# Government of the District of Columbia Office of the Chief Medical Examiner

### ANNUAL REPORT 2009



# "For a civilization to deserve that name, all of life must be valued including the absent life of the dead."

- Mate Reyes, Memoria de Auschwitz, 2003



Government of the District of Columbia Adrian M. Fenty: Mayor Neil Albert: City Administrator Executive Office of the Mayor

Marie-Lydie Y. Pierre-Louis. MD - Chief Medical Examiner Office of the Chief Medical Examiner

#### DISTRICT OF COLUMBIA OFFICE OF THE CHIEF MEDICAL EXAMINER

#### **MISSION:**

The mission of the Office of the Chief Medical Examiner (OCME), for the District of Columbia, is to investigate and certify all deaths in the District of Columbia that occur by any means of violence (injury), and those that occur without explanation or medical attention, in custody, or which pose a threat to the public health. OCME provides forensic services to government agencies, health care providers and citizens in the Washington D.C. metropolitan area to ensure that justice is served and to improve the health and safety of the public.

# The Executive Leadership Team (2009)

Marie-Lydie Y. Pierre-Louis, MD Chief Medical Examiner

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#### **PRESENTED TO:**

The Executive Office of the Mayor, The Council of the District of Columbia and The Citizens of the District of Columbia Calendar Year 2009 resulted in continued success for the OCME in meeting performance goals while addressing several challenges. Key projects included maintaining accreditation, improving staff recruitment, formalizing a quality control and assurance program and implementing the digitization project. Further, the staff remained resilient and committed in the face of emergency incidents and despite difficult economic challenges that resulted in heavier workloads and less resources. Consequently, the agency's work was performed timely and in compliance with all policies and procedures which is a testimony to the quality of the personnel serving this branch of the government. I am especially proud of the agency's work –in the face of great challenges – to ag accreditation standards set forth by the NAME. The agency's provisional accordinally granted in October 15, 2008 for six months; however upon re-insp of 2009 and as a result of the agency's progress.



the quality of the personnel serving this branch of the government. I am especially proud of the agency's work –in the face of great challenges – to again meet accreditation standards set forth by the NAME. The agency's provisional accreditation was originally granted in October 15, 2008 for six months; however upon re-inspection in December of 2009, and as a result of the agency's progress, provisional accreditation was granted by NAME through October 15, 2010. Also, of note the agency started an innovative digitization project to preserve and facilitate reviews of old paper files, and to automate the retrieval process of this data.

Over the past few years, agency staff underwent extensive training and exercises toward emergency response readiness. In 2009, this readiness was tested in two significant events: 1) the Presidential Inauguration of January 2009 and; 2) the D.C. Metro train accident of June 2009. The OCME responded rapidly, cohesively and with expertise and compassion. The agency also successfully coordinated with federal, regional and local entities in both situations.

This has been a fruitful year and in spite of the difficulties and challenges, it has been rewarding. The data presented in this Annual Report summarizes the work of the agency during the 2009 Calendar Year. We are hopeful that the information presented is useful to all stakeholders, District residents and the general public. The OCME is committed to provide the best possible services to the District's permanent and migrant population in accordance to D.C. Code and Regulations and OCME Policies and Procedures.

Respectfully

Marie Lystie J. Guerre - Louis, No

Dr. Marie-Lydie Y. Pierre-Louis Chief Medical Examiner

### **Executive Summary**

This Report covers data that resulted from the investigation of 3,000 deaths that occurred in the District of Columbia during the Calendar Year (CY) 2009. Report data will also include: Accomplishments, Weight Distributions for Body Mass Index, Internal Services, Identification Process, Agency Management and Other Major Activities which include - Court Tracking, Mass Casualties, Educational Lectures and Presentations. The goal of this report is to provide the public at large, the Executive Offices of the Mayor, and members of the Council for the District of Columbia with detailed information regarding deaths investigated during CY 2009.

The OCME serves the citizens of the District of Columbia and the Metropolitan D.C. area in their most difficult moments by providing timely removal of decedents from homes and public areas; thorough death investigation; prompt provision of death certificates and proofs of death to family members allowing for rapid funeral arrangements and access to insurance and other death benefits. The agency provides services to the public seven days per week during core business hours. However, deaths are reported to the agency 24 hours a day, 7 days per week, which includes weekends and holidays, and the investigations are conducted during the same time frame. Autopsies are performed everyday of the year as well, and on occasion it is necessary for the Medical Examiner to perform them at night

As a Public Safety agency, the OCME conducts an independent death investigation from the time the death is reported to the possible provision of expert testimony. By responding in a timely manner to death scenes, the OCME enables law enforcement officers to better focus on crime scene investigation while OCME concentrates on the body itself and allows the release of the noninvestigative officers to other duties. The OCME investigative staff at the death scene secures evidence associated with the body to ensure proper death investigation and, when feasible, conducts on-scene decedent identification by family members. The MedicoLegal investigators also pronounce death at the scene, a function that cannot be performed by law enforcement or firefighters. This also allows for prompt release of death scenes such as homes, streets, Metrorail and other public areas to their regular use.

Under the District Response Plan (DRP), the OCME is responsible for coordination of mass fatality efforts and is a support agency to several Emergency Support Functions (ESF's), including ESF's 4, 8, 9, 10 and 13. A unified approach is required as OCME works with law enforcement, firefighters, emergency management staff and public health officials for investigation of scenes, which may include remains, in an emergency incident. As such, OCME staff must report to such scenes during inclement weather, pandemic disasters or terrorism/emergency response events. Examples include OCME's response during: 1) the Presidential Inauguration in which staff remained available and in a state of readiness in-house and were deployed with Metrorail officers throughout the event; and 2) the 2009 Metrorail incident in which staff was deployed for hours, alongside law enforcement officers, firefighters and emergency management personnel, in order to recover remains, conduct death scene investigation and allow for prompt autopsies and release of loved ones remains to the families.

The OCME also serves as a Public Health agency in alerting appropriate officials of diseases or potential safety hazards presenting an immediate threat to residents, such as: 1) detection of acute meningococcal meningitis causing sudden death in school children; or 2) Prevention of deaths associated with use of heating devices/appliances or gas leaks by rapidly diagnosing the index case of carbon monoxide poisoning especially during inclement weather. The OCME also assists the government in providing appropriate shelter for residents by recognizing deaths secondary to hypothermia or those that are heat-related.

The agency also works closely with the U.S. Consumer Product Safety Commission to ensure the safety of all products in public use.

#### Accomplishments

In 2009, significant staffing improvements were realized as recruitments were conducted within the Forensic Pathology, Toxicology and Investigative Units. The OCME welcomed a Deputy Chief Medical Examiner, two Medical Examiners, four Toxicologists (including a Laboratory Quality Control Manager), a Lead Medicolegal Investigator, one Medicolegal Investigator, and two Forensic Investigators. These enhancements provided much relief to the staff of these areas and immediately improved the agency's performance on several measures. While the agency underwent a Reduction-In-Force (RIF) within the Fatality Review Unit, causing a delay in the publication of the unit's annual reports, the main mission of the unit was carried out.

Other improvements included the agency's work with the Department of Real Estate Services (DRES) to modify a room in the Mortuary Unit into a fully functional, modern histology laboratory. This would allow the agency to bring this outsourced service in-house; facilitating and expediting histological needs for case completion.

Of note, the OCME applied for and received a U.S. Department of Justice grant. This Paul Coverdell Forensic Science Improvement grant will be used throughout 2010 for professional advancement of forensic toxicologists within the OCME's Forensic Toxicology Unit, as well as implementation of a project to digitize about 30,000 medical examiner case records from 1972-2002. The purpose of the digitization project is to ensure the data are readily accessible and to provide security and integrity to fragile, degrading paper documents. These files are presently stored outside of the agency and require personnel travel time and manual labor to retrieve them from archiving facilities.

The agency also remained active in the different activities surrounding the building and governance of the new Consolidated Forensic Laboratory (CFL) which is slated to open in 2012 and will house the OCME. The agency continued to stress the need to maintain complete independence of its function in the death investigation process and the determination of cause and manner of death, as required by the D.C. Code and the National Association of Medication Examiners (NAME).

The agency continues to provide customer service consistent with the District's mission in welcoming students and residents from area universities and hospitals. The agency's personnel presented in-house lectures and conferences (i.e. Metropolitan Police Department (MPD) Homicide School and U.S. State Department Program) and conducted presentations at various meetings. The agency also provided expert grief counseling for decedent's families through the Wendt Center a service unique to the D.C OCME and well recognized and appreciated throughout the nation. Overall the agency's customer service survey results are several percentage points above the city-wide average and staff continues to be recognized for compassionate and efficient interactions with next-of-kin, as well as for cooperative relationships with funeral directors, law enforcement and other customers.

Overall, the agency's work continues to meet accreditation standards set forth by the NAME. The agency's provisional accreditation was originally granted in October 15, 2008 for six months and subsequently extended through October 15, 2009.

In December 2009, NAME re-inspected the agency and reported that remarkable improvements had been made since the 2008 inspection, especially in the area of staffing improvements, technological advancements and quality control and assessment mechanisms. As a result of the agency's progress, provisional accreditation was granted by NAME through October 15, 2010. The agency has again submitted a formal request for an additional extension.

#### **Weight Distributions**

OCME has included in this report, data on Body Mass Index (BMI) for the population it served. BMI is a mathematical formula used to determine one's ratio of body height to their body weight, which correlates strongly (in adults) with body fat content. The level of BMI is also compared to the incidence of Hypertensive and Arteriosclerotic Cardiovascular Disease by age and race.

#### **Internal Services (Grief Counseling)**

OCME is one of the few medical examiner offices in the nation that provides on-site grief counseling. We are pleased to be able to continue this service through an alliance with the Wendt Center for Loss and Healing (See Appendix C – Internal Services, for more information on the program).

#### **Mass Casualty**

In preparation for possible terrorist attacks and mass disaster, OCME continues to develop alliances with area hospitals, the Department of Health (DOH), and with agencies in the Public Safety and Justice Cluster with a goal to enhance the agency's Mass Fatality Plan in coordination with the National and District Response Plans. To practically accomplish this goal, we actively participate in local and federal exercises to determine scenarios not considered, additional resources that may be necessary, and processes and authorities that must be established. OCME is a member of the Interstate Compact that seeks to develop interstate mutual aid and unites Maryland, Virginia, Delaware, the District of Columbia, Federal Agencies and other jurisdictions in the event of a mass incident.

#### **Social Activities**

During 2009, the OCME staff continued to be very active in social programs such as Operation Prevent Auto Theft (OPAT), Career Day at District of Columbia Public and Public Charter schools, the Mayoral Summer Youth Program and the DC One Fund.

#### **Education**

OCME provided academic training to medical students and pathology residents from local hospitals, students from different universities located locally, regionally and abroad, from programs and scientific disciplines such as, physician assistants, forensic science, toxicology and mortuary science. The OCME also provided training for members of MPD, the United States Attorney's office, the State Department and soldiers of the Marine Corps.

#### Medical Examiner Caseload

As stated above there were a total of 3,000 deaths reported and investigated by the OCME, of which 1,664 were declined, and 1,291 cases were accepted for further investigation. Of those, 890 were autopsied (Full and Partials). The OCME also processed 2,426 cremation requests that were submitted for approval. The following table illustrates the number of autopsy examinations, external examinations, medical record reviews and partial autopsy examinations performed by "Manner of Death".

2009 Micultar Examiner Cases by Manner of Death					
Manner	Full Autopsy Examinations	Partial Autopsy Examination	External Examinations	Medical Record Reviews	Total
Accident	219	3	87	17	326
Homicide	139	0	0	1	140
Natural	360	75	250	7	692
Stillbirth	8	1	0	0	9
Suicide	50	0	2	0	52
Undetermined	47	1	0	1	49
Total	823	80	339	27	1268

#### 2009 Medical Examiner Cases by Manner of Death

**Note:** This table does not included data for the following cases: One (1) case was released to the Office of the Armed Forces Medical Examiner: 15 were "*Non-Human Remains*"; and 7 cases were "Anatomical Specimens

#### SUMMARY OF FINDINGS FOR MANNER OF DEATH

**HOMICIDES:** The OCME investigated 140 homicides in the CY 2009. This report reveals that homicides continued to be more prevalent in black males and in persons between the ages of 20-29. The weapon of choice was firearms. The peak incidents occurred in October. *Toxicology Findings:* Toxicology testing was requested for 138 of the 140 Homicide cases investigated.

<u>Toxicology Findings</u>: Toxicology testing was requested for 138 of the 140 Homicide cases investigated. Drugs were present in 79 of the homicide cases investigated. The most commonly detected drugs in homicide cases were: Ethanol (N=53), PCP (19), Cocaine (11), Marijuana Metabolites<sup>1</sup> (6); and Morphine (5).

**SUICIDES:** The OCME investigated 52 suicides in the CY 2009, which is a 17% decrease from 2008 (62). This report reveals that suicides were more prevalent in white males and in persons between the ages of 50-59. Overall whites represented the majority of the decedents (n=28) this year. Peak incidents occurred in September and November.

<u>Toxicology Findings</u>: Toxicology testing was requested for 50 of the 52 Suicide cases investigated. Overall, drugs were present in 32 of the suicide cases investigated. The most commonly detected drugs were: Ethanol (N=10), Citalopram (5); Bupropion (5); Cocaine (3); Zolpidem (3), Oxazepam (3); and Temazepam (3). The trend continues to be that more prescription medications were detected in suicide cases than in homicide cases.

**ACCIDENTS:** The OCME investigated 326 accidents in the CY 2009. Of the 326 cases investigated, 170 were the result of trauma, of which 67 were traffic related deaths; and 105 of the accidental deaths occurred as a direct result of illicit drug use.

The majority of the traffic accident deaths occurred in the following categories: males, blacks, and drivers between the ages of 20-29. Peak incidents for accidental deaths overall occurred in May, but for traffic accidents the peak months were June.

<u>Overall Toxicology Findings</u>: Toxicology testing was requested for 220 of the 326 Accident cases investigated, and drugs were present in 160 of these cases. The most commonly detected drugs were: Cocaine (N=62), Ethanol (61), Opiates (52), Methadone (12), Carbon Monoxide (17), Oxycodone (9), and PCP (6).

<u>Toxicology Findings for Traffic-related accidents:</u> Toxicology testing was requested for 55 of the 67 Traffic Related Accidents, and drugs were present in 28 of these cases. The most commonly detected drugs were: Ethanol (N=16), Cocaine (5), PCP (4) and Marijuana (4). In the 15 traffic related deaths positive for ethanol, the average Blood Alcohol Concentration was 0.18 % (range 0.02 - 0.41%). The legal limit for Blood Alcohol Concentration in the District of Columbia is 0.08% while driving.

*Toxicology Findings for Drug Overdose accidents:* Toxicology testing was requested for 103 of the 105 Drug Overdose deaths, and drugs were present in all 103 of the cases tested.

The Medical Examiner did not request Toxicology testing for two of the overdose cases because; one was an external examination, due to a delayed hospital death, but the hospital records, included a positive toxicology screen confirming the cause of death as an overdose. The other case was a Review of Medical Records and the remains did not come to the Medical Examiners office; but the cause of death was confirmed by a hospital autopsy and their medical records, which included positive toxicology results.

The most commonly detected drugs were: Cocaine (N= 55), Morphine (44), Ethanol (32), Methadone (12), and Oxycodone (6).

**NATURAL DEATHS:** The OCME investigated 692 Natural deaths in CY 2009. This report reveals that the leading cause of death in Natural cases is Cardiovascular Disease with 423 deaths, followed by Alcoholism with 38 deaths.

*Toxicology Findings:* Toxicology testing was requested for 358 of the 692 Natural cases investigated. Drugs were present in 178 Natural cases investigated.

<sup>&</sup>lt;sup>1</sup> Marijuana metabolites are not confirmed in homicide cases.

#### **Executive Summary**

The most commonly detected drugs were: Ethanol (N=63), Cocaine (23), Morphine (21), Methadone (9), Diphenhydramine (8), Citalopram (6); Oxycodone (5) and Acetone  $(24)^2$ 

**UNDETERMINED:** The OCME investigated 49 cases where the manner of death was concluded to be "Undetermined." An "Undetermined" manner of death is a result of inconclusive evidence and/or investigatory efforts as to the circumstances of the death at the time. If additional information is discovered, the manner of death will be amended at that time. Note that Sudden Unexpected Deaths in Infancy (SUID) carry an undetermined manner of death.

<u>Toxicology Findings</u>: Toxicology testing was requested for 46 of the 49 Undetermined deaths investigated. Drugs were present in 30 of the Undetermined cases investigated. The most commonly detected drugs were: Ethanol (N=6), Morphine (6); Methadone (4); Diazepam (4); Cocaine (3).

STILLBIRTHS: The OCME investigated 9 Stillbirth deaths in CY 2009.

*Toxicology Findings:* Toxicology analysis was performed in 9 Stillbirth Deaths investigated by OCME. Overall, drugs were absent in 4 stillbirths; cocaine was detected in 3 cases, PCP in 1 case, and ethanol in 1 case.

#### SUMMARY OF SIGNIFICANT ACTIVITIES AND APPENDIXES

Also included in this year's report are the following reports:

- 1. <u>Other Major Activities</u> This segment highlights the following activities: Court Tracking, Education and an Overview of the Identification and Public Disposition Process.
- 2. <u>Agency Management</u> This segment outlines major activities such as NAME accreditation, personnel management, contracting and procurement, and Information Technology.
- 3. <u>Internal Services</u> This segment provides an overview of OCME's continued partnerships with the Wendt Center for Loss and Healing.
- 4. <u>Letters of Appreciation</u> This segment highlights the letters and cards of appreciation the OCME received throughout 2009.

 $<sup>^{2}</sup>$  Fluids positive for Acetone (N=24) are represented in this total are a by product of diabetes mellitus and not due to ingestion.



# **OFFICE OF THE CHIEF MEDICAL EXAMINER**

# **2009 Annual Report**

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- **Appendix E** Letters of Appreciation

# **INTRODUCTION**

By law the Office of the Chief Medical Examiner (OCME) is required to produce an annual report. This annual report provides statistical data summarizing the results of investigations conducted by the OCME during calendar year 2009. This information is a reflection of the status of health of the District of Columbia residents, the level and types of violence to which this population is subjected to, and the prevalence of drug use and its association with homicides and/or traffic accidents. The Office of the Mayor, Office of the City Administrator, Department of Health (DOH), the D.C. Office of the Attorney General, United States Attorney's Office, the Public Defender Service and other entities can use the data to develop preventative and corrective policies for research purposes.

The OCME investigates the following types of human death occurring in the District of Columbia: 1) violent death, whether apparently homicidal, suicidal or accidental, including deaths due to thermal, chemical, electrical or radiation injury and deaths due to criminal abortion; 2) deaths that are sudden, unexpected or unexplained; 3) deaths that occur under suspicious circumstances; 4) deaths of persons whose bodies are to be cremated, dissected or buried at sea: 5) deaths at the workplace or resulting from work activity; 6) deaths that are due to diseases that may constitute a threat to public health; 7) deaths of persons who are wards of the District government; 8) deaths related to medical or surgical intervention; 9) deaths that occur while persons are in the legal custody of the District; 10) fetal deaths related to maternal trauma or maternal drug use; 11) deaths for which the Metropolitan Police Department (MPD), or other law enforcement agency, or the United States Attorney's Office requests, or a court orders investigation; and 12) dead bodies brought within the District without proper medical certification. (See Appendix A – (D.C. Law 13-172), DC Official Code \$5-1401 et seq. (2001)).

All deaths under the jurisdiction of the OCME, as outlined above, are investigated irrespective of the location of the primary causative incident. The Chief Medical Examiner, based on the evaluation of the circumstances surrounding the death, determines the type of investigation to be performed, i.e. autopsy or external examination. This decision is not restricted by family preference or religious beliefs. The OCME Medico Legal Investigators, Forensic Investigators and the Detectives of MPD's Natural Squad in the Homicide and Traffic Divisions provide information related to the circumstances of the deaths. The autopsy helps answer questions as to time of death, pattern and/or sequence of injuries and the effect of natural diseases versus injuries; and is also used to support or refute witness statements, or uncover completely unsuspected risk factors that may be useful to public health. The OCME works in close relationship with neighboring jurisdictions and is often called upon to provide expert testimony in these areas. Toxicological examinations assist in the determination of the cause and manner death, and are performed on most cases autopsied depending upon the conditions of the remains. Typical examinations conducted by the laboratory provide information on the presence and amount of alcohol, volatiles, illegal drugs, and some commonly used prescription and non-prescription medications. Other expert consultations (e.g. neuropathology and cardiovascular pathology) are requested when appropriate.

The agency now has three programs: Death Investigation and Certification, Agency Management, and Fatality Review. This report will include data on the Death Investigation and Certification, and the Agency Management programs. Due to significant staffing modifications a summary review of the Fatality Review Program is not included in this year report.

The Fatality Review Program includes the Child Fatality Review Committee (CFRC), the Developmental Disabilities Fatality Review Committee (DD FRC) and the Domestic Violence Fatality Review Board (DVFRB). These committees examine causes and circumstances associated with deaths in their respective populations, evaluate issues associated with services provided and make relevant recommendations that address systemic issues related to services that the District of Columbia provides to the constituents of these vulnerable populations. Each review committee produces an annual report that summarizes relevant findings and recommendations issued as well as government agency responses to the recommendations.

In addition to its routine caseload, the office provides temporary storage of bodies for all hospices and local hospitals. The OCME morgue has a total capacity of 115, which can be easily exceeded. Continuous and active efforts to locate family members, and bury or cremate unclaimed bodies are necessary to maintain available space. All efforts are made toward identification of the deceased before disposition. To achieve this goal, the OCME has not only trained its technical staff to fingerprint decedents, but also works cooperatively with the Mobile Crime unit of MPD and the Federal Bureau of Investigation (FBI). OCME also uses comparative radiology and/or DNA analysis as necessary to ensure identification. The OCME also keeps specimens for DNA analysis on all decedents processed.

OCME is one of the few medical examiner offices in the nation that provides on-site grief counseling. This service was through provided a contractual agreement with the Wendt Center for Loss and Healing (See page Appendix C for more information on the program).

In preparation for possible terrorist attacks and mass disaster, OCME is developing alliances with area hospitals and with agencies in the Public Safety and Justice cluster with a goal to integrate our Mass Fatality Plan with the District's Disaster Response Plan. To practically accomplish this goal we are also participating in local and federal exercises to determine scenarios not considered, additional resources that may be necessary, and processes and authorities that must be established.

During 2009, the OCME staff continued to be very active in social programs such as Career Day at District of Columbia public and public charter schools, the Mayoral Summer Youth Program and the D.C. One Fund.

In the area of education, OCME provides academic training of medical students, pathology residents from local hospitals, and students from national and international universities enrolled in programs with scientific disciplines such as: physician assistance, forensic sciences toxicology and mortuary science programs. The OCME also provided training for members of MPD and various law enforcement entities including the United States Attorney's office and the soldiers of the Marine Corps.

### 2.0 – Medical Examiner Investigations and Medical Legal Autopsies

#### Overview of Cases Reported and Investigated

During the Calendar Year (CY) 2009, **3,000** cases were reported to and investigated by the Office of the Chief Medical Examiner (OCME). Forty-five (**45**) of the reported cases were Storage requests only. **1,664** of the reported cases were "Declined Jurisdiction" by OCME; however, 24 of these Declined cases became Storage Requests, which were not necessarily approved. **1,291** of the reported cases were "Accepted" by OCME. Of the Accepted cases 903 were autopsied. OCME also had a total of 2,426 Cremation requests submitted for approval (See section 4.0 for details).

Total Number of Cases Reported and	
Investigated by the OCME	3,000
Total Number of Declined Cases	1,664
Percent of Cases Reported & Investigated	55%
Total Number of Cases Accepted for Further Investigation	1,2911
Percent of Cases Reported & Investigated	43%
Total Number of Autopsies	
Full – 810	
Partial – 80	
Completed at a Hospital – 13	903
Percent of Cases Accepted	70%
Number of Scene Visits by a Medical Examiner or Medico Legal/Forensi	8
tor	518
Percent of Cases Accepted for Further Investigation	40%
Total Number of Bodies Transported by OCME or by Order of the OCM	1E:
Transported by Pick-up Service - 321	
Transported by Funeral Home - 22	
Transported by Other(EMS/FBI) - 2	
Transported by Office Personnel – 961	1306 <sup>2</sup>
Percent of Cases Reported & Investigated	44%
Total Number of Organ/Tissue Donation Requests:	
Number of requests OCME approved – 142	
Number of requests OCME approved – 142 Number of requests OCME declined - 15	
Number of procured approved donations – 32	157
	-
Percent of Cases Accepted for Further Investigation	12%

<sup>&</sup>lt;sup>1</sup> One OCME "Accepted" case was released to the Office of the Armed Forces Medical Examiner (OAFME) because the decedent was active duty military

<sup>&</sup>lt;sup>2</sup> This total includes some storage cases that required transport, which are in addition to the "Accepted" cases

### Breakdown of Accepted Cases by Exam Type

Total Number of Cases Accepted and	
Investigated Further	<b>1,291</b> <sup>3</sup>
Total Number of Autopsies	
Full – 810	
Partial – 80	
Completed at a Hospital – 13*	903
Percent of Cases Accepted	
Number of External Examinations	339
Percent of Cases Accepted	
Number of Non-Human Remains *	15
Percent of Cases Accepted	
Number of Medical Record Reviews *	27 <sup>4</sup>
Percent of Cases Accepted	21
Tercem of Cases Accepted	
Number of Anatomical Specimen Disposals*	7
Percent of Cases Accepted	

#### \* Definition of Unfamiliar Exam Type Classifications:

Autopsy Completed at a Hospital: During Calendar Year 2009 there were 12 cases where the autopsy was performed at a hospital. The DC Code § 5-1409 authorizes the Chief Medical Examiner to deputize any "qualified pathologist" to perform an autopsy on a decedent that is a Medical Examiner case.

Some of these cases were initially declined by the OCME and later accepted based on additional information/autopsy findings. Cases in which the autopsy was completed at the hospital, still required review of the autopsy reports and completion of the death certificates be done by the Medical Examiners.

- > *Non-Human Remains*: Cases that are commonly identified as animal remains.
- Medical Record Reviews: Cases where the body is not available for examination and the investigation and determination of cause and manner of death are based solely on the review of available medical records.
- Anatomical Specimen Disposals: Cases where surgical specimens are received in formalin or fresh from area hospitals where they were removed prior to a death and are associated with a current decedent at the OCME, or placental tissue associated with a newborn or fetus that was accepted as an OCME case.

<sup>&</sup>lt;sup>3</sup> One decedent was released to the Office of the Armed Forces Medical Examiner (OAFME) because the decedent was active duty military

### Breakdown of Case Investigations and Autopsies by Month

Month	Case Investigations	Autopsies Full and Partials
January	241	81
February	218	59
March	274	66
April	242	67
May	261	80
June	244	82
July	249	78
August	239	71
September	279	77
October	272	80
November	269	77
December	212	85
Total	3000	903

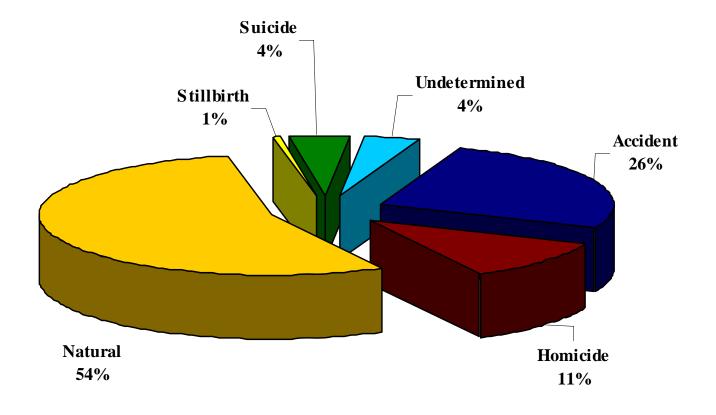
### Medical Examiner Case Investigations by Manner of Death

Manner	Full Autopsy Examinations	Partial Autopsy Examinations	External Examinations	Review of Medical Records	Total
Accident	219	3	87	17	326
Homicide	139	0	0	1	140
Natural	360	75	250	7	692
Stillbirth	8	1	0	0	9
Suicide	50	0	2	0	52
Undetermined <sup>4</sup>	47	1	0	1	49
Total	823	80	339	26	1268

**Note:** The above table does <u>NOT</u> include the following cases: one (1) case released to the OAFME; "*Anatomical Specimen Disposals* (n=7)", or "*Non-Human Remains* (n=15)."

<sup>4</sup> This number includes 10 cases that are sudden unexplained infant deaths that were classified as Sudden Infant Death Syndrome (SIDS) in the past with a Natural manner of death.

### **Pie Chart - Medical Examiner Cases by Manner of Death**



## **Postmortem Toxicology Summary**

Depending on the specimens received and the degree of decomposition, routine toxicological testing includes analysis for alcohols (ethanol and other volatiles), an initial screen for major classes of illicit and prescription medications, and an additional screen for various illicit, prescription and "over-the-counter" medications. All drugs of significance are then confirmed by further testing. Typical specimens received include blood, urine, bile, vitreous, liver, brain, and gastric contents.

A negative case refers to the <u>absence</u> of any alcohol and commonly detectable drugs. A positive case refers to the <u>presence</u> of alcohol and/or drug(s), noting that a case can be positive for more than one substance. The alcohol and/or drugs detected did not necessarily cause or contribute to death. Drugs that are excluded from this report include many of the "over-the-counter" medications such as: lidocaine, caffeine, nicotine, diphenhydramine, pseudoephedrine, ephedrine, dextromethorphan, salicylate, acetaminophen, and ibuprofen unless they contributed to the death or were detected in a significant concentration.

#### Total number of postmortem cases analyzed:

Description	Number of Cases	% of Cases	
N=	821		
Negative	301	36.6 %	
Positive	520	63.3 %	

The most commonly	v detected o	drugs in the	postmortem	cases overall were:
	,			

Drug Name	Number of Cases	% of Cases
Ethanol	226	27.5 %
Cocaine	121	14.7 %
Morphine	94	11.4 %
PCP	33	4.0 %
Methadone	29	3.4 %
Codeine	26	3.5 %
Oxycodone	20	2.4 %
Carbon Monoxide	19	2.3 %
Diazepam	14	1.7 %
Citalopram	14	1.7 %
Marijuana Metabolite	13	1.5 %
Nordiazepam	13	1.5 %
Diphenhydramine	13	1.5 %
Bupropion	12	1.4 %
Phenytoin	12	1.4 %
Levamisole	11	1.3 %
Zolpidem	8	0.9 %
Hydrocodone	7	0.8 %
Amitriptyline	7	0.8 %

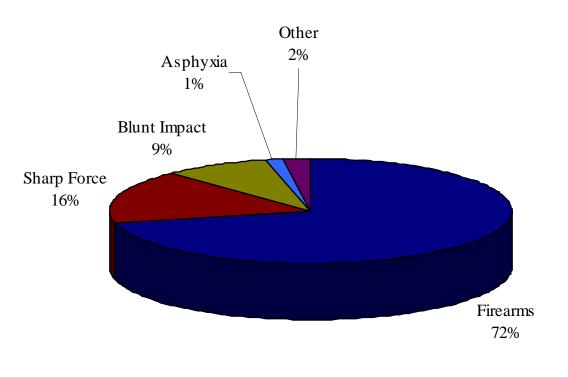
# **2.1 - HOMICIDES**

The OCME investigated 140 homicides in the CY 2009. The following tables and graphs provide a distribution by cause of death, month, race, gender and age group. Death by homicidal acts is more prevalent in black males and in the age group 20 to 29 years. The weapon of choice is fire-arms. The majority of incidents occurred in October.

Cause	Number of Homicides	% of Total Homicides
Firearms	100	72%
Sharp Force	23	16%
Blunt Impact	12	9%
Other	3	2%
Asphyxia	2	1%
Total	140	100%

### Homicides by Cause of Death

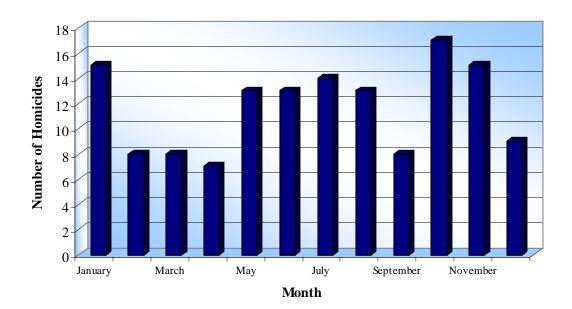
### Pie Chart – Homicides by Cause of Death



# Homicides by Month

Month	Number of Homicides	% of Homicides
January	15	11%
February	8	6%
March	8	6%
April	7	5%
May	13	9%
June	13	9%
July	14	10%
August	13	9%
September	8	6%
October	17	12%
November	15	11%
December	9	6%
Total	140	100%

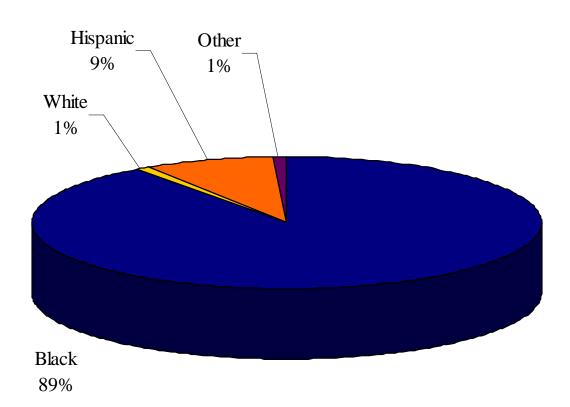
## Graph - Homicides by Month



# Homicides by Race

Race/Ethnicity	Number of Homicides	% of Homicides
Black	126	89%
Hispanic	12	9%
White	1	1%
Other	1	1%
Total	140	100%

# Chart – Percentage of Homicides by Race



# Homicides by Gender

Gender	Number of Homicides	% of Homicides
Female	11	8%
Male	129	92%
Total	140	100%

# Homicides by Race/Ethnicity and Gender

Race/Ethnicity by Gender	Number of Homicides
Black	126
Female	9
Male	117
Hispanic	12
Female	2
Male	10
White	1
Female	0
Male	1
Other	1
Female	0
Male	1
Total	140

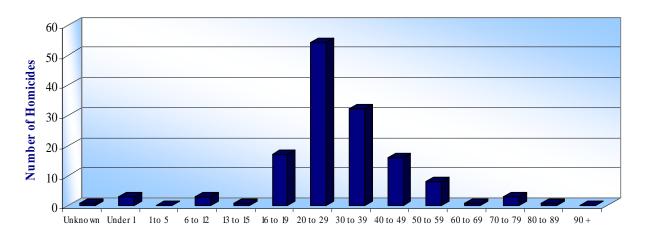
## Homicides by Jurisdiction of Incident

Jurisdiction of Incident	Number of Homicides
DC	129
MD	8
UNKNOWN	3
Total	140

# Homicides by Age

Age	Number of Homicides	% of Homicides
Unknown	1	1%
Under 1	3	2%
1 to 5	0	0%
6 to 12	3	2%
13 to 15	1	1%
16 to 19	17	12%
20 to 29	54	39%
30 to 39	32	23%
40 to 49	16	11%
50 to 59	8	6%
60 to 69	1	1%
70 to 79	3	2%
80 to 89	1	1%
90 +	0	0%
Total	140	100%

# Chart - Homicides by Age Group



Age

осме- 2009 Annual керотт rev. 2010 Of the 140 Homicide deaths investigated by OCME, toxicology analysis was performed on 138 cases. Drugs were absent in 59 homicide cases. Of the remaining positive cases, 30% had more than one drug present.

Description	Number of Cases	% of Cases
N=	138	
Negative	59	42.7 %
Positive	79	57.3 %

#### The most commonly detected drugs in the homicide cases were:

Name of Drug	Number of Cases	% of Homicide Cases
Ethanol	53	38.4%
PCP	19	13.7 %
Cocaine	11	7.9 %
Marijuana Metabolites*	6	4.3 %
Morphine	5	3.6 %

\*Marijuana metabolites are not confirmed in homicide cases.

# 2.2 - SUICIDES

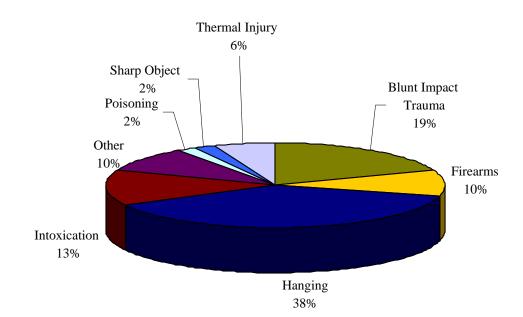
The OCME investigated 52 suicides in CY 2009, which represents 17% decrease from the number of suicides in CY 2008 (n = 62). Deaths by suicidal acts were more prevalent in white males and in persons between the ages of 50-59 years. Also of note, suicides decreased by 50% for those in the age category 30-39 years. Hangings were the leading cause of death for suicides this year. The majority of incidents occurred in September and November.

Cause	Number of Suicides	% of Total Suicides
Hanging	20	38%
Blunt Impact Trauma	10	19%
Intoxication	7	13%
Firearms	5	10%
Other	5	10%
Thermal Injury	3	6%
Poisoning	1	2%
Sharp Object	1	2%
Total	52	100%

### Suicides by Cause of Death

Note: The percentages in the "Pie Chart" are rounded up or down to nearest whole number.

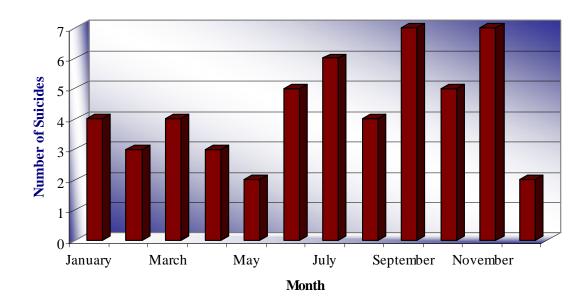
### Pie Chart - Suicides by Cause of Death



# Suicides by Month

Month	Number of Suicides	% of Suicides
January	4	8%
February	3	6%
March	4	8%
April	3	6%
May	2	4%
June	5	10%
July	6	12%
August	4	8%
September	7	13%
October	5	10%
November	7	13%
December	2	4%
Total	52	100%

# Chart- Suicides by Month



#### Suicide by Race/Ethnicity

Race/Ethnicity	Number of Suicides	% of Suicides
White	28	54%
Black	19	36%
Hispanic	5	10%
Total	52	100%

#### Suicides by Race/Ethnicity and Gender

Race/Ethnicity by Gender	Number of Suicides
Black	19
Female	3
Male	16
White	28
Female	9
Male	19
Hispanic	5
Female	0
Male	5
Total	52

#### Suicides by Gender

Gender	Number of Suicides	% of Suicides
Female	12	23%
Male	40	77%
Total	52	

#### Suicides by Jurisdiction of Incident

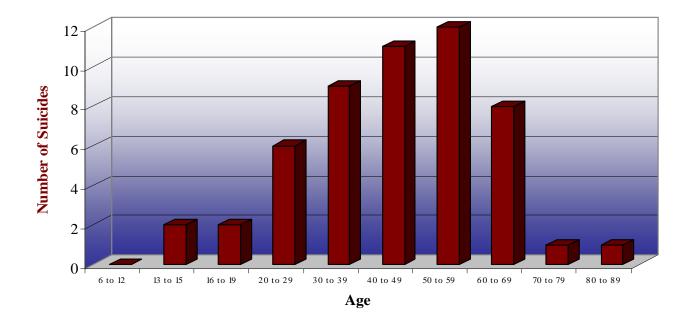
Gender	Number of Suicides	% of Suicides
DC	45	87%
MD	4	7%
Virginia	3	6%
Total	52	100%

## Suicide by Age

Age	Number of Suicides	% of Suicides
13 to 15	2	4%
16 to 19	2	4%
20 to 29	6	12%
30 to 39	9	17%
40 to 49	11	21%
50 to 59	12	23%
60 to 69	8	15%
70 to 79	1	2%
80 to 89	1	2%
90 +	0	0%
Total	52	100%

**Note**: There were zero (0) suicides for persons age 1 to 12 and those Over 90 years.

### Chart - Suicides by Age



Of the 52 suicide deaths investigated by OCME, toxicology analysis was performed on 50 cases. Drugs were absent in 18 suicide cases. Of the remaining positive cases, 53% had more than one drug present.

Description	Number of Cases	% of Cases
N=	50	
Negative	18	36.0 %
Positive	32	64.0 %

The most commonly detected drugs in suicide cases were:

Name of Drug	Number of Cases	% of Suicide Cases
Ethanol	10	20.0 %
Citalopram	5	10.0 %
Bupropion	5	10.0 %
Cocaine	3	6.0 %
Zolpidem	3	6.0 %
Oxazepam	3	6.0 %
Temazepam	3	6.0 %

Overall, more prescription medications were detected in the suicide cases than in the homicide cases.

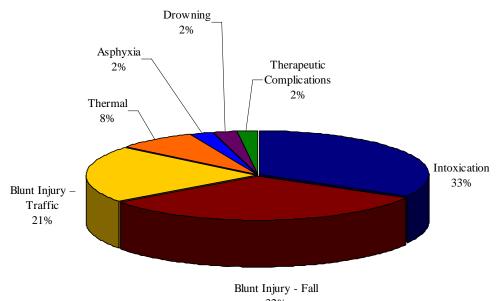
# 2.3 - ACCIDENTS

OCME investigated 326 accident cases in CY 2009. Of the 326 cases investigated, 67 were related to motor vehicle accidents. 105 of the Accidental deaths were the direct result of illicit drug use. The majority of incidents occurred in May.

Cause	Number of Deaths	% of Total Accidents
Intoxication	105	32%
Blunt Injury - Fall	101	31%
Blunt Injury – Traffic	67	21%
Thermal	24	2%
Asphyxia	7	2%
Drowning	7	2%
Therapeutic Complications	6	2%
Hypothermia	4	1%
Blunt Injury - Other	2	1%
Other	2	1%
Electrocution	1	0%
Total	326	100%

# Accidents by Cause of Death

# Pie Chart - Accidents by Cause of Death<sup>5</sup>

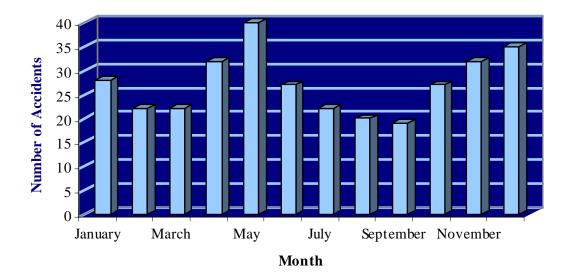


<sup>5</sup> This chart does not include causes of death that are 1% or less of the total number of deaths.

### Accidents by Month

Month	Number of Deaths	% of Accidents
January	28	9%
February	22	7%
March	22	7%
April	32	10%
May	40	12%
June	27	8%
July	22	7%
August	20	6%
September	19	6%
October	27	8%
November	32	10%
December	35	11%
Total	326	100%

## Chart - Accidents by Month of Death



# Accidental Deaths by Race

Race/Ethnicity	Number of Accidents	% of Accidents
Asian	3	1%
Black	208	64%
Hispanic	15	5%
Other	5	2%
Unknown	4	1%
White	91	28%
Total	326	100%

### Accidental Deaths by Gender

Gender	Number of Accidents	% of Accidents
Female	120	37%
Male	206	63%
Total	326	100%

# Accidental Deaths by Age

Age	Number of Accidents	% of Accidents
Under 1	2	1%
1 to 5	7	2%
6 to 12	7	2%
13 to 15	3	1%
16 to 19	3	1%
20 to 29	24	7%
30 to 39	23	7%
40 to 49	59	18%
50 to 59	76	23%
60 to 69	44	13%
70 to 79	26	8%
80 to 89	33	10%
90 +	19	6%
Total	326	100%

Of the 326 Accident Deaths investigated by OCME, toxicology analysis was performed in 220 cases. Drugs were absent in 46 accident cases. Of the remaining positive cases, 55% had more than one drug present and 25% had more than 3 drugs present.

Description	Number of Cases	% of Cases
N=	220	
Negative	46	20.9 %
Positive	174	79.1 %

#### The most commonly detected drugs in the accident cases were:

Name of Drug	Number of Cases	% of Accident Cases
Cocaine	62	28.1 %
Ethanol	61	27.7 %
Opiates	52	23.6 %
Carbon monoxide	17	7.7 %
Methadone	12	5.4 %
Oxycodone	9	4.0 %
РСР	6	2.7 %

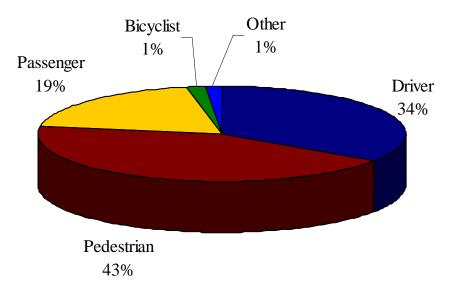
# **2.3.1 – Traffic Deaths**

Of the 67 traffic related deaths certified by the OCME in Calendar Year 2009; the majority occurred in the following categories: Driver and Pedestrian between the ages of 20 to 29. The majority of traffic fatalities occurred in June.

### Role of the Decedent in Traffic Death

Role	<b>Traffic Deaths</b>	% of Traffic Deaths
<b>Driver</b> - Motor Vehicle(17) - Motorcycle (5) - Metro Train (1)	23	34%
Pedestrian	29	43%
Passenger- Motorvehicle (5)- Metro Train(8)	13	19%
Bicyclist	1	1%
Other - Parked Vehicle (1)	1	1%
Total	67	100%

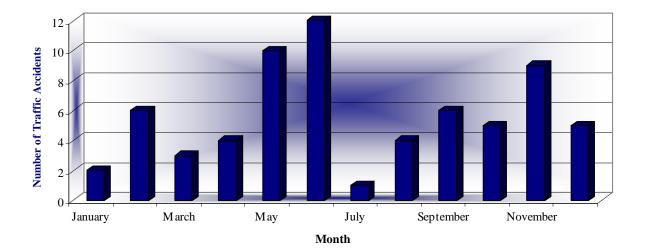
### Pie Chart - Role of Decedent in Traffic Accident



Traffic 1	Deaths	by I	Month

Month	Number of Traffic Accidents	% of Traffic Accidents
January	2	3%
February	6	9%
March	3	4%
April	4	6%
May	10	15%
June	12	18%
July	1	1%
August	4	6%
September	6	9%
October	5	7%
November	9	13%
December	5	3%
Total	67	100%

# Chart - Traffic Deaths by Month



## Traffic Deaths by Race

Race	Number of Traffic Deaths	% of Traffic Deaths
Black	39	58%
Hispanic	11	16%
White	15	22%
Asian	1	1%
Unknown	1	1%
Total	67	100%

## Traffic Deaths by Gender

Gender	Number of Traffic Deaths	% of Traffic Deaths
Female	22	33%
Male	45	67%
Total	67	100%

## Traffic Deaths by Age

Age	Number of Traffic Deaths	% of Traffic Deaths
Under 1	0	0
1 to 5	0	0
6 to 12	2	3%
13 to 15	2	3%
16 to 19	2	3%
20 to 29	15	22%
30 to 39	9	13%
40 to 49	12	18%
50 to 59	10	15%
60 to 69	10	15%
70 to 79	3	4%
80 to 89	1	1%
90 +	1	1%
Total	67	100%

**Note:** There were no traffic deaths for children 5 year old and under.

## Traffic Deaths by Jurisdiction of Incident

Jurisdiction of Incident	Number of Traffic Deaths	% of Traffic Deaths
DC	44	66%
MD	13	19%
VA	7	10%
Unknown	1	1%
Out of Metro Area	2	3%
Total	67	100%

## Toxicology Findings for Traffic Accident Cases

Of the 67 Traffic-related deaths investigated by OCME, toxicology analysis was performed in 55 cases. Drugs were absent in 27 traffic accident cases. Of the remaining positive cases, 28.5% had more than one drug present.

Description	Number of Cases	% of Cases
N=	55	
Negative	27	49.1 %
Positive	28	50.9 %

#### The most commonly detected drugs in the traffic accident cases were:

Name of Drug	Number of Cases	% of Traffic Cases
Ethanol	16	29.0%
Cocaine	5	9.0 %
PCP	4	7.2 %
Marijuana	4	7.2 %

In the 16 traffic deaths positive for ethanol, the average Blood Alcohol Concentration was 0.18% (range 0.02 - 0.41%). The legal limit for Blood Alcohol Concentration in the District of Columbia is 0.08% while driving.

## 2.3.2 – Toxicology Findings for Deaths due to Drug Overdose

There were 105<sup>6</sup> OCME cases where death was directly related to drug use, and toxicology analysis was performed in 103 of these cases. The most prevalent drug in the population was cocaine alone or in combination with other drugs. Drugs were present in all 103 overdose cases. Of the positive cases, 67.9% had more than one drug present.

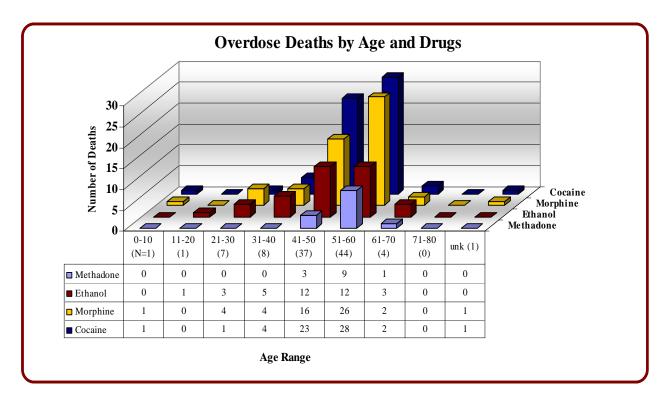
Description	Number of Cases	% of Cases
N=	103	
Negative	0	0 %
Positive	103	100 %

The most commonly detected drugs in drug overdose cases were:

Contributing Drugs	Number of Cases	% of Cases
Cocaine	55	53.3 %
Morphine	44	42.7 %
Ethanol	32	31.0 %
Methadone	12	11.6 %
Oxycodone	6	5.8 %

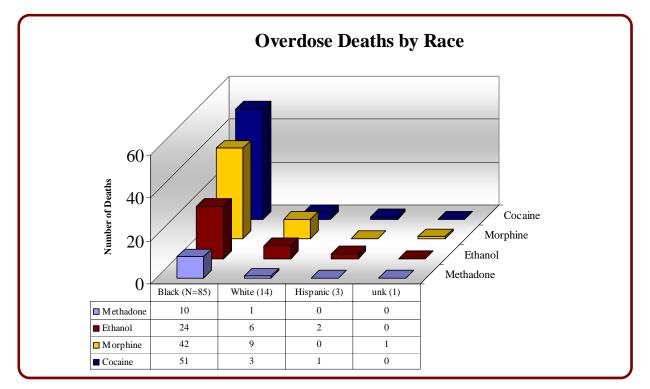
<sup>6</sup> The Medical Examiner did not request Toxicology testing for two of the overdose cases because; one was an external examination, due to a delayed hospital death, but the hospital records included a positive toxicology screen, which confirmed the cause of death as an overdose. The second case was a hospital autopsy, and the remains did not come to the DC Medical Examiners office; however, the cause of death was confirmed by the hospital autopsy and records, which included a positive toxicology screen.

### Accidental Drug Overdose Fatalities by Age



### **Accidental Drug Overdose Fatalities by Race**

The vast majority of overdose deaths occurred in black decedents, and again the most frequently detected drugs in both black and white decedents were cocaine, morphine, ethanol and methadone.



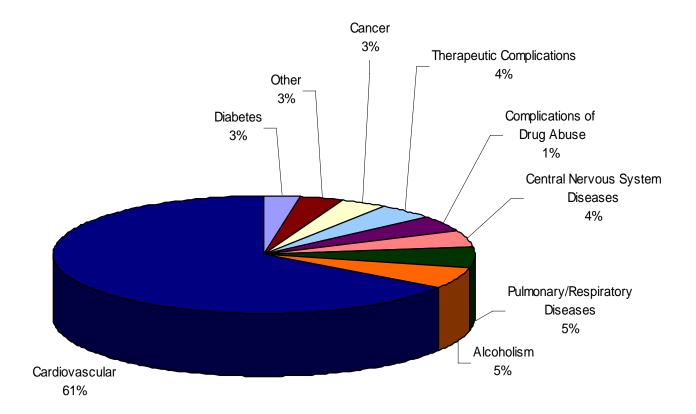
# **2.4 - NATURAL DEATHS**

In calendar year 2009, "Cardiovascular Disease" continues to be the leading Natural cause of death in OCME cases; followed by Alcoholism. Blacks represented 75% of these deaths. More Natural deaths occurred in September than in any other month.

Cause	Number of Deaths	% Of Total Natural Deaths
Cardiovascular Disease	423	61%
Alcoholism	38	5%
Pulmonary/Respiratory Diseases	36	5%
Central Nervous System Diseases	31	4%
Infectious Disease	28	4%
Therapeutic Complications	27	4%
Cancer	24	3%
Other	21	3%
Diabetes	18	3%
Gastrointestinal Disease	11	2%
Obesity or Complications of Obesity	11	2%
Complications of Drug Abuse	9	1%
Blood Disease/Hemopoietic System	5	1%
Immune System Disease	5	1%
Genetic Disorder	4	1%
Connective Tissue Disease	1	0%
Total	692	100%

## **Natural Deaths by Cause**

## Pie Chart – Natural Deaths by Cause

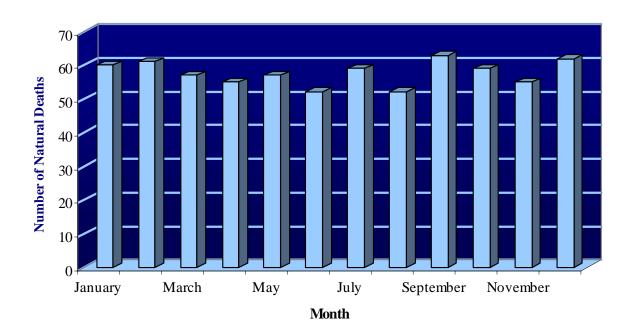


Note: Causes of Death that are less than 2% is not included in this chart.

# Natural Deaths by Month

Month	Number of Deaths
January	60
February	61
March	57
April	55
May	57
June	52
July	59
August	52
September	63
October	59
November	55
December	62
Total	692

## Chart- Natural Deaths by Month



## Natural Deaths by Race

Race	Number of	% of Natural Deaths
	Natural Deaths	
Black	517	75%
White	132	19%
Hispanic	20	3%
Asian	10	1%
Other	10	1%
Pacific Islander	1	0%
Unknown	2	0%
Total	692	100%

## Natural Deaths by Gender

Gender	Number of Natural Deaths	% of Natural Deaths
Female	254	37%
Male	438	63%
Total	692	100%

## Natural Deaths by Age

Age	Number of Natural Deaths	% of Natural Deaths		
Under 1	7	1%		
1 to 5	1	0%		
6 to 12	1	0%		
13 to 15	2	0%		
16 to 19	2	0%		
20 to 29	15	2%		
30 to 39	37	5%		
40 to 49	106	15%		
50 to 59	187	27%		
60 to 69	147	21%		
70 to 79	103	15%		
80 to 89	64	9%		
90 +	20	3%		
Total	692	100%		

Of the 692 Natural Deaths investigated by OCME, toxicology analysis was performed in 358 cases. Drugs were absent in 160 natural cases. Of the positive cases, 44.9% had more than one drug present.

Description	Number of Cases	% of Cases	
N=	358		
Negative	160	44.6 %	
Positive	178	55.3 %	

#### The most commonly detected drugs in the natural cases were:

Name of Drug	Number of Cases	% of Natural Cases
Ethanol	63	17.5 %
Cocaine	23	6.4 %
Acetone <sup>7</sup>	24	6.7 %
Morphine	21	5.8 %
Methadone	9	2.5 %
Diphenhydramine	8	2.2 %
Citalopram	6	1.7 %
Oxycodone	5	1.3 %

<sup>&</sup>lt;sup>7</sup> Fluids positive for Acetone (24) are represented in this total are a by product of "Diabetes Mellitus" and not due to ingestion.

# **2.5 – UNDETERMINED DEATHS**

## Undetermined by Cause of Death

The OCME investigated 49 cases in which the <u>manner of death</u> was concluded to be "Undetermined," and of these 20 cases or 42% also had a <u>cause of death</u> classified as "Undetermined".

An "Undetermined" <u>manner of death</u> is a result of inconclusive evidence and/or investigatory efforts as to the circumstances of the death at the time. If additional information is discovered, the manner of death will be amended to indicate those new findings. There were no deaths classified as "Undetermined" in the following age groups: 6-12, 13-15, 16-19, or those over 90 years old. Peak incidents occurred in June and July.

#### Remains that are Skeletonized or in a state of Advanced Decomposition

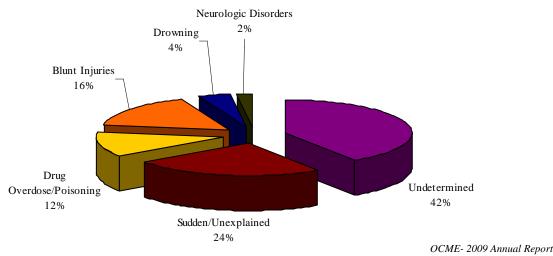
It is often very difficult to verify the Cause of Death for bodies that are markedly decomposed or skeletonized (decaying or decayed). There were two decedents who were skeletonized and nine who were in an advanced state of decomposition, which is a total of 11 cases. As a result, these deaths represent 55% of the cases where both Cause and Manner of death were classified as Undetermined.

Cause of Death	Number of Deaths	% of Total Accepted Cases	
Undetermined	20	42%	
Sudden and Unexplained	12	24%	
Drug Overdose/Poisoning	6	12%	
Blunt Injuries	8	16%	
Drowning	2	4%	
Neurologic Disorders	1	2%	
Total	49	100%	

#### Sudden Unexpected Infant Death (SUID)

In 2009, there were 11 child deaths that were classified with a cause of death as Sudden and Unexplained, and a manner of death as Undetermined. Over the past five years (2005 – 2009) the number of "Undetermined Deaths" has increased slightly due to a new process for determining cause and manner of death for infants. Previously these deaths were <u>all</u> classified with a Cause of Death as Sudden Infant Death Syndrome (SIDS), and with a Manner of Death as Natural. It was determined through extensive research conducted by the CDC that many of these deaths were associated with bed-sharing and/or improper bedding. Classifying all these types of deaths as "SIDS, Natural" did not reflect the reality of the circumstances surrounding the event. So, it has been decided to add the cause of death "Sudden Unexpected Infant Death (SUID) - Associated with Bed-sharing or Soft Bedding" or Sudden and Unexplained –as noted in the chart above - with a manner of death classified as "Undetermined". As with all DC OCME death determinations, this new classification is contingent on the findings of the forensic and law enforcement investigations.

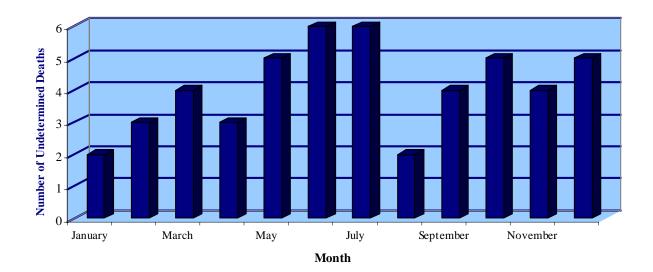
#### <u>Pie Chart – Undetermined by Cause of Death</u>



# Undetermined Deaths by Month

Month	Number of Deaths
January	2
February	3
March	4
April	3
May	5
June	6
July	6
August	2
September	4
October	5
November	4
December	5
Total	49

# Chart - Undetermined Deaths by Month



## Undetermined Deaths by Race

Race	Number of Undetermined Deaths
Unknown	1
Black	34
White	12
Hispanic	2
Total	49

## Undetermined Deaths by Gender

Gender	Number of Undetermined Deaths		
Female	14		
Male	35		
Total	49		

# Undetermined Deaths by Age

Age	Number of Undetermined Deaths
Unknown	2
Under 1	13
1 to 5	1
6 to 12	0
13 to 15	0
16 to 19	0
20 to 29	6
30 to 39	1
40 to 49	6
50 to 59	13
60 to 69	4
70 to 79	1
80 to 89	2
90 +	0
Total	49

## **Toxicology Findings by Undetermined Deaths**

Of the 49 Undetermined Deaths investigated by OCME, toxicology analysis was performed in 46 cases. Drugs were absent in 16 undetermined deaths. Of the positive cases, 40% had more than one drug present.

Description	Number of Cases	% of Cases	
N=	46		
Negative	16	34.7 %	
Positive	30	65.2 %	

#### The most commonly detected drugs in the undetermined cases were:

Name of Drug	Number of Cases	% of Undetermined Cases		
Ethanol	6	13.0 %		
Morphine	6	13.0 %		
Methadone	4	8.6 %		
Diazepam	4	8.6 %		
Cocaine	3	6.5 %		

## **Toxicology for Stillbirths**

Toxicology analysis was performed in 9 Stillbirth Deaths investigated by OCME. Overall, drugs were absent in 4 stillbirths; cocaine was detected in 3 cases, PCP in 1 case, and ethanol in 1 case.

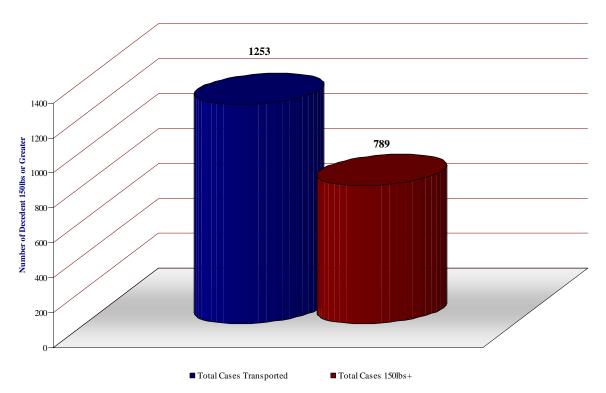
Description	Number of Cases	% of Cases	
N=	9		
Negative	4	44.4 %	
Positive	5	55.6 %	

# **3.0 – WEIGHT DISTRIBUTION DATA**

The following data was compiled in an effort to show the weight distribution of adult and child decedents transported to the D.C. Office of the Chief Medical Examiner (OCME). Data was compiled using the FACTS Case Management System and cross-referenced with the Mortuary Case Log Book for accuracy. For the purpose of this study there are 1,145 Adults and 49 Children for a total of 1,193<sup>8</sup> decedents that qualify for the BMI assessment and that had complete data in order for the analysis to be completed.

The data presented was gathered on decedents who were processed by the OCME between January 1, 2009 and December 31, 2009.

This year's data will report on the distribution of weights with emphasis on the Body Mass Index (BMI). BMI is a mathematical formula used to determine one's ratio of body height to body weight, and which correlates strongly (in adults) with body fat content. BMI is used to assess how much a person's weight departs from what is desirable for their height. Individuals with a BMI between 25 and 29.9 are considered overweight, and those above 30 are considered obese. This report will include the number of decedents examined by the OCME this year weighing over 150 lbs and with a BMI above normal (e.g. over 25). We also compare the BMI with deaths due to Arteriosclerotic and Hypertensive Cardiovascular Diseases. As illustrated in the graph below 63% of all decedents transported to the OCME is weighs 150 lbs or more.



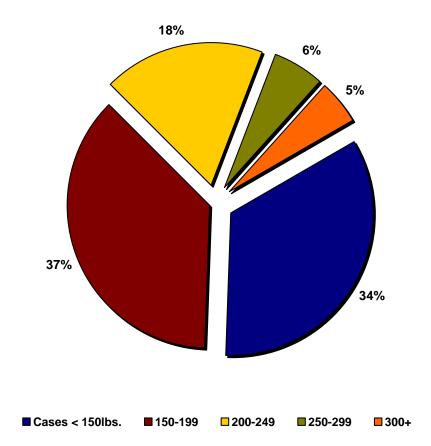
#### Comparison of 2009 Total Cases Transported vs Total Number of Cases Exceeding 150lbs

<sup>8</sup> There were a total of 1,291 Accepted cases; however there are certain OCME cases where height and weight were not available, and they are as follows: Non-Human Remains (15); decedents with an exam type of "Review Medical Records" (37); External Exam at Hospital (1); Skeletal Remains (1), and Anatomical Specimens (7). Also, one (1) decedent was released to the Office of the Armed Forces Medical Examiner. For children under 2 years old (36) there is not an established formula to determine BMI, so as a result only the remaining 1,193 cases are considered for the 2009 BMI study. However, for the purpose of the above graph we compare all cases that were transported to the OCME 1,253 (1,291 – 38 (Cases not transported to OCME)) to illustrate that of all "Accepted" cases physically transported, 63% were 150 lbs or more.

Weight	Total Cases 149lbs or less	150-199	200-249	250-299	300+	Total Cases 150lbs or more	Total Cases
Number of Decedents	404	441	219	69	60	789	1,193

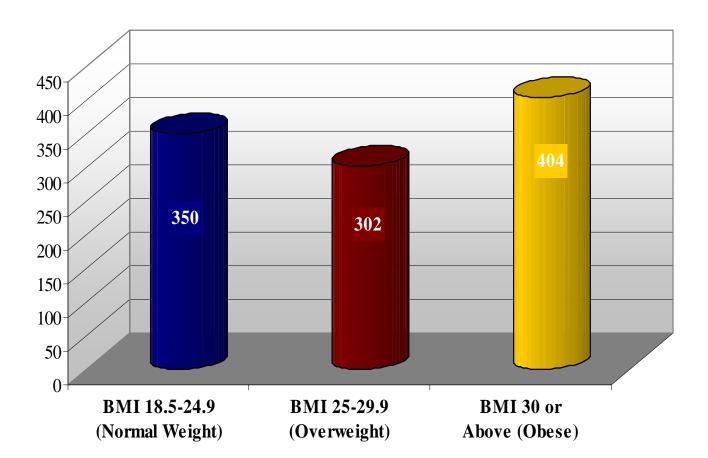
## **2009 - WEIGHT DISTRIBUTIONS**

### **Distribution of Accepted OCME Cases by Weight 2009**



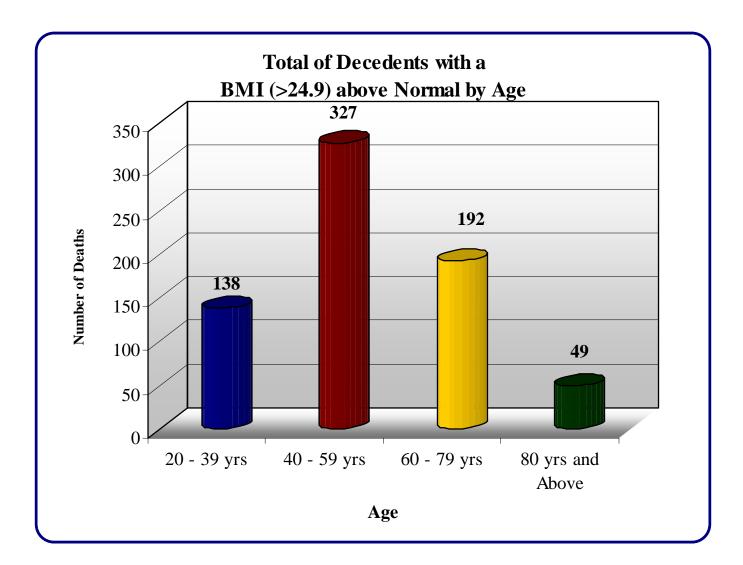
### **Body Mass Index (BMI) for Adults Only**

Of the 1,193 cases studied, 1,144 were adult decedents and 49 were child decedents. However, 87 of the adult decedents were below the normal range (i.e. malnourished/underweight) as established by the Center for Disease Control, therefore no comparisons will be illustrated for these 87 cases. So for the purposes of the adult case studies, 1,057cases are included. Of the 1,057 adult cases studied 350 were of a normal weight, but 706 cases or 67% had a Body Mass Index above normal, of which 302 were overweight (BMI 25–29.9), and 404 were obese (BMI 30 and above)



### **BMI by Age (Adults only)**

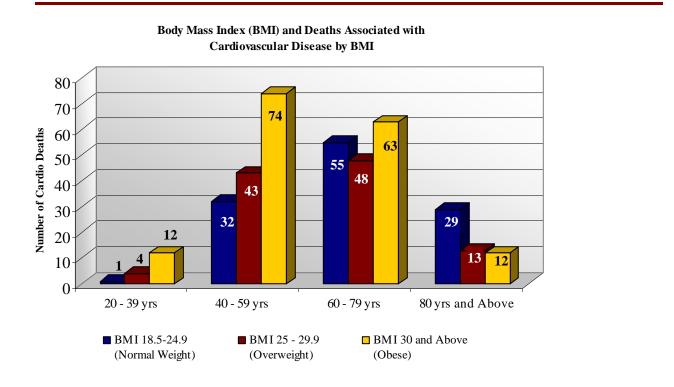
Of the 706 adult decedents with a BMI above normal (>24.9) during 2009, the age group with the highest number of deaths was 40 to 59 years old with 327 deaths recorded.

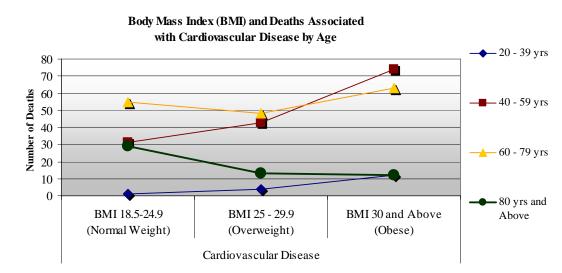


### **BMI by Age and Cardiovascular Disease**

### (Adults only)

In 2009, there were 421<sup>9</sup> adult decedents whose cause of death was directly attributed to complications of Arteriosclerotic and Hypertensive Cardiovascular Diseases. Of these decedents 35 were underweight; 117 were of normal weight; 108 were overweight and 161 were obese. The charts below provide a breakdown of the prevalence of cardiovascular disease by age and BMI. For the purpose of this study the 35 decedents that are classified as underweight are not included in the graphs below.

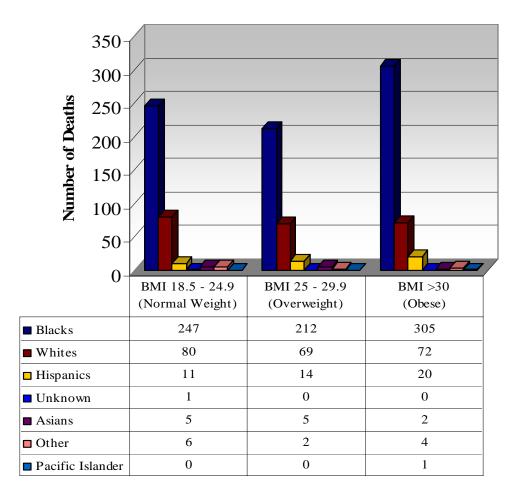




<sup>9</sup> There are actually a total of 423 decedents that died as a result of Cardiovascular Disease; however two (2) of them were children and are not included in the adult portion of the analysis.

### **BMI by Race (Adults only)**

The demographics for this population decreased slightly between 2008 and 2009, for the second year in a row. Of the 706 decedents above the normal BMI, 73% were Black/African American, 20% were White, 5% were Hispanic and less than 1%; and Asian, Other and Pacific Islander were all either 1% or less. These percentages are almost exactly the same as the comparisons for 2008. The chart below displays the BMI data by race.



#### 3.1 - BMI Calculations for OCME Decedents between the Ages of 2-19 years

#### How is BMI Determined for Children?

The BMI calculation for children between the ages of 2 and 19 years is calculated for each child separately using the following information.

- 1) Date of Birth
- 2) Date of Measurement
- 3) Gender
- 4) Height
- 5) Weight

Once the above information is entered for each child, it is used to calculate where the child falls in an established percentile as compared to other children in their age and gender group. More information on how BMI is determined for boys and girls between the ages 2-19 years can be found at the CDC website:

http://www.cdc.gov/nccdphp/dnpa/bmi/childrens\_BMI/about\_childrens\_BMI.html

#### **BMI Statistical Data**

Overall OCME had a total of 86 child decedent cases in 2009 that were accepted for further investigation. Of the 86 cases 36 were under the age of two, and cannot be considered for the BMI study, because currently there is not a BMI calculation available for this subset of children. There were a total of 50-child decedent's age 2 years to 19 years old; however, there was one child age 16 years old where the exam type was "*Review of Medical Records*" and therefore no height and weight information is available. So, as a result only 49 cases will be represented in the study indicated below.

I LIVIALL	20								
Age	Underweight		Healthy		Overweight		May be Obese		Total
Age	BMI Range	No.	BMI Range	No.	BMI Range	No.	BMI Range	No.	Total
2-5 yrs	n/a	0	n/a	0	n/a	0	18.7 - 20.6	3	3
6-11 yrs	n/a	0	n/a	0	21	1	n/a	0	1
12-16yrs	n/a	0	22.5	1	25.8	1	42.0	1	3
17-19yrs	n/a	0	19.5 - 22.9	2	n/a	0	31.2	1	3
Total		0		3		2		5	10

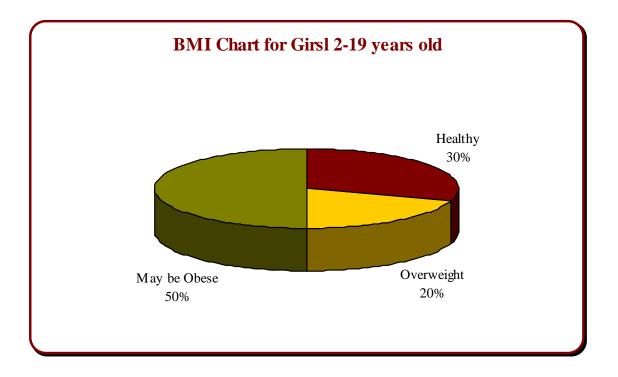
#### FEMALES

#### MALES

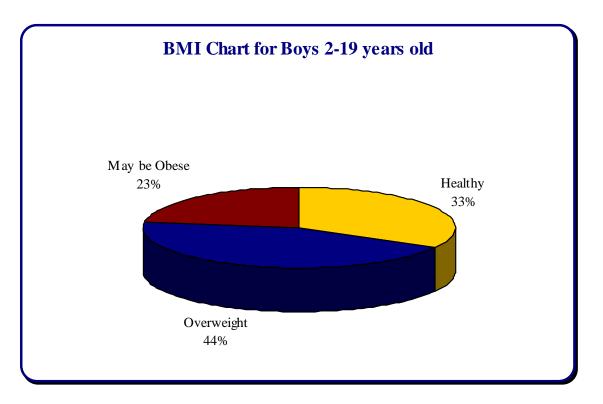
Age Underweight		Healthy		Overweight		May be Obese		Total	
Age	BMI Range	No.	BMI Range	No.	BMI Range	No.	BMI Range	No.	Ital
2-5 yrs	n/a	0	14.8 - 15.9	2	n/a	0	19.0 - 19.3	2	4
6-11 yrs	n/a	0	14.7 - 17.1	2	18.3 - 21.9	4	21.7 - 25.5	3	9
12-16 yrs	n/a	0	19.0	1	21.1 to 25.3	6	27.6 - 40.3	3	10
17-19 yrs	n/a	0	19.3 - 23.4	8	22.9 to 28.0	7	32.5	1	16
Total		0		13		17		9	39

\***n**/**a**= not applicable

There was a total of 10 female youths from 2-19 years, and 30% were found to be within the healthy range. There were female decedents in <u>all</u> age categories.



There was a total of 39 male youths from 2-19 years, and 33% were found to be within the healthy range. There were male decedents in <u>all</u> age categories.



# 4.0 – OTHER MAJOR ACTIVITIES

All other major activities are conducted under the oversight and strict supervision of the Chief Medical Examiner and/or her designee.

#### **Court-related** Activities

A parameter not often considered in evaluating the Medical Examiners workload is time spent in pre-trial conferences, depositions and expert testimony provided in family, civil and criminal litigations. OCME includes tabulated data for expert services provided in calendar year 2009.

Type of Judicial Service	Number of Court related Activities
Court Testimony	51
Depositions	5
Grand Jury	2
Pre-trial Conference	54
Other	4
Total	116

Court Services by Type	Number of Court related Activities
Civil	8
Criminal	108
Total	116

Court Services by Jurisdiction	Number of Court related Activities
DC	108
Maryland	8
Total	116

For calendar year 2009 the above data represents approximately **205** hours of Medical Examiner time. The Chief Medical Examiner (CME) handled **31** of these court-related activities, which represents **15%** of the total court service caseload. In general the least amount of time spent on this activity was one hour, and the maximum recorded time spent on a court-related activity was six hours.

#### **Educational Activities**

OCME continues to welcome students and residents from area universities and hospitals for their teaching requirements. In addition, the agency either hosted or was invited to lecture and/or provide presentation at the following medical institutions or major conferences:

- 1. 2009 ICITAP Basic Homicide Investigation Course 4-day course hosted by OCME, October 19, 2009 through October 22, 2009
- 2. 2009 National Youth Leadership Forum on Medicine Half day of lecture and tour (annually)
- 3. DC Medical Examiner's Office Familiarization Training for Metro Transit Police Officers, Metropolitan Police Department Cadets and Mobile Crime technicians, Public Defenders Service Interns, Assistant U.S. Attorney Interns, and Foreign Service Officers from the US Dept. of State all held at various times throughout 2009.
- 4. Partners in Education with Arlington Public Schools Annual Presentation, November 2009.
- 5. George Washington University Graduate program in Forensic Science, Medico legal Death Investigation lecture series, Fall 2009 semester.
- 6. University of the District of Columbia Internship/Practicum for Undergraduate program in Mortuary Science, Spring 2009
- 7. Carlow University Internship/Practicum for the Undergraduate and Graduate programs in Biology, Fall 2009 semester

#### Identifications and Public Dispositions

The process of identification can be a complex and lengthy procedure. The preferred method of identification, whenever circumstances of death and discovery allow, is by visualization of a Polaroid photograph. Immediate family, close friends, neighbors or colleagues provide verification for visual identifications. In all other cases, the identification process may involve fingerprinting, DNA Analysis, dental charting, or comparative studies of ante-mortem and post-mortem body and dental x-rays. Staff members of different divisions and outside consultants participate in this process including members of MPD's Natural Squad.

The Washington, DC area enjoys a large number of national and international visitors. The city has many embassies and a diverse population of immigrants. Often –in these cases - the next of kin is not available for identification purposes; hence another set of procedures must be followed through official headquarters of different countries to ensure proper identification and the release of remains to appropriate family members.

All bodies examined at the OCME are stored by the agency until families make funeral arrangements. Usually this occurs in a matter of days. However a portion of the population remains "Unclaimed" or "Unidentified" and has to be disposed of by the agency.

A minimal one-time fee is charged to these facilities and the remains are kept until family members are located. Unclaimed remains from hospitals are also by regulation to be stored and disposed of by OCME (DC Code §5-1411). The process for which unclaimed bodies are handled is called "Public Dispositions." After a 30-day waiting period and after all efforts to locate family members are exhausted the OCME makes final arrangements for these bodies through contracts with local funeral homes.

All Unclaimed bodies (whether Identified or Unidentified) are cremated through contracts with local funeral directors, unless there exists a concern for public health and safety that would require burial.

Those unclaimed bodies identified as United States military veterans, once verified, are transported to Quantico for burial in the National Cemetery again, through contracts with local funeral directors.

It is important to note that Public Dispositions are not performed by Medical Examiners in neighboring jurisdictions. For instance in Maryland, bodies are released to the Anatomic Board after 3 days if they are not claimed by Next of kin.

Public Disposition by type	Number of Unclaimed Re- mains	Cost Per Disposi- tion	Total Dollar Amount Per Type
Cremations – identified adults *	62	\$490.00	\$30,380.00
Cremations - infants	3	\$234.00	\$702.00
Cremations – fetal remains**	6	\$105.00	\$630.00
Transport to Quantico Na- tional Cemetery – identified US Military Veteran	9	\$690.00	\$6,210.00
TOTAL	80		\$37,922.00

#### Breakdown of Public Dispositions and the Associated Costs

\* 2 unidentified adults

\*\* 1 unidentified fetus

#### **Cremation Requests**

Pursuant to DC Code §5-1405 the OCME must investigate and approve all Cremation requests for deaths that have occurred in the District of Columbia "regardless of where the cremation will occur". This involves review of the cause and manner of death to be sure it is an etiologically specific disease process and that the manner is natural. Should the cause of death not be appropriately documented, the certifying physician is contacted, the cause of death reviewed and the appropriately formatted cause of death is determined. If this review reveals the manner of death is not natural, the death then falls under the jurisdiction of OCME.

Calendar Year 2009 statistics

The number of cremation requests was **2,426** 

The number of requests DENIED was 950, of which 898 cases were eventually approved.

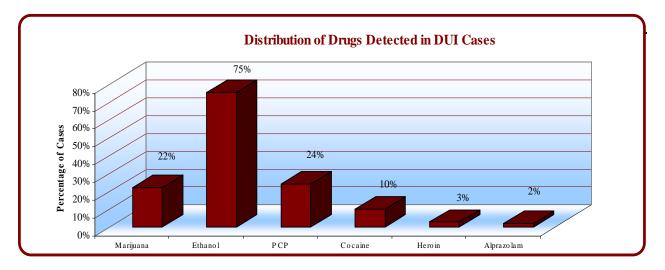
The number of requests APPROVED immediately was 1,303

The number of requests CONVERTED to a Medical Examiner case 20

#### Storage Requests

The OCME provides storage of remains for nursing homes and hospices that do not have refrigerated facilities to store bodies or bodies that have not been claimed by families by 30 days following the death. Many of these storages cases then become public dispositions.

 $\frac{\text{Calendar Year 2009 statistics}}{\text{The number of storage requests was - 45}}$ The number of Storage cases that became Public Dispositions – 15
The number of Storage cases that were DECLINED – 2
The number of Storage cases that were APPROVED and COMPLETED – 28



#### **Toxicology Findings for Driving Under the Influence (DUI)**

Toxicological examinations were performed on driving-under-theinfluence (DUI) cases to assist law enforcement agencies in the investigation of such cases. Routine toxicological examinations for DUI cases include analysis for alcohols (ethanol and other volatiles), an initial screen for major classes of illicit and prescription medications, and an additional screen for various illicit, prescription and other-thecounter medications. All drugs of significance are then confirmed by further testing. Marijuana and its major metabolites are screened for in all DUI cases.

A negative case refers to the absence of any alcohol and commonly detectable drugs. A positive case refers to the presence of alcohol and/or drug(s), noting that a case can be positive for more than one substance.

Common drug combinations for DUI cases include:

Name of Drugs	Number of Cases
Ethanol + Marijuana	57
Ethanol + PCP	45
Marijuna + PCP	30

#### Total number of DUI cases analyzed:

Description	Number Of Cases	% of Cases
N=	427	
Negative	20	4.6 %
Positive	407	95.4 %

#### Type of Specimen Submitted:

Description	Number of Cases	% of Cases
Blood	327	76.6 %
Urine	100	23.4 %

The most commonly detected drugs in the DUI cases were:

Name of Drug	Number of Cases	% of DUI Cases					
Ethanol	320	74.9 %					
PCP	102	23.8 %					
Marijuana	93	21.7 %					
Cocaine	43	10.0 %					

#### In the 320 DUI cases positive for alcohol, the average alcohol concentrations were as follows:

Description	N=	Average	Range
Average Blood Alcohol Result	271	0.15	0.01-0.36
Average Urine Alcohol Result	49	0.09	0.01-0.29

# 5.0 – BREAKDOWN OF MEDICAL EXAMINER INVESTIGATIONS

The US Census estimates that during 2009, the total population within the District of Columbia was 591,833<sup>10</sup> inhabitants, which comprised primarily of the following ethnic groups: White, Black, Hispanic, Asian and Other. In 2009, the OCME investigated 3,000 deaths that occurred in the District of Columbia or were wards of the District and died in another jurisdiction. 1,291 of these cases were accepted under the jurisdiction of the Medical Examiner for further investigation, of which 1,023 were known to be residents in the District of Columbia. The following table and charts summarize the manner of death by racial composition.

Race	2008 est. Census	Natural	Suicide	Homicide	Accidents	Undetermined	Total Number of ME Cases
Alaskan Native	1,592	0	0	0	0	0	0
Asian	19,699	10	0	0	4	0	14
Black (Not Hispanic)	314,537	517	19	126	208	34	904
Hispanic/Latino (of any race)	51,124	20	5	12	15	2	54
Other <sup>11</sup>	8,419	10	0	1	4	0	15
Pacific Islander	413	1	0	0	0	0	1
Unknown	n/a	2	0	0	4	1	7
White (Not Hispanic)	196,049	132	28	1	91	12	264
<b>Total Population</b>	591,833		÷		÷		:
Total # of ME Cases		692	52	140	326	49	<b>1,259</b> <sup>12</sup>

### 2009 Manner of Death by Race with 2008 Census Data

### 2009 Manner of Death by Gender

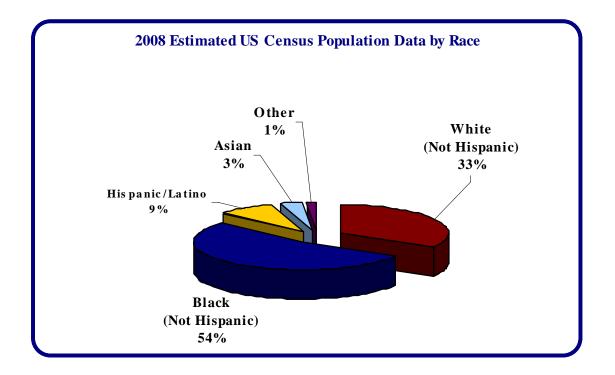
Gender	Naturals	Suicide	Homicides	Accident	Undetermined	Totals	Percent
Female	254	12	11	120	14	411	33%
Male	438	40	129	206	35	848	67%
Totals	692	52	140	326	49	1259	100%

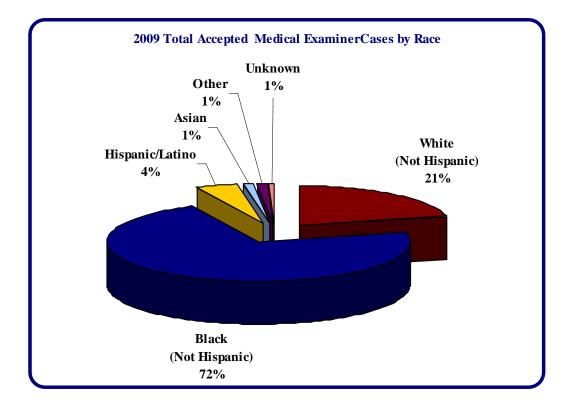
<sup>10</sup> Source: US Census Bureau at http://quickfacts.census.gov/qfd/states/11000.html.

<sup>11</sup> Where **Race** is categorized as "Other" the data represents the following: Unknown and two or more races

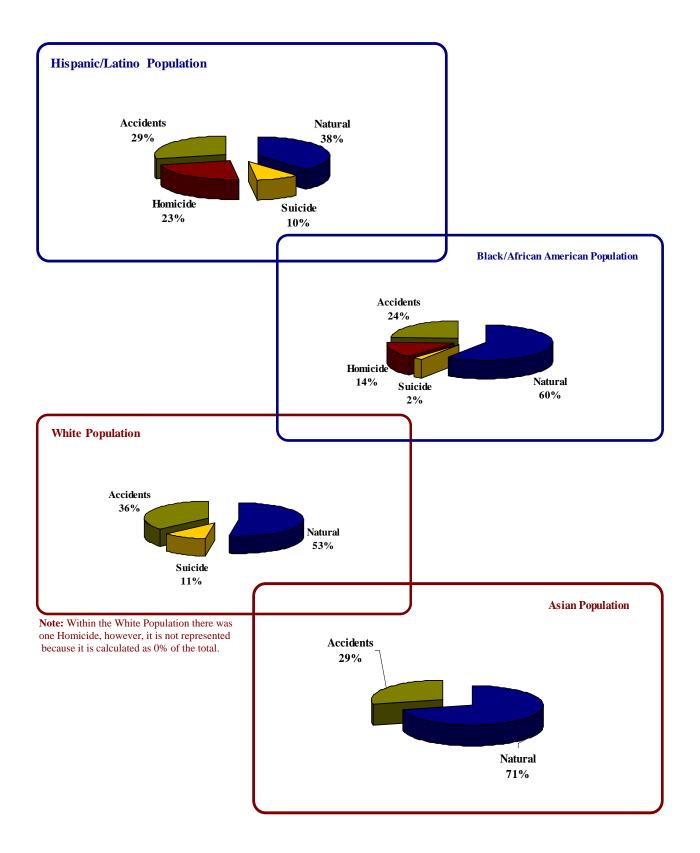
 $^{12}$  The above tables do not include Stillbirths (N=9); Non-Human remains (15); or Anatomical Specimens (7). Also there is one (1) White male that was released to the Office of Armed Forces Medical Examiner (OAFME).

## 5.1 - Total Population & Total ME Cases by Race





## 5.2 - Total ME Cases by Race and Manner of Death



# **APPENDIXES**

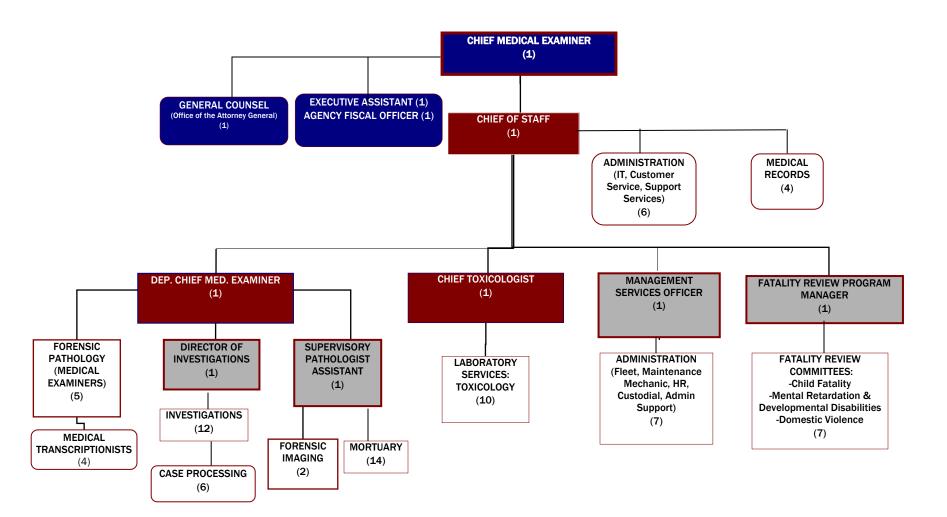
OCME Organization Chart	
	A
Agency Management	B
Internal Services	С
Program Legislation	D
Letters of Acknowledgement	E

# APPENDIX A

# **OCME Organizational Chart**

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### OFFICE OF THE CHIEF MEDICAL EXAMINER ORGANIZATIONAL CHART FY 2009



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# **APPENDIX B**

# AGENCY MANAGEMENT

# AGENCY MANAGEMENT

#### Facility Accreditation:

The D.C. Office of the Chief Medical Examiner (OCME) has been provisionally accredited by the National Association of Medical Examiners (NAME) since October 2008. On March 15, 2009, NAME extended OCME's provisional accreditation through October 15, 2009. The OCME subsequently requested an extension, providing NAME with a status report on the agency's progress in addressing issues and inspection recommendations. NAME subsequently re-inspected the agency in December 2009 and reported that: [the agency]. ..has made remarkable improvement since the 2008 inspection. Staffing, equipment, training, continuing education, quality assurance, grant awards and training have all improved....[and. . .provisional accreditation should be extended. ..."

#### **Personnel Management:**

The OCME met its personnel recruitment and retention objectives for 2009, particularly in the fields of forensic pathology, toxicology, mortuary sciences and medicolegal investigation. By raising agency standards and performance, as well as consistent outreach, the agency was able to fill the following positions: Deputy Chief Medical Examiner, Deputy Chief Toxicologist, two Medical Examiners, four Forensic Toxicologists, Lead Medicolegal Investigator, Medicolegal Investigator, 2 Forensic Investigators, and Forensic Photographer. Currently, with the addition of the 2 Medical Examiners, four of six Medical Examiners are now board certified in anatomical and forensic pathology and two are also board certified in neuropathology and one in pediatric pathology. Further, the Supervisory Medicolegal Investigation (ABMDI) and two Medicolegal Investigators have Diplomate status. As a result of the agency recruitment efforts and staff retention programs, the agency has been operating with approximately 90% of its positions filled – a great step forward compared to previous years.

#### Grant Activity:

In 2009, the OCME received a U.S. Department of Justice Coverdell grant to focus on improving the quality and timeliness of forensic science and medical examiner services, including services provided by the forensic toxicology laboratory and records managements units of the agency. Specifically, the monies were used to enroll forensic toxicology staff in a driving under the influence ("DUI") and driving under the influence of drugs ("DUID") testimony course to improve the quality and availability of DUI and DUID toxicological testimony. The remaining portion of the grant was used to begin implementation of a project to digitize about 30,000 agency medical examiner case records from 1972-2002. The purpose of the project is to ensure that the data for these cases is readily accessible, to provide security, and maximize the integrity of the files, which are comprised of paper documents that are fragile and have some degree of degradation or damage due to the archiving process and storage environment. Further, digitization will aid in protecting the records from loss due to natural disasters or human error.

#### **Emergency Response Coordination:**

In 2009, the OCME was involved in two significant events requiring emergency response readiness: 1) the Presidential Inauguration and 2) a Metro train incident resulting in several deaths. In preparation for the 2009 Presidential Inauguration, the agency implemented the following: a) staff training in the following areas: OCME Mass Fatality Plan, the District and OCME Emergency Response Plans, D.C. Hospital Association plans; and Communications Protocol; b) efficient staff scheduling and training on procedures for deployment to and action at incident scenes and the Emergency Operations Center (EOC); c) participation in city-wide emergency response exercises; d) participation on requisite inauguration committees and emergency planning committees; e) implementation of quality control and assurance measures for and training on critical IT hardware and software (i.e., OCME's case management system, specifically the mass fatality module) and equipment (i.e., radios, VPN); 6) procurement and provision to staff of emergency resources; and f) and certification of staff for deployment at scenes. This extensive preparation allowed the agency to successfully coordinate with federal, regional and local entities during the Presidential Inauguration and enabled them to efficiently respond to the Metro Train incident.

#### **Property Management:**

OCME's death investigation and certification activities occur at its core facility at 1910 Massachusetts Ave, Bldg. 27 and the agency's Fatality Review Unit was housed at the Reeves Center on 14<sup>th</sup> Street, both in Washington, D.C. During 2009, in-house renovations included modification of the evidence room within the mortuary suite into a histology laboratory. The agency worked with the Department of Real Estate Services (DRES) to complete the project which included the procurement and installation of required equipment for a fully functional inhouse laboratory.

#### Information Technology:

In 2009, the Information Technology (IT) Unit focused on several projects to enhance the operations of the agency. First, the IT team continued its focus on the deployment of a system from Smart Board Technology, Inc. which consists of equipment, software and interactive capabilities that allows one to input and compile data while performing an autopsy. Several inhouse systems and processes were upgraded to digital forms of technology and are now fully functional: 1) forensic photography; 2) X-ray/radiology equipment (both photo and x-ray film processes have been replaced with digital images and processing); and 3) fingerprinting. Further, the agency's FACTS system was maintained allowing efficient recordation, tracking and processing of medical examiner case and production of statistical reports. A key project that began in 2009, is the digitization of 30,000 historical medical examiner case files, as discussed above.

#### Risk Management:

The agency's Risk Assessment Control Committee ("RACC") met all D.C. Office of Risk Management (ORM) requirements in 2009, which included: holding quarterly meetings; completing quarterly cost of risk reports; developing and implementing Agency Risk Management Plans; updating the agency's Continuity of Operations Plan (COOP); providing training for the agency's updated Emergency Response Plan (ERP); and conducting quarterly emergency response drills. The agency began an effort to have all employees complete ten mandated Occupational Safety and Health Administration training courses and managers complete National Incident Management System (NIMS) training.

#### **Other Activities:**

OCME continues to provide customer service consistent with the District's mission in welcoming students and residents from area universities and hospitals. Agency personnel presented in-house lectures and conferences (i.e., MPD Homicide School), conducted presentations at various meetings and conferences within and outside the city. Overall, the agency's customer service survey results are several percentage points above the city-wide average and staff continue to be recognized for compassionate and efficient interactions with next of kin; as well as cooperative relationships with funeral directors, law enforcement and other customers.

The agency also initiated an in-house formal training program, which included the first staff audio-conference training and a guest lecturer series featuring Dr. Michael Baden, famed forensic pathologist and host of HBO's Autopsy. Lastly, the agency staff continued to provide input to the architectural configuration and governance structure for the planned Consolidated Forensic Laboratory (CFL) which will house the OCME.

#### **Death Investigation and Certification Management**

OMCE's Death Investigation and Certification Program is based on the mission of the agency to prepare reports of findings and conclusions on any autopsy or examination performed. The death investigation and certification program thrived in 2009 with: a) timely autopsy reporting with no or minimal backlog throughout the year; b) quick decedent identification and release to next of kin or public dispositions such that the agency continued to maintain a 35% morgue emergency surge capacity; c) establishment of emergency body transport service; and d) implementation of advanced technology.

#### Key Performance Indicators<sup>1</sup>

#### <sup>2</sup>Measure One:

Measure one requires that the agency complete 95% of homicide autopsy reports within 60 days. The agency completed 85.53% percent of autopsy reports on homicide cases within 60 days.

#### <sup>2</sup>Measure Two:

The target for the second measure is to complete 95% of non-homicide autopsy reports within 90 days. The agency completed 79.37% of autopsy report on non-homicide cases within 90 days.

#### Measure Three:

The third measure requires that 95% of positively identified bodies be ready for release within forty-eight hours. For FY2009, the agency reached an actual percentage of 94.32, slightly below the target. Those bodies that are not ready for release within 48 hours represent a variety of situations ranging from cases requiring further investigation or examination; cases being reported on holidays or weekends when it is difficult to reach attending physicians for information; and the need to hold cases over for examination due to a large workload or other workflow issues.

#### Measure Four:

The fourth measure assesses the percent of primary contacts made within eight hours of case assignment to an investigator, of which the agency scored 93.21%, slightly below the 95% target.

<sup>&</sup>lt;sup>1</sup> The District's Agency Key Performance Indicators (KPIs) are compiled on a fiscal year basis. Thus, the KPI data included in this report is for FY2009, which covers the time period between October 1, 2008 and September 30, 2009.

<sup>&</sup>lt;sup>2</sup> While NAME standards were modified in early 2009 to completion of 90% of post-mortem examination within 60 days from the time of autopsy, the agency KPI remained constant for the fiscal year.

#### Measure Five:

In FY2008, OCME's mortuary staff arrived on scene within one hour of notification of case acceptance 90.83% of the time, exceeding the 90% target for measure five.

#### Measures Six and Seven:

Measures six and seven provide results of toxicology laboratory<sup>3</sup> performance. The measures are to complete 95% of negative toxicology examinations within 30 days and positive examinations within 60 days of case submission, respectively.<sup>4</sup> Performance for FY2009 was as follows: a) 72.87% of negative toxicology examinations were completed within 30 days of case submission; and b) 77.41% of positive toxicology examinations completed within 60 days of case submission. The KPI results represent significant understaffing of the laboratory due to turnover in FY2008. At the beginning of FY2009, the laboratory had seven vacancies out of ten FTEs, including a Chief and Deputy Chief Toxicologist, four Forensic Toxicologists and one Laboratory Quality Control Manager. The agency hired a Deputy Chief Toxicologist and four Forensic Toxicologists bringing staffing levels to eight of ten positions filled. Further, the agency detailed one employee to the laboratory as a Laboratory Technical Assistant so the unit had a total of nine employees working in the unit.

As a result of increased staffing, the fourth quarter KPI percentages reflect a significant improvement over the previous quarters. This increase and compliance with goals is related to the unit being staffed for most of the fourth quarter. For the fourth quarter the KPI results are as follows: a) 97.37% of negative toxicology examinations completed within 30 days of case submission; and b) 92% of positive toxicology examinations completed within 60 days of case submission.

#### Measure Eight:

This measure required the CFRC to hold 85% of child fatality reviews within six months of notification of the death. In FY2009, the CFRC completed 94.12% of multi-agency and statistical reviews of child fatalities within six months of notification of death.

#### Measure Nine:

This measure required the MRDD FRC to review 85% of fatalities within three months of receipt of the investigative report from DDS (formerly MRDDA). One hundred percent (100%) were reviewed.

<sup>&</sup>lt;sup>3</sup> Locally, the toxicology laboratory provided interpretive services and expert testimony on a variety of drug and alcohol related matters for the Office of the Attorney General (OAG), the Public Defenders Service, and the United States Attorney's Office (USA). Also, in FY2009, the laboratory processed 427 cases for outside agencies, including: 322 for the United States Park Police, 100 for Metropolitan Police Department (MPD); 2 for the U.S. Capitol Police; and 3 for the U.S. Secret Service.

<sup>&</sup>lt;sup>4</sup> While NAME standards were modified in early 2009 to completion of 90% of toxicology examination within 30 days of case submission, the agency KPI remained constant for the fiscal year.

## **APPENDIX C**

## **INTERNAL SERVICES**

#### **GRIEF COUNSELING SERVICES**

#### Introduction

November, 2009 marked the 10<sup>th</sup> anniversary of the collaborative relationship between the Wendt Center for Loss and Healing and the Office of the Chief Medical Examiner. The Wendt Center's RECOVER program housed within the OCME provides support to individuals and families and helps guide them through the process of decedent identification during hours of identification. All RECOVER staff is licensed mental health professionals and mental health graduate clinicians whom have a specialty in trauma, bereavement, crisis and loss. Goals of the RECOVER program include 1) providing immediate crisis support; 2) education about trauma, death, grief as well as death's impact on children; 3) providing community based resources to individuals and families who must complete the process of decedent identification at the OCME; and 4) supporting OCME staff who experience work related stress.

#### **Support during the Identification Process**

RECOVER counselors help decrease anxiety, stress, anger and preconceived misconceptions regarding the OCME by explaining the ID process, guiding families through necessary paperwork, preparing them for the identification photograph, and connecting them with the case processors. Depending on the needs of the individual or family, RECOVER staff provides counseling to adults and children regarding death, burial assistance and extended counseling. In 2009, a newly created Wendt Center educational brochure was introduced to families to help guide them through posthumous decisions. RECOVER staff works closely with OCME staff to make the



Identification process for families as smooth, informative and as compassionate as possible. In addition, they provide emotional support to OCME staff and participate in OCME professional activities such as, trainings to consular members of the State Department.

#### **Summary of Statistics**

In the time period of January through December, 2009 RECOVER counselors completed 951 decedent identifications interacting with 2,455 friends and family members, providing therapeutic support, trauma/crisis/grief education and community based resources.

#### **Emergency Response**

The Wendt Center is part of OCME's Emergency Response Team. As such they were ready for deployment with the agency's team during the Presidential Inauguration in January 2009 and again in June 2009 during the DC Metro train Collision. The RECOVER team was able to provide immediate crisis support to affected family members without interrupting normal operations. The team worked seamlessly with the OCME staff to provide compassionate and professional services.

#### **OCME Staff Support**

RECOVER continued to provide a monthly staff support session for OCME staff to address stress related issues, as well as teach them new and effective coping strategies. Printed educational material is available for staff to access on specially chosen topics of interest. This service is appreciated by all those who took advantage of it.

## **APPENDIX D**

### **PROGRAM LEGISLATION**

OCME, DC Law 13-172, codified at DC Official Code §5-1401 <u>et seq.</u> (2001)

All of the DC Code for District of Columbia Government agencies can be found at: http://www.dccouncil.washington.dc.us/dcofficialcode

#### Follow these steps to access the DC Code for the Office of the Chief Medical Examiner:

- 1) Go to www.dccouncil.washington.dc.us/dcofficialcode
- 2) Scroll down about quarter page use your mouse to click:

#### View DC Official Code: click here

3) You will now be taken to a different web page with a text box that says:

**Natural Language Description:** Type the following phrase exactly:

DISTRICT OF COLUMBIA OFFICIAL CODE 2001 EDITION DIVISION I. GOVERNMENT OF DISTRICT. TITLE 5. POLICE, FIREFIGHTERS, AND THE OFFICE OF THE CHIEF MEDICAL EXAMINER. CHAPTER 14.

- 4) Then click the "**Search**" button.
- 5) Then click the appropriate portion of the Code. (i.e. DC ST § 5-1402)

## **APPENDIX E**

# LETTERS OF APPRECIATION (2009)



February 18, 2009

Marie Pierre-Louis, MD DC Office of the Chief Medical Examiner 1910 Massachusetts Avenue, S.E. Building 27 Washington, D.C. 20003

Dear Dr. Pierre-Louis:

The 56<sup>th</sup> Presidential Inauguration was truly a historic event. The safe and secure transportation of Metro's 1.5 million passengers did not go unnoticed within the region, the country or for that matter, the world.

The Metro Transit Police Department (MTPD) was challenged to provide the services, resources and personnel necessary for such a large event. We also recognized in the initial planning stages, that any lengthy service delay had the potential to place even more citizens in danger due to the expected enormous crowds.

For that reason, we reached out for your assistance and you were gracious enough to respond with a commitment of resources that transformed a challenge into an unqualified success. Your assignment of staff to ride with our detectives in order to facilitate the rapid return of rail service was an innovative and well received collaboration. Our members had nothing but positive praise for your staff members that assisted us. I cannot thank you enough for your professionalism and your spirt of friendship.

I can fondly remember our agencies sharing a special working relationship through the years. I believe the hallmark of this relationship has been the special understanding of each agencies respective mission. Please know that the MTPD is indebted to your agency and will always strive to assist your agency when the need arises.

Sincerely,

Michael A. Tabor Chief of Police

Washington Metropolitan Area Transit Authority

Office of the Chief Metro Transit Police



600 Fifth Street, NW Washington, DC 20001 202/962-2150



#### COUNCIL OF THE DISTRICT OF COLUMBIA WASHINGTON, DC 20004

VINCENT C. GRAY CHAIRMAN September 3, 2009

Michelle Mack Director of Investigations Office of the Chief Medical Examiner Government of the District of Columbia 1910 Massachusetts Avenue, SE Washington, DC 20003-2542



Dear Ms. Mack:

My staff has brought to my attention the professional and compassionate manner in which you have assisted the **start of** family in dealing with the loss of their loved one, **start of** I am aware of the difficulties the Office of the Chief Medical Examiner faced in expediting determinations and procedures in this case, and I understand you did everything you could to facilitate the desires of the family with the obligations of the Medical Examiner's Office in a manner which has served all well.

I commend you for your efforts. We are fortunate to have you in that position.

mant C Vincent C. Grav

cc: Marie-Lydie Y. Pierre-Louis, MD

Hi Stephanie,

I just want to say thank you for your compassion and professionalism yesterday in assisting my friend with the process of handling his brother's death.

Andy could not stop talking about how considerate you were in walking him through each step.

In this day and age it was refreshing to see someone who was not jaded or inconsiderate to the needs of others.

Again, THANK YOU!

Regards,

Erik

**Erik R. Grosof** Assistant to the Director-Operations erik.grosof@ntsb.gov

National Transportation Safety Board Office of Transportation Disaster Assistance 490 L'Enfant Plaza East SW Washington, DC 20594-2000 Office 202-314-6189 Fax 202-314-6638 Toll Free 1-800-683-9369

http://www.ntsb.gov/Family/family.htm

November 8, 2009

Office of the Chief Medical Examiner 1910 Massachusetts Avenue, SE Building #27 Washington, D.C. 20003



#### Dear Sir/Madam,

I want to thank your staff member, Tiffany Ware-Morrell, who was an extraordinary help to me over the last months since my brother's sudden and unexpected death. Ms. Tiffany Ware-Morrell was the forensic specialist assigned to my brother, and she was so professional, responsive, kind, understanding, and willing to listen amidst my confusion and sadness.

I can't tell you how much I appreciate her help and support. Ms. Ware-Morrell's personal style and professionalism, and her gentle and reassuring voice were a first step in healing for me. She was always willing to talk to me when I called -- with kindness and sensitivity -- which I think helped me begin to find a place of acceptance regarding my brother's death. Please pass on my thanks to Ms. Ware-Morrell as I never expected empathy and understanding when I first called your office. In fact, I was reticent to call to talk to her since we had not met, but talking with her was like talking to a friend.

I feel very fortunate to have unwittingly crossed paths with a person who had the perfect mix of professionalism and empathy. She may not have known it, but she came to my rescue when I most needed it, and when I least expected it. Please tell her how much I appreciate her help.

Again, thank you.

October 19,2009

file for my husband's insurances, as it has been financially very hard for my daughter and me.

I want to thank you as well for spending time with my mother-in-law and me when we came to your office to identify Mark. your rainp and that of the kind stoff who met with is made a big difference to us.

With much appreciation,

Dear De Prashar,

"Thank You" doesn't say it all,

but at least it starts

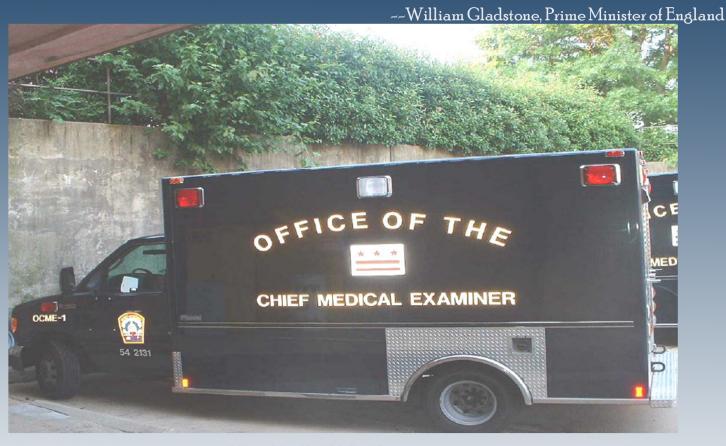
to let you know how very much

your kindness touched our hearts.

At meant a lot to all of us that you called to give us more information about the sircumstances succounding breycle accident. And that you prepared the amended certificate so quickly. Now I can finally

Stephonine I Do time Take time Breathe!! Breathe!! I Sust wort you To Know & TO To Know Thanks!!!! ... for being so helpful in so many ways! I Just wount to say Thank you so much. I will use the resource that you have given me. to make it though this time in my life. Thank you again,

"Show me the manner in which a nation or a community cares for it's dead, and I will measure with mathematical exactness the tender sympathies of it's people, their respect for the laws of the land and their loyalty to high ideals."



Office of the Chief Medical Examiner 1910 Massachusetts Avenue, SE – Bldg 27 Washington, DC 20003 (202) 698-9000 Main (202) 698-9100 Fax

