

DEPARTMENT OF LABORATORIES AND RESEARCH

INTRODUCTION

Among the governmental organizations within the counties of New York State, Westchester's Department of Laboratories and Research remains unique. This is so in that the department represents a fusion between the Medical Examiner Office and the associated laboratory functions of Toxicological and Forensic Science Services with the county's Public Health Laboratories. This arrangement groups nearly all county laboratories under single administrative control concentrating laboratory expertise and sophisticated instrumentation to the good of all sections, thus permitting interchange of scientific knowledge, technology and data. This arrangement works favorably toward the department's goal which is fulfillment of the medicolegal and public health needs and requirements of Westchester County through service and developmental research.

ORGANIZATION

**COUNTY OF WESTCHESTER
DEPARTMENT OF LABORATORIES AND RESEARCH - 2017**

STAFF

Kunjlata Ashar, M.D.	Pathologist-Medical Examiner
Aleksandar Milovanovic, M.D.	Pathologist-Deputy Medical Examiner
Benjamin Bristol, M.D.	Pathologist-Associate Medical Examiner
May Jennifer Amolat-Apiado, M.D.	Pathologist-Assistant Medical Examiner
Margaret M. Schmidt	Assistant Director of Administrative Services
John H. Wolk, M.D.	Chief, Microbiological Services
Assunta Vannelli	Chief, Environmental Laboratory Services
Elizabeth Spratt, M.S.	Director of Toxicology
Robert Adamo	Director of Forensic Sciences

**CONSULTANT STAFF TO THE OFFICE OF THE MEDICAL
EXAMINER**

Alex Braun, M.D.	Neuropathology
David M. Greene, D.M.D.	Forensic Odontology

2017 FINANCIAL STATEMENT

	2017 <u>Budget</u>	2017 <u>Actual</u>	Under (Over) <u>Budget</u>
Expenditures:			
Personal Services	\$8,271,396	\$8,123,394	\$148,002
Equipment	0	0	0
Materials and Supplies	\$1,085,500	\$1,089,682	(\$4,182)
Contractual	<u>3,910,730</u>	<u>3,765,706</u>	<u>145,024</u>
S/T: Expenditures	\$13,267,626	\$12,978,782	\$288,844
Less: Services to Others	<u>21,000</u>	<u>4,543</u>	<u>16,457</u>
S/T: Net Expenditures	\$13,246,626	\$12,974,239	\$272,387
Revenues:			
Departmental	\$2,857,000	\$2,455,814	401,186
State Aid	<u>1,049,538</u>	<u>1,185,002</u>	<u>135,464</u>
Total Revenues	\$3,906,538	\$3,640,816	\$265,722
Net Department Budget	\$9,340,088	\$9,333,423	6,665

2017

THE OFFICE OF THE MEDICAL EXAMINER

I. Medical Investigation

II. Autopsy Service

III. Histology Laboratory

THE OFFICE OF THE MEDICAL EXAMINER

The Office of the Medical Examiner is responsible for investigating and determining both cause and manner of death in all deaths occurring “in or presumably in the County of Westchester due to unlawful act, criminal neglect, violence, casualties or by sudden or unexplained circumstances”. *Notification of such deaths is usually made to the office by a police officer, physician or funeral director at the scene of death. Because duty personnel are available every day of the year, twenty-four hours a day, notification should be made as soon as possible. In this way a decision as to whether or not the case falls under the Medical Examiner’s jurisdiction can be made quickly.

When accepted as a Medical Examiner case, the death undergoes an investigation the extent of which depends on the nature of the case. Table 1 summarizes the activities of the Office for 2017.

*Westchester County Administrative Code 273.141

MEDICAL EXAMINER

TABLE 1
Medical Examiner (M.E.) Cases and Autopsies

	2013	2014	2015	2016	2017
Deaths in Westchester County	6694	6504	6400	6243	7126
Deaths Reported to M.E. Office	2935	2832	2812	2925	2864
% Reported to M.E. Office	44%	44%	44%	47%	40%
Deaths Certified by Medical Examiner	805	750	743	853	822
Autopsies Performed	608	546	577	666	640
% Certified Cases Autopsied	75%	73%	78%	78%	78%
Autopsies Not Performed Due to Religious Objection	23	29	18	13	18
Scenes Visited by M.E. & Medical Investigators	395	344	379	426	427
Court Appearances by Medical Examiners	17	20	15	19	15

TABLE 2
Medical Examiner Certifications By Manner of Death*

	2013	2014	2015	2016	2017
Natural Causes (Sign Outs and Natural)	392	373	337	395	385
Homicides	14	16	14	25	23
Suicides	68	64	64	66	74
Traffic (Includes Out of County Transfers)	69	50	72	50	60
Accidents (Exclusive of Traffic Deaths)	102	96	98	120	97
Drug & Drug Related (Exclusive of Suicides)	96	95	107	143	128
Alcohol and Alcohol Related	30	21	22	32	27
Undetermined Causes** (Cause/Manner)	4	0	1	3	4
Circumstances Undetermined** (Manner)	7	6	10	6	6

*Occasionally cases have been included under more than one category to avoid statistical loss of cases falling under dual categories.

**Excludes religious objection cases.

MEDICAL EXAMINER

TABLE 3
Suicide By Means

	2013	2014	2015	2016	2017
Gunshot Wounds	15	10	13	17	17
Cutting Wounds	0	4	0	2	1
Hanging	27	23	21	19	24
Poisoning: Carbon Monoxide/Auto Exhaust	3	1	3	1	2
Mixed Drug Ingestion	7	7	9	6	10
Single Drug Ingestion	3	4	0	2	4
Jumped From Height	5	2	6	6	5
Plastic Bag Over Head includes gas inhalation	1	3	2	5	1
Drowning	0	1	1	3	2
Jumped in Front of Train	2	4	4	3	4
Other (Includes Combined Methods)	5	5	4	2	1
Suicides While in Custody	0	1	1	1	3
Total	68	64	64	67	74

TABLE 4
Suicide Victim Characteristics

Suicide Characteristics / % Total Suicides	2013	2014	2015	2016	2017
Female Victims	23/34%	13/20%	17/26%	15/23%	26/35%
Alcohol Recovered in Victim	18/26%	18/28%	16/25%	12/18%	14/19%
Illicit Drug Recovered in Victim	5/7%	11/17%	19/29%	13/20%	9/12%
Suicide Note(s) Recovered	27/38%	18/28%	30/47%	9/14%	22/30%

MEDICAL EXAMINER

TABLE 5
Suicide By Age Group

	2013	2014	2015	2016	2017
10-19	6	2	3	2	6
20-29	9	13	11	12	12
30-39	6	5	4	13	12
40-49	7	11	8	10	12
50-59	14	16	14	13	13
60-69	12	7	16	10	6
70-79	7	6	3	4	5
Above 80 Years	7	4	5	2	8
Total	68	64	64	66	74

TABLE 6
Traffic Deaths By Vehicular Type

	2013	2014	2015	2016	2017
Automobile: Driver	25	27	27	16	29
Passenger	16	6	8	9	9
Motorcycle	12	7	10	10	6
Bicycle	3	0	4	0	0
Train	0	1	5	0	1
Pedestrian Struck by Vehicle	13	7	13	15	15
Hit and Run	0	1	2	0	0
Airplane	0	1	2	0	0
Total	69	50	72	50	60

MEDICAL EXAMINER

TABLE 7

Blood Alcohol Concentration (BAC, Grams %) In Traffic Victims

	Not Tstd.	Neg. Test	0.01-0.04	0.05-0.09	0.1-0.14	0.15-0.19	0.2-0.24	0.25-0.29	0.3-0.34	0.35	Drugs Only	Total
M.V. Driver	6	17	0	0	3	0	2	0	0	0	1	29
M.V. Passenger	0	6	0	0	1	1	0	1	0	0	0	9
Motor-cyclist	2	2	0	1	0	0	0	0	0	0	1	6
Bicyclist	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrian	2	7	0	0	1	0	0	1	1	0	3	15
Train Victim	0	0	0	0	1	0	0	0	0	0	0	1
Hit & Run	0	0	0	0	0	0	0	0	0	0	0	0
Other (Airplane)	0	0	0	0	0	0	0	0	0	0	0	0
Total	10	32	0	1	6	1	2	2	1	0	5	60

TABLE 8

Accidental Deaths By Means (Excluding Traffic Fatalities)*

	2013	2014	2015	2016	2017
Falls: At Home	43	55	41	48	46
On the Job	6	1	4	2	0
Other Location*	13	8	8	15	10
Fire (<i>burns & soot with carbon monoxide inhalation</i>)	12	5	12	10	16
Choking	8	8	6	15	11
Drowning	7	5	10	4	5
Carbon Monoxide	1	2	3	1	1
Autoerotic Death	0	0	1	0	0
Electrocution	0	1	0	2	0
Struck by Object	1	1	2	1	0
Miscellaneous	11	10	11	22	8
Total	102	96	98	120	97

*Includes cases examined, not autopsied.

MEDICAL EXAMINER

TABLE 9
Individual Drugs of Abuse Recovered In Drug (Non-Suicidal) Deaths*

	2013	2014	2015	2016	2017
Cocaine (<i>includes "Crack"</i>)	26	23	32	41	40
Morphine/Heroin	44	47	57	87	63
Methadone	13	10	9	10	12
Fentanyl	4	8	21	40	52
PCP (<i>Phencyclidine</i>)	1	1	5	6	8
Cannabinoids (<i>includes synthetics</i>)	3	0	3	9	3
Benzodiazepines	32	31	36	55	49
Other Opiates** (<i>includes synthetics</i>)	31	25	25	31	28

*In nearly every case several drugs have been recovered in combinations.

**Includes Hydro/Oxymorphone, Hydro/Oxycodone

TABLE 10
Homicides By Means

	2013	2014	2015	2016	2017
Gunshot Wounds	7	5	8	14	11
Cutting Wounds	2	6	4	4	4
Blunt Force Trauma	3	4	1	5	6
Strangulation	1	0	0	0	1
Arson	0	0	0	0	0
Other (<i>Including Mixed</i>)	1	1	1	1	1
Total	14	16	14	25	23

TABLE 11
Deaths While In Custody

Cause Or Manner Of Death	2013	2014	2015	2016	2017
Natural	22	11	12	16	9
Drug or Ethanol Related	2	3	1	0	1
Suicide	0	1	1	1	3
Homicide	1	0	0	0	0
Other	1	0	0	1	0
Total	26	15	14	18	13

HISTOLOGY LABORATORY

TABLE 12

Tissue Examination

The Histology Laboratory prepares and processes all tissues submitted from autopsies affixing thin tissue sections onto glass slides. These are then stained appropriately for examination through the microscope by the Forensic Pathologist. Often such examinations play a necessary part in determining the cause of death since at autopsy some diseases do not present themselves as distinct changes visible to the naked eye.

	2013	2014	2015	2016	2017
Autopsies Examined Histologically	472	425	398	470	466
% Total Autopsies	78%	78%	69%	71%	73%
Microscopic Slides Stained With Ordinary Stains	2328	2098	1990	3549	2753
Average No. of Slides Per Autopsy	4.93	4.94	5.00	7.55	5.91
Microscopic Slides Stained With Special Stains	102	74	55	72	46

MEDICAL EXAMINER

In-Service Training and Educational Activities

Medical Examiners participated in numerous educational activities including individual one month rotations through the Department by pathology residents from Westchester Medical Center; monthly electives by New York Medical College senior students and Mercy College physician assistant students. The paramedic students, nursing students, radiology technicians/students and police recruits attended autopsy instruction viewings.

Lectures in Forensic Pathology were delivered to the New York Medical College sophomore medical students, Municipal Police Recruit Training School, detective groups and advanced crime scene law enforcement officers. Review of Forensic Pathology was given to Westchester Medical Center pathology residents in preparation for both resident in-service examination and American Board of Pathology Anatomic Qualifying Examination. Pathophysiology Problem Solving sessions were given to New York Medical College sophomore medical student groups.

Members of the division were involved in County health and safety programs through membership and participation in Westchester's Criminal Justice Advisory Board, Arson Task Force, Emergency Operations Center Task Force and Child Fatality Review.

MEDICAL EXAMINER

Diplomate Certifications, Professional Society

Memberships and Academic Appointments

Kunjilata Ashar

American Board of Pathology (*Anatomic Pathology, Forensic Pathology*)
National Association of Medical Examiners
Assistant Clinical Professor, New York Medical College:
Department of Pathology
Member, Disaster Mortuary Operational Response Team
On Faculty of New York Medical College's Child Abuse
Pediatrics Fellowship Program

Aleksandar Milovanovic

American Board of Pathology (*Anatomic Pathology, Clinical Pathology, Forensic Pathology*)
College of American Pathologists
American Academy of Forensic Sciences
National Association of Medical Examiners

Benjamin Bristol

American Board of Pathology (*Anatomic Pathology, Forensic Pathology*)
Member, Westchester County Medical Society
Assistant Clinical Professor, New York Medical College:
Department of Pathology

May Jennifer Amolat- Apiado

American Board of Pathology (*Forensic Pathology*)