

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 - 2015**

STAFF

Kunjlata Ashar, M.D.	Pathologist-Medical Examiner
Aleksandar Milovanovic, M.D.	Pathologist-Deputy Medical Examiner
Benjamin Bristol, M.D.	Pathologist-Associate Medical Examiner
Virginia L. Richards, M.D.	Pathologist-Assistant Medical Examiner
Margaret M. Schmidt	Assistant Director of Administrative Services
John H. Wolk, M.D.	Chief, Microbiological Services
David Vinci	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
Vincent H. Stefan, M.D.	Anthropologist

2014 FINANCIAL STATEMENT

	2014 <u>Budget</u>	2014 <u>Actual</u>	Under (Over) <u>Budget</u>
Expenditures:			
Personal Services	\$8,420,898	\$8,204,115	\$216,783
Equipment	0	0	0
Materials and Supplies	1,055,590	967,824	87,766
Contractual	<u>4,195,009</u>	<u>4,159,699</u>	<u>35,310</u>
S/T: Expenditures	\$13,671,497	\$13,331,638	\$339,859
Less: Services to Others	<u>20,000</u>	<u>42,484</u>	<u>(22,484)</u>
S/T: Net Expenditures	\$13,651,497	\$13,289,154	\$362,343
Revenues:			
Departmental	\$2,472,377	\$2,529,846	(57,469)
State Aid	<u>1,467,024</u>	<u>1,251,404</u>	<u>215,620</u>
Total Revenues	\$3,939,401	\$3,781,250	\$158,151
Net Department Budget	\$9,712,096	\$9,507,904	204,192

2015

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 2014.

*Westchester County Administrative Code 273.141

MEDICAL EXAMINER

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

	2011	2012	2013	2014	2015
Deaths in Westchester County	6507	6717	6694	6504	6400
Deaths Reported to M.E. Office	2679	2674	2935	2832	2812
% Reported to M.E. Office	41%	40%	44%	44%	44%
Deaths Certified by Medical Examiner	741	790	805	750	743
Autopsies Performed	544	594	608	546	577
% Certified Cases Autopsied	73%	75%	75%	73%	78%
Autopsies Not Performed Due to Religious Objection	13	23	23	29	18
Scenes Visited by M.E. & Medical Investigators	332	375	395	344	379
Court Appearances by Medical Examiners	26	24	17	20	15

TABLE 2
Medical Examiner Certifications By Manner of Death*

	2011	2012	2013	2014	2015
Natural Causes (Sign Outs and Natural)	393	402	392	373	337
Homicides	25	14	14	16	14
Suicides	60	78	68	64	64
Traffic (Includes Out of County Transfers)	52	46	69	50	72
Accidents (Exclusive of Traffic Deaths)	81	103	102	96	98
Drug & Drug Related (Exclusive of Suicides)	72	88	96	95	107
Alcohol and Alcohol Related	29	26	30	21	22
Undetermined Causes** (Cause/Manner)	4	2	4	0	1
Circumstances Undetermined** (Manner)	12	8	7	6	10

*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

	2011	2012	2013	2014	2015
Gunshot Wounds	17	14	15	10	13
Cutting Wounds	1	0	0	4	0
Hanging	13	25	27	23	21
Poisoning: Carbon Monoxide/Auto Exhaust	0	3	3	1	3
Mixed Drug Ingestion	12	15	7	7	9
Single Drug Ingestion	4	8	3	4	0
Jumped From Height	3	5	5	2	6
Plastic Bag Over Head	0	1	1	3	2
Drowning	1	3	0	1	1
Jumped in Front of Train	2	1	2	4	4
Other (Includes Combined Methods)	7	3	5	5	4
Suicides While in Custody	0	0	0	1	1
Total	60	78	68	64	64

TABLE 4
Suicide Victim Characteristics

Suicide Characteristics / % Total Suicides	2011	2012	2013	2014	2015
Female Victims	12/20%	24/31%	23/34%	13/20%	17/26%
Alcohol Recovered in Victim	16/26%	8/10%	18/26%	18/28%	16/25%
Illicit Drug Recovered in Victim	8/13%	10/13%	5/7%	11/17%	19/29%
Suicide Note(s) Recovered	21/35%	28/36%	27/38%	18/28%	30/47%

MEDICAL EXAMINER

TABLE 5
Suicide By Age Group

	2011	2012	2013	2014	2015
10-19	1	6	6	2	3
20-29	9	14	9	13	11
30-39	3	7	6	5	4
40-49	15	10	7	11	8
50-59	12	22	14	16	14
60-69	12	7	12	7	16
70-79	4	6	7	6	3
Above 80 Years	4	6	7	4	5
Total	60	78	68	64	64

TABLE 6
Traffic Deaths By Vehicular Type

	2011	2012	2013	2014	2015
Automobile: Driver	17	21	25	27	27
Passenger	11	4	16	6	8
Motorcycle	5	7	12	7	10
Bicycle	4	1	3	0	4
Train	0	0	0	1	5
Pedestrian Struck by Vehicle	11	13	13	7	13
Hit and Run	0	0	0	1	2
Airplane	4	0	0	1	2
Total	52	46	69	50	72

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	8	12	0	0	2	0	0	1	0	0	3	26
M.V. Passenger	2	6	1	0	0	0	1	0	0	0	0	9
Motor-cyclist	0	4	0	0	1	1	0	0	0	0	4	10
Bicyclist	2	1	0	0	0	0	0	1	0	0	0	4
Pedestrian	2	8	1	1	0	0	1	0	0	0	1	14
Train Victim	0	5	0	0	0	0	0	0	0	0	0	5
Hit & Run	0	0	1	0	0	0	0	0	0	0	1	2
Other (Airplane)	0	2	0	0	0	0	0	0	0	0	0	2
Total	14	38	3	1	3	1	1	2	0	0	9	72

TABLE 8

Accidental Deaths By Means (Excluding Traffic Fatalities)*

	2011	2012	2013	2014	2015
Falls: At Home	40	58	43	55	41
On the Job	2	3	6	1	4
Other*	8	15	13	8	8
Fire (<i>burns & soot with carbon monoxide inhalation</i>)	7	7	12	5	12
Choking	2	3	8	8	6
Drowning	7	6	7	5	10
Carbon Monoxide	0	0	1	2	3
Autoerotic Death	0	0	0	0	1
Electrocution	0	1	0	1	0
Struck by Object	2	3	1	1	2
Miscellaneous	13	7	11	10	11
Total	81	103	102	96	98

*Includes cases examined, not autopsied.

MEDICAL EXAMINER

TABLE 9

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

	2011	2012	2013	2014	2015
Cocaine (<i>includes "Crack"</i>)	26	20	26	23	32
Morphine/Heroin	29	41	44	47	57
Methadone	11	18	13	10	9
Meperidine	0	0	0	0	0
Fentanyl	2	1	4	8	21
PCP (<i>Phencyclidine</i>)	3	2	1	1	5
Cannabinoids (<i>includes synthetics</i>)	8	3	3	0	3
Benzodiazepines	27	37	32	31	36
Designer Drug	-	-	2	2	0
Other Opiates** (<i>includes synthetics</i>)	27	28	31	25	25

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

**Includes Hydro/Oxymorphone, Hydro/Oxycodone

TABLE 10

Homicides By Means

	2011	2012	2013	2014	2015
Gunshot Wounds	10	7	7	5	8
Cutting Wounds	4	5	2	6	4
Blunt Force Trauma	7	0	3	4	1
Strangulation	2	0	1	0	0
Arson	0	0	0	0	0
Battered Child (<i>Includes Infanticide</i>)	0	1	0	0	0
Other (<i>Including Mixed</i>)	2	1	1	1	1
Total	25	14	14	16	14

TABLE 11

Deaths While In Custody

Cause Or Manner Of Death	2011	2012	2013	2014	2015
Natural	5	5	22	11	12
Drug or Ethanol Related	1	4	2	3	1
Suicide	0	0	0	1	1
Homicide	1	0	1	0	0
Other	0	1	1	0	0
Total	7	10	26	15	14

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.

	2011	2012	2013	2014	2015
Autopsies Examined Histologically	376	405	472	425	
% Total Autopsies	69%	68%	78%	78%	
Microscopic Slides Stained With Ordinary Stains	1674	2426	2328	2098	
Average No. of Slides Per Autopsy	4	6	4.93	4.94	
Microscopic Slides Stained With Special Stains	13	46	102	74	

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

Virginia Richards

American Board of Pathology (*Anatomic Pathology, Clinical Pathology, Forensic Pathology*)
National Association of Medical Examiners
Assistant Clinical Professor, New York Medical College:
Department of Pathology
Westchester County Child Fatality Review Team, Member
Westchester County Mass Fatality Response Team, Member