	0.3	5	0.1	30	0.5	1	..	29	0.4
<b>Source of Referral</b>										
Total screening and new diagnostic reg- istrants.....	19,593	100.0	4,309	100.0	6,154	100.0	2,816	100.0	6,314	100.0
Physicians.....	4,668	23.3	1,566	36.3	1,567	25.5	896	24.7	739	11.7
Contacts.....	3,759	19.2	818	19.0	1,209	19.6	670	23.8	1,062	16.8
Prenatal.....	4,261	21.7	..	..	1,395	22.7	..	..	2,866	45.4
Hospitals.....	393	2.0	66	1.5	88	1.4	122	4.3	117	1.9
Case-finding project.....	402	2.1	171	4.0	83	1.4	94	3.4	54	0.8
All other.....	6,210	31.7	1,688	39.2	1,812	29.4	1,234	43.8	1,476	23.4
<b>Clinic Visits (Total)</b> .....	37,171	100.0	9,524	100.0	10,049	100.0	7,108	100.0	10,490	100.0
Screening service.....	12,461	33.5	1,866	19.6	4,076	40.6	1,477	20.8	5,042	48.1
Diagnostic service.....	24,710	66.5	7,658	80.4	5,973	59.4	5,631	79.2	5,448	51.9
New in 1956.....	7,132	19.2	2,443	25.7	2,078	20.7	1,339	18.8	1,272	12.1
Repeat visits.....	17,578	47.3	5,215	54.7	3,895	38.7	4,292	60.4	4,176	39.8
<b>Number of X-ray Examinations (Total)</b>	33,158	100.0	7,993	100.0	9,016	100.0	6,333	100.0	9,816	100.0
Screening service.....	12,461	37.6	1,866	23.3	4,076	45.2	1,477	23.3	5,042	51.4
Diagnostic service.....	20,697	62.4	6,127	76.7	4,940	54.8	4,856	76.7	4,774	48.6
Suspects.....	12,819	38.7	3,724	46.6	5,501	59.6	2,725	43.0	5,069	51.5
Previously diagnosed cases.....	7,878	23.8	2,403	30.1	1,639	18.2	2,131	33.7	1,705	17.3
<b>Pneumotherapy Service</b>										
Total patients.....	153	100.0	25	100.0	30	100.0	45	100.0	53	100.0
New in 1956.....	40	26.1	4	16.0	3	10.0	15	33.3	18	34.0
Registered prior to 1956.....	113	73.9	21	84.0	27	90.0	30	66.7	35	66.0
<b>Total Visits</b> .....	2,787	..	448	..	404	..	911	..	1,024	..
<b>Total X-rays</b> .....	451	..	85	..	105	..	129	..	132	..
<b>X-ray Survey of Apparently Healthy Persons</b> .....	62,912				40,338				22,574	
Druid Chest Clinic.....	2,436				22				2,414	
Eastern Chest Clinic.....	6,512				3,834				2,687	
Madison Ave Chest Clinic.....	672				666				16	
Southern Chest Clinic.....	2,832				1,430				1,402	
Mobile and Portable X-ray Units.....	50,451				34,396				16,055	

TABLE NO. 8  
CHEST X-RAY SURVEYS  
BALTIMORE, MARYLAND—1956

GROUP SURVEYED	NUMBER EXAMINED		GROUP SURVEYED	NUMBER EXAMINED	
	White	Colored		White	Colored
TOTAL .....	34,396	16,055	Commercial & Industrial (Cont.)		
Commercial & Industrial (Total)...	21,877	5,102	Sinai Hospital .....	335	337
Abbotts Dairies .....	45	10	Standard Oil Co. (Esso) .....	820	11
Allied Research Products, Inc. ....	130	3	Sun Life Insurance Co. ....	302	13
American Brewing Co. ....	233	2	U. S. Army Corps .....	286	30
American Can Co. ....	853	11	U. S. Printing & Lithograph Co. ....	145	23
American Sugar Refinery .....	543	579	Union Memorial Hospital .....	316	161
Baltimore City Fireman Candidates ..	61	29	Veterans Administration .....	187	28
Baltimore & Ohio Railroad (Mt. Clare Shops) .....	1,177	86	Western Maryland Dairy .....	251	50
Baltimore Transit Co. ....	706	144	Women's Hospital .....	201	106
Bon Secours Hospital .....	186	1	Community (Total) .....	2,251	2,210
Charles T. Brandt .....	374	13	Census Tract Area—4-1 .....	1,335	215
Cat's Paw Rubber Co. ....	194	829	Census Tract Area—4-2 .....	210	1,936
Church Home & Hospital .....	276	83	Read St. Survey .....	706	59
Crosse & Blackwell Co. ....	310	13	Schools (Total) .....	10,268	8,743
Department of Public Welfare .....	198	143	Baltimore Polytechnic Institute ..	2,553	80
Eastern Venetian Blind Co. ....	1,010	110	Catholic High School .....	1,122	5
Federal Reserve Bank .....	230	7	Cherry Hill Junior High School ..	..	1,222
Fidelity & Deposit Co. ....	440	7	Dunbar High School .....	..	2,684
Fidelity National Bank .....	423	10	Johns Hopkins University .....	1,552	13
Fort Holabird (Air Force Personnel) ..	110	36	Mergenthaler Vocational High School ..	2,443	48
Fulton Laundry .....	19	53	Morgan State College .....	1	1,010
Gunther Brewing Co. ....	586	8	Seton High School .....	1,158	5
Harbison-Walker Refractories, Inc. ....	216	257	School No. 3 .....	176	4
Hochschild, Kohn & Co. ....	1,377	240	School No. 9 .....	119	16
Wm. E. Hooper & Sons .....	374	139	School No. 13 .....	56	..
Institute of Notre Dame .....	575	1	School No. 55 .....	58	..
Internal Revenue Service .....	768	164	School No. 56 .....	65	..
International Harvester Co. ....	198	6	School No. 74 .....	57	27
C. M. Kemp Mfg. Co. ....	134	2	School No. 98 .....	163	..
Koontz Creamery .....	135	10	School No. 107 .....	..	103
Lebow Brothers .....	209	9	School No. 109 .....	..	40
Lever Bros. & Co. ....	470	61	School No. 112 .....	..	59
Lord Baltimore Hotel .....	115	33	School No. 116 .....	..	218
Lord Baltimore Press .....	482	80	School No. 122 .....	..	191
Lutheran Hospital .....	189	136	School No. 129 .....	..	47
Marlboro Shirt Co. ....	348	24	School No. 130 .....	1	1,443
Maryland General Hospital .....	281	114	School No. 131 .....	..	86
Maryland Glass Co. ....	338	132	School No. 138 .....	..	27
Maryland State Teachers Conv. ....	1,164	286	School No. 176 .....	..	200
McCormick & Co. ....	395	48	School No. 182 .....	1	288
Men's Hats .....	359	64	School No. 294 .....	97	1
Mercantile Trust Co. ....	422	8	School No. 296 .....	149	3
Mercy Hospital .....	356	202	School No. 298 .....	466	69
National Brewing Co. ....	556	5	School No. 451 .....	..	148
National Can Co. ....	586	28	School No. 452 .....	..	249
Oriole Shoe Mfg. Co. ....	192	3	School No. 453 .....	1	457
Proctor & Gamble Mfg. Co. ....	402	10			
Edward W. Renneburg & Sons .....	88	29			
Seton Institute .....	201	75			

## BUREAU OF VENEREAL DISEASES

N. A. Nelson, M.D., M.P.H.

*Director*

### *Morbidity and Mortality*

Analysis of the bureau's records indicated that the reported incidence of early syphilis has been gradually increasing since 1953, a trend that was being observed in many areas throughout the United States. Although total reports of syphilis declined slightly, 1,354 in 1956 as compared with 1,408 in 1955, the number of reported cases of primary and secondary syphilis increased from 118 in 1953 to 223 in 1956. Two cases of syphilis in infancy were reported in 1956 as compared with one case in 1955.

The recorded death rate from syphilis was 6.1 per 100,000 population in 1956, the same as in 1955. For the eighth consecutive year for white infants and for the sixth consecutive year for colored infants, no death from syphilis was recorded.

The number of reported cases of gonorrhea continued to decrease, 6,452 cases in 1956, as compared with 6,890 in 1955 and 7,105 in 1954. Repeated reinfection of the same individuals continued to occur so that approximately 21.8 per cent of the infections reported in 1956 occurred in individuals who had had one or more previous infections during the calendar year.

### *Epidemiology and Case Holding*

The results of the investigation of contacts with gonorrhea or syphilis are shown in Tables Nos. 5, 6 and 7. Contact investigation in syphilis continued to be relatively unproductive due to the small number of infectious cases among persons who came to medical attention. Contact investigation in gonorrhea remained discouraging, since it was almost impossible in many instances to obtain adequate identifying information from the informant patient.

Despite the problems involved in contact investigation efforts in this phase of the program were intensified. In cooperation with the Maryland State Department of Health the Bureau of Venereal Diseases initiated a special study whereby the services of a male investigator well versed in venereal disease epidemiological procedures were utilized to investigate and bring to examination those sex contacts of infectious venereal disease patients who could only be found at night, and who frequented the numerous night clubs within the city. Although the study was in operation for only a short time, it showed a moderate degree of success.

In addition, during the latter part of 1956 a new treatment schedule for syphilis and contacts of infectious syphilis was initiated. Using a relatively new form of penicillin, benzathine penicillin G, it was possible to reduce the number of injections given to such patients from as many as 16 injections, depending on the stage of syphilis for which the patient was being treated, to one or two injections. Since each injection necessitated a clinic visit, the advantages of the new treatment schedule were immediately obvious. The patient thereby received complete and adequate anti-syphilitic therapy in one to two visits, the amount of time required of clerical personnel to handle patient records was reduced, the amount of time required of public health nursing personnel to visit and persuade delinquent patients to return to complete their therapy was completely eliminated, and the risk of inadequately treated patients spreading infection became almost nil. During the year 5,453 visits were made by the public health nurses for the investigation of contacts and the follow up of delinquent patients.

### *The Clinics*

The Department conducted clinics at four locations to a total of 18 sessions a week for adults and 4 for children. On October 1, 1956 because of a decrease in the number of children being examined the number of sessions for children was reduced to 2 sessions a week. Because of budgetary limitations, and partially because of a moderate decrease in the patient load, all venereal disease clinic activities at the Southern Health District building and one adult session at the Calvert Street clinic were discontinued at the end of the year. As shown in Table No. 8, these clinics reported 10,658 admissions during the year compared to 11,333 in 1955. The clinics also reported 23,323 patient visits in 1956, as compared to 26,161 in 1955.

Other medical agencies transferred 451 patients to the Health Department venereal disease clinics because of treatment delinquency, the availability of evening clinics and miscellaneous other reasons.

The Calvert Street clinic collected 1,627 blood specimens for testing for syphilis during the year for the City Service Commission, but this activity was discontinued on December 1, 1956 by mutual agreement.

### *City Isolation Ordinance and Juvenile Cases*

Pursuant to the power conferred upon the Commissioner of Health by Section 217 of Article 12 of the Baltimore City Code of 1950, the regulation governing the control of persons having a communicable venereal disease was amended on December 17, 1956 to include those persons suspected of having a communicable venereal disease. It is gratifying to note, however, that it was unnecessary to invoke the City Isolation Ordinance during 1956.

During the year one mother of six children was reported to the Health Department as having failed to have her children examined for syphilis. As the result of action initiated by the Bureau of Venereal Diseases, all the children were eventually examined. Due to the continued excellent assistance of the Probation Officers of the Juvenile Court, it was unnecessary for the fourth consecutive year to resort to formal court action in any case in 1956.

### *The Armed Forces*

In addition to the investigation and examination of contacts of infected military personnel as shown in Table No. 7, the Health Department and the Armed Forces collaborated in the examination and treatment of 8 selectees found to have positive serologic tests for syphilis at the time of examination at the induction station, and of 14 men found to have evidence of a venereal disease at the time of their separation from the Armed Forces. The Director of the Bureau of Venereal Diseases continued to serve as a member of the Civilian Advisory Board of the Armed Forces Disciplinary Control Board.

### *Staff Training*

Fifteen public health nurses were trained in treatment techniques during the year. The Director of the Bureau of Venereal Diseases gave a series of six lectures on the venereal diseases to a group of public health nurses and venereal disease clerks, bringing the total of such lectures to 72 during the past nine years. The Supervisor of Public Health Nursing assigned to the Bureau of Venereal Diseases conducted 27 seminars on venereal disease control to a total attendance of 224 student and staff nurses.

### *Staff Changes*

Dr. Nels A. Nelson, Director of the Bureau of Venereal Diseases since August 1, 1946, retired on September 30, 1956. Dr. Milton Zises was assigned by the U. S. Public Health Service to assume the duties of the director on a temporary basis.

### **Personnel**

Milton Zises, M.D., M.P.H., Acting Director  
Nels A. Nelson, M.D., M.P.H., Director\*  
Morris M. Cohen, M.D., Senior Medical Supervisor  
Albert L. Laforest, M.D., Senior Medical Supervisor  
Ernest W. Shervington, M.D., Senior Medical Supervisor  
J. Douglass Shepperd, M.D., Medical Supervisor  
Harris Goldman, M.D., Medical Supervisor

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\* Retired on September 30, 1956.

Louis E. Harmon, M.D., Medical Supervisor  
William Atwell Jones, M.D., Medical Supervisor  
G. Raynor Browne, M.D., Health Officer  
William Berkley Butler, M.D., Health Officer  
George C. Page, M.D., Health Officer  
Charles T. Woodland, M.D., Health Officer

*Clinic Physicians*

Moses L. Barksdale, M.D.	Clarence W. Martin, M.D.
Ernest S. Cross, Jr., M.D.	Robert Mazer, M.D.
Harris Goldman, M.D.	Israel P. Meranski, M.D.
Sylvan Goodman, M.D.	George H. Pendleton, M.D.
Thomas W. Harris, Jr., M.D.	Talmadge H. Pinkney, M.D.
Richard H. Hunt, M.D.	William G. Polk, M.D.
Jether M. Jones, Jr., M.D.	Oliver R. Roth, M.D.
William Atwell Jones, M.D.	Robert T. Singleton, M.D.
Harry C. Kaine, M.D.	Percival C. Smith, M.D.
Howard C. Kramer, M.D.	Stanley N. Yaffe, M.D.
Robert E. Yim, M.D.	

*Public Health Nurses*

Virginia R. Struve, B.S., Senior Supervisor of Public  
Health Nursing, Venereal Disease

Mary C. Bacon	Marianne A. Fetsch*
Minnie Leah Corbin	Rose M. Hoffman
Ruth F. Eckman, B.A.	Ella T. Hughes
Margaret T. Ellis	Erdie L. Scott
Mary Jane Lucas	Florence Zinz

Mattie May Gwynn, Principal Clerk Stenographer  
Lillian T. Howard, Senior Clerk Stenographer  
Anne S. Elliott, Senior Clerk-Typist  
Ruth E. Holmes, Senior Clerk-Typist  
Mary L. Chapman, Senior Clerk-Typist  
Grace M. Hawes, Clerk Stenographer  
Ella M. Allen, Clerk-Typist  
Mildred E. Greene, Clerk-Typist  
James P. Lynch, Clerk-Typist  
Mary M. Rogers, Clerk-Typist  
Philomena Simms, Clerk-Typist  
Mary H. Stewart, Clerk-Typist  
Joan Tynes, Clerk-Typist  
Leo M. White, Clerk-Typist

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\* Part-time employee.

TABLE NO. 1  
REPORTED INFECTIONS OF VENEREAL DISEASE, ACCORDING TO  
SOURCE OF REPORT—1952-1956

SOURCE OF REPORT	SYPHILIS					GONORRHEA					CHANCROID				
	1956	1955	1954	1953	1952	1956	1955	1954	1953	1952	1956	1955	1954	1953	1952
TOTAL.....	1,354	1,408	1,283	1,336	1,982	6,452	6,890	7,105	7,012	6,940	13	21	27	41	148
Private Physicians.....	80	90	68	105	245	417	399	353	403	424	1	..	..	2	..
Health Department Clin- ics.....	638	680	761	729	940	5,869	6,347	6,638	6,479	6,345	10	14	19	25	137
Other Medical Agencies....	636	638	454	502	797	168	144	114	130	171	2	7	8	14	

TABLE NO. 2  
REPORTED INFECTIONS OF VENEREAL DISEASE, ACCORDING TO COLOR AND  
SEX OF PATIENT—1956

COLOR AND SEX OF PATIENTS	SYPHILIS						GONORRHEA	CHANCROID
	Total	Primary and Secondary	Latent	Late	Con- genital	Stage Not Stated		
TOTAL.....	1,354	223	709	273	23	126	6,452	13
White								
Male.....	102	17	41	27	1	16	355	1
Female.....	50	4	28	10	3	5	79	..
Colored								
Male.....	619	128	313	118	10	52	5,210	8
Female.....	583	74	327	120	9	53	808	4

TABLE NO. 3  
REPORTED INFECTIONS OF CERTAIN VENEREAL DISEASES, ACCORDING TO  
COLOR, SEX AND AGE OF PATIENT—1956

AGE	TOTAL	WHITE			COLORED		
		Total	Male	Female	Total	Male	Female

PRIMARY AND SECONDARY SYPHILIS							
All Ages.....	223	21	17	4	202	123	74
Under 15 years.....	2	..	..	..	2	..	2
15-19 years.....	46	..	..	..	46	14	32
20-24 years.....	79	4	3	1	75	54	21
25-29 years.....	40	5	4	1	35	24	11
30-34 years.....	30	5	4	1	25	19	6
35-39 years.....	12	3	2	1	9	7	2
40-44 years.....	7	1	1	..	6	6	..
45-49 years.....	..	..	..	..	..	..	..
50 years and over.....	6	3	3	..	3	3	..
Age unspecified.....	1	..	..	..	1	1	..

LATENT SYPHILIS							
All Ages.....	709	69	41	28	640	313	327
Under 15 years.....	3	..	..	..	3	..	3
15-19 years.....	41	1	..	1	40	10	30
20-24 years.....	73	2	1	1	76	30	46
25-29 years.....	80	4	1	3	76	26	50
30-34 years.....	88	4	1	3	84	39	45
35-39 years.....	71	5	3	2	66	35	31
40-44 years.....	59	5	2	3	54	25	29
45-49 years.....	54	5	2	3	49	25	24
50 years and over.....	224	42	30	12	182	120	62
Age unspecified.....	11	1	1	..	10	3	7

OTHER ACQUIRED SYPHILIS							
All Ages.....	399	53	43	15	341	168	173
Under 15 years.....	1	1	1	..	..	..	..
15-19 years.....	7	..	..	..	7	1	6
20-24 years.....	23	1	1	..	22	8	14
25-29 years.....	42	2	1	1	40	11	29
30-34 years.....	50	3	2	1	47	18	29
35-39 years.....	48	5	4	1	43	17	26
40-44 years.....	31	2	..	2	29	13	16
45-49 years.....	39	10	7	3	29	19	10
50 years and over.....	150	34	27	7	116	81	35
Age unspecified.....	8	..	..	..	8	..	8

CONGENITAL SYPHILIS							
All Ages.....	23	4	1	3	19	10	9
Under 1 year.....	2	..	..	..	2	2	..
1-14 years.....	1	1	..	1	..	..	..
15-24 years.....	12	1	..	1	11	5	6
25 years and over.....	7	2	1	1	5	2	3
Age not specified.....	1	..	..	..	1	1	..

GONORRHEA							
All Ages.....	6,452	434	355	79	6,018	5,210	808
Under 15 years.....	60	5	3	2	55	19	36
15-19 years.....	957	63	44	19	894	620	274
20-24 years.....	2,301	96	72	24	2,205	1,914	291
25-29 years.....	1,560	95	84	11	1,465	1,352	113
30-34 years.....	894	80	69	11	814	763	61
35-39 years.....	376	42	36	6	334	309	25
40-44 years.....	184	31	26	5	153	141	12
45-49 years.....	56	7	6	1	49	48	1
50 years and over.....	48	11	11	..	37	34	3
Age not specified.....	16	4	4	..	12	10	2



TABLE NO. 4  
RESIDENT DEATHS ATTRIBUTABLE TO SYPHILIS, BY CAUSE OF DEATH AND COLOR  
1952-1956

CAUSE OF DEATH	1956			1955			1954			1953			1952		
	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored
TOTAL.....	69	20	39	59	11	48	57	14	43	63	15	48	97	35	62
Syphilis in infants under 1 year of age.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
General paralysis of the insane.....	1	..	1	6	3	3	3	2	1	10	3	7	15	1	14
Tabes dorsalis.....	1	1	..	1	..	1	1	1	..	1	1	..	..	..	..
Aneurysm of the aorta.....	21	9	12	16	3	13	23	3	20	19	3	16	23	11	12
Other forms of syphilis.....	36	10	26	36	5	31	30	8	22	33	8	25	59	23	36

TABLE NO. 5  
RESULTS OF INVESTIGATION OF CONTACTS OF CITY CLINIC PATIENTS, BY  
COLOR AND SEX OF CONTACT AND DISEASE—1956

COLOR AND SEX OF CONTACT AND DISEASE IN PATIENT	TOTAL CONTACTS NAMED <sup>1</sup>	PREVIOUSLY KNOWN	INVESTIGATED BUT NOT FOUND	FOUND BUT NOT EX- AMINED	CONTACTS EXAMINED				INFECTIONS DISCOVERED <sup>2</sup>			
					Total Examined	Infected With Ho- mologous Disease <sup>3</sup>	Not Infected With Homologous Disease	Examination Not Completed <sup>4</sup>	Total Infections Discovered	Primary And Sec- ondary Syphilis	All Other Syphilis	Gonorrhea <sup>3</sup>
TOTAL.....	4,687	683	1,679	545	1,780	461	531	788	485	36	46	403
TOTAL SYPHILIS.....	941	131	96	85	629	70	505	54	83	34	37	12
White												
Male.....	16	..	4	2	10	1	9	..	2	..	1	1
Female.....	20	2	3	1	14	4	8	2	5	1	3	1
Colored												
Male.....	442	70	40	50	282	22	235	25	28	9	13	6
Female.....	463	59	49	32	323	43	253	27	48	24	20	4
TOTAL GONORRHEA....	3,746	552	1,583	460	1,151	391	26	734	402	2	9	391
White												
Male.....	32	31	1	..	..	..	..	..	..	..	..	..
Female.....	97	28	23	9	37	23	..	14	24	..	1	23
Colored												
Male.....	113	62	7	10	14	4	8	2	4	..	..	4
Female.....	3,504	411	1,552	441	1,100	364	18	718	374	2	8	364

<sup>1</sup> Excludes contacts regarding whom insufficient information was obtained to justify investigation.

<sup>2</sup> Some contacts had multiple infections, so that number of infections discovered is greater than the number of contacts infected.

<sup>3</sup> Does not include 720 contacts treated for gonorrhea, but diagnosis not bacteriologically confirmed.

<sup>4</sup> Of these, 720 were treated for gonorrhea for epidemiologic reasons.

**TABLE NO. 6**  
**RESULTS OF INVESTIGATION OF CONTACTS REFERRED BY OTHER AGENCIES,**  
**EXCLUSIVE OF THE ARMED FORCES, BY COLOR AND SEX OF CONTACT**  
**AND DISEASE—1956**

COLOR AND SEX OF CONTACT AND DISEASE IN PATIENT	TOTAL CONTACTS NAMED <sup>1</sup>	PREVIOUSLY KNOWN	INVESTIGATED BUT NOT FOUND	FOUND BUT NOT EXAMINED	CONTACTS EXAMINED				INFECTIONS DISCOVERED <sup>2</sup>			
					Total Examined	Infected With Homologous Disease <sup>3</sup>	Not Infected With Homologous Disease	Examination Not Completed <sup>4</sup>	Total Infections Discovered	Primary And Secondary Syphilis	All Other Syphilis	Gonorrhea <sup>5</sup>
TOTAL .....	419	19	169	34	197	13	132	52	16	3	5	8
TOTAL SYPHILIS .....	254	15	60	19	160	7	131	23	9	3	4	2
White												
Male .....	3	1	..	..	2	..	2	..	..	..	..	..
Female .....	10	2	2	1	5	1	3	1	1	1	..	..
Colored												
Male .....	132	6	26	11	89	4	72	13	4	1	3	..
Female .....	109	6	32	7	64	2	54	8	4	1	1	2
TOTAL GONORRHEA .....	165	4	109	15	37	6	1	30	7	..	1	6
White												
Male .....	..	..	..	2	2	..	..	2	..	..	..	..
Female .....	12	..	8	..	..	..	..	..	..	..	..	..
Colored												
Male .....	..	..	..	..	..	..	..	..	..	..	..	..
Female .....	153	4	101	13	35	6	1	28	7	..	1	6

- <sup>1</sup> Excludes contacts regarding whom insufficient information was obtained to justify investigation.  
<sup>2</sup> Some contacts had multiple infections, so that number of infections discovered is greater than the number of contacts infected.  
<sup>3</sup> Does not include 33 contacts treated for gonorrhea, but diagnosis not bacteriologically confirmed.  
<sup>4</sup> Of these, 33 were treated for gonorrhea for epidemiologic reasons.

**TABLE NO. 7**  
**RESULTS OF INVESTIGATION OF CONTACTS REFERRED BY THE ARMED FORCES,**  
**BY COLOR AND SEX OF CONTACT AND DISEASE—1956**

COLOR AND SEX OF CONTACT AND DISEASE IN PATIENTS	TOTAL CONTACTS NAMED <sup>1</sup>	PREVIOUSLY KNOWN	INVESTIGATED BUT NOT FOUND	FOUND BUT NOT EXAMINED	CONTACTS EXAMINED				INFECTIONS DISCOVERED <sup>2</sup>			
					Total Examined	Infected With Homologous Disease <sup>3</sup>	Not Infected With Homologous Disease	Examination Not Completed <sup>4</sup>	Total Infections Discovered	Primary And Secondary Syphilis	All Other Syphilis	Gonorrhea <sup>5</sup>
TOTAL .....	226	13	83	28	102	31	13	58	31	3	..	28
TOTAL SYPHILIS .....	31	2	12	2	15	3	9	3	3	3	..	..
White												
Male .....	..	..	3	..	1	1	..	..	1	1	..	..
Female .....	4	..	..	..	..	..	..	..	..	..	..	..
Colored												
Male .....	1	..	1	..	14	2	9	3	2	2	..	..
Female .....	26	2	8	2	..	..	..	..	..	..	..	..
TOTAL GONORRHEA .....	195	11	71	26	87	28	4	55	28	..	..	28
White												
Male .....	29	..	17	2	10	6	1	3	6	..	..	6
Female .....	..	..	..	..	..	..	..	..	..	..	..	..
Colored												
Male .....	..	..	..	..	..	..	..	..	..	..	..	..
Female .....	166	11	54	24	77	22	3	52	22	..	..	22

- <sup>1</sup> Excludes contacts regarding whom insufficient information was obtained to justify investigation.  
<sup>2</sup> Some contacts had multiple infections, so that number of infections discovered is greater than number of contacts infected.  
<sup>3</sup> Does not include 55 contacts treated for gonorrhea, but diagnosis not bacteriologically confirmed.  
<sup>4</sup> Of these, 55 were treated for gonorrhea for epidemiologic reasons.

TABLE NO. 8  
ADMISSIONS TO CITY VENEREAL DISEASE CLINICS BY DISEASE, AND VISITS BY  
COLOR AND SEX—1956

ADMISSIONS	
DISEASE	CITY CLINICS
TOTAL.....	10,658
Total syphilis.....	747
Primary or secondary.....	176
Latent.....	396
Late.....	154
Congenital.....	21
Stage not stated.....	..
Gonorrhea.....	5,928
Presumptive of gonorrhea*.....	1,018
Chancroid.....	10
Lymphogranuloma venereum.....	6
Granuloma inguinale.....	4
Not infected with venereal disease.....	2,701
Diagnosis not completed.....	244
VISITS	
RACE AND SEX	CITY CLINICS
TOTAL.....	23,323
White.....	1,897
Male.....	1,408
Female.....	489
Colored.....	21,426
Male.....	13,067
Female.....	8,359

\* Contacts of patients with gonorrhea, treated for gonorrhea, but diagnosis not confirmed bacteriologically  
These contacts also serologically negative.

## BUREAU OF CHILD HYGIENE

Janet B. Hardy, M.D.

*Director*

### Maternity Hygiene

On January 1, 1956, Dr. Irvin M. Cushner assumed his duties as Associate Chief of the Division of Maternity Hygiene. He was appointed Secretary of the Joint Committee on Maternal Mortality of the Baltimore City Health Department and the Baltimore City Medical Society.

There were 23,782 babies born to Baltimore mothers in 1956 as compared with 23,291 born in 1955. The 1956 figure is the second highest resident total ever recorded, the all-time high having been reached in 1947 when 23,992 births were counted. In 1956 the birth rate was 24.4 as compared to 24.1 for 1955. The rate for the white group was 20.2 per 1,000 population in 1956 as compared to 20.5 for 1955. For the nonwhite contingent the birth rate was 34.8 as compared to 33.6 for 1955.

The place of delivery and attendance at delivery, important indicators of the quality of obstetrical care, are shown in the tables below:

PERCENTAGE DISTRIBUTION OF BIRTHS ACCORDING TO PLACE OF DELIVERY,  
ATTENDANCE AND RACE

	TOTAL			WHITE			NONWHITE		
	1956	1955	1954	1956	1955	1954	1956	1955	1954
Number.....	23,782	23,291	23,523	14,032	14,366	14,949	9,750	8,925	8,574
Per cent.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Hospital.....	97.0	97.0	96.4	99.0	98.5	98.3	95.0	93.1	90.5
Home.....	3.0	3.0	3.6	1.0	1.5	1.7	5.0	5.4	6.9
Physician.....	2.0	1.9	2.4	1.0	1.2	1.4	3.0	3.1	4.1
Midwife.....	1.0	0.9	1.1	..	0.3	0.5	1.0	1.9	2.5
Unattended.....	..	0.2	0.1	..	0.1	0.1	1.0	0.4	0.2

Baltimore City Hospitals, the Johns Hopkins Hospital, the University of Maryland Hospital, Provident Hospital, Sinai Hospital, Franklin Square and the Lutheran Hospital, continued during 1956 to admit nonwhite obstetrical patients. No other private hospitals admitted colored patients. Some had plans for future admission of this group of patients, contingent upon approval by the hospital boards and upon future building plans.

The number of resident mothers who died from causes associated with childbirth was 10 in 1956 as compared to 12 in 1955. This represents a decrease in the maternal mortality rate of 4.2 for 1956 as compared to 5.2

for 1955. Of the 10 maternal deaths 4 occurred in the white group and 6 in the nonwhite group. The maternal death rate was 2.9 per 10,000 live births for the white and 6.2 per 10,000 live births for the nonwhite segment of the population.

It should be noted that, while toxemia increased as a cause of maternal death in the United States there were no toxemia deaths in Baltimore during 1956. Inasmuch as a large proportion of toxemia deaths are eclamptic, the absence of toxemia in local maternal deaths bespeaks an improvement in prenatal care with its prevention, early diagnosis and astute management of pre-eclampsia. Another interesting aspect of the causes of maternal deaths is that 8 of the 10 deaths were associated with criminal abortion. All maternal deaths in residents and nonresidents in the City were investigated and reviewed by the Joint Committee on Maternal Mortality.

### *Interviewing Service*

The maternity hygiene interviewing service continued to assist patients to obtain prenatal and delivery care from physicians and voluntary hospitals and to register patients for the Health Department prenatal clinics. Private hospital participation made possible more complete utilization of all available maternity beds.

During the year 5,766 patients were interviewed as compared to 4,880 in 1955. This figure represented an increase of 886 or 18 per cent over the previous year. Of those interviewed 2,068 patients or 36.0 per cent, were referred to voluntary hospitals, as compared to 1,093 or 22 per cent in 1955. Approximately 25 per cent of all resident Baltimore women who delivered in 1956 were rendered service by the interviewing staff.

One hundred and twenty-three patients were admitted as emergencies directly from the interviewing service center at 414 N. Calvert Street to hospitals during 1956. These patients were in need of immediate treatment for complications of pregnancy which could have been fatal if hospital care had not been obtained at once.

In addition to medical referrals there were a great many referrals to and from social agencies. The referrals to the social agencies were for adoption, family rehabilitation, financial assistance and other social needs. An increased number of social agencies, private physicians, business and professional persons referred patients to the service during the year.

The present interviewing program was started during the latter part of 1954 and the first full year of operation was 1955. In 1954 there were 4,409 deliveries at Baltimore City Hospitals with only 38 per cent having been registered for delivery. In 1955 the number of deliveries was 5,143 with 64 per cent registered, and in 1956 the number of deliveries was 4,716 deliveries with 60 per cent registered. This increase in the number of regis-

tered patients indicated that a larger number of patients received prenatal care and also enabled Baltimore City Hospitals to make business arrangements earlier in pregnancy with patients who were to be delivered there. An interesting and significant sidelight was the decreased number of women delivering unregistered in hospital accident rooms without having had prenatal care. Thus the value of the interviewing service was very conspicuous.

### *Maternity Hygiene Clinics*

Health Department prenatal clinic sessions were conducted at six locations with thirty-one weekly clinic sessions. Thirteen of the thirty-one sessions were screening clinics which were held weekly at three of the six locations. During the year 4,557 patients made a total of 19,456 visits, approximately 4.3 visits per patient. In 1955, 4,547 patients made a total of 21,407 visits with approximately 4.7 visits per patient.

As of July 2 the poliomyelitis vaccine priorities were broadened to include pregnant women. Pregnant women seen in both the screening and regular prenatal clinics were included in the program starting July 9. By the end of the year 2,414 prenatal injections of poliomyelitis vaccine had been given to prenatal clinic patients.

### *Midwives*

The prenatal clinics continued to give prenatal care to the group of patients registered with licensed midwives for home delivery. There has been splendid cooperation from the seven remaining midwives in the city in sending their patients to the clinics by appointment and their willingness to transfer to hospital care those cases considered unsafe for home delivery. The midwives also requested advice before registering questionable cases for home delivery. Furthermore, only 123 nonwhite patients and 29 white patients were delivered by midwives. At the end of the year 17 hospital maternity services were inspected and licenses granted.

### **Preschool Hygiene**

Dr. Kay K. Edwards, who was appointed Assistant Director of the Bureau of Child Hygiene on September 6, 1951, was promoted to the position of Director of the Bureau of Child Hygiene on November 8, 1956. Dr. Edwards resigned this post on December 7. At the close of the year the position was still vacant.

### *Infant Mortality*

The 1956 infant mortality rate of 30.0 showed a 3.2 per cent decrease over the 1955 rate of 31.0 per 1,000 live births. There was a decline in the colored infant mortality rate to 39.0 per 1,000 live births as compared with

42.9 in 1955. The infant mortality rate for the white live births was 23.8 for 1956 as compared with 23.7 for 1955. Prematurity continued to account for a large number of neonatal deaths.

#### *Premature Infant Service*

Services for premature infants were available in most of the hospitals. The three larger units, particularly that at Baltimore City Hospitals, cared for the major proportion of such infants. The unit at Baltimore City Hospitals was remodeled and equipped with more adequate facilities for the care of premature infants. Through the cooperation of the City Fire Department and the City Health Department premature infants continued to be transported in special carriers.

#### *Home Visiting Service*

Public health nursing visits were routinely made to babies born prematurely, babies malformed or injured at birth and to selected cases as determined by the supervising and staff nurses in regard to health and socioeconomic conditions.

Within the past several years, studies were made in which uniformly it was demonstrated that at least 85 per cent of infants had been immunized against diphtheria before a given group of infants had reached ten months of age. It appeared feasible and consistent with epidemiological concepts of diphtheria control to eliminate at this time the ten month follow-up procedure which had been carried out for many years and, without doubt, had real value at an earlier date when inoculation was less well accepted. As a result of these studies the routine ten-month nursing visit was discontinued; the time saved thereby was used in newer-type services. Continuous sample studies will be made to ascertain the percentage of infants who are inoculated by one year of age.

The service for ophthalmia neonatorum control continued with 30 cases reported and investigated by the Health Department. Nursing care was given to all of the reported cases with a total of 71 home visits. Three cases were referred to hospital dispensaries for further care.

#### *Child Health Clinics*

The child health clinic program was beset with the problems of overcrowding and of obtaining services of clinic physicians. In the early part of the year the service was covered by a decreased number of clinicians who were willing to carry additional clinic sessions in order to provide service where vacancies existed. Toward the end of the third quarter the clinician shortage became more acute and by the end of the year 10 weekly clinic sessions were closed because of the clinician shortage. These difficulties

were related to the inadequacy of remuneration available for services rendered and to the overcrowded conditions prevailing in the clinics.

Child health clinics were conducted at 38 locations with a total of 4,649 clinic physician sessions for the year. There were 92,375 clinic visits in 1956 as compared with 80,156 visits in 1955. In 1951, the total number of clinic visits was 70,569 showing an increase of 21,806 or 31 per cent during the five year period.

The child health clinic in the dispensary building at the University of Maryland Hospital continued to function as a joint project of the Baltimore City Health Department and the Department of Pediatrics of the University of Maryland. The joint project clinic at Union Memorial Hospital was maintained and a new clinic was opened in the outpatient department of Provident Hospital as a joint endeavor of that hospital and the Health Department.

The pediatric service at Sinai Hospital continued to provide service in the clinic in the Eastern Health District building. Students taking the course in maternal and child health at the Johns Hopkins School of Hygiene and Public Health observed in the clinic in the Eastern Health District building and participated in the clinic activity.

#### *Preventive Inoculations*

Inoculations of triple antigen, diphtheria and tetanus toxoid combined with pertussis vaccine were continued in the child health clinics and immunization clinics. Special immunization clinics were held for the convenience of children entering school. During the year, 22,000 Four Month Greeting Cards from the Commissioner of Health urging parents to secure toxoid inoculations for their children were mailed by the bureau.

Physicians in private practice reported the administration of toxoid to 8,965 children as compared with 10,660 in 1955. In the child health clinics 33,481 inoculations were given as compared with 35,868 in 1955; 6,264 were vaccinated against smallpox as compared with 14,454 in 1955.

#### *Poliomyelitis Vaccine Program*

In 1955, the greatest risk of paralytic poliomyelitis, both nationally and locally, were the 3 and 4 year olds. Early in 1956, the national priority regulations permitted the giving of poliomyelitis vaccine to children from one to sixteen years of age. Starting on January 16, poliomyelitis vaccine inoculation was adopted as a routine procedure in the child health clinics. Children not registered in the child health clinics were referred to their private physicians or to the Health Department special immunization clinics when there was no private physician.

On July 2 the poliomyelitis vaccine priorities were broadened to include



individuals from three months of age through nineteen years of age and pregnant women. In order to provide maximum protection for the poliomyelitis season, which was fast approaching, the interval between the first and second doses of vaccine was reduced from two months to one month. The response to this new priority was so great that it became necessary to curtail some of the routine well baby clinic activities in order to meet the public demand. Although there were no contraindications to giving D.P.T. and polio vaccine at the same visit, indications were that it would be less confusing to the parents to separate the inoculations and the following schedule was adopted: At three and four months poliomyelitis vaccine was given, and at five, six and seven months diphtheria and tetanus toxoid combined with pertussis vaccine were administered and, at one of these visits, smallpox vaccination.

During the year, 110,331 doses of poliomyelitis vaccine were given in the Health Department child health and special immunization clinics. Private physicians reported the administration of poliomyelitis vaccine doses to 90,490 children. An additional 19,707 inoculations were given in the housing project program, 1,433 in the school mop-up program and 2,414 in the prenatal clinics. A total of 224,375 doses of poliomyelitis vaccine was given in 1956 in Baltimore City.

A survey by the Statistical Section in November, 1956 of poliomyelitis inoculation rates by age, race and socioeconomic status in Baltimore City revealed that the children in the highest economic bracket had an 86.2 per cent rate for one dose or more; whereas in the lowest economic bracket the rate of inoculation was only 55 per cent. In addition, white children had, in general, very much higher rates of inoculation, 71 per cent, than Negro children, 39 per cent. These figures were borne out during the summer months when there were 20 cases, or 77 per cent, in the nonwhite race and only 6 cases or 23 per cent, in the white race, which is a complete reversal of the figures for previous summers.

#### *Nutrition Service*

Consultation service continued to be available to the prenatal and child health clinics through the Chief of the Division of Nutrition and her assistant. Owing to the shortage of public health nursing time it was not possible to carry out an extensive program in this field.

#### *Children's Institutions*

The program of annual sanitary and fire inspections of the 14 child-caring institutions located in the city was continued. Reports of the inspections were forwarded to the State Department of Public Welfare, as these institutions are under the supervision of that department.

*Day Nurseries, Nursery Schools and Day Care Centers*

A total of 80 day nurseries with a capacity of 3,039 children held licenses during 1956. Two new licenses were issued and two were discontinued because of failure to meet existing regulations.

Careful screening of persons wishing to apply for day nursery licenses was continued and thirteen applications for licenses were filed in 1956. Of these, 2 were licensed, 9 were withdrawn by the applicants and 2 had not been completely processed at the end of the year.

**Mental Hygiene***Aims and Goals*

The Division of Mental Hygiene continued to focus its efforts on the preventive aspects of the field of mental health and to emphasize the importance of considering the family as an entity in a program dedicated to maintaining and fostering emotional health in the community.

*Mothers' Counseling Service*

The Mothers' Counseling Service was continued in connection with a well baby clinic in the Southern Health District building. Primiparas on their first clinic visits were seen routinely for individual counseling and followed up as need indicated. Others, who presented special problems, were referred by physicians and nurses from this clinic and others in the city. Certain mothers, who had been seen repeatedly while their children were enrolled in child health clinics, returned for help after their children had reached school age. Consultations with nurses and school teachers as well as referral services were utilized in their behalf.

*Group Meetings with Clinic Patients*

Group meetings involving anticipatory counseling as well as pertinent current problems were continued in prenatal clinics of the Southeastern and Eastern Health Districts and in a child health clinic at the Druid Health District building. Individual interviews were held on a selective basis. Motion pictures were shown in connection with the classes. Those used most frequently were "Human Reproduction," "Life with Baby," "Know Your Baby," "The Terrible Twos and the Trusting Threes," "Human Beginnings," "Why Won't Tommy Eat?" and "Bathing Time for Baby." Such classes served not only as a direct service to the community but as training media for both staff and student nurses.

*Staff Education*

In addition to the demonstration programs mentioned above, staff education for newly appointed nurses was continued in the Eastern, Western,

and Druid Health Districts through Mental Hygiene Seminars, each series encompassing ten 1½ hour sessions. A limited follow-up program was discussed and started for selected nurses in conjunction with the staff of the Child Guidance Clinic of the Psychiatric Institute at the University of Maryland Hospital. Consultation services were carried on with nurses individually and in groups. The latter, at times, included pediatricians, parents and school teachers.

### *Community Education*

The Division of Mental Hygiene cooperated with the Bureau of Health Information in two television and two radio programs. Through lectures and group leadership at PTA and faculty meetings relationship with the Department of Education was maintained as it was with the Mental Hygiene Society, particularly in connection with its training program for artists who served as volunteers in the state mental hospitals.

### *Nonlocal Interest in Program*

Correspondence was continued with the Director of Medical Services in British Honduras, Dr. E. Losonczy, who visited the Baltimore City Health Department in 1955 and later set up a program for staff and maternal education. He used the Health Department mental hygiene outline as a base and incorporated many of the Baltimore City Health Department features in his work. It is five years since the revision of *Mental Hygiene in Maternal and Preschool Child Health* was published. During 1956 again requests for copies were received from many different states.

### *Other Activities*

Among other meetings, the division chief attended five annual conferences of national societies concerned with psychological problems, and also the weekly staff meetings of the Psychiatric Institute of the University of Maryland Hospital. She served first on the board and later on the advisory committee of the Marriage Counseling Service of Baltimore. She was a member of a panel on "Therapeutic Relationships" in Chicago at the annual meeting of the American Society for Adlerian Psychology in May. In June, a local newspaper, through one of its television programs, honored her for service to the community.

### **School Health**

Dr. Robert Kugel, who was appointed Associate Chief of the Division of School Health on September 1, 1955, resigned on July 13. No replacement was available for the position and the post was still vacant at the close of the year.

In addition to the vacancy created by Dr. Kugel's resignation, there

were 13 weekly physician-session vacancies at the beginning of the fall school term. The medical personnel shortage continued to the end of the year with 10 weekly sessions uncovered at the end of December. The position of school medical supervisor remained vacant throughout the year.

The program was hampered by this lack of personnel and a shortage of public health nurses, both due to inadequate salaries. Further curtailment was necessary as available physicians and nurses participated in the poliomyelitis vaccine program by working in the immunization clinics.

### *Poliomyelitis Vaccine Program*

In January the poliomyelitis vaccine priority was extended to include all children of more than one year and less than sixteen years of age. All children in the elementary school age group became eligible for vaccine under this priority.

Quite unexpectedly it became evident that the small supply of vaccine available to the Health Department would be inadequate to meet the large school age demand. Because of this, it seemed clear that the duty of the Health Department was to use such supplies of material as were available to the Department, among those school age children who were unable to afford to pay for such services. It was, therefore, decided that the program for inoculating children in the schools be transferred to Health Department clinics in various sections of the City. All persons who made inquiries about the vaccine were urged to obtain this from their private physicians and were informed that the clinics were primarily for those who could not afford the services of a private physician. In the schools 1,433 injections of poliomyelitis vaccine were given in a "mop up" program for children included in the National Foundation for Infantile Paralysis sponsored program of 1955.

### *School Health Program*

During the school year, 1955-1956, 15,058 children new to the school system were examined by school physicians and 6,310 by their family physicians. At the end of the year 1,915 children were awaiting examinations by their private physicians and 10,773 by the school physicians. Because of physical or emotional conditions interfering with the regular educational processes 3,406 children were referred to the school health service and 2,230 were examined by the school physicians.

Of the total number of 15,460 children examined during 1956, 7,875 were found to have defects. As in the previous year efforts were made to keep the medical examinations at a high level of quality, with careful history and physical examination and interpretation of findings to pupil, parents and teachers and referral for further medical services where needed. Parents were encouraged to be present at the medical examination of pupils. The

importance of teacher-nurse conferences was stressed and these were held whenever possible.

The audiometric screening program completed the first full year of operation with a total of 23,361 children screened in the public and parochial elementary schools during the year. Children were individually screened using the pure tone sweep check method. This program included the screening of all children at the fourth grade level, and all other children suspected of having difficulties in the school at the time of the fourth grade testing. Children who failed the test twice were referred either to private sources of medical care or to the special hearing clinic maintained by the Health Department. Three part-time audiometrists carried on this program and also staffed the Health Department hearing clinics.

During the first half of the year two hearing clinic sessions were held each week at 414 North Calvert Street and one four-hour session was held at the Eastern Health District building each week.

Two three-hour eye clinic sessions were held in the Eastern Health District building each week. This clinic continued to be staffed by the medical staff of the Wilmer Institute at the Johns Hopkins Hospital.

A steadily growing vision screening program designed to screen every elementary school child each year was made possible by the participation of 476 parent volunteers. These ladies were trained by the Maryland Society for the Prevention of Blindness and worked under the supervision of the public health nurses who rescreened the children who failed the first test; 26,358 children were tested in 51 schools using the Massachusetts vision testing kit and of this number 4,681 children failed and were referred for diagnosis and care to private sources or to the Health Department eye clinic.

The *Tinea capitis* screening program was continued using the Woods Lamp in schools where cases occurred. The children found to have ringworm were referred for treatment.

Numerous meetings were held with the public health nursing supervisors, the nurses assigned to schools and staff members of the city's public and parochial schools in an effort to improve the quality of health services in the schools. The Chief of the Division of School Health met with the Health Council of the Public Schools of Baltimore, the Coordinating Council of Parent-Teacher Associations, and during the year addressed several Parent-Teacher Association meetings.

### *Services for the Handicapped*

The Division for the Handicapped completed its first full year of operation in 1956. Federal and state funds were made available for the financing of the program.

During the year 1,684 children received physicians' services, either diag-

nostic services in the special clinics in the various general hospitals or from physicians employed by this program to work in the schools for the handicapped, under the auspices of the program. Inpatient hospital care continued to be provided through the Crippled Children's Services of the State Department of Health.

In addition to these services, active liaison was maintained with the Division of Special Services of the Department of Education and with the school health program, particularly in respect to the two special schools for the handicapped.

Dr. Kay K. Edwards, Director of the Bureau of Child Hygiene, was in charge of the program from its inception until November 1956 when she resigned; consequently, at the year's end, there was no full-time director. The program also employed a special pediatric public health nursing supervisor, two part-time audiometrists to work in the school health program, and a medical statistical analyst, with the necessary secretarial staff.

### Nutrition

During 1956, as part of the reorganization within the Health Department, the Division of Nutrition was transferred from the Administrative Section to the Section of Preventive Medicine. Since nutrition education is an integral part of many health activities, this change should tend to facilitate the effective use of the nutritionists in their consultative capacities in the formulating of many health programs. Not only has the Division of Nutrition continued to provide a variety of services which integrate nutrition education with many Health Department activities, but attempts were made to spread nutrition information to all segments of the population. The division of responsibility between the two staff nutritionists for service in given areas of activity as well as geographically was continued since it has proved highly effective in eliminating the overlapping of services in addition to acquainting each nutritionist with a specific area and with district official and nonofficial groups and agencies.

Nutrition services included the following: In-service training of Health Department personnel, instruction of allied personnel in medical schools and hospitals, promotion of nutrition education in elementary and secondary schools, participation in Health Department and other radio and television programs, individual and group instruction in Health Department clinics, preparation of visual aids and other teaching materials, participation in community meetings and activities, and program planning with other official and nonofficial professional and other organizations.

#### *In-service Training*

In-service training included numerous individual and group conferences with public health nurses to assist them with the nutrition aspects of their

work in schools, clinics, and in the homes. These sessions dealt with planning the integration of nutrition education with the school health programs, problems of specific families and individuals, nutrition teaching in clinics, and guidance relative to personal nutrition problems. Groups of new staff nurses attended the division's classes for student nurses. In addition the nutritionists discussed the practical application of nutrition and low cost food buying with each group of student nurses affiliating in the Health Department. The student nurses frequently found the division's services useful in assisting them in teaching family nutrition and in working up thorough case studies. Occasional home visits on a demonstration basis made these activities more realistic and encouraged everyday emphasis on good eating habits. Four hospitals, namely, Maryland General, Lutheran, Mt. Wilson, and the Johns Hopkins Hospital invited the nutritionists to discuss public health nutrition as it related to their student nurse training programs.

Within the Health Department the nutritionists participated in two training programs for sanitarians. Nutrition services in a city health department were discussed in the Eastern Health District with students of the Johns Hopkins School of Hygiene and Public Health and a group of specialists in preventive medicine from the Bethesda Naval Hospital.

The division provided, during April and May, supervised field experience in public health nutrition for Miss Yvonne Berce, a candidate for the Master of Public Health degree at the School of Public Health of the University of North Carolina. This activity allowed the student to see the practical application of classroom instruction.

### *Schools*

Since the elementary schools offer one of the largest areas where nutrition can be taught effectively, promotion of nutrition education activities in the public and parochial schools of the city was encouraged through the Health Department public health nurses assigned to the schools. Because nutrition education can be best accomplished if parent, teacher, and child are well informed, the nutritionists attempted to work with each of these groups. Parents were reached through the Parent-Teacher Association meetings, parent education classes, other parent groups, and occasions where children invited their parents to be their guests at some special classroom function. In one school, the nurse arranged for the nutritionist to talk to several groups of mothers when they were in the school at the time of their child's medical examination. In several schools, the nutritionists worked with the nurses in assisting principals and teachers in planning nutrition programs involving the whole school. Student teachers were given guidance in planning some nutrition emphasis in their teaching. Occasion-

ally, the nutritionists gave talks to classes of students who had worked on some special nutrition project. Several school physicians referred mothers to the nutritionists in the Eastern Health District building for special conferences on dietetic matters.

In the fall the Supervisor of Health Education in the Department of Education invited the nutritionists to participate in the in-service training of seventh and ninth grade teachers who were responsible for teaching units on nutrition. Assistance was given individually to several of these teachers at subsequent conferences. The division chief also participated in two science workshops for public elementary school teachers, one in the Department of Education and the other at Morgan State College.

Upon request, the nutritionists assisted in the secondary schools in promoting good nutrition. The division chief spoke to the student body at Western High School in a program planned by the school nurse and discussed fads and food quackery and their relationship to adolescent needs. School dietitians, teachers, and nurses were given help with visual aid materials and ideas for nutrition programs. Conferences were also held with several groups of high school students who wanted guidance relative to careers in the health field.

In an attempt to give special emphasis to the importance of nutrition to the school child, and particularly a handicapped one, the division chief began a special nutrition program at the Baer School for Handicapped Children that included not only counseling students, parents, and teachers with regard to the special nutrition needs of individual children but the encouragement of better eating habits for all children in the school as a preventive measure.

During the year the nutrition seminars for senior medical students at the University of Maryland who observe in the Health Department child health clinics were continued. These discussions, which were also attended by the pediatric house staff of the hospital, were designed to assist the physician in interpreting nutrition facts in a practical manner to his patients. In addition, the division chief was appointed an Assistant in Pediatrics at the University of Maryland School of Medicine and presented twelve discussions on "Nutritional Requirements" for the junior medical students, both at University Hospital and at Mercy Hospital.

### *Radio and Television*

The nutritionists assisted in the production of four radio and television programs sponsored jointly by the City Health Department and the Medical and Chirurgical Faculty of Maryland. WBAL-TV continued to present the telecast, "The Nutrition Corner," as one of its public service features. On these programs the division chief acted as consultant, planned and wrote



the scripts, and was a regular participant. She also substituted three times for the Home Demonstration Agent on the Extension Services' program, "Homemaking—and How To Do It."

### *Clinics*

Miss Inistore Godfrey, the staff nutritionist, continued to assist in the mothers' classes in the Eastern and Southeastern Health Districts. In the Eastern Health District, along with the physician, public health nurse, and mental hygiene consultant, she was responsible for four sessions in a series. In the Southeastern Health District, she functioned as a consultant to the public health nurse who teaches the whole series. Resource materials and visual aids were provided both groups. Group teaching was carried on in the prenatal clinics in the Southern Health District at Cherry Hill and in the Southeastern Health District. Individual instruction to prenatal patients was given on special problems of low calorie diets, anemia, low sodium diets and budgeting. In addition, other conferences were held with individuals, referred by physicians and nurses, to discuss child feeding, obesity, gaining weight, diabetes, and budget problems.

### *Visual Aids*

Approximately 25,000 pieces of nutrition education materials were distributed in 1956. The nutritionists prepared 22 simple exhibits and displays which were used in the health districts and in the schools. These were designed to meet particular needs and were concerned with such topics as food needs of children, anemia, breakfast, "low salt" foods, high calorie snacks, dental health, citrus fruits, vegetables, cereal, and milk. Exhibits were exchanged regularly between the districts. Assistance was also given the student nurses in planning the posters they prepared during their stay in the Eastern Health District.

### *Community Activities*

During the year instruction was provided for graduate students in several schools. At the Johns Hopkins School of Hygiene and Public Health, "Nutrition Activities in a City Health Department" and "Weight Control Programs" were discussed for the nutrition class, and "Nutrition Education in a School Health Program" for the class in school health. The division chief was the dinner speaker for a group of home economics seniors at Hood College, Frederick, Maryland. She discussed career possibilities in the health field.

In May the Director of the Maryland State Department of Health appointed the division chief as a member of a Committee to Study Overall

Department Needs for Nutrition and Dietary Service Personnel. Both nutritionists also participated on a committee to study means of providing graduate training for nutritionists in this portion of the country.

The division chief was called upon by the Baltimore Study on the Hygiene of Housing conducted at the Eastern Health District to assist in the planning of a food usage questionnaire. It is hoped that this phase of the study will provide pertinent information on Baltimore eating habits.

Both nutritionists assisted the Home Demonstration Agent for Baltimore City in the continuation of a weight control class for members of the Baltimore Homemakers' Clubs. In addition, several Golden Age Clubs were given assistance with questions related to an understanding of food needs for older persons.

#### *Visitors*

Visitors to the division included a physician from Turkey, a dietitian from Australia, the Director of Public Health of Holland, the regional nutrition consultant from the Children's Bureau, a nutrition specialist from the U. S. Public Health Service, and several nutrition representatives from the food industry.

#### *Organization Activities*

Both nutritionists attended and participated in work conferences of the American Home Economics Association's annual meeting in Washington, D. C. The division chief attended the sessions of the American Public Health Association in Atlantic City in November. She was co-chairman of a conference of nutritionists who were employed in city and county health departments. Both nutritionists attended meetings of the Maryland State Welfare Conference, the Maryland Public Health Association, and the Tri-State Hospital meetings in Washington, D. C.

The nutritionists served on the following committees: Nutrition Advisory Committee of the Baltimore Chapter of the American Red Cross, Baltimore Low Cost Budget Committee, Maryland Nutrition Conference, Cabinet of the Maryland Home Economics Association, Committee on the Evaluation of Nutrition Education Materials, Executive Board of the Women's Advertising Club of Baltimore, Executive Board of the Maryland Dietetic Association, Editorial Staff of "The Bulletin" a publication of the Maryland Dietetic Association, and the Community Nutrition Section of the Maryland Dietetic Association. Miss Inistore Godfrey was voted President-elect of the Maryland Dietetic Association.

The table on page 188 shows the direct service rendered the community by the division during the period 1954-56.

### Personnel

Janet B. Hardy, M.D., Director, Bureau of Child Hygiene  
 \_\_\_\_\_, Assistant Director  
 Irvin M. Cushner, M.D., Associate Chief, Division of Maternity Hygiene  
 \_\_\_\_\_, Associate Chief, Division of School Health  
 Sibyl Mandell, Ph.D., Chief, Division of Mental Hygiene  
 Eleanor L. McKnight, B.S., M.S., Chief, Division of Nutrition  
 F. Inistore Godfrey, B.S., M.S., Public Health Nutritionist  
 Grace S. Volmar, R.N., B.S., Supervisor of Public Health Nursing  
 Julia Dalrymple, Principal Clerk Stenographer  
 Josephine Howard, Senior Clerk Stenographer  
 Mary E. Bonomo, Senior Clerk  
 Dorothy Hartman, Senior Clerk  
 Lillian Marley, Senior Clerk  
 Emily Tyburski, Clerk Stenographer  
 Frances Mitchell, Clerk Typist  
 Rachel Williams, Senior Clerk

#### *Prenatal Clinic Physicians*

W. Allen Decker, M.D.	James H. Shell, Jr., M.D.
Isadore A. Siegel, M.D.	Benson Schwartz, M.D.
Louis C. Gareis, M.D.	Arthur C. Tiemeyer, M.D.
Ruth M. Allen, M.D.	José Valderas, M.D.
George E. Wells, Jr., M.D.	Erwin Witkin, M.D.
Erwin Hecker, M.D.	David Solomon, M.D.

#### *Prenatal Clinic Clerks*

Thelma A. Carter, Clerk Typist

#### *Child Health Clinic Physicians*

Raymond L. Clemmens, M.D., Medical Supervisor	Katharine V. Kemp, M.D.
William A. Andersen, M.D.	Irving Kramer, M.D.
McDonald M. Bando, M.D.	Arnold F. Lavenstein, M.D.
Walter P. Block, M.D.	Lucille Liberles, M.D.
J. W. V. Clift, M.D.	Charles F. Maloney, M.D.
Harold S. Farfel, M.D.	Mary E. Matthews, M.D.
Paul H. Hardy, Jr., M.D.	Charles Lee Randol, M.D.
Aaron Harris, M.D.	Gilbert W. Rosenthal, M.D.
Mary L. Hayleck, M.D.	Melchijah Spragins, M.D.
John H. Holmes, III, M.D.	Joseph Taler, M.D.
Clewell Howell, M.D.	William Earl Weeks, M.D.
	Gustav H. Wolterreck, M.D.

#### *Child Health Clinic Clerks*

Beverly Epps, Clerk-Typist	Beatrice Harp, Clerk-Typist
Shirley Hanks, Clerk-Typist	

*School Health Physicians*

Barbara Clark, M.D.	J. H. Holmes, III, M.D.
Charles R. Davidson, M.D.	Leon Howard, M.D.
Leon Donner, M.D.	Grace Jones, M.D.
Maurice Feldman, Jr., M.D.	Irving Kramer, M.D.
Mary O. Gabrielson, M.D.	Robert Mazer, M.D.
Harris Goldman, M.D.	E. Walter Shervington, M.D.
Emil H. Henning, Jr., M.D.	Alvin Stambler, M.D.
H. Zassenhaus, M.D.	

G. F. Magee, M.D., Clinic Physician, Eye Clinic  
Walter Rados, M.D., Clinic Physician, Eye Clinic  
Alvin D. Rudo, M.D., Clinic Physician, Ear Clinic  
George Nager, M.D., Clinic Physician, Ear Clinic

*Division for the Handicapped*

Barbara R. Norton, R.N., B.S., M.A., Senior Supervisor of Public Health Nursing, Pediatrics	W. M. Phelps, M.D. Thelma Rice, B.S., Medical Analyst
Lillie McQuage, Senior Clerk Stenographer	Kathryn Gairoard, Audiometrist
Barbara Clark, M.D.	
Edith Enten, Audiometrist	

*Poliomyelitis Project*

Mary Linderman, Senior Clerk Stenographer	Cornelia Phillips, R. N.
Charles E. Arrabal, M.D.	Ada Henderson, Clerk-Typist
Grace Jones, M.D.	Gladys Wiggins, Clerk-Typist
Irving Kramer, M.D.	Pauline Towns, Clinic Assistant
	Marion Shortt, Clinic Assistant

TABLE NO. 1A  
REPORT OF PRENATAL CLINICS—PATIENTS REGISTERED FOR DELIVERY AT HOSPITAL—1956

CASES AND VISITS	GRAND TOTAL	ALL CLINICS		DAVID HEALTH DISTRICT		GILMORE HOUSING PROJECT		SOUTHERN HEALTH DISTRICT		CHERRY HILL HOMES		SOUTHEASTERN HEALTH DISTRICT		EASTERN HEALTH DISTRICT	
		Wh.	Col.	Wh.	Col.	Wh.	Col.	Wh.	Col.	Wh.	Col.	Wh.	Col.	Wh.	Col.
Total case-load.....	3,334	266	3,068	8	999	473	479	124	479	188	479	84	56	50	875
Cases carried over to 1957.....	679	61	618	7	232	114	90	29	90	57	90	23	25	2	100
Discharged cases															
Total.....	2,655	205	2,450	1	767	359	389	95	389	129	389	61	31	48	775
Not pregnant.....	125	3	122	..	11	3	..	2	..	..	..	..	..	1	7
Delivered in hospital.....	2,351	183	2,368	1	741	348	373	85	373	128	373	58	30	39	743
Delivered by midwife.....	3	..	3	..	1	..	..	..	..	..	..	..	..	..	2
Delivered at home by physician.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	1
Delivered unattended.....	11	1	10	..	5	..	5	1	5	..	5	..	..	..	1
Other.....	64	18	46	..	9	..	5	7	5	1	5	3	1	8	22
Cases carried over from 1955.....	930	89	849	11	377	119	143	35	143	57	143	30	12	13	133
New cases admitted.....	2,404	177	2,227	13	885	..	616	85	616	..	616	..	..	79	726
Clinic visits															
Total.....	15,082	956	14,126	20	4,347	1,479	2,309	403	2,309	800	2,309	249	171	279	5,020
Antepartum.....															
First visit.....	2,404	177	2,227	13	885	85	616	85	616	714	616	219	151	79	726
Revisits.....	11,156	691	10,465	7	3,018	1,326	1,500	290	1,500	..	1,500	..	..	175	3,736
Postpartum.....															
Postpartum.....	1,522	88	1,434	..	444	153	193	33	193	86	193	30	20	25	538
Neonatal.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Analysis of new cases															
Duration of pregnancy															
Total.....	2,404	177	2,227	13	885	..	616	85	616	..	616	..	..	79	726
Not pregnant.....	14	1	13	..	7	..	2	..	2	..	2	..	..	1	4
Under 12 weeks.....	54	6	48	..	10	..	23	..	23	..	23	..	..	3	15
12-23 weeks.....	630	39	591	2	204	..	181	3	181	..	181	..	..	22	206
24-27 weeks.....	438	25	413	..	194	..	104	11	104	..	104	..	..	14	115
28-31 weeks.....	448	27	421	4	188	..	99	8	99	..	99	..	..	15	134
32-35 weeks.....	436	36	400	3	155	..	103	17	103	..	103	..	..	16	142
36 weeks and over.....	362	42	320	4	121	..	93	30	93	..	93	..	..	8	106
Not determined.....	22	1	21	..	6	..	11	1	11	..	11	..	..	..	4

Note: In-and-out transfers within clinics are not shown.

TABLE NO. 1B  
REPORT OF PRENATAL CLINICS—PATIENTS REGISTERED FOR DELIVERY BY MIDWIFE—1956

CASES AND VISITS	Grand Total	ALL CLINICS		DEED HEALTH DISTRICT		GILMORE HOUSING PROJECT		SOUTHERN HEALTH DISTRICT		CHERRY HILL HOMES		SOUTHEASTERN HEALTH DISTRICT		EASTERN HEALTH DISTRICT	
		Wh.	Col.	Wh.	Col.	Col.	Col.	Wh.	Col.	Col.	Col.	Wh.	Col.	Wh.	Col.
Total caseload.....	94	8	86	1	19	19	3	3	6	..	..	4	2	..	40
Cases carried over to 1957.....	23	..	23	..	3	3	3	..	..	..	..	..	..	..	17
Discharged cases															
Total.....	71	8	63	1	16	16	16	3	6	..	..	4	2	..	23
Not pregnant.....		..	..	..	..	..	..	..	..	..	..	..	..	..	..
Delivered in hospital.....	50	4	46	..	12	15	15	1	3	..	..	3	2	..	14
Delivered by midwife.....	15	2	13	..	4	..	..	1	3	..	..	1	..	..	6
Delivered at home by physician.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Delivered unattended.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other.....	6	2	4	1	..	1	1	1	..	..	..	..	..	..	3
Cases carried over from 1955.....	26	3	23	1	14	6	6	4	3	..	..	2	..	1	29
New cases admitted.....	68	5	63	..	27	..	..	..	7	..	..	..	..	..	..
Clinic visits															
Total.....	351	32	319	..	121	54	54	20	18	2	2	10	5	2	119
Antepartum.....															
First visit.....	68	5	63	..	27	..	..	4	7	..	..	..	..	1	29
Revisits.....	239	25	214	..	82	46	46	15	8	2	2	9	4	1	72
Postpartum.....															
Postpartum.....	44	2	42	..	12	8	8	1	3	..	..	1	1	..	18
Neonatal.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Analysis of new cases															
Duration of pregnancy															
Total.....	68	5	63	..	27	..	..	4	7	..	..	..	..	1	29
Not pregnant.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Under 12 weeks.....	1	1	1	..	1	..	..	1	3	..	..	..	..	..	1
12-23 weeks.....	7	1	6	..	2	..	..	..	..	..	..	..	..	..	3
24-27 weeks.....	13	1	12	..	8	..	..	..	1	..	..	..	..	1	6
28-31 weeks.....	14	..	14	..	7	..	..	..	1	..	..	..	..	..	3
32-35 weeks.....	17	1	16	..	3	..	..	1	1	..	..	..	..	..	12
36 weeks and over.....	15	2	13	..	6	..	..	2	1	..	..	..	..	..	7
Not determined.....	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..

Note: In-and-out transfers within clinics are not shown.

TABLE NO. 1C  
REPORT OF PRENATAL CLINICS—PATIENTS REGISTERED FOR PRENATAL CARE ONLY—1956

CASES AND VISITS	GRAND TOTAL	ALL CLINICS		DAVID HEALTH DISTRICT		GILMORE HOUSING PROJECT	SOUTHERN HEALTH DISTRICT		CHERRY HILL HOMES	SOUTHEASTERN HEALTH DISTRICT		EASTERN HEALTH DISTRICT	
		Wh.	Col.	Wh.	Col.		Wh.	Col.		Wh.	Col.	Wh.	Col.
Total caseload.....	770	25	745	..	231	183	8	121	54	7	6	10	180
Cases carried over to 1957.....	288	14	274	..	89	71	3	45	29	5	2	6	38
Discharged cases													
Total.....	482	11	471	..	132	112	5	76	25	2	4	4	122
Not pregnant.....	8	..	8	..	2	2	..	1	..	..	..	..	5
Delivered in hospital.....	430	7	423	..	124	106	2	68	21	2	3	3	101
Delivered by midwife.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Delivered at home by physician.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Delivered unattended.....	4	..	4	..	3	..	..	..	1	..	..	..	..
Other.....	40	4	36	..	3	6	3	7	3	..	1	1	16
Cases carried over from 1955.....	85	8	77	6	31	19	..	11	3	..	1	2	12
New cases admitted.....	685	17	668	1	306	..	8	180	..	..	..	8	182
Clinic visits													
Total.....	3,654	84	3,570	2	1,182	620	32	641	145	21	33	29	949
Antepartum													
First visit.....	685	17	668	1	306	..	8	180	..	..	..	8	182
Revisits.....	2,709	65	2,644	1	801	561	23	428	132	21	31	20	691
Postpartum													
Postpartum.....	260	2	258	..	75	59	1	33	13	..	2	1	76
Neonatal.....	..	..	..	..	..	..	..	..	..	..	..	..	..
Analysis of new cases													
Duration of pregnancy													
Total.....	685	17	668	1	306	..	8	180	..	..	..	8	182
Not pregnant.....	7	..	7	..	1	..	..	..	..	..	..	..	5
Under 12 weeks.....	12	..	11	..	4	..	..	..	..	..	..	..	3
12-23 weeks.....	164	5	159	..	63	..	1	49	..	..	..	4	47
24-27 weeks.....	138	1	137	..	70	..	..	32	..	..	..	1	35
28-31 weeks.....	155	2	153	..	90	..	1	28	..	..	..	1	35
32-35 weeks.....	126	3	123	..	49	..	2	40	..	..	..	2	34
36 weeks and over.....	77	4	73	..	27	..	2	24	..	..	..	2	22
Not determined.....	6	1	5	1	2	..	..	2	..	..	..	..	1

Note: In-and-out transfers within clinics are not shown.

TABLE NO. 1D  
REPORT OF PRENATAL CLINICS—UNREGISTERED CASES—1956

CASES AND VISITS	GRAND TOTAL	ALL CLINICS		DRUD HEALTH DISTRICT		GILMORE HOUSING PROJECT		SOUTHERN HEALTH DISTRICT		CHERRY HILL HOMES		SOUTHEASTERN HEALTH DISTRICT		EASTERN HEALTH DISTRICT	
		Wh.	Col.	Wh.	Col.	Wh.	Col.	Wh.	Col.	Wh.	Col.	Wh.	Col.	Wh.	Col.
Discharged cases															
Total.....	359	18	341	2	97		40	6	18		9	3	3	7	174
Not pregnant.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Delivered in hospital.....	349	18	331	2	94	38	1	6	18		9	3	2	7	170
Delivered by midwife.....	4	..	4	..	1	1	..	..	..	..	..	..	..	..	2
Delivered at home by physician.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Delivered unattended.....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other.....	6	..	6	..	2	1	1	..	..	..	..	..	1	..	2
Clinic visits															
Total.....	369	21	348	2	99	43		6	18		9	4	3	9	176
Antepartum															
Visits.....	35	9	26	..	1	1		6	18		..	1	..	2	6
Postpartum															
Postpartum.....	334	12	322	2	98	42		..	..		9	3	3	7	170
Neonatal.....	..	..	..	..	..	..		..	..		..	..	..	..	..



TABLE NO. 1E  
REPORT OF PRENATAL CLINICS—ANALYSIS OF FINDINGS ON EXAMINATION ON FIRST VISIT—1958

FINDINGS	REGISTERED FOR DELIVERY AT HOSPITAL					REGISTERED FOR DELIVERY BY MIDWIFE					REGISTERED FOR PRENATAL CARE ONLY						
	NUMBER			PERCENTAGE DISTRIBUTION		NUMBER			PERCENTAGE DISTRIBUTION		NUMBER			PERCENTAGE DISTRIBUTION			
	Total	Wh.	Col.	Total	Wh.	Col.	Total	Wh.	Col.	Total	Wh.	Col.	Total	Wh.	Col.		
TOTAL NO. OF NEW CASES.....	2,404	177	2,227	100.0	100.0	100.0	68	5	63	100.0	100.0	100.0	685	17	668	100.0	100.0
Para																	
Primipara.....	371	18	335	15.4	9.0	15.9	13	2	11	19.1	40.0	17.5	42	3	39	6.1	17.6
Multipara.....	2,033	161	1,872	84.6	91.0	84.1	55	3	52	80.9	60.0	82.5	643	14	629	93.9	82.4
Pelvis type																	
Platyepeloid.....	29	2	27	1.2	1.1	1.2	4	..	4	5.9	..	6.3	10	..	10	1.5	1.5
Android.....	100	2	98	4.2	1.1	4.4	53	4	54	85.3	80.0	85.8	301	16	585	87.8	87.6
Gynecoid.....	2,104	152	1,952	87.5	88.9	87.7	5	1	4	1.5	20.0	1.6	14	..	13	2.0	2.1
Anthropoid.....	53	1	52	2.2	0.6	2.3	5	1	4	7.3	..	6.3	29	..	29	4.2	4.3
Unknown.....	118	20	98	4.9	11.3	4.4	..	..	..	..	..	..	..	..	..	..	..
Pelvis size																	
Adequate.....	2,178	152	2,026	90.6	85.9	91.0	61	5	56	89.7	100.0	88.9	630	17	613	92.0	91.8
Borderline.....	96	5	91	4.0	2.8	4.1	3	..	3	4.4	..	4.8	23	..	23	3.3	3.4
Contracted.....	12	1	11	0.5	0.5	0.3	4	..	4	5.9	..	6.3	22	..	22	0.8	0.8
Unknown.....	118	19	99	4.9	10.7	4.4	..	..	..	..	..	..	30	..	30	4.3	4.5
Serologic test for syphilis																	
Positive.....	81	1	80	3.4	0.6	3.6	2	..	2	2.9	..	3.2	30	..	30	4.4	4.5
Negative.....	2,280	175	2,105	94.8	98.8	94.3	66	5	61	97.1	100.0	96.8	648	17	631	94.6	94.5
Doubtful.....	11	..	11	0.5	0.3	0.3	..	..	..	..	..	..	3	..	3	0.4	0.4
Not taken.....	32	1	31	1.3	0.6	1.4	..	..	..	..	..	..	4	..	4	0.6	0.6
Other findings																	
Toxemia.....	22	2	20	0.9	1.1	0.9	1	..	1	1.5	..	1.6	7	..	7	1.0	1.0
Heart murmur.....	98	3	95	4.1	1.7	4.3	1	..	1	1.5	..	1.6	31	..	31	4.5	4.6
Rh factor																	
Positive.....	2,284	152	2,102	93.8	85.9	94.4	66	5	61	97.1	100.0	96.8	646	15	631	94.3	94.5
Negative.....	131	24	107	5.2	13.5	4.8	2	..	2	2.9	..	3.2	38	2	31	5.3	5.1
Not taken.....	19	1	18	0.8	0.6	0.8	..	..	..	..	..	..	3	..	3	0.4	0.4
X-ray																	
Positive.....	16	2	14	0.7	1.1	0.6	43	4	39	63.2	80.0	61.9	4	..	4	0.6	0.6
Negative.....	1,654	108	1,546	68.9	61.0	69.4	25	1	24	36.8	20.0	38.1	482	8	473	70.4	70.8
Not taken.....	734	67	667	30.5	37.9	30.0	25	1	24	36.8	20.0	38.1	199	8	191	29.0	28.6

TABLE NO. 2  
REPORT OF CHILD HEALTH CLINICS—1956

CLINICS	CHILDREN ON REGISTER JAN. 1, 1957		NEW CHILDREN REGISTERED DURING 1956		TOTAL CHILDREN SEEN DURING 1956		CLINIC VISITS RETURNS 1956		CLINIC VISITS SPECIAL 1956		TOTAL CLINIC VISITS		TOTAL
	Under 1 yr.	1 yr. and over	Under 1 yr.	1 yr. and over	Under 1 yr.	1 yr. and over	Under 1 yr.	1 yr. and over	Under 1 yr.	1 yr. and over	Under 1 yr.	1 yr. and over	
TOTAL CITY.....	9,463	14,905	9,361	450	13,935	3,773	39,600	22,241	1,619	11,207	55,154	37,221	92,375
TOTAL WHITE.....	2,186	3,543	2,309	246	3,717	1,287	9,406	7,013	944	5,852	14,067	14,152	28,219
TOTAL NONWHITE...	7,277	11,452	7,052	204	10,218	2,486	30,194	15,228	675	5,355	41,087	23,069	64,156
Clinic No.													
11.....	804	1,306	811	38	1,119	298	3,455	1,823	38	447	4,612	2,568	7,180
12.....	459	891	462	21	741	370	1,779	929	3	471	2,523	1,770	4,293
13.....	271	658	317	10	379	67	1,424	731	13	342	1,816	1,140	2,956
14.....	125	232	149	1	729	67	132	516	81	759	942	1,342	2,284
15.....	415	884	429	10	569	99	1,682	465	38	316	2,189	880	3,069
16.....	406	514	479	33	764	237	1,856	1,040	20	537	2,640	1,814	4,454
18.....	65	124	73	14	121	61	342	340	16	213	479	614	1,093
19.....	130	98	114	7	117	11	450	66	8	111	575	188	763
23.....	506	703	484	24	760	355	2,362	1,555	20	258	3,142	2,168	5,310
24.....	16	128	80	5	93	15	341	408	38	179	472	602	1,074
25.....	131	259	159	17	226	78	776	467	11	149	1,013	694	1,707
26.....	255	522	248	3	390	113	1,034	919	7	91	1,431	1,123	2,554
27.....	74	172	59	9	118	66	417	437	26	99	561	602	1,163
28.....	140	157	125	8	184	37	621	254	7	118	812	409	1,221
31.....	831	506	783	7	949	33	3,383	954	328	841	4,660	1,828	6,488
32.....	583	792	456	11	676	163	2,619	1,642	19	387	3,314	2,192	5,506
33.....	263	454	284	5	410	51	1,334	598	38	318	1,782	967	2,749
34.....	1,303	2,101	1,167	13	1,798	440	3,715	2,027	104	826	5,617	3,293	8,910
35.....	432	752	412	3	643	148	1,743	1,120	33	244	2,419	1,512	3,931
36.....	198	..	201	..	202	..	440	26	..	5	642	31	673
41.....	103	150	75	13	88	18	327	369	40	258	455	645	1,100
42.....	150	271	188	43	269	171	765	571	75	269	1,109	1,011	2,120
43.....	88	142	83	12	101	27	377	247	28	184	506	458	964
44.....	120	150	97	12	132	54	421	207	85	459	638	720	1,358
45.....	89	185	91	8	145	63	531	374	87	423	763	860	1,623
46.....	118	205	98	19	142	64	425	327	15	105	582	496	1,078
47.....	96	190	118	13	178	68	462	536	25	142	665	746	1,411
51.....	300	335	288	11	431	100	1,583	786	124	502	2,138	1,388	3,526
52.....	4	29	7	..	12	5	28	28	..	1	40	34	74
53.....	21	13	22	..	22	7	98	65	13	66	133	138	271
54.....	43	63	55	1	76	18	213	136	2	86	291	240	531
55.....	65	158	72	6	105	120	707	521	5	218	817	859	1,676
56.....	32	47	37	6	48	17	139	94	9	110	196	221	417
57.....	132	157	137	10	169	47	402	163	109	534	680	744	1,424
58.....	87	72	69	1	108	14	369	122	23	118	500	254	754
59.....	364	1,199	356	23	546	139	1,841	658	25	449	2,412	1,246	3,658
72.....	90	139	126	29	160	87	420	372	32	291	612	750	1,362
74.....	154	237	156	4	215	45	687	348	74	281	976	674	1,650

TABLE NO. 3A  
RESULTS OF ELEMENTARY SCHOOL HEALTH EXAMINATIONS  
BY SCHOOL PHYSICIANS—1956

TYPE OF EXAMINATION	PUBLIC SCHOOLS				PAROCHIAL SCHOOLS			
	Number Examined	Number with No Abnorm- alities	Number with Abnormalities		Number Examined	Number with No Abnorm- alities	Number with Abnormalities	
			Cor- rection Needed	Cor- rection Not Needed			Cor- rection Needed	Cor- rection Not Needed
Total.....	15,460	9,499	4,106	1,702	2,630	1,624	709	315
Teacher-nurse referrals.....	1,669	788	595	258	351	168	161	36
Routines (new to school sys- tem).....	13,166	8,421	3,329	1,307	2,048	1,253	531	262
Routines (re-exam 4th or 5th grade).....	309	174	87	35	207	164	4	17
Rechecks of exceptional chil- dren.....	236	87	60	85	15	6	9	..
Rechecks requested by school physicians.....	80	29	35	17	9	3	4	..

TABLE NO. 3B  
RESULTS OF ELEMENTARY SCHOOL HEALTH EXAMINATIONS  
CONDITIONS REQUIRING CORRECTION BY DIAGNOSIS AND DISPOSITION  
SCHOOL YEAR 1955-1956

DIAGNOSIS ON INITIAL EXAMINATION	DISPOSITION						
	Total	Corrected	Therapy Refused	Lost to Follow-up	Under Therapy	Therapy Pending	Continued Therapy
<b>TOTAL.....</b>	<b>2,663</b>	<b>337</b>	<b>396</b>	<b>124</b>	<b>152</b>	<b>393</b>	<b>1,211</b>
<b>Head and Hair</b>							
Pediculosis.....	20	16	..	..	1	3	..
Alopecia.....	1	..	..	..	..	..	1
Ringworm.....	38	8	12	1	2	4	11
Other.....	4	..	..	..	..	..	4
<b>Skin and Nails</b>							
Structural.....	5	2	..	..	..	..	3
Infections.....	34	14	14	1	..	2	3
Allergy.....	14	2	8	..	..	..	4
Tumors.....	3	2	..	..	..	..	1
Other.....	28	12	3	1	2	3	7
<b>Eyes</b>							
Structural.....	8	1	3	..	1	1	2
Muscle imbalance.....	112	11	39	1	6	18	37
Infection.....	5	3	..	..	..	1	1
Allergy.....	2	..	1	1	..	..	..
Other.....	23	1	5	..	4	6	7
<b>Vision</b>							
Simple myopia.....	71	46	17	2	1	2	3
Malignant myopia.....	5	3	2	..	..	..	..
Simple hyperopia.....	32	26	5	..	..	1	..
Simple astigmatism.....	20	17	3	..	..	..	..
Compound myopia or hyper- opic astigmatism.....	70	52	15	..	1	..	2
Other.....	33	12	5	3	4	5	4
<b>Ears</b>							
External structure.....	1	..	..	1	..	..	..
External canal.....	103	65	2	..	4	1	31
Drum.....	13	2	2	..	..	2	7
Middle ear.....	36	10	4	..	2	4	16
Mastoid.....	1	..	1	..	..	..	..
Eustachean tube.....	2	..	1	..	1	..	..
Inner ear and nerve.....	3	1	2	..	..	..	..
Other.....	48	24	9	1	1	4	9
<b>Hearing</b>							
Conduction loss.....	30	3	9	..	1	2	15
Nerve type loss.....	1	..	1	..	..	..	..
Other.....	11	..	2	..	2	1	6
<b>Speech</b>							
Associated with hearing loss...	21	..	14	..	..	3	4
Unassociated with hearing loss...	107	1	39	4	5	13	45
Other.....	31	..	7	3	2	2	17
<b>Mouth and Teeth</b>							
Malocclusion.....	14	..	2	2	1	..	9
Palate.....	6	2	2	1	..	..	1
Tongue.....	2	..	..	..	..	..	2
Other.....	6	1	..	1	1	2	1
<b>Nose and Throat</b>							
Hypertrophied tonsils and adenoids.....	529	5	6	32	32	109	345
Chronic disease of T. and A....	251	2	5	7	16	52	189
Allergy.....	1	..	..	..	..	..	1
Sinusitis.....	2	..	1	1	..	..	..
Other.....	18	..	1	2	1	2	12
<b>Lymph Glands</b>							
Cervical only.....	15	..	..	..	..	1	14
Other.....	2	..	..	..	..	1	1
<b>Heart</b>							
Functional murmur.....	35	..	1	..	..	10	24
Active rheumatic.....	1	..	..	..	1	..	..
Inactive rheumatic.....	7	2	2	..	..	..	3

TABLE NO. 3B—*Concluded*  
RESULTS OF ELEMENTARY SCHOOL HEALTH EXAMINATIONS  
CONDITIONS REQUIRING CORRECTION BY DIAGNOSIS AND DISPOSITION  
SCHOOL YEAR 1955-1956

DIAGNOSIS ON INITIAL EXAMINATION	DISPOSITION						
	Total	Corrected	Therapy Refused	Lost to Follow-up	Under Therapy	Pending Therapy	Continued Therapy
Heart (Cont.)							
Congenital.....	10	..	2	..	..	2	6
Other.....	19	1	2	..	3	6	7
Chest							
Chest wall.....	2	..	..	..	..	..	2
Lungs:							
Allergy.....	6	..	4	..	..	..	2
Chronic infection.....	1	..	..	..	..	..	1
Active tuberculosis.....	1	..	1	..	..	..	..
Inactive tuberculosis.....	2	2	..	..	..	..	..
Other.....	16	3	5	1	1	2	4
Abdomen							
Umbilical hernia.....	46	1	..	4	1	7	33
Other hernia.....	27	5	..	2	1	6	13
Spleen.....	1	..	..	..	..	..	1
Other.....	1	1	..	..	..	..	..
Genito-Urinary							
Adhesions of prepuce.....	13	..	2	..	1	..	10
Phimosis.....	189	9	3	20	9	25	123
Undescended testicle.....	54	2	3	4	7	13	25
Bladder.....	1	..	1	..	..	..	..
Kidney.....	2	..	2	..	..	..	..
Other.....	16	1	..	4	..	2	9
Posture and Extremities							
Scoliosis.....	13	..	3	2	2	1	5
Lordosis.....	3	..	1	..	..	1	1
Kyphosis.....	1	..	..	..	..	1	..
Knock knee.....	9	..	4	1	..	2	2
Bow leg.....	2	..	..	1	1	..	..
Pronation of feet.....	31	1	8	2	1	6	13
Faulty posture.....	21	1	4	3	..	5	8
Amputation.....	1	1	..	..	..	..	..
Other.....	29	2	8	..	2	4	13
Neurological							
Brain							
Congenital.....	6	..	5	..	..	..	1
Injury.....	5	1	3	..	1	..	1
Epilepsy.....	5	..	5	..	1	..	..
Spinal cord including polio- myelitis.....	4	..	3	..	..	..	1
Other.....	4	..	3	..	..	..	1
Mental Development							
I.Q. below 80.....	8	..	3	..	..	1	4
Other.....	2	..	..	..	1	1	..
Emotional							
Conduct disturbance.....	28	3	12	2	1	2	8
Marked anti-social behavior.....	6	..	3	..	1	..	2
Neurosis.....	3	1	..	2	..	..	..
Other.....	10	..	4	..	2	..	4
Growth and Nutrition							
Obesity.....	41	..	6	3	5	7	20
Malnutrition.....	127	3	31	3	14	36	40
Vitamin deficiency.....	7	..	3	..	..	..	4
Growth failure.....	11	..	1	3	..	1	6
Other.....	33	1	12	1	4	3	12
Laboratory							
Chest film.....	1	..	..	..	..	..	1
Hemoglobin.....	7	..	1	..	1	2	3
Urine.....	3	..	..	..	1	1	1
Other.....	2	..	..	..	..	1	1
Other							
Diabetes.....	2	..	2	..	..	..	..
Other.....	6	2	2	1	..	..	1

TABLE NO. 3C  
INOCULATIONS AND VACCINATIONS BY SCHOOL PHYSICIANS—1956

	PUBLIC SCHOOLS						PAROCHIAL SCHOOLS					
	Diphtheria, Whooping Cough and Tetanus Inoculations				Smallpox Vaccinations		Diphtheria, Whooping Cough and Tetanus Inoculations				Smallpox Vaccinations	
	First	Second	Third	Booster	Initial	Repeat	First	Second	Third	Booster	Initial	Repeat
Preschool.....	5	7	7	205	9	2	14	4	0	58	1	2
School.....	123	6	46	4897	120	82	44	26	38	1623	6	44

TABLE NO. 3D  
PUPILS EXCLUDED FROM ELEMENTARY SCHOOL BY NURSE—1956

CONDITION SUSPECTED	NUMBER EXCLUDED
Communicable diseases.....	114
Earache and running ears.....	50
Conjunctivitis and styes.....	83
Headache.....	139
Vomiting and abdominal pain.....	374
No vaccination.....	9
Pediculosis.....	79
Skin rash—generalized.....	122
Tinea capitis.....	207
Skin infections and impetigo.....	43
Misc., including injuries, fainting, etc.....	135

TABLE NO. 3E  
INCIDENCE OF COMMUNICABLE DISEASES IN ELEMENTARY SCHOOLS: 1951-1956

	1951	1952	1953	1954	1955	1956
Chickenpox.....	869	1,129	962	1,062	576	647
Diphtheria.....	2	2	..	..	..	..
German measles.....	139	103	360	44	115	312
Meningococcus meningitis.....	1	3	3	1	..	2
Measles.....	1,556	3,160	495	3,493	543	2,414
Paralytic poliomyelitis.....	1	3	12	6	7	2
Scarlet fever.....	150	286	985	307	196	187
Typhoid fever.....	..	..	..	1	1	..
Whooping cough.....	63	37	106	135	45	23

TABLE NO. 3F  
REPORT OF EYE CLINIC EXAMINATIONS—1956

New patients.....	519
First visits this year old patients.....	486
Total number of patients.....	1,005
Current visits.....	413
Total number of visits.....	826
Cycloplegics.....	424
Refractions.....	466
Glasses delivered in clinic.....	215
Refracted—glasses not advised.....	56
Glasses not necessary.....	93
Recommended sight saving class.....	5
Discharged.....	503

DIAGNOSES	
Hyperopia.....	29
Hyperopic astigmatism.....	96
Myopic astigmatism.....	64
Mixed astigmatism.....	41
Compound myopic astigmatism.....	74
Emmetropia.....	3
Amblyopia.....	22
Esotropia.....	50
Exotropia.....	25
Esophoria.....	11
Exophoria.....	7
Nystagmus.....	11
Hordeolum.....	1
Cataract.....	1
Retinitis pigmentosa.....	1
Muscle imbalance.....	14
Phthisis bulbi.....	1
Ptosis palsy.....	1
Exanopsia.....	3
Anisometropia.....	2
Astigmatic anisometropic.....	1

TABLE NO. 3G  
REPORT OF HEARING CLINICS—1956

New patients.....	183
First visit this year old patients.....	318
Total number of patients.....	500
Current visits.....	201
Total number of visits.....	701
Referred by Department of Education.....	47
Referred by public health nurse.....	126
Tested (2A) audiometer.....	528
Discharged.....	368

DIAGNOSES	
Nerve deafness.....	31
Conductive deafness.....	38
Mixed deafness.....	5
Ruptured ear drum.....	1
Impacted cerumen.....	49
Foreign body.....	4
Otitis externa.....	1
Otosclerosis.....	1
Acute purulent otitis media.....	1
Chronic purulent otitis media.....	7
Acute rhinitis.....	2
Sinusitis.....	1
Tongue-tied.....	1
Undetermined.....	20

TREATMENTS AND RECOMMENDATIONS	
Treated.....	85
Patients treated with radium.....	34
Radium treatments.....	88
Recommended psychological examination.....	18
Recommended lip reading instruction.....	4
Recommended speech correction.....	8
Recommended hearing aids.....	22



TABLE NO. 4  
DIRECT NUTRITION SERVICES: 1954-1956

	No. OF SESSIONS			No. OF PERSONS		
	1956	1955	1954	1956	1955	1954
<b>IN-SERVICE TRAINING</b> .....	347	237	170	1,081	977	392
Staff Nurses Group Conferences.....	6	4	3	141	106	63
Student nurses—Health Department.....	15	16	..	138	233	134
Student nurses—hospitals.....	10	4	..	264	95	..
Orientation of new staff.....	3	4	6	12	28	42
Individual nurse conferences.....	197	148	145	197	148	145
Demonstration home visits.....	33	15	1	33	15	1
Conference with industrial nurse.....	..	4	4	..	4	4
Practical nurses—hospital.....	..	10	..	..	82	..
Medical students—University of Maryland.....	26	27	..	176	206	..
Student Health Officers—Johns Hopkins.....	1	1	..	3	5	..
Student Medical Officers—Bethesda Naval Hos- pital.....	1	..	..	15	..	..
Sanitarians.....	2	3	..	25	33	..
Bureau staff.....	..	1	..	..	22	..
Foreign visitors.....	4	..	..	4	..	..
Conference of area nutritionists.....	2	..	..	26	..	..
Conferences with personnel in allied agencies..	47	..	..	47	..	..
<b>CLINIC INSTRUCTION</b> .....	103	70	19	1,001	711	151
Prenatal						
group.....	25	14	2	823	595	50
individual.....	24	45	12	24	45	63
Mothers' classes.....	15	4	..	103	47	..
Child health-group.....	2	1	1	14	18	..
Referred for instruction.....	37	6	..	37	6	..
<b>SCHOOLS</b> .....	66	31	12	3,526	1,477	600
Parents.....	9	11	6	533	395	426
Elementary students.....	11	10	2	1,479	850	80
Junior and Senior High school students.....	6	2	1	1,291	65	45
Teachers.....	2	8	3	150	167	49
Ind. Conf. with Teachers or administrators.....	28	..	..	28	..	..
Baer School—Nutrition counseling for the hand- icapped child.....	10	..	..	45	..	..
<b>RADIO AND TELEVISION</b> .....	21	37	34	1,330,000	2,040,000	1,480,000
Radio programs.....	3	18	5	150,000	900,000	250,000
Telecasts.....	18	19	29	1,180,000	1,140,000	1,230,000
<b>OTHER ACTIVITIES</b> .....	49	49	21	21,577	9,257	539
Community meetings.....	6	15	3	169	540	231
Weight control groups.....	3	6	..	128	202	..
Guest instructor—college and university.....	5	5	6	102	72	153
Consultation to small institutions						
Office conferences.....	2	4	..	2	4	..
Visits to institutions.....	3	3	2	3	3	2
Movies and filmstrips.....	5	5	4	1,208	296	85
Exhibits and displays.....	22	10	..	19,800	8,000	..
Participation in national professional meetings..	3	1	..	165	150	..

NOTE: Approximately 25,000 pieces of nutrition education materials were distributed in 1956. This included pamphlets, posters, and booklets.

## BUREAU OF DENTAL CARE

H. Berton McCauley, D.D.S.

*Director*

As it has since 1950, the Bureau of Dental Care administered programs of dental health for school children and recipients of public assistance. The school program provided dental health education, inspections, referrals and treatment for pupils attending the public and parochial elementary schools and was expanded by the addition of a new clinic in the James Mosher School, Public School No. 144, at Mosher Street and Wheeler Avenue. The program for clients of the Department of Public Welfare, which heretofore was limited essentially to emergency dental services included for the first time a considerable amount of preventive and constructive dentistry.

### *School Dental Program*

With the assistance of the Department of Education, dental services were made available for the first time to many children in the Walbrook area by activation of the new dental operatory in Public School No. 144 and by the increased utilization of the dental facility in Public School No. 301, beginning October 16. Twenty-seven dental clinics for the treatment of school children were functioning at the end of 1956. All were located where the need for dental care was great. All except the multiple-chair facilities in the Eastern, Southern and Southeastern Health District buildings contained a single dental unit and chair fully equipped and supplied for use by a dentist and an assistant engaged primarily in prophylactic and constructive dentistry. A list of these facilities appears in Table No. 1.

The special dental extraction service, inaugurated in 1952 to reduce the necessity for surgical procedures in school clinics, removed 296 permanent and 1,444 deciduous teeth from 397 children. This work, done largely with the aid of nitrous oxide and trichloroethylene as anesthetics, was accomplished in clinics held twice weekly during the school year at the Eastern Health District building.

### *Procedures*

The school program continued to emphasize measures to save teeth. Only children beginning school as kindergarten or first grade pupils were admitted as new subjects, a procedure basic to maximum preventive effort. These children received an inspection for dental defects by Health Department dentists or dental hygienists early in the fall school term. If defects

were found, parents were advised accordingly and motivated to seek dental care for the children. Treatment in a Health Department dental clinic was arranged when investigation by the dental hygienist or assistant disclosed that the child would not otherwise receive necessary attention.

Children in grades above the first grade who were subjects of the program in 1955 received its benefits in 1956 through follow-up and referral to private dentists or Health Department clinics. With minor exceptions, the capacity of personnel and facilities precluded retention in the program of children above the fifth grade. At the end of 1956 the program included 39,714 children attending eighty-three schools, an increase of 3,504 children over the preceding year. The distribution of these children in the public and parochial schools is shown in Table No. 2.

#### *Services Rendered*

Of the 39,714 school children in the program 20,370 were inspected for tooth defects and 7,795 or approximately 20 per cent were treated in Health Department dental clinics as indicated in Table No. 3. The teeth of 5,503 children were cleaned, 24,473 fillings were inserted and 2,931 miscellaneous treatment services were provided. It was found necessary to remove 5,511 teeth, all but 711 of which were deciduous. Of the 7,795 children given constructive care, 7,040 were completed cases. An additional 1,170 children of all ages referred from numerous scattered elementary schools, not necessarily in the program, received limited, essentially emergency dental services.

#### *Dental Health Education*

Dental health information for parents and children was an integral part of the school dental program. Parents were invited to attend the dental inspection of children newly included in the program and to discuss, with the child at hand, the dental problems of the youngster with the dentist or the dental hygienist. Every effort was made to encourage inquiry and to initiate the child in good habits of dental care under favorable psychological circumstances. Parents of 4,743 or 52 per cent of the 9,100 children whose teeth were inspected for the first time in 1956 accepted the invitation. Parents were also informed regarding teeth and their care by public health nurses in the course of routine home visits, follow-up interviews and maternal and child health clinic activities. Much instruction of this type was given in the schools with encouragement and assistance from the Health Department staff.

Visual aids were employed freely in the dental health educational effort. Approximately 5,000 dental health posters and 40,000 printed leaflets were used in the schools and Health Department clinics, or distributed in home

visits by public health nurses. Demonstrations, talks and motion pictures were presented frequently by the dental staff to parent-teacher groups and assemblies of school children. Occasionally the public received instruction through the press, radio or television. The Bureau of Dental Care also worked with Baltimore's dentists to disseminate dental health information to the public, particularly during the eighth annual observance of National Children's Dental Health Week, February 5-11, 1956.

#### *Dental Care for Public Assistance Recipients*

The Bureau of Dental Care assisted the Medical Care Section in the administration of a program under which persons receiving financial assistance through the Department of Public Welfare were given access to dental services. Six hospitals participating in the Baltimore City Medical Care Program provided emergency dental care for Welfare clients in hospital dental clinics by contract with the Commissioner of Health. An additional clinic established in 1955 in the Eastern Health District Building at 620 North Caroline Street supplemented the tooth extraction and surgical services of the hospitals with prophylactic and restorative dental services. Altogether 18,599 treatment services, predominantly tooth extractions and related services, were rendered to 5,570 patients under this program in 1956. For the first time, however, a substantial number of filled teeth appeared in the record. In 1955, 3,991 patients had received 13,548 dental services. Details of this work for 1956 are shown in Table No. 4.

#### *Fluoridation*

The program of fluoridation begun November 26, 1952, was continued through 1956. The Bureau of Water Supply, adding hydrofluosilicic acid to the output of the filters at Montebello and Ashburton, maintained the fluoride level of the entire water supply of Baltimore at or approximate to one part per million, the optimal concentration for reducing tooth decay, except for the period August 22 to October 5 when it was not possible to maintain the full one p.p.m. concentration due to an interruption in the normal supply of the chemical.

#### **Personnel**

H. Berton McCauley, D.D.S., Director

##### *Clinic Dentists*

Stanley L. Brown, D.D.S.  
Sidney O. Burnett, Jr., D.D.S.  
Arthur M. Bushey, D.D.S.  
Lucius A. Butler, D.D.S.  
Samuel P. Caldwell, D.D.S.

Henry Honick, Jr., D.D.S.  
Benjamin J. Kimbers, Jr., D.D.S.  
Edward McDaniels, Jr., D.D.S.  
J. Laws Nickens, D.D.S.  
Robert M. Phillips, D.D.S.

Walter T. Davidson, D.D.S.	L. Paul Rivas, D.D.S.
Paul M. Doctor, D.D.S.	Barbara E. Seifert, D.D.S.
Nelson A. Fain, D.D.S.	C. Alfred Shreeve, D.D.S.
Walter Granruth, Jr., D.D.S.	Sheldon Silverman, D.D.S.
Raymond L. Gray, D.D.S.	Louis Sober, D.D.S.
Hall H. Haymond, Jr., D.D.S.	Thomas W. Willetts, D.D.S.
George F. Woodland, D.D.S.	

*Anesthetist*

Alvin D. Rudo, M.D.

*Dental Hygienists*

Cecile P. Greenberg	Gloria A. Lazarus
Anne F. Jacobs	Kaye L. Rice
M. Elaine Russell	

*Medical Care Dental Service*

William J. Hargon, D.D.S.	Dwinton Landis, D.D.S.
Helen J. Buffington, R.N.	

Regina M. Spencer, Senior Clerk Stenographer

Vera M. Gill, Clerk-Typist	Cynthia K. Portee, Clerk-Typist
Mildred M. Grey, Clerk-Typist	Helen B. Richardson, Clerk-Typist
Dorothy Jackson, Clerk-Typist	Elaine V. Smith, Clerk-Typist
Faye V. McDaniel, Clerk-Typist	Ida R. Wees, Clerk-Typist

**DENTAL ADVISORY COMMITTEE**

DR. GEORGE M. ANDERSON,

*Member, Maryland State Board of Health.*

DR. M. EDWARD COBERTH,

*Assistant Professor of Pedodontics, Dental School, University of Maryland.*

DR. EDWARD D. STONE, JR.,

*Chairman, Committee for Dental Care for School Children,  
Baltimore City Dental Society.*

## BUREAU OF DENTAL CARE

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TABLE NO. 1  
LOCATION OF ACTIVE DENTAL FACILITIES OF THE CITY HEALTH DEPARTMENT  
DECEMBER 31, 1956

CLINIC	SCHOOL	NAME	ADDRESS	DATE OPENED	DENTIST-HOURS PER WEEK
1	230	Canton Elementary School	Hudson St. and Highland Ave.	Feb. 27, 1950	9
2	139	Elementary School	Central Ave. and Lexington St.	Apr. 17, 1950	15
3	76	Francis Scott Key School	Fort Ave. and Decatur St.	Sept. 13, 1950	6
4	6	William Fell School	Ann St. near Fleet St.	Sept. 13, 1950	18
5	55	Hampden School	Chestnut Ave. and 37th St.	Sept. 13, 1950	6
6	122	Samuel Coleridge Taylor School	Preston St. near Pennsylvania Ave.	Sept. 13, 1950	15
7	132	Coppin Elementary School	Mount St. near Riggs Ave.	Jan. 5, 1951	12
8		Fourteen Holy Martyrs Hall	Pratt and Mount Sts.	Sept. 7, 1951	24
9	301	William S. Baer School	Warwick Ave. above North Ave.	Sept. 7, 1951	9
10		Southern Health District	1211 Wall St.	Sept. 24, 1951	21
11	112	William M. Alexander School	Laurens and Calhoun Sts.	Dec. 10, 1951	15
12	99	Columbus School	North Ave. and Washington St.	Sept. 8, 1952	15
13	239	Benjamin Franklin School	Cambria and Twelfth Sts.	Oct. 30, 1952	9
14	113	Benjamin Banneker Elementary School	Federal St. and Greenmount Ave.	Sept. 28, 1953	6
15	160	Carter G. Woodson Elementary School	Cherry Hill Rd. and Seabury Ave.	Sept. 28, 1953	15
16	161	Fannie L. Barbour Elementary School	Saratoga and Schroeder Sts.	Sept. 28, 1953	15
17		Southeastern Health District	3411 Bank St.	Oct. 8, 1953	15
18		Southeastern Health District	901 S. Kenwood Ave.	Dec. 14, 1953	9
19	243	Armistead Gardens School	Erdman Ave. and Eager St.	Mar. 23, 1954	3
20	225	Westport Elementary School	Maisel and Nevada Sts.	May 5, 1954	3
21	240	Graceland Park-O'Donnell Heights School	O'Donnell and Gusryan Sts.	May 13, 1954	3
22	34	Barrister Charles Carroll School	Carey St. and Washington Blvd.	May 24, 1954	3
23	13	Tench Tilghman School	Patterson Pk. Ave. & McDerry St.	Sept. 22, 1954	9
24	102	Josiah Diggs School	Barre and Warner Sts.	Sept. 22, 1954	15
25	101	Elmer A. Henderson Elementary School	Biddle and Wolfe Sts.	Sept. 20, 1955	15
26		Eastern Health District	620 N. Caroline St.	Oct. 5, 1955	27
27	144	James Mosher School	Mosher St. and Wheeler Ave.	Oct. 16, 1956	9

TABLE NO. 2  
DISTRIBUTION OF CHILDREN AND SCHOOLS INCLUDED IN THE PROGRAM OF DENTAL CARE FOR THE SCHOOL CHILDREN OF BALTIMORE, 1956 AND 1955

	TOTAL		PUBLIC		PAROCHIAL	
	1956	1955	1956	1955	1956	1955
Children.....	39,714	36,210	31,959	28,961	7,755	7,249
Schools.....	83	80	63	61	20	19

**TABLE NO. 3**  
**FACILITIES USED, CLINIC TIME EXPENDED AND SERVICES RENDERED UNDER THE**  
**PROGRAM OF DENTAL CARE FOR THE SCHOOL CHILDREN OF BALTIMORE**  
**1956 AND 1955**

	1956	1955
Dental clinics.....	27	26
Continued from preceding year.....	26	24
Opened during year.....	1	2
Clinic hours utilized.....	10,383	9,507
For dental inspections.....	750	660
For dental treatment.....	9,633	8,847
Children in program.....	39,714	36,210
Children inspected.....	20,370	15,538
Number with parent present.....	4,743	4,364
Per cent with parent present*.....	52	54
Children treated.....	8,965	8,569
Under preventive program.....	7,795	7,235
Referred for emergency care.....	1,170	1,334
Per cent of program children treated.....	20	20
Patient visits.....	17,888	16,572
Dental services provided.....	38,418	37,726
Average number per child treated.....	4.3	4.4
Dental cleaning operations.....	5,503	5,326
Fillings.....	24,473	23,586
Extractions, permanent teeth.....	711	673
Extractions, deciduous teeth.....	4,800	5,076
Other.....	2,931	3,065
Cases completed.....	7,040	6,115

\* At initial inspection only. Few children are accompanied by a parent at subsequent inspections.

**TABLE NO. 4**  
**DENTAL SERVICES RENDERED TO RECIPIENTS OF PUBLIC ASSISTANCE**  
**UNDER THE BALTIMORE CITY MEDICAL CARE PROGRAM—1956**

	DENTAL CLINIC							TOTAL ALL CLINICS
	University	Johns Hopkins	South Baltimore General	Shai	Provident	Mercy	Eastern Health District	
PATIENTS.....	1,477	1,357	550	736	619	439	392	5,570
SERVICES								
Radiographs.....	1,362	4,728	114	1,432	102	206	139	8,083
Treatments acute gingivitis.....	1	0	0	7	8	12	245	273
Teeth extracted.....	1,575	2,098	1,041	517	946	594	8	6,779
Post extraction treatments.....	335	220	397	116	58	55	0	1,181
Teeth filled.....	0	0	0	0	62	10	1,321	1,393
Other services.....	124	241	42	113	54	43	273	890
Total services rendered.....	3,397	7,287	1,594	2,185	1,230	920	1,986	18,599

## **MEDICAL CARE SECTION**



## MEDICAL CARE SECTION

**J. Wilfrid Davis, M.D., M.P.H.**

*Director*

During 1956 the average monthly number of persons who received public assistance from the Baltimore City Department of Public Welfare was 32,236 persons. This number of public assistance recipients represented a monthly average of 941 persons over the monthly average of 31,435 persons who received public assistance during 1955. Despite this large number, the Baltimore City Medical Care Program which is a medical program designed to provide medical care for public assistance clients was able to provide medical care for all but an average 535 persons per month. State appropriations were to that extent inadequate.

An increase in the State funds available in 1956 for the provision of medical care under the Baltimore City Medical Care Program made it possible to provide 30,211 person-years of medical care compared to 28,548 person-years provided during 1955. Enough funds, however, were not available to provide medical services for all public assistance clients and the Section was not able to extend from six weeks to twelve weeks the period of medical care coverage after a person has ceased to be on welfare rolls.

The services to provide medical care for foster children, inaugurated in the latter part of 1953, provided medical care for all foster children who were wards of the Baltimore City Department of Public Welfare, except those living beyond the city boundaries and those in homes supervised by charitable organizations. Foster children eligible for services under the program also included foster children who, though living in Baltimore, were wards of a county welfare department. Reciprocally, city foster children living in the counties were eligible for medical care in the counties. The State funds appropriated for operating the Medical Care Program for the fiscal year 1956-57 allowed for the first time funds to provide medical care for foster children living in private agency foster homes. Increased cost of services, however, made it necessary to delay the provision of services to this group of foster children during 1956. Medical care clinic and dental services were provided by Baltimore City Hospitals without charge to the program.

Another noteworthy event in 1956 was a study of the Baltimore City Medical Care Program by the Baltimore City Advisory Committee on Medical Care at the request of Mayor Thomas D'Alesandro, Jr. This Committee under Dr. Ernest L. Stebbins, Director of the Johns Hopkins

School of Hygiene and Public Health made an extensive survey and submitted its report to the Mayor on September 17. The report in general was favorable but certain recommendations were made which included the following:

- (1) that the Formulary issued in 1955 be made mandatory;
- (2) that a position be created to supervise drug services; and
- (3) that participating physicians be paid retroactively instead of in advance.

During the latter part of 1956 the Medical Care Section began promptly to plan for implementing these recommendations.

### *Physician Services*

Neighborhood physicians chosen by persons coming under the Program continued to be the central figures in the provision of medical care. There were, on the average, 298 private physicians participating in the program; this number remained fairly constant throughout the year. The physician chosen by the largest number of medical care clients was responsible during the year for an average of 1,727 patients. There were only 6 other physicians each of whom was responsible for more than 750 clients. As in previous years there were few complaints by patients regarding physician services or by physicians about excessive demands of patients.

Each physician was required to report at the end of each quarter the number of calls provided by him to persons choosing him and accepted by him under the program. According to these reports approximately 90,000 physician services were rendered in the home or at the office. On an average, physician reports indicated each 100 persons received the following services:

Calls at physicians' offices	255
Calls at patients' homes	55
	<hr/>
Total services	310

For his services to these 100 persons per year the physician received \$700.00, or \$7.00 per person per year. Payments to the physicians were made quarterly.

### *Medical Care Clinics*

The six medical care clinics established soon after the inauguration of the Baltimore City Medical Care Program in 1948 continued in their ninth year of operation. A seventh medical care clinic at Baltimore City Hospitals, started in 1953, remained in operation throughout 1956. Services at the Baltimore City Hospitals Medical Care Clinic were confined to the care of foster children.

The names of the seven hospitals which conducted medical care clinics and the names of the directors of the clinics at the close of the year were as follows:

HOSPITAL	DIRECTOR OF MEDICAL CARE CLINIC
University of Maryland Hospital	Dr. Maurice C. Pincoffs
Johns Hopkins Hospital	Dr. John C. Harvey
South Baltimore General Hospital	Dr. Harry T. Wilson, Jr.
Sinai Hospital	Dr. Frank F. Furstenberg
Provident Hospital	Dr. C. Dudley Lee
Mercy Hospital	Dr. S. Edwin Muller
Baltimore City Hospitals	Mr. Harry O. Kaylor

In January, 1956, Mr. Charles H. Beal resigned as Director of the Baltimore City Hospitals Medical Care Clinic and was replaced by Mr. Harry O. Kaylor.

According to quarterly reports received from medical care clinics, a total of 6,353 general examinations were made during the year. Also at the clinics there were 10,181 other examinations. The number of diagnostic and special treatment services provided in other departments of the hospital at the request of the medical care clinic was 40,666. There were also 14,179 laboratory services provided by the hospitals. Nursing services played an important part in the program both in the medical care clinics and in the homes of patients.

An estimated 69 per cent of the persons assigned to the medical care clinics received a physical examination. An undetermined number of these were made by child health clinics and other City Health Department clinics to which persons were referred for special care.

#### *Provision of Eyeglasses and Dental Services*

Provision of eyeglasses within strict financial limitations was made under the medical care program throughout the year. There were 1,204 persons who received eyeglasses or optical services during the year at a total cost of \$9,511.91 or an average cost of \$7.90 per person served.

The agreements concluded during 1955 with all hospitals conducting medical care clinics, with the exception of Baltimore City Hospitals, for the payment for dental services on a capitation-fee for service basis continued throughout 1956. Although an amount not to exceed an average of \$1.00 per person per year was available for dental services, the facilities at the hospitals were so limited that they could not earn the full amount. An average of only \$.76 per person was expended for dental services during the year.

The dental clinic inaugurated in the Eastern Health District building, 620 N. Caroline Street, on November 3, 1955, to provide dental services for

persons under the Baltimore City Medical Care Program continued in operation throughout 1956.

### *Drugs and Medical Supplies*

Payment was made during 1956 for 149,235 drug prescriptions for persons under the Baltimore City Medical Care Program at a total cost of \$285,162.92. The average cost per prescription was \$1.91 as compared with \$1.79 for 1955 and the average drug cost per person-year of registered coverage under the program was \$9.73 as compared with \$9.23 in the previous year.

In order to control the rising cost of drugs, the Baltimore City Advisory Committee on Medical Care, as mentioned previously, recommended that the Formulary issued September 16, 1955, be made mandatory as soon as practical, for physicians and medical care clinics, and the Formulary Committee was reactivated to review this phase of the program.

### *Financial Statement*

The total amount spent for the conducting of the Baltimore City Medical Care Program in 1956 was \$874,134.64 and of this sum \$844,121.64 was contributed by the State of Maryland. The contribution of the City of Baltimore was \$30,013.00, approximately one-half of the central administration cost. Tables 4, 5, 6 and 7 give detailed information regarding expenditures. The average cost of care for one person for the entire year was \$28.93 as compared with \$28.31 for the preceding year.

### **Medical Care Research**

On July 1, 1956, a Bureau of Medical Care Research was established and Dr. Bertram W. Haines was appointed director. The new bureau was created primarily to conduct studies to assess the adequacy of medical care and related services rendered under the program.

The chief activity of the new bureau director during the last half of the year was confined largely to assisting the Advisory Committee on Medical Care in their study of the program. He also initiated an improved method of obtaining operational statistics to be used by the Director of the Section in making administrative decisions regarding the program.

### **Personnel**

J. Wilfrid Davis, M.D., M.P.H., Director  
Bertram W. Haines, Sc.D., Director, Bureau of Medical Care Research  
Raleigh Cline, B.S., Statistician  
Lillian J. Dudderar, Principal Clerk Stenographer  
Marian Kramer, Senior Clerk  
Louise D. Rosenberger, Senior Clerk

Florence Pritchett, Senior Clerk  
Mary M. Reif, Senior Clerk Stenographer  
Sophie Catterton, Tabulating Equipment Operator  
Genevieve Rye, Key punch Operator  
Ruby K. Waller, Key punch Operator  
Rena Eisman, Clerk-Typist

**THE BALTIMORE CITY ADVISORY COMMITTEE  
ON MEDICAL CARE**

**DR. ERNEST L. STEBBINS, CHAIRMAN**

*Director, Johns Hopkins School of Hygiene and Public Health*

**DR. GEORGE M. ANDERSON**

*Member, State Board of Health*

**MR. CHARLES S. AUSTIN, JR.**

*President, State Board of Pharmacy*

**DR. ALAN M. CHESNEY**

**MRS. HENRY E. CORNER**

**MR. WILLIAM GALVIN**

**DR. JOHN C. KRANTZ, JR.**

*Professor of Pharmacology, School of Medicine, University of Maryland*

**MISS ESTHER LAZARUS**

*Director of Welfare of Baltimore City*

**DR. STEPHEN C. MACKOWIAK**

*President of the East Baltimore Medical Society*

**DR. MAURICE C. PINCOFFS**

**DR. PERRY F. PRATHER**

*Director, Maryland State Department of Health*

**DR. A. A. SUSSMAN**

*President of the Maryland Academy of Medicine and Surgery*

**DR. WILLIAM S. STONE**

*Dean of the University of Maryland Medical School*

**MISS ETHEL TURNER**

**DR. GRANT E. WARD**

*President of the Baltimore City Medical Society*

**MR. HARVEY H. WEISS**

*President of the Hospital Council*

**DR. SAMUEL WOLMAN**

*Assistant Professor Emeritus of Medicine, Johns Hopkins School of Medicine*

**DR. CHARLES T. WOODLAND**

*President of the Monumental City Medical Society*

**DR. GEORGE H. YEAGER**

*Chairman of the Medical Care Committee of the Maryland State Planning Commission*

**DR. HUNTINGTON WILLIAMS, ex officio**

*Commissioner of Health of Baltimore City*

TABLE NO. 1  
WELFARE AND MEDICAL CARE ROLLS BY MONTH

MONTH	NUMBER OF PERSONS ON PUBLIC ASSISTANCE ROLLS	AVERAGE MONTHLY ASSIGNED MEDICAL CARE POPULATION
January.....	31,693	28,438
February.....	31,932	29,296
March.....	32,666	30,072
April.....	32,549	28,640
May.....	32,420	29,612
June.....	32,241	30,906
July.....	32,136	31,617
August.....	32,420	32,462
September.....	32,119	32,924
October.....	32,107	29,290
November.....	32,176	29,544
December.....	32,376	29,714
Monthly Average.....	32,236	30,211

TABLE NO. 2  
AVERAGE MONTHLY ASSIGNED POPULATION BY HOSPITAL—1956

MONTH	TOTAL	UNIVER- SITY	JOHNS HOPKINS	SOUTH BALTI- MORE GENERAL	SINAI	PROVI- DENT	MERCY	BALTI- MORE CITY HOS- PITALS
Jan.....	28,438	5,422	10,428	3,036	1,975	3,515	2,685	1,376
Feb.....	29,296	5,610	10,650	3,114	2,139	3,592	2,780	1,412
Mar.....	30,072	5,746	10,800	3,193	2,298	3,713	2,885	1,436
Apr.....	28,640	5,526	10,116	3,020	2,256	3,540	2,752	1,430
May.....	29,612	5,679	10,360	3,110	2,426	3,681	2,860	1,496
June.....	30,906	5,899	10,796	3,218	2,583	3,895	2,968	1,546
July.....	31,617	6,037	11,078	3,250	2,638	4,058	3,056	1,500
Aug.....	32,462	6,190	11,387	3,297	2,684	4,216	3,142	1,546
Sept.....	32,924	6,268	11,596	3,330	2,678	4,294	3,173	1,584
Oct.....	29,290	5,677	10,252	2,942	2,310	3,801	2,761	1,548
Nov.....	29,544	5,732	10,321	2,948	2,354	3,816	2,771	1,602
Dec.....	29,714	5,770	10,369	2,952	2,359	3,832	2,799	1,632
Total Person-Years.	30,211	5,797	10,679	3,117	2,392	3,830	2,886	1,509

TABLE NO. 3  
AVERAGE MONTHLY REGISTERED POPULATION BY HOSPITAL—1956

MONTH	TOTAL	UNIVER- SITY	JOHNS HOPKINS	SOUTH BALTI- MORE GENERAL	SINAI	PROVI- DENT	MERCY	BALTI- MORE CITY HOSPI- TALS
Jan.....	27,045	4,916	10,090	3,002	1,850	3,320	2,518	1,349
Feb.....	27,946	5,116	10,334	3,082	2,001	3,408	2,620	1,387
Mar.....	29,094	5,435	10,612	3,136	2,157	3,561	2,770	1,422
Apr.....	27,958	5,335	10,054	2,934	2,115	3,436	2,656	1,427
May.....	28,772	5,450	10,272	3,021	2,258	3,554	2,736	1,482
June.....	29,904	5,627	10,642	3,130	2,402	3,733	2,844	1,526
July.....	30,562	5,760	10,876	3,172	2,464	3,870	2,932	1,487
Aug.....	31,322	5,904	11,167	3,210	2,506	4,015	2,999	1,522
Sept.....	31,874	6,010	11,390	3,240	2,534	4,104	3,032	1,563
Oct.....	28,903	5,582	10,174	2,903	2,274	3,725	2,716	1,529
Nov.....	29,088	5,616	10,221	2,918	2,296	3,742	2,728	1,666
Dec.....	29,304	5,661	10,282	2,925	2,318	3,757	2,752	1,608
Total Person-Years Per Cent Registra- tion.....	29,318 97.0	5,535 95.5	10,510 98.4	3,056 98.0	2,265 94.3	3,686 96.2	2,776 96.2	1,489 98.7

TABLE NO. 4  
DRUG EXPENDITURES BY MONTH—1956

MONTH	AVG. MONTHLY REGISTERED POPULATION	NO. OF PRESCRIP- TIONS	AMOUNT PAID FOR DRUGS	COST PER PRESCRIP- TION	COST PER REGISTRANT	NO. OF PRESCRIP- TIONS PER REGISTRANT	NO. OF PHARMACIES PAID
Jan.....	27,045	13,804	\$24,520.95	\$1.78	\$ .91	.51	242
Feb.....	27,946	13,472	24,213.21	1.80	.87	.48	214
Mar.....	29,094	12,402	23,286.97	1.88	.80	.43	218
Apr.....	27,958	11,724	22,606.40	1.93	.81	.42	219
May.....	28,772	13,343	25,506.32	1.91	.89	.46	230
June.....	29,904	23,388	44,406.71	1.90	1.48	.78	315
July.....	30,562	4,471	8,840.26	1.98	.29	.15	118
Aug.....	31,322	10,537	20,437.13	1.94	.65	.34	208
Sept.....	31,874	9,772	19,552.30	2.00	.61	.31	200
Oct.....	28,903	12,169	23,558.87	1.94	.82	.42	216
Nov.....	29,088	13,319	26,712.30	2.00	.92	.46	220
Dec.....	29,304	10,834	21,521.50	1.99	.73	.37	194
Entire Year.....	29,318	149,235	\$285,162.92	\$1.91	\$9.73	5.09	..

TABLE NO. 5  
TOTAL EXPENDITURES BY QUARTER AND TYPE OF SERVICE—1956

QUARTER	HOSPITALS MEDICAL CARE	PHYSICIANS	PHARMACIES	DENTAL CARE HOS- PITALS AND HEALTH CLINICS	OPTICIANS	ADMINISTRATION	
						State	City*
First.....	\$71,109.94	\$50,611.69	\$72,021.15	\$5,922.25	\$2,096.47	\$7,445.75	\$7,503.25
Second.....	72,167.84	50,072.37	95,019.43	5,580.75	2,719.17	7,445.75	7,503.25
Third.....	77,895.99	54,857.35	46,347.64	5,000.25	1,568.97	7,445.75	7,503.25
Fourth.....	70,329.98	50,372.90	71,774.72	5,742.50	3,127.30	7,445.75	7,503.25
Total.....	\$291,503.75	\$205,914.31	\$285,162.92	\$22,245.75	\$9,511.91	\$29,783.00	\$30,013.00

\* The sum of \$30,013 includes \$6,600 for IBM machine rental, office space, postage, telephone service, janitor service, transportation, elevator service, heat, light and power.



TABLE NO. 6  
DISTRIBUTION OF EXPENDITURES AND PER CENT OF TOTAL  
BY TYPE OF SERVICE—1956

ITEM	EXPENDITURE	PER CENT OF TOTAL
Hospitals for Medical Care.....	\$291,503.75	33.3
Physicians for home and office services.....	205,914.31	23.6
Pharmacies.....	285,162.92	32.6
Hospitals for dental care.....	22,245.75	2.5
Opticians.....	9,511.91	1.1
Administration.....	59,796.00	6.9
Total.....	\$874,134.64	100.0

TABLE NO. 7  
DISTRIBUTION OF EXPENDITURES AND COSTS PER PERSON-  
YEAR OF ELIGIBLE COVERAGE BY TYPE OF SERVICE—1956

ITEM	EXPENDITURE	PERSON-YEARS ELIGIBLE COVERAGE	EXPENDITURE PER PERSON ON PROGRAM
Hospitals for Medical Care.....	\$291,503.75	28,702	\$10.16
Physicians for home and office services.....	205,914.31	28,638	7.19
Pharmacies.....	285,162.92	29,318	9.73
Hospitals for dental care.....	22,245.75	29,318	.76
Opticians.....	9,511.91	29,318	.32
Administration.....	59,796.00	30,211	1.98
All services.....	\$874,134.64	30,211	\$28.93

TABLE NO. 8  
DISTRIBUTION OF SERVICES BY CLINIC—1956

CLINIC	GENERAL EXAMINATIONS	OTHER EXAMINATIONS	OUTPATIENT SERVICES	SERVICE	
				Laboratory Services	Nursing Services
Total.....	6,353	10,181	40,666	14,179	19,706
University.....	1,336	3,057	7,561	3,085	15,543
Johns Hopkins.....	2,336	6,197	14,465	7,679	2,665
South Balto. Gen.....	913	233	2,802	646	253
Sinai.....	507	394	4,201	442	307
Provident.....	900	46	3,580	654	938
Mercy.....	361	254	8,057	1,673	..

## SANITARY SECTION

## SANITARY SECTION

Wilmer H. Schulze, Phar.D.

*Director*

### *Legal Aspects*

The air pollution control program was strengthened when Ordinance No. 358 was approved on April 9. This ordinance prohibits the discharge of noxious substances into the air "in such a manner as to be dangerous or detrimental to the health or safety of the public or to interfere unreasonably with the comfort of the public." It is designed to control air pollution conditions that are not within the scope of the present Smoke Control Ordinance and which originate chiefly from industrial processes. Prior to the adoption of the ordinance a series of conferences was held with the Baltimore Association of Commerce and as a result several desirable amendments were made to the proposed ordinance. The complete text of this new ordinance was published in the May, 1956, issue of the *Baltimore Health News*.

Following the denial of a permit to the Supplee-Wills-Jones Milk Company of Philadelphia, Pa. for the sale of ice cream in Baltimore City, as provided for under Section 15 of Article 12, of the Baltimore City Code of 1950, the validity and constitutionality of this authority was challenged by the company in the Circuit Court of Baltimore City. On May 18, and prior to the court hearing, Ordinance No. 433 was approved which authorizes the Commissioner of Health to prohibit the sale of ice cream in Baltimore City by a person or corporation who does not hold a permit issued by the Commissioner of Health. On July 9, Judge Reuben Oppenheimer in the Circuit Court of Baltimore City held that Section 15, of Article 12 of the Baltimore City Code of 1950 "is in conflict with the Interstate Commerce Clause of the United States Constitution and is invalid." The full text of Judge Oppenheimer's opinion was published in the *Daily Record* on July 17, 1956. As a result of this decision it was agreed that the City Health Department will issue such permits to plants outside the city limits in instances of compliance with the ordinances and regulations governing the manufacture and sale of ice cream and on payment of costs of inspection by the applicant for such a permit.

On July 12 the Maryland Court of Appeals filed its decision on the legality of city ordinances which provide for inspections by the City Health Department, the Building Inspection Engineer and the Fire Department of buildings for the purpose of performing their duties under the City Code. The decision was published in the August 28 issue of the *Daily Record*, and

was reprinted in the November issue of *Baltimore Health News*. The court held that the inspections are authorized as a valid exercise of the police power, are reasonable, are not unlawful, and do not infringe any constitutional rights. This important decision resulted from a refusal to permit entry to inspectors on the basis that the city ordinances authorize unlawful searches.

As a result of the court decision in the case of the Supplee-Wills-Jones Milk Company, mentioned above, the City Solicitor advised the Commissioner of Health that the portion of Section 46, of Article 12 of the Baltimore City Code of 1950 pertaining to the restriction of licenses or permits to Slaughterers or Processors and Manufacturers of meat-food products to plants or places of business located within the limits of Baltimore City is invalid because of conflict with the Interstate Commerce Clause of the United States Constitution. This opinion was given after application was made for a City Health Department permit by an applicant whose plant is located outside the limits of Baltimore City. It was agreed that the applicant would have to comply with all of the requirements of the City Meat Ordinance and pay the costs of the necessary inspection services of the City Health Department.

On August 10, the Commissioner of Health adopted a new regulation in order to authorize the sale of skim milk in Baltimore City, also requirements for labeling in relation thereto. A review of all of the milk ordinances and regulations was undertaken with the objective of their compilation for publication under one cover. This was near completion toward the close of the year and it was planned to have this publication ready for distribution early in 1957.

#### *Generalized Inspection and Training*

The generalized sanitation program inaugurated in a limited portion of the Eastern Health District late in 1955 was expanded in May to include Ward 8. All of Wards 5, 6, 7, 8, and 10 with a total population of approximately 133,000 are now in the program. It has become apparent that such a program is practical within certain limitations. As was expected, there will continue to be a need for some specialized services together with consultations and guidance at times from the staff at the central office.

Other developments of the generalized program included participation of fifty-seven students from the University of Maryland School of Nursing in the field inspections of the sanitarians, talks by sanitarians to students and visitors from the Johns Hopkins School of Hygiene and Public Health, and the establishment of a closely integrated working relationship between the public health nurses and the sanitarians.

The new program was developed under the immediate supervision of

Mr. Milton P. Friedmann of the Sanitary Section staff, who also served as training officer. Furthermore, the Eastern Health District building has proved to be a convenient location for those persons in the area who wished to discuss environmental sanitation problems with the sanitarians.

The series of twelve-week in-service training courses for sanitarians, started toward the end of the year 1954, was continued through 1955 and 1956. Four such courses have been completed and the fifth will be concluded early in 1957. Thirty-three sanitarians completed the training course in Sanitary Science successfully and were issued certificates by the Commissioner of Health. In addition, Mr. Friedmann arranged to have several brief topical courses given on subjects of immediate interest to all of the sanitarians. In general this type of continued in-service training served to stimulate an interest in the whole field of environmental sanitation on the part of the sanitarians.

### *Special Activities*

Mr. Charles E. Couchman, Director of the Bureau of Industrial Hygiene, Mr. William Sallow, Assistant Director of the Housing Bureau, Mr. George W. Schucker, Director of the Bureau of Environmental Hygiene, and the Director of the Sanitary Section were appointed by the Commissioner of Health to serve on a new Lead Poisoning Prevention Committee. This Committee, composed of staff members of the City Health Department closest to the problem of preventing lead poisoning in children, was asked to restudy the whole matter toward inaugurating a more truly preventive program. A series of meetings of the Committee was held and a workable program was developed to be put into effect early in 1957.

In accordance with arrangements made in 1954 with the State Roads Commission continuous studies of air pollution in proximity to the Canton area site of the ventilation building for the Patapsco River Vehicular Tunnel were carried on throughout the year. At a conference with the State Roads Commission and following a report to the Commission of the results of the first year of study the Commission asked that the study be terminated at the end of the year. The Commission felt that sufficient data had been obtained, and a final report to the Commission will be submitted by the City Health Department early in 1957.

Several staff members of the Sanitary Section participated in a joint program of the Maryland State Department of Health, the Baltimore Safety Council and the Baltimore City Health Department designed to create a greater awareness to home hazards and how such accidents may be prevented. A leaflet "What Do You Fall For?" was prepared jointly by these agencies for distribution throughout the city and state. A continuous effort is being made to bring the importance of Home Safety to the atten-

tion of the citizens whenever the opportunity occurs. It was felt that the home visits of sanitarians and public health nurses afford an opportune time to discuss the important matter of the prevention of home accidents.

Several members of the Sanitary Section attended the Interstate Sanitation Seminar held in Williamsburg, Virginia, during the week of June 25. Mr. Milton P. Friedmann served as a member of the Executive Committee and Mr. Charles E. Couchman, Mr. William Sallow and the section director participated in the program sessions. In cooperation with the National Association of Sanitarians, Governor Theodore R. McKeldin and Mayor Thomas D'Alesandro, Jr. issued proclamations designating the week of July 22-29 as National Sanitation Week. Mr. Sidney L. Berlin of the Sanitary Section served as Regional Vice-President of the National Association of Sanitarians during the year.

Other activities of special interest were: A study made by representatives of the U. S. Atomic Energy Commission for detecting any residual radiation hazards in the former Kelly Clinic buildings, at the request of the Department of Public Works in connection with a proposal by the owner to demolish the buildings; a cooperative program with the State Department of Health and the U. S. Public Health Service whereby inspection and approval of the water supply and sewage disposal system on farms holding a City Health Department Dairy Farm Permit will be required through assistance of local County Health Departments; investigation in cooperation with the Bureau of Water Supply of complaints that revealed the presence of two minute chlorine-resistant crustaceans, *Daphnia* and *Cyclops*, in the drinking water in a few instances and subsequent treatment of the Druid Lake Reservoir with copper sulphate as a precautionary and corrective measure; studies of bacterial contamination of unwashed celery followed by thorough washing as a means of reducing the number of such organisms; investigation of a reported case of rickettsialpox which revealed a heavy mouse infestation in the home of the patient followed by steps to eliminate the mice; cooperation given the Baltimore Redevelopment Commission in a rat elimination program prior to demolition of buildings in Area 12, and assistance given the Housing Authority of Baltimore City in the control of rat infestation on the outside of one of the public housing projects; consultations and conferences with representatives of the Glidden Company in matters of air pollution control in connection with its new plant being constructed in the Curtis Bay area; cooperation with the U. S. Public Health Service in establishing in Baltimore an air sampling station as a part of the National Air Sampling Network; the procurement of a scaler for measurements of alpha and beta radiation in air, water and other substances and in connection with a study of the "radiation background" in Baltimore City; elimination from sale of artificial vanilla extracts con-

taining coumarin, a harmful ingredient; investigation of a reported case of silicosis in a worker found to be exposed to high quantities of silica dust in a middle sized manufacturing plant followed by prompt and adequate corrective measures; assistance to complainants by providing information regarding control measures against tent caterpillars which appeared to be unusually prevalent in 1956; elimination from sale of a lot of peaches in jars that contained small globules of metallic mercury; investigation and prompt action in the abatement of an offensive odor nuisance resulting from removal of old sanitary landfill material in connection with the construction of a new highway in the eastern section of the city; notification to two hotels that renewal of their permits would be denied because of violations of the rooming house ordinance; and a review of the report of the Mayor's Urban Renewal Study Board recommending the setting up of an Urban Renewal and Housing Agency which included the transfer of the Housing Bureau of the Health Department to this agency.

Members of the staff participated in the civil defense exercise that began on July 20 and continued through July 22. Twenty-seven members attended a five-day course "Sanitary Engineering Practices in Civil Defense Disaster" given in Baltimore and sponsored jointly by the Baltimore City Health Department and the Maryland State Department of Health and given by the training staff of the Robert Taft Engineering Center of the U. S. Public Health Service with the cooperation of the staff of Region III of the Public Health Service. Additional training courses in civil defense of varying duration were also attended.

Environmental sanitation deficiencies corrected by the Bureaus of Environmental Hygiene, Food Control and Industrial Hygiene totaled 26,678 for the year.

The housing regulations pertaining to toilet, bathing and water-heating facilities for all dwelling units became effective January 1, 1956. During the year 295 toilets, 540 bathing facilities, 549 lavatory basins and 196 water heating facilities were installed in connection with inspections made by sanitarians in the Sanitary Section.

#### *Staff Changes*

Mr. Carroll H. Reynolds, Chief of the Division of Plumbing, retired on September 4 after completing thirty-seven years of continuous and effective work in the Plumbing Division. Mr. William Sallow, who filled the position of Chief of the Division of Rodent Control so well since 1948, was promoted on October 25 to the position of Assistant Director of the Housing Bureau in the City Health Department. The loyal and efficient services of both of these men will be missed in the Sanitary Section. On October 25 Mr. Walter Underwood, a plumbing inspector in the Department since 1920, was pro-

moted to the position vacated by Mr. Reynolds. A new classification, Chief, Division of Industrial Hygiene Investigations, was created in the Bureau of Industrial Hygiene and this position was filled by Mr. David T. Lewis, formerly a sanitarian in the bureau.

The reports of the bureau directors which follow contain other sanitation items of interest together with enlargements on some of those here mentioned.

### Personnel

Wilmer H. Schulze, Phar.D., Director  
Margaret M. McDonough, Principal Clerk Stenographer  
Loretta Minitor, Senior Clerk  
Carolyn S. Rich, Senior Clerk  
Doris M. Van Cleaf, Senior Clerk  
George P. Boteler, Messenger Clerk



## BUREAU OF MILK CONTROL

Ivan M. Marty

*Director*

One of the most important events of the year in relation to milk control activities took place on July 9 when Judge Reuben Oppenheimer in the Circuit Court of Baltimore City ruled that Section 15 of Article 12 of the Baltimore City Code of 1950 was invalid. The ordinance which restricts the issuance of permits to pasteurize ice cream to plants located within the corporate limits of Baltimore City was tested by a Philadelphia ice cream manufacturer. Judge Oppenheimer in his opinion, published in the July 17 issue of the *Daily Record*, stated that although the Commissioner of Health was undoubtedly sincere in testifying that adequate inspection of plants located outside of the city was next to impossible, in his opinion U. S. Public Health Service approval and Philadelphia Health Department inspection should be sufficient guarantee of the safety of the product.

Ordinance No. 433, approved May 18, 1956, added the following amendments to Section 27 (b) of Article 12 of the Baltimore City Code (1950 Edition) as revised by Ordinance No. 960, approved March 18, 1954: "The Commissioner of Health is authorized to prohibit the sale or use in Baltimore City of any ice cream which is made by a person or corporation who does not hold a permit issued by the Commissioner of Health. The authority of the Commissioner of Health to issue such permits and to make regulations relating to the issue thereof is hereby ratified and confirmed."

In order to permit the sale and distribution of skim milk in the city the Commissioner of Health on August 10, 1956 adopted Milk Plant Regulation 62 D—*Skim Milk* and amended Milk Plant Regulation 35—*Caps* and Milk Plant Regulation 36 A—*Paper, Cardboard or other Non-glass Containers*.

Copies of the City Milk Code together with a complete set of revised milk and ice cream regulations were prepared for distribution to the local milk and ice cream dealers, to officials in the State Department of Health, the Maryland State Livestock Sanitary Service, the Maryland Cooperative Milk Producers, Inc., and to other interested organizations for review before they are printed for the first time in compact single volumes.

The twenty-fifth and last of the series of Annual Sanitary Milk Production Contests sponsored by the City Health Department in the rural high schools on the Baltimore milkshed was won by the Hereford High School in Baltimore County, Maryland. It was generally agreed by the bureau inspection staff, high school superintendents and the milk dealers that the contests had served the purpose for which they were intended and should

be discontinued. In most of the schools the agricultural courses will continue to include instruction in sanitary milk production based on City Health Department publications.

The bureau, in order to maintain rigid control of the purity of the city milk supply made nearly 10,000 inspections of milk and milk products plants, dairy farms and transportation agencies.

More than 10,000 samples of milk and milk products were tested in the Bureau of Laboratories for investigational and control purposes. In addition to these, nearly 30,000 direct microscopic bacterial counts on individual farm milk supplies were reported to the bureau by the pasteurization plants.

Out of approximately 4,000 samples of pasteurized milk and milk products submitted by the inspection staff to the Bureau of Laboratories for phosphatase testing, not one sample indicated faulty pasteurization during the year. Only one other year, 1953, has had a perfect phosphatase test record since the test was adopted officially for control purposes in 1937.

### Personnel

Ivan M. Marty, Director  
Robert F. Gaddis, Chief, Division of Dairy Farm Inspection  
Charles R. Brown, LL.B., Chief, Division of Milk Plant Inspection  
William F. Holmes, Sanitarian  
Lemuel S. Cookman, B.S., Sanitarian  
Vernon L. Corey, Sanitarian  
Louis George Hillebrand, Sr., Sanitarian  
Charles H. O'Donnell, Sanitarian  
Joseph N. Pohlhaus, B.S., Sanitarian  
Harry H. Shaffer, B.S., Sanitarian  
Viron Van Williams, B.S., Sanitarian  
Philip H. Strauss, Sanitarian  
Marie R. Huppman, Senior Clerk Stenographer

TABLE NO. 1  
SUMMARY OF ACTIVITIES OF THE DAIRY FARM DIVISION  
1956 AND 1955

Area of Baltimore milkshed..... 2,600 square miles (approximate)  
Active shippers..... 2,639

ACTIVITIES	1956	1955
<b>INSPECTIONS</b>		
Total.....	5,605	6,953
Routine dairy farms.....	2,093	2,752
Special dairy farms.....	2,511	2,979
Reinspections.....	414	558
Applications.....	416	383
Receiving and by-product plants.....	160	265
Cream plants.....	6	16
<b>OTHER ACTIVITIES</b>		
Violation notices issued.....	1,549	1,884
Hearings.....	19	25
Gallons of milk examined.....	100	537
Gallons of milk condemned.....	0	0
Permits issued.....	143	135
Permits cancelled.....	190	219
Producers' cans examined.....	12,319	37,401
<b>SUSPENSIONS OF PERMITS</b>		
Total.....	84	90
Department.....	15	27
Field.....	69	63

TABLE NO. 2  
SUMMARY OF INSPECTIONS OF CITY MILK PLANTS—1956 AND 1955

TYPE OF PLANT	INSPECTIONS	AVERAGE NUMBER OF INSPECTIONS PER MONTH PER PLANT	CORRECTION NOTICES ISSUED
<b>Milk plants</b>			
1956.....	3,300	22.9	299
1955.....	3,331	23.13	469
<b>Ice cream plants pasteurizing on premises</b>			
1956.....	643	3.05	476
1955.....	1,075	3.61	909
<b>Ice cream plants buying pasteurized ingredients</b>			
1956.....	78	7.69	70
1955.....	137	2.07	103

TABLE NO. 3  
SUMMARY OF MILK AND MILK PRODUCT SAMPLES COLLECTED—1956 AND 1955

TYPE OF SAMPLE	1956	1955
<b>ALL SAMPLES.....</b>		
Milk.....	6,367	7,576
Cream.....	5,043	5,750
Ice cream.....	367	452
Ice cream mix, evaporated and condensed milk.....	705	854
Empty bottles.....	28	136
Miscellaneous samples.....	161	255
	63	160

## BUREAU OF FOOD CONTROL

Ferdinand A. Korff, B.S.

*Director*

Food control activities under health department administration have four closely related facets. These are: (1) the food laws, (2) the type of establishments supervised, (3) the control procedures, and (4) consideration of the public health requirements as compared with the esthetic and economic values. With these four well-defined facets in mind the bureau carried a program directed at the ultimate goal of preventing illnesses that could be caused by food. The program also encompassed the continuing problem of improving the environment of the 11,000 food establishments in which the food was manufactured, stored, sold or dispensed.

During the year, 13,300 inspections were made of the thirty types of food establishments in the city by the eleven qualified and trained sanitarians of the bureau and over 7,600 corrections were recorded as having been made. A total of 136,952 pounds of food was condemned and destroyed as being unfit for human consumption in 625 instances. Hearings of 254 violators were held within the bureau and 16 court prosecutions were necessary, which resulted in the assessment of fines in the amount of \$1,645. Instructions were given to 1,507 individuals in 34 groups which included demonstrators of food who operate within local retail stores.

Activities aimed at the prevention of illnesses attributed to food included: The continued urging that handwashing facilities be installed and used in kitchens and food-preparing rooms in restaurants and food factories, in addition to the usual lavatories in toilet rooms; the devising and distributing of a poster urging the washing of hands before handling food and the using of a liquid germicidal soap; the instruction of food handlers in the causes and prevention of food poisoning and infection; and the investigating of all reported cases and outbreaks of alleged illnesses, including reported cases of dysentery and *Salmonellae* infections and the investigation of family contacts of these cases who were employed as professional food handlers, and the temporary prohibiting of such persons from handling food for others.

Auxiliary inspection activities were endorsed wherein food manufacturing plant owners, grocers and restaurateurs voluntarily, through urgings, maintained inspection of their establishments and reported their findings at monthly intervals to the bureau. These inspections by specialists in sanitation employed by the food industry, improved the esthetic conditions in

those food establishments which carried out this self-inspection procedure; and, more important, prevented the contamination of food by insects, rodents and other agents. A total of 3,264 inspections in 243 food establishments was reported by auxiliary personnel, with an estimated \$98,000 spent for this activity by the food industry.

### Food Establishment Inspection

#### *Retail Food Establishments*

The 8,000 retail food stores—groceries, restaurants, drugstores and similar establishments—scattered in 157 census tracts were visited at least once during the year. Using a stringent evaluation procedure wherein 65 items of inspection must be free of criticism by the sanitarian during his routine visit, some improvements were shown over 1955. While only 43.3 per cent of retail food establishments were found entirely satisfactory during the 1956 inspections as compared with 41.8 per cent in 1955, the procedure of urging corrections to be made on a preventive basis depressed these percentages. This was because each successive year required additional control procedures for the establishment to be considered entirely satisfactory.

A total of 212 office hearings of retail food merchants was held and re-inspections of these establishments showed marked improvements. In 12 instances court prosecutions were necessary and fines of \$1,550 were imposed. Condemnations of food totaled 23,287 pounds in 524 instances for reasons which included lack of refrigeration, damage by fires, milk not properly dated or sold after day of expiration and insect infestation of cereal.

Food utensil swabbing continued to be an effective procedure for enforcing the regulations of the Maryland State Department of Health governing food utensil washing and disinfecting, and also afforded opportunities for office hearings when other needed corrections and preventive measures were required. The following table shows the bacteriologic results of swabbings obtained from sampling of food establishments in the city:

NUMBER OF BACTERIA PER RIM OF GLASS

NUMBER OF SAMPLES	UNDER 100		101 TO 500		501 TO 1,000		1,001 TO 10,000		OVER 10,000	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
863	503	58.3	135	15.6	53	6.2	101	11.7	71	8.2

#### *Wholesale Food Establishments*

Over 800 inspections were made of the ten types of wholesale food businesses—vegetable and fruit commission merchants, auctioneers, ware-

houses, railroad and truck terminals and similar establishments. The area occupied by commission merchants in dilapidated and unimproved buildings was in the process of being relocated to a site on the periphery of the city. While improved sanitary conditions were noted in 1955 and again in 1956 in this old area, relocation will help in correcting many deficiencies in this industry.

Wholesale warehouse managements were urged and directed to relocate stocks of food away from walls and to store food at least 10 inches from floors. Several owners employed part-time sanitarians as auxiliary personnel to prevent major infestation of food and other undesirable conditions as well as to oversee preventive maintenance procedures. Special attention was given to a cold storage warehouse, operating under a State license, in which 240 gallons of frozen oysters were found by tests on each can to be unfit for human food. These oysters were to have been given by the merchant to a church. A repacker of olives was directed to discontinue activities until improvements in equipment and packing procedures had been made. Three wholesalers were prosecuted in court and assessed \$45 in fines for failing to clean their establishments.

Samples of food obtained from wholesale establishments for laboratory examination, primarily for filth, totaled 50. Food represented by these samples found to contain filth were condemned and corrective measures were instigated. Over 104,000 pounds of food in 48 instances were condemned in wholesale food businesses. Statistically, it was found that 47.9 per cent of wholesale establishments were operating under entirely satisfactory conditions during the inspection visits.

#### *Manufacturing Food Establishments*

A total of 1,265 inspection visits was made of the 13 types of food manufacturing establishments excluding those maintained under inspection by the Bureau of Milk Control and the Bureau of Meat Inspection, that is, dairy and ice cream plants and slaughtering houses and meat processing plants, respectively. Dual inspections with representatives of the Maryland State Department of Health were made of local canning plants, frozen food plants, egg-breaking businesses, cold storage warehouses and soft-drink bottlers before they were licensed or relicensed by the State. No licenses were issued until all recommendations made during the dual inspections were effected. One salad manufacturing plant went out of business because of adverse publicity following court action in which the operator was fined \$50 and costs. Over 8,200 pounds of food were condemned in 53 instances in manufacturing food establishments.

#### *Institutions and Miscellaneous Establishments*

The inspection of institutions with food departments, such as hospitals, nursing and convalescent homes, day nurseries and nursery schools was

carried out in cooperation with the Maryland State Department of Health and the Bureau of Child Hygiene of the City Health Department in connection with licensing procedures.

Findings during inspections in the larger institutions were reported in two categories: (1) The undesirable conditions that must be corrected according to the regulations under which the institution operates; and (2) the items that should be instituted as a preventive measure. One large hospital engaged in the auxiliary inspection procedure reported its own findings during inspections and the corrections that had been made. The food departments in these institutions were found to be conducted under sanitary conditions superior to all other types of food establishments in the city. Over 62 per cent of the food departments of institutions were found during inspections to be entirely satisfactory.

Markets and market stalls, some of which were equipped with modern facilities and others which were conducting business in open sheds, were maintained under inspection on a surprise basis. Because of the shed-type, these markets operated by the city were found during inspections to have a lower range sanitary environment. Food was better protected in 1956 than in previous years in the newer markets. The old method of display of food in the open persisted, probably because of customer demands in the shed-type markets. The newer shopping areas wherein over twenty different types of mercantile businesses operated to the mutual benefit of each other were found by inspection to be conducted under good sanitary conditions with equipment installed and located for ease of cleaning and for adequate care of the food.

The food concessions within the city owned Friendship Airport, were maintained under inspection dually with representatives of the Anne Arundel County Health Department in which the airport is located and the City Health Department. This procedure was changed during the year so that the inspections were carried out only by representatives of the Bureau of Food Control and the findings reported to the County Health Department.

Plans of all food establishments and food departments of institutions such as church and club kitchens, submitted by the Bureau of Building Inspection of the city, were reviewed and corrections for equipment and locations were directed to the attention of the builder or architect. The cooperation obtained from this review of plans prevented many undesirable conditions from occurring.

### Cooperative Activities

Since only a modicum of inspection and control could be attained solely by sanitarians of the bureau, the facilities of other agencies interested in

regulatory activities as well as food trade groups and allied industries were utilized to prevent undesirable and insanitary conditions and nuisances from occurring and to obtain corrections as needed. The cooperative activities with the Maryland State Department of Health has already been referred to previously. Assistance was given to the Board of Liquor License Commissioners for Baltimore City in the inspection of all premises where applications were made for new and remodeled establishments in which alcoholic beverages were sold. This review of proposed activities, with recommendations of changes, alterations and new facilities reported to the Liquor License Board, deterred licensees from operating under any but clean and sanitary conditions. The reporting of recommendations to the Bureau of Building Inspection following receipt of all applications for all types of new and remodeled food establishments started the prospective operator under improved and easy-to-clean conditions.

A total of 296 plans for new and proposed food establishments was reported on to the Bureau of Building Inspection, and applications for new or remodeled businesses to purvey alcoholic beverages were reported to the Board of Liquor License Commissioners for Baltimore City.

Pest control operators in many instances carried out their regular exterminating duties; and in addition advised their clients in writing as to corrective measures needed. This activity will be further pursued during 1957.

There was a continuation of the procedure of notifying the central offices of food chain stores of undesirable conditions found in units of their organization. This sensitized managements to weak points in sanitary food control and corrections were made through auxiliary inspection in their units.

### Education

Instruction was continued as in previous years by exposing groups of employed food handlers to instruction as desired by employers. Prospective demonstrators of food in retail stores were given separate instruction on specific days, and a leaflet with the same information was given to each of the persons, most of whom were housewives. Cards indicating that these individuals had been given instruction were given to each of them at the close of the session. As mentioned previously a revised handwashing poster was devised and distributed which admonished food handlers to wash their hands after leaving the toilet and again before handling food and to use a liquid germicidal soap. Dealers in the city who sold this liquid soap were alerted to the distribution of the poster. Photographs of several types of food manufacturing procedures were taken and the colored slides were used in educational activities.



During the year members of the bureau also gave instruction on the fundamentals of food sanitation to representatives of the Girl Scouts of America, in addition to lecturing on Public Health Law at the in-service training course in the Eastern Health District. Two sanitarians were assigned to attend the in-service training course and two sanitarians attended a short course in mosquito control. All sanitarians in the in-service training course were conducted through manufacturing and wholesale food plants so that they could become familiar with the various operations. The students of a biology class of a local high school were conducted on a tour of a local salad manufacturing plant.

Medical students of the University of Maryland were given a talk on the causes of food poisoning and groups were given demonstrations of inspection activities of sanitarians of the bureau. Classes in sanitary engineering and nutrition of the Johns Hopkins School of Hygiene and Public Health were given the details of food control procedures from a public health viewpoint by the director. The Pennsylvania Candy Manufacturers Association was addressed on the value of auxiliary inspection procedures.

Close liaison was maintained with representatives of the Baltimore Station of the Food and Drug Administration, through the Baltimore Conference of Food, Drug and Sanitary Officials, and with the Baltimore County Health Department in instances of periphery inspections.

The following table shows the number of food handlers given instruction during the past ten years:

NUMBER OF PERSONS AND GROUPS GIVEN INSTRUCTION

PERIOD	NUMBER OF GROUPS	NUMBER OF PERSONS
1952-1956	224	8,012
1956	34	1,507
1955	38	1,386
1954	26	1,430
1953	51	1,880
1952	75	1,809
1947-1951	326	10,892

### Regulation

In addition to the issuing of 624 violation notices to food establishment operators, and the 254 hearings which were held within the bureau wherein violators were given an opportunity to explain why the violation notice had not been complied with, there were 16 instances in which court action was resorted to. There was only one dismissal by the court and this was because the violator proved that he had discontinued his food business.

The following table gives the number of prosecutions and fines assessed of food merchants during the past ten years:

PROSECUTIONS IN COURT: 1947-1956

YEAR	NO. CASES	RETAIL	OTHERS	TOTAL FINES
1956	16	12	4	\$1,645
1955	13	11	2	1,505
1954	23	18	5	2,950
1953	22	18	4	3,655
1952	22	17	5	3,530
1951	29	26	3	4,335
1950	22	20	2	3,260
1949	13	12	1	1,100
1948	8	8	0	400
1947	16	12	4	850

In addition to the above there were two court cases in which the Health Department sanitarian was a witness for the Bureau of Sanitation of the Department of Public Works.

The 16 cases prosecuted in Housing Court during the year by the bureau consisted of 16 nuisance charges and 13 impure food charges. In addition to the aforementioned cases the sanitarian assigned to the commission market area appeared with the Sanitary Police against one commission merchant who was fined \$35 and costs in Housing Court for illegally depositing garbage in a public street.

Brief summaries of several of the cases during the year are as follows:

1. A restaurateur in the center of the city closed his establishment for a month. On inspection, after reopening, insanitary conditions and infested food were found. Directives were given to clean the kitchen thoroughly. Failing to comply, he was convicted in Housing Court on three charges of \$100 each. Several months later a repetition of the same offenses occurred and again he was prosecuted in Housing Court on three additional charges of \$100 each. The resulting publicity caused the loss of business and the restaurant was offered for sale.
2. After many years of operating on the fringe of sanitary laws, a manufacturer of salads, after being directed to correct undesirable conditions and who failed to do so, was fined in Housing Court \$50 and costs. The resulting publicity forced this manufacturer to discontinue operations.
3. Three poultry dealers, after having been warned on several occasions to maintain their premises in a clean and sanitary condition and who failed to comply with directives, were fined a total of \$45. Two of the dealers were fined \$10 each and the third \$25. Improvements in the operation of the plants were made before the trial, and were continued.
4. A restaurateur was found operating under insanitary conditions, directed to correct the nuisance, and after failing to do so, was summoned to Housing Court. The restaurateur sold his business before trial and the case was dismissed.

5. A bakery was found having in possession a quantity of infested food which was used for the manufacture of baked products. Following a hearing and court summons, a \$150 fine was assessed.

At the request of a representative of the City Council, information concerning the lack of value of the periodic medical examination of food handlers was given. This type of legislation introduced in previous years and not considered good public health practice by the Commissioner of Health was again reported on unfavorably and the proposed legislation was withdrawn. A suggestion was also received from a representative of the City Council that all salt and sugar be required by regulation of the Commissioner of Health to be protected on restaurant tables. This, too, was considered not of sufficient public health importance to warrant a specific regulation.

### Special Activities

A number of investigations were carried out in addition to the routine inspection and cooperative, educational and regulatory procedures. These investigations concerned specific products and procedures and laboratory analyses. Summaries of such investigations and findings are as follows:

1. The washing of bunches of celery by single immersion was found to be ineffective in removing filth and bacterial contamination. Multiple washing was advised and improvements were noted in the total bacterial flora.
2. Preserved peaches for children being sold in the city were found to contain metallic mercury. A broken thermometer in the packing plant in California was incriminated as the means of introducing the mercury into the jars of peaches. Over 420 jars of the food was condemned and other condemnations were made by representatives of the Baltimore Station of the U. S. Food and Drug Administration. Laboratory examination of the peaches indicated that a negligible amount of mercury had been dissolved in the peach liquor.
3. File cards of brand-name food products with the names of the local distributors were compiled. A continuation of the card file of chemicals that may be incorporated in food deliberately as enhancers, or accidentally as contaminants, was also kept up-to-date.
4. Miniature civil defense decontamination procedures were followed when a number of partially filled vials of *Brucella abortus* vaccine was promiscuously scattered in a neighborhood. Disinfection of the street and sewers was carried out, and the remainder of the vials, brought to the city from an out-of-state farm, was impounded and eliminated.
5. Following the procedure used by the Danish government in its meat inspection activities, the bureau determined the hydrogen ion concentration (pH) of meat on retail sale using simple indicator test papers. Several hundred tests indicated that meat juices with a pH of 6.5 or above were spoiled and not readily detected by organolyptic tests unless warmed, or that the meat had poor keeping qualities. This test was incorporated in the field test kit for use by sanitarians as a screening test only.

6. All ice plants in the city were inspected and samples of ice from these plants were submitted for bacteriologic examination. The findings indicated that ice as sold was of equal sanitary quality as city water and relatively filth free. Ice samples from retail food establishments indicated that the product could be easily contaminated unless precautionary procedures were used.
7. Studies of the presence of enteric organisms on smoked fish indicated that organisms of the *Salmonella* group were absent and the number of the coliform group at a minimum.
8. A series of samples of cheese for evidence of lack of pasteurization of the ingredients was obtained. Several of the varieties showed the presence of phosphatase. However, as all of the cheeses were more than several months old, the product could be considered not unsafe. Aging of the cheese apparently deters the growth of pathogenic organisms.
9. A series of smoked sausage was submitted for examination for excessive amount of nitrite. It was observed that this chemical is usually kept at a minimum and safe level.
10. The oxidation of oils in restaurant deep-fat frying operations indicated that very little rancidity occurs in the fats primarily because of the type of grease used. The presence of anti-rancidifiers and changing of the fats frequently deters rancidity from occurring. The use of cadmium as an alloy in the heating elements of the fat fryer was also studied. The indications were that this metal is not absorbed in the fat.

### *Food Poisoning*

There were 22 investigations of alleged and reported cases and outbreaks of illnesses attributed to food during the year. These investigations were carried out primarily by sanitarians of the bureau with cooperation given in interpreting the findings by the Director of Communicable Diseases. The following table gives the number of investigations carried out during the past 30 years:

SUMMARY OF INVESTIGATIONS OF FOOD POISONING OUTBREAKS, 1927-1956

PERIOD	INVESTIGATIONS		OUTBREAKS ESTABLISHED		
	Number	Persons Involved	Number	Persons Ill	Public eating Establishments Involved
1952-1956.....	161	1,887	23	970	7
1956.....	22	109	3	49	1
1955.....	26	519	4	470	2
1954.....	32	666	3	147	0
1953.....	40	155	3	53	2
1952.....	41	438	10	251	2
1947-1951.....	101	785	26	607	3
1942-1946.....	110	940	20	531	9
1937-1941.....	147	1,035	27	647	9
1932-1936.....	114	939	10	580	8
1927-1931.....	18	92	6	406	2

Brief summaries of some of the outbreaks in 1956 are as follows:

1. Employed personnel of a hospital were served food at an evening meal following which 18 persons became ill with diarrhea within 14 hours. Ice cream of a new variety was tentatively considered as the cause, but was not confirmed as investigation revealed that many different foods had been consumed by the individuals reported as affected. Laboratory examination of residues of food did not show the presence of organisms of the enteric group or *Staphylococci*. Roast beef was also consumed by 72 per cent of those made ill while 77 per cent consumed ice cream.
2. A group of 56 student nurses in a second hospital was served a meal in which rice pudding was included. Within 15 hours 24 of this group became ill with diarrhea. A few had other symptoms. No food was available for bacteriologic examination. Since over 87 per cent of the persons who became ill ate the rice pudding and with a much lower percentage of those ill eating other foods, the rice pudding was suspected as the cause of the illnesses. Examination of food handlers did not show significant findings.
3. Eclairs purchased from a local bakery, operated by a baker of the old school, caused 7 persons to become ill with symptoms resembling *Staphylococcus* food poisoning. The operator of the bakery was directed to discontinue the manufacture of this product. The eclairs had not been reheated.

A case of suspected botulism was reported, but on investigation the illness was found not to have been caused by food. A search for antitoxin for botulism revealed that this biological is not easily available except from one source. A quantity of the antitoxin was obtained for future use, in a highly diluted form.

A case of arsenic poisoning was reported. On investigation it was found that a pest control operator had used arsenic insecticide in a restaurant. Some of this chemical presumably had been carried home by a patron in "take out" coffee cups. The necessary corrective measures were applied to prevent this type of poisoning from recurring.

#### *Food-Borne Diseases*

The investigation of all cases of dysentery, diarrhea and *Salmonella* infections in persons over 18 months old resulted in the finding of additional cases. In each investigation contacts of the case were questioned concerning their employment in food establishments and they were directed to discontinue temporarily such employment. Instructions were also given in each household where the case resided to follow hygienic habits in caring for the case and others in the home. The following table shows the investigations as carried out in such food-borne infections:

ENTERIC INFECTIONS—1956

INVESTIGATIONS		PERSONS	
Salmonellae	Diarrhea and Dysentery	Salmonellae	Diarrhea and Dysentery
9	29	18	46

Additional investigations were made of two cases of amoebic dysentery and several cases of Weil's Disease. There was no case of tularemia reported in the city in 1956.

### Civil Defense

Regular meetings of the Civil Defense Health Service were attended. Classes of instruction were attended by representatives of the bureau as conducted by the U. S. Public Health Service in Washington and Baltimore and by representatives of the Federal Food and Drug Administration. The four courses of instruction were of value to those assigned in civil defense activities particularly because field procedures were taught and demonstrated. A review and constructive criticism of a booklet on the vulnerability of food plants to chemical, radiological and biological warfare was sent to the U. S. Food and Drug Administration. The criticisms involved the application of the flow sheets to plants manufacturing multiple products.

Members of the bureau participated in the nation-wide alert and the lessons gained were invaluable. Civil defense is accelerated public health in that each fire, major and minor catastrophe, is treated as a civil defense training operation. Seven inspections were carried out following fires that occurred in the city in which food had to be condemned, or passed on as being fit for human consumption, or permitted to be reconditioned as examples of such training operations.

Liaison was maintained with representatives of the pest control industry and the Institute of Food Technology as cooperating agents in civil defense activities.

### Miscellaneous Activities

Visitors from Australia, Germany, Iraq and Japan were shown the activities of the bureau. A number of students of the Johns Hopkins School of Hygiene and Public Health visited the bureau following lectures given by the director at the school. The director was elected Secretary of the newly formed Maryland Public Health Association.

The one-hundredth meeting of the Baltimore Conference of Food, Drug and Sanitary Officials was held and attended by officials of state and city health departments and the Federal Government and representatives of key food industries in the city. This meeting was outstanding since it demonstrated a continuous cooperative activity among state, city and federal food and drug officials for twenty-five years. Staff members also attended meetings of the American Public Health Association and the Consultants of the National Sanitation Foundation in Atlantic City, N. J., and the meeting of the Central Atlantic States Association of Food and Drug Officials in New York City, the Interstate Sanitation Seminar at

Williamsburg, Virginia, and a course in Disaster Control given by the U. S. Public Health Service in Washington, D. C. Liaison was maintained with various food trade agencies in the city through their meetings.

### **Food Plant Inspection**

#### *Auxiliary Inspection*

Owners and operators of food establishments were continually urged through personal conferences, correspondence and telephone conversations to institute modern sanitary procedures by engaging in the auxiliary inspection program. It was explained how auxiliary inspection had proven successful in sensitizing food-service personnel to minor undesirable conditions so that corrections were made before serious violations and health hazards developed. By the end of the year participants in auxiliary inspection had submitted 3,264 sanitation reports of their respective establishments. During the year five restaurants, three candy manufacturing plants, two extract plants, two salad manufacturing plants, two bakeries, a coffee roasting company, a large downtown hotel, two warehouses and the largest hospital in the city were added to the list of participants so that the total number of food establishments on which reports were submitted increased to 243.

The interest of several reticent sanitary consultants and pest control operators was finally aroused and their cooperation in auxiliary inspection was obtained in a number of instances. Although many owners continued to have routine inspections made of their establishments, they still refused to submit copies of the sanitation reports on the grounds that such reports might be incriminating. A continued effort was made to overcome such reluctance. The receipt of all sanitation reports was acknowledged and approximately 475 leaflets and pamphlets containing public health information were distributed through the letters of acknowledgment.

#### *Inspection*

By using the systematic work sheet assignment method which had been adopted two years ago, every wholesale and manufacturing food plant in the city was inspected at least once during the year. Frequent reinspections were made where necessary. The routine inspections of warehouses and bakeries in particular, revealed that several establishments were operating in a state of nuisance. In such instances violation notices were issued with the result that two bakeries went out of business and corrections were promptly made in the other establishments. During the inspection of extract plants particular attention given to the presence of coumarin which had been found dangerous to health and banned in the manufacture of imitation vanilla, led to the condemnation of this chemical in four plants

where it was found. The inspection of wholesale and manufacturing plants showed that there were 72 less plants than last year.

Other activities in addition to routine procedures included: The survey and sampling of all local ice manufacturing plants which revealed that ice produced in the city was bacteriologically pure and, in general, free of filth and foreign matter; the inspection of all seafood vendors in the Belair Market area to determine the source of clams that were being sold; the detention for analysis of 15,000 cases of frozen oyster stew after it had been found that the product had been manufactured by an unusual process in an unlicensed plant; inspection of feeding facilities of Ringling Brothers Circus and notification to health officers in a neighboring city where the circus intended to stop the next day, concerning the grossly insanitary operations; the investigation of the potential hazards of stained glass drinking utensils which had been advertised for sale in the city; the inspection of the new hospital at the Maryland State Penitentiary before it was placed in operation; the detention for analysis of 1,400 cases of olives packed under insanitary conditions; and investigations following fires in a drugstore, two supermarkets, a hotel supply company, a grocery, a restaurant and a warehouse where over \$45,000 worth of food had to be condemned.

### *Cooperative Activities*

Dual inspections with the Maryland State Department of Health of bottling, cold storage, frozen food, egg-breaking and canning plants operating within the city limits were delayed in the early part of the year because of the lack of supervisory personnel at the Maryland State Department of Health. Shortly after it was mutually agreed that the Baltimore City Health Department should make the inspection of such plants alone, a supervisory sanitarian was appointed by the State Department of Health and dual inspections were started. All State-licensed plants were inspected and approved as the result of 162 inspections, 119 of which were made in company with the representative of the Maryland State Department of Health and 43 of which were made alone by a representative of the division. In the legal enforcement of the regulations governing the licensing of the plants, two hearings were conducted jointly by the State Department of Health and the City Health Department's Division of Food Plant Inspection. Other cooperative activities included: The inspection of Friendship International Airport with representatives of the U. S. Air Force and the Anne Arundel County Health Department; inspections with Federal Food and Drug officials concerned with insect-infested candy in a local warehouse and the importation of mislabeled culled potatoes into the city; investigations of complaints registered with the Baltimore



County Health Department concerning a baby food containing mercury and baked goods produced in the city; inspections with the Sanitary Police and the Bureau of Sanitation of the Camden Street Commission Market area; assistance rendered to the Drug Inspector in the Division of Drug Control of the State Department of Health in the condemnation of several tons of old drugs found in a book store by a city Health Department laboratory employee; and the investigation with the Western Health District and the University of Maryland Hospital of a fatal case of dysentery. In cooperation with other city agencies, inspections were made following receipt of 479 applications from the Board of Liquor License Commissioners, 191 applications for permits from the Bureau of Building Inspection for erecting or remodeling food establishments, and 105 applications to conduct carnivals. Plans submitted through the Bureau of Building Inspection for building or renovating 118 food establishments were reviewed, and in 72 instances before the plans could be approved the builders and architects were advised to make necessary changes.

### Personnel

Ferdinand A. Korff, B.S., Director

Jacque G. Ayd, A.B., LL.B., Chief, Division of Food Plant Inspection

### *Sanitarians*

Charles F. Courtney

James H. Edwards

Benjamin Ginsberg, Ph.G.

Melvin Johnson

Bernard J. Lingeman

John J. Neunan

Elmer L. Rickerds

Leo A. Schuppert, B.A.

Abraham Shecter

Robert L. Willet

Robert M. Williar

Etta Levin, Senior Clerk Stenographer

Leona R. Dubick, Senior Clerk Stenographer

Katherine F. Losey, Senior Clerk

TABLE NO. 1  
INSPECTIONS OF RETAIL, WHOLESALE, MANUFACTURING AND MISCELLANEOUS  
FOOD ESTABLISHMENTS, 1956 AND 1955

INSPECTIONS AND ACTIVITIES	1956	1955
Total inspections—All Establishments.....	13,300	12,544
RETAIL ESTABLISHMENTS		
Inspections.....	9,667	7,873
Initial inspections.....	6,260	4,824
Special inspections.....	1,774	1,491
Reinspections.....	1,633	1,558
Activities		
Violation notices issued.....	523	436
Number of condemnations of food.....	524	340
Hearings within bureau.....	212	153
Samples of food obtained for examination.....	1,432	1,113
MANUFACTURING ESTABLISHMENTS		
Inspections.....	1,265	1,525
Activities		
Violation notices issued.....	60	125
Number of condemnations of food.....	53	42
Hearings within bureau.....	29	34
Samples of food obtained for examination.....	316	635
WHOLESALE ESTABLISHMENTS		
Inspections.....	830	1,056
Activities		
Violation notices issued.....	21	51
Number of condemnations of food.....	48	75
Hearings within bureau.....	13	23
Samples of food obtained for examination.....	50	9
MARKET STALLS, INSTITUTIONS AND MISCELLANEOUS ESTABLISHMENTS		
Inspections.....	1,538	2,090
Market stalls.....	743	1,307
Institutions.....	395	285
Miscellaneous.....	400	498
ALL TYPES OF ESTABLISHMENTS		
Field tests by inspectors.....	1,335	1,266
Complaints received and investigated.....	787	664
Prosecutions.....	16	13

TABLE NO. 2  
POUNDS OF FOOD CONDEMNED IN RETAIL, MANUFACTURING, WHOLESALE AND  
MISCELLANEOUS ESTABLISHMENTS, 1956

TYPE OF ESTABLISHMENT	TOTAL
All Types of Food.....	136,952
<b>RETAIL FOOD ESTABLISHMENTS</b>	
All types of food.....	23,287*
Candies, nuts and cereal.....	1,120
Groceries, canned and bottled foods, fruits and vegetables.....	14,548
Meats, poultry and game.....	5,206
Milk and dairy products.....	2,355
Seafood.....	58
<b>MANUFACTURING FOOD ESTABLISHMENTS</b>	
All types of food.....	8,205
Baking supplies and cereal.....	7,910
Groceries, canned and bottled foods.....	260
Poultry.....	35
<b>WHOLESALE FOOD ESTABLISHMENTS</b>	
All types of food.....	104,441*
Baking supplies and cereal.....	24,742
Candies.....	445
Dairy products.....	2
Groceries, canned and bottled foods.....	74,010
Meats and seafood.....	2,174
Poultry.....	1,384
Produce and fruit.....	1,683
<b>MISCELLANEOUS FOOD ESTABLISHMENTS AND INSTITUTIONS</b>	
All types of food.....	1,019
Baking supplies and cereal.....	607
Meats.....	44
Milk and dairy products.....	46
Produce and fruit.....	40
Seafood.....	282

\* Condemned because of fire: Retail, 23,317 lbs.; Wholesale, 93,898 lbs.

TABLE NO. 3  
DISTRIBUTION OF INSPECTIONS OF WHOLESALE AND MANUFACTURING FOOD  
ESTABLISHMENTS ACCORDING TO TYPE OF ESTABLISHMENT, 1956

TYPE OF ESTABLISHMENT	NUMBER OF ESTABLISHMENTS IN CITY 1956	NUMBER OF INSPECTIONS
TOTAL.....	4,691	3,301
MANUFACTURING FOOD ESTABLISHMENTS.....	644	1,308
Bakeries.....	206	489
Seafood processing.....	7	16
Canning plants.....	18	50
Packaging plants.....	21	48
Bottling plants.....	18	60
Candy manufacturers.....	55	115
Salad and pickling plants.....	23	60
Extracts plants.....	27	114
Noodle and potato chip plants.....	5	23
Commissaries.....	30	85
Egg-breaking plants.....	3	2
Industrial cafeterias.....	143	35
Poultry houses.....	88	211
WHOLESALE AND DISTRIBUTING ESTABLISHMENTS.....	739	847
Produce and fruit houses.....	92	342
Terminals.....	26	45
Auctioneers.....	9	15
Trucks.....	400*	12
Seafood houses.....	13	21
Warehouses and distributing plants.....	139	282
Butter and egg plants.....	11	21
Cold storage and frozen food.....	38	90
Vending machine companies.....	11	19
MARKET STALLS.....	2,108*	743
INSTITUTIONS AND OTHER ESTABLISHMENTS.....	1,200*	403

\* Approximate figure

## BUREAU OF MEAT INSPECTION

William J. Gallagher, D.V.M.

### *Director*

The provisions of the meat ordinance require that all meat sold in the City of Baltimore must be from plants maintained either under federal or municipal inspection. In 1956, as in previous years, ante- and post-mortem inspection was made on all cattle, sheep, calves, swine and goats in twenty-eight slaughtering plants, three of which were located in adjacent counties. The examination of animals before and after slaughter which included the condemnation of diseased animals and parts was carried on by veterinarians; inspection activities were also concerned with the sanitation of the plants. Daily supervision was carried out in seventy-six meat food products and processing plants by bureau meat inspectors.

During the year, 35,230 visits were made, 242,901 animals were inspected as compared with 246,663 animals in 1955, and 423 whole carcasses were condemned in 1956 as compared with 546 carcasses in 1955. Parts and pounds of carcasses condemned because of disease or undesirable conditions are shown in Tables Nos. 1 and 2.

There were twenty-eight appeal cases, fifteen of which were for immaturity in calves. All the decisions of the veterinarians were upheld. The slaughtering of cattle reacting to tuberculosis and Bang's disease was continued by the bureau upon authorization of various state and federal agencies. Seventy-five cattle reacting to Bang's disease were inspected and permitted to be sold for food. During the year also 13,011 pounds of diseased or contaminated meat were condemned on reinspection as compared with 31,510 pounds in 1955.

The state regulation which prohibits the slaughtering of swine fed uncooked garbage was rigidly enforced in the various slaughtering plants. Inspection was refused in four cases where hogs fed raw garbage were offered for slaughter. Swine fed cooked garbage were registered with the Maryland State Department of Agriculture, and this helped to avoid the possibility of raw-garbage-fed-swine being admitted to the plants.

As part of the in-service training course for sanitarians the director, accompanied by various staff members taking the course, made study-tours of the slaughtering and manufacturing plants. The sanitarians were instructed in the various procedures used in this line of work. Lectures on meat inspection were also given to these classes.

Hearings were held in the director's office on two different occasions with reference to the retail sale of meat products without proper identification labels in the Belair Market. On January 6 the management of a

meat slaughtering plant was called in for a hearing in the office of Dr. Wilmer H. Schulze, Director of the Sanitary Section, and at which the Director of the Bureau of Meat Inspection was present. This firm had its federal grading withdrawn due to the lack of cooperation with the bureau. On January 8 the manager of a meat food manufacturing plant was called in for a hearing involving the falsifying of labeling ingredients. This violation proved to be caused by carelessness of plant personnel and the proper adjustments were made. Two hearings related to the sale of uninspected meat to persons with home freezers were held, the first in Dr. Schulze's office on May 22, and the second likewise in Dr. Schulze's office on May 23. Both parties were ordered to conduct their businesses in the city under inspection, and both subsequently complied with these orders. An operator of a manufacturing plant on Light Street was ordered to appear in the director's office to show cause why he had not obtained a license before starting in business. After complying with the request for improvements and repairs to his plant and upon approval of these improvements, the license was granted.

On December 14 a meeting was held with local meat packers to discuss a new federal regulation which was to be made effective on January 1, 1957. This regulation required that all breeding cattle shipped interstate must be recorded on a special permit for immediate slaughter.

On June 18 Dr. Z. Tabari, Director of the Department of Health of Teheran, Iran, was escorted through a slaughtering plant and was very much impressed. Other activities included the examination of 863 dogs for rabies made in cooperation with the Bureau of Communicable Diseases.

Mr. Ernest H. Smith, Senior Sanitarian, who had been with the department over twenty-six years, passed away suddenly on February 23, and on June 21 this post was filled when Mr. Chester E. Warminski was appointed a Sanitarian in the bureau.

The following is a brief summary of the routine activities of the bureau during the year:

ESTABLISHMENT	NUMBER	INSPECTIONS
Slaughterers, under permit, in city.....	25	2,650
Slaughterers, under permit, in county.....	3	280
Manufacturers, under permit, in city.....	73	26,500
Manufacturers, under permit, in county.....	4	800
Wholesalers, under permit.....	171	4,100
Retailers—route trucks.....	47	524
Collectors of animal offals.....	28	..
Renderers of animal substances.....	3	78
Cold storage warehouses.....	5	60
Cookers' licenses.....	82	240
	440	35,230

**Personnel**

William J. Gallagher, D.V.M., Director  
Jacob Goldbrown, D.V.M., Veterinarian  
Kostas Kanauka, D.V.M., Veterinarian  
Stasys T. Kelpsa, D.V.M., Veterinarian  
Edward J. Moylan, D.V.M., Veterinarian  
Edward P. Roberts, D.V.M., Veterinarian  
John R. Saunders, D.V.M., Veterinarian  
Ralph F. Shaner, D.V.M., Veterinarian

*Meat Inspectors*

Matthew N. Bean	Charles A. Ray
Elmer Frederick	Louis P. M. Rider
Alois Leiterman	Adolph Staub
Henry A. Miller	Chester E. Warminski
Philip A. Ottenritter	Adolph Wobbeking, Jr.

Marie E. Cerney, Senior Clerk Stenographer

TABLE NO. 1  
LIVESTOCK INSPECTED, CONDEMNATION OF ANIMALS, PRIMAL AND EDIBLE PARTS

YEAR	CATTLE			CALVES			SHEEP			SWINE			GOATS		
	Inspected	Con-demned		Inspected	Con-demned		Inspected	Con-demned		Inspected	Con-demned		Inspected	Con-demned	
		Carcasses	Parts		Carcasses	Parts		Carcasses	Parts		Carcasses	Parts		Carcasses	Parts
1956.....	22,101	68	1,253	70,759	67	119	67,205	43	8,130	81,252	245	17,585	1,584	..	..
1955.....	20,577	83	1,403	70,784	156	269	67,618	70	9,694	85,622	237	21,601	2,062	..	..
1954.....	20,116	110	1,501	87,119	28	209	63,419	9	8,164	83,243	88	19,908	430	..	..
1953.....	18,474	133	1,319	77,294	43	153	59,821	10	10,491	102,121	121	28,932	267	..	..
1952.....	16,130	121	1,284	59,555	26	78	45,617	8	7,624	120,172	310	31,355	155	..	..
1951.....	15,472	87	1,457	56,839	13	85	35,375	8	2,894	111,184	323	28,924	689	..	..
1950.....	17,090	81	1,533	70,349	12	113	34,096	6	2,483	110,378	235	29,060	157	..	..
1949.....	26,261	87	1,998	73,576	23	157	36,724	8	3,465	100,054	156	32,736	222	..	..
1948.....	31,867	102	2,344	88,061	22	215	43,740	3	3,198	97,511	154	30,782	155	..	..
1947.....	34,624	127	2,277	96,582	51	555	52,984	10	3,883	93,409	169	26,609	107	..	..
1946.....	46,236	104	2,418	98,995	28	222	81,785	10	7,313	92,821	65	29,367	224	..	..
1945.....	42,056	153	2,661	100,184	44	215	70,851	22	7,081	84,716	136	28,307	45	..	..
1944.....	45,506	116	3,220	116,444	27	293	68,530	40	5,976	114,516	197	32,919	92	1	..

TABLE NO. 2  
POUNDS OF MEAT CONDEMNED ON REINSPECTION

YEAR	TOTAL	PORK	BEEF	MUTTON	VEAL	MEAT PRODUCTS	MIXED PRODUCTS
1956.....	13,011	3,724	3,653	143	150	3,240	2,101
1955.....	31,510	11,442	5,794	679	355	8,417	4,623
1954.....	29,769	10,897	8,804	1,128	2,429	11,003	5,508
1953.....	23,646	9,921	3,745	110	60	3,318	6,492
1952.....	27,790	12,142	406	65	60	11,944	3,173
1951.....	10,056	6,880	545	..	..	1,559	1,072
1950.....	37,142	24,554	618	..	32	9,008	2,930
1949.....	17,649	6,637	4,992	54	3	3,041	2,922
1948.....	7,706	4,566	387	..	215	1,369	1,169
1947.....	19,673	3,417	1,064	53	96	5,319	9,724
1946.....	26,666	8,048	6,889	299	1,165	7,524	2,741
1945.....	25,250	3,916	3,202	142	140	15,296	2,554
1944.....	35,231	6,471	5,388	1,359	1,174	13,697	7,142

TABLE NO. 3  
POUNDS OF MEAT AND MEAT FOOD PRODUCTS PREPARED, PROCESSED AND MANUFACTURED UNDER LOCAL INSPECTION

TYPE OF MEAT PRODUCT	CITY	COUNTIES
Meat products (fresh).....	2,104,598	19,735
Meat products (smoked).....	5,382,037	759,890
Meat food products (fresh).....	1,113,063	615,685
Meat food products (smoked).....	3,707,315	443,340
Meat food products (cooked).....	852,606	147,130
Meat food products (boiled).....	92,855	220,500
Lard.....	826,515	607,725
Lard compound.....	13,145	..
	14,092,164	2,814,005



## BUREAU OF ENVIRONMENTAL HYGIENE

George W. Schucker, B.E.

*Director*

On June 5, 1956 the City Water Engineer placed in operation the new Ashburton Filtration Plant to treat the Patapsco River supply. This plant had a rated capacity of 120 million gallons a day and along with the existing Montebello Filters assure Baltimore of a safe and adequate water supply for many years to come.

### Community Sanitation

The investigation of complaints concerning environmental sanitation continued to be a major responsibility of the Division of Community Sanitation. The division received 5,333 complaints in 1956 as compared to 5,376 for 1955. Of these complaints 1,463 were referred for investigation to the Police Department Sanitary Detail as compared to 1,393 for 1955. The types of complaints handled and the methods of their disposition are shown in Tables No. 1, 2 and 3. In selecting the classification for the type of condition in Table No. 1, the condition chiefly stressed by the complainant was selected as the classification. In the investigation of complaints, the sanitarians inspected the properties for general compliance with Health Department regulations in addition to looking for conditions specifically mentioned by the complaints. Those complaints dealing with general environmental sanitation serviced by the Eastern Health District generalized sanitation unit are included in the tabulations in Tables No. 1 and No. 3. However, the inspections made by members of this unit in handling these complaints have not been included in Table No. 2.

### *Water Supplies*

The sanitary quality of the city water was evaluated through the analyses of 1,499 samples collected from consumer taps throughout the city and from two fixed sampling stations outside the city. The percentage of 10 ml. portions confirmed for coliform organisms was 1.37 as compared with 1.36 for 1955. Other sources periodically sampled included bottled waters and public and semi-public springs. The new Ashburton Filtration Plant, in addition to providing increased filter capacity, permitted by its elevation the discontinuing of one stage of pumping.

During August and September there was a strike at the chemical company supplying hydrofluosilicic acid for the fluoridation of the city water supply. Fluoride shipments from the normal supplier were discontinued during the strike, for the period roughly from August 22 to October 5.

Fluoridation was continued in reduced dosages with acid received from another chemical company. Free hydrofluoric acid in the interim supply damaged pyrex glass rotometers of the fluoride pumps which delayed resumption of normal fluoridation after the end of the strike. The average fluoride content of tap samples collected by the Health Department during the year was 0.92 parts per million.

During February complaints were received from residents of two properties in the west central section of the city concerning crustaceans in their drinking water. Investigation with the Bureau of Water Supply established the presence of chlorine-resistant daphnia in the water supplies of the properties. Sampling of the open reservoir supplying the area by the Bureau of Water Supply indicated the presence of only a small concentration of crustaceans in the reservoir. The Bureau of Water Supply treated the reservoir with copper sulphate and the difficulty in the homes stopped.

#### *Sewage Disposal and Stream Pollution*

The program of maintaining warning signs along polluted streams was continued. There were 131 signs posted along streams throughout the city. Western Run and Maiden Choice Run, which were posted in previous years, became free of known sources of pollution. No replacement was made of damaged or missing signs along these two streams. However, existing signs were not removed pending decision as to possible substitution of a different type of sign which would serve as a warning against the possibility of accidental pollution which could result in the case of sewer chokages.

An application was received to install a septic tank and sand filter to serve 64 homes in a development pending extension of the sanitary sewer system to serve the development. The contract for the sewer extension was ready for advertising for bids. Following an inspection of the stream to which the effluent was to be discharged and examination of plans for the disposal system, tentative approval was given subject to actual awarding of the sewer contract and certain modifications in the plans for the disposal system.

Several percolation tests were made by the Health Department in connection with proposed private disposal systems for industrial buildings. This was a departure from the usual practice of accepting results of percolation tests made by plumbers.

#### *Defective Drainage*

A significant portion of the division's time was devoted to the investigation of complaints of wet cellars and improper drainage, the majority of which were of little or no actual health significance. Since they involved

private property there was generally no other city agency to which the affected residents could turn in an effort to obtain relief and it appeared that the Health Department must continue to service drainage complaints. Among the most difficult problems in this category were instances of improper drainage in recent developments or combinations of older and more recent building projects which were developed without alleys. These conditions frequently were not brought to Health Department attention until some time after the completion of the developments. Many of the problems were not susceptible of individual solution and efforts to encourage the developer or the private owners to undertake a joint method of solution were not usually successful.

#### *Psittacosis Control*

Three confirmed and 3 suspected cases of psittacosis were reported to the division during the year and assistance was given the epidemiologist in investigation of these cases. While the investigations were for the most part inconclusive, they demonstrated the need for more accurate records on the part of dealers in psittacine birds.

#### *Home Safety*

A pamphlet entitled "What Do You Fall For?" was prepared and distributed jointly by the Maryland State Department of Health, the Baltimore Safety Council and the Baltimore City Health Department. Major distribution in Baltimore City was through the "Take One" racks of the Baltimore Transit Company's vehicles, in laundry bundles and in the Enoch Pratt Library and Health Department leaflet racks.

Advice was given the Department of Education as to home safety materials which might be included in the vacation safety kit which was distributed to the schools during the spring to serve as a guide for instruction of pupils in safe living habits to be practiced during the summer vacation period. The division chief continued to serve on the Home Safety Committee of the Baltimore Safety Council.

#### *Swimming Pools*

Periodic inspections were made of indoor and outdoor swimming pools and samples of pool water were collected for bacteriologic analysis. Only two pools failed to achieve satisfactory yearly ratings on the basis of the Health Department rating sheet. On the basis of bacteriologic quality of the water alone, one of these pools, the outdoor pool in Gwynns Falls Park, met the water quality standards of the Joint Committee on Bathing Places of the American Public Health Association. The other pool was an

outdoor wading pool in Carroll Park which contained water deep enough for bathing.

### *Sanitary Landfills and Dumps*

In the construction of a new highway in the eastern section of the city, it was necessary for the contractor to remove large quantities of material from a former city sanitary landfill. The Department of Parks and Recreation, which controlled the filled land, agreed to permit the contractor to deposit the material near the area from which it was removed in order to establish desired grades. Despite specifications calling for prompt covering of excavated materials, the contractor permitted covering to fall behind excavation to the extent that when first inspected by the Health Department, acres of uncovered material were observed. Following conferences with the engineers and contractor, prompt steps were taken to alleviate the odor nuisance. However, an odor problem remained during the balance of the operation. A similar but less acute situation was encountered in the southern section of the city where material from a private sanitary landfill was excavated to form a dyke for the placing of hydraulic fill.

Periodic inspections were made of city dumps for street sweepings and of two privately operated sanitary landfills. Intermittent lapses from accepted standards for sanitary landfills were observed at both the privately operated landfills and it was necessary to hold hearings for the operators which resulted in their being notified that unless consistently proper operation is achieved, it would be necessary that they discontinue their fills.

### *Rooming Houses and Hotels*

Routine inspections of hotels and rooming houses were continued during the year. Arrangements were made with the Police Department to resume their former practice of informing the Health Department of all arrests made in hotels on moral charges. As the result of these reports, one hotel which had resumed operations after its permit had been revoked was ordered closed and the operator of another hotel was refused renewal of his license and ordered to close the establishment. The latter operator applied to the equity court for a writ of mandamus to compel the Commissioner of Health to renew his permit.

### *Miscellaneous Activities*

1. Sanitary inspections were made of foster homes, hospitals, convalescent homes, private schools, day nurseries and other institutions upon request of the state or city licensing agency and reports and recommendations were submitted to the requesting agency.

2. In cooperation with the U. S. Public Health Service, inspections were made of railroad car watering points in the city and reports of the inspections were sent to the carriers and to the Public Health Service.

3. The division assisted in the testing of garbage grinders where requests for approval of the equipment for installation in Baltimore City were received from the manufacturers.

4. The generalized sanitation program in the Eastern Health District was expanded in May to include the Eighth Ward. Mr. Glen L. DeBeal of the division served with the generalized sanitation unit.

5. Members of the division served in various capacities at the Health Services Operations Center during the civil defense exercise held from July 20 to 22, 1956. Seven members of the division attended courses in "Sanitary Engineering Practices in Civil Defense Disaster" given by the U. S. Public Health Service.

6. Four sanitarians of the division attended twelve-week in-service training courses conducted under the supervision of Mr. Milton P. Friedmann who served as Training Officer for the Sanitary Section. Selected members of the staff attended a course in swimming pool operation, conducted by the Health Departments of Maryland, Virginia and the District of Columbia, and the Interstate Sanitation Seminar sponsored by the Health Departments of the states comprising Region III of the U. S. Public Health Service. Mr. Friedmann served on the Executive Committee of the Interstate Sanitation Seminar.

7. The director was a lecturer at the University of Maryland Schools of Medicine and Nursing and continued to lecture to the student nurses at the Eastern Health District.

### Plumbing

On September 4 the Department and the city lost an efficient and faithful servant with the retirement of Mr. Carroll H. Reynolds. Mr. Reynolds had been with the department since 1919 and had been Chief of the Division of Plumbing since it became a division of the Bureau of Environmental Hygiene in 1932. Mr. Walter Underwood was appointed acting chief of the division on July 27 during Mr. Reynolds' absence on sick leave and vacation and was appointed chief on October 25. Mr. Underwood joined the Department shortly after Mr. Reynolds, in 1920.

It was necessary to prosecute in court a plumbing contractor and a home builder for flagrant violations of the Rules and Regulations Governing Plumbing and Drainage Work in Baltimore City and the Ordinance on the Hygiene of Housing. In December of 1955 investigation disclosed that plumbing work had been installed in 64 houses without permits and inspections and that the properties had been connected to sanitary sewer

laterals which had no outlet. The plumbing contractor was notified to obtain permits, disconnect the properties from the sanitary sewer and to expose all covered work for inspection and the home builder was notified not to permit the occupancy of any of the homes until the plumbing work was approved by the Health Department. An inspection in January of 1956 disclosed that four houses were occupied in violation of the order of the Commissioner of Health and that no progress had been made toward correcting the plumbing violations. The cases were tried in Housing Court and the plumbing contractor was convicted of performing plumbing work and connecting the properties to the sanitary sewer without the necessary plumbing permits. The home builder was found guilty of permitting the occupancy of the four houses but appealed his conviction to Criminal Court where the guilty finding was reversed after the houses had been vacated on order of the Commissioner of Health.

The Sewerage Engineer and the Commissioner of Health following tests, approved for installation in Baltimore 8 commercial and 7 domestic garbage grinders. A total of 342 garbage grinders of which 29 were commercial grinders requiring separate location approval based on the adequacy of the sanitary sewers to receive the discharge, were installed under permits during the year.

During 1956, 2,598 properties were connected to the sanitary sewerage system bringing the number of connected properties in the city to 206,105. Cross connections prevented or eliminated during the year totaled 614 of which 169 were hazardous frostproof hoppers.

### **Rodent Control**

#### *Environmental Control*

As in past years the emphasis in rodent control was placed on the control of the most important factors of the rat environment, namely, food and harborage. "Rodent Control is Environmental Control" remained the watchword of the division. The application of this procedure on a house-to-house basis in areas found to be badly rat infested was continued in 5 blocks. Investigations were made to determine the location, the causes of the infestation and the amount of infestation. Notices were sent to owners and occupants to eliminate the rats, correct sanitary violations and to accomplish the measures necessary for ratproofing. The division inspected 145 premises containing 283 dwelling units in these areas. By the end of the year 133 premises containing 284 dwelling units in 8 blocks were improved. Since the inauguration of this type of environmental control program 3,718 premises and 6,152 dwelling units have been improved. Through past experience it has been found that without maintenance inspections the rats quickly regain a foothold in these program areas. As

a consequence, maintenance inspections of ratproofing was continued in 2,300 premises in blocks which have been completed in prior years.

This division employed environmental control procedures in the handling of 2,163 complaints which resulted in the inspection of 4,051 premises during the year. Thus, a total figure of 8,333 environmental sanitation deficiencies were corrected: 681 deficiencies in program areas and 7,652 deficiencies on the basis of complaint corrections.

#### *Rat Bites and Rat-Borne Disease*

The division received reports of 49 rat bites and 9 mouse bites that occurred in 52 locations during the year. These figures showed a decrease of 14 rat bites from the 72 rat bites reported during 1955. The age of the persons bitten varied from an infant of five weeks to a sixty year old man. Twenty-four bites occurred in children under six years of age, and 9 bites occurred in infants under one year of age.

While there was a decrease in the number of rat bites reported to this division, the number of mouse bites increased to a total of 9 or four more than the number reported in 1955. As is usual in rat bites, the highest percentage of bites occurred late at night or during the early morning hours while the victims were sleeping. One alleged rat bite turned out to be a dog bite and was not tabulated in these figures. Three of the 9 mouse bites occurred while playing with pet mice. Each case was immediately investigated and the necessary corrective measures instituted.

In August a case of rickettsialpox was reported to the division. A brief case history follows:

On June 18 a forty-one year old colored male was admitted to the U. S. Public Health Service Hospital in Baltimore. This patient was an employee of the hospital. A small lesion of the right neck was first noted eight days prior to admission. This lesion had persisted. Five days prior to admission, the patient had the onset of generalized myalgia following within 48 to 72 hours by chills and fever, one time as high as 106 degrees. After admission, the patient continued to have fever without chills, photophobia, and severe myalgia but no headaches. Streptomycin and penicillin were administered. Complement fixation tests for rickettsialpox and other rickettsial diseases were made. These indicated rickettsialpox. The patient was discharged on June 26.

Upon receiving the report from the hospital, an immediate Health Department investigation was made at the home of the patient. A light infestation of mice was found in the basement partition walls. Walls and baseboards throughout the house were sprayed with DDT and chlordane insecticide by this division to eliminate any mouse mites. A notice was sent to the property owner to make necessary corrections to eliminate the mouse infestation.

The Locust Point area was kept under surveillance in connection with the endemic typhus survey started by this division in 1953. While the division continued to keep this area under surveillance, the program was not expanded due to a lack of personnel.

### *Education*

Much emphasis continued to be placed on the division's pamphlets "Rat Control" and "Fight the Rat." Past experience showed that these pamphlets greatly aided the public in an understanding of rodent control and methods of correcting many insanitary conditions. Addresses and lectures were given and films were shown to a number of diversified groups such as the Orangeville Improvement Association, Roland Park Civic League, Homeland Association, and the U. S. Army Corps Engineers.

The division staff assisted with two Health Department in-service training courses. During these courses, rodent control procedures and activities were taught. Slides and Health Department rat films were shown.

The division chief conducted a three-day course on mosquito control which was attended by Health Department sanitarians. A total of 430 persons was in attendance at various lectures, and 15 showings of films dealing with rodent control were made to 275 persons.

### *Miscellaneous*

1. Dr. John Stockard, Research Associate in the University of Maryland Hospital Infectious Disease Section, conferred with Mr. William Sallow and the division chief in regard to divisional cooperation in a Weil's disease study, and to rat infestations and general rat ecology.

2. Dr. Bernardo Porzecauski of Uruguay spent several days with the division discussing rodent control and administrative procedures in rat control.

3. Mr. Paul Moore, a feature writer of the *Sunpapers*, spent two days with the division. As a result, an article entitled "City's Pied Pipers Battle Rat Armies" appeared in *The Evening Sun*. Various other articles on rats and mice appeared in the *Sunpapers* during the year.

4. The division crew serviced 232 rat complaint locations, baited 165 blocks, gassed 152 blocks, prepared and delivered bait and placarded 324 volunteer blocks, and recovered 1,054 dead rats as a result of these activities.

5. On October 25 Mr. William Sallow was transferred to the Housing Bureau as Assistant Director of that bureau.

6. The division chief attended a very interesting and informative course on civil defense at the Ashburton Filtration Plant from November 26



through November 30. The course was given by the U. S. Public Health Service.

7. Mr. William Sallow attended the Interstate Sanitation Seminar at Williamsburg, Virginia and delivered a paper on "New Concepts in Rodent Control."

### Personnel

George W. Schuecker, B.E., Director  
 George O. Motry, B.E., LL.B., Chief, Division of Community Sanitation  
 Walter Underwood, Chief, Division of Plumbing  
 John A. Childs, Acting Chief, Division of Rodent Control

### *Sanitarians*

Sidney L. Berlin	Paul E. Gaeng, LL. B.
Philip A. Berman	Francis J. Goldsmith, Ph.B., LL.B.
John F. Block, Ph.G.	William H. Hunter, LL.B.
Charles A. Carroll	Harold J. Lieber, B.A., M.A.
Elbert H. Cohen, B.A., LL.B.	John O. Long
Glen L. DeBeal	Albert Paul Manner
Emanuel N. Donik	Wellington S. Ross, A.B., M.A.
T. Evans Fernandis, Jr., A.B.	Arthur L. Turner, LL. B.
Milton P. Friedmann, B.S.	Reginald G. Young, B.A.

Harley Fickus, Senior Plumbing Inspector  
 Worthington S. Law, Senior Plumbing Inspector  
 Anthony F. Mirra, Senior Plumbing Inspector  
 John H. Pike, Senior Plumbing Inspector  
 Joseph P. Reynolds, Senior Plumbing Inspector  
 Walter A. Underwood, Senior Plumbing Inspector  
 Glen L. Williams, Senior Plumbing Inspector  
 Frank Leslie Logan, B.S., Assistant Mechanical Engineer  
 Dorothy C. Parks, Principal Clerk  
 Jacob G. Vogtmann, Principal Clerk  
 Joseph B. Finnan, Senior Clerk  
 Donald A. Stockley, Senior Clerk  
 James A. Williams, Senior Clerk  
 Gloria P. Lieber, Senior Clerk Stenographer  
 Betty M. Maier, Senior Clerk Stenographer  
 Adelle S. Traub, Senior Clerk Stenographer  
 Jeannette Shapos, Senior Clerk Stenographer  
 Elaine Adas, Clerk Stenographer  
 Elizabeth A. Lewis, Clerk Stenographer  
 Eva Tayman, Clerk Stenographer  
 John W. Biden, Heavy Duty Laborer  
 Wilburt Meachem, Heavy Duty Laborer

TABLE NO. 1  
COMPLAINTS, PATROL AND SPECIAL INVESTIGATIONS

TYPE OF CONDITION	COMPLAINTS RECEIVED		PATROL AND SPECIAL INVESTIGATIONS MADE	
	1956	1955	1956	1955
TOTAL.....	3,870*	3,983*	4,472	5,967
Complaints				
Ashes and garbage.....	20	37	1	2
Building defects.....	603	505	4	7
Choked sewers.....	20	22	17	42
Dead animals.....	..	1	..	21
Defective drainage.....	247	381	27	78
Defective heating equipment.....	81	90	1	8
Defective plumbing.....	278	244	13	5
Defective toilet facilities.....	240	215	1	1
Fowl and other animals.....	17	21	4	18
Grass and weeds.....	650	580	266	908
Insanitary conditions.....	704	816	33	211
Insects.....	75	72	4	8
Miscellaneous.....	312	336	28	34
Privies and cesspools.....	36	19	6	1
Rats.....	183	15	3	13
Water in cellar.....	404	629	30	53
Special Investigations				
Child care institutions.....	..	..	96	125
City dumps and sanitary fills.....	..	..	54	80
Color tests.....	..	..	237	343
Environmental survey inspections...	..	..	..	5
Foster homes.....	..	..	388	517
Hospitals and convalescent homes...	..	..	58	76
Motion picture houses.....	..	..	..	2
Private dumps.....	..	..	42	73
Psittacine bird investigations.....	..	..	75	141
Rooming houses.....	..	..	318	472
Schools.....	..	..	26	40
Stream pollution.....	..	..	143	140
Supervisory inspections.....	..	..	516	454
Swimming pools.....	..	..	440	454
Watering points-carriers.....	..	..	5	12
Water supply sampling.....	..	..	1,636	1,623

\* Does not include complaints referred to Sanitary Police Detail for investigation.

TABLE NO. 2  
COMPLAINT, PATROL AND SPECIAL INSPECTIONS

TYPE OF INSPECTION	1956	1955
TOTAL.....	12,987	14,806
Complaint.....	2,786	3,365
Patrol and special.....	4,472	5,967
Reinspection.....	5,729	5,474

TABLE NO. 3  
COMPLAINTS

ACTION TAKEN	1956	1955
Handled by inspectors.....	3,836	4,076
Referred direct to other bureaus or departments.....	1,463	1,393
Investigated and referred to other bureaus or departments.....	165	223
Investigated and referred to police for follow up.....	19	73
Notices to abate nuisances.....	1,134	1,515
Hearings for failure to comply with notices.....	14	22
Summonses for failure to comply with notices.....	26	14
DISPOSITION		
TOTAL.....	3,576	4,836
Abatement by inspector.....	2,024	1,836
Cancelled (withdrawn or corrected before inspection).....	444	490
Closed without action.....	34	939
Conditions of no health significance.....	890	1,273
Investigated and referred to other bureaus or departments.....	184	298

TABLE NO. 4  
METHOD OF SEWAGE DISPOSAL

METHOD OF DISPOSAL	TOTAL TO DECEMBER 1956	NEW CONNECTIONS	DISCONNECTED
Connections to sanitary sewers.....	206,105	2,598	308
Private drains to sanitary sewers.....	15,302	3	..
Connections to storm water outlets.....	16,003	33	..
Privies.....	..	..	25
Cesspools.....	..	..	47

TABLE NO. 5  
PERMITS, PLUMBING INSPECTIONS AND PLUMBING FIXTURES INSTALLED

GROUP	1956	1955
Total permits issued.....	13,129	14,628
Permits for sanitary sewer connections.....	2,319	3,063
Permits for plumbing installations.....	10,810	11,565
Inspections of plumbing.....	25,424	25,173
Plumbing fixtures installed.....	26,799	26,876
Bathtubs.....	4,653	4,298
Miscellaneous.....	1,678	1,643
Sinks.....	3,750	3,806
Slophoppers.....	127	179
Urinals.....	342	425
Wash basins.....	7,595	7,298
Water closets.....	6,250	6,513
Wash trays.....	2,404	2,714

TABLE NO. 6  
CROSS CONNECTIONS PREVENTED OR CORRECTED

TYPE	1956	1955
TOTAL.....	614	465
Bathtubs.....	219	140
Frostproof hoppers.....	169	181
Wash basins.....	226	144

TABLE NO. 7  
RODENT CONTROL ACTIVITIES

ENVIRONMENTAL CONTROL AREAS	1956	1955
Number of blocks inspected.....	5	11
Number of blocks completed.....	8	16
Number of blocks pending.....	0	3
Total properties inspected.....	145	357
Dwellings.....	121	315
Commercial.....	1	8
Industrial.....	0	6
Combination with dwelling.....	21	24
Other.....	2	4
Dwelling units inspected.....	283	587
Properties improved.....	133	357
Dwelling units improved.....	284	589
Properties requiring no corrections.....	50	94
Properties pending corrections.....	0	59

## TYPE OF INVESTIGATION

TOTAL.....	9,128	14,639
Initial: Complaints.....	2,163	2,384
Patrol.....	1,746	1,920
Program areas.....	143	437
Reinspections: Complaint and patrol.....	2,645	2,941
Program areas.....	131	1,558
Maintenance.....	2,300	5,399

## COMPLAINT HANDLING

Complaints received.....	2,195	2,339
Complaints abated by sanitarians.....	2,163	2,384
Complaints pending.....	85	83
Premises inspected on complaint.....	4,051	4,327
Disposition: Abated by Sanitarian.....	2,709	2,627
Referred to other divisions or bureaus.....	120	72
Cancelled (corrected prior to investigation).....	165	150
No nuisance.....	951	1,346
Premises pending correction.....	106	102

DEFICIENCIES CORRECTED BY RODENT CONTROL ACTIVITIES.....	8,333	9,412
Program areas.....	681	2,612
Complaints.....	7,652	6,800

## ENFORCEMENT PROCEDURES

Notices to abate nuisance.....	1,998	1,997
Hand notices issued in field.....	71	85
Verbal recommendations.....	598	698
Hearings for failure to comply.....	11	10
Final notices for failure to comply.....	200	260
Summonses for failure to comply.....	8	11

## BUREAU OF INDUSTRIAL HYGIENE

Charles E. Couchman, B.S., Ch.E.

*Director*

For better protection of the health of the public, progressive policies were established to prevent exposures to harmful industrial materials. After considerable study an air pollution control ordinance<sup>1</sup> was signed by Mayor Thomas D'Alesandro, Jr. on April 9. The completion of a twenty-one-months air pollution evaluation on December 31, 1956, for the Maryland State Roads Commission, at the Canton ventilation building site of the Patapsco River Tunnel, showed that the quality of air had been improved. In an effort to expand the prevention program of lead poisoning in children a 14-member Health Department committee<sup>2</sup> was formed to study and recommend the manner in which multiple forces may be applied to prevent this disease. During the year Baltimore was selected by the U. S. Public Health Service to participate, along with other cities in the country, in the National Air Sampling Network program.

### Industrial Hygiene Investigations

The Division of Industrial Hygiene Investigations made 95 investigations of various industries that had not been inspected for several years. Although the majority of plants were continuing the same processes as in prior years, some industries had moved to new locations and others were out of business. Inspections in the smaller plants resulted in a continued awareness of the services rendered to aid them in the prevention of occupational diseases. In addition, surveys were conducted in 77 plants employing 3,763 workers. Examinations were made of 209 plans and applications for erecting new industrial buildings. Fifty-four industrial studies were made of 8 different toxic materials in addition to conditions involving inadequate ventilation, exposure to radiation and noise. The bureau personnel participated in civil defense exercises, attended courses in civil defense and attended courses of in-service training.

### Industrial Exposures

Of the 54 investigations of potentially harmful exposures, the following were of particular interest:

1. As the result of a reported silicosis case, a dust study was conducted of a bulk unloading silicon dioxide operation at a ceramics plant. Dust samples were taken at the breathing level of an employee while unloading silicon dioxide from the

- inside of a railroad boxcar. Concentrations of dust as high as 91 million particles per cubic foot of air demonstrated the unsafe manner in which this work was conducted. Upon recommendations from the City Health Department, the company corrected the condition by installing facilities for the use of hopper car unloading of the silicon dioxide whereby no one was exposed to dust.
2. Studies were made at two companies packaging parathion insecticide. No case of parathion poisoning was reported and workroom air samples were negative for the presence of parathion. Results of weekly cholinesterase blood tests of the employees were forwarded to the bureau from each company. One of these companies packaged Phosdrin EM-2, another toxic organic phosphate insecticide on a trial basis for a few days.
  3. Elevated blood lead results from the Bureau of Laboratories showed that six employees of a glass company were being exposed to this toxic material. The workers were exposed to automatically sprayed lead at a new operation used for decorating containers. A study revealed lead concentrations in the air approximately three times the threshold limit. The operation was promptly stopped by management and was not resumed until local exhaust ventilation was provided.
  4. Three brucellosis cases were reported from one meat packing plant. Two workers were employed by the plant while the third was employed as a steamfitter for an outside contractor doing work at the plant. These were the first cases reported from that plant since 1954. Conferences were held with management in order to bring about improvements for the control of the disease.
  5. A request was made by the City Police Department to make a lead and dust study at the gun repair shop. The results of the study disclosed relatively insignificant exposures but an observation of an improperly operating gas-fired appliance showed carbon monoxide concentration in excess of the threshold limits. Satisfactory results were obtained after the appliance was properly adjusted.
  6. Action was taken by a grain company to alleviate a noise nuisance in a neighborhood by installing an enclosure of acoustical material around a hammer-mill and by changing the night operations to daytime work. Reduction in the noise level in the area was attained and complaints ceased.
  7. An employee who failed to wear personal protective equipment received a non-fatal exposure to chlorine gas at a chemical company. The gas was mixed with carbon monoxide to form phosgene. The gas lines undergoing repair had been water washed in a routine procedure but apparently a section of the chlorine gas had become water-bound and caused the accident. Closer vigilance was enforced for the workers undertaking this work.
  8. An exposure to methyl bromide was received by two employees of a local exterminating company. The men received the exposure at an air base located out of state while fumigating from within two U. S. Air Force cargo planes. Future operations of this type will be done with control valves, hose lines and tanks located outside the enclosure to be fumigated.
  9. Complaints of eye irritations in employees of three clothing stores were due to formaldehyde vapors. As in the past<sup>3</sup> investigations have shown that these irritations, which occur in the summer, are caused by the cloth being treated at the mills with a formaldehyde preparation in order to make the material crease-resistant. Atmospheric tests in the stores have shown that the concentrations of formaldehyde vapor were well below the accepted limit but were in sufficient quantities to be objectionable. The local clothing industry was advised that it

should insist on better processing<sup>4</sup> of the material from the out-of-state manufacturers in order to eliminate the cause of the complaints.

10. Investigations were made of 36 radioisotope users who were authorized by the Atomic Energy Commission to use 105 isotopes. There were 29 different isotopes among the 105 approved for use and 24 shipments were for quantities in excess of 30 millicuries. The isotopes were for use in the medical field for research and therapy, in the industrial field for radiography, process control and instrument calibration and in the education field, for research. Joint field inspections were made at two hospitals by representatives of the U. S. Atomic Energy Commission Field Advisory Service and a member of the Division of Industrial Hygiene Investigations. Changes in the isotope authorization program were discussed to facilitate procurement.

Plans to use the area occupied by the Kelly Clinic building as a private parking lot were abandoned by the proponents. The Kelly Clinic, at one time, possessed five grams of radium, then the world's largest single, privately-owned supply<sup>5</sup>. Prior to abandoning the project, conferences had been held with municipal officials and the Atomic Energy Commission to determine disposition of the property and a contamination survey was conducted by the Atomic Energy Commission.

Inspections were made in 21 plants employing 96 workers of the furniture refinishing industry to ascertain exposures to solvents containing benzol. The majority of the plants were equipped with adequate exhaust ventilation but additional exhaust ventilation was recommended and installed in three plants and a substitution of solvent was carried out at one plant.

### *Domestic Exposures*

A total of 3 fatal carbon monoxide cases resulted from the products of incomplete combustion from two defective gas-fired appliances. As the result of an oversized orifice in a side arm hot water heater, two persons died and a baby was found unconscious from the affects of the formation of carbon monoxide. Court action was instituted against the owner of the property jointly by the Building Inspection Engineer and the City Health Department for causing the gas appliance to be installed in such a way as to create a hazard to life, causing a gas appliance to be installed by a man not a registered gas fitter, causing a gas appliance to be installed without a permit and causing an unapproved gas appliance to be installed. The court ordered fines totaling \$300 and costs. Another fatality occurred when the air shutter of a three-burner range was completely closed and the burner became overgassed. No court action was taken but the condition was promptly corrected. Carbon monoxide escaping from a defective flue pipe of a coal-fired furnace caused six persons to become slightly ill. Corrective measures were ordered and were complied with by the landlord.

Exposures of young children to paint containing lead caused a total of 48 diagnosed cases, 3 of which died. It is of interest to note that four of these diagnosed cases had blood lead values ranging from 0.058 to 0.070 milligrams of lead per 100 grams of blood, together with symptoms and signs compatible with lead poisoning. On the other hand, specimens of blood from 26 other children having a history of pica had values varying from 0.070 to 0.092. None of this group was diagnosed as having lead poisoning. All but three of the landlords who owned property where lead poisoning occurred complied with recommendations specifying the removal of lead paint. In two instances it was necessary to issue "Vacate Notices" so that many other conditions besides lead paint could be corrected before the property was reoccupied. With the other exception it was necessary to summon the landlord to court where he was fined \$25 and costs before the lead paint was removed. Since the 1956 case rate showed no improvement over the past few years a committee was formed among staff members of the Health Department to consider various proposals for broadening the preventive approach to this problem.

### Air Pollution Control

A large step forward was made with the passage of the City's Air Pollution Control Ordinance. This ordinance, in general, provides for:

1. The control of emissions of noxious acids, gases, vapors, odors, or any other substances not within the scope of the Smoke Control Ordinance which are found to be dangerous or detrimental to the health or safety of the public or which may interfere unreasonably with the comfort of the public.
2. A means whereby persons desiring to construct, alter, install or relocate any equipment, process or structure, or to change any process involving the above where there is reasonable grounds to believe that there may result a condition of air pollution, shall make a written application to the Commissioner of Health for a City Health Department survey.
3. Penalties for violations.
4. Adoption of rules and regulations by the Commissioner of Health.
5. An air pollution reference committee, consisting of four persons experienced in or familiar with the problem of air pollution control, one each being nominated by the President of the University of Maryland, the President of the Johns Hopkins University, the President of Loyola College in Baltimore City and the Chairman of the Engineers Joint Council of Maryland.

Since the passage of the ordinance the application procedure has been working very satisfactorily with a total of six applications received. A department survey was made on each application and action was taken as follows:

1. A chemical company requested permission to construct a contact sulfuric acid plant in which it was planned to burn hydrogen sulfide and spent alkylation acid



from a local refinery to produce the sulfuric acid. Detailed information was not available, therefore, the request was denied. Subsequent information furnished by the company led to the approval of the application.

2. Approval was given to a company for the installation of a brake shoe grinding machine since the check of the plans showed controls to be installed.
3. Permission was granted to a chemical company to install controls, in addition to the present Cottrell, to take out the remainder of the acidic gases formed in a calcination operation.
4. The application of a chemical plant for the relocation of a pilot plant in the production of hydrazine was approved.
5. Since means of controls were provided, the construction and operation of a pigment plant in the Curtis Bay area was approved. This gave a 20 per cent increase of titanium dioxide pigment.
6. The application of a feed mill company for the installation of controls was approved.

The policy of cooperation with industry continued to obtain improvement in abatement of air pollution. Some minor sources of pollution were corrected by the offenders without incident. One case involved the emission of fumes by a barrel scrubbing company located near a residential area. This condition was abated by proper elevation of the stacks. Another involved the malfunction of an air conditioning unit of a movie theater in which ammonia was expelled into the atmosphere. The company was quick to note the condition and had already begun repairs.

Two instances of particulate discharge were abated. A cleaning establishment was responsible for a lint discharge and upon notification installed proper collecting equipment. Talc from the manufacturing of meteorological balloons caused complaints from a section of the city. The company, after being confronted with the problem, decided to stop operations and not take any more contracts until proper means of controls were installed.

The greater number of complaints during the year were caused by two instances of malfunctioning at an oil refinery company. The first instance was the result of flare failure causing widespread emission of a mercaptan-like odor over the city. A plot of the location from where the 530 complaints emanated and a check of the wind direction pin pointed the source. The second instance was the result of improper operation of an air line which caused a large spread of catalyst over the surrounding area. Meetings with the company brought out some of the measures taken to prevent any recurrence.

Members of the bureau were invited to watch a pilot operation of a fabric treating plant where large amounts of acid were used. Controls on the fumes from the pilot plant were of prime interest and these seemed to be adequate. Also, at another plant invitation, the handling of ammonia in the unloading of tank cars was observed. Several suggestions made by the bureau to improve the controls were well received by the company.

The monitoring of the eastern portal of the Patapsco River Vehicular Tunnel across Baltimore Harbor was continued throughout the year<sup>6</sup>. Of the plants considered to be potential sources of atmospheric pollution, only five were found to be probable sources of this condition. The concentrations of sulfur dioxide at the outset of the study were high and the durations of the concentrations were long. All of the five companies made improvements in their methods of control and operations which reduced the level of concentration considerably but the durations of the concentrations were diminished only by a small amount. The study was concluded at the end of the year by the termination of the contract between the State Roads Commission and the Baltimore City Health Department.

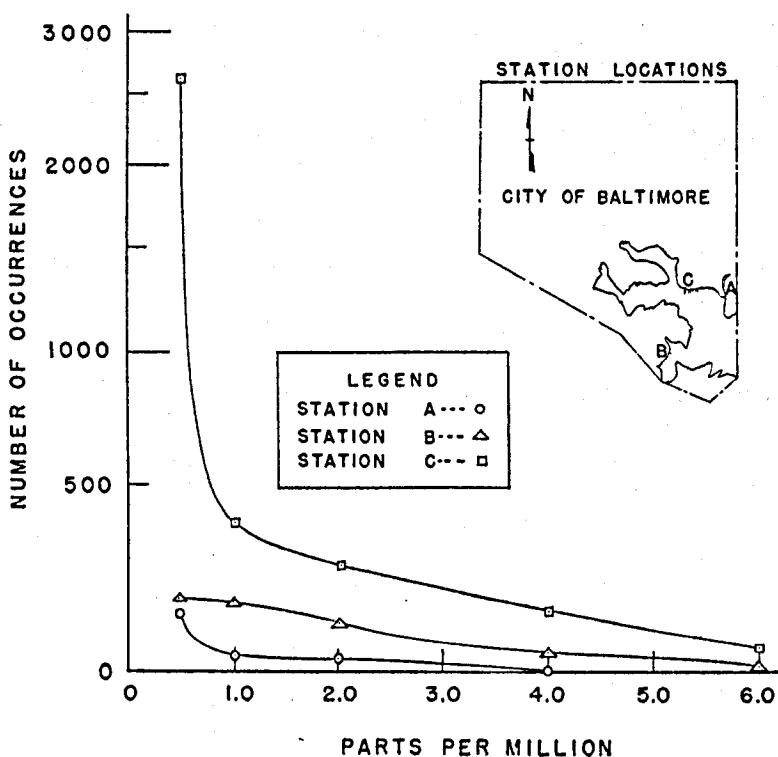
There were several minor incidents of complaints resulting from the construction of the tunnel approaches. These were mainly from the dust raised by the movement of equipment on the dried ground. The contractors corrected this by continuously sprinkling the area with water. Widespread odor contamination resulted when a cut was made through an old sanitary landfill. This was brought to a nearly perfect condition by covering the insanitary material with fill dirt as soon as possible and by some spraying with deodorants.

The air pollution survey of the city was continued during the year with monitoring in the three zones of heavy industry. One of the sites of sampling was the study conducted in connection with the harbor tunnel. In this survey sulfur dioxide was the tracer substance measured. The three accompanying figures show conditions during the year. Station "B" was observed for only eleven months and the values plotted have been corrected for twelve months. For Station "A" the recordings were taken for only five months and again were corrected and plotted for twelve months. During the periods not recorded for the above sites the instruments were in use at various locations in the city and the data would not apply to these sites.

Figure 1 shows the number of times concentrations approximating the points on the curve occurred. Duration of each occurrence was not considered. Values of the concentrations were determined by visual estimation of the mean value under the curve of an Esterline-Angus recorder associated with a titrilog.

Figure 2 shows mean monthly concentrations for the year. The range of instantaneous values for Station "A" is between 0.0 to 1.58 parts per million. Station "B" ranged from 0.0 to 8.6 ppm, while Station "C" ranged from 0.0 to 7.36 ppm.

Figure 3 shows the time duration per month of all concentrations measured by the instrument. Possible interference from sources outside the areas have been included since the likelihood of major error in the total is small.



**Figure 1. Frequency of occurrence of recorded concentrations of sulfur dioxide—1956.** Concentrations continuously recorded by titrlogs. Points plotted include all concentrations from preceding point. Recordings taken at three stations in the industrial areas. Recordings for station B were taken for only eleven months and were corrected for twelve months. Station A recordings were taken for five months only and were corrected for twelve months.

Participation in the National Air Sampling Network of the U. S. Public Health Service was started with the site of sampling selected being the roof of the Fire Department Headquarters located in the business section of the city. These samples were taken about twice monthly and sent to the Taft Sanitary Engineering Center for analysis.

Daily samples were taken for studies by the bureau alternately between two locations, one in a suburban and one in an industrial area. These samples were checked for total dust and radiation levels. Other locations were used throughout the city to give additional information.

In connection with the radiation studies a gas flow proportional counter was placed in operation. Experiments were carried out which gave some interesting results. One was that the material collected has a very short

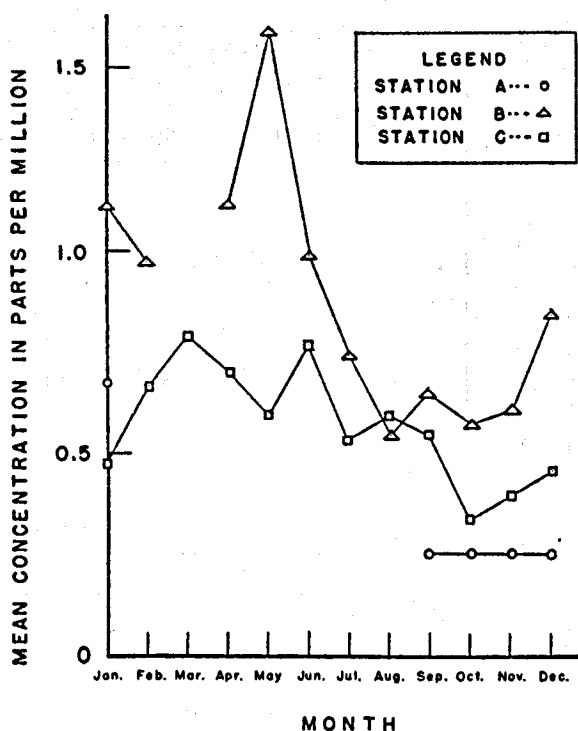
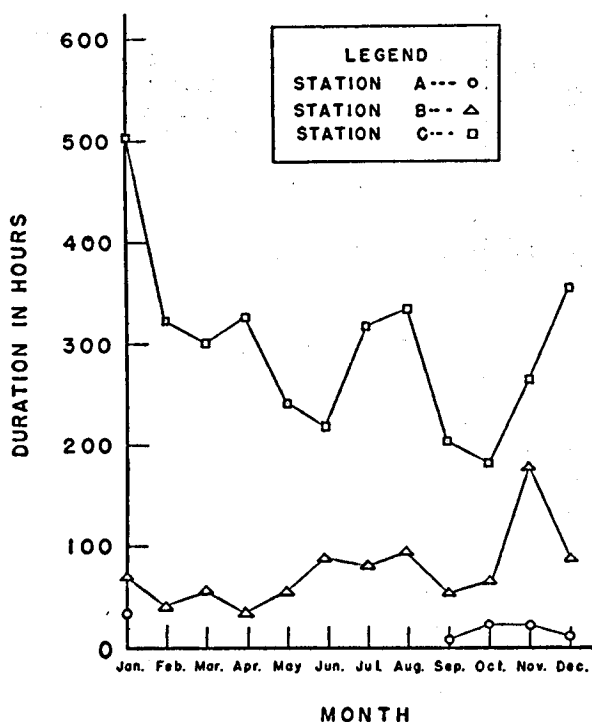


Figure 2. Monthly mean recorded concentrations of sulfur dioxide. Concentrations continuously recorded by titrlogs. Data shown for recordings at three sampling stations, all in industrial areas.

half-life and another was that a long sampling time did not increase the level of the radiation appreciably. Invariably the samples taken in the residential section exceed radiation levels of those taken in the industrial region. Charts were developed to record the data gathered and methods of operation were established.

A study was made of wind directions within the city. Making use of several wind instruments of local firms, the bureau gathered wind data from various locations. From these data it was found that the wind directions were generally in agreement and that one site could be used and the information gathered would be reliable.

As to instrumentation, the scaler and radiation standards were received which permitted the starting of the radiation studies mentioned above. The mast to the aerovane was also received. Received late during the year was the Sinclair-Phoenix Forward Scattering Aerosol and Smoke Photometer and some preliminary work indicated that the instrument would



**Figure 3. Monthly recorded duration in hours of measurable sulfur dioxide concentrations.** Duration continuously recorded by titrlogs. Data shown from recordings at three sampling stations, all in industrial areas. Concentrations less than 0.14 ppm not considered.

readily detect acid gases upon their neutralization with ammonia to form a fume. Maintenance of all equipment and calibration was continued.

Two members of the bureau attended a two-weeks training course on sampling and analytical methods at the Robert A. Taft Sanitary Engineering Center in Cincinnati, Ohio. Several members of the bureau attended the regional meeting of the Air Pollution Control Association at Rutgers University and the meeting of the American Industrial Hygiene Association in Philadelphia. A one-week course in Sanitary Engineering Practices in Civil Defense Disaster was given at Washington, D. C. and locally. Members of the bureau attended both courses.

The work of the bureau was greatly expedited by the generous assistance of Dr. R. R. Sayers, Senior Medical Supervisor for Occupational Diseases and Dr. Emanuel Kaplan, Assistant Director of the Bureau of Laboratories for Chemistry, to whom acknowledgment is made.

*References and Publications*

- <sup>1</sup> Mayor Thomas D'Alesandro Signs City Air Pollution Control Ordinance. *Baltimore Health News*, May 1956, Vol. 33, No. 5, pp. 33-37.
- <sup>2</sup> A New Health Department Committee on the Prevention of Lead Poisoning. *Ibid*, October 1956, Vol. 33, No. 10, pp. 80-81.
- <sup>3</sup> *Annual Report of the Department of Health*, 1955, Baltimore, Maryland, p. 257.
- <sup>4</sup> Health Hazards from Flame-Proofed Fabrics. Giel, C. P., et al, *Monthly Review*, New York State Department of Labor, Division of Industrial Hygiene, April 1956, Vol. 35, No. 4, p. 20.
- <sup>5</sup> *Annual Report of the Department of Health*, 1955, Baltimore, Maryland, p. 258.
- <sup>6</sup> *Ibid*, pp. 260-261.

**Personnel**

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Elkins W. Dahle, Jr., Senior Civil Engineer  
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C. Edward Sachs, Sanitarian\*  
Edward H. Vail, B.S., M.S., Sanitarian  
Albert J. Grossman, Sanitarian  
William M. Stump, Sanitarian  
John J. Gunning, Sanitarian  
William M. Duvall, B.S., Sanitarian  
Winston J. Miller, B. S., Sanitarian  
Mary Lanahan, R.N., Public Health Nurse  
Dorothea H. Blume, Senior Clerk Stenographer  
Anna M. Knickman, Senior Clerk Stenographer

\* On leave of absence.

TABLE NO. 1  
HEALTH AND ACCIDENT HAZARDS ELIMINATED IN INDUSTRIAL PLANTS—1956

TYPE OF IMPROVEMENT	NUMBER	POPULATION
TOTAL.....	386	10,076
Health-Occupational Hazards		
Exposure to toxic materials controlled by:		
Installation of local exhaust systems.....	37	676
Provision of respirators.....	3	108
Isolation of operations.....	3	49
Change of operations.....	4	23
Repair of defective equipment.....	4	5
Exposure to radiant energy controlled by:		
Shielding.....	6	73
Lighting provided or improved		
Artificial.....	5	119
Ventilation provided or improved		
Artificial.....	5	233
Natural.....	2	135
Noise reduced.....	3	89
Sanitation		
Cross connection eliminated.....	1	40
Drinking facilities provided or improved.....	41	996
Industrial waste disposal improved.....	11	256
Insanitary premises improved.....	9	284
Insects eliminated.....	2	90
Janitor service provided.....	1	60
Lockers provided.....	5	236
Lunchroom provided.....	2	135
Rest periods instituted.....	2	70
Restroom provided.....	4	227
Seats for female employees provided.....	2	160
Toilet facilities provided or improved.....	54	1,264
Washing facilities provided or improved.....	40	992
Personnel Services		
First aid equipment provided.....	1	125
Sickness records instituted.....	1	40
X-ray examinations instituted.....	1	40
Accident Hazards		
Building defects corrected.....	1	25
Fire hazards corrected.....	3	154
Housekeeping improved.....	5	47
Other Improvements		
Heat supplied.....	3	120
New building or additional space.....	116	3,014
New equipment or processes.....	9	191

TABLE NO. 2  
DETAILED STUDIES MADE—1956

INDUSTRY	NUMBER OF STUDIES	DUSTS				GASES		VAPORS		OTHERS		
		Chrome	Dust Counts	Lead	Parathion	Carbon Monoxide	Formaldehyde	Benzol and Analogs	Mercury	Noise	Radiation	Ventilation
All Industries Studied.....	54	2	5	9	3	12	1	9	1	3	5	4
Automotive.....	4	..	..	..	..	4	..	..	..	..	..	..
Ceramics.....	1	..	3	1	..	..	..	2	..	..	..	2
Chemical.....	1	..	..	2	3	..	..	2	..	..	..	..
Furniture.....	..	..	..	3	..	..	..	..	..	..	..	..
Glass.....	..	..	..	..	..	..	..	..	..	..	..	..
Grain.....	..	..	..	..	..	..	..	..	..	3	..	..
Hospitals and clinics.....	..	..	..	..	..	..	..	..	..	..	3	..
Metal.....	1	1	..	..	..	..	1	3	..	..	..	2
Paper.....	..	..	..	..	..	2	..	..	..	..	..	..
Petroleum.....	..	..	1	..	..	2	..	..	..	..	1	..
Printing.....	..	..	..	..	..	2	..	..	..	..	..	..
Storage battery manufacturing.....	..	..	..	..	..	2	..	..	..	..	..	..
Others.....	8	1	2	..	..	2	..	1	1	..	1	..

TABLE NO. 3  
INDUSTRIAL BUILDING APPLICATIONS AND PLANS REVIEWED FOR OCCUPATIONAL  
HAZARDS AND SANITATION—1956

PROPOSED USE OF BUILDING	APPLICATIONS AND PLANS					SPECIAL RECOMMENDATIONS							
	Number Reviewed	Disapproved	Approved			Ventilation			Sanitation		Other Recommendations	CONSULTATIONS	
			Without Recommendations	With Recommendations	Abandoned	Mechanical		Industrial Waste Disposal	Personal Service Conveniences				
						Local	General			Natural			
All Types.....	209	1	37	169	2	6	21	..	12	10	6	209	
Automotive repair.....	16	..	..	15	1	1	6	..	..	..	..	16	
Automotive service.....	9	..	..	9	..	1	4	..	..	..	..	9	
Biologicals.....	3	..	..	3	..	..	..	..	..	..	..	3	
Chemical.....	16	1	2	13	..	1	..	..	1	1	1	16	
Electrical service.....	7	..	..	7	..	1	1	..	..	..	..	7	
Dry cleaning and laundry.....	9	..	..	9	..	..	..	..	4	1	..	9	
Machine shop.....	10	..	..	10	..	2	..	..	..	1	..	10	
Metal goods.....	11	..	..	11	..	..	..	..	1	..	1	11	
Office and garage.....	9	..	1	8	..	..	7	..	..	..	..	9	
Office and storage.....	16	..	1	15	..	..	..	..	..	..	..	16	
Paint manufacturing.....	3	..	..	3	..	..	2	..	..	..	..	3	
Personal service building.....	3	..	..	3	..	..	..	..	..	3	..	3	
Reclamation.....	5	..	..	5	..	..	..	..	..	1	1	5	
Rubber products.....	5	..	..	5	..	..	..	..	3	..	..	5	
Truck terminals.....	3	..	..	3	..	..	..	..	..	..	2	3	
Warehousing and storage.....	61	..	31	29	1	..	..	..	1	2	..	61	
Woodworking.....	4	..	..	4	..	..	1	..	1	2	..	4	
Others—less than 3 of 1 type.....	19	..	2	17	..	..	..	..	2	1	1	19	





TABLE NO. 5  
STATISTICAL SUMMARY OF INDUSTRIAL HYGIENE ACTIVITIES—1956

PLANT ACTIVITIES	
Total number of different plants serviced.....	1,057
Total number of workers in plants serviced.....	75,953
Total number of plant visits made.....	1,515
SOURCE OF SERVICE	
Self-initiated.....	1,187
Requests from management, labor, etc.....	32
TOTAL.....	1,219
GENERAL TYPE OF SERVICE GIVEN	NUMBER OF SERVICES
Plant surveys.....	77
Technical studies of hazards.....	50
Reinspections and routine.....	515
Consultations.....	9
Atmospheric pollution investigations.....	774
Other nuisance complaints investigated.....	94
Follow-up on building applications.....	417
Special activities.....	9
TOTAL.....	1,945
RECOMMENDATIONS CARRIED OUT	
Number of recommendations.....	96
Number of plants involved.....	58
Number of workers affected.....	551
VOLUNTARY IMPROVEMENTS MADE IN PLANTS	
Number of improvements.....	321
Number of plants.....	153
Number of workers affected.....	4,666
SPECIFIC SERVICES	
Number of laboratory analyses and examinations.....	94
Field determinations of atmospheric contaminants.....	467
Field determinations of physical conditions.....	130
Examination of plans for control equipment.....	213
Occupational disease cases reported.....	165
Occupational diseases investigated.....	11

TABLE NO. 6  
OCCUPATIONAL DISEASES REPORTED—1956

DISEASE	CASES
TOTAL.....	164
Anemia.....	1
Benzene poisoning.....	1
Blisters.....	6
Brucellosis.....	3
Bursitis.....	3
Cellulitis.....	1
Chrome carcinoma.....	4
Chrome ulceration.....	10
Cyst.....	1
Dupuytren's contracture.....	1
Emphysema.....	1
Fibrositis.....	1
Frostbite.....	2
Ganglion.....	7
Hoarseness.....	1
Infected abrasions.....	4
Lead poisoning.....	1
Methyl bromide intoxication.....	1
Muscle soreness.....	8
Paronychia.....	2
Pneumonitis—ammonia.....	1
Secamoiditis.....	1
Silicosis.....	3
Swelling and pain.....	11
Synovitis.....	1
Tenocynovitis.....	20
Thallium sulphate poisoning.....	1
Tuberculosis.....	1
Urticaria.....	1
Dermatitis.....	65
Alkalis.....	1
Cement and clay.....	2
Chemicals.....	14
Dust.....	2
Fungus.....	1
Metal.....	1
Oils and greases.....	13
Paint and varnish.....	2
Plant irritations.....	6
Soap.....	9
Wool.....	1
Others.....	13

TABLE NO. 7  
ACUTE CASES OF ILLUMINATING GAS POISONING—1936-1956

YEAR	TOTAL CASES	SUICIDES AND ATTEMPTED SUICIDES	ACCIDENTS
1956	26	7	19
1955	25	4	21
1954	11	9	2
1953	30	15	15
1952	16	16	..
1951	45	24	21
1950*	76	52	24
1949	132	92	40
1948	159	112	47
1947	137	89	38
1946	157	104	53
1945	130	69	61
1944	140	72	68
1943	178	66	112
1942	123	68	55
1941	137	95	42
1940	174	102	72
1939	202	77	125
1938	130	82	48
1937	114	71	43
1936	218	63	155

\* Entire city operated on natural and oil gas as of September 1950.

TABLE NO. 8  
NON-FATAL AND FATAL ACCIDENTS FROM ILLUMINATING GAS AND DEFECTIVE  
APPLIANCES FROM 1936-1956

YEAR	TOTAL	ACCIDENTS FROM UNBURNED GAS		ACCIDENTS FROM INCOMPLETE COMBUSTION OF GASES		DEFECTIVE APPLIANCES CAUSING ACCIDENTS
		Non-fatal	Fatal	Non-fatal	Fatal	
1956	19	..	..	16	3	7
1955	21	..	..	18	3	6
1954	2	..	..	..	2	1
1953	15	..	..	12	3	8
1952	..	..	..	..	..	..
1951	21	..	..	19	2	10
1950*	24	10	4	10	..	11
1949	40	30	6	1	3	13
1948	47	32	8	7	..	7
1947	38	18	8	9	3	8
1946	53	29	10	10	4	8
1945	61	31	23	6	1	6
1944	68	35	20	12	1	5
1943	112	42	20	49	1	13
1942	55	28	9	16	2	8
1941	42	22	6	14	..	3
1940	72	45	6	19	2	5
1939	125	32	9	83	1	7
1938	48	30	12	6	..	..
1937	43	31	11	1	..	1
1936	155	131	22	2	..	..

\* Entire city operated on natural or natural and oil gas as of September 1950.

TABLE NO. 9  
NON-FATAL AND FATAL CASES OF LEAD POISONING IN CHILDREN  
1931-1956

YEAR	CASES			DEATHS		
	Total	White	Colored	Total	White	Colored
TOTAL	545	144	401	109	38	71
1956	48	8	40	3	1	2
1955	35	5	30	1	..	1
1954	34	8	26	3	1	2
1953	49	10	39	6	3	3
1952	29	6	23	5	2	3
1951	77	20	57	9	3	6
1950	31	2	29	2	..	2
1949	34	11	23	4	1	3
1948	31	4	27	4	1	3
1947	11	1	10	3	1	2
1946	13	7	6	4	2	2
1945	8	4	4	2	1	1
1944	9	5	4	1	..	1
1943	10	3	7	5	2	3
1942	13	1	12	5	..	5
1941	15	4	11	3	2	1
1940	12	3	9	7	..	7
1939	11	6	5	4	3	1
1938	13	9	4	6	4	2
1937	10	7	3	2	1	1
1936-31	52	20	32	30	10	20

TABLE NO. 10  
AIR POLLUTION INVESTIGATIONS—1956

NATURE OF COMPLAINT	NUMBER OF COMPLAINTS	NUMBER OF CONDITIONS	DISPOSITION OF CONDITIONS		
			Controls Provided	Cancelled	Pending
TOTAL.....	774	89	75	7	7
Dusts					
Inorganic.....	585	26	24	..	2
Organic.....	22	14	13	..	1
Fumes					
Metallic.....	1	1	1	..	..
Gases					
Acid.....	78	4	3	..	1
Ammonia.....	7	6	6	..	..
Vapors					
Paint, varnish, lacquer.....	21	13	10	2	1
Petroleum.....	8	6	4	1	1
Solvents.....	34	10	7	2	1
Others.....	18	9	7	2	..

TABLE NO. 11  
SUMMARY OF COMPLAINTS—1956

NATURE OF COMPLAINT	NUMBER	PER CENT
TOTAL.....	868	100.0
Atmospheric pollution.....	774	89.2
Carbon monoxide.....	14	1.6
Industrial waste.....	31	3.6
Noise.....	14	1.6
Sanitary facilities.....	6	.7
Sanitation.....	23	3.2
Ventilation.....	1	.1

## HOUSING BUREAU

## HOUSING BUREAU

Franz J. Vidor, B.S., M.C.P.

*Director*

The most far reaching and significant event of the year took place on December 31, when Mayor D'Alesandro signed Ordinances No. 692 and No. 693. Ordinance No. 693 provided for the transfer of the Housing Bureau in the City Health Department, its personnel and appropriations after 30 days to the new Baltimore Urban Renewal and Housing Agency, created by Ordinance No. 692. Ordinance No. 693 authorized the Renewal Agency to enforce the Hygiene of Housing Ordinance and Regulations in urban renewal areas as agent for the Commissioner of Health and invested in the new agency basically the same functions previously authorized for the Housing Bureau. Ordinance No. 692 permits the Urban Renewal and Housing Agency, subject to agreement with other city departments, to act on their behalf both within and outside of urban renewal areas. Since the effective date of Ordinance No. 693 will be January 30, 1957, this is the last complete report of the Housing Bureau which, under Health Department sponsorship first as a Housing Division, 1943-1949, then as an Office of Housing and Law Enforcement, 1949-1951, and finally as a full-fledged bureau has a proud record of combating blight, culminating in the nationally known "Baltimore Plan." The creation of the new Urban Renewal and Housing Agency was the direct result of recommendations made by the Urban Renewal Study Board, appointed by the Mayor in February, 1956. Its findings were enthusiastically received by city officials and citizens alike and endorsed by the Commissioner of Health as a step to consolidate efforts made by several city departments to combat slum conditions more effectively.

### *Law Enforcement—General*

When Regulation 9, the "Bathtub Regulation" became effective on January 1, a new plateau was reached regarding minimum standards. During the year the Housing Bureau actively undertook five programs, as follows:

- a. Area rehabilitation, which consisted of the enforcement of the housing code on the basis of interior and exterior inspections of every property in a given area, supplemented in some areas by a consolidated enforcement of other codes and ordinances dealing with housing, such as the building, electrical and fire prevention codes and the density regulations of the zoning ordinance.

- b. Area review, which involved a systematic reinspection of properties previously improved by the Housing Bureau in its area rehabilitation program. Area reviews were concerned primarily with exterior conditions and notices were issued whenever violations were found to have recurred.
- c. Block surveys, which started in January, in an attempt to arrest the early conditions of blight in selected blocks scattered throughout the city through the enforcement of specific provisions of the housing code. Such symptoms as the lack of adequate plumbing facilities, overcrowding and the existence of insanitary conditions were discovered and ordered corrected.
- d. Complaints, which involved the roof-to-basement inspection on a property on which complaints were received.
- e. Vacates, which consisted of the posting of properties that were found to be unfit for human habitation.

Reviews of 222 sets of plans for dwelling alterations forwarded from the Bureau of Building Inspection resulted in the disapproval of 19 sets. This compared with 250 sets reviewed and 5 disapproved in the previous year. These plans were checked to determine compliance primarily with the light and ventilation requirements, and adequacy of plumbing facilities.

Mr. Gerald J. Doyle, Administrative Assistant, participated in the in-service training program for sanitarians conducted by the Sanitary Section at the Eastern Health District building. In order to indoctrinate new personnel and keep experienced employees informed on code enforcement policies and procedures, the monthly in-service training sessions continued throughout the year.

Fight Blight Fund, Inc., continued to assist needy owner-occupants in rehabilitated areas. Forty-seven owners were assisted by the Fund during the year. The Church of the Brethren Volunteer Service Unit disposed of their Durham Street property in the Pilot Area and purchased and rehabilitated a new Pilot House at 1324 West Lafayette Avenue in anticipation of bureau activities in the Harlem Park Area.

The number of properties on which first inspections were made increased 12 per cent over the previous year, from 2,533 in 1955 to 2,838 in 1956. Likewise, the number of properties abated increased 26 per cent, from 2,380 in 1955 to 2,998 in 1956. The number of active properties under control activity on December 31, 1956 reached a new low of 1,564.

The net increase of 305 properties first inspected during the year was primarily the result of the block survey program. Due to the nature of this, as well as the area review program, the time during which cases were active was considerably less than that required for area and complaint cases. A breakdown of first inspections by type of program revealed that of a total of 2,838 first inspections, 26 per cent were the result of area work 28 per cent were caused by complaints, block surveys accounted for 37 per cent, and area reviews accounted for 9 per cent.



During the year, notices issued by the Housing Bureau totaled 3,834 and dealt with 16,028 code violations. Structural and plumbing violations occurred most frequently, while overcrowding violations were relatively rare.

Although 155 overcrowding notices were issued during the year, they originated on only 115 properties. Thus it was possible that on as many as 40 properties more than one dwelling unit was overcrowded.

It was interesting to note that a considerably greater number of notices were issued compared with first inspections made on properties. This was due to the fact that in many instances supplementary notices had to be issued to owners; overcrowding notices had to be issued to tenants on properties for which owners also received notices; a number of notices had to be reissued due to a change of ownership of the property; and, finally, a substantial number of nuisance notices were issued on vacated properties on which no first inspections were made during the year.

The total number of reinspections on properties amounted to 12,598 during 1956. The ratio of reinspections to first inspections was highest in area work and lowest in block surveys. This was partly due to more complete enforcement activity in area work, which resulted in longer notices, thus requiring in most instances more reinspections prior to abatement, and partly due to the number of properties in a block survey program that were found on reinspection to be free of the specific violations looked for and thus required no reinspections. This latter instance accounted for 55 per cent of all abatements under the block survey program as compared to 15 per cent for area work.

#### *Law Enforcement—Mount Royal Area*

During October, after two and one-half years of housing law enforcement, all first inspections on approximately 1,450 properties had been completed. At year's end, notices on 301 properties were still outstanding. Approximately one-third of these outstanding notices were those involving building or electrical violations, with the health violations already abated.

On September 17, the Board of Directors of the Council of Social Agencies approved the report of its Social Services Committee for the Mount Royal Area. Unfortunately, none of the five specific unmet needs that was mentioned in the report had been considered by the Mount Royal Neighborhood Council for implementation at year's end. A series of tragic fires in the Mount Royal Area resulting in loss of life caused the Mayor to appoint a Committee on Housing Safety Requirements. The Commissioner of Health was a member of this committee. As a result of the recommendations made by the Committee, the Building Inspection Engineer promulgated some safety regulations which necessitated reinspections by his staff of some

properties previously meeting building code requirements. This resulted in the issuance of supplementary notices to a number of property owners in the area and caused some concern. The reduction of the caseload in the Mount Royal Area permitted the reassignment of two inspectors, and left only one enforcement officer to finish up the remaining work.

#### *Law Enforcement—Other Areas*

Additional blocks were inspected in the Biddle II Area surrounding the original Pilot Area, and in the Tenpin Area. A new area, Ensor, bounded by Madison, Aisquith, Low, Orleans and Ensor Streets, was designated for rehabilitation efforts and first inspections were started in the fall of the year. Shortly thereafter the first inspections had to be discontinued due to a shortage of housing inspectors. Only 35 properties were thus inspected in the Ensor Area during the year, but it is anticipated that during 1957 inspections will be resumed there. Law enforcement on an area basis was officially terminated in the Franklin II Area when code violations on all but 11 properties were abated. The area review program continued in all former housing law enforcement areas in an effort to maintain the standards previously attained and to impress upon owners and tenants the need for continued vigilance against symptoms of blight.

#### *Urban Renewal Demonstration Grant*

Authorized by Section 314 of the Federal Housing Act of 1954, the Housing Bureau was the first in the country to complete and publish a Demonstration Project, sponsored by the Urban Renewal Administration of the Federal Housing and Home Finance Agency. With a federal grant of approximately \$2,500, covering two-thirds of the total cost of the project, the report, entitled "A Record Control System for Housing Law Enforcement Activities" was prepared by the administrative staff of the bureau. In over 200 pages, it described records and procedures, and featured a hypothetical case which took the reader through all actions from the initial complaint received to a final disposition of the case. The report was primarily an effort to make available to other communities throughout the country information for their use in developing or improving their housing code enforcement activities.

#### *Community Education*

During the first six months the bureau was without the services of an Educational Director. Miss Julianne Drake was appointed to this position in July, which had by that time been reclassified as a Senior Public Information Assistant.

The chief method of disseminating the bureau's program to the public

was through talks, tours and newspaper articles. The number of talks totaled 50, to 1,341 persons, excluding radio and television audiences. These talks varied from high school and college classes to professional and community groups. Tours of blighted and rehabilitated areas numbered 19, taken by approximately 336 persons. Newspaper articles totaled 61, which amounted to approximately 861 column inches. Of the year's total of 45 out-of-town visitors, the largest group of 38 came by chartered plane from Oakland, California. Requests for printed literature came from 225 out-of-town sources, while 3,384 local requests were acknowledged and handled.

In connection with the National Home Show at the Fifth Regiment Armory, the bureau's staff working together with the Bureau of Health Information prepared a colorful, illustrated exhibit consisting of seven large panels depicting the evolution of Baltimore's housing law enforcement program. Subsequently, the exhibit was displayed at the Annual Meeting of the American Public Health Association in Atlantic City and at the year's end it was on display in the lobby of the Municipal Building.

Staff personnel appeared on five radio programs and two television shows during the year. The Housing Bureau staff also participated in training sessions for planners, sanitarians, public health nurses and case workers that were conducted by their respective agencies for the purpose of acquainting them with the bureau's law enforcement activities.

### *Legal Actions*

The Maryland Court of Appeals upheld the conviction of Abraham Givner in Criminal Court for refusing the inspection of his apartment by housing, building and fire inspectors. In its decision, the court sustained the right of entry for Health Department, building and fire prevention inspectors. The text of the opinion was reprinted in its entirety in the November, 1956 issue of the *Baltimore Health News*.

For the first time in the history of the Housing Bureau, nuisances on four vacant properties belonging to an out-of-state owner were abated by the city. The Bureau of Building Inspection, at the request of the Housing Bureau, undertook the work and liens were placed on the properties for the expenses incurred.

One hundred and twenty-four administrative hearings were held by the staff to determine whether legal action was necessary for owners or tenants who failed to comply with housing notices. As the result of these hearings, about 70 cases were referred to Fight Blight Fund, Inc. for assistance.

The year's total of Housing Court cases instituted by the bureau increased 34 per cent over the previous year to a total of 239. They accounted for 18 per cent of the approximately 1,350 cases brought to court during

the year. Of the 239 cases, brought to Housing Court, 222 were instituted against owners or agents, while the balance of 17 involved tenants. Four cases were referred to the Criminal Court, 1 of which was dismissed, 1 found guilty and 2 were pending on December 31. Of the cases on which the Housing Court judge rendered decisions 88 per cent resulted in convictions.

In addition to the 18 per cent of the cases brought to Housing Court by the Housing Bureau, 62 per cent of all cases originated with the Sanitary Police; 11 per cent of the cases were initiated by other Health Department bureaus; 5 per cent were brought to court by the Bureau of Building Inspection, involving building and electrical violations, and an additional 1 per cent originated with its Zoning Division which did not take cases to Housing Court until October; the balance were originated by the Fire Prevention Bureau, the Bureau of Sanitation and other agencies or individuals.

#### *Organizational Changes*

Mr. Howard J. Whelan, Advisory Council member from the inception of the council on March 8, 1951, died on March 13, 1956 following a brief illness. Four other council members resigned during the year, three of which were due to transfers from Baltimore.

On August 24, 1956, Mr. Ross W. Sanderson, Jr. resigned as assistant director of the bureau to accept a position of Zoning Enforcement Officer in the Bureau of Building Inspection. Mr. William Sallow, Chief of the Division of Rodent Control in the Health Department, was subsequently appointed to fill the vacancy. On March 22, the classifications of all housing enforcement officer and supervisor of housing enforcement, were changed to sanitarian and senior sanitarian, respectively. Mrs. Ethel Y. Rice completed ten years of employment with the Health Department on September 30 and was presented with a gift by the staff. Eight resignations and eight appointments were made during the year and at the year's end one clerk stenographer and three sanitarian positions were vacant.

#### ADVISORY COUNCIL

HENRY E. NILES, Chairman  
EDGAR M. EWING, Vice Chairman  
GEORGE M. RADCLIFFE, Secretary

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PAUL C. WOLMAN

### Personnel

Franz J. Vidor, B.S., M.C.P., Director  
William Sallow, LL.B., Assistant Director  
Gerald J. Doyle, B.A., B.L.S., Administrative Assistant  
Julanne Drake, B.A., M.A., Senior Public Information Assistant  
Luther M. Frantz, Jr., B.A., Senior Statistician  
Ellsworth J. Andrews, Senior Sanitarian  
William M. Gardner, B.S., Senior Sanitarian  
Stanley J. Kihn, B.S., Senior Sanitarian

### *Sanitarians*

George H. Ball	Guy T. Hollyday, A.B.
William A. Bevans, Jr.	Emanuel Kain, B.S.
Albert J. Blankman, B.S.	Saul M. Mandel, LL.B.
Russell Cooper	Ethel Y. Rice, B.S.
James E. Doran	June G. Ross, A.B.
Harry A. Gail, Jr., A.B.	Sander A. Siegel, B.A.
Roland H. Ganges	William R. Smith, B.S.
Richard A. Grossman, LL.B.	Doris N. Wilson, A.B.

Anne C. Tremearne, Illustrator  
Helen Pfister, Senior Clerk Stenographer  
Thelma Johnson, Principal Clerk  
Helen W. Simmons, B.S., Senior Clerk  
Sylvia Wilkis, Senior Clerk-Typist  
Ruth R. Starks, Senior Clerk  
Esther Caplan, Statistical Clerk  
Margaret I. Wiggins, Clerk Stenographer  
Elmira Price, Clerk Stenographer  
Patricia Hamilton, Clerk Stenographer  
Jewell Blackwell, Clerk-Typist

TABLE NO. 1  
CUMULATIVE SUMMARY OF ENFORCEMENT ACTIVITIES BY PROGRAMS--  
HOUSING BUREAU

PROGRAMS	CUMULA- TIVE TOTAL 1940- 1956	1940-1954			1955 <sup>1</sup>			1956		
		Added	Abated	Carried to 1955	Added	Abated	Car-ried to 1956	Added	Abated	Car-ried to 1957
Properties										
Grand Total.....	17,510	12,139	10,698	1,441	2,533	2,380	1,724	2,838	2,998	1,564
Complaints.....	6,011	4,449	4,052	397	767	700	596	795	744	647
Areas.....	9,825	7,690	6,646	1,044	1,388	1,403	1,020	747	1,087	680
Opened 1945-1950.....	4,246	4,246	4,231	15	..	12	14	..	4	10
Biddle I (Pilot).....	791	791	787	24	..	9	17	..	15	2
Franklin II.....	849	801	753	48	48	54	38	..	27	11
Druid.....	52	52	24	28	..	27	1	..	1	..
Biddle II.....	1,107	604	393	211	253	295	174	250	184	240
Amity.....	53	53	52	1	..	..	..	..	..	..
Abbott.....	118	118	109	9	..	2	9	..	4	5
Mt. Royal.....	1,459	627	246	381	615	450	540	217	456	301
Tenpin.....	1,115	398	71	327	472	550	227	245	385	87
Ensor.....	35	..	..	..	..	..	..	35	11	24
Area Review.....	638	..	..	..	378	277	108	260	323	45
Block Survey.....	1,036	..	..	..	..	..	..	1,036	844	192
Blocks										
Grand Total.....	390	248	180	68	55	54	69	87	68	88
Areas.....	334	248	180	68	55	54	69	31	47	53
Opened 1945-1950.....	133	133	133	..	..	..	..	..	..	..
Biddle I (Pilot).....	24	24	24	..	..	..	..	..	..	..
Franklin II.....	29	28	21	7	1	6	2	..	2	..
Druid.....	2	2	1	1	..	1	..	..	..	..
Biddle II.....	29	16	..	16	4	9	11	9	8	12
Amity.....	1	1	1	..	..	..	..	..	..	..
Abbott.....	2	2	..	2	..	1	1	..	1	..
Mt. Royal.....	60	28	..	28	21	16	33	11	15	29
Tenpin.....	50	14	..	14	29	21	22	7	21	8
Ensor.....	4	..	..	..	..	..	..	4	..	4
Block Survey.....	56	..	..	..	..	..	..	56	21	35

<sup>1</sup> Inconsistencies in figures for 1955 due to conversion to IBM system on July 1, 1955.

TABLE NO. 2

ACTIVITIES	GRAND TOTAL	COMPLAINT TOTAL	AREAS										AREA REVIEW	BLOCK SURVEY
			Total	Opened 1945-1950	Biddle I (Pilot)	Franklin II	Druid	Biddle II	Abbott	Mt. Royal	Tenpin	Ensor		
First Inspections														
Blocks	87		31	..	..	..	..	9	..	11	7	4	..	56
Properties	2,838	795	747	..	..	..	..	250	..	217	245	35	260	1,036
Dwelling units	4,478	1,316	1,555	..	..	..	..	258	..	963	290	44	..	1,807
White	1,936	420	969	..	..	..	..	66	..	745	137	21	..	547
Nonwhite	2,056	707	412	..	..	..	..	186	..	109	99	18	..	937
Vacant	351	145	136	..	..	..	..	4	..	74	53	6	..	70
Unknown	135	44	38	..	..	..	..	2	..	35	1	..	..	53
Reinspections of Properties	12,598	4,272	6,473	55	91	170	5	1,763	81	2,774	1,459	75	1,022	831
Abatements														
Blocks	68		47	..	..	2	..	8	1	15	21	..	..	21
Properties	2,998	744	1,087	4	15	27	1	184	4	456	385	11	323	844
Dwelling units	4,668	1,172	2,281	3	17	100	4	257	4	1,367	525	4	..	1,215
Active—Dec. 31, 1956														
Blocks	88		53	..	..	..	..	12	..	29	8	4	..	35
Properties	1,564	647	680	10	2	11	..	240	5	301	87	24	45	192
Dwelling units	3,421	1,132	1,830	13	5	42	..	294	5	1,235	190	40	..	459
Total notices	3,834	1,201	1,492	3	15	25	..	453	6	613	346	31	444	697
First notices	2,084	610	689	..	7	7	..	265	1	248	135	26	211	574
Owner occupant	504	60	208	..	5	..	..	99	..	69	30	5	37	199
Absentee owner	1,580	550	481	..	2	7	..	166	1	179	105	21	174	375
Tenant	226	110	51	..	..	1	..	7	..	32	11	..	14	51
Regular	71	50	14	..	..	1	..	3	..	6	4	..	1	6
Overcrowding	155	60	37	..	..	..	..	4	..	26	7	..	13	45
Vacate	154	124	24	..	..	1	..	8	..	8	6	1	4	2
Supplementary	875	318	475	3	6	16	..	77	5	287	79	2	50	32
Field	495	39	253	..	2	..	..	98	..	38	115	2	165	38
Extension letters	345	68	232	..	1	..	..	43	..	152	26	..	12	33
Legal action warnings	713	274	276	6	4	2	..	79	4	130	51	..	111	52
Hearings	124	14	94	1	2	10	..	13	..	55	13	..	..	16
Properties ordered vacated														
Posted prior to 1956 and still active Jan. 1, 1956	206	156	48	8	1	10	..	11	1	5	12	..	2	..
Posted in 1956	113	99	8	..	..	..	..	2	..	2	4	..	3	..
Abated in 1956	92	68	22	1	1	3	..	5	..	5	7	..	1	1
Improved	63	45	16	..	1	3	..	4	..	4	4	..	1	1
Razed	21	18	3	1	..	..	..	1	..	..	2	..	..	..
Other use	8	5	3	..	..	..	..	..	..	1	1	..	..	..
Active Dec. 31, 1956	227	187	34	7	..	7	..	8	1	2	9	..	4	2
Court Cases														
Pending Jan. 1, 1956	6	1	5	..	..	..	..	2	1	1	1	..	..	..
Housing Court	6	1	5	..	..	..	..	2	1	1	1	..	..	..
Criminal Court														
Housing Court	239	70	123	1	4	1	..	50	5	41	21	..	28	18
Dismissed	28	11	10	..	..	1	..	3	..	6	..	..	4	3
Guilty	204	58	108	..	4	..	..	46	4	34	20	..	24	14
Sub Curia	1	..	..	..	..	..	..	..	..	..	..	..	..	1
Pending Dec. 31, 1956	3	..	3	1	..	..	..	1	1	..	..	..	..	..
Sent to Criminal Court	3	1	2	..	..	..	..	..	..	1	1	..	..	..
Criminal Court (on request)	4	1	3	..	..	..	..	..	..	2	1	..	..	..
Dismissed	1	..	1	..	..	..	..	..	..	1	..	..	..	..
Guilty	1	..	1	..	..	..	..	..	..	1	..	..	..	..
Probation	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pending Dec. 31, 1956	2	1	1	..	..	..	..	..	..	..	1	..	..	..
Criminal Court (on appeal)	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dismissed	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Guilty	..	..	..	..	..	..	..	..	..	..	..	..	..	..

TABLE NO. 3  
PROPERTIES BY TYPES OF VIOLATIONS ACCORDING TO PROGRAMS

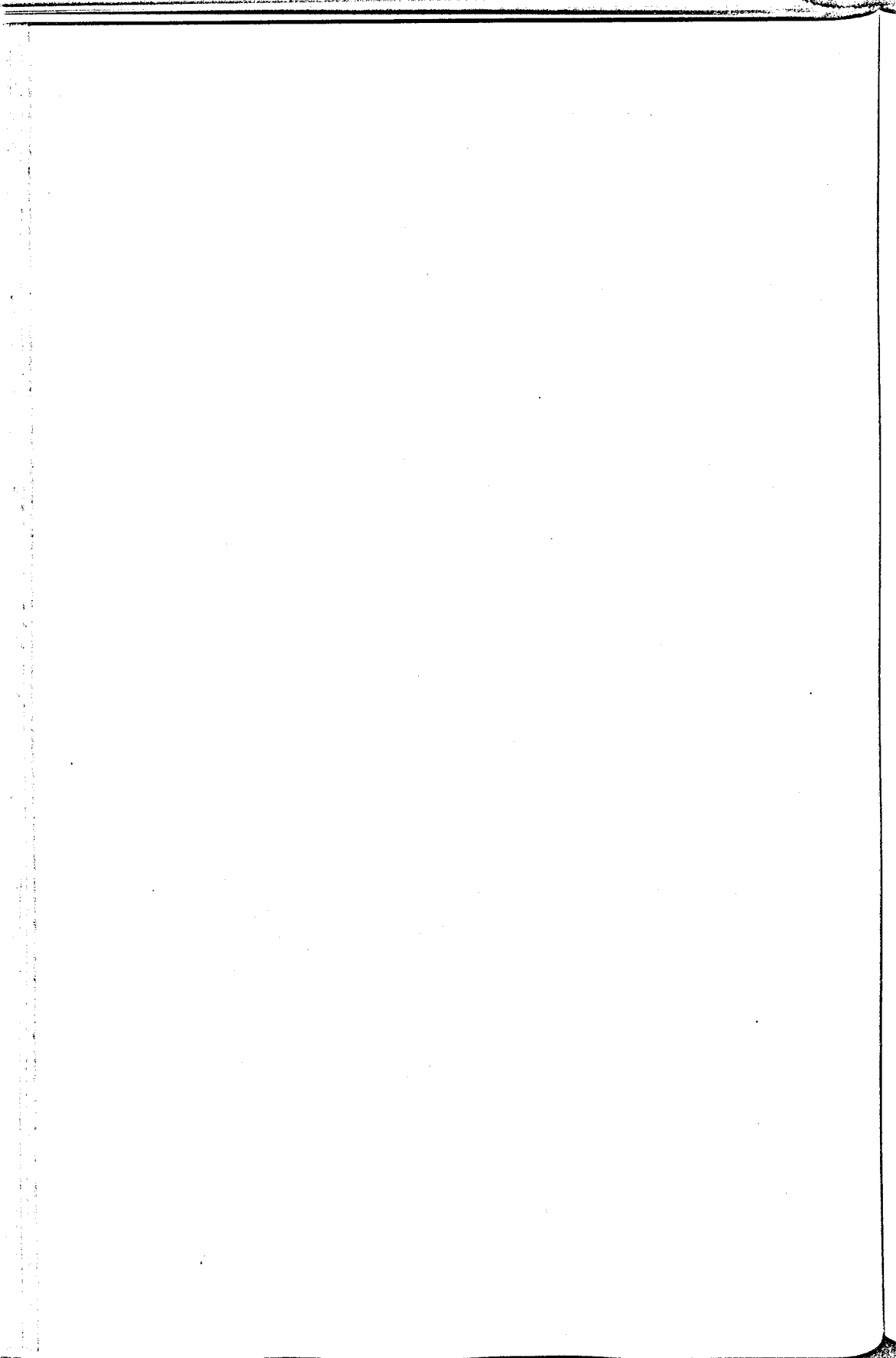
TYPE OF VIOLATION	TOTAL	COMPLAINTS	AREAS					AREA RE- VIEW	BLOCK SURVEY
			Total	Bid- dle II	Mt. Royal	Ten- pin	Ensor		
Total Properties-First Inspected.....	2,838	795	747	250	217	245	35	260	1,036
Plumbing.....	1,295	479	366	162	97	93	14	67	383
Ratproofing & insanitary conditions.....	1,449	527	556	226	193	115	22	172	194
Structural—exterior.....	1,333	507	437	186	128	104	19	152	237
interior.....	1,221	555	467	187	146	113	21	91	108
Light & ventilation.....	523	201	281	107	121	50	3	11	30
Electrical.....	806	448	293	165	35	80	13	16	49
Overcrowding.....	115	49	20	2	16	2	..	5	41
Basement, other.....	97	35	49	10	30	8	1	1	12

TABLE NO. 4  
VIOLATIONS<sup>1</sup> ACCORDING TO PROGRAMS

TYPE OF VIOLATION	TOTAL	COMPLAINTS	AREAS					AREA RE- VIEW	BLOCK SURVEY
			Total	Bid- dle II	Mt. Royal	Ten- pin	Ensor		
Total Violations.....	16,028	7,214	5,327	2,113	1,572	1,418	224	1,002	2,485
Plumbing.....	3,371	1,193	704	235	177	249	43	132	1,342
Ratproofing & insanitary conditions.....	2,891	1,189	1,123	389	438	255	41	301	278
Structural—exterior.....	3,322	1,547	1,127	482	312	273	60	291	357
interior.....	4,052	2,176	1,327	514	335	419	59	232	317
Light & ventilation.....	856	266	539	247	211	77	4	13	38
Electrical.....	1,244	691	431	234	49	132	16	24	98
Overcrowding.....	115	49	20	2	16	2	..	5	41
Basement, other.....	177	103	56	10	34	11	1	4	14

<sup>1</sup> Any violation ordered corrected on a property regardless of the number of times a like violation is found on the same property.





## STATISTICAL SECTION

## STATISTICAL SECTION

Matthew Tayback, Sc.D.

*Director*

In addition to the work accomplished by the Bureau of Biostatistics and the Bureau of Vital Records, the Section Director undertook projects of planning and investigation in five problem areas; (a) a study of home care as an adjunct to state financed hospital programs for the chronically ill, (b) an evaluation of the Baltimore City Medical Care Program with specific reference to drug and physician services, (c) a consideration of the role of health departments in adult health, (d) the development of a center for senior citizens, and (e) a study of the poliomyelitis vaccine inoculation levels achieved by defined segments of the child population.

### *Problems of Adult Health*

The rationale for public health concern with problems of adult health is based upon preventing diseases for which concepts of causation are established, minimizing disability when the disease process has started, and restoring the individual to the highest attainable level of effort consistent with his work potential, following a disabling episode of stated illness.

For many diseases which manifest themselves initially in adult life, there is no known valid knowledge concerning their causes. The best approach then is to control the extent of disability when disease has occurred. This is best accomplished by early, accurate discovery. There is a significant segment of the population which is ignorant of or cannot afford the benefits of diagnostic procedures designed to discover illness in an early form. The magnitude of this population and some of its disease problems was an area for investigation by the Statistical Section during 1956. A brief summary of findings in this respect was incorporated in a monograph entitled "Components of a Chronic Disease Control Program" which was read before the Section on Public Health of the Southern Medical Association at the Association's fiftieth annual meeting in Washington, D. C. on November 12.

The state financed inpatient hospitalization program and the state chronic disease hospital system provide the basis for public expenditures for the care of the chronically ill. This service is unnecessarily expensive and contrary to the best interest of the patient if it is rendered as a substitute for medical care which can be adequately rendered in the home. The Statistical Section in cooperation with the Hospital Facilities Division of

the State Department of Health completed a census of patients in general hospitals who had been in the institution twenty or more days. For each patient a statement was obtained from the attending physician relative to the necessity of hospital care and the role which home care could play as a substitute for hospital care. A similar census was completed in the Montebello State Hospital, where for each patient present a statement was obtained concerning the patient's suitability in respect to home care if such a service were available. No report has been written yet as a result of these surveys. It is expected that further study of the findings will be necessary before useful inferences can be established.

There was increasing recognition of the problems of the aged as a specific area of adult health. The Baltimore City Commission on Aging and Problems of the Aged in its report entitled "Widening the Lengthened Path of Life" recommended the establishment of a permanent commission and the development of an agency to centralize resources for the senior citizens who are resident in Baltimore City. Both of these recommendations have received favorable attention. The Section Director was appointed Vice-Chairman of the Commission during the year and with Mr. Thomas J. S. Waxter, Director of the Maryland State Department of Welfare, the Commission Chairman, initiated concrete plans to develop a center for adults in advanced years where educational, vocational, and other counseling services would be available. It is anticipated that support for the center might be provided from voluntary sources, while staff services could be secured from the City Departments of Education, Recreation, and Public Welfare as well as from the State Departments of Employment Security and Vocational Rehabilitation.

### *Medical Care*

Following public discussion of the efficiency of the Baltimore City Medical Care Program and on the request of the Mayor, the advisory committee to the program undertook a series of studies covering the physician services, the drug services, and the clinical services provided by the Program. The section director served on each of the study committees and assisted in the preparation of the report on drug services, which recommended controls designed to prevent the use of unnecessarily costly drugs, and called for the obligatory use of a formulary.

### *Poliomyelitis*

The epidemiology of poliomyelitis in Baltimore City has been followed closely by the Statistical Section for many years. The usual ratio of cases in white versus nonwhite persons has been of the order of 3 to 1. Primarily this was due to a corresponding difference in the size of populations at

risk. An additional reason was a really lower risk in favor of the Negro. In 1956, the ratio for the first time was reversed such that for each white case there were 3 colored cases. The racial distribution was so unique, that the Statistical Section surveyed the population under 18 years to determine whether selective inoculation could account for this phenomenon. Following the finding that a substantial differential existed between the extent of inoculation in white children as compared to a relatively low level in Negro children, it was concluded that the 1956 poliomyelitis experience was in part due to selective inoculation during 1955 and 1956. Plans were made to achieve higher protective levels during 1957, particularly among children in the lower socio-economic levels.

### Personnel

Matthew Tayback, Sc.D., Director  
Helen B. Freedman, B.A., Statistician  
Letruce M. Boyle, Principal Clerk Stenographer  
Robert A. Daffer, Engineering Aide, (Drafting)

## BUREAU OF BIOSTATISTICS

Todd M. Frazier, A.B.

*Director*

Special activities of the Bureau of Biostatistics during 1956 included demographic studies, participation in the work of the Joint Anesthesia Study Committee of the Baltimore City Health Department and the Baltimore City Medical Society, studies of the accuracy and completeness of fetal and neonatal death certificates, and the processing of data collected in a census of the nurses in Maryland.

### *Population and Vital Statistics*

The bureau prepares annual estimates of the population of Baltimore City. The demographic study completed for 1956 indicated that the population had increased from 966,000, in July 1955, to 974,000; a gain of about 8,000 persons. This relatively small increase was consistent with the record of growth that has been observed since the census in 1950. The white population of the city continued to decline. In 1955 there were 700,500 white residents compared to 694,000 in 1956. During the same period the non-white population increased from 265,500 to 280,000 persons.

A large part of the loss in the white segment of the population was attributed to the outmigration of young parents and their growing families. The increase in the nonwhite population resulted from migration to the city and a high birth rate. Thus the city continued to experience an increase in the proportion of the population in the extreme age groups. These changes pointed out the areas in which there is a need for increasing health facilities and services for the population.

### *Public Health Statistics*

The medical skills and disciplines that in the past have played an important role in reducing mortality among child-bearing women were applied intensively to the problems of reproductive failure. Vital records of birth and death during the perinatal period served as one source of information for research in this field. For this reason it was necessary to recognize the uses and limitations of the information obtained from fetal and neonatal death certificates.

During the year the bureau conducted two studies concerning the accuracy and completeness of these records. The first, which was made in cooperation with the Obstetrical Department of the Johns Hopkins Hos-

pital, was designed to assess the accuracy of the causes of fetal and neonatal deaths as reported to the Health Department. The second study was made to determine the extent to which the information requested in the medical supplement to the fetal death certificate was completed.

### *Special Activities*

The director of the bureau continued to serve as the Secretary of the Joint Anesthesia Study Committee of the Baltimore City Health Department and the Baltimore City Medical Society. A report of the organization and the activities of this committee entitled, "The Baltimore Anesthesia Study Committee Organization and Preliminary Report" was scheduled for publication in an early issue of "Anesthesiology." Analysis of the experience of this committee indicated that each year there are 6 to 8 deaths attributed to anesthesia and about twice that number in which anesthesia contributed to the death of a patient.

A summary of the causes of death appearing on death certificates submitted to the Health Department during 1956 indicated that three deaths had been attributed to anesthesia. The records of the Joint Anesthesia Study Committee showed that during the same period there were in addition to these three instances five deaths in which the committee assigned the cause of death to anesthesia. Thus, the routine reporting system recognized only about one-third of the deaths that the committee judged to be principally due to anesthesia. Recognition of the actual magnitude of this problem was an important phase in the program which has the objective of reducing the risk of death due to anesthesia, and contributing to basic knowledge in the science of anesthesiology.

The bureau assisted the Maryland State Nurses Association in a census of nurses in Maryland. The purpose of this census was to provide information concerning the number and location of nurses in the state and the type of employment.

The director of the bureau was appointed to the Working Group on Fetal Death Statistics of the National Public Health Conference on Records and Statistics and in this capacity investigated several aspects of the uses of fetal death statistics.

### **Personnel**

Todd M. Frazier, A.B., Director  
Margaret E. Amspacher, Senior Statistical Clerk  
Elizabeth V. Steman, Senior Statistical Clerk  
Ruth Gees, Senior Statistical Clerk  
Hernel K. Gruber, Senior Clerk Stenographer  
Kenyon Burdick, Senior Tabulating Equipment Operator  
David I. Orandle, Tabulating Equipment Operator

Charlotte Allen, Senior Key Punch Operator  
Ida M. Padgett, Senior Key Punch Operator  
Helen Boesche, Key Punch Operator  
Anna Greengold, Key Punch Operator  
Maryann Neal, Key Punch Operator  
Sophia E. Roch, Statistical Clerk



## BUREAU OF VITAL RECORDS

Sidney M. Norton, B.S.

*Director*

The year 1956 was noteworthy because never before in the bureau's long and eventful history had there been such a demand for its services. Proof of age needed for Social Security purposes by Baltimore's aging population, further aided by the change in the law making such benefits available to women reaching the age of 62 years, was in part responsible for the 23,152 certified copies of birth certificates issued. At the same time a continually increasing number of cases requiring official proof of death for Veterans Administration purposes and for settling claims with private insurance companies and also for transferring stocks, bonds and other real property resulted in the 50,995 official transcripts of death issued. The combined total number of birth and death transcripts issued in 1956 represented an increase of almost 7,000 over the amount issued the previous year. A total of 5,525 Certifications of Birth-Short Form was issued in cases which did not require full certified copies of birth certificates. The short form certification of birth omits information related to the natural parents and is used mainly for proof of name, age and birthplace, or for identification when applying for marriage and motor vehicle operator licenses.

Certificates of Record Search were issued for 3,122 births and for 661 deaths which, after intensive search, were not found to be on file. Most of the birth certificates not on file were for persons born prior to 1900 when techniques for assuring complete birth registration were still unknown. Official government and private social agencies were furnished with a total of 8,121 confidential verifications of birth and 906 verifications of death data. A marked increase for verification of essential birth facts came from the Baltimore Department of Public Welfare and from the Probation Department of the Supreme Bench of Baltimore City. This increase indicated an upward trend in the number of welfare and bastardy cases in the city. A total of 2,429 Statement of Age cards was issued to applicants for work permits, for pupils entering public and parochial schools and for minors participating in officially-sponsored recreation programs.

Section 22 of Article 43 of the Annotated Code of Maryland provides for replaced birth certificates to be made in cases involving the legal determination of parentage following adoption, legitimation and the adjudication of paternity. In accordance with the statute, the bureau substituted new records for 631 cases of adoption, 226 legitimations and 4 judgments of

paternity. A comparison of adoption figures for 1956 with those for 1955 showed a decrease in the number of adoptions handled by the bureau and this decrease seemed to indicate a new trend. It is believed that the child-placement law enacted in 1955 has accomplished its purpose by keeping to a minimum the number of children placed for adoption other than by licensed child-placing agencies. In the cases of children adopted in Baltimore, the statute provided that placement of a child for adoption by his parents or grandparents must be made without the intervention of any third party, and that prior to such placement an adoption petition must be filed in court and the court's consent to the placement obtained. By providing for court review, the new statute sought to afford full protection against children being permanently separated from their parents and placed for adoption without the assistance of an approved agency. It was interesting to note that 62 per cent of the certificates for both adopted and legitimated children involved youngsters of preschool age.

A total of 378 delayed birth certificates and 9 unreported births was approved by the Commissioner of Health for filing. From all indications, it appeared that delayed birth certificates will decrease gradually with the passing years because government agencies have adopted a policy of not accepting delayed birth certificates where such records have been made for the sole purpose of satisfying some Federal Government regulation in connection with Social Security benefits or for obtaining passports from the U. S. Department of State. Federal agencies involved made it known that they themselves preferred to review the evidence which served as the basis for such delayed birth certificates. This change in federal practice resulted in a decrease in the number of applications for delayed birth records submitted for adjudication to the City Health Department's Bureau of Vital Records.

During the year the interviewing units held a total of 8,521 interviews and handled 3,432 mail requests for information dealing with corrections to be made on birth and death certificates. A further increase in the extent of services rendered by bureau personnel was reflected in the 9,029 alterations made on birth certificates, the 299 changes made on death records, and in the 2,209 given names added to original birth certificates.

The Birth Record Correction Advisory Service co-sponsored by the Bureau of Vital Records and the Legal Aid Bureau of Baltimore completed its seventh year of successful operation by helping to correct the birth certificates of 177 persons. Of this total, 30 cases involved legal adoption, 40 cases dealt with legitimation of out-of-wedlock children whose parents had subsequently married, 1 case helped to establish a child's paternity without recourse to court action, 15 cases involved a change of surname on the basis of usage and reputation, 11 cases concerned a legal change of name

by court action, 50 cases dealt with various types of corrections on birth certificates, and in 4 instances persons making inquiry were referred to other registration jurisdictions. The Legal Aid Bureau gave follow-up assistance to 7 persons and 15 cases were advised to obtain the services of private attorneys.

On August 11 the director was awarded a Certificate of Appreciation by the Second United States Army Recruiting District in recognition of his fine spirit and public service in connection with the Army's recruiting program.

Table No. 1 contains comparable data for selected vital records activities for the period 1947 to 1956. The data contained therein record the bureau's major activities and the number of persons receiving service.

### Personnel

Sidney M. Norton, B.S., Director  
Ida S. Blum, Principal Clerk  
John Boyle, Principal Clerk  
Mary A. Hohrein, Principal Clerk  
James G. McLaughlin, Principal Clerk  
Linda D. Whitney, Principal Clerk  
Frieda Meizlish, Senior Clerk Stenographer  
A. Walter Just, Senior Clerk  
Lorraine Meyers, Senior Clerk  
Ruth M. Blum, Senior Clerk-Typist  
Irene F. Greenberg, Senior Clerk-Typist  
Margaret Kaiser, Senior Addressograph Operator  
Josephine A. Roemer, Senior Addressograph Operator  
Walton Stansbury, Equipment Operator  
Judith D. Borscher, Clerk-Typist  
Elizabeth H. Guise, Clerk-Typist  
Dorothy Johns, Clerk-Typist  
Anita Lee Kowins, Clerk-Typist  
Leila Pearl Neely, Clerk-Typist  
William A. Welch, Sr., Clerk

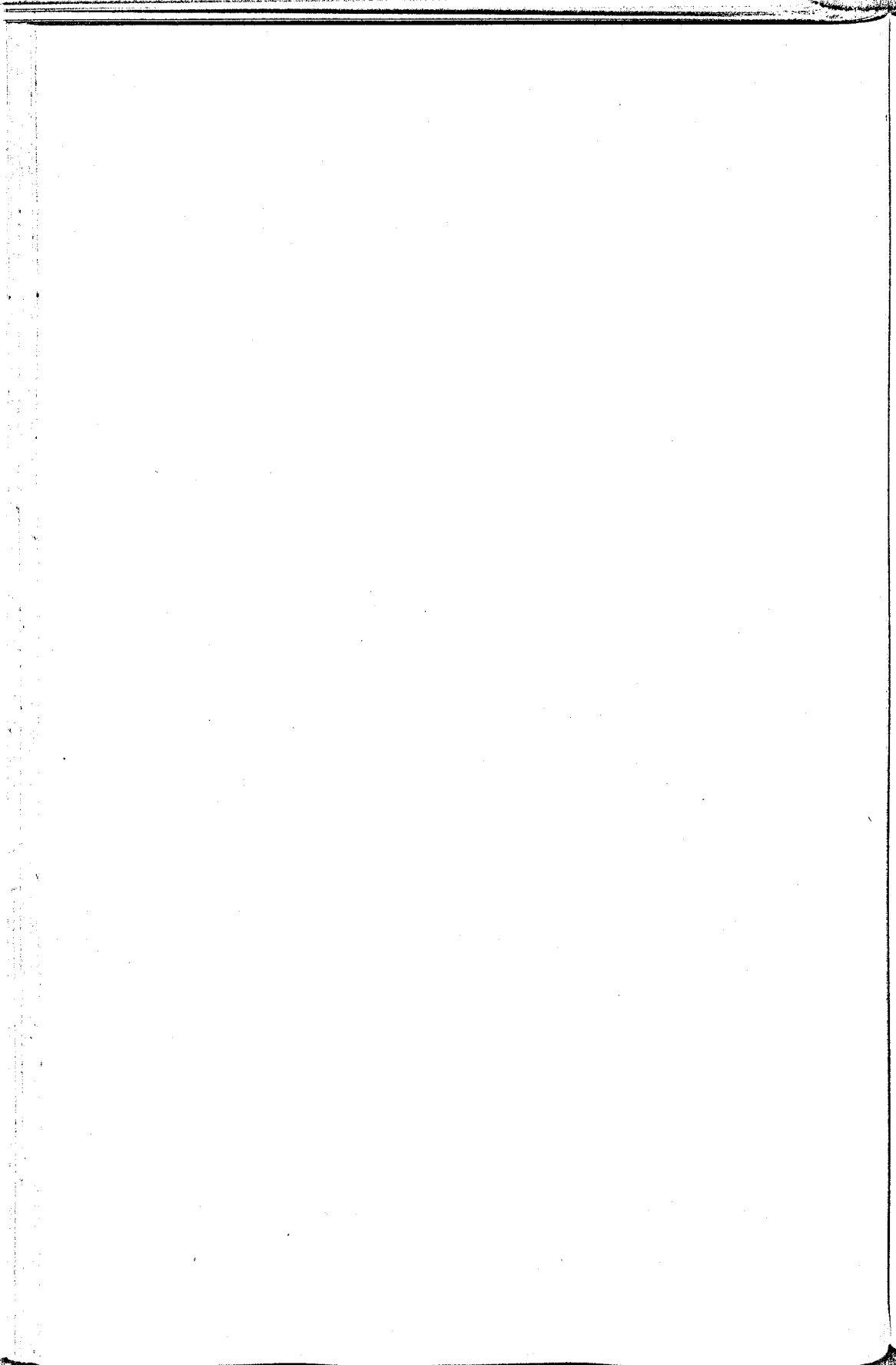
TABLE NO. 1  
SELECTED VITAL RECORDS ACTIVITIES FOR THE PERIOD 1947-1956

YEAR	CERTIFICATIONS ISSUED			VERIFICATIONS ISSUED			DELAYED BIRTH RECORDS FILED		CERTIFICATES REPLACED (SECTION 22, ARTICLE 43, STATE CODE)***	
	Birth Transcripts	Death Transcripts	Search Certificates**	Birth	Death	Statement of Age Cards	1-5 Years Unreported Births	6 Years and Over	Adoption	Legitimation
1956	23,152*	50,995	3,783	8,121	906	2,429	9	378	631	226
1955	20,758	46,420	3,565	8,106	1,000	2,086	3	398	705	170
1954	20,951	42,055	3,638	7,933	982	1,632	10	407	632	203
1953	19,936	42,339	3,394	7,412	1,028	2,061	13	429	639	235
1952	20,498	40,010	3,452	6,288	819	2,941	65	584	604	222
1951	21,058	35,368	2,964	6,057	751	3,403	49	380	502	262
1950	16,711	33,438	2,222	8,825	1,010	2,783	146	331	486	215
1949	20,669	33,018	1,902	8,541	215	3,319	136	254	463	136
1948	16,118	29,503	1,387	5,612	1,074	5,896	95	204	479	180
1947	11,204	28,781	1,443	2,654	207	6,176	138	256	525	155

\* Includes 5,525 Certification of Birth-Short Form.

\*\* Statement of Births and Deaths Not Found on File.

\*\*\* Includes 4 cases of Adjudication of Paternity



## VITAL STATISTICS TABLES

1956

- TABLE NO. 1. ESTIMATED POPULATIONS, RESIDENT BIRTHS AND DEATHS WITH RATES PER 1,000 POPULATION BY COLOR BALTIMORE, MARYLAND—1930-1956.
- TABLE NO. 2A. RECORDED MARRIAGES WITH RATES PER 1,000 POPULATION BY COLOR, 1935-1956.
- TABLE NO. 2B. RECORDED MARRIAGES BY AGE OF GROOM AND BRIDE: TOTAL, WHITE, COLORED, BALTIMORE, 1956.
- TABLE NO. 3A. RECORDED AND RESIDENT LIVE BIRTHS AND FETAL DEATHS BY PLACE OF BIRTH AND ATTENDANCE: TOTAL, WHITE, COLORED—1956.
- TABLE NO. 3B. RESIDENT LIVE BIRTHS BY MONTH AND BY BIRTH-WEIGHT ACCORDING TO COLOR AND SEX—1956.
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- TABLE NO. 5. RESIDENT DEATHS CLASSIFIED BY COLOR, SEX AND AGE AND DISTRIBUTED BY COLOR AND AGE BY MONTHS—1956.
- TABLE NO. 6. RECORDED AND RESIDENT DEATHS BY INSTITUTION AND COLOR—1956.
- TABLE NO. 7. RESIDENT DEATHS UNDER ONE YEAR FOR EACH CAUSE OF DEATH ACCORDING TO AGE AT DEATH—1956.
- TABLE NO. 8. RESIDENT DEATHS BY CAUSE, SEX, COLOR AND AGE—1956.
- TABLE NO. 9. RECORDED AND RESIDENT DEATHS AND DEATH RATES PER 100,000 POPULATION FOR CERTAIN CAUSES AND GROUPS OF CAUSES, CLASSIFIED BY COLOR—1956.
- TABLE NO. 10. ALLOCATION OF DEATHS BY COLOR AND CAUSE OF DEATH ACCORDING TO PLACE OF DEATH AND PLACE OF RESIDENCE: BALTIMORE—1956.
- TABLE NO. 11. RESIDENT AND RECORDED DEATHS AND DEATH RATES PER 100,000 POPULATION FOR CERTAIN IMPORTANT CAUSES FOR TOTAL, WHITE AND COLORED POPULATIONS—1940-1956.
- TABLE NO. 12. CASES OF DISEASES REPORTED CLASSIFIED ACCORDING TO SEX, COLOR AND AGE—1956.
- TABLE NO. 13. REPORTED CASES AND CASE RATES PER 100,000 POPULATION FOR CERTAIN COMMUNICABLE DISEASES ACCORDING TO COLOR—1934-1956.

TABLE NO. 1  
ESTIMATED POPULATIONS, RESIDENT BIRTHS AND DEATHS WITH RATES PER 1,000  
POPULATION BY COLOR, BALTIMORE, MARYLAND—1930-1956

YEAR	ESTIMATED POPULATION JULY 1			RESIDENT BIRTHS						RESIDENT DEATHS					
				NUMBER			RATES			NUMBER			RATES		
	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored
1956.....	974,000	694,000	280,000	23,782	14,032	9,750	24.4	20.2	34.8	11,131	8,121	3,010	11.4	11.7	10.8
1955.....	966,000	700,500	265,500	23,291	14,366	8,925	24.1	20.5	33.6	10,781	7,967	2,814	11.2	11.4	10.6
1954.....	966,000	708,000	258,000	23,523	14,949	8,574	24.4	21.1	33.2	10,242	7,506	2,736	10.6	10.6	10.6
1953.....	963,500	715,800	247,700	22,748	14,628	8,120	23.6	20.4	32.8	10,762	8,044	2,718	11.2	11.2	11.0
1952.....	962,300	721,400	240,900	22,775	14,989	7,786	23.7	20.8	32.3	11,237	8,280	2,957	11.7	11.5	12.3
1951.....	954,800	721,400	233,400	22,630	14,938	7,692	23.7	20.7	33.0	10,885	7,906	2,889	11.4	11.1	12.4
1950.....	950,000	723,000	227,000	21,382	14,168	7,214	22.5	19.6	31.8	10,624	7,835	2,789	11.2	10.8	12.3
1949.....	947,000	727,300	219,700	21,406	14,507	6,899	22.7	19.9	31.8	10,772	7,973	2,799	11.4	11.0	12.7
1948.....	943,000	729,000	214,000	22,083	15,414	6,669	23.4	21.1	31.2	11,097	8,201	2,896	11.8	11.2	13.5
1947.....	938,000	729,800	208,200	23,992	17,799	6,193	25.6	24.4	29.7	11,011	8,232	2,779	11.7	11.3	13.3
1946.....	933,000	730,500	202,500	21,111	15,805	5,306	22.6	21.6	26.2	10,798	8,061	2,737	11.6	11.0	13.5
1945.....	930,000	732,800	197,200	17,848	13,308	4,540	19.2	18.2	23.0	11,358	8,481	2,877	12.2	11.6	14.6
1944.....	937,000	743,000	194,000	18,830	14,021	4,809	20.1	18.9	24.8	11,544	8,552	2,992	12.3	11.5	15.4
1943.....	963,000	769,000	194,000	21,054	16,077	4,977	21.9	20.9	25.7	12,530	9,315	3,215	13.0	12.1	16.6
1942.....	936,000	754,400	181,600	19,720	15,076	4,644	21.1	20.0	25.6	11,347	8,397	2,950	12.1	11.1	16.2
1941.....	866,000	698,000	168,000	15,995	11,886	4,109	18.5	17.0	24.5	11,160	8,132	3,028	12.9	11.7	18.0
1940.....	860,456	693,288	167,168	13,712	10,105	3,607	15.9	14.6	21.6	11,096	8,243	2,853	12.9	11.9	17.1
1939.....	855,033	690,318	164,715	12,525	9,211	3,314	14.6	13.3	20.1	10,386	7,907	2,479	12.1	11.5	15.1
1938.....	849,610	687,348	162,262	13,208	9,892	3,316	15.5	14.4	20.4	10,618	8,034	2,584	12.5	11.7	15.9
1937.....	844,187	684,361	159,826	12,516	9,370	3,146	14.8	13.7	19.7	11,244	8,415	2,829	13.3	12.3	17.7
1936.....	838,764	681,356	157,408	11,801	8,956	2,845	14.1	13.1	18.1	11,058	8,134	2,924	13.2	11.9	18.6
1935.....	833,341	678,332	155,009	12,332	9,363	2,969	14.8	13.8	19.2	10,707	7,917	2,790	12.8	11.7	18.0
1934.....	827,918	675,291	152,627	12,201	9,196	3,005	14.7	13.6	19.7	10,764	8,049	2,715	13.0	11.9	17.8
1933.....	822,495	672,232	150,263	12,189	9,130	3,059	14.8	13.6	20.4	10,505	7,923	2,582	12.8	11.8	17.2
1932.....	817,072	669,155	147,917	12,785	9,737	3,048	15.6	14.6	20.6	10,309	7,622	2,687	12.6	11.4	18.2
1931.....	811,649	666,059	145,590	13,162	10,130	3,032	16.2	15.2	20.8	11,088	8,155	2,933	13.7	12.2	20.1
1930.....	806,226	662,946	143,280	13,872	10,731	3,141	17.2	16.2	21.9	10,806	8,011	2,795	13.4	12.1	19.5

**TABLE NO. 2A**  
**RECORDED MARRIAGES WITH RATES PER 1,000 POPULATION BY COLOR**  
**BALTIMORE, 1935-1956**

YEAR	NUMBER			RATE		
	Total	White	Colored	Total	White	Colored
1956.....	11,285	7,590	3,695	11.6	10.9	13.2
1955.....	10,833	7,504	3,329	11.2	10.7	12.5
1954.....	10,707	7,553	3,154	11.1	10.7	12.2
1953.....	11,824	8,259	3,565	12.3	11.5	14.4
1952.....	12,206	8,636	3,570	12.7	12.0	14.8
1951.....	12,851	9,108	3,743	13.5	12.6	16.0
1950.....	13,075	9,618	3,457	13.8	13.3	15.2
1949.....	12,701	9,471	3,230	13.4	13.0	14.7
1948.....	15,639	11,782	3,857	16.6	16.2	18.0
1947.....	17,718	13,495	4,223	18.9	18.5	20.3
1946.....	21,445	16,340	5,105	23.0	22.4	25.2
1945.....	16,206	12,308	3,898	17.4	16.8	19.8
1944.....	15,818	11,542	4,276	16.9	15.5	22.0
1943.....	17,171	12,383	4,788	17.8	16.1	24.7
1942.....	19,595	15,167	4,428	20.9	20.1	24.4
1941.....	15,966	12,256	3,710	18.4	17.6	22.1
1940.....	11,305	8,658	2,647	13.1	12.5	15.8
1939.....	8,501	6,569	1,932	9.9	9.5	11.7
1938.....	8,521	6,578	1,943	10.0	9.6	12.0
1937.....	8,849	6,763	2,086	10.5	9.9	13.0
1936.....	8,134	6,208	1,926	9.7	9.1	12.2
1935.....	7,254	5,695	1,559	8.7	8.4	10.0

**TABLE NO. 2B**  
**RECORDED MARRIAGES BY AGE OF GROOM AND BRIDE: TOTAL, WHITE, COLORED**  
**BALTIMORE, 1956**

AGE OF GROOM	AGE OF BRIDE							
	All Ages	15-19	20-24	25-29	30-34	35-44	45-64	65 and Over
All Ages.....	11,285	3,424	3,447	1,495	928	1,196	745	50
15-19.....	876	788	83	5	..	..	..	..
20-24.....	4,269	2,231	1,777	219	32	10	..	..
25-29.....	2,332	348	1,172	605	165	39	3	..
30-34.....	1,169	42	274	376	301	169	7	..
35-44.....	1,376	10	119	251	337	556	103	..
45-64.....	1,092	3	14	37	89	409	523	17
65 and over.....	154	..	..	..	1	12	108	33
Not stated.....	17	2	8	2	3	1	1	..

WHITE								
All Ages.....	7,590	2,472	2,380	956	583	701	463	35
15-19.....	598	543	52	3	..	6	..	..
20-24.....	3,046	1,617	1,243	156	24	29	..	..
25-29.....	1,657	271	824	416	117	29	4	..
30-34.....	729	33	179	217	184	112	4	..
35-44.....	816	7	75	141	201	324	68	..
45-64.....	646	1	7	23	57	227	320	11
65 and over.....	97	..	..	..	..	3	70	24
Not stated.....	1	..	..	..	..	..	1	..

COLORED								
All Ages.....	3,695	952	1,067	539	345	495	282	15
15-19.....	278	245	31	2	..	..	..	..
20-24.....	1,223	614	534	63	8	4	..	..
25-29.....	675	77	348	189	48	10	3	..
30-34.....	440	9	95	159	117	57	3	..
35-44.....	560	3	44	110	136	232	35	..
45-64.....	446	2	7	14	32	182	203	6
65 and over.....	57	..	..	..	1	9	38	9
Not stated.....	16	2	8	2	3	1	..	..



TABLE NO. 3A  
RECORDED AND RESIDENT LIVE BIRTHS AND FETAL DEATHS BY PLACE OF  
BIRTH AND ATTENDANCE: TOTAL, WHITE, COLORED—1956

PLACE OF BIRTH AND ATTENDANCE	RECORDED						RESIDENT					
	LIVE BIRTHS			FETAL DEATHS (STILLBIRTHS)			LIVE BIRTHS			FETAL DEATHS (STILLBIRTHS)		
	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored
Grand Total.....	36,460	26,003	10,457	609	398	211	23,782	14,032	9,750	406	215	191
Hospital.....	35,801	25,819	9,982	584	389	195	23,142	13,865	9,277	380	206	174
Baltimore City Hospitals.....	4,641	570	4,071	75	8	67	4,567	532	4,035	74	8	66
Bon Secours Hospital.....	1,973	1,973	..	32	32	..	966	966	..	15	15	..
Church Home and Hospital....	1,008	1,006	2	11	11	..	352	350	2	4	4	..
Doctors Hospital.....	1,101	1,090	11	19	19	..	532	523	9	8	8	..
Franklin Square Hospital.....	846	512	334	19	12	7	641	335	306	15	9	6
Hospital for Women of Maryland.....	2,603	2,594	9	40	40	..	1,349	1,341	8	17	17	..
Johns Hopkins Hospital.....	3,157	1,621	1,536	69	34	35	2,075	818	1,257	48	20	28
Lutheran Hospital of Maryland	2,311	2,192	119	44	39	5	1,332	1,218	114	22	17	5
Maryland General Hospital....	1,677	1,669	8	27	27	..	733	726	7	11	11	..
Mercy Hospital.....	2,703	2,698	5	28	28	..	1,564	1,560	4	19	19	..
Provident Hospital.....	1,632	..	1,632	27	..	27	1,346	..	1,346	23	..	23
St. Agnes Hospital.....	1,548	1,548	..	13	13	..	622	622	..	4	4	..
St. Joseph's Hospital.....	1,482	1,474	8	34	28	6	857	850	7	25	19	6
Sinai Hospital.....	3,095	2,602	493	36	31	5	1,935	1,486	449	20	16	4
South Baltimore General.....	877	874	3	19	19	..	577	576	1	11	11	..
Union Memorial Hospital.....	1,796	1,789	7	20	20	..	928	922	6	10	10	..
University Hospital.....	3,351	1,607	1,744	71	28	43	2,213	664	1,549	51	16	35
Out of city hospitals.....	..	..	..	..	..	..	553	376	177	3	2	1
Home.....	659	184	475	25	9	16	640	167	473	26	9	17
Physician.....	432	126	306	19	7	12	431	124	307	20	7	13
Midwife.....	150	29	121	1	..	1	152	29	123	1	..	1
Other.....	77	29	48	5	2	3	57	14	43	5	2	3

TABLE NO. 3B  
RESIDENT LIVE BIRTHS BY MONTH AND BY BIRTHWEIGHT ACCORDING  
TO COLOR AND SEX—1955

MONTH	TOTAL	WHITE			COLORED		
		Total	Male	Female	Total	Male	Female
TOTAL.....	23,782	14,032	7,204	6,828	9,750	4,868	4,882
January.....	1,945	1,138	577	561	807	404	403
February.....	1,865	1,106	552	554	759	391	368
March.....	1,919	1,154	608	546	765	377	388
April.....	1,664	1,004	494	510	660	351	309
May.....	1,740	1,066	569	497	674	317	357
June.....	1,927	1,123	583	540	804	397	407
July.....	2,144	1,259	648	611	885	443	442
August.....	2,198	1,275	659	616	923	468	455
September.....	2,142	1,258	646	612	884	405	479
October.....	2,053	1,201	612	589	852	424	429
November.....	2,050	1,202	599	603	848	434	414
December.....	2,135	1,246	657	589	889	457	432
Birthweight:							
Total.....	23,782	14,032	7,204	6,828	9,750	4,868	4,882
1500 grams and below.....	403	142	77	65	261	119	142
1501-2000 grams.....	483	209	105	104	274	112	162
2001-2500 grams.....	1,657	766	348	418	891	386	505
2501-3000 grams.....	5,624	2,848	1,220	1,628	2,776	1,235	1,541
3001-3500 grams.....	9,116	5,453	2,682	2,771	3,663	1,878	1,785
3501-4000 grams.....	4,987	3,468	2,015	1,453	1,519	907	612
4001-4500 grams.....	1,241	950	621	329	291	186	105
4501-5000 grams.....	207	159	113	46	48	28	20
5001 grams and over.....	19	12	7	5	7	6	1
Weight not stated.....	45	25	16	9	20	11	9

TABLE NO. 4  
MATERNAL, FETAL, AND INFANT DEATHS AND CORRESPONDING RATES BY  
COLOR--1936-1956

YEAR	MATERNAL DEATHS			FETAL DEATHS*			INFANT DEATHS					
							UNDER ONE YEAR			UNDER 28 DAYS		
	Total	White	Col.	Total	White	Col.	Total	White	Col.	Total	White	Col.
NUMBER OF DEATHS												
1956.....	10	4	6	406	215	191	714	334	380	516	251	265
1955.....	12	3	9	354	195	159	723	340	383	525	246	279
1954.....	13	2	11	408	214	194	751	387	364	548	302	246
1953.....	7	1	6	391	222	161†	687	385	302	513	306	207
1952.....	12	2	10	435	240	193†	635	314	321	446	239	207
1951.....	10	5	5	456	249	207	674	373	301	497	291	206
1950.....	18	8	10	460	270	190	581	307	274	425	240	185
1949.....	10	3	7	521	298	223	672	385	287	470	278	192
1948.....	24	14	10	571	316	255	633	384	249	479	295	184
1947.....	26	10	16	680	379	301	785	507	278	552	364	188
1946.....	26	13	13	635	351	284	750	478	272	556	354	202
1945.....	27	17	10	616	352	264	708	436	272	439	290	149
1944.....	40	30	10	683	417	261†	766	478	288	472	313	159
1943.....	34	17	17	740	449	277†	973	619	354	553	388	165
1942.....	35	18	17	779	461	307†	778	516	262	489	349	140
1941.....	36	21	15	655	406	242†	794	451	343	422	271	151
1940.....	28	15	13	645	373	265†	641	387	254	382	241	141
1939.....	45	28	17	648	403	245	511	302	209	300	194	106
1938.....	44	29	15	590	409	181	683	429	254	364	239	125
1937.....	42	28	14	584	393	190†	664	393	271	348	223	125
1936.....	49	35	14	565	352	213	763	461	302	381	250	131

## DEATH RATES\*\*

1956.....	4.2	2.9	6.2	17.1	15.3	19.6	30.0	23.8	39.0	21.7	17.9	27.2
1955.....	5.2	2.1	10.1	15.2	13.6	17.8	31.0	23.7	42.9	22.5	17.1	31.3
1954.....	5.5	1.3	12.8	17.3	14.3	22.6	31.9	25.9	42.5	23.3	20.2	28.7
1953.....	3.1	0.7	7.4	17.2	15.2	19.8	30.2	26.3	37.2	22.5	20.9	25.5
1952.....	5.3	1.3	12.8	19.1	16.0	24.8	27.9	20.9	41.2	19.6	15.9	26.6
1951.....	4.4	3.3	6.5	20.1	16.7	26.9	29.8	25.0	39.1	22.0	19.5	26.8
1950.....	8.4	5.6	13.9	21.5	19.0	26.3	27.2	21.7	38.0	19.9	16.9	25.6
1949.....	4.7	2.1	10.0	24.2	20.5	31.9	31.3	26.5	41.1	21.9	19.2	27.5
1948.....	10.9	9.1	15.0	25.9	20.5	38.2	28.7	24.9	37.3	21.7	19.1	27.6
1947.....	10.8	5.6	25.8	28.3	21.3	48.6	32.7	28.5	44.9	23.0	20.5	30.3
1946.....	12.3	8.2	24.5	30.1	22.2	53.5	35.5	30.2	51.3	26.3	22.4	38.1
1945.....	15.1	12.8	22.0	34.5	26.5	58.1	39.7	32.8	59.9	24.6	21.8	32.8
1944.....	21.2	21.4	20.8	36.3	29.7	54.2	40.7	34.1	59.9	25.1	22.3	33.1
1943.....	16.1	10.6	34.2	35.1	27.9	55.6	46.2	38.5	71.1	26.3	24.1	33.2
1942.....	17.7	11.9	36.6	39.5	30.6	66.1	39.5	34.2	56.4	24.8	23.1	30.1
1941.....	22.5	17.7	36.5	40.9	34.1	58.9	49.6	37.9	83.5	26.4	22.8	36.7
1940.....	20.4	14.8	36.0	47.0	36.9	73.4	46.7	38.3	70.4	27.8	23.8	39.1
1939.....	35.9	30.4	51.3	51.7	43.7	73.9	40.8	32.8	63.1	24.0	21.1	32.0
1938.....	33.3	29.3	45.2	44.7	41.3	54.6	51.7	43.4	76.6	27.6	24.2	37.7
1937.....	33.6	29.9	44.5	46.7	41.9	60.4	53.1	41.9	86.1	27.8	23.8	39.7
1936.....	41.5	39.0	49.2	47.9	39.3	74.9	64.7	51.5	106.2	32.3	27.9	46.0

\* Includes deaths among fetuses of 20 or more weeks gestation.

† Totals include deaths where color is unknown which accounts for apparent discrepancy.

\*\* Maternal mortality rates are per 10,000 live births; fetal and infant death rates are per 1,000 live births.



## REPORT OF THE HEALTH DEPARTMENT—1956

TABLE NO. 6  
RECORDED AND RESIDENT DEATHS BY INSTITUTION AND COLOR—1956

PLACE OF DEATH	RECORDED			RESIDENT		
	Total	White	Colored	Total	White	Colored
Grand total.....	12,081	9,120	2,961	11,131	8,121	3,010
Institutional.....	8,555	6,323	2,232	7,470	5,232	2,238
Baltimore City Hospitals.....	861	479	382	797	426	371
Bon Secours Hospital.....	140	140	..	91	91	..
Church Home and Hospital.....	188	188	..	109	109	..
Doctor's Hospital.....	95	95	..	66	66	..
Franklin Square Hospital.....	289	204	85	232	150	82
Hospital for Women of Maryland.....	92	91	1	52	51	1
Johns Hopkins Hospital.....	1,224	733	491	856	440	416
Lutheran Hospital of Maryland.....	431	359	72	346	278	68
Maryland General Hospital.....	331	307	24	247	223	24
Mercy Hospital.....	473	423	50	349	302	47
Provident Hospital.....	407	..	407	395	..	395
St. Agnes Hospital.....	297	295	2	131	129	2
St. Joseph's Hospital.....	414	347	67	335	273	62
Sinai Hospital.....	445	409	36	355	323	32
South Baltimore General Hospital.....	341	279	62	253	196	57
Union Memorial Hospital.....	591	583	8	421	413	8
U. S. Public Health Service Hospital..	101	90	11	36	31	5
University of Maryland Hospital.....	1,010	607	403	681	331	350
Other institutions in Baltimore City:	825	694	131	680	569	111
Tubercular.....	3	3	..	3	3	..
Mental.....	24	24	..	5	5	..
Nursing, Convalescent and Care						
Homes.....	749	627	122	631	528	103
All other.....	49	40	9	41	33	8
Institutions in Maryland Counties....	..	..	..	935	745	190
General hospitals.....	..	..	..	16	11	5
Tubercular.....	..	..	..	47	34	13
Mental.....	..	..	..	393	303	90
Nursing, Convalescent and Care						
Homes.....	..	..	..	252	239	13
All other.....	..	..	..	227	158	69
Institutions outside of the State of						
Maryland:						
General hospitals.....	..	..	..	103	86	17
Tubercular.....	..	..	..	65	58	7
Mental.....	..	..	..	1	..	1
Nursing, Convalescent and Care						
Homes.....	..	..	..	7	7	..
All other.....	..	..	..	30	21	9
Non-institutional.....	3,526	2,797	729	3,661	2,899	772
Home.....	3,387	2,719	668	3,540	2,831	709
Other.....	139	78	61	121	58	63

TABLE NO. 7  
RESIDENT DEATHS UNDER ONE YEAR FOR EACH CAUSE OF DEATH  
ACCORDING TO AGE AT DEATH—1956

INTERNATIONAL LIST NUMBER	CAUSE OF DEATH	COLOR	TOTAL UNDER ONE YEAR	AGE GROUPS					
				Under 1 Day	1-6 Days	7-27 Days	28 Days- 2 Months	3-5 Months	6-11 Months
	ALL CAUSES	T W C	714 334 380	279 138 141	163 78 85	74 35 39	80 36 44	70 28 42	48 19 29
002	Pulmonary tuberculosis	C	2	..	..	..	..	1	1
053.1	Septicemia	W	1	..	..	..	1	..	..
053.4	Staphylococcus	C	2	..	..	..	..	1	1
	Organism unspecified								
056.0	Whooping cough	C	1	..	..	..	..	1	..
057.0	Meningococcal meningitis	C	1	..	..	..	..	1	..
087	Chickenpox.	C	1	..	..	..	1	..	..
231	Neoplasm of unspecified nature of respiratory system	C	1	..	..	..	..	..	1
277	Polyglandular dysfunction and other diseases of the endocrine glands	C	1	..	..	..	..	..	1
331	Cerebral hemorrhage	W	1	..	..	..	..	..	1
	Meningitis, except meningococcal and tuberculous	C	1	..	..	..	..	..	1
340.0	H. influenza	C	5	..	..	2	..	1	2
340.3	With no organism specified as cause								
341	Phlebitis and thrombophlebitis of intracranial venous sinuses	W	1	..	..	..	1	..	..
343	Encephalitis, myelitis and encephalomyelitis (except acute infectious)	W	1	..	..	..	..	..	1
344.1	Hydrocephalus (internal) (external)	W	1	..	..	..	..	..	1
	Otitis media without mention of mastoiditis	C	2	..	..	..	1	1	..
391.0	Acute	W	3	..	..	1	..	2	..
391.2	Unspecified	C	9	..	..	..	3	1	5
422.2	Myocardial degeneration	W	1	..	..	..	..	..	1
431	Acute myocarditis not specified as rheumatic	C	1	..	..	..	1	..	..
470	Acute nasopharyngitis	C	2	..	..	..	..	2	..
473	Acute tonsillitis	C	1	..	..	..	..	1	..
474	Acute laryngitis and tracheitis	W	1	..	..	1	..	..	..
475	Acute upper respiratory infection of multiple or unspecified sites	W C	2 6	.. ..	.. ..	.. 1	1 3	1 2	.. ..
490	Pneumonia (except newborn, code 763)	W	3	..	..	..	1	2	..
	Lobar	C	2	..	..	..	..	1	1
491	Broncho	W	10	..	..	..	4	5	1
		C	18	..	..	..	11	5	2
492	Primary atypical	W	3	..	..	..	2	1	1
		C	3	..	..	..	1	2	..
493	Pneumonia, other and unspecified	W	4	..	..	..	2	1	1
		C	3	..	..	..	3	..	..

TABLE NO. 7—Continued  
 RESIDENT DEATHS UNDER ONE YEAR FOR EACH CAUSE OF DEATH  
 ACCORDING TO AGE AT DEATH—1956

INTERNATIONAL LIST NUMBER	CAUSE OF DEATH	COLOR	TOTAL UNDER ONE YEAR	AGE GROUPS					
				Under 1 Day	1-6 Days	7-27 Days	28 Days-2 Months	3-5 Months	6-11 Months
500	Bronchitis	W	2	..	..	..	1	..	1
501	Acute	C	3	..	..	..	..	..	..
502.1	Unqualified	C	1	..	..	..	1	..	..
	Chronic, with no mention of emphysema	C	1	..	..	..	..	..	..
525	Other chronic interstitial pneumonia	W	10	..	..	..	5	4	1
		C	15	..	..	..	8	5	2
527.2	Hyaline membrane disease	W	5	2	2	..	..	..	1
		C	3	1	1	..	..	..	1
561.4	Hernia of abdominal cavity with obstruction	W	1	1	..	..	..	..	..
	Intestinal obstruction without mention of hernia	W	2	..	1	1	..	..	..
570.4	Impaction of intestine	C	1	..	..	..	..	1	..
570.5	Other	C	1	..	..	..	..	..	..
571.0	Gastro-enteritis and colitis, except ulcerative	W	2	..	..	..	..	1	1
		C	7	..	..	..	1	3	3
587.2	Fibrocystic disease of pancreas	W	1	..	..	..	..	1	..
750	Monstrosity	W	4	4	..	..	..	..	..
		C	2	1	1	..	..	..	..
751	Spina bifida and meningocele	W	6	1	2	..	2	..	1
752	Congenital hydrocephalus	W	7	1	1	1	2	2	..
753.1	Other congenital malformations of nervous system and sense organs except congenital cataract	W	3	..	..	..	..	1	2
	Congenital malformations of circulatory system	W	6	1	..	1	..	2	2
754.1	Patent ductus arteriosus (Botalli)	C	1	1	..	..	..	..	..
754.2	Interventricular septal defect	W	1	..	1	..	..	..	..
		C	1	..	..	..	..	..	1
754.4	Other and unspecified malformation of heart (except Tetralogy of Fallot)	W	14	1	3	3	3	2	2
754.5	Coarctation of aorta	C	16	3	5	2	..	3	3
754.6	Other circulatory malformations	W	1	..	1	1	..	..	..
		C	2	..	..	..	1	..	..
		W	1	..	..	..	..	1	..
755	Cleft palate and harelip	C	1	..	..	1	..	..	..
756.2	Congenital malformation of digestive system (other hypertrophic pyloric stenosis and imperforate anus)	W	4	..	1	3	..	..	..
		C	8	..	3	3	1	1	..
	Congenital malformations of the genito-urinary system	W	1	1	..	..	..	..	..
757.1	Polycystic disease of kidney	W	4	1	..	1	2	..	..
757.3	Other (except undescended testicle)	W	4	1	..	1	2	..	..
758.2	Congenital malformation of skull	C	1	1	..	..	..	..	..
758.3	Brittle bones	W	1	1	..	..	..	..	..
		C	1	..	..	..	1	..	..
759.0	Congenital malformation of respiratory system	C	2	1	..	..	..	..	1

TABLE NO. 7—Concluded  
RESIDENT DEATHS UNDER ONE YEAR FOR EACH CAUSE OF DEATH  
ACCORDING TO AGE AT DEATH—1956

INTERNATIONAL LIST NUMBER	CAUSE OF DEATH	COLOR	TOTAL UNDER ONE YEAR	AGE GROUPS					
				Under 1 Day	1-6 Days	7-27 Days	28 Days- 2 Months	3-5 Months	6-11 Months
759.3	Unspecified malformation and any other than those listed under codes 750-759.2	W C	4 2	3 1	.. 1	1 ..	.. ..	.. ..	.. ..
760	Intracranial and spinal injury at birth	W C	33 42	11 19	20 18	1 4	1 1	.. ..	.. ..
761	Other birth injury	W C	23 8	19 7	2 1	1 ..	.. ..	.. ..	.. ..
762	Postnatal asphyxia and atelectasis	W C	32 47	20 31	11 13	1 2	.. 1	.. ..	.. ..
763	Pneumonia of newborn	W C	8 12	.. 2	5 2	3 8	.. ..	.. ..	.. ..
764	Diarrhea of newborn	W C	1 1	.. ..	.. ..	1 ..	.. 1	.. ..	.. ..
767	Umbilical sepsis	W C	1 1	.. ..	1 1	1 ..	.. ..	.. ..	.. ..
768	Other sepsis of the newborn	W C	9 6	.. ..	2 2	5 3	1 1	1 ..	.. ..
769	Neonatal disorders arising from maternal toxemia Toxemia of pregnancy Unspecified maternal toxemia	W W W	2 1 1	1 1 ..	.. .. ..	1 .. ..	.. .. ..	.. .. ..	.. .. ..
770	Hemolytic disease of newborn	W	7	4	2	1	.. ..	.. ..	.. ..
771	Hemorrhagic disease of newborn	W C	5 2	2 ..	2 2	1 ..	.. ..	.. ..	.. ..
772	Nutritional maladjustment	W C	1 3	.. ..	.. ..	.. ..	1 ..	2 ..	1 ..
773	Ill-defined diseases peculiar to early infancy	W C	2 7	1 ..	1 2	.. 2	1 2	.. ..	.. ..
774	Immaturity with mention of any other subsidiary condition not classifiable under 760-773	W C	11 4	5 ..	4 3	2 1	.. ..	.. ..	.. ..
776	Immaturity, unqualified	W C	74 106	55 69	17 28	2 9	.. ..	.. ..	.. ..
795.0	Ill-defined condition	C	1	..	1	..	.. ..	.. ..	.. ..
795.5	Other unknown and unspecified causes	W C	1 4	1 2	1 ..	.. ..	1 ..	.. ..	.. ..
883	Accidental poisoning by inhalation of sodium hypochlorite solution (laundry bleach)	C	1	..	..	..	.. ..	.. ..	1
902	Fall from one level to another	W	2	..	..	..	.. ..	2 ..	.. ..
904	Unspecified fall	W	1	..	..	1	.. ..	.. ..	.. ..
916	Accident caused by fire and explosion of combustible material	C	1	..	..	..	.. ..	1 ..	.. ..
921	Inhalation and ingestion of food causing obstruction or suffocation	W C	4 4	.. ..	.. ..	.. ..	3 1	1 2	.. 1
924	Accidental mechanical suffocation in bed and cradle	W C	1 1	.. ..	.. ..	.. 1	1 .. ..	.. ..	.. ..
929	Accidental drowning and submersion	W C	2 1	1 1	.. ..	.. ..	.. ..	.. ..	1 ..
983	Assault by strangulation	W	1	1	..	..	.. ..	.. ..	.. ..



TABLE NO. 8  
RESIDENT DEATHS BY CAUSE, SEX, COLOR AND AGE—1956

INTER- NATIONAL List No.	CAUSE OF DEATH	TOTALS				AGE GROUPS																									
		Grand Total	By Color		By Sex		Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over			
			W	C	M	F																									
	All Causes	11,131	8,121	3,010	4,432 3,689	192 142	6 11	8 4	9 4	5 1	17 16	11 11	15 11	27 6	34 20	54 28	79 59	121 127	220 147	322 224	474 342	561 342	684 342	557 342	461 508	349 456	246 484				

## I—INFECTIVE AND PARASITIC DISEASES

001-019	Tuberculosis, all forms	190	W 92 C 98	M 78 F 14 M 66 F 32	Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over
001-008	Tuberculosis of the respiratory system	179	W 91 C 88	M 78 F 13 M 61 F 27	Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over
010	Tuberculosis of the meninges and central nervous system	3	W 1 C 2	M 1 F 2	Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over
012-013	Tuberculosis of the bones and joints	1	W 1 C 1	M 1 F 1	Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over
014-019	Tuberculosis, all other forms	7	W 7 C 7	M 5 F 2	Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over
020-029	Syphilis, all forms	59	W 20 C 39	M 16 F 40 M 20 F 19	Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over

[illegible]

## II—NEOPLASMS

	W	1,437	762	1	2	1	2	3	6	5	29	39	50	95	157	122	108	78	46	23
1,836		M	675	..	1	..	1	..	7	15	27	51	56	75	81	106	79	76	47	41
		F	187	..	1	..	1	..	3	4	..	..	..	..	..	..	..	..	..	..
Malignant neoplasms	C	399	212	..	1	1	1	1	2	3	4	16	20	29	35	31	33	20	7	4
	F	187	187	..	1	1	1	1	1	3	16	12	24	23	27	20	28	16	8	3

TABLE NO. 8—Continued  
RESIDENT DEATHS BY CAUSE, SEX, COLOR AND AGE—1956

INTER- NATIONAL LIST NO.	CAUSE OF DEATH	TOTALS		AGE GROUPS																								
		Grand Total	By Color	By Sex																								
					Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over		
140-148	Malignant neoplasm of buccal cavity and pharynx	48	W	M	37	..	..	..	..	..	..	..	..	..	..	..	1	1	3	4	2	9	4	4	4	1	4	
			C	F	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	
150	Malignant neoplasm of esophagus	34	W	M	21	..	..	..	..	..	..	..	..	..	..	..	..	..	2	3	6	4	3	2	1	..	..	
			C	F	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	1	..	..	..	
151	Malignant neoplasm of stomach	165	W	M	69	..	..	..	..	..	..	..	..	..	..	..	2	6	1	7	11	12	13	11	5	1	..	
			C	F	38	..	..	..	..	..	..	..	..	..	..	..	..	2	4	2	4	2	6	8	6	3	5	..
152-153	Malignant neoplasm of intestine, ex- cept rectum	165	W	M	55	..	..	..	..	..	..	..	..	..	..	..	..	3	2	4	3	11	9	5	10	6	2	..
			C	F	91	..	..	..	..	..	..	..	..	..	..	..	..	3	4	2	4	14	20	12	12	9	10	..
154	Malignant neoplasm of rectum	83	W	M	39	..	..	..	..	..	..	..	..	..	..	..	..	1	2	1	2	1	1	2	1	1	..	1
			C	F	11	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	2	1	1	..	..	..
161	Malignant neoplasm of larynx	21	W	M	15	..	..	..	..	..	..	..	..	..	..	..	..	1	3	1	2	1	2	1	5	1	..	..
			C	F	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	..
			W	M	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	1	2	1	1	..	..	..
			C	F	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
			W	M	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
			C	F	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

## II—NEOPLASMS—CONTINUED

[illegible]

TABLE NO. 8—Continued  
RESIDENT DEATHS BY CAUSE, SEX, COLOR AND AGE—1956

INTER-NATIONAL LIST NO.	CAUSE OF DEATH	TOTALS		AGE GROUPS																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
		Grand Total	By Color	By Sex																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
				Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
210-239	Benign neoplasms and neoplasms of unspecified nature	54	W C	M F M F	26 15 3 10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..</

## V-MENTAL, PSYCHONEUROTIC, AND PERSONALITY DISORDERS

[illegible]

## VI—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS

[illegible]

TABLE NO. 8—Continued  
RESIDENT DEATHS BY CAUSE, SEX, COLOR AND AGE—1956

INTER- NATIONAL LIST NO.	CAUSE OF DEATH	TOTALS		AGE GROUPS																											
		Grand Total	By Color	By Sex	Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over					
VI—DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS—CONTINUED																															
341-344, 350-352, 354-369, 380-384, 386 388-390, 394-398	All other diseases of the nervous sys- tem and sense organs	63	W C	40 23	M F	22 18	3 1 1 1	..	..	..	2	1	1	1	1	1	1	2	..	4	2	1	1	3	1	3	1	1	2		
VII—DISEASES OF THE CIRCULATORY SYSTEM																															
400-402	Rheumatic fever	9	W C	5 4	M F	2 3	1 1 1 1	..	..	..	1	..	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	..		
410-443	Heart diseases, total	4,736	W C	3,728 1,008	M F	2,018 1,710	1 1 1 1	..	1	..	1	2	2	1	1	7	16	28	47	64	78	56	78	50	38	17	22	23			
410-416	Chronic rheumatic heart disease	133	W C	103 30	M F	54 49	..	..	..	..	1	1	1	2	1	3	1	4	8	14	8	5	4	2	1	1	1	1			
420-422	Arteriosclerotic and degenerative heart disease	3,438	W C	2,934 504	M F	1,656 1,278	1 1 1 1	..	1	..	1	1	1	1	1	3	2	2	2	2	1	2	4	2	1	1	1	1			

[illegible]

## VIII—DISEASES OF THE RESPIRATORY SYSTEM

[illegible]



TABLE NO. 8—Continued  
RESIDENT DEATHS BY CAUSE, SEX, COLOR AND AGE—1956

INTER- NATIONAL List No.	CAUSE OF DEATH	TOTALS		AGE GROUPS																								
		Grand Total	By Color	By Sex																								
					Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over		
490	Lobar pneumonia	116	W	65	M F	43 22	1 2	1 2	..	..	..	..	..	..	1	1	3	2	2	2	6	4	12	4	3	3	2	
			C	51	M F	36 15	1 1	..	..	..	..	..	..	1	2	1	1	1	1	1	1	3	3	3	4	2	2	1
491	Bronchopneumonia	128	W	86	M F	58 23	7 3	1 3	..	..	..	..	..	..	1	2	1	1	1	1	2	7	4	7	4	8	6	6
			C	42	M F	25 17	10 8	1 1	..	..	..	..	..	1	1	1	1	1	1	1	1	3	3	2	2	7	4	8
492-493	Primary atypical, other and unspecified pneumonia	64	W	43	M F	24 19	3 4	1 1	..	..	..	..	..	..	1	1	1	1	1	1	1	1	2	3	8	2	2	4
			C	21	M F	14 7	3 3	2 1	..	..	..	..	..	1	1	1	1	1	1	1	1	2	1	2	1	2	1	1
500	Acute bronchitis	7	W	5	M F	4 1	1 1	1 1	..	..	..	..	..	..	1	1	1	1	1	1	1	1	1	1	1	1	1	1
			C	2	M	2	1	..	..	..	..	..	..	..	..	1	1	1	1	1	1	1	1	1	1	1	1	1
501-502	Chronic bronchitis	21	W	12	M F	9 3	9 3	1 1	..	..	..	..	..	..	1	1	1	1	1	1	1	1	2	2	2	1	1	1
			C	9	M F	5 4	3 1	1 1	..	..	..	..	..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
510	Hypertrophy of tonsils and adenoids	1	W	1	M	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
518, 521	Empyema and abscess of lung	10	W	6	M F	4 2	4 2	..	..	..	..	..	..	..	1	1	1	1	1	1	1	1	1	1	1	1	1	1
			C	4	M	4	1	..	..	..	..	..	..	..	..	1	1	1	1	1	1	1	1	1	1	1	1	1

## VIII—DISEASES OF THE RESPIRATORY SYSTEM—CONTINUED

## IX—DISEASES OF THE DIGESTIVE SYSTEM

511-517, 520, 522-527	All other respiratory diseases		W	C	98	62	M F	45	6	9	1	2	4	8	4	7	5	4	4
540	Ulcer of stomach	35	W	C		23	M F	22 6				1	2	1	3	5	3	3	1
541	Ulcer of duodenum	27	W	C		7	M F	3 4				1	1	1	1	1	1	1	1
543	Gastritis and duodenitis	2	W	C		23	M F	20 3				1	3	2	2	1	2	1	4
550-553	Appendicitis	11	W	C		4	M F	3 1				1	1	1	1	1	1	1	1
550, 561 570	Intestinal obstruction and hernia	80	W	C		2	M F	2 4								1	1	1	1
571, 572	Gastro-enteritis and colitis, except diarrhoea of the newborn	34	W	C		58	M F	26 32				1	1	1	1	3	6	3	4
581	Cirrhosis of the liver	150	W	C		22	M F	13 9				1	1	2	1	3	7	3	4
584, 585	Cholelithiasis and cholecystitis	30	W	C		23	M F	11 12				1	2	1	1	1	2	2	1
			W	C		11	M F	7 4				1	1	1	1	1	1	1	1
			W	C		111	M F	65 46				2	3	7	11	9	7	4	1
			W	C		39	M F	27 12				1	6	3	6	2	4	6	2
			W	C		27	M F	8 19				1	1	1	1	1	1	1	1
			W	C		3	M F	2 1				1	1	1	1	1	1	1	1



[illegible]

## XXI—DELIVERIES AND COMPLICATIONS OF PREGNANCY, AND THE PUERPERIUM

[illegible]

XII AND XIII—DISEASES OF THE SKIN AND MUSCULOSKELETAL SYSTEM

[illegible]



[illegible]

## XXVI - STRENGTH, SENILITY AND ILL-DEFINED CONDITIONS

[illegible]

XVII—Accidents, Poisonings, and Violence

[illegible]

TABLE NO. 8—Concluded  
RESIDENT DEATHS BY CAUSE, SEX, COLOR AND AGE—1956

INTER-NATIONAL LIST NO.	CAUSE OF DEATH	TOTALS		AGE GROUPS																								
		Grand Total	By Color	By Sex	Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Years and Over		
XVII—ACCIDENTS, POISONINGS, AND VIOLENCE—CONTINUED																												
E900-E904	Accidental falls	158	W 121 C 37	M 60 F 61	2 1	1 1	1 1	1 1	1 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1	2 1
E912	Accident caused by machinery	5	W 4 C 1	M 4 F 1	4 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
E916	Accident caused by fire and explosion of combustible material	68	W 35 C 33	M 17 F 18	17 18	1 1	1 1	1 1	1 1	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
E919	Accident caused by firearm	4	W 3 C 1	M 3 F 1	3 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1
E929	Accidental drowning and submersion	36	W 26 C 10	M 19 F 7	19 7	1 1	1 1	1 1	1 1	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2	1 2
E910-E911, E913-E915, E920-E928, E930-E962	All other accidental causes	72	W 40 C 32	M 25 F 15	25 15	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1	1 1

XVII—ACCIDENTS, POISONINGS, AND VIOLENCE—CONTINUED





**TABLE NO. 9**  
**RECORDED AND RESIDENT DEATHS AND DEATH RATES PER 100,000 POPULATION FOR**  
**CERTAIN CAUSES AND GROUPS OF CAUSES, CLASSIFIED BY COLOR—1956**

CAUSE OF DEATH	RECORDED						RESIDENT					
	Number			Rate per 100,000 Population*			Number			Rate per 100,000 Population*		
	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored
All Causes.....	12,081	9,120	2,961	12.4	13.1	10.6	11,131	8,121	3,010	11.4	11.7	10.8
Tuberculosis, all forms (001-019).....	153	75	78	15.7	10.8	27.9	190	92	98	19.5	13.3	35.0
<i>Respiratory tuberculosis (001-008).....</i>	<i>139</i>	<i>69</i>	<i>70</i>	<i>14.3</i>	<i>9.9</i>	<i>25.0</i>	<i>179</i>	<i>91</i>	<i>88</i>	<i>18.4</i>	<i>13.1</i>	<i>31.4</i>
Syphilis (020-029).....	51	16	35	5.2	2.3	12.5	59	20	39	6.1	2.9	13.9
Typhoid fever (040).....	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery (045-048).....	1	..	1	0.1	..	0.4	1	..	1	0.1	..	0.4
Other infective diseases of the intestinal tract (041-044, 049).....	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet fever and streptococcal sore throat (050-051).....	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (055).....	1	..	1	0.1	..	0.4	1	..	1	0.1	..	0.4
Whooping cough (056).....	1	..	1	0.1	..	0.4	1	..	1	0.1	..	0.4
Meningococcal infections (057).....	8	6	2	0.8	0.9	0.7	4	3	1	0.4	0.4	0.4
Other infective diseases of bacterial origin (030-039, 052-054, 058-064, 070-074).....	17	7	10	1.7	1.0	3.6	18	8	10	1.8	1.2	3.6
Poliomyelitis, acute (080-081).....	3	3	..	0.3	0.4	..	2	2	..	0.2	0.3	..
Encephalitis (082-083).....	1	1	..	0.1	0.1	..	2	2	..	0.2	0.3	..
Smallpox (084).....	..	..	..	..	..	..	..	..	..	..	..	..
Measles (085).....	..	..	..	..	..	..	..	..	..	..	..	..
Other virus diseases (086-096).....	5	1	4	0.5	0.1	1.4	6	1	5	0.6	0.1	1.8
Typhus and rickettsial diseases (100-108).....	..	..	..	..	..	..	..	..	..	..	..	..
Other infective and parasitic diseases (110-138).....	6	4	2	0.6	0.6	0.7	3	2	1	0.3	0.3	0.4
Malignant neoplasms (140-205).....	2,055	1,659	396	211.0	239.0	141.4	1,836	1,437	399	188.5	207.1	142.5
<i>Lymphatic and hematopoietic (200-205).....</i>	<i>181</i>	<i>167</i>	<i>14</i>	<i>18.6</i>	<i>22.6</i>	<i>8.6</i>	<i>156</i>	<i>110</i>	<i>46</i>	<i>14.0</i>	<i>15.9</i>	<i>9.3</i>
Benign and unspecified neoplasms (210-239).....	80	63	17	8.2	9.1	6.1	54	41	13	5.5	5.9	4.6
Diabetes (260).....	257	213	44	26.4	30.7	15.7	244	199	45	25.1	28.7	16.1
Anemias (290-293).....	17	10	7	1.7	1.4	2.5	14	9	5	1.4	1.3	1.8
Other diseases of the blood and blood-forming organs (294-299).....	14	11	3	1.4	1.6	1.1	10	7	3	1.0	1.0	1.1
Vascular lesions of the central nervous system (330-334).....	927	669	258	95.2	96.4	92.1	906	646	260	93.0	93.1	92.9
Rheumatic fever (400-402).....	14	9	5	1.4	1.3	1.8	9	5	4	0.9	0.7	1.4
Diseases of the heart (410-443).....	4,901	3,917	984	503.2	564.4	351.4	4,736	3,728	1,008	486.2	537.2	360.0
<i>Chronic rheumatic heart disease (410-416).....</i>	<i>155</i>	<i>122</i>	<i>33</i>	<i>15.9</i>	<i>17.6</i>	<i>11.8</i>	<i>135</i>	<i>103</i>	<i>30</i>	<i>15.7</i>	<i>14.8</i>	<i>10.7</i>
<i>Arteriosclerotic and degenerative heart disease (420-422).....</i>	<i>3,544</i>	<i>3,064</i>	<i>480</i>	<i>363.9</i>	<i>441.6</i>	<i>171.4</i>	<i>3,438</i>	<i>2,934</i>	<i>504</i>	<i>363.0</i>	<i>422.8</i>	<i>180.0</i>
<i>Other diseases of the heart (430-434).....</i>	<i>89</i>	<i>62</i>	<i>27</i>	<i>9.1</i>	<i>8.9</i>	<i>9.6</i>	<i>82</i>	<i>53</i>	<i>29</i>	<i>8.4</i>	<i>7.6</i>	<i>10.4</i>
<i>Hypertensive heart disease (440-443).....</i>	<i>1,113</i>	<i>669</i>	<i>444</i>	<i>114.3</i>	<i>96.4</i>	<i>158.6</i>	<i>1,083</i>	<i>638</i>	<i>445</i>	<i>111.2</i>	<i>91.9</i>	<i>153.9</i>

\* Death rates for all causes are per 1,000 population and for puerperal causes are per 10,000 live births.

TABLE NO. 9—Concluded

RECORDED AND RESIDENT DEATHS AND DEATH RATES PER 100,000 POPULATION FOR CERTAIN CAUSES AND GROUPS OF CAUSES, CLASSIFIED BY COLOR—1958

CAUSE OF DEATH	RECORDED						RESIDENT					
	Number			Rate per 100,000 Population*			Number			Rate per 100,000 Population*		
	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored
Other hypertensive diseases (444-447) .....	81	50	31	8.3	7.2	11.1	85	49	36	8.7	7.1	12.9
Arteriosclerosis (450) .....	144	114	30	14.8	16.4	10.7	154	125	29	15.8	18.0	10.4
Other diseases of the circulatory system (451-463) .....	168	132	36	17.2	19.0	12.9	123	90	33	12.6	13.0	11.8
Nephritis and nephrosis (590-594) .....	116	56	60	11.9	8.1	21.4	105	48	57	10.8	6.9	20.4
Acute nephritis and nephritis with edema, including nephrosis (590-591) .....	18	7	11	1.8	1.0	3.9	18	7	11	1.8	1.0	3.9
Influenza and pneumonia (480-483, 490-493) .....	318	207	111	32.6	29.8	39.6	314	199	115	32.2	28.7	41.1
Pneumonia (490-493) .....	312	202	110	32.0	29.1	39.3	308	194	114	31.6	28.0	40.7
Bronchitis (500-502) .....	27	19	8	2.8	2.7	2.9	28	17	11	2.9	2.4	3.9
Ulcer of the stomach and duodenum (540-542) .....	83	70	13	8.5	10.1	4.6	62	51	11	6.4	7.3	3.9
Appendicitis (550-553) .....	13	9	4	1.3	1.3	1.4	11	8	3	1.1	1.2	1.1
Intestinal obstruction and hernia (560-570) .....	109	88	21	11.2	12.7	7.5	80	58	22	8.2	8.4	7.9
Gastritis, duodenitis, enteritis and colitis (543, 571, 572) .....	46	35	11	4.7	5.0	3.9	36	25	11	3.7	3.6	3.9
Cirrhosis of the liver (581) .....	167	131	36	17.1	18.9	12.9	150	111	39	15.4	16.0	13.9
Hyperplasia of prostate (610) .....	13	10	3	1.3	1.4	1.1	8	6	2	0.8	0.9	0.7
Puerperal causes (640-689) .....	9	5	4	2.5	1.9	3.8	10	4	6	4.2	2.9	6.2
Congenital malformations (750-759) .....	231	182	49	23.7	26.2	17.5	122	79	43	12.5	11.4	15.4
Certain diseases of early infancy (760-776) .....	629	381	248	64.6	54.9	88.6	448	209	239	46.0	30.1	85.4
Pneumonia of newborn (763) .....	30	19	11	3.1	2.7	3.9	20	8	12	2.1	1.2	4.3
Diarrhea of newborn (764) .....	2	1	1	0.2	0.1	0.4	2	1	1	0.2	0.1	0.4
Senility, ill-defined and unknown conditions (780-795) .....	41	26	15	4.2	3.7	5.4	39	19	20	4.0	2.7	7.1
All other diseases .....	608	415	193	62.4	59.8	68.9	548	355	193	56.3	51.2	68.9
Accidents, total (800-962) .....	570	397	173	58.5	57.2	61.8	539	359	180	55.3	51.7	64.3
Motor vehicle accidents (810-856) .....	184	137	47	18.9	19.7	16.8	166	105	61	16.0	15.1	18.2
Home accidents .....	209	140	69	21.5	20.2	24.6	187	120	67	19.2	17.3	23.9
Occupational accidents .....	54	36	18	5.5	5.2	6.4	47	28	19	4.8	4.0	6.8
All other accidents .....	123	84	39	12.6	12.1	15.9	149	108	43	15.3	15.3	15.4
Suicides (963, 970-979) .....	117	108	9	12.0	15.6	3.2	100	92	8	10.3	13.3	2.9
Homicides (984, 980-985) .....	79	21	58	8.1	3.0	20.7	73	15	58	7.5	2.2	20.7

\* Death rates for all causes are per 1,000 population and for puerperal causes are per 10,000 live births.



[illegible]

TABLE NO. 10—Concluded  
ALLOCATION OF DEATHS BY COLOR AND CAUSE OF DEATH ACCORDING TO PLACE OF DEATH AND PLACE OF RESIDENCE  
BALTIMORE—1956

INTER-MEDIATE LIST NUMBER (6TH RE-VISION)	CAUSE OF DEATH	TOTAL RECORDED DEATHS		RESIDENTS OF						BALTIMORE RESIDENTS DYING ELSEWHERE				TOTAL RESIDENT DEATHS	
				Baltimore		Counties of Maryland		Other States		Counties of Maryland		Other States			
		White	Col'd	White	Col'd	White	Col'd	White	Col'd	White	Col'd	White	Col'd	White	Col'd
A 79	Rheumatic fever.....	9	5	4	4	1	3	..	..	..	..	..	..	5	4
A 80	Chronic rheumatic heart disease.....	122	33	30	26	3	3	..	..	..	..	..	..	103	30
A 81	Arteriosclerotic and degenerative heart disease.....	3,064	480	449	423	25	25	58	6	298	48	53	7	2,934	504
A 82	Other disease of the heart.....	62	27	46	26	12	1	4	..	5	..	..	..	63	29
A 83	Hypertension with heart disease.....	689	444	575	420	80	18	14	6	57	22	6	3	638	445
A 84	Hypertension without mention of heart.....	50	31	40	30	10	1	..	..	8	5	1	1	49	36
A 85	Arteriosclerosis.....	114	30	98	26	14	4	2	..	20	3	1	1	125	58
A 86	Other diseases of the arteries.....	89	15	52	12	30	3	7	..	5	1	1	..	125	58
A 87	Other diseases of the circulatory system.....	43	21	28	19	15	2	..	..	4	1	..	..	32	20
A 88	Acute upper respiratory infections.....	6	8	4	7	2	1	..	..	..	..	..	2	9	1
A 89	Influenza.....	5	1	5	1	..	..	..	..	..	..	..	..	5	1
A 90	Lobar pneumonia.....	76	51	55	50	18	1	3	..	9	1	1	1	65	51
A 91	Bronchopneumonia.....	79	41	65	39	14	2	..	..	21	2	..	..	86	42
A 92	Primary atypical, other and unspecified pneumonia.....	47	18	38	18	9	..	..	..	5	3	..	1	43	21
A 93	Acute bronchitis.....	4	3	..	1	..	..	..	..	2	1	..	..	5	2
A 94	Bronchitis, chronic and unqualified.....	15	8	12	8	3	..	..	..	..	1	..	..	12	9
A 95	Hypertrophy of tonsils and adenoids.....	1	..	..	..	..	..	..	..	..	..	..	..	1	..
A 96	Empyema and abscess of lung.....	5	2	4	..	3	..	..	1	3	..	1	..	6	4
A 97	Pleurisy.....	..	1	..	..	..	1	..	..	..	..	..	..	..	..
A 98	All other respiratory diseases.....	71	34	52	32	18	2	1	..	9	4	1	..	62	36
A 99	Diseases of the teeth and supporting structures.....	..	9	..	..	..	..	..	..	..	..	..	..	..	..
A 100	Ulcer of stomach.....	39	23	23	7	15	2	1	..	4	..	1	..	28	7
A 101	Ulcer of duodenum.....	31	4	20	4	11	..	..	..	3	..	..	..	23	4
A 102	Gastritis and duodenitis.....	1	..	..	..	..	..	..	..	1	..	..	..	2	..
A 103	Appendicitis.....	9	7	7	3	1	1	1	..	1	..	..	..	8	3
A 104	Intestinal obstruction and hernia.....	88	21	53	20	26	1	4	..	..	2	..	..	58	22
A 105	Gastro-enteritis and colitis, except diarrhoea of newborn.....	34	11	22	10	10	1	2	..	1	3	..	1	23	11
A 106	Cirrhosis of liver.....	131	36	99	36	28	..	..	..	12	..	..	..	111	39
A 107	Cholelithiasis and cholecystitis.....	35	3	26	3	9	..	..	..	..	..	..	..	27	3
A 108	Other diseases of the digestive system.....	58	18	44	17	11	1	3	..	3	1	1	..	48	17
A 109	Acute nephritis.....	7	11	6	11	..	..	..	..	..	..	..	..	7	11
A 110	Chronic, other and unspecified nephritis.....	49	49	39	44	9	4	1	1	1	2	..	..	41	46
A 111	Infection of kidney.....	37	21	22	19	13	2	2	..	5	1	..	..	27	20
A 112	Calculi of urinary system.....	9	1	4	..	5	1	..	..	..	..	..	..	5	2
	Hyperplasia of prostate.....	10	3	6	2	4	1	..	..	..	..	..	..	6	2

A 113	Diseases of breast.....	17	8	12	6	4	2	1	..	..	1	..	15	7
A 114	Other diseases of the genito-urinary system.....	..	..	..	..	..	..	..	..	..	..	..	..	..
A 115	Sepsis of pregnancy, childbirth and the puerperium.....	..	..	..	..	..	..	..	..	..	..	..	..	..
A 116	Toxemias of pregnancy and the puerperium.....	..	..	..	..	..	..	..	..	..	..	..	..	..
A 117	Hemorrhage of pregnancy and childbirth.....	1	2	2	3	1	..	..	..	..	..	..	2	3
A 118	Abortion without mention of sepsis or toxemia.....	..	3	1	..	..	..	..	..	..	..	..	1	1
A 119	Abortion with sepsis.....	1	..	..	..	..	..	..	..	..	..	..	..	..
A 120	Other complications of pregnancy, childbirth and the puerperium.....	1	1	1	1	..	..	..	..	..	..	..	1	2
A 121	Infections of skin and subcutaneous tissue.....	..	1	..	2	..	..	..	..	..	..	..	..	2
A 122	Arthritis and spondylitis.....	6	2	5	2	1	..	..	..	..	..	..	6	2
A 123	Muscular rheumatism and rheumatism, unspecified.....	..	2	..	..	..	..	..	..	..	..	..	..	..
A 124	Osteomyelitis and pericostitis.....	..	..	..	..	..	..	..	..	..	..	..	..	..
A 125	Ankylosis and acquired musculoskeletal deformities.....	1	..	1	..	..	..	..	..	..	..	..	1	..
A 126	All other diseases of skin and musculoskeletal system.....	10	3	8	2	2	1	..	..	..	..	..	9	2
A 127	Spina bifida and meningocele.....	10	..	6	..	4	..	..	..	..	..	..	6	..
A 128	Congenital malformation of circulatory system.....	100	28	31	24	43	2	26	..	..	..	..	33	24
A 129	All other congenital malformations.....	72	21	35	19	37	1	..	..	..	..	..	40	19
A 130	Birth injuries.....	99	53	55	50	43	3	1	..	..	..	..	55	50
A 131	Postnatal asphyxia and asflectasis.....	67	48	31	45	38	3	..	..	..	..	..	32	47
A 132	Infections of the newborn.....	35	19	19	19	16	..	..	..	..	..	..	19	20
A 133	Hemolytic disease of newborn.....	13	..	7	..	6	..	..	..	..	..	..	7	..
A 134	All other defined diseases of early infancy.....	9	5	9	5	..	..	..	..	..	..	..	9	5
A 135	Ill-defined diseases peculiar to early infancy, and immaturity, unqualified.....	158	123	83	114	73	9	2	..	..	..	..	87	117
A 136	Sanitary ill-defined diseases.....	3	1	2	2	1	..	..	..	..	..	..	2	1
A 137	Ill-defined and unknown causes of mortality.....	23	14	17	13	6	1	..	..	..	..	..	17	19
A 138	Motor vehicle accidents.....	137	47	79	39	50	4	..	..	..	..	..	105	51
A 139	Other transport accidents.....	12	5	9	5	2	..	..	..	..	..	..	17	5
A 140	Accidental poisoning.....	9	11	8	10	1	..	..	..	..	..	..	8	10
A 141	Accidental falls.....	129	37	104	38	23	1	..	..	..	..	..	121	37
A 142	Accident caused by machinery.....	3	1	1	1	2	..	..	..	..	..	..	4	1
A 143	Accident caused by fire and explosion of combustible material.....	34	35	27	33	7	2	..	..	..	..	..	35	33
A 144	Accident caused by hot substance, corrosive liquid, steam and radiation.....	..	..	..	..	..	..	..	..	..	..	..	..	..
A 145	Accident caused by firearm.....	..	2	..	1	..	..	..	..	..	..	..	..	..
A 146	Accidental drowning and submersion.....	17	9	14	9	3	..	..	..	..	..	..	3	1
A 147	All other accidental causes.....	54	27	31	27	22	..	..	..	..	..	..	28	10
A 148	Suicide and self-inflicted injury.....	108	9	84	7	22	2	..	..	..	..	..	40	32
A 149	Homicide and injury purposely inflicted by other persons (not in war).....	..	..	..	..	..	..	..	..	..	..	..	92	8
A 150	Injury resulting from operations of war.....	21	58	13	54	6	2	2	2	2	1	3	15	53

TABLE NO. 11  
RESIDENT AND RECORDED DEATHS AND DEATH RATES PER 100,000 POPULATION FOR CERTAIN IMPORTANT CAUSES FOR  
TOTAL, WHITE AND COLORED POPULATIONS—1940-1956

YEAR	TYPHOID FEVER				MEASLES				WHOOPING COUGH			
	NUMBER		RATE PER 100,000 POPULATION		NUMBER		RATE PER 100,000 POPULATION		NUMBER		RATE PER 100,000 POPULATION	
	Total	White	Col-ored	Total	White	Col-ored	Total	White	Col-ored	White	Total	Col-ored
RESIDENT												
1956.....	1	..	1	..	..	..	..	..	1	..	0.1	0.4
1955.....	..	..	..	..	..	1	0.3	0.4	1	..	0.1	0.4
1954.....	..	..	..	..	2	..	..	..	..	..	..	..
1953.....	..	..	..	..	..	..	..	..	1	..	0.1	0.4
1952.....	..	..	..	..	..	..	..	..	..	..	..	..
1951.....	..	..	..	..	1	..	0.1	0.4	..	..	..	..
1950.....	..	..	..	..	..	1	0.6	0.9	1	..	0.1	0.4
1949.....	1	..	..	..	6	2	0.2	0.3	..	..	..	..
1948.....	..	..	..	..	2	..	0.6	0.5	..	..	..	..
1947.....	..	1	..	..	4	2	0.6	0.5	4	1	1.1	1.9
1946.....	1	1	..	..	4	..	1.1	0.4	1	0.2	0.1	0.5
1945.....	1	1	..	..	3	7	1.1	0.4	7	1.3	0.7	3.5
1944.....	1	1	1	0.5	10	1	0.1	0.1	11	1.2	0.8	2.6
1943.....	1	1	..	..	1	1	0.1	0.1	6	1.0	0.8	2.1
1942.....	1	1	..	..	1	1	0.1	0.1	4	1.0	0.5	2.7
1941.....	3	1	2	1.2	3	1	0.3	0.6	5	3.5	0.4	16.1
1940.....	1	..	1	0.6	..	..	..	..	30	2.8	1.6	7.8
RECORDED												
1956.....	..	..	..	..	..	..	..	..	1	..	0.1	0.4
1955.....	1	..	1	0.1	..	..	..	0.6	2	..	0.2	0.8
1954.....	..	..	..	..	4	1	0.5	0.4	..	..	..	..
1953.....	1	..	1	0.1	..	..	..	..	1	..	0.1	0.4
1952.....	..	..	..	..	..	..	..	..	..	..	..	..
1951.....	..	..	..	..	1	1	0.1	0.4	..	..	..	..
1950.....	..	..	..	..	..	2	0.8	0.8	1	..	0.1	0.4
1949.....	..	2	1	0.4	6	2	0.3	0.4	..	..	..	..
1948.....	3	2	1	0.5	3	..	0.9	1.0	4	1.2	0.1	1.9
1947.....	1	1	..	..	6	..	0.8	0.8	1	0.2	0.1	0.5
1946.....	2	2	..	..	8	2	0.9	0.8	10	1.9	1.1	4.1
1945.....	1	1	1	0.5	12	7	1.3	0.7	8	1.7	1.1	4.1
1944.....	2	2	..	..	5	3	0.3	0.4	10	1.5	1.3	2.5
1943.....	2	2	1	0.3	3	1	0.1	0.6	5	1.2	0.7	3.3
1942.....	3	3	..	1.2	1	2	0.7	1.2	27	3.9	1.0	16.1
1941.....	4	4	1	0.6	6	4	0.3	0.3	13	3.5	2.4	7.8
1940.....	3	2	1	0.3	..	..	..	..	17	..	..	..

YEAR	DIPHTHERIA						INFLUENZA						TUBERCULOSIS, ALL FORMS					
	NUMBER			RATE PER 100,000 POPULATION			NUMBER			RATE PER 100,000 POPULATION			NUMBER			RATE PER 100,000 POPULATION		
	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored
RESIDENT	1	..	1	0.1	..	0.4	6	5	1	0.6	0.7	0.4	190	92	98	19.5	13.3	35.0
1936.....	..	..	..	..	..	..	6	3	3	0.6	0.3	1.1	178	91	87	18.4	13.0	32.3
1937.....	..	..	..	..	..	..	3	2	1	0.3	0.3	0.4	99	92	107	20.6	13.0	41.3
1938.....	..	..	..	..	..	..	33	24	9	3.4	3.3	3.6	268	139	129	27.8	19.4	132.1
1939.....	1	..	1	0.1	..	0.4	20	11	9	2.1	1.5	1.7	416	212	242	43.2	24.1	100.5
1940.....	1	..	1	0.1	..	0.4	13	9	4	1.4	1.2	1.7	497	274	285	52.1	29.4	122.1
1941.....	3	..	3	0.3	0.4	..	27	21	6	2.6	2.9	2.6	536	301	351	56.4	32.6	132.9
1942.....	2	..	2	0.2	..	0.9	16	9	7	1.7	1.2	3.2	597	246	351	63.0	33.8	139.3
1943.....	2	..	2	0.2	..	0.9	22	9	13	2.3	1.2	6.1	639	279	360	67.8	38.3	168.2
1944.....	5	4	1	0.5	0.5	0.5	36	19	17	3.8	2.6	8.2	699	291	408	74.5	39.9	196.5
1945.....	19	18	1	2.0	2.5	1.0	47	25	22	5.0	3.4	10.9	726	328	398	77.8	44.9	215.0
1946.....	13	13	..	1.4	1.7	1.0	45	29	16	4.8	4.0	8.1	752	328	424	80.9	44.8	223.7
1947.....	13	13	..	1.4	1.7	1.0	76	40	36	8.1	5.4	18.6	779	345	434	83.1	46.4	223.7
1948.....	3	2	1	0.3	0.3	0.5	123	90	33	12.8	11.7	17.0	781	378	403	81.1	49.2	207.7
1949.....	3	1	1	0.2	0.1	0.5	72	43	29	7.7	5.7	16.0	788	352	436	84.2	46.7	240.1
1950.....	3	1	1	0.3	0.3	0.6	80	48	32	9.2	6.9	19.0	780	334	446	91.2	47.9	271.4
1951.....	1	1	..	0.1	0.1	..	68	51	17	7.9	7.4	10.2	792	369	423	92.1	53.2	253.0
RECORDED	1	..	1	0.1	..	0.4	6	5	1	0.6	0.7	0.3	153	75	78	15.7	10.8	27.9
1952.....	1	..	1	0.1	..	0.4	5	2	3	0.5	0.3	0.1	146	73	73	15.1	10.4	27.5
1953.....	..	..	..	..	..	..	6	4	2	0.6	0.5	0.7	165	66	69	17.1	9.3	38.4
1954.....	..	..	..	..	..	..	32	23	9	3.3	3.3	3.7	247	124	123	25.6	17.3	49.7
1955.....	1	..	1	0.1	..	0.4	16	7	9	1.7	1.0	3.7	319	134	185	33.1	18.6	76.8
1956.....	3	1	2	0.3	0.1	0.9	13	9	4	1.4	1.2	1.7	365	158	207	38.2	21.9	88.7
1957.....	3	4	..	0.4	0.6	..	27	21	6	2.8	2.9	2.6	348	163	185	36.6	22.5	81.5
1958.....	2	..	2	0.2	..	0.9	16	9	7	1.7	1.2	3.2	351	168	183	37.1	23.1	83.3
1959.....	2	..	2	0.2	..	0.9	23	10	13	2.4	1.4	6.1	360	166	194	38.2	22.8	90.7
1960.....	6	5	1	0.6	0.7	0.5	37	19	18	3.9	2.6	8.6	457	197	255	48.2	27.0	122.5
1961.....	27	26	1	2.9	2.9	0.6	51	29	22	5.5	4.0	10.9	452	215	242	49.0	29.4	119.5
1962.....	25	22	3	2.7	3.0	1.5	52	35	17	5.6	4.8	8.6	483	211	272	51.9	28.8	137.9
1963.....	13	13	..	1.4	1.7	..	78	41	37	8.3	5.5	19.1	515	248	267	55.0	33.4	137.6
1964.....	7	6	1	0.7	0.8	0.5	128	95	33	13.3	12.4	17.0	510	262	248	53.0	34.1	127.8
1965.....	2	1	1	0.2	0.2	0.5	74	44	30	7.9	5.8	16.5	553	259	294	59.1	34.3	161.9
1966.....	3	3	..	0.6	0.4	1.2	85	51	34	9.8	7.3	20.2	532	232	300	61.4	33.2	178.6
1967.....	3	2	1	0.3	0.3	0.6	70	53	17	8.1	7.6	10.2	586	279	307	68.1	40.2	183.6



TABLE NO. 11—Continued

RESIDENT AND RECORDED DEATHS AND DEATH RATES PER 100,000 POPULATION FOR CERTAIN IMPORTANT CAUSES FOR TOTAL, WHITE AND COLORED POPULATIONS—1940-1956

YEAR	RESPIRATORY TUBERCULOSIS					CANCER, ALL FORMS					DISEASES OF THE HEART							
	NUMBER			RATE PER 100,000 POPULATION		NUMBER			RATE PER 100,000 POPULATION		NUMBER			RATE PER 100,000 POPULATION				
	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored			
RESIDENT																		
1956	179	91	88	18.4	13.1	31.4	1,835	1,437	399	183.5	207.1	132.5	4,736	3,728	1,008	486.2	537.2	390.0
1955	187	88	99	17.4	12.9	30.1	1,749	1,326	423	181.1	197.3	136.2	4,863	3,643	1,220	474.3	520.3	343.8
1954	188	87	101	17.4	12.7	27.6	1,708	1,296	412	176.8	188.7	134.2	4,292	3,073	1,219	441.2	474.7	349.2
1953	215	127	88	25.3	17.1	47.6	1,652	1,341	311	172.5	187.3	129.9	4,630	3,703	927	501.9	529.9	376.7
1952	393	167	226	40.5	23.0	63.8	1,725	1,392	333	172.0	183.0	135.2	4,850	3,623	1,227	479.0	502.4	418.0
1951	465	228	237	46.5	28.0	79.7	1,642	1,328	314	172.0	184.1	134.4	4,583	3,623	960	479.0	502.4	418.0
1950	497	220	277	52.0	30.5	102.0	1,622	1,311	311	172.0	184.1	134.4	4,583	3,623	960	479.0	502.4	418.0
1949	559	220	339	58.0	31.0	117.0	1,601	1,295	306	169.1	182.2	125.9	4,303	3,570	733	456.0	477.9	383.2
1948	616	270	346	63.5	37.0	161.7	1,463	1,227	236	158.1	168.5	110.3	4,082	3,549	533	426.7	468.3	368.1
1947	658	276	382	67.3	37.8	183.5	1,448	1,212	236	158.1	168.5	110.3	4,082	3,549	533	426.7	468.3	368.1
1946	687	290	397	71.6	38.8	181.2	1,448	1,212	236	158.1	168.5	110.3	4,082	3,549	533	426.7	468.3	368.1
1945	694	306	388	73.0	43.8	196.8	1,400	1,179	221	150.3	163.9	119.1	4,018	3,293	725	418.0	451.3	348.3
1944	716	326	390	76.0	43.9	201.0	1,380	1,158	222	144.7	158.6	112.1	3,959	3,263	696	422.0	451.3	348.3
1943	732	364	368	77.9	47.3	197.7	1,393	1,171	222	144.7	158.6	109.2	3,959	3,263	696	422.0	451.3	348.3
1942	728	333	395	76.9	44.1	217.5	1,257	1,071	186	131.2	147.0	102.4	3,877	3,183	694	414.2	421.8	382.7
1941	740	319	421	83.7	45.7	250.6	1,268	1,162	206	138.0	152.5	102.4	3,671	2,992	678	423.9	420.1	402.4
1940	746	335	391	86.7	51.2	233.9	1,294	1,081	213	150.3	153.9	127.4	3,632	2,982	650	422.1	430.1	388.8
RECORDED																		
1956	139	69	70	14.3	9.9	25.0	2,055	1,659	396	211.0	239.0	141.4	4,901	3,947	984	503.2	564.4	351.4
1955	134	67	67	13.9	9.6	25.0	2,004	1,643	361	207.5	234.5	136.0	4,716	3,818	868	483.2	540.3	341.9
1954	152	65	87	15.7	9.2	33.7	1,907	1,580	327	202.0	223.2	133.8	4,398	3,525	873	455.3	497.9	326.4
1953	221	111	110	23.0	15.5	44.4	1,807	1,579	328	197.9	220.6	132.4	4,809	3,907	902	499.1	545.8	364.2
1952	260	121	139	26.1	16.8	70.2	1,835	1,607	328	201.7	222.8	136.2	4,983	3,996	987	517.8	553.9	409.7
1951	327	141	186	31.2	19.5	79.7	1,888	1,555	333	197.7	215.6	142.7	4,723	3,778	949	494.9	523.4	406.6
1950	310	146	164	32.6	20.2	72.2	1,860	1,544	316	195.8	213.6	139.2	4,722	3,838	884	497.1	520.8	389.4
1949	310	147	163	32.7	20.2	74.2	1,818	1,537	281	192.0	211.3	127.9	4,432	3,614	828	469.1	496.9	376.0
1948	331	153	178	33.1	20.2	78.2	1,663	1,421	242	176.4	194.7	125.8	4,445	3,607	838	471.4	494.8	391.6
1947	412	180	232	43.0	24.7	83.2	1,653	1,421	232	176.4	194.7	125.8	4,148	3,425	723	442.2	469.3	347.3
1946	414	203	211	43.4	24.0	74.4	1,663	1,421	242	176.4	194.7	125.8	4,148	3,425	723	442.2	469.3	347.3
1945	424	183	241	45.6	25.0	102.2	1,590	1,362	228	176.4	185.9	115.6	3,885	3,218	667	416.4	440.5	329.4
1944	448	235	213	47.8	30.0	116.0	1,560	1,324	238	166.5	179.2	121.6	3,891	3,323	659	425.0	447.2	339.7
1943	459	247	212	47.7	31.5	111.9	1,586	1,378	208	164.7	178.2	107.2	4,302	3,323	659	425.0	447.2	339.7
1942	494	294	200	52.8	31.0	143.2	1,462	1,277	223	158.3	169.3	112.9	3,865	3,198	667	412.9	423.9	307.3
1941	476	216	260	50.0	30.9	154.8	1,593	1,370	205	169.3	169.3	132.7	3,692	3,024	668	426.3	433.2	387.6
1940	537	259	278	62.4	37.4	166.3	1,488	1,262	225	172.9	182.0	135.2	3,660	3,008	632	425.3	433.9	390.1

YEAR	MAJOR CARDIOVASCULAR-RENAL DISEASE										PNEUMONIA, ALL FORMS						DIABETES					
	NUMBER			RATE PER 100,000 POPULATION			NUMBER			RATE PER 100,000 POPULATION			NUMBER			RATE PER 100,000 POPULATION						
	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored	Total	White	Colored				
RESIDENT																						
1956	5,986	4,586	1,390	614.6	662.2	486.4	308	194	114	31.6	28.0	40.7	244	199	45	25.1	28.7	16.1				
1955	5,817	4,562	1,255	602.2	651.2	472.7	324	203	112	31.5	27.4	42.2	219	189	30	22.7	27.1	10.8				
1954	5,695	4,247	1,217	585.6	639.9	471.7	273	150	123	28.3	21.2	47.7	180	148	32	18.6	20.5	12.6				
1953	5,695	4,390	1,235	606.6	641.2	500.7	272	173	132	35.2	25.5	60.2	188	143	45	18.5	20.7	16.1				
1952	5,108	4,537	1,351	634.7	659.4	500.9	270	172	132	28.7	23.0	42.8	178	137	41	22.7	24.0	18.7				
1951	5,804	4,521	1,283	607.9	626.7	549.9	303	179	132	29.4	23.5	37.8	200	170	30	22.6	24.8	15.9				
1950	5,846	4,771	1,282	615.6	631.5	567.8	256	145	113	27.4	16.8	49.5	181	146	35	18.9	20.7	13.2				
1949	5,651	4,771	1,280	628.4	642.2	562.5	294	167	127	27.9	22.4	50.5	200	160	40	19.1	20.1	15.9				
1948	6,025	4,771	1,300	640.0	649.8	575.9	312	193	119	32.5	22.4	52.5	203	163	40	21.2	21.9	14.4				
1947	5,781	4,582	1,199	616.3	627.6	577.3	327	202	125	32.0	27.7	61.7	183	153	30	19.5	21.0	14.4				
1946	5,537	4,263	1,169	593.5	621.4	508.9	481	303	178	51.7	41.3	90.3	189	131	58	20.3	20.6	14.4				
1945	5,845	4,637	1,181	623.7	632.4	568.9	525	291	234	56.0	30.2	120.6	196	168	28	20.9	22.6	14.4				
1944	5,735	4,573	1,265	628.7	647.3	703.6	709	419	290	73.6	44.8	140.5	198	163	35	20.6	21.2	18.0				
1943	5,343	4,073	1,239	608.7	606.9	678.4	601	368	233	64.2	54.5	128.3	173	142	31	18.5	18.8	17.1				
1942	5,735	4,503	1,239	637.1	619.1	711.9	533	316	217	61.5	45.3	129.2	187	160	27	21.6	23.9	16.1				
1941	5,517	4,321	1,196	637.1	619.1	711.9	533	316	217	61.5	45.3	129.2	187	160	27	21.6	23.9	16.1				
1940	5,662	4,480	1,262	660.3	646.2	719.0	534	332	182	62.1	50.8	108.9	189	164	25	22.0	23.7	15.0				
RECORDED																						
1956	6,169	4,806	1,363	633.4	692.5	486.8	312	202	110	32.0	29.1	39.3	257	213	44	26.4	30.7	15.7				
1955	5,988	4,805	1,183	610.9	685.9	445.6	275	167	108	28.5	23.8	40.7	232	212	30	25.1	30.3	11.3				
1954	5,694	4,469	1,183	584.8	630.8	458.5	281	157	124	29.1	22.2	48.1	200	165	35	20.7	23.3	13.3				
1953	6,034	4,827	1,207	626.3	674.3	487.3	341	199	142	35.4	27.8	57.3	212	170	42	22.0	23.7	17.0				
1952	6,289	4,972	1,317	653.5	689.2	546.7	370	216	132	28.1	23.1	42.8	237	192	45	24.6	26.8	18.7				
1951	5,941	4,679	1,262	622.2	648.6	540.7	308	176	132	32.2	23.4	44.8	225	186	39	23.6	25.8	16.7				
1950	6,060	4,804	1,256	637.9	664.5	533.3	233	120	113	24.5	16.6	49.8	188	157	31	19.8	21.7	13.7				
1949	5,951	4,671	1,280	628.4	642.2	532.6	251	146	105	26.5	20.1	47.8	198	161	37	20.9	22.1	16.8				
1948	5,967	4,646	1,341	634.9	637.4	562.4	303	173	130	32.1	23.7	60.7	212	170	42	22.5	23.3	19.6				
1947	5,823	4,652	1,171	620.8	639.4	559.6	321	198	123	34.2	27.1	59.1	200	171	29	21.3	23.4	13.3				
1946	5,792	4,644	1,127	590.2	633.7	552.5	338	201	128	36.2	28.7	63.2	177	150	27	19.0	20.5	13.3				
1945	5,762	4,644	1,148	622.8	633.7	552.2	480	301	179	51.6	41.1	90.8	204	167	37	21.9	22.8	18.8				
1944	5,846	4,673	1,173	623.9	628.9	604.6	546	312	234	53.3	42.0	120.6	206	177	29	22.0	23.8	14.9				
1943	6,341	5,008	1,333	658.5	651.2	687.1	758	468	290	78.8	60.9	149.5	211	178	33	21.9	23.1	17.0				
1942	5,732	4,533	1,199	612.4	600.9	687.1	636	399	237	67.9	52.8	130.5	191	156	35	20.4	20.7	19.3				
1941	5,528	4,348	1,179	638.3	623.1	760.8	555	336	219	64.1	48.1	130.4	200	170	30	23.1	24.4	17.9				
1940	5,715	4,502	1,213	664.2	649.4	725.5	566	388	178	65.8	56.0	106.5	205	182	23	23.8	26.2	13.7				

TABLE NO. 12  
CASES OF DISEASES REPORTED CLASSIFIED ACCORDING TO SEX, COLOR AND AGE—1956

INTER- NATIONAL LIST NO.	DISEASE	TOTALS			AGE GROUPS																					
		Grand Total	By Color	By Sex	Under 1 Year	1 Year	2 Years	3 Years	4 Years	5-9 Years	10-14 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45-49 Years	50-54 Years	55-59 Years	60-64 Years	65-69 Years	70-74 Years	75-79 Years	80-84 Years	85 Yrs. and Over
001-019	Tuberculosis, all forms	1,171	W 567	M 419 F 148	1 1 1	2 1 2	2 1 2	3 1 3	5 3 2	6 2 9	8 3 16	13 6 16	21 10 16	31 14 19	38 14 14	37 19 14	36 16 14	50 16 16	39 16 7	53 16 5	48 7 4	33 5 4	21 5 4	11 1 1	3 2 2	1 1 2
001-008	Tuberculosis of the respiratory system	1,082	W 545	M 407 F 138	1 1 1	2 1 2	2 1 2	4 3 3	6 3 1	9 1 9	16 6 13	20 9 16	36 14 16	37 16 16	34 14 14	47 16 16	37 16 16	43 15 6	37 15 6	53 8 15	47 6 3	33 3 3	21 3 3	11 1 1	3 1 2	1 1 2
010-019	Tuberculosis, other forms	89	W 22	M 12 F 10	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	2 1 3	1 3 5	2 3 5	3 2 5	2 1 3	3 2 3	2 1 3	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2	1 1 2
020-029	Syphilis	1,354	W 152	M 102 F 50	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	2 1 2	5 2 6	7 2 6	9 5 4	2 9 5	3 5 4	9 12 11	12 11 11	11 11 11	6 3 3	6 3 3	3 1 1	6 3 1	6 3 1	3 1 1	1 1 1	1 1 1
020	Congenital syphilis	23	W 4	M 1 F 3	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1
021, 022	Primary and secondary syphilis	223	W 21	M 17 F 4	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1	1 1 1

[illegible]



[illegible]

TABLE NO. 12—Concluded  
CASES OF DISEASES REPORTED CLASSIFIED ACCORDING TO SEX, COLOR AND AGE—1958

[illegible]

TABLE NO. 13\*  
 REPORTED CASES AND CASE RATES PER 100,000 POPULATION FOR CERTAIN  
 COMMUNICABLE DISEASES ACCORDING TO COLOR—1934-1956

DISEASE	YEAR	REPORTED CASES			RATE PER 100,000 POPULATION		
		Total	White	Colored	Total	White	Colored
TYPHOID FEVER (not including paratyphoid fever)	1956.....	5	2	3	0.5	0.3	1.1
	1955.....	7	1	6	0.7	0.1	2.3
	1954.....	6	3	3	0.6	0.4	1.2
	1953.....	11	4	7	1.1	0.6	2.8
	1952.....	8	5	3	0.8	0.7	1.2
	1951.....	5	2	3	0.5	0.3	1.3
	1950.....	8	5	3	0.8	0.7	1.3
	1949.....	12	8	4	1.3	1.1	1.8
	1948.....	5	4	1	0.5	0.5	0.5
	1947.....	11	6	5	1.2	0.8	2.4
	1946.....	10	7	3	1.1	1.0	1.5
	1945.....	11	6	5	1.2	0.8	2.5
	1944.....	15	11	4	1.6	1.5	2.1
	1943.....	20	19	1	2.1	2.5	0.5
	1942.....	31	24	7	3.3	3.2	3.9
	1941.....	35	21	14	4.0	3.0	8.3
	1940.....	23	15	8	2.7	2.2	4.8
	1939.....	24	14	10	2.8	2.0	6.1
	1938.....	51	35	16	6.0	5.1	9.9
	1937.....	68	40	28	8.1	5.8	17.5
	1936.....	49	32	17	5.8	4.7	10.8
	1935.....	69	58	11	8.3	8.6	7.1
	1934.....	81	58	23	9.8	8.6	15.1
MEASLES	1956.....	4,943	3,132	1,811	507.5	451.3	646.8
	1955.....	925	500	425	95.8	71.4	160.1
	1954.....	5,764	4,831	933	596.7	682.3	361.6
	1953.....	1,064	567	497	110.4	79.2	200.6
	1952.....	5,126	4,692	434	532.7	650.4	180.2
	1951.....	4,376	2,505	1,871	458.3	347.2	801.6
	1950.....	357	287	70	37.6	39.7	30.8
	1949.....	11,031	10,111	920	1,164.8	1,390.2	418.8
	1948.....	8,943	7,526	1,417	948.4	1,032.4	662.1
	1947.....	274	167	107	29.2	22.9	51.4
	1946.....	8,136	6,511	1,625	872.0	891.3	802.5
	1945.....	206	178	28	22.2	24.3	14.2
	1944.....	10,324	9,050	1,274	1,101.8	1,218.0	656.7
	1943.....	2,213	2,101	112	229.8	273.2	57.7
	1942.....	6,445	6,155	290	688.6	815.9	159.7
	1941.....	4,458	3,572	886	514.8	511.7	527.4
	1940.....	88	78	12	10.2	11.0	7.2
	1939.....	11,833	10,663	1,170	1,363.9	1,544.7	710.3
	1938.....	1,119	861	258	131.7	125.3	159.0
	1937.....	9,227	8,140	1,087	1,093.0	1,189.4	680.1
	1936.....	4,361	4,050	311	519.9	594.4	197.6
	1935.....	533	453	80	64.0	66.8	51.6
	1934.....	18,612	16,307	2,305	2,248.0	2,414.8	1,510.2

\* For a more complete record see Table No. 1 Bureau of Communicable Diseases.



TABLE NO. 13.—Continued  
 REPORTED CASES AND CASE RATES PER 100,000 POPULATION FOR CERTAIN  
 COMMUNICABLE DISEASES ACCORDING TO COLOR—1934-1956

DISEASE	YEAR	REPORTED CASES			RATE PER 100,000 POPULATION		
		Total	White	Colored	Total	White	Colored
SCARLET FEVER	1956.....	318	236	82	32.6	34.0	29.3
	1955.....	310	263	47	32.1	37.5	17.7
	1954.....	462	415	47	47.8	58.6	18.2
	1953.....	1,387	1,317	70	144.0	184.0	28.3
	1952.....	472	397	75	49.0	55.0	31.1
	1951.....	302	248	54	31.6	34.4	23.1
	1950.....	303	269	34	31.9	37.2	15.0
	1949.....	466	426	40	49.2	58.6	18.2
	1948.....	341	285	56	36.2	39.1	26.2
	1947.....	446	384	62	47.5	52.6	29.8
	1946.....	806	733	73	86.4	100.3	36.0
	1945.....	2,202	2,068	134	236.8	282.2	68.0
	1944.....	2,297	2,182	115	245.1	293.7	59.3
	1943.....	1,432	1,360	72	148.7	176.9	37.1
	1942.....	826	724	102	88.2	96.0	56.2
	1941.....	857	689	168	99.0	98.7	100.0
	1940.....	571	459	112	66.4	66.2	67.0
	1939.....	598	477	121	69.9	69.1	73.5
	1938.....	1,092	954	138	128.5	138.8	85.0
	1937.....	810	737	73	96.0	107.7	45.7
	1936.....	1,046	979	67	124.7	143.7	42.6
	1935.....	1,699	1,595	104	203.9	235.1	67.1
	1934.....	1,358	1,258	100	164.0	186.3	65.5
WHOPPING COUGH	1956.....	90	24	66	9.2	3.5	23.6
	1955.....	140	57	83	14.5	8.1	31.3
	1954.....	513	236	277	53.1	33.3	107.4
	1953.....	290	187	103	30.1	26.1	41.6
	1952.....	113	85	28	11.7	11.8	11.6
	1951.....	227	121	106	23.8	16.8	45.4
	1950.....	1,425	660	765	150.0	91.3	337.0
	1949.....	945	843	102	99.8	115.9	46.4
	1948.....	604	317	287	64.1	43.5	134.1
	1947.....	3,247	2,126	1,121	346.2	291.3	538.4
	1946.....	1,004	759	245	107.6	103.9	121.0
	1945.....	2,172	1,313	859	233.5	179.2	435.6
	1944.....	2,349	1,423	926	250.7	191.5	477.3
	1943.....	3,400	2,414	986	353.1	313.9	508.2
	1942.....	2,174	1,504	670	232.3	199.4	368.9
	1941.....	2,560	1,672	888	295.6	239.5	528.6
	1940.....	5,258	4,124	1,134	611.1	594.9	678.3
	1939.....	1,575	1,136	439	184.2	164.6	266.5
	1938.....	1,848	897	651	182.2	130.5	401.2
	1937.....	3,661	3,184	477	433.7	465.3	298.4
	1936.....	3,570	2,443	1,127	425.6	358.5	716.0
	1935.....	1,100	998	102	132.0	147.1	65.8
	1934.....	4,566	4,035	531	551.5	597.5	347.9

TABLE NO. 13—Concluded  
 REPORTED CASES AND CASE RATES PER 100,000 POPULATION FOR CERTAIN  
 COMMUNICABLE DISEASES ACCORDING TO COLOR—1934-1956

DISEASE	YEAR	REPORTED CASES			RATE PER 100,000 POPULATION		
		Total	White	Colored	Total	White	Colored
DIPHTHERIA	1956.....	1	1	..	0.1	0.1	..
	1955.....	2	1	1	0.2	0.1	0.4
	1954.....	3	3	..	0.3	0.4	..
	1953.....	6	2	4	0.6	0.3	1.6
	1952.....	6	5	1	0.6	0.7	0.4
	1951.....	8	7	1	0.8	1.0	0.4
	1950.....	60	50	10	6.3	6.9	4.4
	1949.....	46	24	22	4.9	3.3	10.0
	1948.....	46	36	10	4.9	4.9	4.7
	1947.....	142	108	34	15.1	14.8	16.3
	1946.....	424	385	39	45.4	52.7	19.3
	1945.....	353	310	43	38.0	42.3	21.8
	1944.....	228	188	38	24.1	25.3	19.6
	1943.....	106	90	16	11.0	11.7	8.2
	1942.....	74	62	12	7.9	8.2	6.6
	1941.....	47	36	11	5.4	5.2	6.5
	1940.....	49	37	12	5.7	5.3	7.2
	1939.....	67	61	6	7.8	8.8	3.6
	1938.....	125	103	22	14.7	15.0	13.6
	1937.....	257	198	59	30.4	28.9	36.9
	1936.....	146	118	28	17.4	17.3	17.8
	1935.....	119	100	19	14.3	14.7	12.3
	1934.....	108	91	17	13.0	13.5	11.1
TUBERCULOSIS OF THE RESPIRATORY SYSTEM	1956.....	1,082	545	537	111.1	78.5	191.8
	1955.....	1,115	586	529	115.4	83.7	199.2
	1954.....	1,288	660	628	133.3	93.2	243.4
	1953.....	1,263	645	618	131.1	90.1	249.5
	1952.....	1,400	710	690	145.5	98.4	286.4
	1951.....	1,285	648	637	134.6	89.8	272.9
	1950.....	1,275	667	608	134.2	92.3	267.8
	1949.....	1,434	780	654	151.4	107.2	297.7
	1948.....	1,540	885	655	163.3	121.4	306.1
	1947.....	1,491	844	647	159.0	115.6	310.8
	1946.....	1,468	867	601	157.3	118.7	296.8
	1945.....	1,872	1,216	656	201.3	165.9	332.7
	1944.....	1,870	1,076	794	199.6	144.8	409.3
	1943.....	1,901	1,043	858	197.4	135.6	442.3
	1942.....	1,631	865	766	174.3	114.7	421.8
	1941.....	1,842	885	957	212.7	126.8	569.6
	1940.....	1,474	755	719	171.3	108.9	430.0
	1939.....	1,430	678	752	167.2	98.2	456.5
	1938.....	1,613	875	738	189.9	127.3	454.8
	1937.....	1,755	1,012	743	207.9	147.9	464.9
	1936.....	1,497	862	635	178.5	126.5	403.4
	1935.....	1,708	982	726	205.0	144.8	468.4
	1934.....	1,372	811	561	165.7	120.1	367.6

## APPENDIX

### AIR POLLUTION CONTROL ORDINANCE

#### City Ordinance No. 358

An ordinance to add Sections 7A, 7B, 7C, 7D, 7E, 7F, 7G, 7H, 7-I and 7-J to Article 12 of The Baltimore City Code (1950 Edition), title "Health", to follow immediately after Section 7 thereof and to be under the new sub-title "Air Pollution", regulating, controlling and prohibiting the pollution of the air, within the City of Baltimore; providing for the administration and enforcement of this ordinance by the Commissioner of Health of Baltimore City, empowering the Commissioner of Health to make and adopt rules and regulations; providing for hearings; providing for appeals to the Baltimore City Court, and to the Court of Appeals of Maryland; and providing a penalty for violation of this ordinance.

WHEREAS, the Mayor and City Council of Baltimore is empowered to provide by ordinance for the preservation of the health and welfare of persons within the City and to prevent and remove nuisances; and

WHEREAS, during recent years, incidents of emission of substances into the atmosphere of the City of Baltimore have occurred causing the air to be polluted with noxious acids, fumes, gases, vapors, odors and other substances, to the extent that the public health, safety, comfort and welfare is endangered; and

WHEREAS, expansion of commercial, industrial and other activities tending to pollute the atmosphere is in progress and is likely to increase; and

WHEREAS, the Mayor and City Council of Baltimore has heretofore, under the Smoke Control Ordinance (Sec. 159 to 174 of Article 12 of 1950 Baltimore City Code), provided for the regulation, control and prohibition of air pollution due to the emission and escape into the open air of smoke, ashes, cinders, dust, soot and fly ash; and

WHEREAS, the Mayor and City Council of Baltimore, in the interest of public health, safety, comfort and welfare, now desires to regulate, control and prohibit the pollution of the air due to noxious acids, fumes, gases, vapors, odors and other substances not within the scope of the above-mentioned Smoke Control Ordinance; now, therefore

SECTION 1. *Be it ordained by the Mayor and City Council of Baltimore*, That Sections 7A, 7B, 7C, 7D, 7E, 7F, 7G, 7H, 7-I and 7-J be and the same are hereby added to Article 12 of the Baltimore City Code (1950 Edition) title "Health", said sections to follow immediately after Section 7 thereof, to be under the new sub-title "Air Pollution", and to read as follows:

#### AIR POLLUTION

7A. No person, firm, corporation or agency operating or using, or intending to operate or use, any equipment, process, structure or space, indoors or outdoors, static or mobile, shall allow such equipment, process, structure or space, to emit any noxious acid, gas, vapor, odor or any other substance, not within the scope of Sections 159 to 174 of Article 12 of this Code, known as the Smoke Control Law, in such manner as to be dangerous or detrimental to the health or safety of the public or to interfere unreasonably with the comfort of the public.

7B. The Commissioner of Health is hereby authorized and empowered to conduct, or cause to be conducted, such surveys, investigations, studies, or like activities as he may deem necessary to establish practical limits of air pollution in the city of Baltimore.

7C. Any person desiring to construct, alter, install, or relocate any equipment, process, structure or space, or to change any process involving such equipment, structure or space, where there is reasonable ground to believe that there may result a condition of air pollution dangerous or detrimental to the health or safety of the public or which may interfere unreasonably with the comfort of the public, shall make a written application to the Commissioner of Health for a City Health Department survey of the proposed construction, operation or process. Such application shall be made on a printed form to be furnished by the Commissioner of Health upon demand, and the applicant, if an individual, shall state therein his full name and address, and if a corporation, shall state therein the name and address of such corporation, and the full name and address of its principal officers. Such application shall be accompanied by any data needed by the Commissioner of Health to determine the composition of the final emission. Data required may include a materials flow chart, a list of raw materials used, rates of flow of gases and other materials, measures to control air pollution, and such other information as may assist in evaluating the control measures proposed. If information considered confidential by the applicant is required by the Commissioner of Health, it may be presented orally by a qualified person and shall be treated as confidential. No person shall proceed with the above-mentioned construction, operation or process until the satisfactory completion of the City Health Department survey within thirty days after receipt by the Commissioner of Health of information reasonably needed for completion of the survey and written permission for such construction, operation or process has been given by the Com-

missioner of Health; provided, however, that whenever, in the opinion of the Commissioner of Health, such permission should not be given, written notice of such intention shall be given to the applicant at or before the expiration of the 30-day period above mentioned, and the applicant shall be given an opportunity to be heard by the Commissioner of Health as to why permission should be granted. If the Commissioner of Health fails to grant or deny the written permission within 30 days of receipt of application and such additional data as he may reasonably require, the applicant may proceed with the proposed construction, operation or process. Any denial shall be accompanied by a written statement setting forth the reasons therefor.

7D. Whenever, in the conduct of surveys, investigations, studies, or like activities, or on complaint of a citizen, or otherwise, any equipment, process, structure, space, or material is found by the Commissioner of Health to emit substances which, in his opinion, are dangerous or detrimental to the health or safety of the public, or which may interfere unreasonably with the comfort of the public, the Commissioner of Health may notify the owners or operators of such equipment, process, structure, space, or material, to remove or control the cause of such emission within the time and in a manner that will accomplish such results as may be prescribed in such notice. Any owner or operator who shall neglect or refuse to comply with the terms and conditions of such notice shall be guilty of a misdemeanor, and shall be subject to a fine not exceeding One Hundred Dollars (\$100.00) and each day's violation shall constitute a separate offense.

7E. The Commissioner of Health is hereby authorized and empowered to make and adopt such rules and regulations as he may deem proper and necessary for the enforcement of this ordinance for the better protection of the health of the City.

7F. For the purpose of the proper administration of this ordinance, the Commissioner of Health shall have the benefit of an "Air Pollution Reference Committee", consisting of four persons, experienced in or familiar with the problems of air pollution control, appointed from time to time by the Commissioner of Health, one each to be nominated by the President of the University of Maryland, the President of the Johns Hopkins University, the President of Loyola College in Baltimore City, and the Chairman of the Engineers Joint Council of Maryland.

7G. At any time when any person, firm, corporation or agency may wish to appeal the order or decision of the Commissioner of Health under this ordinance, such person, firm, corporation or agency may request the "Air Pollution Reference Committee" to review the facts of the case, and upon such request, the Commissioner of Health shall obtain the advice of such committee, which advice shall be considered by but not binding upon the Commissioner of Health.

7H. No prosecution of any person, firm, corporation or agency, on a charge of violating this ordinance or any rule or regulation, notice or order promulgated thereunder, shall be had or maintained unless, at the initial stage thereunder, such prosecution shall have been authorized and directed by the written order of the Commissioner of Health, such written order to be filed with the paper in the proceeding. Any person, firm, corporation or agency aggrieved by any decision or rule or regulation of the Commissioner of Health under this ordinance shall have the right of appeal to the Baltimore City Court where the case shall be heard *de novo*.

7I. If any person, firm, corporation or agency, or the Commissioner of Health, is dissatisfied with the determination of the Baltimore City Court, he, they, or either of them, within thirty days from the final order of the Baltimore City Court, may appeal to the Court of Appeals of Maryland.

7J. Any person, firm, corporation, or agency failing to comply with the provisions of this ordinance or the regulations promulgated thereunder shall be guilty of a misdemeanor and shall be subject to a fine not exceeding One Hundred Dollars (\$100.00) and each day's violation shall constitute a separate offense.

SEC. 2. *And be it further ordained*, That this ordinance shall take effect from the date of its passage.  
Approved, April 9, 1956

THOMAS D'ALESSANDRO, JR.  
Mayor of Baltimore City

## AN ORDINANCE TO TRANSFER THE HOUSING BUREAU

### City Ordinance No. 693\*

An ordinance repealing Sections 77-A to 77-C, inclusive, of Article 12 of the Baltimore City Code (1950 Edition), title "Health", sub-title "Housing Bureau", as amended, and adding Section 9-M to Article 14 of the Baltimore Code (1950 Edition), title "Housing", sub-title "Urban Renewal"; providing that the Housing Bureau of the Health Department shall be dissolved, that the Baltimore Urban Renewal and Housing Agency shall administer and enforce in Renewal Areas, on behalf of the Commissioner of Health, Sections 112 to 119, inclusive, of Article 12 of the Baltimore City Code (1950 Edition), that any and all unexpended appropriations or funds made to or for the account of the Housing Bureau, and all employees thereof, shall be transferred to the Baltimore Urban Renewal and Housing Agency, that this ordinance shall become effective thirty (30) days after passage, and generally amending the laws of the City relating to housing law enforcement.

WHEREAS, The report of the Baltimore Urban Renewal Study Board to Mayor Thomas D'Alessandro, Jr., recommended that the housing inspection and enforcement functions of the Housing Bureau, as they relate to renewal areas, be transferred to the Baltimore Urban Renewal and Housing Agency, and

\* See also Ordinance No. 692, Approved December 31, 1956, which creates the Baltimore Urban Renewal and Housing Agency, abolishes the Baltimore Redevelopment Commission and transfers to the new Agency the work of the Redevelopment Commission.

WHEREAS, Under Section 9-F (s) of the "Urban Renewal" ordinance, the Baltimore Urban Renewal and Housing Agency is empowered upon agreement with any other officer, department, bureau, or agency of the City to act as the agent of and perform services for such other officer, department, bureau, or agency of the City in connection with housing law enforcement or in connection with any activities related to a Renewal Project or a Renewal Plan, and

WHEREAS, The Commissioner of Health of Baltimore City, prior to the adoption of this ordinance, has recommended that the Baltimore Urban Renewal and Housing Agency act as his agent and in his behalf in connection with housing law enforcement in Renewal Areas; now, therefore,

SECTION 1. *Be it ordained by the Mayor and City Council of Baltimore*, That Sections 77-A to 77-C inclusive, of Article 12 of the Baltimore City Code (1950 Edition), title "Health", sub-title "Housing Bureau", as amended by Ordinance No. 1412 of the Mayor and City Council of Baltimore, approved April 14, 1955, are hereby repealed, and the Housing Bureau established thereunder is hereby dissolved.

SEC. 2. *And be it further ordained*, That Section 9-M be and the same is hereby added to Article 14 of the Baltimore City Code (1950 Edition), title "Housing", sub-title "Urban Renewal", said section to follow immediately after Section 9-L thereof, and to read as follows:

"SEC. 9-M. (a) The Baltimore Urban Renewal and Housing Agency shall administer and enforce in Renewal Areas, on behalf of the Commissioner of Health, the City Housing Code, as enacted by Sections 112 to 119 inclusive of Article 12 of the Baltimore City Code (1950 Edition) including all amendments thereto and regulations promulgated by the Commissioner of Health thereunder. In Renewal Areas, the Baltimore Urban Renewal and Housing Agency is charged with the duty of (i) receiving, handling, or referring all complaints under the above-mentioned sections of the Baltimore City Code, any amendment thereto, or any regulation promulgated by the Commissioner of Health pursuant thereto, or any other regulatory controls, and (ii) initiating procedures for preventing the development of substandard housing and residential blight and deterioration through strict enforcement of said sections of the Code, any amendments thereto, any regulations promulgated by the Commissioner of Health pursuant thereto, or any other regulatory controls.

"(b) The Baltimore Urban Renewal and Housing Agency is hereby fully authorized, empowered, and directed, in the place and stead of the Housing Bureau of the Baltimore City Health Department to exercise and perform all the powers and discretions that have heretofore been vested in the Housing Bureau under the terms and provisions of any and all contracts, agreements, or other legal instruments, which heretofore may have been entered into by the Mayor and City Council of Baltimore.

"(c) Nothing contained in this ordinance shall be taken or construed directly or indirectly to repeal, amend, alter, modify, or affect in any manner or to any extent, except in the manner and to the extent specifically and definitely set forth in this ordinance, any of the inspection and enforcement functions of the Baltimore City Health Department on a city-wide basis, exclusive of Renewal Areas, either in response to individual complaints or as an initiated activity of the Department in cases of health hazards".

SEC. 3. *And be it further ordained*, (a) That any and all unexpended appropriations or other funds available to, or for the account of, the Housing Bureau, are hereby transferred to, or for the account of, the Baltimore Urban Renewal and Housing Agency, and said appropriations or funds shall be used for, or in connection with, the housing inspection and enforcement functions of the Baltimore Urban Renewal and Housing Agency in the manner and to the extent authorized by law.

(b) All of the present employees of the Housing Bureau of the Health Department of Baltimore City be and they are hereby transferred to the Baltimore Urban Renewal and Housing Agency as employees thereof.

(c) The City Service Commission is hereby authorized and directed to classify all positions transferred as aforesaid from the Housing Bureau to the Baltimore Urban Renewal and Housing Agency and all employees so transferred shall be included in the new classification of their respective positions without examination and without any reduction in pay. No such transfer shall constitute an interruption in the service record of any employee for the purposes of the pension system and seniority.

SEC. 4. *And be it further ordained*, That this ordinance shall take effect thirty (30) days after the date of its passage.

Approved, December 31, 1956

THOMAS D'ALESSANDRO, JR.  
Mayor of Baltimore City

## REGULATION TO CONTROL TUBERCULOSIS

Pursuant to the power conferred upon the Commissioner of Health by Section 217 of Article 12 of the Baltimore City Code of 1950, the following regulation for the control of tuberculosis in Baltimore City is hereby adopted:

**Regulation 3. Control of tuberculosis.** Any person having tuberculosis dangerous to the public health and in a communicable or potentially communicable stage, shall forthwith upon receipt of notice to that effect from the Commissioner of Health place himself or herself under the care of a licensed physician for prompt and adequate treatment in a hospital or at home, and in writing advise the Commissioner of Health the name

of such physician, and shall continue to receive such medical care until the physician giving the treatment shall certify to the Commissioner of Health that such person is no longer dangerous to the public health; or such person shall be quarantined and isolated in a tuberculosis ward or a tuberculosis hospital and shall remain in such isolation until discharged by the hospital authorities with the approval of the Commissioner of Health.

Date adopted: August 8, 1956.

Date effective: August 8, 1956.

*Huntington Williams, M.D.*

*Commissioner of Health*

### SKIM MILK REGULATION

Pursuant to the power conferred upon the Commissioner of Health by Section 18 of Article 12 of the Baltimore City Code of 1950, the following regulation governing the handling of milk and milk products for consumption in Baltimore City is hereby adopted:

**Regulation 62 D. Skim milk.** Skim milk is milk from which a sufficient portion of milk fat has been removed to reduce its milk fat content to less than 3½ per cent.

Skim milk shall not be used in the preparation of milk shakes.

Any milk sold under the designation "Skim Milk Pasteurized" which has been altered by the addition, alone or in combination, of vitamin D to a potency of not less than 400 U.S.P. units per quart or vitamin A to a potency of not less than 2000 U.S.P. units per quart; or by the addition of non-fat milk solids, shall have each such alteration declared on the label.

Samples of such skim milk shall be submitted to such laboratory as may be designated for the purpose by the Commissioner of Health for tests and assays for the amount and potency of the vitamins at such times as the Commissioner of Health may deem necessary. Payment for such tests or assays shall be made by the processors directly to the laboratory which shall report the results of the tests or assays directly to the Commissioner of Health.

Date adopted: August 10, 1956.

Date effective: August 10, 1956.

*Huntington Williams, M.D.*

*Commissioner of Health*

### AMENDED REGULATION TO CONTROL VENEREAL DISEASES

Pursuant to the power conferred upon the Commissioner of Health by Section 217 of Article 12 of the Baltimore City Code of 1950, the following regulation, deemed proper and necessary by the Commissioner of Health for the better protection of the health of the City, has been adopted:

**Regulation 1. Control of persons having or suspected of having a communicable venereal disease.** Any person having or suspected of having syphilis or gonorrhea, or any other communicable venereal disease dangerous to the public health and in a communicable or potentially communicable stage, shall forthwith, upon receipt of notice to that effect from the Commissioner of Health, place himself or herself under the care of a licensed physician for prompt and adequate diagnosis and treatment, and forthwith in writing advise the Commissioner of Health the name of such physician, and shall continue to receive such medical care until such physician shall certify to the Commissioner of Health that such person is not in an infectious condition; or such person shall be quarantined and isolated in the Venereal Disease Division at the Baltimore City Hospitals, and shall remain in such isolation until discharged by said hospital authorities in a noninfectious condition.

Date adopted: August 24, 1945 and December 3, 1946.

Date amended: December 17, 1956.

Date effective: December 17, 1956.

*Huntington Williams, M.D.*

*Commissioner of Health*

# PUBLIC HEALTH PRACTICE: AN OUNCE OF PREVENTION IS WORTH A POUND OF CURE\*

by

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## I—INTRODUCTION

The authors welcome the opportunity of appearing jointly, for they have had the unusual Anglo-American opportunity of serving in the same department of health. To their mutual pleasure, the partnership of 1952 is being resumed in this presentation.

British and American public health practice has a multitude of differences, particularly in the administrative structure of central and local government, but mutual studies over three decades have shown that the problems faced are basically identical. The American author of this paper wishes particularly to say that much help has come to Baltimore City and to many American health jurisdictions from Sir Allen Daley and a host of other great British leaders including Sir Arthur Newsholme, our teacher at the Johns Hopkins School of Hygiene and Public Health, Sir George Newman, Sir Wilson Jameson (once entitled in a *Lancet* editorial "*Protomedicus Anglorum*"), Professor James Mackintosh, Professor Robert H. Parry, Professor W. M. Frazer, Dr. William Pickles of Aysgarth in Yorkshire, to mention but a few. They have given American public health workers great aid in the science, the philosophy and the fine art of public health administration, a large debt that can never be adequately repaid. In this they are the worthy successors of Jenner, Chadwick, Farr and Simon.

In reply, the British author is equally anxious to mention that it is the ambition of every public health worker in this country to visit the United States and learn at first hand how our American cousins tackle the problems which are common to both countries. For those who have not had that privilege, the visits of distinguished Americans to the Health Congress are an excellent substitute.

We remember the pioneer work of Lemuel Shattuck, Major Walter Reed, General Gorgas, Dr. Hermann Biggs, Dr. William H. Welch, Dr. Frost and Dr. Rosenau. We recall the magnificent work of the Rockefeller Foundation with its motto, *The Wellbeing of Mankind throughout the World*, and thank it for its many munificent benefactions to this country and for enabling so many Britishers to study the health services of North America. We thank the hosts of Americans, including the American co-author, for the warm welcome, the boundless hospitality and the unstinting way in which they give their time to visiting Britishers.

## II—DIFFERENCES BETWEEN BRITISH AND AMERICAN PUBLIC HEALTH PRACTICE

It is not our intention in writing this paper to look at the practice of public health in Britain and in America through a microscope, but rather to take at first a telescopic view of the two scenes and then pick out a few points for closer examination. Looking thus across the broad Atlantic, we see many similarities in outlook and in the public conscience, but there are some fundamental differences in the political structure.

To take the similarities first. Both countries are real democracies and the voice of the people as expressed by the secret ballot box is paramount. Criticism of public authorities and all their work is, moreover, in both countries unbridled and unrestrained. This is associated with the fact that the people of both countries are keenly interested in health problems and in the health and welfare of their own communities. In America the newspaper and magazine space devoted to health is greater even than in Britain. In America there are wealthy and well-managed voluntary organizations engaged in various fields of health work such as tuberculosis, mental health and poliomyelitis. They exist in Britain, too, where they are just as keen, but they have less money.

With regard to the contrasts between the two countries, few Britishers realize that each of the 48 states in America has its own legislative assembly and that the Federal Government in Washington has only limited

\* Paper presented on April 24, 1956 at the 63rd Congress of the Royal Society of Health held at Blackpool, England; and published with the approval of the Royal Society of Health.

power under the Constitution to interfere in the domestic affairs of the individual states. The Federal Government is responsible for: foreign affairs and outside relationships, including the administration of the quarantine laws; defence and schemes for the welfare of ex-service men and women, including the provision of the large veterans' hospital service; and inter-state relationships, which include the supervision of the manufacture of food products or drugs in one state for sale in another. Further, the Federal Government maintains national medical research establishments, and offers financial aid to states for building hospitals and developing public health facilities. These are generally on a matching or 50:50 basis.

The states, largely independent as just mentioned, vary greatly in size. The population of the smallest, Nevada, is only 130,083. There are 14 others with populations under 1,000,000. It is as if the larger counties in Britain had their own Parliament, made their own laws, raised their revenue by a local income tax, a sales tax and other methods, and suffered no direction from Whitehall about what they should or should not do. This explains the disparities in the range of activity in the different states and cities in the United States.

Another difference which must be pointed out is that the governor of a state or the mayor of a city, both of whom are usually elected for four-year terms of office by popular franchise, has personal responsibility for the good government of the state or city. It is he who appoints the chief officers who are responsible to him and not, as in Britain, to a council or committee.

Again, the state or city commissioner of health or health officer has much greater powers than the British medical officer of health and, subject only to the governor or mayor, he or his board of health can often make sanitary regulations which correspond to our byelaws and prosecute in the courts for failure to comply. In some American states and cities a new health commissioner appears every time the governor or mayor retires or is defeated at the polls. This system has its inconveniences, especially for the displaced officer, but we have heard of British committeemen, tired of their existing officer, who think that there is much to be said for it.

The above will serve to explain why there is in the United States no common pattern in the work of public health departments, no pattern which can be compared with the relatively uniform system of administration of the public health services in Britain. This lack of uniformity gives more freedom for development and experiment than in Britain, where public expenditure by local authorities is closely controlled by Parliament and the district auditors. In America new projects can be, and usually are, approved on a local basis. On the other hand, there is nothing in the United States, except the pressure of public opinion, which can require any state to adopt even a minimal health programme. Capital expenditure there is obtained by the issue of "bonds," authority for which is sought by state legislative action, subject to approval by a vote of the citizens.

There is nothing in the United States which corresponds to our all-purpose county boroughs. There is some analogy between (i) a state and the cities and counties into which it is divided and (ii) a British county and its sanitary districts. There is the same argument about what should be the direct responsibility of the state and what that of the county as there is in Britain between the counties and the sanitary districts. The states delegate more to the cities than to the smaller communities, but every state has a health department, some very large, carrying out important executive work.

### III—THE SCOPE AND DUTIES OF HEALTH OFFICERS

Both in Britain and in the United States the views of health officers as to the scope of their duties vary. Some are all for expansion and will willingly take on anything the administration of which has the remotest connection with the health service. Others prefer to concentrate on the strictly limited field of preventive medicine. There is a real difference of opinion on the matter of the part which health departments should play in the control of hospitals. Dr. Joseph Molner, Health Commissioner of Detroit, whom we welcome at this congress, is a strong advocate of the public hospitals being administered by the health department. In his city they were entrusted to him a few years ago after a poll of the citizens had been taken following dissatisfaction with the previous administration. In the very large city of New York the health and hospital departments are separate. In Britain most medical officers of health regret that the hospitals, as a result of nationalization, were removed from the control of local authorities. We will revert later to the subject of hospital control.

For the Britisher who wishes to understand public health practice in the United States, it is essential to know that there is nothing in that country which corresponds even remotely to the British National Health Service providing free medical treatment irrespective of income and which nationalized the hospitals. Neither is there, in most states, even the wide range of treatment for the destitute provided under the former British Poor Law Acts. The private practice of medicine is strongly entrenched in the United States. Though voluntary hospitals are nervous about their financial future, they are pushing contributory schemes and voluntary insurance with such success that their continuance for at least a considerable span of years seems assured. There would be immense opposition, not confined to doctors, to any proposal on the lines of the British National Health Service.

The British author was struck by the cordial relationships which exist in the United States between the health departments and the powerful state and city medical societies. It may be of interest to point out that in that country doctors are not paid for notifying or reporting cases of infectious or communicable disease; it is a legal duty for them to do so.



## IV—PUBLIC HEALTH PRACTICE: AIMS AND OBJECTIVES

These observations on the general pattern having been made, we may now proceed to discuss what are the general aims and objectives of public health practice.

After 43 and 35 years respectively of the rough and tumble of public health practice in two countries, there are certain basic philosophies which emerge. There are two which are sound, although, unfortunately, hard to learn, and even harder to remember. *First*, it is not of the highest importance that my view, or yours in opposition to it, should prevail, but rather let us discuss and try to agree and then act on what is really best for the people whom we serve, and who after all pay the bills. And *second*, "the other fellow may be right." In endeavouring from time to time to follow these basic philosophies it must be admitted that one prays that one's opponent may do likewise, and it is sometimes necessary to tell him so.

Whatever our philosophy, all, we think, would agree with our subtitle, "An ounce of prevention is worth a pound of cure." There is no one present who is not concerned with this matter, which affects not only medical officers of health but every citizen of both our countries. The British health man who has put the thought best in the fewest words is Professor James M. Mackintosh who in his recent Heath Clark Lectures on *Trends of Opinion about the Public Health: 1901-51* sounded this warning:

"One broad feature which forms a background to the whole fifty years may be mentioned at this point: everyone says that prevention is better than cure, and hardly anyone acts as if he believes it, whether he is attached to Parliament, central or local government, or the commonalty of citizens. Palliatives nearly always take precedence over prevention, and our health services to-day are too heavily loaded with salvage. Treatment—the attempt to heal the sick—is more tangible, more exciting, and more immediately rewarding, than prevention."

Professor Mackintosh is a very cherished friend in Baltimore and his guidance has been followed there for many years by public health administrators and students alike. The quotation just given was made a part of the conclusion of the Annual Report of the Commissioner of Health of Baltimore City for the year 1953 with mention that "if the Health Department does not pay prime attention to prevention and avoid spending too much of its energy on administering curative medical services, no other agency in government will cultivate the great untilled fields of preventive medicine," and the question was raised "will we heed Professor Mackintosh's warning?"

What are some of the important untilled or partially tilled preventive fields in public health administration? Here, for clear thinking, we must follow the latest subdivisions which separate primary prevention, such as the vaccination of a healthy child to prevent smallpox or the toxoid inoculation of such a child to prevent diphtheria, from what now is referred to as secondary prevention, where the cure of some medical or other condition in the early stage prevents the development perhaps of some later difficulty, such as careful orthopaedic treatment after acute poliomyelitis for the prevention of crippling contractures.

Everyone will admit that the boundary line between prevention and cure is an impossible one to draw, but the medical officer of health is always drawing boundary lines by administrative fiat because he must. So, the care, isolation and treatment of acute communicable diseases has always until recently been considered a legitimate health department function in order to prevent the spread of such diseases. Yet even here in some communities the public fever hospital service may now be found to be a part of the administrative responsibility of some branch of local or central government other than the health department. The same is often true for tuberculosis hospital services in some parts of America and now in Britain, and almost universally so for American public mental hospitals which usually are administered by state departments of mental hygiene.

It is only necessary to mention in passing some of the well-recognized fields of primary prevention that have long been accepted responsibilities of health departments. These include the control of the spread of communicable diseases, nuisance abatement, the protection of maternal and child health, the assurance of an adequate and pure public water supply, the rapid approach to a completely and adequately pasteurized milk supply, the sanitary control of other foods, an active public health nursing programme with large community educational implications on the part of the health visitors as they are called in Britain, a good school health medical, nursing and dental programme, to mention but some of the chief components, all fortified by statistical analysis and guidance. These are all common to the two countries, though the emphasis on the individual items may be different and one country may have started work earlier than the other. For example, attention to restaurant hygiene started in America long before it claimed great notice in Britain.

## V—FUTURE PREVENTIVE MEASURES

But what of the untilled or partially tilled fields in prevention? Let us consider four of them; namely, mental hygiene, industrial hygiene, air pollution, and health education.

## (a) Mental Hygiene

*First* then, mental hygiene. If it is true, and it would seem so, that about half our hospital beds are occupied by mental cases, that the psychoneuroses and other mental disorders are leading causes for the rejection of young men for the military services, and that much of industrial absenteeism can be attributed to this type

of disability, then health departments should seek more diligently to find just what their part is in the field of mental hygiene and the prevention of emotional disease. Granted, it is a most difficult task for a medical officer of health to find a practical means of making a sound start. Where does one draw the line between primary prevention as apart from diagnostic or therapeutic service?

It would seem that during the prenatal period and in earliest infancy, with health department clinics serving these segments of the population, a medical officer of health might hope to build into groups of families some considerable protective guidance of an anticipatory nature that could serve as a guard against some of the common everyday sources of intrafamilial emotional disturbance that are widespread within his community if he will just look about.

With specialized orientation and instruction, the health visitors or public health nurses, serving families in matters of general health guidance, could learn to aid the expectant mother in simple mental matters which often go neglected. What are some of these? The first child could be prepared for a healthy mental attitude about the newly-expected baby so that the older child will welcome the newcomer, aid the mother in caring for it and avoid the pitfall of jealousy, frustration and no longer being the centre of the stage in the family circle. Again, do young parents know the simple cure for a tantrum, which is simply to leave the room, and then the tantrum without an audience collapses. Bed-wetting and how to handle it, and a multitude of other simple mental vaccinations can be applied by the health visitors or in the well baby clinic as the infant welfare clinic is called in the United States, and at least a start would be made by the official department of health in the truly preventive portion of mental hygiene.

Seeking more diligently for an ambitious preventive programme in mental hygiene is so urgent that we should perhaps investigate several methods of approach. Once having established an adequate anticipatory guidance service in conjunction with the maternal and child health programme, it should prove fruitful to organize a special team to work with the school health staff for the purpose of studying unusual behaviour patterns which develop in the early years of schooling. The objective would be to enlist the interest and support of the family, the teacher, and the school principal through the efforts of a specially qualified nurse so that a particular child could benefit from a consistent adult response to his behaviour pattern. Part-time psychiatric guidance should be available. The concept of prevention here is based essentially on the view that early training in behaviour and in meeting real-life situations constitutes the best known deterrent to serious personality disorders.

The health officer who undertakes mental hygiene as a major public health project will doubtless not be long satisfied with the efforts so far described. He will want to encourage studies of the differential prevalence of mental disturbances in his community, the time trends in their prevalence: in other words he will study it as a problem in epidemiology, and the implications of these statistics and studies for control programmes. He may even endeavour to see that well-conceived courses of instruction are introduced into the senior high school curricula and into college levels which will offer instruction on the principles of mental hygiene, and finally he will be willing to join others in studying the difficult problems of physical disability and social isolation in the aged, so often associated with senile degeneration. His efforts should not involve him in the endless details of administering a programme of medical care, but rather he should attempt to see that a comprehensive effort is organized in his community so as to give value to the years spent by increasingly large groups of the aged.

#### (b) Industrial Hygiene

A second untilled field which is most important in its preventive aspects is industrial hygiene. In many American state health departments and in a number of the larger city health departments in the United States, a fair amount of inspection, abatement and control service is done in protecting the health of industrial workers, but not nearly as much as could and should be done. In Baltimore, a city of 986,000 persons, there is a lively programme that has been built up over more than 30 years into a bureau of industrial hygiene and its specialized staff. This staff of 15 is made up of a highly qualified physician, Dr. R. R. Sayers, formerly in charge of all this work in the U. S. Public Health Service, three chemical engineers, an expert laboratory chemist, seven special inspectors, a public health nurse and two stenographers.

The Baltimore City Health Department in the 1920's was called on to investigate complaints and occasional known cases of occupational disease. In 1925 the city passed a strong gas appliance ordinance and placed its enforcement in the health department, as there had been too many deaths from faulty gas equipment and tubing. The state law later made it mandatory for physicians to report all cases of occupational disease to the local health department which was directed to study and control such causes of death or illness and adopt regulations for their prevention.

At first, plant management was sceptical of visits from the health department, but little by little confidence was established and real service was rendered, on a consultation basis, for the management, so that now one plant tells another to call for this highly qualified protective guidance. The local medical profession has greatly aided in developing this spirit of teamwork and local industrial leaders of top rank expect the local health authority to concern itself with these matters. Indeed, in their Association of Commerce they have established special health committees for self-policing and for health department co-operation, on which the Commissioner of Health and his staff serve in an *ex officio* capacity.

During a recent year, among 65 technical studies made of toxic materials used in Baltimore industries, seven may be mentioned as characteristic:

1. A study of a defective stack on an annealing furnace which was responsible for three nonfatal cases of carbon monoxide poisoning.
2. Two studies of polystyrene vapors using the ultra-violet light mercury vapor detector as a field instrument with excellent results. The instrument was first calibrated in the Health Department's laboratory, where it was demonstrated that its response was suitable for vapor concentrations both above and below the maximum allowable limit of 400 parts per million.
3. An investigation of two hospitalized cases of manganese poisoning, followed by a detailed study made in the chemical plant where the dioxide was being reduced which showed dust concentrations above the maximum allowable limit.
4. A study of lead poisoning among workers engaged in scrapping old ships coated with lead paint with a resulting provision of air-line respirators which proved to be effective as a control measure. Nonetheless, in another industry under study, a lead poisoning case occurred when a worker continued to wear a defective air-line respirator.
5. A study of two dangerous and closely related insecticides, parathion and malathion, in two plants. One employee showed symptoms of malathion poisoning and was given prompt and effective treatment. There was no case of parathion poisoning reported.
6. A dust study conducted in a stainless steel foundry disclosed that the refractory bricks used in this foundry were nearly devoid of free silica.
7. Audiometric testing of workers was carried out in one plant, and two other plants contemplated similar programmes to determine if there is a loss of hearing among the workers exposed to industrial noise. In some areas of the United States this problem has become complex from a compensation viewpoint; hence, the local companies pursued the study with the City Health Department more with a view toward prevention and the correction of noisy operations.

Among the occupational diseases reported in 1954 to the Baltimore City Health Department were: dermatitis from 17 different causes, tenosynovitis, asbestosis, carbon tetrachloride poisoning, chlorine poisoning, chrome carcinoma, chrome ulceration, lead poisoning, manganese intoxication, pneumoconiosis and silicosis. During the same year 1,228 different industrial plants, large and small, were serviced by the city health department, representing 68,351 workers and 1,516 plant visits. Eighty-one of these plants requested the health department service, either through management or labour. The largest single source of work resulted from co-operation with the city building inspection engineer who, on health department request, established years ago a policy of referring all applications and plans for new or altered industrial buildings to the health department for study. This was a great preventive step and has resulted in needed control equipment being built in by industry on health department requirement so as to prevent occupational disease.

Lead poisoning caused the Baltimore City Health Department to establish 20 years ago a blood lead laboratory service. This has helped in tracing and controlling lead poisoning in industry and also in such unexpected places as among "clean up" men and other attendants exposed to lead dust in shooting galleries, in children exposed to lead fumes where poor families burned discarded battery casings as fuel (a practice that has since been abolished) and among slum dwellers where teething children chewed lead paint on window sills and not infrequently died of plumbism. The health department laboratory has also devised a special field test kit to determine on the spot the lead content of interior paint. Of 112 samples tested in a recent year, 46 were positive for illegal lead and resulted in 10-day abatement notices to the property owners. The city health department, raised such public clamour on this one programme of 462 known cases of lead poisoning and 105 deaths since 1931, through television, radio and the Press, that poor families know the symptoms pretty well now. One Negro parent brought her child to the health department clinic and said to the physician "I believe my child has lead poisoning." She was right.

#### (c) Air Pollution

Closely related to industrial hygiene and the prevention of the occupation diseases is the equally interesting and persistent present-day challenge of air pollution control. Health departments long ago concerned themselves with the disposal of solid wastes and more recently with liquid wastes. How long will the public be content to watch the medical officer of health sit by in an industrial area and take no part in the control of the purity of the air the citizens must breathe? In America, the Beaver Report has been read with approval and the legislation arising therefrom is being watched with great interest.

For a moment, let us take a staccato look at a riverside industrial city that approached this problem backwards, or rather not at all. A group of new industries was moving into this community and for local and near-sighted fiscal and other reasons located the new plants directly to windward of the residential areas. Then looking at their performance they saw clearly, and the city saw, that they had not planned and built as they should have built, but rather had set for themselves the curative and more expensive task of air pollution control that could and should have been prevented. This involves an aspect of town planning which does not always receive the attention it deserves.

Granted that these industrial control matters constitute a difficult task; but what a challenge, and how much

more rewarding to the medical officer of health who has aimed to devote his career to primary prevention rather than to cure.

#### (d) Health Education

For the *fourth* untilled field, let us look at the overall vital matter of health education. Those of you who have been watching recent American activities in public health administration may perhaps have been struck by the amount of time and energy and funds spent by federal, state and local health departments in the widespread dissemination of health information to the general public. Television is now commonly used by American health departments, medical societies and other health agencies. By this means it is possible to bring carefully prepared health information directly into the homes of millions of persons and this actually happens week by week. As a matter of fact the oldest continuous televised medical programme in the United States is "Your Family Doctor," a programme which was established by the Baltimore City Health Department under joint auspices with the Medical and Chirurgical Faculty of Maryland, the state medical society, and has been on the air each week since its first appearance on 15th December, 1948. Here a professional actor plays the part of the family doctor and learns his carefully prepared script which is supervised medically by the Commissioner of Health of the city. Week by week he takes up with his supposed patients and their families all types of medical and health matters that concern them and naturally the general public. Careful supervision from the start has made possible a performance that has never been criticized by any of the 1,800 physicians practicing within the city limits.

The same exactly can be said for the radio health broadcasts called "radio dramas" widely used throughout America by health departments and medical societies for the health education of the people. Next in potency would be the public press and health departments. Health agencies in America over many years have learned that the press is avid for articles dealing with medical or health matters. The American health officer himself is expected to be an expert in the delicate matter of preparing news releases so that the day-by-day activities for which he is officially responsible may be placed before the public in a way to guide them into better health practice. Indeed the motto of one American health department is "Learn To Do Your Part in the Prevention of Disease" and in Baltimore another valuable medium of publicity is our monthly Baltimore Health News, which for the past 31 years has developed a monthly circulation of about 10,000 copies.

There is no health department that is not teeming with news-worthy stories of great public interest that can serve as health information and health education material. Almost every medical officer of health may send to his mayor or governor a periodic statistical report with the birth and death records for the week or the month, and of especial interest always is the current situation in the matter of the communicable diseases.

For more than 35 years in Baltimore, the commissioner of health has sent a weekly statistical report to the mayor of the city. This is known as the *Saturday Letter to the Mayor* and in the letter of transmittal there is always a paragraph or two or even a page or more dealing with a specific item or several items of health information considered to be timely and worthy of special public attention. They may be in the form of a warning, or an exhortation along general "keep well" lines and associated with some disease or health problem that is prevalent or unusual and striking. The routine with this *Saturday Letter to the Mayor* is that extra copies go directly from the commissioner of health's office to all the newspaper offices in the city, and the habit over many years is for the city editors to look for this particular form of news release. Indeed, they even occasionally send a messenger to the health department to be sure of its safe arrival at their desks. Over the years these releases have resulted in endless columns of health information being disseminated to the public through the press on every conceivable type of health matter that a medical officer of health would wish to have thoroughly understood by the people of his community.

We recognize of course, that the struggle for a low community death rate, characteristic of public health endeavour in an earlier era, is largely past history. The community as a whole now wishes to give real substance to the life expectancy that is achievable today. It wants to contend with those areas of ill-health or disability which prevent an individual from making the best possible orientation to his situation. This brings us to the large matter of adult hygiene. Industrial hygiene, already mentioned and including the prevention or control of occupational diseases, is of course only one of a battery of projects which go to make up the general field of adult hygiene. There is a lifetime of research and accomplishment which lies open to the health officer who is aware of this opportunity. Let us now consider the careful parent, who has applied every preventive measure to protect the health of his children, and notice his amazing lack of intelligent interest in regard to his own health. Routine examinations, a search for the early signs of developing abnormalities, advice relative to diet, requirements for his peace of mind, his sleep, his physical exercise, attention to his cultural and social needs, are all foreign concepts to most adults.

We know there is a wide gaping hole in our health defenses as far as the adult population is concerned. The repair of this gap is surely one of the great untilled fields in preventive medicine. What are some of the projects which are worth developing? First we require an acceptable appreciation of the necessary components of adequate adult hygiene. We do not propose to present these here. Rather would we point out some of the questions which must be answered: These include:

1. How often is it necessary to inventory the health status of an adult?
2. Should this periodic screening be a public service provided by special physicians or by a person's general practitioner; and if so, at whose expense, the public or the private purse?

3. What facilities, manpower and technical equipment are necessary to ensure for each adult member of the population an adequate opportunity for a periodic health examination?
4. Are there skills which the medical profession and the health department can provide to fill the gap without engaging in therapeutic medical practice?
5. What programme of nutrition is optimal in adulthood? How does it vary with age and body constitution? How remote is it from current practice? How can current practice and recommended diet be reconciled?

#### VI—FINANCIAL COST OF PREVENTION AND CURE

With regard to the real worth of prevention, can it be truly said that an ounce of prevention is worth a pound of cure, that a shilling for prevention is worth a pound for treatment? We believe so, although this, like many other truths, is difficult to put into pounds or dollars. We might at least take some examples.

*First*, how do the savings in the cost of dental care compare with the cost of fluoridating a public water supply? You will recall that investigations in the 1930s and 1940s of populations using drinking waters which contained one or more parts per million of natural fluoride exhibited a strikingly low incidence of dental caries or dental decay as compared with populations using drinking waters with little or none of this element present. As a result, under U. S. Public Health Service guidance, many American communities have added fluoride to their public water supplies.

We estimate that the annual cost of this for the 1,265,000 persons drinking the Baltimore City water is of the order of \$60,000. The British equivalent is £21,400 at the current rate of exchange but in terms of spending value it would be much less. It is our expectation that we shall as a result cause a decline in the dental decay of our children of five to 16 years of age and that they will be subject to an attack rate similar to that amongst children who reside in areas with waters that are naturally well fluoridated. The Baltimore City Health Department statistical staff estimates that when the children between five and sixteen have all consumed fluoridated water from the prenatal period onward, the annual savings in the cost for dental care will be approximately \$2,500,000 (£893,000) which is to be compared with the \$60,000 (£21,400) annual cost for fluoridating our water. Stated otherwise, the lifetime cost of fluoridation per person should be approximately the same as the fee for the repair of a single carious or decayed tooth. The reward for the investment may be a reduction of 50 per cent in the lifetime expectancy of dental caries. This type of return is apt to convince any person that prevention is a most profitable business.

*Second*, we might do some estimating on the financial saving that could be expected to result from a satisfactory attack on the problem of the care of premature infants. Our experience in Baltimore is that seven per cent of white infants are premature and approximately 12 per cent of Negro infants are born prematurely. On the average, a premature child discharged alive will require 21 more days of hospital care than the equivalent mature infant. In terms of dollars, a premature child before it can be discharged following birth will cost in medical care \$630 (£226) more than a mature child. In Britain, hospital costs are not as high as in the United States but the same reasoning applies. One must also remember that the prognosis of the premature child includes a higher risk of infant death and a higher probability of neurological disorder and retarded physical growth. Since the causes of premature delivery are not too well known, the Baltimore City Health Department has undertaken through its statistical service extensive studies of the epidemiology of this condition.

Our investigations point to complications of pregnancy, delay in seeking prenatal care, and socio-economic position as factors significantly associated with an increased risk of prematurity. Baltimore's chief statistician had a recent opportunity to examine the incidence of prematurity in a group of Negro women who sought early care as compared with Negro women who had little or no prenatal care, and he noted a two-fold increase in prematurity in the latter group as contrasted with the former. For a group of 778 Negro women who received little or no prenatal care, the incidence of prematurity was 23 per cent as contrasted with 11.5 per cent for a group that had received such care.

Thus, one thousand Negro babies born to women without adequate prenatal care are estimated to cost as much as \$72,500 (£25,893) more than the cost of child care following birth to one thousand Negro mothers who had received adequate prenatal service. It appears quite likely that a sum of money well below this figure spent to secure adequate prenatal care for the mothers in the "no care" group, would perhaps have been able to reduce the incidence of prematurity by one-half. We must not, however, subject our thinking solely to this criterion of dollar return. Suppose the cost of adequate prenatal care were equal to, or somewhat in excess of, the equivalent cost of premature nursery care; is it not a proper investment for the uncomplicated growth of newly born infants to provide adequate medical services to the mother to control complications of pregnancy, assure proper nutrition and encourage proper health habits? We must not fall into the trap of being "penny wise and pound foolish."

There are, also, striking examples of savings due to prevention in the infectious disease field. A failure in the control of water purification may cost the community many tens of thousands of pounds in the treatment of the resultant cases of typhoid fever. Now that the aeroplane has brought areas where smallpox is endemic to within a few days' travel from either of our countries, that disease may be introduced at any time. Its spread can be prevented by vaccination and strict control by public health experts. But if it is allowed to spread, the cost of isolation and treatment of the patients and the dislocation and loss of trade in the towns affected may reach prodigious figures.

Again, in England and Wales before 1941 there were each year about 45,000 cases of diphtheria and 2,500 deaths. In that year the campaign for immunization started in earnest. In 1954 there were only 173 cases and 9 deaths. At a low estimate this saves £5,000,000 a year in treatment costs in hospital against which the cost of immunization is negligible.

Further, every person, who has been nurtured and educated up to the time when he or she can earn a living or keep house for her husband, has had capital, public or private, spent on him. For all who died prematurely, that is, before their working days are over, there is a loss of the country's capital. There is still a colossal loss through such preventable deaths.

There are many other such comparisons along financial lines that could be made but we feel that we have made the case. In any event, the loss of good health or the premature death of a loved one can never be translated into pounds, shillings and pence. It is beyond price.

## VII—HOUSING\*

Let us turn now for a moment to two quite different health department matters, housing and vital statistics. From Britain and from Europe, American health departments have slowly begun to learn the part they should play in housing, in the general nuisance abatement task for the prevention of disease in slums and for the prevention of slum areas, but much remains to be done.

In Baltimore, the City Health Department secured a strong local ordinance on the hygiene of housing in 1941 and in all has had 17 years of active battling against the slums. Some 25,000 back-yard toilets were declared illegal and were removed, over the years, being replaced by installations indoors. More recently the city health department regulations on housing standards adopted in 1942 have been strengthened for the purpose of preventing the development of slums. Stricter occupancy standards have been set, a private toilet for each dwelling unit is required and also a bath or shower with water-heating facilities is now required for individual dwelling units. Baltimore is a little ahead of the procession in this bathtub matter, but this regulation made by the commissioner of health has been upheld in the trial court, and also in the highest and final state court of appeals.

One large residential neighbourhood, anxious to prevent deterioration within its limits, requested the city health department for an aggressive law enforcement programme. Here the prevention of housing nuisances as distinct from their abatement was first attempted in 1954 with fair success. The inspection work, done jointly with the city building inspection engineer and the police and fire departments, resulted in neighbourhood improvements even beyond those legally required. Rat control has for about 10 years been an active city health department programme in such industrial plants as grain elevators, but chiefly in residential areas. The prevention of breeding and feeding of rats is stressed with rat eradication and ratproofing of structures on a block by block or area basis, strongly supported by an educational programme. A total of 114 blocks were controlled, including 3,228 properties containing 5,279 dwelling units during the area programme period 1948-1954, inclusive. Rat control in international shipping in a port like Baltimore and other ports has been a responsibility of the Port Quarantine service of the U. S. Public Health Service since 1918.

## VIII—VITAL STATISTICS

The British medical officer of health may be surprised to learn from American practice that the registration of births and deaths is entrusted to health departments in the United States. Each of the 48 state health officers is, with a rare exception here and there, the state registrar of vital statistics; and by and large the local health officers are the registrars of births and deaths in their jurisdictions.

In this connection a most interesting and valuable change is taking place in the United States in the abolition of the part-time untrained coroner system and its replacement by a full-time qualified pathologist medical examiner system. Beginning some 75 years ago, Boston made a start and later New York City and Newark, New Jersey, followed by abolishing the coroner's inquest and replacing that ancient official by a trained pathologist.

Maryland first made this important change on a state-wide basis under a special law passed in 1939. Pathologists and a toxicologist, trained in legal medicine, have set an example in Maryland that is being followed in other states. Coroners had served in Maryland from 1668 until 1939. Twenty per cent of all deaths are or should be medical examiner cases, and the greatly improved accuracy of the causes of death now received under the medical examiner system has been a matter of concern and satisfaction to health departments, criminal courts, judges and the people.

The trained statistician on the health department staff is also a key figure in America whose careful analysis of the vital records of a community are immediately available to the health administrator, who thereby has technical guidance always at his right hand that is considered as indispensable as the navigator in an airliner is to the pilot in charge of the craft.

\* Four "before and after" photographs in the text, showing benefits of housing law enforcement under the ordinance of 1941, are not reproduced here, as they have already been published in Baltimore.

## IX—CONCLUSIONS

It is certain that no two communities in either of our countries will have exactly the same administrative patterns for their health departments when it comes to matters of prevention as contrasted with cure. Legislation on both sides of the ocean plays an important determining role. In America, the state government comes predominantly into the picture. However, all policies flow from inheritances from past years and the guiding influences of particularly influential local personalities, medical and otherwise. These, taken all together, really establish just what kind of a health administrative picture may be found in a given American community.

It should not be gathered from what has been said that in America there has been any hesitation in placing in state and local health departments large administrative responsibilities for programmes almost entirely therapeutic in nature. General medical care programmes for recipients of public assistance will be found as health department administrative responsibilities in Baltimore City, and throughout the State of Maryland, but these are somewhat exceptional.

Let us return for a moment to the matter of public hospital administration. The Maryland State Department of Health in recent years has inherited the entire task of administering the state tuberculosis hospital programme which was formerly the work of a separate state commission. More recently, the Maryland State Department of Health has been charged by the state legislature with the construction and operation of three large chronic disease hospitals for the care of the aged and infirm. For many decades, the county almshouses were most unsatisfactory places for the custodial care of the sick and aged poor.

Here you will note an approach to a philosophy that a state or local government should have one medical department which should be charged with the administration and control of all medical matters for which the state or local government is responsible. Until recent years, that was also the philosophy in Britain. But even in those American states and cities where the policy is to integrate the medical services, the great and ponderous state mental hygiene department with its many hospital beds is kept as a separate state medical administrative unit. This, apparently, is because it is thought that the services rendered will be better administered in this important psychiatric field as a separate unit; and then perhaps for a second reason that to place all that work in a state health department would really swamp the health department and so encumber it with the details and time-consuming harassments of a large hospital programme, that it would not have the needed time to pay attention to the important responsibilities it must continue to carry in pushing forward the frontiers of primary preventive medicine. On the other hand, the need for bringing mental hospitals into the general stream of hospital work and breaking down their isolation is recognized in Britain.

In the very largest local government units in America, such as New York City, there is a special city department of hospitals. In some of the smaller cities by tradition and sometimes with excellent performance the general hospital administered by the city government primarily for the poor is a responsibility of the city department of public welfare. This is the situation in Baltimore, but great care has been used in weaving the texture for interdepartmental co-operation and relationships in Baltimore and Maryland. The commissioner of health of the city under a provision of the city charter serves as an *ex officio* member of the city board of public welfare, meeting as a member with that board month by month, and is in close relationship with the medical care problems of the three per cent of the population receiving public assistance, and with the problems of the city hospitals within the welfare department. In like manner, the commissioner of health of Baltimore since 1880 under state law has served as an *ex officio* member of the Maryland State Board of Health, and this important legal requirement has done much to assure the proper integration of these two separate and autonomous health jurisdictions, one of which forms a part of the other.

This *ex officio* relationship between official agencies closely related to health and medical matters and between official health administrators and private health or medical agencies can be a most useful instrument for co-ordination and teamwork, if not overdone. The same thought was clearly expressed in the paper presented before this Section at Bournemouth last April by Dr. Robert H. Parry, the distinguished Medical Officer of Health of Bristol.

It would seem that during recent years the local public health department and medical officer of health in Britain have been taken out of the field of administering curative medical services that had long been their responsibility. In America, just the opposite seems to be taking place, and federal, state and local health departments are becoming more and more involved in the administration and financing of curative medical services that were never within their field in former years. There is probably no cut-and-dry, direct and correct answer in this matter. Good administration is what works well and doubtless the experimentation will go on without ever reaching a very general and satisfactory conclusion. However, an effort has been made in this paper to focus your attention for a brief period on the philosophy that if the department of public health does not give its chief attention to the administration of primary prevention in public medical matters, surely no other branch of government can be expected to step in and become interested in the great untilled fields of preventive medicine, and more and more pounds of energy and work will be spent because no one has troubled to find the ounces needed for prevention.

## THE INFLUENCE OF EDWIN CHADWICK ON AMERICAN PUBLIC HEALTH\*

by

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Perhaps, if Sir Edwin Chadwick were with us here this evening, it could be hoped that he would be willing to overlook the shortcomings in this essay to explore the great and lasting influence his Sanitary Awakening in England has had on the establishment and development of modern public health in the United States of America. It is the earnest desire of one of his present-day disciples from overseas to pay to his memory this humble tribute and to acknowledge also the high honour that has been bestowed upon the speaker by the invitation so graciously extended by the Chadwick Trustees, in association with the Section of Epidemiology and Preventive Medicine of the Royal Society of Medicine.

An endeavour will be made to delineate, as far as these present explorations make possible, the interlacing network of influence that Chadwick has had upon American public health leaders and their chief accomplishments. These influences, of course, have been direct and indirect, through Chadwick's work and writings and through such of his own countrymen as Sir John Simon, William Farr, Florence Nightingale and Sir Arthur Newsholme. To name immediately just a few of the chief Americans so influenced by Chadwick, it is fair here to record an important group of them: Lemuel Shattuck (1793-1859) of Boston, first and foremost; then, Dr. John H. Griscom (1809-74) and Dr. Stephen Smith (1823-1922), both of New York City, Dr. Oliver Wendell Holmes (1809-94) of Harvard University, Dr. William H. Welch (1850-1934) of Johns Hopkins and Professor C.-E. A. Winslow (1877- ) of Yale.

You will appreciate that there has been from these two circles of leaders, each across the ocean from one another, an ever-widening expansion of Chadwick's great influence on public health in the United States. Each of the Americans just mentioned has inspired a multitude of students and disciples, and this circle on circle of influence by the spoken and written word continues today to redound to the glory of the great master. Surely, there is no one in this room who is not aware of the extreme contagiousness of the gospel of preventive medicine designed for the protection of the health of all peoples.

### THE BRITISH DISCIPLES

The direct influence of Edwin Chadwick and of his pioneer work in establishing modern English public health on Simon, Farr, Nightingale, and Newsholme, is a fascinating chapter that is well known in your country. Each of these great personalities has transmitted some part of Chadwick's influence to American public health, and, of course, there have been many others who have done likewise. Simon's magnificent volume "English Sanitary Institutions" stands out as one of the chief guideposts to American awareness of the thought and labour of Chadwick, for both Sir Arthur Newsholme and Dr. William H. Welch have repeatedly told us that no health officer or student of public hygiene can be regarded as having been adequately educated who has not read that classic volume by Simon. Wide appreciation of Simon's writings, of his work as the first health officer of this great City of London, and of his annual reports and their effectiveness is increasingly helpful to the American student and health administrator.

In the lecture of Sir William Job Collins, Chairman of the Chadwick Trust, delivered at University College, London, in 1924 on "The Life and Doctrine of Sir Edwin Chadwick," we find it stated that it was at Chadwick's suggestion "that Dr. William Farr . . . was appointed compiler of abstracts in the office of the Registrar General." The superior and pioneer work of Farr, a worthy successor to John Graunt of 1662, and a founder of modern public health statistics, who is described for us by Simon as "a master of methods by which arithmetic is made argumentative," again has very greatly influenced nearly all of recent public health administration in America. There once more we see the vast shadow of Chadwick. As Sir William states in his lecture of 1924:—

"It is impossible to over-estimate the value and far-reaching effects of Farr's work . . . he provided a standard and measure of the influence of those very sanitary measures which his friend Chadwick was so vigorously preaching and practising. The influence was world-wide, and in the language of figures Farr's work speaks in every national and local health report that sees the light today."

\* A Chadwick Public Lecture delivered to a meeting jointly convened by the Chadwick Trustees and the Section of Epidemiology and Preventive Medicine of the Royal Society of Medicine, London, 14th May, 1956. Reprinted from *The Medical Officer*, London, 25 May, 1956, pp. 273-279.



So in 1924, so also in 1956. Literally, the American disciples of Farr have been legion, and among them may be mentioned Lemuel Shattuck of Boston, Chadwick's direct intellectual heir in America, of whose work I shall speak later; Oliver Wendell Holmes, William H. Welch, Raymond Pearl, C.-E. A. Winslow, Lowell J. Reed and actually a host of their students, and in turn of their students' students and followers.

You can readily see the temptation that cannot be denied, at this point, of indicating that the length of the great and beneficial shadow of Edwin Chadwick as it has appeared in American public health from his day to ours, is indeed like the ever-expanding circle of wave and ripple that follows a stone's being cast into a large and quiet lake. This simile has already been conjured up and will, I believe, continue to be apparent as we proceed.

That Florence Nightingale was a great pioneer in sanitary science, as well as in military medicine and hospital administration, and that she also founded modern nursing will be admitted by all. Her close working relationships in her public health endeavours with Chadwick, Farr and Simon are set forth in her biography by Sir Edward Cook and in Newsholme's volume "Fifty Years in Public Health." So it may perhaps be permitted to include her among those who have aided in bringing the Chadwick influence to America, for she is revered in our country as she is everywhere by many different professional groups. Where there is public health in the United States there you will find the public health nurse and the district visiting nurse and the social service worker. The humanitarian and educational work of all these Nightingale derivatives was much advanced in their early effective years in our country by Sir William Osler, the great Anglo-American physician and public health enthusiast.

Sir Arthur Newsholme, among your countrymen who have brought to us in America the direct influence of Chadwick, must now receive attention. Newsholme's public health work, his writings and his personality had long been known in our country by Dr. William H. Welch, and Dr. Welch in 1919 persuaded Newsholme to come and lecture for two years in the newly opened Johns Hopkins School of Hygiene and Public Health in Baltimore. There he is still remembered as a beloved friend and teacher, with a potent twinkle in his eye. In his volume "Fifty Years in Public Health" Newsholme tells of Chadwick's coming to Brighton in 1888 to preside over the Conference of the Sanitary Inspectors' Association. Newsholme had been the medical officer of health of the borough of Brighton for about a year. It was his only personal contact with Chadwick, who died two years later. However, the elder statesman of the public health was so keen about needed improvements in Brighton's sewer system that he wrote Newsholme on 26th September, 1888, that he would "like to pay a visit to the Mayor and the Council, and explain to them . . . what may be done . . . that would contribute largely to" the prosperity of that community. Newsholme reproduced the letter in *facsimile*. On an earlier page he tells of hearing Sir John Simon give his last clinical lecture at St. Thomas's in London in 1876 when Newsholme was there as a second year medical student. Thus it was that a considerable group of Newsholme's students in America had almost direct personal relations, through one remove only, with Chadwick and Simon, and we learned the proper pronunciation of the name Simon (sea-mōn).

So much for a few of the great British disciples and co-workers of Chadwick that most fortunately and effectively brought the Chadwick doctrine to the United States. Now for some of the lasting influences of Chadwick as felt and disseminated by American workers in the field.\*

#### LEMUEL SHATTUCK OF BOSTON

*Facile princeps*, Lemuel Shattuck of Boston, often called the Chadwick of America, deserves mention. Not a physician, and in this like Chadwick and Louis Pasteur, Shattuck is honoured for what he did as a pioneer in laying foundations for the preservation of the health of the people and as a prophet who has guided much of our subsequent American endeavour. Early, as a schoolteacher, Shattuck showed a marked capacity as a planner of public programmes by formulating a new system of financing and administering the public schools while serving as a member of a local school committee. Son of a conservative New England farmer, self-educated in the main, he taught in New York and Michigan schools and then returned to Massachusetts and became a publisher and bookseller.

With a great interest in public affairs, Shattuck served on the Boston City Council and in the Massachusetts State legislature. He recognised the need for systematic and complete public records. He studied and in 1841 published a volume on the vital statistics, population and health of the City of Boston, and in 1845 he was largely responsible for a Census volume of that city. It is clear that he read and pondered Chadwick's great work of 1842, "The Report on the Sanitary Condition of the Labouring Population of Great Britain." Indeed, this *magnum opus* may well be considered his inspiration and the model on which he based our American classic in public health, "The Report of the Sanitary Commission of Massachusetts of 1850." It may be well here to give the full title of this memorable volume of 544 pages from its title page. It reads: "Report of a General Plan for the Promotion of Public and Personal Health, Devised, Prepared and Recommended by the Commissioners Appointed Under a Resolve of the Legislature of Massachusetts, Relating to a Survey of the State, Presented April 25th, 1850."

Time does not allow of any detailed comparison of the Chadwick Report of 1842 and the Shattuck volume of 1850. Suffice it to say that Chadwick's name appears 12 times in the first 44 of Shattuck's 544 pages and the Chadwick Report of 1842 is mentioned specifically on pages 39 and 537. On page 29 Shattuck's admiration for Chadwick bursts forth in this statement: "His (Chadwick's) name should be handed down to posterity

as one of the greatest and most useful reformers of his age." References to Chadwick, Simon, Southwood Smith, and Farr recur through the volume. There are 50 carefully reasoned recommendations which cover legislation, administration central and local, and almost every public health need we recognise today, with Chadwick's thoughts on page after page. At the close there is a two-page list of English publications which constitutes about one-half of a special appendix section offered by Shattuck under the title "Suggestions for Forming Sanitary Libraries," and here the Chadwick Report of 1842 is conspicuous. Of special interest is a series of direct quotations in the Shattuck volume (pages 46-48) from the Chadwick Report where the British author concludes his report under the heading "Recapitulation of Conclusions" (pages 368-372). Of special interest to students of the Chadwick-Shattuck influences is a section in the pages just mentioned in Chadwick on the need for full time medical officers of health who should be specially trained and qualified and independent of private practice. Here once more Chadwick's appendix text headed "Qualifications of Officers of Public Health," quoted from M. Duchatelet, an eminent member of the Council of Health of Paris, is given practically in full and practically verbatim in a Shattuck footnote on pages 113-114, which closes with the reference to its source: "Chadwick's Sanitary Report, page 423." Those who know the decades that have passed without complete compliance with this vital recommendation in America will appreciate the thoroughness with which Shattuck helped himself to the best in Chadwick.

It was not until 1869, after a lag of 19 years, that Shattuck's recommended General State Board of Health was established in Massachusetts. Some say he failed; I do not think so. He died in 1859, a full 10 years too soon to see this first modern State Board of Health set up in Massachusetts, the first of its kind in America, but many of our states followed the example fairly promptly, 19 of them during the next 10-year span, 1869-79, and now every state in our union has an active state health department. Thus the Chadwick influence travels down the years to cover our entire nation. For more on Shattuck you may wish to peruse C.-E. A. Winslow's fascinating centenary article "Lemuel Shattuck—Still a Prophet" in the February, 1949, issue of the *American Journal of Public Health*.

May I pause here for a moment for a bit of legend, a human note possibly connected with the establishment of the Massachusetts State Board of Health in 1869. The story is reported as told me by a former State Health Commissioner of Massachusetts, and as told him by Dr. Henry P. Walcott, long Chairman of the Massachusetts State Board of Health during its first fifty years. It would seem that

The Lieutenant Governor of Massachusetts in 1869 and his wife were just recovering from the shock of a daughter's having developed typhoid fever at a girls' boarding school. (The tale is almost like the story of the typhoid outbreak late in 1856 at the Clergy Orphan School at St. John's Wood, London, told by William Budd in 1873 in his classic work on typhoid fever). The legend reports that the Lieutenant Governor's wife said one morning as her spouse was about to go to the State House, "My dear, that Shattuck Report has been lying around the State of Massachusetts for 19 years and here our daughter has just had a shocking bout with typhoid fever. I want you before you come home to supper tonight to see that Massachusetts gets its long overdue State Board of Health."

It may be added here that a careful search of the Lemuel Shattuck papers in the files of the Massachusetts Historical Society in Boston does reveal that there was personal communication between Chadwick and Shattuck. This is in one single letter from Chadwick in the Poor Law Commission Office, Somerset House, dated 18th August, 1840, addressed to Lemuel Shattuck, Esq., Athenaeum, Boston, Massachusetts, which reads as follows:—

SIR,—The Poor Law Commissioners acknowledge the receipt of your letter, of the 20th ultimo, and desire to inform you that they have much satisfaction in forwarding to you copies of the Reports of the Commissioners of Enquiry on Poor Laws, a set of the Annual Reports of the Poor Law Commissioners to the Secretary of State for the Home Department together with copies of Mr. Nicholls' Reports on Poor Laws for Ireland, and copies of the Poor Law Amendment Act and the Act for the more effectual Relief of Destitute Poor in Ireland.

Signed by Order of the Board,  
(Signed) E. Chadwick,  
Secretary.

A like search through the extensive collection of Shattuck papers on file in the New England Historic Genealogical Society in Boston reveals no communication from Chadwick to Shattuck, but one letter was found of a general nature to Shattuck from John Simon, the text of which is as follows:—

3 Lancaster Place,  
Strand,  
London.  
26th January, 1850.

DEAR SIR,—I beg to thank you for your very obliging letter, and for the accompanying Papers. I have much pleasure in forwarding the copies of my Report which you request—and should send some of the shorter Monthly Reports, but they do not contain matter of very general interest, being chiefly confined to local or temporary subjects. I have the honour, to be, dear sir,

Your obedient servant,  
John Simon.

To Lemuel Shattuck, Esq.,  
Boston.

How much further communication, if any, Shattuck may have had with Chadwick or Simon it is not possible at this time to determine. Nonetheless, it is clear that official reports went directly from Chadwick and Simon to Shattuck, and that these and like reports written or greatly influenced by Chadwick were read and followed by a considerable band of American admirers.

#### DR. GRISCOM AND DR. SMILLIE OF NEW YORK CITY

The scene now changes from Boston to New York City where a physician, Dr. John H. Griscom, had served as a city health inspector in 1842 and a dispensary physician serving the poor. He made early efforts to interest the city authorities in sanitary reform and especially in the health protection of the pauper class, but with little success. Dr. Wilson G. Smillie in his excellent new volume on the development of public health in the United States entitled "Public Health—Its Promise for the Future," gives a good record of Dr. Griscom's 20-year campaign. Dr. Smillie refers repeatedly to Chadwick and indicates the direct influence Chadwick had on Dr. Griscom's work and that of others in our country.

In 1845 Dr. Griscom published a 58-page leaflet on the bad health situation in his city under the title "The Sanitary Condition of the Laboring Population of New York." In a footnote on this publication Smillie states "Note the influence of Chadwick in the title." Dr. Griscom, after calling attention to English sanitary studies, writes as follows:—

The investigations to which I have briefly alluded, as so necessary and desirable for this city, have been carried on in other countries, with a degree of enthusiasm, sustained by talent and learning, which does honour to philanthropy. No one can rise from the perusal of the works of Edwin Chadwick of London, or of Parent Du Chatelet of Paris, or of many others who have laboured in this field of humanity, without feeling a portion of the ardour which inspires them, and wishing he had been thrown into the same pursuit, that some of the leaves of the same laurel might encircle his own brow. It is the cause of humanity, of the poor, the destitute, the degraded, of the virtuous made vicious by the force of circumstances, which they are now investigating and exposing to the knowledge of others.

It is often said that one half the world does not know how the other half lives. The labour of raising the veil which now separates the two halves, by which the misery and degradation of the one, have been concealed from the view of the other, has been theirs and their associates. Howard, called by distinction *the Philanthropist*, revealed to the gaze of the astonished multitude the interior of the prisons of England, and straightway the process of reform commenced in them, and continued until the prison system of the present day, has become one of the most striking examples of the spirit of the times. But Chadwick and Du Chatelet, especially the former, are diving still deeper into the subject of moral and physical reform. They are probing to the bottom the foul ulcers upon the body of society, and endeavouring to discover the causes of so much wretchedness and vice, which fills the prisons and workhouses. Howard's labours tended to *cure* the disease, Chadwick's to *prevent* it. These operations constitute a highly important part of the great work of melioration and improvement, in the condition of mankind, now going on, in nearly all civilised countries, and which characterise the present age.

Dr. Smillie describes the work of the four National Quarantine and Sanitary Conventions held in 1857, 1858, 1859 and 1860 in Philadelphia, Baltimore, New York, and Boston. Dr. Griscom was president of the third of these conventions. It was attended by 186 delegates, including Board of Health, Medical Society and other representatives from 10 states, the District of Columbia, and Canada. In the official record of its Proceedings and Debates, a tome of 728 pages, one finds this tribute to Chadwick, paid by General Prosper M. Wetmore, a member of the Convention's Executive Committee, at the banquet held on the evening before the last day of the meeting:—

"Sanitary Science." Those two words should arrest every mind and stir every heart within the influence of the voice that utters them. In all that relates to Sanitary Science in this country, we are behind the age. I ought to qualify that expression, and confine the remark more nearly at home. But I ask my friends from other cities to bear with me, and to share in some degree the blame which attaches to our national neglect of sanitary rules. We are at least in this, the Metropolitan City, far behind the age, in comprehending and executing the principles of this great moral theory.

Look at the noble government of England, and marvel at what it is doing to promote health and to preserve life. Compare the statistics of mortality in London with those of our own city, and then judge of what can be accomplished by an intelligent, energetic government, and a rigid adherence to the laws of Sanitary Science.

Sir, do you know—do the non-medical gentlemen about these tables know (the medical men do know, you may be sure), that the great man of England today is not a military chieftain, not a leader in Parliament, not a learned lawyer, but is a leader in the great work of Sanitary Reform. Chadwick is the great leading spirit of England today. As he traverses the Kingdom preaching the crusade against disease and death, and uplifting the banner of Sanitary Science, he is greater in reality, because more true to the principles of humanity, than ever was Wellington in the days of his military power, or Canning, when, in the plenitude of his glory, his brilliant eloquence thrilled the hearts and held captive the feelings of multitudes of men.

Next perhaps by way of forceful and far-reaching pioneering in public health in America, again clearly under the influence of the Chadwick Report of 1842 and what it had accomplished in England, is the work of a citizens' group in New York City. After months of labour and during our late Civil War period (1861-65) there appeared in 1865 a weighty tome of 360 pages under the title "Report of the Council of Hygiene and Public Health of the Citizens' Association of New York upon the Sanitary Condition of the City." The report covers extensive field studies on the lack of sanitation in New York City. Dr. Griscom's story is repeated. After two years of failure the medical reports in this volume of 1865 and like testimony resulted in the state

legislature's passing a bill creating a Metropolitan Board of Health for the New York City area. Stephen Smith, M.D., and a brilliant lawyer, Dorman B. Eaton, were most active in this work and Dr. Smith became Commissioner of Health of New York and later in 1872 was responsible for founding the American Public Health Association of which he was the first President. Much later Dr. Stephen Smith wrote a small but fascinating volume on this early work in New York City, a book which was published in 1911 under the title "The City That Was." In it an early chapter is entitled "A Great Awakening in England" and he states that the sanitary studies of the Council of Hygiene of the Citizens' Association "were guided by the experience of similar organisations in Great Britain."

There is a mass of material that would require careful analysis if any complete record were to be prepared on the influence of Edwin Chadwick on American public health. There are many gaps in the story as here presented, but it can be safely stated that the early American work based on Chadwick and his co-workers greatly stimulated like efforts in a large number of states and communities throughout our country.

#### BEGINNERS IN CANADA

A chapter could be written on public health in Canada. Some early work had resulted from the cholera visitations of 1832 and 1854. The Canadian Dominion was established in July, 1867; in October that year the Canadian Medical Association was formed in Quebec and at that time a resolution was adopted providing for the appointment of a strong committee on public health for the purpose of promoting the establishment of a Canadian federal board of health. In this the connection may seem tenuous, but Dr. Peter H. Bryce of Ottawa, a historian of Canadian public health, finds that 1867 was an *annus mirabilis* and refers to the reform of the New York City Board of Health in that year and tells that Dr. Stephen Smith became its first medical officer.

#### DR. OLIVER WENDELL HOLMES

The name of Dr. Oliver Wendell Holmes has been mentioned. A great poet and physician he surely was. One can never forget his uplifting verse "The Chambered Nautilus":—

Build thee more stately mansions, O my soul,  
As the swift seasons roll!  
Leave thy low-vaulted past!  
Let each new temple, nobler than the last,  
Shut thee from heaven with a dome more vast,  
Till thou at length art free,  
Leaving thine outgrown shell by life's unresting sea!

Here may I add that surely in the domain of public health Chadwick has enabled many stately mansions to be built.

Public health men claim Oliver Wendell Holmes as a founding hygienist because of his essay on "The Contagiousness of Puerperal Fever" which he read before the Boston Society for Medical Improvement and published in 1843, before there was knowledge of the germ theory of disease and before the great work of Semmelweis. In this magnificent epidemiological essay, that has doubtless caused the saving of the lives of thousands of mothers, it was most pleasing for me to find that Holmes knew of the work of William Farr and used it in his argument, a bitter one at the time. Here are a few quotations:—

In collecting, enforcing and adding to the evidence accumulated upon this most serious subject, I would not be understood to imply that there exists a doubt in the mind of any well informed member of the medical profession as to the fact that puerperal fever is sometimes communicated from one person to another, both directly and indirectly . . .

The practical point to be illustrated is the following: *The disease known as Puerperal Fever is so far contagious as to be frequently carried from patient to patient by physicians and nurses. . . .*

It is granted that the disease may be produced and variously modified by many causes besides contagion, and more especially by epidemic and endemic influences. But this is not peculiar to the disease in question. There is no doubt that smallpox is propagated to a great extent by contagion, yet it goes through the same periods of periodical increase and diminution which have been remarked in puerperal fever. If the question is asked how we are to reconcile the great variations in the mortality of puerperal fever in different seasons and places with the supposition of contagion, I will answer it by another question from Mr. Farr's letter to the Registrar-General. He makes the statement that "five die weekly of smallpox in the metropolis when the disease is not epidemic"—and adds, "The problem for solution is—Why do the five deaths become 10, 15, 20, 31, 58, 83 weekly, and then progressively fall through the same measured steps?"

I take it for granted that if it can be shown that great numbers of lives have been and are sacrificed to ignorance or blindness on this point, no other error of which physicians or nurses may be occasionally suspected will be alleged in palliation of this; but that whenever and wherever they can be shown to carry disease and death instead of health and safety, the common instincts of humanity will silence every attempt to explain away their responsibility.

Dr. Holmes then proceeds to refer to similar deductions from earlier writings of Dr. Alexander Gordon (1752-49) of Aberdeen in 1795, from an even earlier publication of Mr. Charles White, Surgeon (1728-1813), of

Manchester, and from instances in the essay entitled "Facts and Observations, Relative to the Fever Commonly Called Puerperal" written by Dr. John Armstrong (1784-1829) of Edinburgh and London.

#### DR. WELCH OF JOHNS HOPKINS

To speak now of Dr. William H. Welch of the Johns Hopkins University, puts me in mind of the affectionate tribute paid to Edwin Chadwick by Sir John Simon in the preface of the first edition of "English Sanitary Institutions" of 1890, where he writes:—

In the first words of the famous Oath which bears the name of Hippocrates—an oath which in great matters deserves to be for all time a law to the medical profession, the acolyte swears that he will ever hold himself under the obligations of filial duty towards the Master from whom he learns his Art; and I should have thought it disloyalty to the spirit of that oath, if, in setting forth my own very humble contributions, to the cause of English Sanitary Reform, I had not striven to prolong the grateful memory of elder times; had, for instance, not told of Sir Edwin Chadwick's great campaign in the first ten years of her present Majesty's reign. . . .

For it was Dr. Welch who was the Master from whom many of us tried to learn the Gentle Art of Public Health Administration. After a full life in pathology and bacteriology where he first introduced in America laboratory courses for instruction, he went on to complete a career devoted to reforming medical education in our country. Then in accord with the preachings of Duchatelet, Chadwick and Shattuck, in 1916 he persuaded the Rockefeller Foundation to make possible the establishment in Baltimore of the first independent academic institution in the world for the training of full-time medical public health administrators. Until that time there was no such place where a physician desiring to give his life to public health on a full-time basis could go for adequate training. Let us pause a moment and give the Duchatelet-Chadwick gospel on this vital matter as published with the slightest of editorial modifications in the Shattuck Report of 1850, where it is quoted with its source reference from page 423 in the Chadwick Report of 1842:—

Dr. Duchatelet, an eminent member of the Council of Health of Paris, in describing the qualifications of officers of Public Health, says: "It is generally thought in the world that the medical knowledge acquired in the schools is all that is necessary to become a useful member of the Council of Health. The greater part of medical men themselves share this opinion; and, on the strength of some precepts which they have collected from books on health and professions, they think themselves sufficiently instructed to decide on the instant the gravest questions, which can only be resolved by special studies. A man may have exhausted medical literature; he may be an excellent practitioner at the sick-bed, a learned physician, a clever and eloquent professor; but all these acquirements, taken in themselves, are nearly useless in a Council like that of Paris. To be really useful in the Council, it is necessary to have an extended knowledge of natural philosophy; to know with exactness the action which trades may have on the health of those who exercise them, and the much more important action of manufactories of every species on men congregated in towns, on animals, and on plants. This knowledge, so important, of the action of manufactories and trades, is not to be acquired by ordinary study, or in the science of the cabinet. It is not to be obtained without positive notions on the arts, and on the greater part of the processes peculiar to each trade. It requires habit, and the frequenting of the places of work. In this particular, more even than with medicine, books are not a substitute for practice. From what has been said, the necessity will be evident to introduce into the Council those physicians who have made health, and particularly the public health, a special study; and to join with them chemists, and, above all, manufacturing chemists, and other professions."

From 1919 to the present day Dr. Welch's students and followers at the Johns Hopkins School of Hygiene and Public Health, and those of Newsholme, Wade H. Frost, the epidemiologist, and Lowell J. Reed, the biostatistician, who today is President of the Johns Hopkins University, have gone forth from that school to administer public health services and to teach throughout America and many other countries, and younger Schools of Hygiene and Public Health have been established in other universities in America and overseas.

Dr. Welch's keen interest in and knowledge of the history of medicine and of public health, which he shared with Dr. William Osler, led him to establish at Johns Hopkins an Institute of the History of Medicine to which he attracted Dr. Henry E. Sigerist for a number of years. That Dr. Welch knew and taught the lives of the past heroes of public health, there can be not the slightest doubt. Let us for a moment turn to a few of the paragraphs in his Sedgwick Memorial Lecture on "Public Health in Theory and Practice—An Historical Review," given in January, 1924, at the Massachusetts Institute of Technology:—

If my purpose were to trace the historical development of the modern movement for public health, which has been done recently with characteristic skill and charm by Professor Winslow in his admirable Yale address, "The Evolution and Significance of the Modern Public Health Campaign," I should wish to say something more concerning the contributions of the eighteenth century to this movement. I should then desire to dwell on the progress made in statistical inquiries, initiated in the preceding century by Captain John Graunt, Sir William Petty, and Halley; the foundation of modern army hygiene by Pringle, the intimate friend of Benjamin Franklin; the work of Thomas Percival of Manchester, who was the first to recognise the significance of the new conditions of living and working introduced by the Industrial Revolution in the causation and spread of epidemic fevers, and of his friend, John Haygarth, who applied statistical methods to the study of epidemics in Chester, and introduced in 1774 modern methods of isolation of fever patients in a hospital in that city. The memorable services of John Howard of imperishable fame in prison reform would be recalled as significant for public health as well as for the humanitarian movement.

One cannot read the story of the contributions of the eighteenth century to science, to medicine, to hygiene, to movements for social and political reform, while at the same time considering the effects of the

Industrial Revolution, without being convinced that the Napoleonic wars delayed for a generation the sanitary legislation and the creation of the General Board of Health of 1848 in England, from which we date the modern public health era, for then for the first time in human history was the care of the health of the people fully recognized as an important administrative function of Government.

Something of the story of the various influences, movements, and events which culminated in this great sanitary awakening is told by Winslow in his Yale address, but every student of public health should read again and again the complete story as told so fascinatingly and authoritatively by Sir John Simon in his "English Sanitary Institutions." Next to Edwin Chadwick, Simon was the great protagonist of the new movement, and hardly second in importance, although in a different line, was the eminent statistician, William Farr, who made literature out of statistics. Most of the medical ammunition in the formative period was supplied by reports of the Poor Law Commissioners incorporating the surveys of Southwold Smith. I am inclined to think that Jeremy Bentham, of whom Chadwick was a disciple and close friend and with whom he lived, had more of a guiding hand than has been assigned to him. Certainly his discussion of the subject of public health and his detailed elaboration of a plan of organisation of governmental health activities are of extra-ordinary interest and contain ideas and suggestions embodied in the legislation of 1848.

was an Oxford ordinary interest and a Cambridge man. The Edwin Chadwick of America was Lemuel Shattuck, who, like Chadwick, was not a physician but a student of social problems. The "Report of the Massachusetts Sanitary Commission" in 1850, drafted by Shattuck, was the evidence of Chadwick's publications, and now readily accessible in Whipple's 'State Sanitation', presents a programme of public health organisation and activities even more broadly conceived than that of Chadwick, and not completely realised even at the present day. This report, being unaccompanied by any such startling array of facts and figures as that which gave irresistible force to Chadwick's appeal, had no corresponding influence, so that it was not until 1869 that the first State Board of Health was established in Massachusetts.

How important it is to accompany such reports and appeals by facts revealed by a sanitary survey is illustrated by the successful campaign of the Citizens' Association of New York City in securing the passage in 1886 of the famous Metropolitan Health Law of that city, drafted by Dorman B. Eaton after the survey conducted under the supervision of Dr. Stephen Smith, by which the New York City Board of Health was established. No equally extensive powers, administrative, legislative, and judicial, have ever been conferred upon any other board of health, nor are they likely to be.

A bit of legend, characteristic of Dr. Welch, concerning his writing out of this Sedgwick Lecture for publication, is attributed to one of Dr. Welch's great co-workers at Baltimore, Dr. Allen W. Freeman. Dr. Freeman is reported to have told a senior class of Johns Hopkins medical students of his trip to Europe with Dr. Welch in the summer of 1924, of Dr. Welch's having delivered the Sedgwick Lecture quite *extempore* in January of that year, and of how later, during that summer's ocean steamer voyage Dr. Welch had written it out in longhand, without a note! His memory was truly phenomenal, so too his powers of procrastination.

PROFESSOR WINSLOW OF YALE

Last, but surely not least, I would leave with you a bit of the inspiration of another of the greatest Chadwick transmitters to the United States, Professor C.-E. A. Winslow of Yale University. First known personally to me as a former staff member of the New York State Department of Health under Dr. Hermann M. Biggs, America's greatest medical officer of health, Winslow has been a beacon light for a long generation of devoted students and followers. Gentleman, scholar, teacher, public health educator, champion for decent housing for all the people, he now lies ill, but has handed over his torch and professorship of public health at Yale to his devoted follower, Dr. Ira V. Hiscock, this year's President of the American Public Health Association.

Dr. Welch has referred to Dr. Winslow's slim volume, the Yale address entitled "The Evolution and Significance of the Modern Public Health Campaign," given in 1923, and mention has been made of the Winslow article "Lemuel Chittick—Still a Prophet," published in 1949. Let us go now to a few brief paragraphs of Winslow's Address of 1923, a scholarly yet delightful historical review that will give pleasure to those who love Chadwick, and we find the following:—

We may pass now to the third and most significant of the socio-sanitary movements of the early nineteenth century, to the campaign initiated by Sir Edwin Chadwick and Sir John Simon which constituted the movement rightly known as the great sanitary awakening. It is these two men who are in a very real sense the fathers of the modern public health campaign. They were true pioneers, of the type of which Paracelsus speaks:—

'Tis in the advance of individual minds  
That the slow crowd should ground their expectation  
Eventually to follow; as the sea  
Waits ages in its bed till some one wave  
Out of the multitudinous mass, extends  
The empire of the whole, some feet perhaps,  
Over the strip of sand which could confine  
Its fellows so long time; thenceforth the rest,  
Even to the meanest, hurry in at once,  
And so much is clear gained.

Edwin Chadwick (1800-90) was a lawyer and a keen student of social problems. In 1833 he was serving as Secretary of the Poor Law Commission and the connection between poverty and disease, as well as the preventability of much of this disease, was forced upon his attention. For the first time in the history of England he employed physicians to study systematically the sanitary conditions which might contribute to ill-health, and a resulting report by Dr. Southwood Smith "on some of the physical causes of sickness and mortality to which the poor are particularly exposed, and which are capable of removal by sanitary regulations" is one of the classics of sanitation. Dr. Smith had already (in 1835) published a popular work on preventive medicine under the title *Philosophy of Health*; and he was intimately associated with Chadwick in all his later work. . . .

When Queen Victoria ascended the throne in 1837, the dawning knowledge of public health science "was virtually unrecognised by the Legislature. The *Statute-Book* contained no general law of sanitary intention, except (so far as this deserves to be counted an exception) the Act providing for Quarantine; under which well-intentioned but futile Act, the Lords of Council were supposed to be always on the look out for transmarine dangers of pestilence, and could make pretence of resisting such dangers. Against smallpox, Parliament used annually to vote £2,000 to support a National Vaccine Board which had a few vaccinating stations in London, and furnished the public with vaccine lymph. Outside those two matters, the Central Government had nothing to say in regard to the Public Health, and Local Authorities had but the most indefinite relation to it. . . ."

The movement begun in so characteristically practical and English a fashion by Chadwick, was destined to change all this. The studies of 1838 led in 1842 to a three-volume report of the Poor Law Commissioners to Parliament. The synoptical volume on "The Sanitary Condition of the Labouring Population of Great Britain" was the work of Chadwick himself and its clear and forceful exposition of the insanitary conditions which existed in all parts of England, of the burden of sickness and poverty resulting therefrom, and of the necessity for the construction of sanitary works, produced a profound impression. It is said that 10,000 copies of it were distributed (an enormous circulation for the time); and in 1843 its influence led to the appointment of a special Royal Commission on the health of large towns and populous districts. The reports of this Health of Towns Commission in 1844 and 1845 initiated the movement for water supply and sewage disposal throughout the world.

Winslow then goes on to tell of the establishment of the General Board of Health of 1848 on which Chadwick served, of Simon's writing of Chadwick's "rare abilities as an initiative investigator in matters of social pathology . . . of his absolute rectitude of intention toward the public in every line of conduct," of Chadwick's disappointments, of how Chadwick probably hoped to achieve in a few years the results which not ten times his few years could see achieved; and where on all sides others were hanging back, Chadwick's ardour seemed ready to undertake the work of all. Winslow mentions Dr. W. H. Duncan of Liverpool, England's first medical officer of health and then at length the work and writings of Simon. He closes this chapter by bringing his audience to Lemuel Shattuck's Report of 1850, "a document" Winslow states, "which drew its inspiration directly from Chadwick and Simon" and to the fact that a similar impetus was given to the development of municipal health administration in the United States by the Sanitary Survey of New York City under Dr. Stephen Smith in 1865. Mention of this has already been made.

From these explorations, which are far from exhaustive, it must be abundantly clear that the great leaders and teachers of public health in America and their students, disciples and followers have carefully studied and transmitted and transmuted into actual practice the golden influence of Chadwick, that in our country as in yours his memory is cherished and that there are myriads across the seas whose lives have been saved or enriched because of him. His name stands out in bold relief over the facade of the building of the London School of Hygiene and Tropical Medicine and so his life is depicted in Mrs. M. E. M. Walker's fine volume "Pioneers of Public Health." His name likewise is carved over the front portals of our new Eastern Health District Building, built during recent years by the City of Baltimore for its Health Department and for the co-operative work of the Health Department with the Johns Hopkins School of Hygiene and Public Health. It was our good fortune to have Sir Allen Daley present in Baltimore when ground was broken for this city building in 1952, and Sir Allen, I rejoice to tell you, is a much esteemed friend of American public health and an Honorary Fellow of our American Public Health Association. There, over the entrance to our new Eastern Health District Building Chadwick's name, among the immortals, will ever keep company with the names of Jenner, Shattuck, Farr, Holmes, Pasteur, Welch, Biggs and others as an inspiration to oncoming generations of American health officers, medical students and nurses, as they enter that building to grow in wisdom and in understanding.

#### BIBLIOGRAPHY

1. Simon, Sir John, K.C.B. *English Sanitary Institutions*. London, 1897. 516 pp.
2. Collins, Sir William Job, M.D. *The Life and Doctrine of Sir Edwin Chadwick*. A lecture delivered at University College, London. 1924.
3. Cook, Sir Edward. *The Life of Florence Nightingale*. 2 vols. London, 1914.
4. Newsholme, Sir Arthur. *Fifty Years in Public Health*. London, 1935. 415 pp.
5. Newsholme, Sir Arthur. *The Last Thirty Years in Public Health*. London, 1936. 410 pp.
6. Chadwick, Edwin. Report to Her Majesty's Principal Secretary of State for the Home Department, from the Poor Law Commissioners, on an Inquiry into the Sanitary Condition of the Labouring Population of Great Britain, with Appendices, Presented to both Houses of Parliament, by Command of Her Majesty, July, 1842. London, 1842. 457 pp.
7. Shattuck, Lemuel. Report of a General Plan for the Promotion of Public and Personal Health, Devised, Prepared and Recommended by the Commissioners Appointed under a Resolve of the Legislature of Massachusetts, Relating to a Sanitary Survey of the State. Boston, 1850. 544 pp. Reprinted by George C. Whipple in "State Sanitation," Vol. 1, Cambridge, Massachusetts, 1917. Pp. 239-367. Also reprinted (*facsimile*) Harvard University Press, Cambridge, Massachusetts, 1948. 321 pp.
8. Shattuck, Lemuel—Still a Prophet. (Smillie, W. G.; Wolman, Abel; Muench, Hugo; and Winslow, C.-E. A.). *Amer. J. Pub. Hlth.* (February, 1949). Pp. 135-162.
9. Budd, William, M.D., F.R.S. *Typhoid Fever: Its Nature, Mode of Spreading, and Prevention*. London, 1873. 193 pp.
10. Smillie, Wilson G., M.D., *Public Health—Its Promise for the Future. A Chronicle of the Development of Public Health in the United States, 1807-1914*. New York, 1955. 501 pp.
11. Griscom, John H., M.D. *The Sanitary Condition of the Laboring Population of New York*. Pp 5-6. New York, 1845. 58 pp.
12. *Proceedings and Debates of the Third National Quarantine and Sanitary Convention Held in the City of New York, 27th, 28th, 29th and 30th April, 1859*. Pp. 889-890. New York, 1859. 729 pp.

13. Report of the Council of Hygiene and Public Health of the Citizens' Association of New York upon the Sanitary Condition of the City. New York, 1885. 360 pp.
14. Smith, Stephen, M.D. *The City That Was*. Published by Frank Allaben. New York, 1911. 211 pp.
15. A Half Century of Public Health. American Public Health Association. New York, 1921. 461 pp.
16. Smith, Stephen, M.D. *The History of Public Health, 1871-1921*. Pp. 1-12.
17. Bryce, Peter, H., M.D. *The Story of Public Health in Canada*. Pp. 56-65.
18. Holmes, Oliver Wendell. *The Chambered Nautilus. The Autocrat of the Breakfast Table. Atlantic Monthly*. Vol. 1, No. IV. February, 1853. P. 469.
19. Holmes, Oliver Wendell. *The Contagiousness of Puerperal Fever. New England Quart. J. Med. Surg. Boston*, 1843. Pp. 503, 505-506. Reprinted with additions, 1855; also in "Medical Essays," 1842-82, by Oliver Wendell Holmes. Houghton, Mifflin & Co., Boston and New York. Six copyright editions, 1861-91. 445 pp.
20. Gordon, Alexander, M.D. *A Treatise on the Epidemic Puerperal Fever of Aberdeen*. London, 1759. 68 pp. [On page 58: "The patient's apparel and bed-clothes ought either to be burnt or thoroughly purified; and the nurses and physicians, who have attended patients affected with the Puerperal Fever, ought carefully to wash themselves, and to get their apparel properly fumigated before it be put on again."]
  19. White, Charles. *A Treatise on the Management of Pregnant and Lying-In Women*. London, 1773. 475 pp.
  20. Armstrong, John, M.D. *Facts and Observations, Relative to the Fever Commonly Called Puerperal*. London, 1814. 94 pp., with Appendix.
    - [On pages 22-23, under the heading Prevention: "When puerperal fever is epidemical, the accoucheur should make it a point of duty to have the apartments of the women whom he is engaged to attend properly cleaned and ventilated before confinement; to prevent nurses and other persons who have been with those affected, from waiting upon or going near any patient about to be delivered; to pay the most scrupulous regard to the cleanliness of his own person, using daily ablutions of the whole body, and frequent changes of linen and dress." Though it be denied by some authors, that the puerperal fever is always contagious, yet most seem to agree that it is so under some of its modifications; and therefore, it is obviously better to err on the side of precaution, than to pursue an opposite line of conduct.
    - "I had evident proofs that every person, who had been with a patient in the puerperal fever, became charged with an atmosphere of infection, which was communicated to every pregnant woman who happened to come within its sphere. Gordon, p. 53, 64."]
21. Welch, William Henry, M.D., LL.D. *Public Health in Theory and Practice. An Historical Review*. Pp. 21-25. *The Second Sedgwick Memorial Lecture*. Yale University Press, New Haven, 1925. 51 pp.
22. Winslow, C.-E. A. *The Evolution and Significance of the Modern Public Health Campaign*. Pp. 19-27. Yale University Press, New Haven, 1923. 65 pp.
23. Walker, M. E. M. *Pioneers of Public Health. The Story of Some Benefactors of the Human Race*. Edinburgh, 1930. 270 pp.
24. *They Also Served Mankind*. Brief biographies of Sir Edwin Chadwick and nine others whose names appear on the front of the Eastern Health District building of the Baltimore City Health Department. Their devotion was unflinching to the belief that the prevention of disease is an endeavour worthy of man's best efforts. Baltimore City Health Department. 17th January, 1955. 27 pp.
25. American Medical Association, *The Transactions of the*, Vol. II. Philadelphia, 1849. First Report of the Committee on Public Hygiene of the American Medical Association. Pp. 431-654. See pp. 455, 487, 493, 523, 533, 646.
26. Simon, John, F. R. S. *Reports Relating to the Sanitary Condition of the City of London*. 1854. 312 pp.
27. Simon, John, C.B., F.R.S. *Public Health Reports*. 2 vols. London, 1887.
28. Griscom, John H., M.D. *Sanitary Legislation, Past and Future: The Value of Sanitary Reform, and the True Principles for its Attainment*. Parts of two essays read before the New York Sanitary Association, 3rd October and 14th November, 1861. New York, 1861. 37 pp. The story of the legislative defeat of the Metropolitan Health Bill. Dr. Griscom quotes Dr. John Simon on Preventive Medicine as being a special and itself the highest and most useful branch of medicine, and as requiring a long and special study. Dr. Griscom closes the leaflet with the following by Dr. Simon: "Preventive medicine will effect infinitely more for mankind than all the drugs which have yet been discovered, and all the curative skill which has ever been exerted for the alleviation of disease."
29. Shryock, Richard H. *The Origin and Significance of the Public Health Movement in the United States. Annals of Medical History, N.S.I.*, No. 6 (November, 1929). Pp. 645-665. Full bibliography.
30. Shryock, Richard Harrison. *The Development of Modern Medicine*. New York, 1947. 457 pp. and xv.
31. Lewis, R. A. *Edwin Chadwick and the Public Health Movement, 1832-54*. London, 1952. 411 pp.
32. Finer, S. E. *The Life and Times of Sir Edwin Chadwick*. London, 1952. 555 pp.
33. Williams, Huntington, M.D., Osler and Welch—Founders of Modern American Public Health—*Virginia Medical Monthly*, Vol. 80. June, 1953. Pp. 303-312. Also in *Baltimore Health News*. Baltimore City Health Department. Aug. 1953. Pp. 129-143.



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