

# **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 - 2016**

**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
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
Vincent H. Stefan, M.D.	Anthropologist

**2016 FINANCIAL STATEMENT**

	2015 <u>Budget</u>	2015 <u>Actual</u>	Under (Over) <u>Budget</u>
<b>Expenditures:</b>			
Personal Services	\$8,319,028	\$8,247,269	\$71,759
Equipment	0	0	0
Materials and Supplies	1,122,406	1,102,346	20,060
Contractual	<u>4,219,703</u>	<u>4,013,132</u>	<u>206,571</u>
S/T: Expenditures	\$13,438,706	\$13,262,164	\$176,542
Less: Services to Others	<u>30,000</u>	<u>20,977</u>	<u>9,023</u>
S/T: Net Expenditures	\$13,408,706	\$13,241,187	\$167,519
 <b>Revenues:</b>			
Departmental	\$2,618,000	\$2,856,633	(238,633)
State Aid	<u>1,427,081</u>	<u>937,942</u>	<u>489,139</u>
Total Revenues	\$4,045,081	\$3,794,575	\$250,506
 <b>Net Department Budget</b>	 \$9,363,625	 \$9,446,612	 -82,987

**2016**

**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**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Deaths in Westchester County	6717	6694	6504	6400	6243
Deaths Reported to M.E. Office	2674	2935	2832	2812	2925
% Reported to M.E. Office	40%	44%	44%	44%	47%
Deaths Certified by Medical Examiner	790	805	750	743	853
Autopsies Performed	594	608	546	577	666
% Certified Cases Autopsied	75%	75%	73%	78%	78%
Autopsies Not Performed Due to Religious Objection	23	23	29	18	13
Scenes Visited by M.E. & Medical Investigators	375	395	344	379	426
Court Appearances by Medical Examiners	24	17	20	15	19

**TABLE 2**  
**Medical Examiner Certifications By Manner of Death\***

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Natural Causes (Sign Outs and Natural)	402	392	373	337	395
Homicides	14	14	16	14	25
Suicides	78	68	64	64	66
Traffic (Includes Out of County Transfers)	46	69	50	72	50
Accidents (Exclusive of Traffic Deaths)	103	102	96	98	120
Drug & Drug Related (Exclusive of Suicides)	88	96	95	107	143
Alcohol and Alcohol Related	26	30	21	22	32
Undetermined Causes** (Cause/Manner)	2	4	0	1	3
Circumstances Undetermined** (Manner)	8	7	6	10	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**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Gunshot Wounds	14	15	10	13	17
Cutting Wounds	0	0	4	0	2
Hanging	25	27	23	21	19
Poisoning: Carbon Monoxide/Auto Exhaust	3	3	1	3	1
Mixed Drug Ingestion	15	7	7	9	6
Single Drug Ingestion	8	3	4	0	2
Jumped From Height	5	5	2	6	6
Plastic Bag Over Head	1	1	3	2	5
Drowning	3	0	1	1	3
Jumped in Front of Train	1	2	4	4	3
Other (Includes Combined Methods)	3	5	5	4	2
Suicides While in Custody	0	0	1	1	1*
Total	78	68	64	64	66

\* Not included in final total

**TABLE 4**  
**Suicide Victim Characteristics**

<b>Suicide Characteristics / % Total Suicides</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Female Victims	24/31%	23/34%	13/20%	17/26%	15
Alcohol Recovered in Victim	8/10%	18/26%	18/28%	16/25%	12
Illicit Drug Recovered in Victim	10/13%	5/7%	11/17%	19/29%	13
Suicide Note(s) Recovered	28/36%	27/38%	18/28%	30/47%	9

**MEDICAL EXAMINER**

**TABLE 5**  
**Suicide By Age Group**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
10-19	6	6	2	3	2
20-29	14	9	13	11	12
30-39	7	6	5	4	13
40-49	10	7	11	8	10
50-59	22	14	16	14	13
60-69	7	12	7	16	10
70-79	6	7	6	3	4
Above 80 Years	6	7	4	5	2
Total	78	68	64	64	66

**TABLE 6**  
**Traffic Deaths By Vehicular Type**

	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>
Automobile: Driver	21	25	27	27	16
Passenger	4	16	6	8	9
Motorcycle	7	12	7	10	10
Bicycle	1	3	0	4	0
Train	0	0	1	5	0
Pedestrian Struck by Vehicle	13	13	7	13	15
Hit and Run	0	0	1	2	0
Airplane	0	0	1	2	0
Total	46	69	50	72	50



**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	7	5	0	0	1	1	2	0	0	0		16
M.V. Passenger	1	7	0	1	0	0	1	0	0	0	0	9
Motor-cyclist	2	3	0	0	2	1	0	0	0	0	3	10
Bicyclist	0	0	0	0	0	0	0	1	0	0	0	0
Pedestrian	1	10	0	1	1	0	2	0	0	0	0	15
Train Victim	0	0	0	0	0	0	0	0	0	0	0	0
Hit & Run	0	0	0	0	0	0	0	0	0	0	1	2
Other (Airplane)	0	2	0	0	0	0	0	0	0	0	0	2
Total	11	25	0	2	4	1	4	0	0	0	3	50

**TABLE 8**

**Accidental Deaths By Means (Excluding Traffic Fatalities)\***

	2012	2013	2014	2015	2016
Falls: At Home	58	43	55	41	48
On the Job	3	6	1	4	2
Other Location*	15	13	8	8	15
Fire ( <i>burns &amp; soot with carbon monoxide inhalation</i> )	7	12	5	12	10
Choking	3	8	8	6	15
Drowning	6	7	5	10	4
Carbon Monoxide	0	1	2	3	1
Autoerotic Death	0	0	0	1	0
Electrocution	1	0	1	0	2
Struck by Object	3	1	1	2	1
Miscellaneous	7	11	10	11	22
Total	103	102	96	98	120

\*Includes cases examined, not autopsied.

**MEDICAL EXAMINER**

**TABLE 9**

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

	2012	2013	2014	2015	2016
Cocaine ( <i>includes "Crack"</i> )	20	26	23	32	41
Morphine/Heroin	41	44	47	57	87
Methadone	18	13	10	9	10
Meperidine	0	0	0	0	0
Fentanyl	1	4	8	21	40
PCP ( <i>Phencyclidine</i> )	2	1	1	5	6
Cannabinoids ( <i>includes synthetics</i> )	3	3	0	3	9
Benzodiazepines	37	32	31	36	55
Designer Drug	-	2	2	0	1
Other Opiates** ( <i>includes synthetics</i> )	28	31	25	25	31

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

\*\*Includes Hydro/Oxymorphone, Hydro/Oxycodone

**TABLE 10**

**Homicides By Means**

	2012	2013	2014	2015	2016
Gunshot Wounds	7	7	5	8	14
Cutting Wounds	5	2	6	4	4
Blunt Force Trauma	0	3	4	1	5
Strangulation	0	1	0	0	0
Arson	0	0	0	0	0
Battered Child ( <i>Includes Infanticide</i> )	1	0	0	0	1
Other ( <i>Including Mixed</i> )	1	1	1	1	1
Total	14	14	16	14	25

**TABLE 11**

**Deaths While In Custody**

Cause Or Manner Of Death	2012	2013	2014	2015	2016
Natural	5	22	11	12	16
Drug or Ethanol Related	4	2	3	1	0
Suicide	0	0	1	1	1
Homicide	0	1	0	0	0
Other	1	1	0	0	1
Total	10	26	15	14	18

## 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.

	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2016</b>
Autopsies Examined Histologically	376	405	472	425	470
% Total Autopsies	69%	68%	78%	78%	71%
Microscopic Slides Stained With Ordinary Stains	1674	2426	2328	2098	3549
Average No. of Slides Per Autopsy	4	6	4.93	4.94	7.55
Microscopic Slides Stained With Special Stains	13	46	102	74	72

## **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**

**Kunjata 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