

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

# ANNUAL REPORT 2012

# THE OFFICE OF THE CHIEF MEDICAL EXAMINER SAYS GOODBYE To the Old DC General Hospital Campus



40 Years as a Medical Examiner's Office at this site

Government of the District of Columbia Vincent C. Gray, Mayor



Allen Y. Lew, City Administrator Executive Office of the Mayor

# 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 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 Leadership Team (2012)

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

Beverly A. Fields, Esq. Chief of Staff

Sharlene Williams, Esq. General Counsel

Lucas W. Zarwell, MFS Deputy Chief Toxicologist

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QA/QC Officer

#### PRESENTED TO:

The Executive Office of the Mayor,
The Council of the District of Columbia
and
The Citizens of the District of Columbia



# A MESSAGE FROM THE CHIEF MEDICAL EXAMINER

As I am coming to the end of my tenure as Chief Medical Examiner (CME) I want to thank the OCME staff for an amazing ten years (2003-2013) through which - together - we have affected extraordinary changes in an agency that faced many challenges. As a team we have accomplished an unexpected transformation, a vision that made this agency a shooting star.

A summary of our major accomplishments through the years is as follows:

- 1. <u>Relocation and Transition Project</u>: The flawless move and adjustment to a new facility with modernization of both its Forensic Pathology and Toxicology Units, while continuously serving the community with dedication, compassion and expertise was made possible due to an exemplary staff.
- 2. NAME Accreditation: For the 1<sup>st</sup> time in the agency's history we obtained "Provisional Accreditation" of the agency (2008-2010) from the National Association of Medical Examiners.

  Note: The agency did not receive accreditation in 2011; however, the decision was not based on any notable deficiency in the structure and/or organization of the agency itself. In fact, the NAME Inspector complimented the agency and this CME for the notable progress made from the initial inspection, which resulted in the First Accreditation in 2008.
- 3. OCME Lab Accreditation: The Accreditation in 2011 of the agency's Forensic Toxicology Laboratory by the American Board of Forensic Toxicology is another first in the agency's history.
- 4. <u>Breath Analysis Alcohol Program</u>: In 2012, the OCME developed and implemented the scientific aspect of the District's breathalyzer program, which includes training Metropolitan Police Department (MPD) officers regarding techniques and requirements of the equipment and assisting the District with re-instating the Driving Under the Influence (DUI) program.
- 5. <u>Digitization of Historical Records</u>: The agency is again at the avant-garde of progress through the digitization of its historic case materials dating from 1972, including paper files, photographs, Kodachromes/35mm Slides, and X-Rays films, that will be linked to the current electronic data system for ease of search and retrieval.
- 6. <u>Autopsy Report Backlog</u>: The autopsy report backlog that spanned from the 1996 through 2003 was eliminated.
- 7. <u>Public Disposition Program</u>: This program enabled the rapid disposition of accumulated unclaimed and unidentified remains, and currently continues to function as a District resource that ensures the humane disposition of unclaimed and unidentified decedents.
- 8. <u>Personal Property Disbursement Project:</u> This project enabled the return of personal property to families or to MPD where appropriate that had accumulated through the years.
- 9. <u>Policies and Procedures:</u> The development and publication of a much needed Policies and Procedures manual.
- 10. Annual Reports (2003 2012): Timely publication of the legally mandated "Annual Reports" which had not been published since 1992. In an effort to fill-in the gaps for the most violent deaths, thirty-year reviews of both Homicides and Suicides were published in 2004 and 2006 respectively. The OCME also provides administrative oversight of Fatality Review committee staff to publish the annual reports for the Child Fatality Review Committee (CFRC); Domestic Violence Review Board (DVRB); and the Developmental Disability Fatality Review Committee (DDFRC).

- 11. Other Publications & Programs: The development and publication of the Mass Fatality Plan, Continuity of Operations Plan, and Emergency Response Plan, as well as a Safety Health and Wellness Program and a Stress Release Program for agency staff were all published, practiced and implemented during these past ten years.
- 12. <u>Staffing:</u> The reorganization and professionalization of key OCME units assists with accomplishing the agency's overall mission.
- 13. <u>Forensic Analytic Case Tracking System (FACTS)</u>: The implementation and continued customization of the case tracking system that aids in the recording of management and statistical reporting of agency data which, in the upcoming months, will also include a Forensic Toxicology module.
- 14. <u>Electronic Death Registration System (EDRS)</u>: The agency has implemented the successful transition from a manual Certificate of Death process to an automated process, which includes electronic signatures.
- 15. Other Modernizations: The automation of processes such as: Digital fingerprinting; electronic x-ray system; and the modernization of the Forensic Photography unit—which boasts 3D-rendering photography and multi-spectrum camera filters for improved residue detection methods that are still unused in the United States for Forensic Pathology purposes. These improvements will revolutionize documentation of examinations, and Court presentations. The OCME also worked with OCTO to develop an electronic cremation request and payment system; as well as designed and provided content and materials for the OCME website.
- 16. Successful Partnerships: The formalization of our partnership with the Wendt Center for Loss and Healing in 2004, which enables the constituents and visitors of the city to receive grief counseling services when they present for identification at the DC OCME. We have also partnered with the Mortuary Science program at the University of the District of Columbia (UDC) including the use of their facility during mass fatality events and to help with OCME's disposition of unclaimed remains. This partnership resulted in an improvement of the Mortuary Sciences facility and accreditation of the program. The agency continues to provide toxicology services for MPD as well as the US Capital Police and the US Park Police in the DUI program. In partnership with the Department of Health's Division of Vital Records the agency implemented the Electronic Death Registration System (EDRS).

In addition, I am extremely proud of how the staff has responded to real life incidents and emergencies with magnificent results. To name a few of the most recent major events: the Metro train wreck of 2009, the earthquake of 2011, Hurricane Sandy of 2012, and the most recent incident the Navy Yard shooting of 2013. The public's silence about the agency's work during these incidents attests to the professionalism and efficiency of the agency's response to these devastating and life altering incidents.

The staff courageously embarked on this tremendous journey with me and I am deeply grateful for your dedication, your tenacity, and your affection. Every one of you has a special place in my heart and it is my wish that you will continue on the same positive progressive path. It was my pleasure to serve as the CME for the past 10 years—at the request of successive Mayor's. Now I will continue to walk by your side to accomplish the agency's mission.

I wish the new CME success in guiding the best staff any District agency can dream of, an A+ staff, in the words of our beloved Chief of Staff.

Sincerely, Marie Lyoke J. Guerre - Low's No

Marie-Lydie Y. Pierre-Louis, MD

Chief Medical Examiner

#### **Executive Summary**

This Annual Report covers data that resulted from the investigation of 3,009 deaths that occurred in the District of Columbia during the Calendar Year (CY) 2012. The report also presents key agency accomplishments and other major activities such as Expert testimony by the Medical Examiners, Decedents Identification, Disposition of Unclaimed Remains; Toxicological results in Driving Under the Influence (DUI), Drug Facilitated Sexual Assault (DFSA) cases and educational endeavors of all OCME units. The agency hopes that the information contained in the report will be useful to the Executive Office of the Mayor and the Council of the DC and be informative to the public at large.

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 and the agency responds to and investigates these reported deaths 24 hours a day, 7 days a week, which includes weekends and holidays. Autopsies are performed everyday of the year as well, and on occasion it is necessary for the Medical Examiner to perform them at night.

The Office of the Chief Medical Examiner has a dual role; Public Safety and Public Health.

As a Public Safety agency, the OCME conducts death investigations in an independent manner and without bias. The agency's involvement with a mandatory reported death starts with the death notification and continues through the possible provision of expert testimony in legal proceedings. The agency strives toward quickly responding to death scenes, allowing non-investigating police personnel to return to regular duty. At the death scenes, the OCME takes custody of the body and secures all evidentiary material associated with the body. OCME investigators, Forensic and Medicolegal, work cooperatively with the MPD to gather information useful to the interpretation of the circumstances of the death. When feasible, the OCME investigators will also ensure identification of the deceased by family members present at the scenes of death. In addition, the Medicolegal Investigators pronounce death at the scene or at the agency, as this function is reserved to specific professionals as specified in the DC Code.

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 2011 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; and 2) the 2013 Navy Yard Active Shooter incident in which staff was again deployed for hours, alongside law enforcement officers, in order to recover remains, conduct scene investigation and allow for prompt autopsies, so that decedents could be released to their loved ones as prompt as possible.

As a Public Health agency, the OCME is well suited to provide information on the state of health of the residents of the District of Columbia and recognize and alert appropriate officials of deaths that may present an immediate threat to its population. The agency provides the US Consumer Product Safety Commission with information regarding defects in equipment, machines, devices or products that are responsible for a death. Information on deaths related to hypo/hyperthermia and deaths of homeless individuals are immediately communicated to appropriate officials so corrective and/or preventative action can be promptly instituted.

#### **Accomplishments**

A major accomplishment for the agency was the relocation to the new Consolidated Forensic Laboratory. The agency had been housed in its previous location for almost 40 years. The Medical Examiner staff successfully inventoried and classified all assets, in addition to performing their regular duties. The move was flawless and the agency seamlessly provided services to the community at large with the highest level of courtesy and professionalism.

Another major accomplishment is that the Toxicology laboratory implemented a new breath alcohol testing program for the District according to industry standards. The agency made critical changes to existing software, hired essential staff, developed an operator training program; a quality management program; as well as certified and placed evidential instruments in the field. In FY2012, the OCME successfully trained ten MPD officers using the program and is planning to begin the extensive ASCLD-LAB International (American Society of Crime Laboratory Directors) accreditation process in January of 2013.

In 2012, the agency continued the implementation of a project to digitize over 62,000 agency medical examiner case records from 1972-2009. The purpose of the project is to ensure that data for these cases are readily accessible and to provide security and integrity to files that are comprised of paper documents that are fragile, 35mm slides, Polaroid's and X-rays, all of which have some degree of degradation or damage due to the archiving process and storage environment. Further, digitization will protect the records from loss due to natural disasters or human error. For a portion of the year, the project was supported through a sub-grant award from the D.C. Justice Grants Administration's National Institutes of Justice Coverdell Forensic Science Improvement grant. The focus of the grant is to improve 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. A breakdown of total cases converted, as related to the digitization project, by material type is as follows:

TOTAL CASE COUNT FOR EACH CATEGORY OF MATERIAL			
Polaroid's 35mm Slides X-rays files (1973-1998) (1999-2007) (1985-2009) (1996-2001)			
22,292 cases 13,298 cases 9,095 cases 17,860 cases			

**Note**: There is case overlap with the case materials for each year. For example, a 1996 Polaroid case number may be the same as a 1996 Paper Case file, but during the conversion process each case for each material type was treated as a unique item.

#### **Customer Service**

As part of the review of work processes to be conducted in the new facility, management staff recognized a challenge for funeral home clients in visiting the facility numerous times in order to complete the cremation approval process. Challenges included parking, security and the inability to provide payment prior to obtaining service. The agency responded by implementing the build-out of a "credit card payment" service on its website. This would allow funeral homes to pay prior to service beginning resulting in the elimination of a visit to the facility just for that purpose. The District's Office of the Chief Technology Officer (OCTO) started work with the agency for testing and full implementation of the system in 2013.

The OCME continues to offer on-site grief counseling to family members who come to the agency to identify loved ones. The agency uniquely provides this well appreciated and well recognized service in the DC Metropolitan area through a contract with the Wendt Center for Loss and Healing.

#### **Mass Fatality and Emergency Response**

In preparation for possible terrorist attacks and mass disaster, OCME updated its mass fatality and Continuing Operations Plan (COOP) in coordination with the National and District Response Plans. It has also maintained alliances with area hospitals, the Department of Health (DOH), and agencies in the Public Safety and Justice Cluster. The agency's readiness was again tested during Hurricane Sandy 2012. Of note the District experienced two high profile emergency incidents involving fatalities. The other incident required the agency to place its incident/mass fatality plan into action. The agency successfully implemented the plan including: initial evaluation of the scenario, death scene response and investigation, body transport, completion of autopsies and reporting, interaction with next of kin and response to media and other entities. The staff performed professionally with dedication to the mission of the agency and compassion to the victims and their next of kin despite challenging scene and resource dynamics and agency understaffing. The agency prepared extensive after-action reports on the Navy Yard Incident and exercises that was provided to the District's Homeland Security and Emergency Management Agency (HSEMA) and the Office of the Deputy Mayor for Public Safety and Justice (ODMPSJ).

#### **Education**

The agency's staff presented numerous lectures and conferences at the facility and at other sites to different groups including Residents of local University Hospitals, medical students, law students of The American University, detectives of the MPD, US State Department Program, and various youth groups and students (The National Youth Leadership Program, LEAD America, Career Day a the District of Columbia Public and Public Charter schools, and the Mayoral Summer Youth Program). Agency staff also taught a Graduate level class for the Forensic Sciences Program of the George Washington University Hospital. The CME is also a member of the Board of the UDC Mortuary Sciences Program. The agency offers several internship opportunities to the students of the above-mentioned programs as well as Physician Assistants from the Arcadia University and The Learning Center (TLC). The OCME also provided training for the members of the MPD, the United States Attorney's office, the State Department personnel, and soldiers of the Marine Corps.

#### OVERVIEW OF CASES REPORTED AND INVESTIGATED

During the Calendar Year (CY) 2012, **3,009** cases were reported to and investigated by the District of Columbia - Office of the Chief Medical Examiner (DC OCME).

#### **Medical Examiner Caseload**

<u>Accepted Cases</u> - The DC OCME accepted jurisdiction of **1,077** cases for further investigation, of which 706 cases were autopsied.

<u>Declined Cases</u> - The DC OCME declined jurisdiction of **1,879** cases, of which 46 became Storage cases, as a result there are **1,837** declined cases.

<u>Storage Requests</u> - The DC OCME provides a unique service to area nursing homes, hospices, and other like facilities by accommodating requests to store deceased bodies. **Forty-nine** of the requests were for Storage only. However, as stated above **46** declined cases became storage requests, so as a result; the agency had a total of **95** Storage Requests.

<u>Cremation Requests</u> – DC OCME reviewed a total of **2,367** Cremation requests

Scene Visits - OCME investigation staff reported to 485 scenes.

<u>Body Transport</u> - The OCME transported the bodies of **1,117** decedents from scenes of death to the agency.

Organ/Tissue Donations - There were 134 organ donation requests during CY 2012.

The following table illustrates the number of autopsy examinations, external examinations, medical record reviews and partial autopsy examinations performed by "Manner of Death".

2012 Medical Examiner Cases by Manner of Death

Manner	Full Autopsy Examinations	Partial Autopsy Examinations	External Examinations	Review of Medical Records	Total
Accident	176	2	80	10	268
Homicide	96	0	0	0	96
Natural	341	44	201	7	593
Stillbirth	4	0	1	0	5
Suicide	43	0	1	0	44
Undetermined	46	0	1	1	48
Total	706	46	284	18	1054

**Note:** The above table does <u>NOT</u> include the following cases that were reported to the OCME for further investigation: Nineteen (19) cases were "*Non-Human Remains*; and four (4) cases were remains that were disinterred from an historical burial site.

#### SUMMARY OF FINDINGS FOR MANNER OF DEATH

**HOMICIDES:** The OCME investigated 96 Homicides in the CY 2012. This report reveals that homicides continued to be more prevalent in black males and in persons between the ages of 20-29 than any other category. The weapon of choice was firearms. The peak incidents occurred in June, November and December.

<u>Toxicology Findings</u>: Toxicology testing was requested on all 96 Homicide cases investigated. Drugs were present in 67 of the homicide cases investigated. The most commonly detected drugs in homicide cases were: Ethanol (N=25), Marijuana Metabolites<sup>1</sup> (23); Phencyclidine PCP (9), Morphine (8).Cocaine (7), Pentobarbital (4) and

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

**SUICIDES:** The OCME investigated 44 suicides in the CY 2012. This report reveals that suicides were more prevalent in black males and in persons between the ages of 40-49. Overall blacks represented 48% of the decedents (N=21) this year. Peak incidents occurred in October. *Toxicology Findings:* Toxicology testing was requested for 43 of the 44 Suicide cases investigated. Overall, drugs were present in 27 of the suicide cases investigated. The most commonly detected drugs were: Ethanol (N=17), Cannabinoids (6); Venlafaxine (6); Cocaine (4); and Promethazine (4).

**ACCIDENTS:** The OCME investigated 268 accidents in the CY 2012. Of the 268 cases investigated, 140 were the result of blunt force trauma, of which 43 were traffic-related deaths. Also, 84 of the accidental deaths occurred as a direct result of prescription and/or illicit drug use. Peak incidents for accidental deaths overall occurred in July.

<u>Toxicology Findings for Accidents</u>: Toxicology testing was requested for 178 of the 268 Accident cases investigated, and drugs were present in 133 of these cases. The most commonly detected drugs were: Morphine (N=55), Cocaine (54), Ethanol (52), 6-acetylmorphine (29), Methadone (20), Marijuana Metabolites (19), Oxycodone (12), Phencyclidine (11) and Citalopram (10).

<u>Traffic-related Accidents</u>: The majority of traffic accident deaths occurred in the following categories: males, blacks, and drivers between the ages of 20-29. Peak incidents for traffic accidents only occurred in January.

<u>Toxicology Findings for Traffic-related accidents:</u> Toxicology testing was requested for 35 of the 43 Traffic-related Accidents, and drugs were present in 18 of these cases. The most commonly detected drugs were: Ethanol (N=8); Marijuana Metabolite (7); Cocaine (1) and PCP (1).

In the 8 traffic deaths positive for ethanol, 5 were greater than twice the legal limit (0.16 g/100 mL) for driving under the influence in the District of Columbia. The legal limit for Blood Alcohol Concentration in the District of Columbia is 0.08% while driving.

**NATURAL DEATHS:** The OCME investigated 593 Natural deaths in CY 2012. This report reveals that the leading cause of death in Natural cases is Cardiovascular Disease with 367 deaths, followed by Central Nervous System (Brain) with 29 deaths. It is important to note that for the first time in last 10-years Alcoholism is <u>not</u> the second leading cause of death amongst Natural deaths.

<u>Toxicology Findings</u>: Toxicology testing was requested for 342 of the 593 Natural cases investigated. Drugs were present in 162 Natural cases investigated. The most commonly detected drugs were: Ethanol (N=64), Acetone (21)<sup>2</sup>, Marijuana Metabolites (20), Morphine (19), Diphenhydramine (16), Methadone (11), Cocaine (10), Oxycodone (8) and Codeine (7).

**UNDETERMINED:** The OCME investigated 48 cases where the manner of death was concluded to be "Undetermined." An "Undetermined" manner of death is a result of inconclusive evidence as to the circumstances of the death at the time and/or inconclusive examination results. As additional information is received, the death may be appropriately re-certified. Note: Sudden Unexpected Deaths in Infancy (SUID) carry an "Undetermined" manner of death.

<u>Toxicology Findings</u>: Toxicology testing was requested for 44 of the 48 Undetermined deaths investigated. Drugs were present in 21 of the Undetermined cases investigated. The most commonly detected drugs were: Ethanol (N=11), Cocaine (3); Fentanyl (3); Morphine (2) and Sertraline (2).

**STILLBIRTHS:** The OCME investigated 4 Stillbirth deaths in CY 2012.

<u>Toxicology Findings:</u> Toxicology analysis was performed on all four of the Stillbirth cases. No cases were positive for drugs.

#### **SUMMARY OF APPENDICES**

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

- A. 2012 OCME Organizational chart
- B. Agency Management Updates: Which includes updates on personnel management, contracting and procurement, and Information Technology
- C. Program Legislation
- D. Internal Partnerships

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<sup>&</sup>lt;sup>2</sup> Fluids positive for Acetone (N=30) represented in this total are a by product of diabetes mellitus or products of decomposition and not due to ingestion.

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# OFFICE OF THE CHIEF MEDICAL EXAMINER 2012 Annual Report

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(2001)

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**46** 

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**56** 

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5.1 - Total Population

## **INTRODUCTION**

The Office of the Chief Medical Examiner (OCME) is required by DC Code §5-1412 to produce an annual report that provides statistical data summarizing the results of investigations conducted by the OCME during a calendar year. This information is a reflection of the status of health of the District of Columbia residents, the level and types of violence to which the population is subjected, the prevalence of drug use and its association with homicides and/or traffic accidents. The Executive Office of the Mayor, the Office of the City Administrator, the Office of the Deputy Mayor for Public Safety and Justice, the Department of Health (DOH), the D.C. Office of the Attorney General, the United States Attorney's Office, the Public Defender Service and other entities can use the data for research purposes and for the development of preventative and corrective policies.

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 order investigation; and 12) dead bodies brought within the District without proper medical certification. (See Appendix C – (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 injury findings of the autopsy which are also used to support or refute witness statements, or uncover completely unsuspected risk factors that may be useful to public health agencies. 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 of 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 nonprescription 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's 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 offers temporary storage of bodies for all area hospices and local hospitals in the District of Columbia. 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). In addition, OCME uses comparative radiology and/or DNA analysis as necessary to ensure identification. The OCME also procures specimens for DNA analysis on each decedent processed.

OCME is one of the few medical examiner offices in the nation that provides on-site grief counseling. This service was provided through a contractual agreement with the Wendt Center for Loss and Healing.

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

Through the years, OCME staff has and continues to be very active in social programs such as Career Day at District of Columbia public and public charter schools, the Mayor's Summer Youth Employment 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 diverse scientific disciplines such as: physician assistance, forensic science, toxicology, and mortuary sciences. The OCME professional staff teaches the Forensic Pathology and Medical Investigation sections of the GWU Graduate Program in Forensic Sciences. 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.

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

#### Overview of Cases Reported and Investigated

During the Calendar Year (CY) 2012, **3,009** cases were reported to and investigated by the District of Columbia - Office of the Chief Medical Examiner (DC OCME).

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<u>Cremation Requests</u> – DC OCME reviewed a total of **2,367** Cremation requests (See section 4.0 for details).

Total Number of Cases Reported and	
Investigated by the OCME	3,009
	,
<b>Total Number of Declined Cases</b>	1,837
Percent of Cases Reported & Investigated	61%
Total Number of Cases Accepted for Further Investigation	1,077
Percent of Cases Reported & Investigated	36%
Number of Scene Visits by a Medical Examiner or Investigator	
Accepted Cases – 461	
Declined Cases – 18	40.
Storage Cases – 6	485
Percent of Cases Accepted for Further Investigation	45%
Total Number of Bodies Transported by OCME or by Order of the OCME:	
Transported by Transport Service - 655	
Transported by Funeral Home - 8	
Transported by Office Personnel - 454	
Investigations:9	
Mortuary: 445	1117
Total Number of Organ/Tissue Donation Requests:	
OCME Approved – 116	
• <i>Procured</i> – 22	
• Not procured – 1	
OCME Declined – 10	
WRTC Abandoned request – 2	
WRTC Approached without permission – 2	
Approval not required - 4	134

#### Breakdown of Accepted Cases by Exam Type

Total Number of Cases Accepted and	
Investigated Further	1077
Total Number of Autopsies	
Full – 695	
Partial –46	
Performed at a University Hospital – 11	752
Percent of Cases Accepted	70%
Number of External Examinations	
On-site - 285	
Off-site - 3	288
Percent of Cases Accepted	27%
Number of Non-Human Remains *	19
Percent of Cases Accepted	2%
Number of Medical Record Reviews *	18
Percent of Cases Accepted	2%

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

- ➤ Autopsy Performed at a University Hospital: During Calendar Year 2012 there were 11 cases where the autopsy was performed at a University 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 deemed 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 Examiner.
- ➤ *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.

## Breakdown of Case Investigations and Autopsies by Month

Month	<b>Case Investigations</b>	Autopsies Full and Partials
January	96	66
February	79	53
March	63	53
April	88	66
May	88	64
June	100	77
July	104	62
August	91	58
September	91	59
October	93	63
November	94	68
December	90	63
Total	1077	752

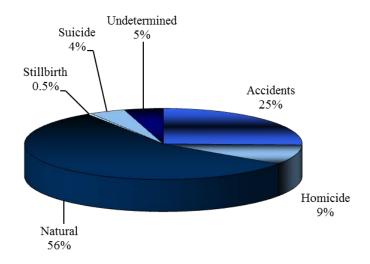
## Medical Examiner Case Investigations by Manner of Death

Manner	Full Autopsy Examinations	Partial Autopsy Examinations	External Examinations	Review of Medical Records	Total
Accident	176	2	80	10	268
Homicide	96	0	0	0	96
Natural	341	44	201	7	593
Stillbirth	4	0	1	0	5
Suicide	43	0	1	0	44
Undetermined	46	0	1	1	48
Total	706	46	284	18	1054

**Note:** The above table does <u>NOT</u> include the following cases that were reported to the OCME for further investigation: Nineteen (19) cases were "*Non-Human Remains*; and four (4) cases were remains that were disinterred from an historical burial site.

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

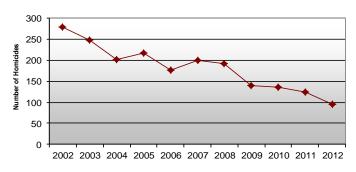


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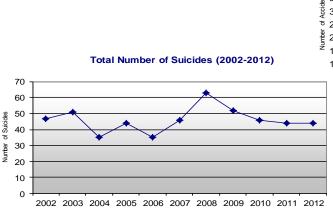
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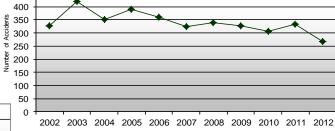
#### **Trends for Violent Deaths in the District of Columbia**





#### Total Number of Accidents (2002-2012)





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#### **Postmortem Toxicology Summary 2012**

All postmortem specimens received for routine toxicological testing, were analyzed for alcohols (ethanol and other volatiles) and major classes of illicit and prescription medications. Additional screens were assigned depending on intake case history and special requests made by physicians. All significant drug results were confirmed by further testing. Typical case specimens received include blood, urine, bile, vitreous, liver, brain, and gastric contents. In 2012, the laboratory received and inventoried 5,353 postmortem specimens (707 cases) yielding 1,466 reported results.

A negative case refers to the <u>absence</u> of any alcohol or detectable drug. 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 do not necessarily cause or contribute to the death. Drugs that are excluded from typical toxicology reports include common compounds found in routine casework such as: lidocaine, caffeine, and nicotine. These compounds are not recorded unless they contributed to the death or were detected in a significant concentration.

#### Total number of postmortem cases analyzed:

Description	<b>Number of Cases</b>	% of Cases
N=	707	
Negative	297	42 %
Positive	410	58 %

# Postmortem Toxicology - Most Commonly Detected Drugs

#### The most prevalent drugs in postmortem cases overall were:

Drug Name	Number of Cases	% of Cases
Ethanol	169	23.9%
Morphine	87	12.3%
Benzoylecgonine	78	11.0%
Marijuana	73	10.3%
Cocaine	47	6.6%
6-acetylmorphine	34	4.8%
Methadone	33	4.7%
Acetone	27	3.8%
Diphenhydramine	26	3.7%
Oxycodone	22	3.1%
Phencyclidine	22	3.1%
Levamisole	20	2.8%
EDDP	19	2.7%
Codeine	18	2.5%
Citalopram	18	2.5%
Nordiazepam	16	2.3%
Isopropanol	13	1.8%
Phenytoin	13	1.8%
Sertraline	13	1.8%
Promethazine	12	1.7%
Cocaethylene	11	1.6%
Phenobarbital	11	1.6%
Norsertraline	10	1.4%
Fentanyl	10	1.4%
Hydrocodone	10	1.4%
Diazepam	10	1.4%
Nortriptyline	9	1.3%
Dextromethorphan	9	1.3%
Midazolam	9	1.3%
Levetiracetam	8	1.1%
Carboxyhemoglobin	7	1.0%
Temazepam	7	1.0%
Amitriptyline	7	1.0%

# 2.1 - HOMICIDES

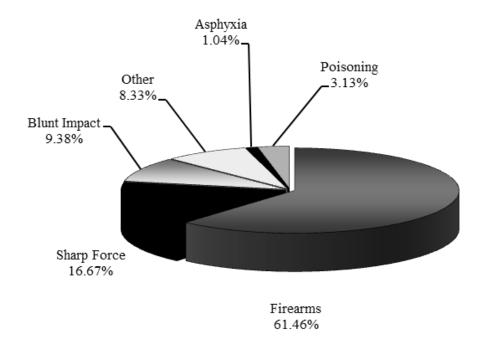
The OCME investigated **96** homicides in the CY 2012. The following tables and graphs provide a distribution by cause of death, month, race, gender and age group. Death by homicidal acts is more prevalent in black males and in the age group 20 to 29 years. The method most prevalent is by firearms. The majority of incidents occurred in June, November and December.

#### Homicides by Cause of Death

Cause	<b>Number of Homicides</b>	% of Total Homicides
Firearms	59	61.46%
Sharp Force	16	16.67%
Blunt Impact	9	9.38%
Other	8	8.33%
Poisoning	3	3.13%
Asphyxia	1	1.01%
Total	96	100%

Note: The percentages for this homicide table are not rounded because values when rounded do not equal 100%

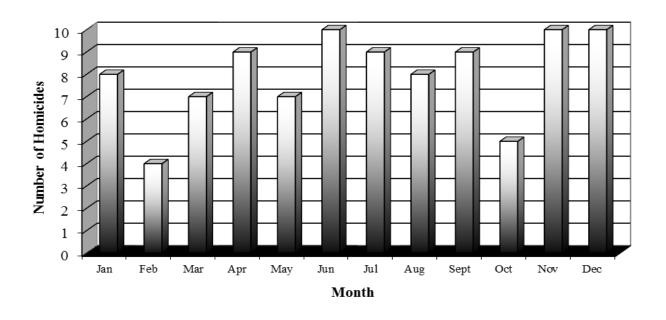
#### Pie Chart - Homicides by Cause of Death



# **Homicides by Month**

Month	<b>Number of Homicides</b>	% of Homicides
January	8	8.33%
February	4	4.17%
March	7	7.29%
April	9	9.38%
May	7	7.29%
June	10	10.42%
July	9	9.38%
August	8	8.33%
September	9	9.38%
October	5	5.21%
November	10	10.42%
December	10	10.42%
Total	96	100%

Graph - Homicides by Month

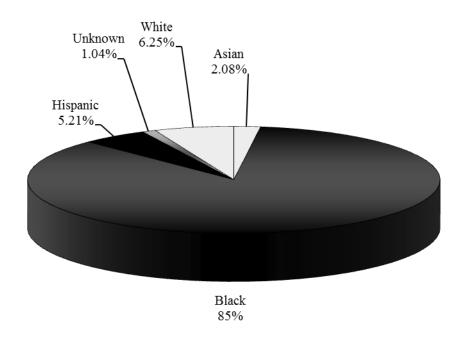


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# **Homicides by Race**

Race/Ethnicity	<b>Number of Homicides</b>	% of Homicides
Asian	2	2.08%
Black	82	85.42%
Hispanic	5	5.21%
Unknown	1	1.04%
White	6	6.25%
Total	96	100%

Chart – Percentage of Homicides by Race



# Homicides by Gender

Gender	Number of Homicides	% of Homicides
Female	13	14%
Male	83	86%
Total	96	100%

# Homicides by Race/Ethnicity and Gender

Race/Ethnicity by Gender	<b>Number of Homicides</b>
Asian	2
Female	1
Male	1
Black	82
Female	10
Male	72
Hispanic	5
Female	1
Male	4
Unknown	1
Female	1
Male	0
White	6
Female	0
Male	6
Total	96

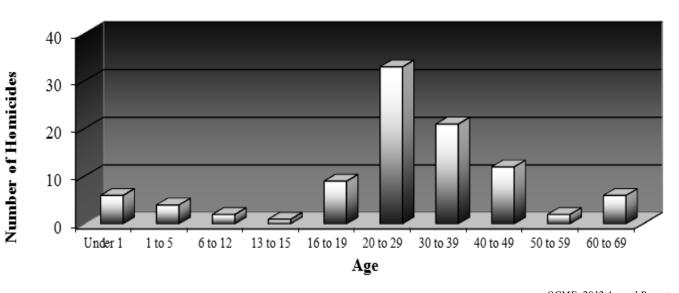
## Homicides by Jurisdiction of Incident

Jurisdiction of Incident	Number of Homicides	% of Homicides
District of Columbia	77	80.21%
Maryland	15	15.63%
West Virginia	2	2.08%
Unknown	2	2.08%
Total	96	100%

# Homicides by Age

Age	<b>Number of Homicides</b>	% of Homicides
Under 1	6	6.25%
1 to 5	4	4.17%
6 to 12	2	2.08%
13 to 15	1	1.04%
16 to 19	9	9.38%
20 to 29	33	34.38%
30 to 39	21	21.88%
40 to 49	12	12.50%
50 to 59	2	2.08%
60 to 69	6	6.25%
70 to 79	0	0.00%
80 to 89	0	0.00%
90 +	0	0.00%
Total	96	100%

# Chart - Homicides by Age Group



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## **Toxicology Findings for Homicide Cases**

Toxicology was performed on all 96 of the homicide cases. All cases were screened for alcohol and major drugs of abuse. Drugs were absent in 29 homicide cases. Of the remaining positive cases, 28.1% had more than one drug present.

Description	<b>Number of Cases</b>	% of Cases
N=	96	100%
Negative	29	30.2 %
Positive	67	69.8 %

The most commonly detected drugs in the homicide cases were:

Name of Drug	<b>Number of Cases</b>	% of Homicide Cases
Ethanol	25	26.0 %
Marijuana Metabolites*	23	23.9 %
Phencyclidine (PCP)	9	9.3 %
Morphine	8	8.3 %
Cocaine	7	7.2 %
Pentobarbital	4	4.1 %

<sup>\*</sup>Marijuana metabolites are not confirmed in homicide cases.

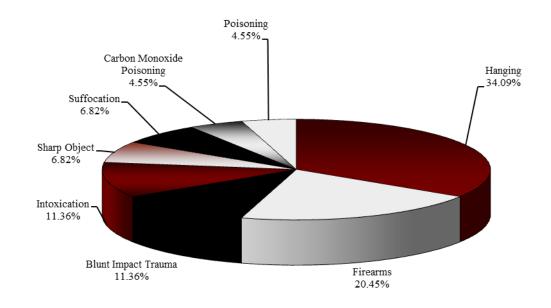
# 2.2 - SUICIDES

The OCME investigated 44 suicides in CY 2012. Deaths by suicidal acts were more prevalent in black males and in the age group 40 to 49 years. Hanging was the leading cause of suicidal deaths. The majority of these incidents occurred in October.

## Suicides by Cause of Death

Cause	Number of Suicides	% of Total Suicides
Hanging	15	34.09%
Firearms	9	20.45%
Blunt Impact Trauma - Jump from height (3) - Metro (2)	5	11.36%
Intoxication	5	11.36%
Poisoning	2	6.82%
Sharp Object	3	6.82%
Suffocation (Plastic Bag over head)	3	4.55%
Carbon Monoxide Poisoning	2	4.55%
Total	44	100%

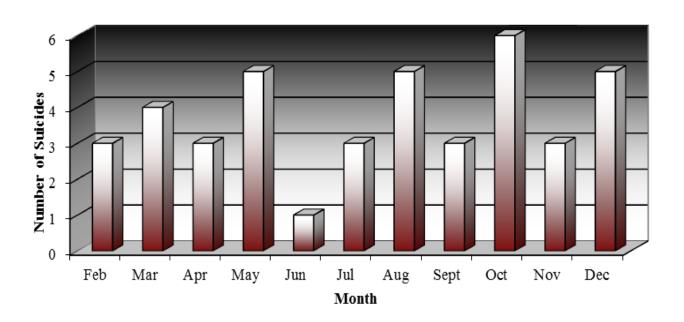
## Pie Chart - Suicides by Cause of Death



# Suicides by Month

Month	Number of Suicides	% of Suicides
January	3	6.82%
February	3	6.82%
March	4	9.09%
April	3	6.82%
May	5	11.36%
June	1	2.27%
July	3	6.82%
August	5	11.36%
September	3	6.82%
October	6	13.64%
November	3	6.82%
December	5	11.36%
Total	44	100%

# **Chart- Suicides by Month**



## Suicide by Race/Ethnicity

Race/Ethnicity	Number of Suicides	% of Suicides
Asian	4	9.09%
Black	21	47.73%
White	19	43.18%
	44	100%

## Suicides by Race/Ethnicity and Gender

Race/Ethnicity by Gender	Number of Suicides
Black	21
Female	4
Male	17
White	19
Female	3
Male	16
Asian	4
Female	1
Male	3
Total	44

## Suicides by Gender

Gender	<b>Number of Suicides</b>	% of Suicides
Female	8	18%
Male	36	82%
Total	44	100%

## Suicides by Jurisdiction of Incident

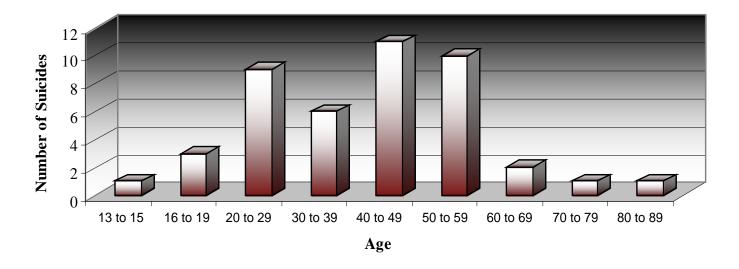
Jurisdiction of Incident	Number of Suicides	% of Suicides
District of Columbia	42	95.45%
Maryland	1	2.27%
Unknown	1	2.27%
Total	44	100%

# Suicide by Age

Age	Number of Suicides	% of Suicides
13 to 15	1	2.27%
16 to 19	3	6.82%
20 to 29	9	20.45%
30 to 39	6	13.64%
40 to 49	11	25.00%
50 to 59	10	22.73%
60 to 69	2	4.55%
70 to 79	1	2.27%
80 to 89	1	2.27%
Total	44	100%

**Note**: There were no suicides for age groups below 13 years old or over 90 years.

# **Chart - Suicides by Age**



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## **Toxicology Findings for Suicide Cases**

Toxicology analysis was performed on 43 of 44 OCME suicide cases. Drugs were absent in 16 of these cases. Of the remaining positive cases, 41.8 % had more than one drug present. Table 1 includes a detailed description of the toxicology in each suicide case where the cause of death was intoxication.

Description	Number of Cases	% of Cases
N=	43	100%
Negative	16	37.2 %
Positive	27	62.8 %

The most notable detected drugs in suicide cases were:

Name of Drug	Number of Cases	% of Suicide Cases
Ethanol	17	39.5 %
Cannabinoids	6	13.9 %
Venlafaxine	6	13.9 %
Cocaine	4	9.3 %
Promethazine	4	9.3 %

Toxicology results for suicides involving intentional overdose are included with table 1 in section 2.3.2. There were 7 of these cases. The table includes specimens, analytical methods used for confirmation, compound(s) present, and the measurable concentration.

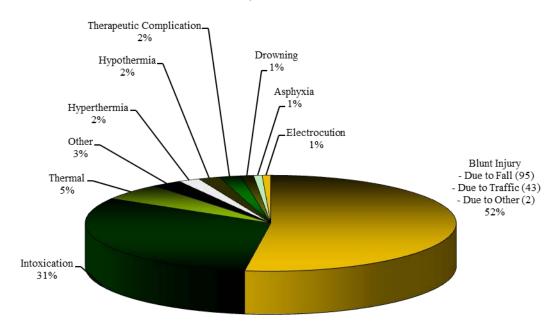
# 2.3 - ACCIDENTS

OCME investigated **268** accidental deaths in CY 2012. Of the **268** cases investigated, **43** were related to motor vehicle accidents. **Eighty-four** of the Accidental deaths were the direct result of prescription and/or illicit drug use. The majority of incidents occurred in July.

## Accidents by Cause of Death

Cause	<b>Number of Deaths</b>	% of Total Accidents
Blunt Injury		
- Fall (95) - Traffic (43)		
- Other (2)	140	52.24%
Intoxication	84	31.34%
Thermal	15	5.60%
Other	7	2.61%
Hyperthermia	5	1.87%
Hypothermia	5	1.87%
Therapeutic Complications	5	1.87%
Drowning	3	1.12%
Asphyxia	2	0.75%
Electrocution	2	0.75%
Total	268	100%

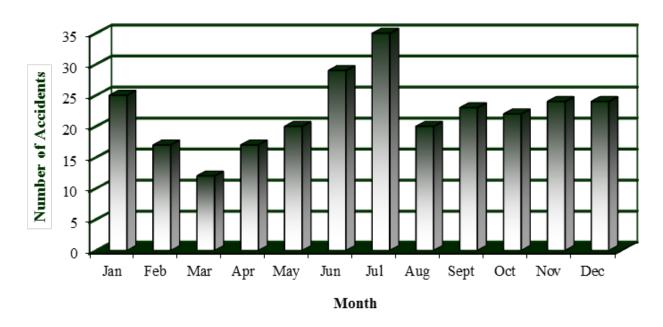
## Pie Chart - Accidents by Cause of Death



# Accidents by Month

Month	<b>Number of Deaths</b>	% of Accidents
January	25	9.33%
February	17	6.34%
March	12	4.48%
April	17	6.34%
May	20	7.46%
June	29	10.82%
July	35	13.06%
August	20	7.46%
September	23	8.58%
October	22	8.21%
November	24	8.96%
December	24	8.96%
Total	268	100%

# Chart - Accidents by Month of Death



# Accidental Deaths by Race

Race/Ethnicity	Number of Accidents	% of Accidents
Asian	7	2.61%
Black	163	60.82%
Hispanic	14	5.22%
Other	3	1.12%
White	81	30.22%
Total	268	100%

# Accidental Deaths by Gender

Gender	<b>Number of Accidents</b>	% of Accidents
Female	88	33%
Male	180	67%
Total	268	100%

# Accidental Deaths by Age

Age	<b>Number of Accidents</b>	% of Accidents
1 to 5	4	1.49%
6 to 12	2	0.75%
13 to 15	2	0.75%
16 to 19	6	2.24%
20 to 29	12	4.48%
30 to 39	22	8.21%
40 to 49	49	18.28%
50 to 59	58	21.64%
60 to 69	31	11.57%
70 to 79	28	10.45%
80 to 89	31	11.57%
90 +	23	8.58%
Total	268	100%

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## **Toxicology Findings for Accident Cases**

Of the 268 Accident Deaths investigated by OCME, toxicology analysis was performed in 178 cases. Drugs were absent in 45 accident cases. Of the remaining positive cases, 58.9% had more than one drug present.

Description	<b>Number of Cases</b>	% of Cases
N=	178	
Negative	45	25.3 %
Positive	133	74.7 %

The most commonly detected drugs in the accident cases were:

Name of Drug	<b>Number of Cases</b>	% of Accident Cases
Morphine	55	30.8 %
Cocaine	54	30.3 %
Ethanol	52	29.2 %
6-acetylmorphine	29	16.2 %
Methadone	20	11.2 %
Marijuana Metabolites*	19	10.6 %
Oxycodone	12	6.7 %
Phencyclidine	11	6.1 %
Citalopram	10	5.6 %

<sup>\*</sup>Marijuana metabolites are confirmed depending on case history.

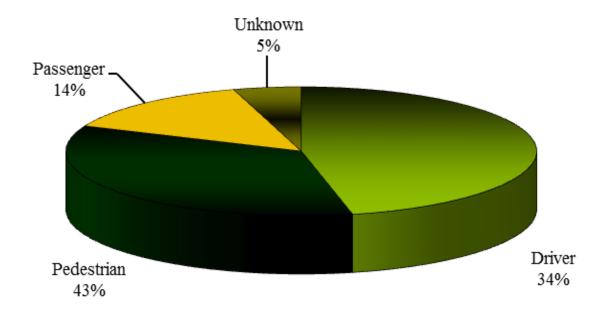
### 2.3.1 – Traffic Deaths

Of the **43** traffic related deaths certified by the OCME in Calendar Year 2012 the majority involved drivers and decedents between the ages of 20 to 29. Most of the traffic fatalities occurred in January.

### Role of the Decedent in Traffic Death

Role	Traffic Deaths	% of Traffic Deaths
Driver - Motor Vehicle(12) - Motorcycle (7) - Moped/Scooter(1)	20	46.51%
Pedestrian - Metro Bus (1) - Dump truck (1) - Motor Vehicles (13)	15	34.88%
Passenger - Motor Vehicle (5) - Utility Vehicle (1)	6	13.95%
Unknown - Role Unknown	2	4.65%
Total	43	100%

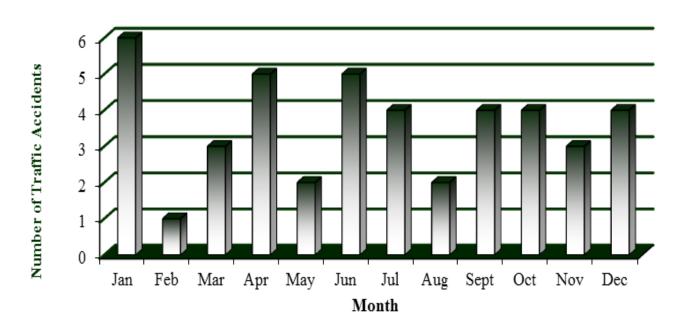
## Pie Chart - Role of Decedent in Traffic Accident



## Traffic Deaths by Month

Month	Number of Traffic Accidents	% of Traffic Accidents
January	6	13.95%
February	1	2.33%
March	3	6.98%
April	5	11.63%
May	2	4.65%
June	5	11.63%
July	4	9.30%
August	2	4.65%
September	4	9.30%
October	4	9.30%
November	3	6.98%
December	4	9.30%
Total	43	100%

## **Chart - Traffic Deaths by Month**



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## Traffic Deaths by Race

Race	<b>Number of Traffic Deaths</b>	% of Traffic Deaths
Black	28	65.12%
Hispanic	7	18.60%
White	8	16.28%
Total	43	100%

## Traffic Deaths by Gender

Gender	Number of Traffic Deaths	% of Traffic Deaths
Female	13	30%
Male	30	70%
Total	43	100%

## Traffic Deaths by Age

Age	<b>Number of Traffic Deaths</b>	% of Traffic Deaths
1 to 5	1	2.33%
6 to 12	1	2.33%
13 to 15	1	2.33%
16 to 19	6	13.95%
20 to 29	7	16.28%
30 to 39	5	11.63%
40 to 49	6	13.95%
50 to 59	4	9.30%
60 to 69	4	9.30%
70 to 79	3	6.98%
80 to 89	4	9.30%
90 and Over	1	2.33%
Total	43	100%

Note:

### Traffic Deaths by Jurisdiction of Incident

Jurisdiction of Incident	Number of Traffic Deaths	% of Traffic Deaths
District of Columbia	19	44.19%
Maryland	22	51.16%
Virginia	1	2.33%
Unknown	1	2.33%
Total	43	100%

### **Toxicology Findings for Traffic Accident Cases**

Of the 43 Traffic-related deaths investigated by OCME, toxicology analysis was performed in 35 cases. Drugs were absent in 17 traffic accident cases. Of the remaining positive cases, 17.1% had more than one drug present.

Description	<b>Number of Cases</b>	% of Cases
N=	35	
Negative	17	48.5 %
Positive	18	51.4 %

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

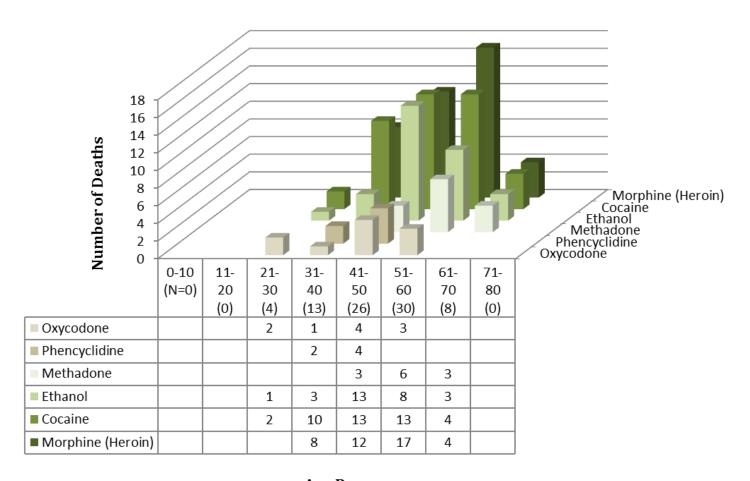
Name of Drug	<b>Number of Cases</b>	% of Traffic Cases
Ethanol	8	22.8 %
Marijuana Metabolite	7	20.0 %
Cocaine	1	2.8 %
PCP	1	2.8 %

In the 8 traffic deaths positive for ethanol, 5 were greater than twice the legal limit (0.16 g/100 mL) for driving under the influence in the District of Columbia

### **Accidental Drug Overdose Fatalities by Age**

The majority of overdose deaths occurred in decedents between the ages of 41 and 60 years. Opiates (Heroin, oxycodone) were the most frequent class of detected drug in most of these age groups, followed by cocaine, ethanol then methadone. The prevalence of phencyclidine (PCP) has been included.

#### Overdose Deaths by Age and Drugs



**Age Range** 

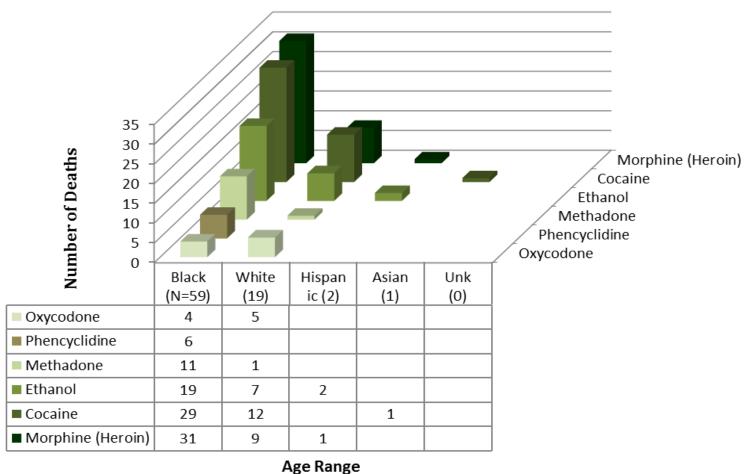
Note: "N" represents the total number of deaths found within the stated age group.

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#### **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, heroin, ethanol and methadone. The prevalence of phencyclidine and oxycodone (PCP) has been included

### Overdose Deaths by Race and Drugs



Note: "N" represents total number of deaths found within the stated race

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## 2.4 - NATURAL DEATHS

Deaths caused by Cardiovascular Diseases continue to dominate in this category with **593** fatalities. Deaths due to the Central Nervous System were a far second with **29** deaths, and for the first time in ten years Alcoholism was <u>not</u> the second leading cause of death amongst Natural deaths. Blacks were more prevalent in this category representing **74** % of the population affected. The majority of Natural deaths occurred in **June** 

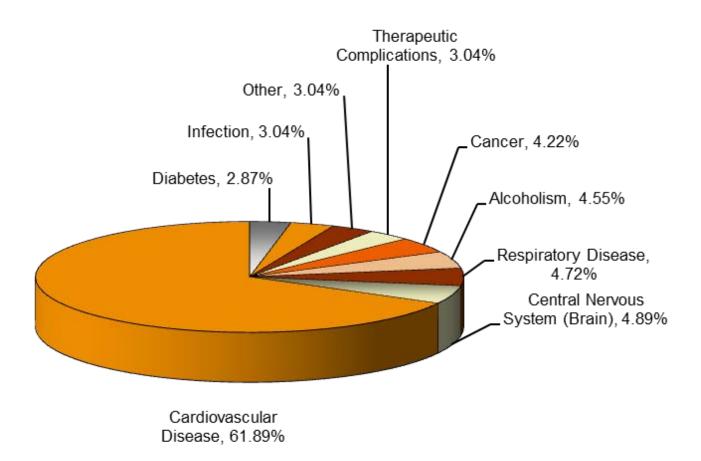
### **Natural Deaths by Cause**

Cause	Number of Deaths	% Of Total Natural Deaths
Cardiovascular Disease	367	61.89%
Central Nervous System (Brain)	29	4.89%
Respiratory Disease	28	4.72%
Alcoholism	27	4.55%
Cancer	25	4.22%
Infection	18	3.04%
Other	18	3.04%
Therapeutic Complications	18	3.04%
Diabetes	17	2.87%
Infectious Disease	11	1.85%
Gastrointestinal Disease	10	1.69%
Pulmonary Embolism (PE)	10	1.69%
Blood Disease/Hemopoietic System	3	0.51%
Complications of Drug Abuse	3	0.51%
Genetic Disorder	3	0.51%
Obesity or Complications of Obesity	2	0.34%
AIDS	1	0.17%
Complications of Pregnancy	1	0.17%
Connective Tissue Disease	1	0.17%
Immune System Disease	1	0.17%
Total	593	100%

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### <u>Pie Chart – Natural Deaths by Cause</u>



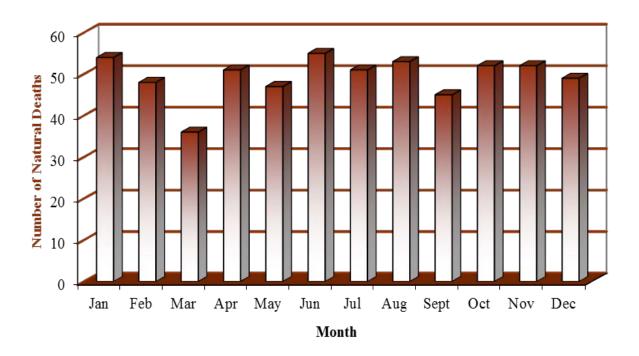
**Note**: Causes of Death that are less than 2% are not included in this chart.

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## Natural Deaths by Month

Month	<b>Number of Deaths</b>
January	54
February	48
March	36
April	51
May	47
June	55
July	51
August	53
September	45
October	52
November	52
December	49
Total	593

## **Chart- Natural Deaths by Month**



## Natural Deaths by Race

Race	Number of Natural Deaths	% of Natural Deaths
American Indian	1	0.17%
Asian	4	0.67%
Black	441	74.37%
Hispanic	11	1.85%
Other	7	1.18%
Unknown	6	1.01%
White	123	20.74%
Total	593	100%

## Natural Deaths by Gender

Gender	Number of Natural Deaths	% of Natural Deaths
Female	195	32.88%
Male	398	67.12%
Total	593	100%

## Natural Deaths by Age

Age	# of Natural Deaths	% of Natural Deaths
Under 1	12	2.02%
1 to 5	2	0.34%
6 to 12	4	0.67%
13 to 15	4	0.67%
16 to 19	3	0.51%
20 to 29	14	2.36%
30 to 39	35	5.90%
40 to 49	54	9.11%
50 to 59	172	29.01%
60 to 69	142	23.95%
70 to 79	79	13.32%
80 to 89	52	8.77%
90 +	19	3.20%
Unknown	1	0.17%
Total	593	100%

## **Toxicology Findings for Natural Deaths**

Of the **593** Natural Deaths investigated by OCME, toxicology analysis was performed in 342 cases. Drugs were absent in 180 natural cases.

Description	Number of Cases	% of Cases
N=	342	
Negative	180	52.6 %
Positive	162	47.4 %

The most commonly detected drugs in the natural cases were:

Name of Drug	<b>Number of Cases</b>	% of Natural Cases		
Ethanol	64	18.7 %		
Acetone	21	6.1 %		
Marijuana Metabolites	20	5.8 %		
Morphine	19	5.5 %		
Diphenhydramine	16	4.6 %		
Methadone	11	3.2 %		
Cocaine	10	2.9 %		
Oxycodone	8	2.3 %		
Codeine	7	2.0 %		

### 2.5 – UNDETERMINED DEATHS

### Undetermined by Cause of Death

The OCME investigated **48** cases in which the <u>manner of death</u> was concluded to be "Undetermined," and of these **16** cases or **32%** also had a <u>cause of death</u> classified as "Undetermined".

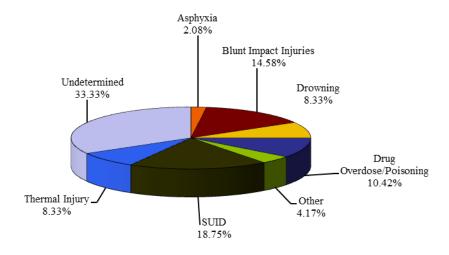
An "Undetermined" manner of death is assigned when there is inconclusive evidence or investigatory efforts as to the circumstances of the death. This manner of death can be changed as additional information is received as it infers a continuous investigation/search for clarification of the events surrounding the death. At times, the cause of death can also be certified as "Undetermined" when autopsy findings are not conclusive. This is the case often in skeletonized or markedly decomposed remains.

A separate category of "undetermined" manner of death involve infants whose deaths are associated with bed/sharing, inappropriate bedding, or other related or similar circumstances. For whom no definite cause of death can be determined despite full autopsy, metabolic, microbiologic, viral or toxicological studies. Many of these deaths were previously certified as SIDS with a Natural manner of death.

Cause of Death	Number of Deaths	% of Total Accepted Cases		
Asphyxia	1	2.08%		
Blunt Impact Injuries	7	14.58%		
Drowning	4	8.33%		
Drug Overdose/Poisoning	5	10.42%		
Other	2	4.17%		
SUID	9	18.75%		
Thermal Injury	4	8.33%		
Undetermined	16	33.33%		
Total	48	100%		

There were no deaths classified as

#### Pie Chart – Undetermined by Cause of Death



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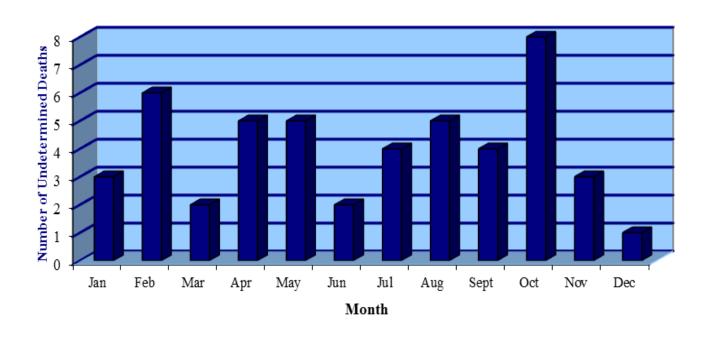
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<sup>&</sup>quot;Undetermined" in the following age groups 6-15 years or 80 and above. Peak incidents occurred in October.

## <u>Undetermined Deaths by Month</u>

Month	Number of Deaths
January	3
February	6
March	2
April	5
May	5
June	2
July	4
August	5
September	4
October	8
November	3
December	1
Total	48

## Chart - Undetermined Deaths by Month



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## **Undetermined Deaths by Race**

Race	<b>Number of Undetermined Deaths</b>
Asian	2
Black	32
Hispanic	2
Other	1
Unknown	1
White	10
Total	48

## **Undetermined Deaths by Gender**

Gender	<b>Number of Undetermined Deaths</b>
Female	17
Male	30
Unknown	1
Total	48

### Undetermined Deaths by Age

Age	Number of Undetermined Deaths
Under 1	14
1 to 5	2
16 to 19	1
20 to 29	5
30 to 39	5
40 to 49	4
50 to 59	7
60 to 69	7
70 to 79	2
Unknown	1
Total	48

**Note**: There were no deaths classified as "Undetermined" in the following age groups: 6-15; 80-89 and 90 and Above.

### **Toxicology Findings by Undetermined Deaths**

Of the **48** Undetermined Deaths investigated by OCME, toxicology analysis was performed in 44 cases. Drugs were absent in 23 undetermined deaths. Of the positive cases, 18% had more than one drug present. Table 1 includes a detailed description of the toxicology in each undetermined case where the cause of death was intoxication.

Description	Number of Cases	% of Cases
N=	44	
Negative	23	52.7 %
Positive	21	46.6 %

The most commonly detected drugs in the undetermined cases were:

Name of Drug	<b>Number of Cases</b>	% of Undetermined Cases
Ethanol	11	25.0 %
Cocaine	3	6.8 %
Fentanyl	3	6.8 %
Morphine	2	4.5 %
Sertraline	2	4.5 %

## **Toxicology for Stillbirths**

Toxicology analysis was performed in 4 of the 5 Stillbirth Deaths investigated by OCME. All cases were negative for all drugs tested.

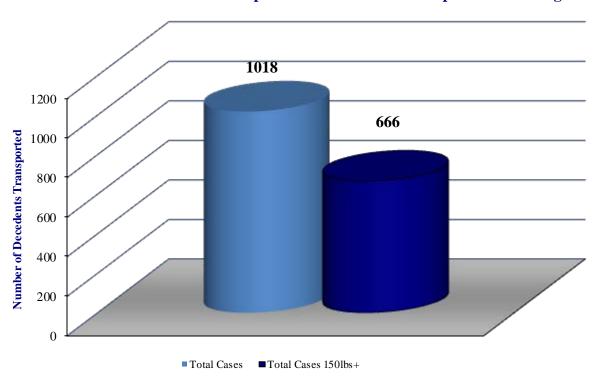
Description	Number of Cases	% of Cases
N=	4	
Negative	4	100%
Positive	0	0 %

## 3.0 - WEIGHT DISTRIBUTION DATA

The agency is presenting data on the weight and Body Mass Index (BMI) of the population of "Accepted" cases it has handled through this calendar year as an indication of the state of obesity and overweight decedents that died in the District of Columbia.

Since the agency is responsible for transport of decedents from scenes of death to the facility, this information also has a budgetary as well as a safety impact on the agency. As illustrated in the table and graph below – Six Hundred and Sixty Six of all "Accepted" human cases transported to the OCME weighed 150 lbs. or more.

Total Cases Transported vs Total Cases Transported Exceeding 150lbs

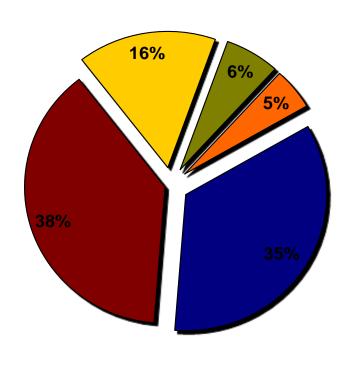


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### 2012 - WEIGHT DISTRIBUTIONS

Weight	Total Cases 149lbs or less	150-199	200-249	250-299	300+	Total Cases 150lbs or more	Total Cases
Number of Decedents	352	390	162	64	50	666	1018

### 2012 - Distribution of Cases Transported to OCME by Weight

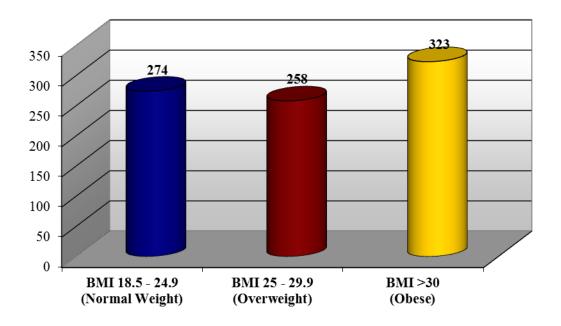


■Cases < 150lbs. ■150-199 □200-249 ■250-299 □300+

### Body Mass Index (BMI) - Adults Only

The World Health Organization (WHO) defines Body Mass Index (BMI) as a "simple index of weight-for-height that is commonly used to classify overweight and obesity in adults. According to the National Institutes of Health (NIH) a normal BMI range is from 18.5 to 24.9. Obesity has emerged as a leading public health concern in the United States.

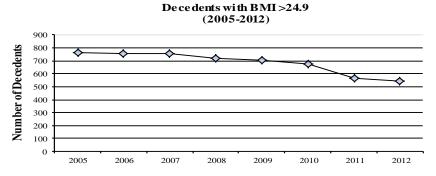
The Body Mass Index (BMI) of 854 of the 943 adult decedents investigated by OCME in 2012 is presented in the adjacent figure.



Note: The 89 decedents that are underweight, skeletonized, or mummified are not included in the above graph.

### Seven-year Overview of Adult Decedents with a BMI above 24.9

The number of decedents with a BMI above the normal range seems to be decreasing as shown in the figure below.

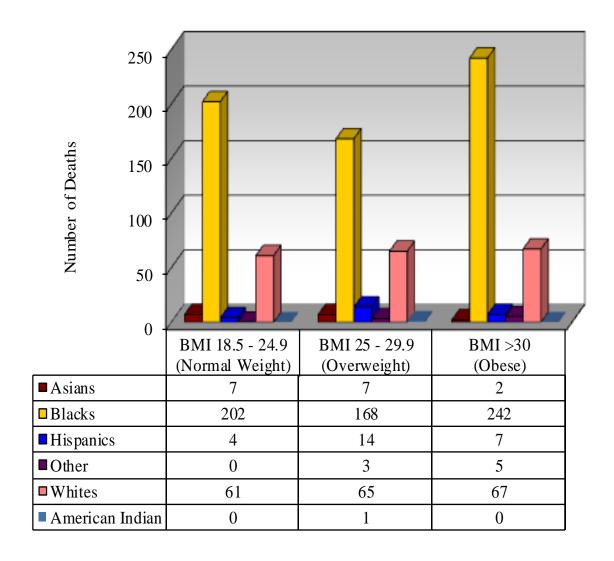


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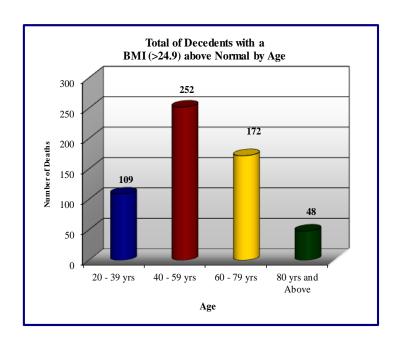
### **BMI** by Race (Adults only)

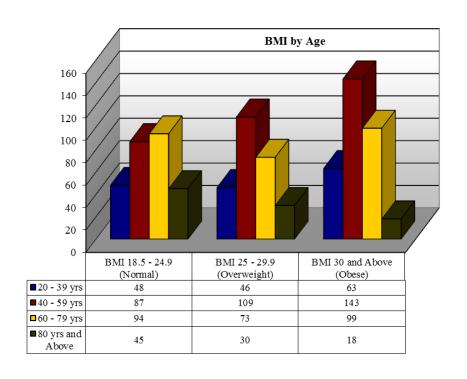
Of the **581** decedents above the normal weight in 2012, **72%** were Black/African American **23%** were White, **4%** were Hispanic; **2%** were Asian and **1%** was Other. The chart below displays the BMI data by race.



### BMI by Age (Adults only)

Of the **581** adult decedents with a BMI above normal (>24.9) during 2012, the age group with the highest number of deaths was 40-59 years old with **252** deaths recorded.





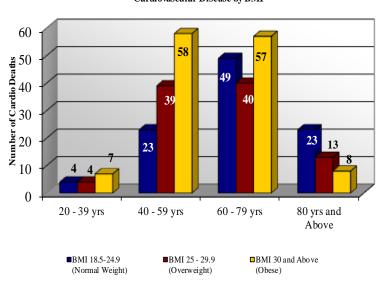
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### **BMI by Age and Cardiovascular Disease**

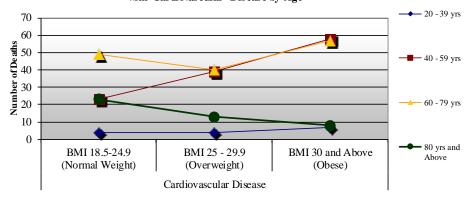
### (Adults only)

The charts below provide a breakdown of the prevalence of cardiovascular disease by age and BMI. 325 adult decedents died of complications of Cardiovascular Disease, 130 were obese and 96 were overweight.

Body Mass Index (BMI) and Deaths Associated with Cardiovascular Disease by BMI



Body Mass Index (BMI) and Deaths Associated with Cardiovascular Disease by Age



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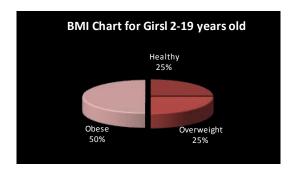
#### 3.1 - BMI Calculations for OCME Child Decedents between the Ages of 2-19 years

#### **BMI Statistical Data**

OCME investigated 77 child decedent cases in 2012, but two were a review of medical records and 1 was autopsied at the hospital. So as a result only 74 of the cases investigated will be included in this report. Of the 74 cases 33 were under the age of two, and no formula exits to calculate their BMI. The BMI of the remaining 41 -child decedents is tabulated below.

**FEMALES** 

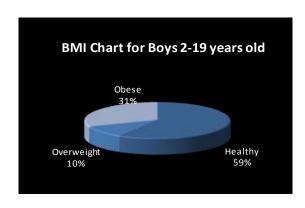
Ago	Underwei	ght	Healthy		Overweight		Obese		Total
Age	BMI Range	No.	BMI Range	No.	BMI Range	No.	BMI Range	No.	Total
2-5yrs	n/a	0	n/a	0	17.8	1	19.1 and 29	2	3
6-12yrs	n/a	0	n/a	0	20 & 21.8	2	23.8	1	3
13-15yrs	n/a	0	n/a	0	n/a	0	35	1	1
16-19yrs	n/a	0	18.9 - 25.6	5	n/a	0	n/a	0	5
Total		2		4		2		4	12



**MALES** 

Age	Underweight		Healthy	Healthy		Overweight		May be Obese	
Age	BMI Range	No.	BMI Range	No.	BMI Range	No.	BMI Range	No.	Total
2-5yrs	n/a	0	17.1 & 17.6	2	n/a	0	n/a	0	2
6-12yrs	n/a	0	n/a	0	18.6	1	20 - 28.8	4	5
13-15yrs	n/a	0	19.9 -22.1	5	n/a	0	27.5 & 88	2	7
16-19yrs	n/a	0	19.2 - 24.1	10	27.3 & 27.5	2	29.3, 41 & 49	3	15
Total		0		17		3		9	29

\*n/a= not applicable



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## 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 pretrial conferences, depositions and expert testimony provided in family, civil and criminal litigations. This annual report presents tabulated data for these expert services provided in OCME calendar year 2012.

Type of Judicial Service	Number of Court related Activities
Court Testimony	10
Depositions	3
Grand Jury	0
Pre-trial Conference	18
Other	1
Total	32

Court Services by Type	Number of Court related Activities
Civil	7
Criminal	25
Other	0
Total	32

Court Services by Jurisdiction	Number of Court related Activities
DC	29
Maryland	2
Virginia	1
Total	32

For calendar year 2012 the above data represents approximately **80** hours of Medical Examiner time. In general the least amount of time spent on this activity was **1** hour, and the maximum recorded time spent on a court-related activity was **7** 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 and/or major conference:

- 2012 National Youth Leadership Forum on Medicine Three- Half days of lecture and tour (annually)
- 2) 2012 National Youth Leadership Forum on Law and Crime Scene Investigation 1 hour presentation on 3 occasions (annually) July 2012
- 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, State Department Foreign Service Officers in Training and AUSA Interns- held at various times throughout 2012.
- 4) GTU Undergraduate students (Forensic Analysis of Victims of Violence) Midlevel Practitioners in the DC OCME as Medico-legal Death Investigators March 2012
- 5) Partners in Education with Arlington Public Schools Annual Presentation, November 2012.
- 6) GWU Medico-legal Death Investigation Fall Semester August 2012 thru December 2012
- Fall Meeting Virginia Academy of Physician Assistants Stories of the DC Medical Examiner November 2012

#### Overview of Identifications and the Public Disposition Process

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. In addition, the OCME provides storage of remains for nursing homes and hospices that do not have refrigerated facilities to store bodies.

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 A 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 Anatomical Board after 3 days if they are not claimed by Next of kin.

Breakdown of Public Dispositions and the Associated Costs

Public Disposition by type	Number of Unclaimed Remains	Cost Per Disposi- tion	Total Dollar Amount Per Type
Cremations – identified adults	74	\$590.00	\$43660.00
Cremations – infants	3	\$304.00	\$912.00
Cremations – fetal remains	0	\$0.00	\$0.00
Transport to Quantico National Cemetery – identified US Mili- tary Veteran (1 transport to Ar- lington)	6	\$760.00	\$4,560.00
TOTAL	83 unclaimed remains		\$49,132.00

#### 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.

During Calendar Year 2012 there was a total of **2,366** Cremation Requests made to the DC OCME; **494** were OCME cases, **1,872** were Non-Medical Examiner cases submitted from area hospitals, clinics and nursing homes; the OCME took jurisdiction of **15** of these cases for further investigation and certification.

#### Storage Requests

The OCME offers temporary body storage for individuals as well as institutions unable to make immediate funeral arrangements. Institutions – but not families – are charged a \$150.00 fee for such requests. In these instances, death certificates are also reviewed for appropriate causation.

During Calendar Year 2012 there were 95 Storage Requests made to the DC OCME

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

Toxicological examinations were performed on driving-under-the-influence (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) and major classes of illicit and prescription medications. Additional screens were assigned depending on requests made by law enforcement. In 2012, the laboratory received 659 cases from the Metropolitan Police Department (MPD) 191 cases from the United States Parks Police (USPP), 20 specimens from the United States Capitol Police (USCP), and 4 specimens from the United States Secret Service (USSS). Specimens received where either blood or urine, and multiple specimens could be received with each of the 874 cases.

A negative case refers to the <u>absence</u> of any alcohol or detectable drug. 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. Drugs that are excluded from typical DUI toxicology reports include common compounds found such as caffeine and nicotine.

Total number of DUI cases analyzed:

Description	Number of Cases	% of Cases
N=	874	
Negative	21	2.4 %
Positive	853	97.5 %

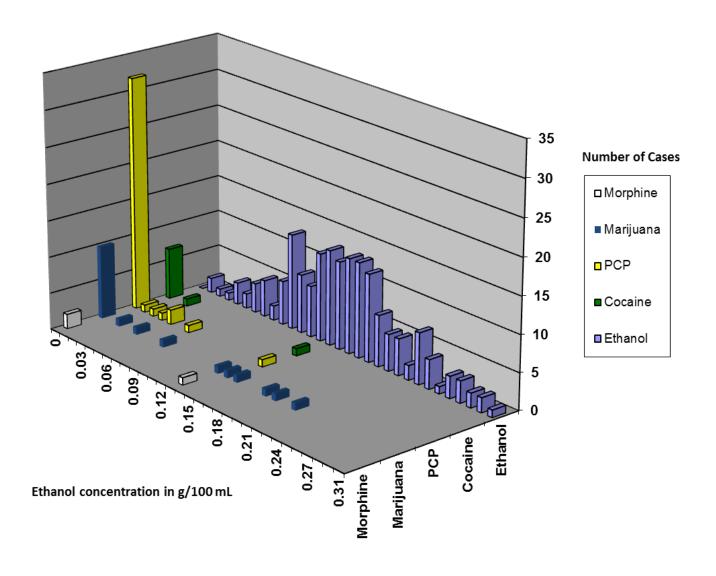
The % prevalence of Ethanol, Phencyclidine, Marijuana, Cocaine, and Morphine in DUI casework submitted by all three enforcement agencies

Agency	MPD	USPP	USCP	USSS	Average %
Total Cases	659	191	20	4	
Ethanol Phencyclidine	89.2%	76.4%	70.0%	25.0%	85.7%
(PCP) Marijuana Me-	14.4%	18.8%	20.0%	0.0%	15.4%
tabolite	22.6%	11.0%	40.0%	50.0%	20.6%
Cocaine	8.3%	4.2%	10.0%	25.0%	7.6%
Morphine	2.1%	1.0%	0.0%	0.0%	1.8%

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The following two graphs represent the number of suspected DUI cases positive for drugs of abuse or in combination with ethanol. The number of cases for each drug is sorted by blood (figure #1) or urine (figure #2) alcohol concentration.

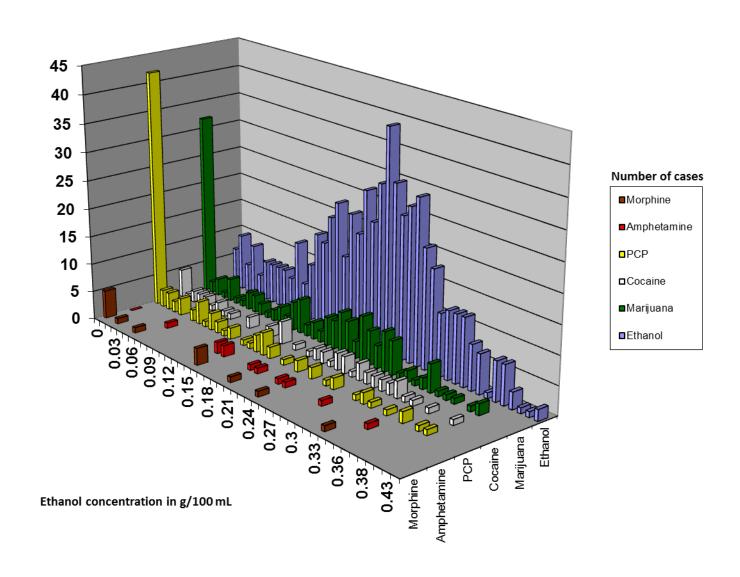
Figure #1: 2012 Drug and Ethanol Positive Cases vs. Ethanol Blood Concentration (g/100mL)



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Figure #2: 2012 Drug and Ethanol Positive Cases vs. Ethanol Urine Concentrations (g/100mL)



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#### Toxicology Findings for Drug Facilitated Sexual Assault (DFSA) Cases

Toxicological examinations were performed on drug facilitated sexual assault cases to assist law enforcement agencies in the investigation of such cases. Routine toxicological examinations for DFSA cases include analysis for alcohols (ethanol and other volatiles), major classes of illicit and prescription medications, and targeted drugs commonly used in DFSA. Additional screens were assigned depending on requests made by law enforcement. In 2012, the laboratory received 115 cases from District government agencies. Specimens received where either blood or urine, and multiple specimens could be received with each of the 115 cases. A negative case refers to the <u>absence</u> of any alcohol or detectable drug. 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. Drugs that are excluded from typical DFSA toxicology reports include common compounds found such as caffeine and nicotine.

#### Total number of DFSA cases analyzed:

Description	Number of Cases	% of Cases
N=	115	
Negative	22	19.1 %
Positive	93	80.9 %

#### The most commonly types of detected drugs in DFSA cases were

Drug Class	Report	Non-Report
Negative	10.9%	26.7%
Ethanol	74.5%	50.0%
Marijuana	36.4%	66.7%
PCP	40.0%	11.7%
Cocaine	14.5%	13.3%
Opiate	29.1%	10.0%
Illicit Stimulant	7.3%	3.3%
Benzodiazepine	7.3%	15.0%
Antidepressants	7.3%	5.0%
Over the Counter	32.7%	8.3%

#### Subject demographics for DFSA cases were

Average Age (years)	27.6
Male	7.8%
Female	92.2%
Age Range	Number of Cases
Ages ≥15 and <20	11
Ages ≥20 and <25	54
Ages ≥25 and <30	20
Ages ≥30 and <35	12
Ages ≥35 and <40	7
Ages ≥40 and <65	8
Ages ≥65	4

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#### **Breath Testing Program**

Administering a Breath Test Program was a new responsibility for OCME in 2012. This was a highly involved process which includes the certification of breath test instruments and the training of breath test operators. In 2012, three 40 hour Operator courses were offered licensing a total of 31 operators. This resulted in 224 evidential breath tests and the deployment of 3 evidential instruments into the field.

**Total 40 Hour Operator Trainings Provided: 3** 

**Total officers Trained: 31** 

Number of evidential instruments in the field: 3

**Total Evidential Tests Taken: 224** 

#### **By District**:

7D: 96

3D: 84

1D: 44

In 2013 the breath program accomplished the following: Six 40 hour Operator courses were offered licensing a total of 88 operators. Over 1,200 evidential breath tests were performed and 4 additional evidential instruments were released into the field, thus resulting in all 7 police districts having a certified instrument available for test.

Note: More extensive statistics will be available in the 2013 Annual Report.

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#### 5.0 – BREAKDOWN OF MEDICAL EXAMINER INVESTIGATIONS

The US Census estimates that during 2012, the total population within the District of Columbia was 633,427 <sup>1</sup> inhabitants, which comprised primarily of the following ethnic groups: White, Black, Hispanic, Asian and Other. In 2012, the OCME investigated 3,009 deaths that occurred in the District of Columbia or were wards of the District and died in another jurisdiction. 1,077 of these cases were accepted under the jurisdiction of the Medical Examiner for further investigation; of which 866 of them were known to be residents in the District of Columbia. The following table and charts summarize the manner of death by racial composition.

#### 2012 Manner of Death\* by Race with 2010 Census Data

Race	2010. Census	Natural	Suicide	Homicide	Accidents	Undetermined	Total Number of ME Cases
American Indian							
and Alaska Native (non-Hispanic)	1,322	1	0	0	0	0	1
Asian							
(non-Hispanic)	20,818	4	4	2	7	2	19
Black							
(non-Hispanic) <sup>2</sup>	301,053	441	21	82	163	32	739
Hispanic							
(any single race)	50,083	11	0	5	14	2	32
Other							
(non-Hispanic)	1,451	7	0	0	3	1	11
Pacific Islander							
(non-Hispanic)	216	0	0	0	0	0	0
Two or more races	17,316	0	0	0	0	0	0
Unknown	n/a	6	0	1	0	1	8
White							
(non-Hispanic)	209,464	123	19	6	81	10	239
<b>Total Population</b>	601,723	593	44	96	268	48	1049
Total # of ME							
Cases							

<sup>\*</sup>The following data are not included in the above table: the manner of death" <u>Stillbirth</u>, which represent the **5** cases; and the skeletal remains that were disinterred from an historical burial site which represent **4** cases. However the race and gender of these nine cases are reported in the tables to follow.

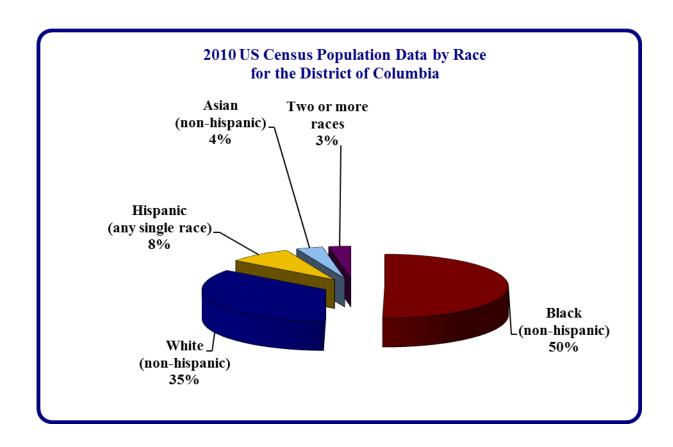
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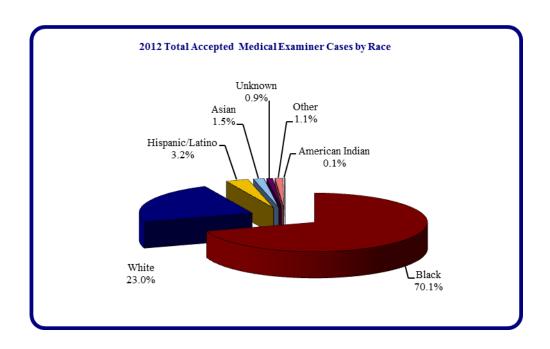
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<sup>&</sup>lt;sup>1</sup> Source: http://quickfacts.census.gov/qfd/states/11000.html

<sup>&</sup>lt;sup>2</sup> The (non-Hispanic) attribute only applies to the 2010 Census data and does not apply to the OCME statistics for race by "Manner of Death"

## 5.1 – Total Census and ME Population Charts





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

2012 ME Totals by Age

Age Group	<b>Total Deaths</b>	Percent
Under 1	36	3%
1 to 5	8	1%
6 to 12	8	1%
13 to 15	8	1%
16 to 19	22	2%
20 to 29	73	7%
30 to 39	89	8%
40 to 49	130	12%
50 to 59	249	24%
60 to 69	188	18%
70 to 79	110	10%
80 to 89	84	8%
90 and Over	42	4%
Unknown	2	0%
TOTAL	1049	100%

**Note**: The above totals do NOT include the four decedents disinterred from historical burial site, or the 5 stillborn deaths.

2012 ME Totals for Gender by Race

Race	Males	Females	Unknown	Total
American Indian	1	1	0	2
Asian	13	6	0	19
Black	512	230	1	743
Hispanic	23	9	0	32
Other	6	5	0	11
Unknown	4	3	1	12
White	171	68	0	239
TOTAL	730	322	2	1054

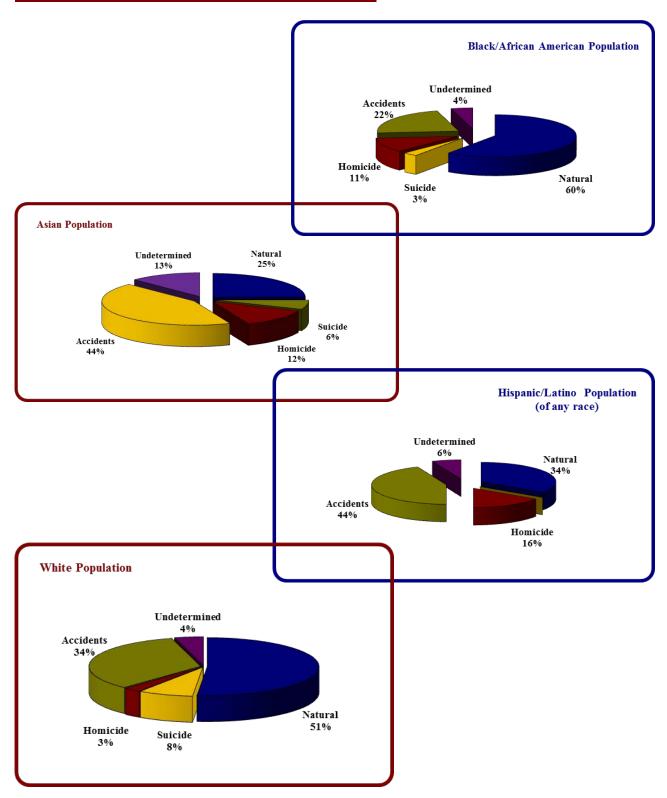
**Note**: The above totals include the Stillbirth decedents (5), but does NOT include the decedents (4) disinterred from historical burial site.

2012 ME Totals for Manner of Death by Gender

Gender	Naturals	Suicide	Homicides	Accident	Undetermined	Stillbirth	Totals	Percent
Female	195	8	13	88	17	1	322	31%
Male	398	36	83	180	30	3	730	69%
Unknown	0	0	0	0	1	1	2	0%
Totals	593	44	96	268	48	5	1054	100%

Note: The above totals include the Stillbirth decedents (5), but does NOT include the decedents (4) disinterred from historical burial site

#### **Total ME Cases by Race and Manner of Death**

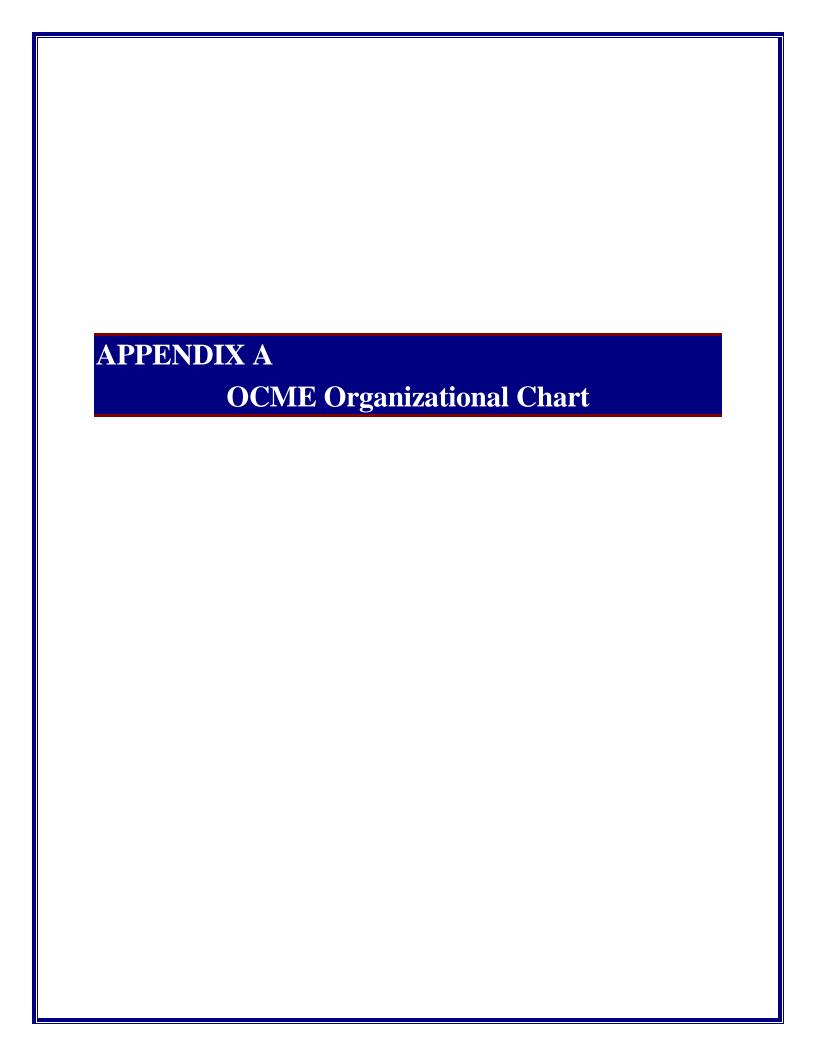


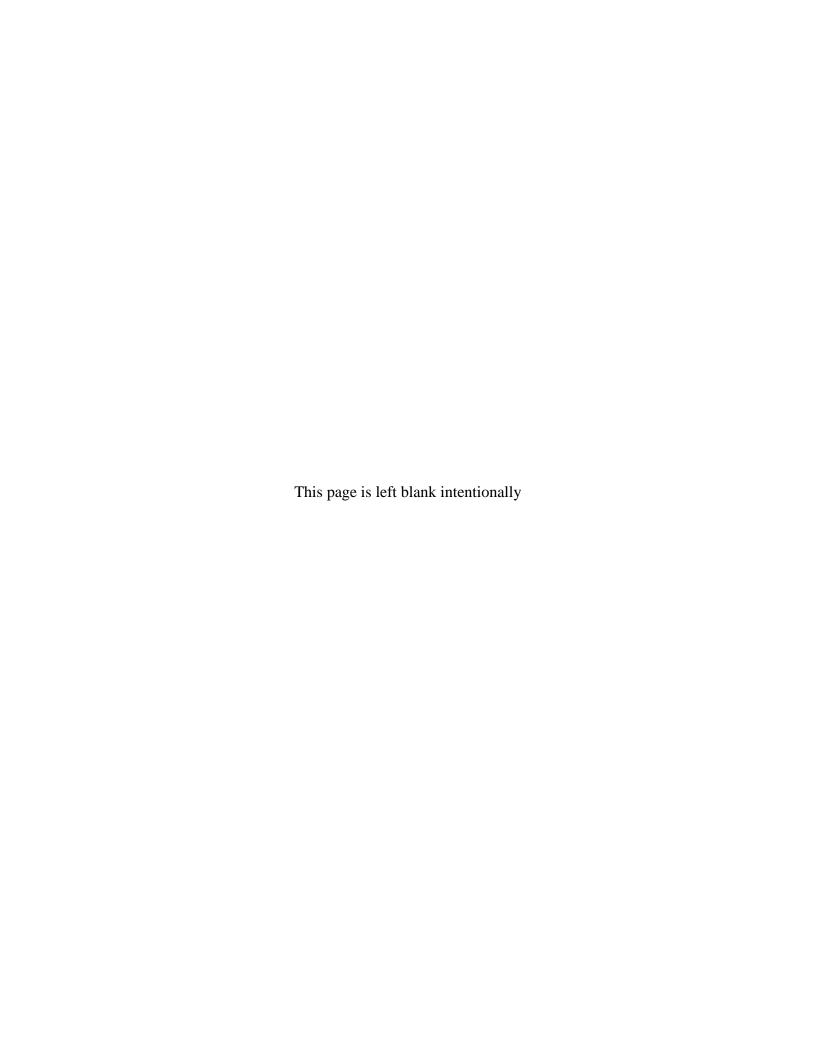
**Note:** The race category American Indian/Alaska is not represented in the above graph because it is than 1% of the total population in the District of Columbia. On the other hand, Hispanics are represented in this graph; although the CDC considers the term "Hispanic" to be an ethnicity and <u>NOT</u> a race.

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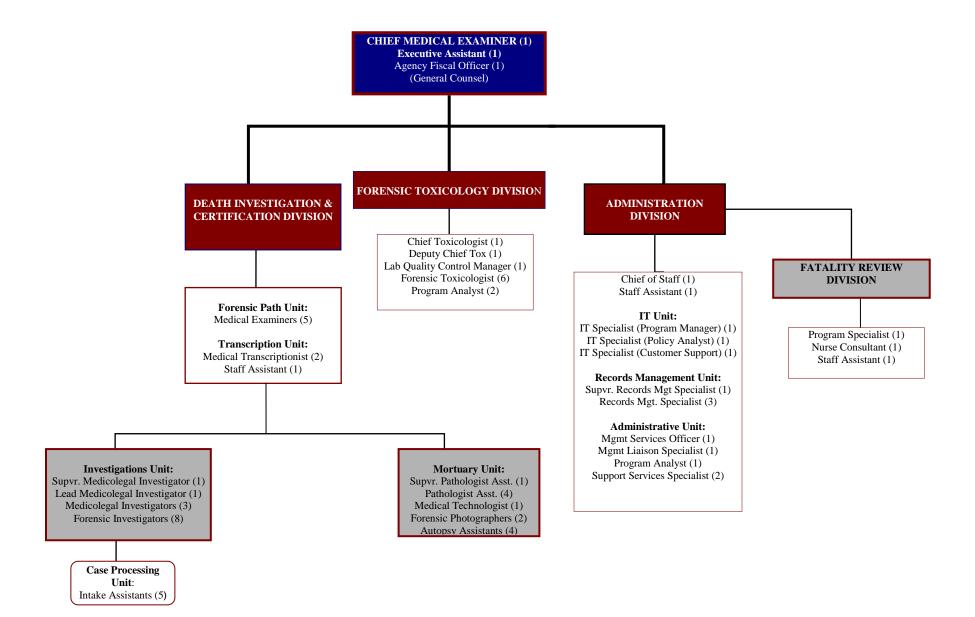
# **APPENDICES**

<b>OCME Organization Chart</b>	
	A
Agency Management	В
Program Legislation	C
Internal Services	D

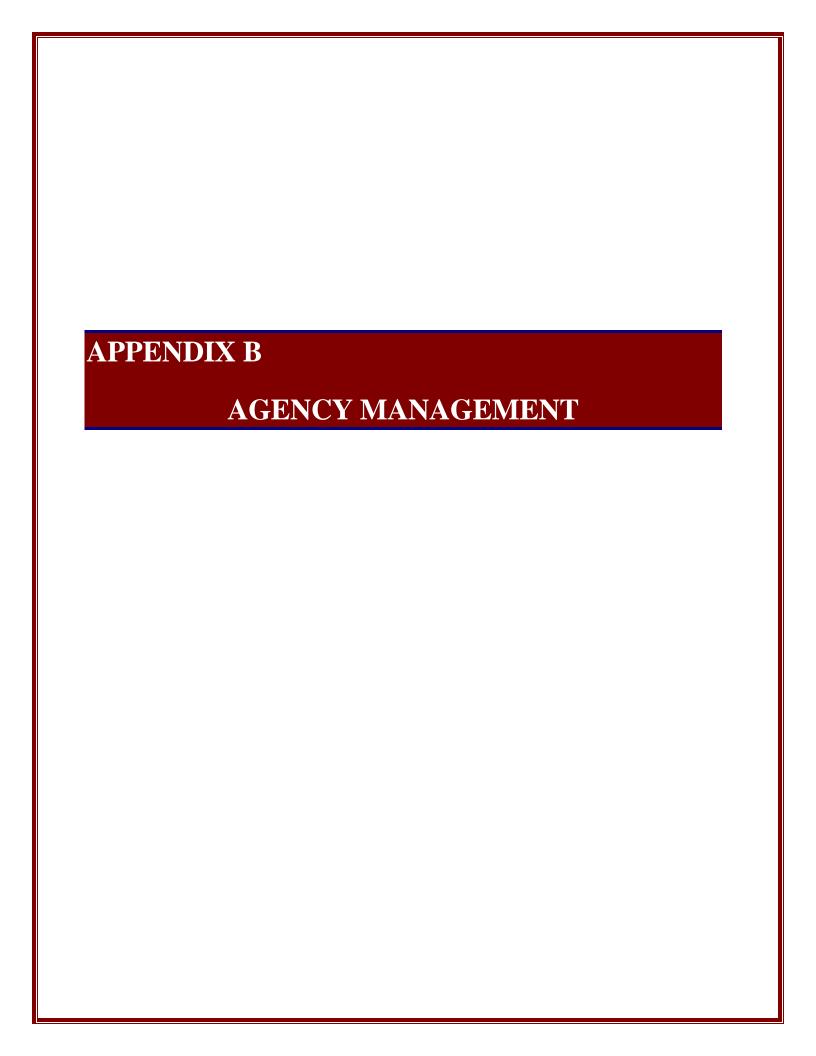




# OFFICE OF THE CHIEF MEDICAL EXAMINER ORGANIZATIONAL CHART FY 2012







## **AGENCY MANAGEMENT**

## **Administration Peformance Management**

The agency's Administrative Division provides support to the work discussed within this annual report in the areas of: property/facilities management; finance and procurement; personnel; information technology; quality assurance and control; legal management; risk management; labor management; and incident management. The Administrative Division is also responsible for monitoring and ensuring efficient operations via establishment and compliance of a performance plan that includes key performance indicators – the performance component of agency management. Throughout 2012, the agency worked to meet performance for agency divisions are included herein.

## Property Management:

For the first three quarters of 2012, the OCME's death investigation and certification activities were conducted at its core facility at 1910 Massachusetts Ave, Bldg. 27 - Washington, D.C. During the fourth quarter, the agency transitioned to a new facility – the Consolidated Forensic Laboratory – located at 401 E St, SW - Washington, DC 20024. Throughout the year, agency staff dedicated numerous hours to the development of transition plans, packing and preparing for a move of significant units that are impacted by chain of custody, confidentiality and special care, to include: decedents, medical examiner case file records, specimens and personnel records. Specifically, the following activities were implemented in preparation for the move: 1) a transition plan was implemented and the move completed; 2) training was conducted on new equipment and work processes given a new environment and work conducted on four different floors; 3) areas of additional construction build-out were indicated, as required per the pre-planning meetings and agreements and agency work requirements; 4) policies and procedures were reviewed for agencyspecific and stakeholder shared activities; 5) security plans were implemented; and 6) designations of staff seating and parking were completed; and 6) outreach to customers was conducted (i.e., next of kin/friends of decedent, funeral directors, law enforcement, U.S. Attorney/Public Defender/private attorneys, fatality review committee members, residents/students/interns, the National Institutes of Health (NIH), university and hospital officials).

## Incident Management Planning:

The OCME revised the following incident management plans: Emergency Response Plan (ERP); Continuity of Operations Plan (COOP); and its Mass Fatality Plan. Note that that the ERP and COOP underwent full revisions due to the agency's location at a new facility and new requirements and procedures. The OCME participated in all city-wide incident management exercises and conferences (i.e., tabletop and full) which involved staff training of procedures; training of staff roles and responsibilities; and retraining on OCME staff interaction with the EOC and other agencies. This included participation in the District's Emergency Management Committee (EMC) activities; Homeland Security Emergency Management Agency's (HSEMA) Severe Winter Weather TableTop; NIMS Training (100, 200, 700 and 800); International Mass Fatality Management Conference; Health Emergency Preparedness and Response Administration (HEPRA) POD Training; Active Shooter Training; HSEMA's Citywide District Response Plan (DRP) Exercise; HEPRA's Mass Fatality Working Group; Review of the Department of Health's (DOH) Mass Fatality Plan; Emergency Preparedness Council (EPC) activities; and the District's level Cyber Attack Exercise.

Of note the District experienced two high profile emergency incidents involving fatalities. One of the incidents required the agency to place its incident/mass fatality plan into action. The agency successfully implemented the plan including: initial evaluation of the scenario, death scene response and investigation, body transport, completion of autopsies and reporting, interaction with next of kin and response to media and other entities. The staff performed professionally with dedication to the mission of the agency and compassion to the victims and their next of kin despite challenging scene and resource dynamics and agency understaffing. The agency prepared extensive after-action reports on the Navy Yard Incident and exercises that was provided to the District's Homeland Security and Emergency Management Agency (HSEMA) and the Office of the Deputy Mayor for Public Safety and Justice (ODMPSJ). The report included recommendations for improved communication and interaction between the incident responders; procurement of an agency scene operations center; and addition of agency staffing.

## Digitization Project:

In 2012, the agency continued implementation of a project to digitize over 62,000 agency medical examiner case records from 1972-2009. The purpose of the project is to ensure that data for these cases is readily accessible and to provide security and integrity to files that are comprised of paper documents that are fragile, 35mm slides, Polaroid's and X-rays, all of which have some degree of degradation or damage due to the archiving process and storage environment. Further, digitization will protect the records from loss due to natural disasters or human error. For a portion of the year, the project was supported through a sub-grant award from the D.C. Justice Grants Administration's National Institutes of Justice Coverdell Forensic Science Improvement grant. The focus of the grant is to improve 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. [Note: The grant also supported Forensic toxicology staff in obtaining course training in driving under the influence ("DUI") and driving under the influence of drugs ("DUID") testimony to improve the quality and availability of DUI and DUID toxicological testimony.]

As part of the agency's transition from manual processes to automated processes, in 2012, the agency launched the webpage that enables funeral directors to make and pay for Cremation Requests on-line. This has enabled the overall "Cremation Request" process to be streamlined and much more efficient, as well as automating the collection and processing of payments for the same.

### Risk Management:

The agency's Risk Assessment Control Committee ("RACC") met on a quarterly basis to discuss and evaluate various facility, employee and other incidents that potentially bring risk or liability to employees, the facility or the District overall. During 2012, meetings focused on the risk associated with the agency move to the Consolidated Laboratory. The risk control efforts evaluated and recommended by the RACC were implemented by the agency and proved successful. The Office of Risk Management (ORM) provides requirements for a successful agency risk assessment and control program, including: conducting quarterly meetings; submittal of 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 emergency response drills. The agency met all requirements.

## Second Annual Employee Summit & Supervisory Training Program

In its focus on the transition to the new Consolidated Forensic Laboratory (CFL), the agency conducted a summit to familiarize employees with the CFL itself, issues surrounding the move and new policies and procedures that will be required to accommodate changes in overall operations. The agency also provide a year-long supervisory training program to include the following topics: a) supervisory skills; b) budget; c) human resources; d) employee relations; and e) contracting and procurement. The purpose was to enhance supervisory skills of agency managers and, thus, efficiency in overall operations

### Customer Service:

As part of the review of work processes to be conducted in the new facility, management staff recognized a challenge for funeral home clients in visiting the facility numerous times in order to complete the cremation approval process. Challenges included parking, security and the inability to provide payment prior to obtaining service. The agency responded by implementing the build-out of a "credit card payment" service on its website. This would allow funeral homes to pay prior to service beginning resulting in the elimination of a visit to the facility just for that purpose. The District's Office of the Chief Technology Officer (OCTO) started work with the agency for testing and full implementation of the system in 2013.

## **Death Investigation and Certification Management**

OCME's Death Investigation and Certification Program is based on the mission of the agency to prepare reports of findings and conclusions (i.e., cause and manner of death) on any autopsy or examination performed. The death investigation and certification program thrived in 2012 with: a) autopsy reporting resulting in 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) maintenance of an emergency body transport service; and d) implementation of advanced technology.

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

#### Measure One:

This measure requires that the agency complete 90% of reports of all postmortem examinations within 90 calendar days from the time of autopsy in homicide cases, based on National Association of Medical Examiner (NAME) standards. For FY2012, the agency completed 80% of these reports within 90 calendar days.

### Measure Two:

This measure requires that the agency complete 90% of reports of all postmortem examinations within 60 calendar days from the time of autopsy in all cases (excluding homicides), based on NAME standards. For FY2012, the agency completed 74% of these reports within 60 calendar days.

### *Note on Measures One and Two:*

The agency continues to work to improve in this area with the implementation of technology; establishment of timelines; and weekly reporting to medical examiners regarding their caseload; status of pending cases. Of importance is the fact that some cases

<sup>&</sup>lt;sup>1</sup> The District's Agency Key Performance Indicators (KPIs) are compiled on a fiscal year basis. Thus, <u>all</u> KPI data included in this report reflects FY2012 -- the time period between October 1, 2011 through September 30, 2012.

do not meet the timeline due to one or all of the following factors: the need for outside consultation; awaiting toxicological findings; awaiting Metropolitan Police Department (MPD), Fire and Emergency Medical Services (FEMS) or other investigatory reports; or the case is complex.

While the agency partially achieved this target, 80% of homicide autopsy cases were completed within the target and 74% of non-homicide cases resulting in preventing a backlog of autopsy reports, next of kin receipt of reports/information in a timely fashion for the purposes of death benefits, insurance and other business matters. This also allows law enforcement to receive key information for criminal investigation and ensures that information is available for court proceedings

### Measure Three:

The third measure requires that 95% of positively identified bodies be ready for release within forty-eight hours. For FY2012, the agency reached an actual percentage of 87.24%, 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 preliminary investigative reports complete for utilization in the daily case review morning meetings. The goal is to ensure that the reports are available and complete for review and discussion the next morning prior to the postmortem examination. Ninety percent (90%) of the investigative reports were complete for use in the morning meetings in FY2012.

## Measure Five:

In FY2012, OCME's mortuary staff arrived on scene within one hour of notification of case acceptance 86% of the time, below the 95% target.

## Forensic Toxicology Laboratory Management

The forensic toxicology laboratory, which is currently fully staffed, has made key strides in support of its efficient operations and provision of service. Members of the toxicology laboratory staff were trained to provide interpretive services and expert testimony on a variety of drug and alcohol related matters and can provide such service to the Office of the Attorney General (OAG), the Public Defenders Service, and the United States Attorney's Office (USA). Also, during FY2012<sup>2</sup>, the laboratory processed 927 Driving Under the Influence (DUI) cases for outside agencies (about twice that of the previous year), including: 209 for the United States Park Police, 694 for Metropolitan Police Department (MPD); `8 for the U.S. Capital Police; 4 for the United States Secret Service; and 2 for the Federal Bureau of Investigation (FBI).

Significantly, the laboratory implemented a new breath alcohol testing program for the District according to industry standards. The Agency made critical changes to existing software, hired essential staff, developed an operator training program; a quality management program; as well as

<sup>&</sup>lt;sup>2</sup> The workload measures included herein, including the number of DUI cases processed by the toxicology laboratory, are based on FY2012 -- the time period between October 1, 2011 through September 30, 2012.

certified and placed evidential instruments in the field. In FY2012, the OCME successfully trained ten MPD officers using the program and is planning to begin the extensive ASCLD-LAB International (American Society of Crime Laboratory Directors) accreditation process in January of 2013.

The laboratory also provided annual statistical reporting of Driving Under the Influence (DUI) and Drug Facilitated Sexual Assault (DFSA) casework to Districts Agencies (MPD and OVS) as well the 2011 OCME Annual Report (published in 2012). Reports included graphic representations of drug prevalence, ethanol concentrations, and demographics (DFSA only).

## **Key Performance Indicators**

### Measure Six:

Measure six provides results of toxicology laboratory performance requiring for FY2012 that 90% of negative toxicology examinations be completed within 30 calendar days of case. The actual percentage was 88%.

### Measure Seven:

Measure seven required for FY2012 that 90% of positive toxicology examinations be completed within 60 calendar days of case. The actual percentage was 98%.

## **Fatality Review Management**

The agency mission includes conducting reviews for the two committees and one board: Child Fatality Review Committee (CFRC); Developmental Disabilities Fatality Review Committee (DDFRC); and the Domestic Violence Review Board (DVRB). In 2012, these reviews were held and recommendations to prevent deaths were developed for other agencies and entities with respect to policies and procedures and operations. The Fatality Review Management Division also worked to complete and publish the following annual reports: 2009 CFRC and 2009 and 2010 DDFRC.

## **Key Performance Indicators**

## Measure Eight:

This measure required the CFRC to hold 75% of child fatality reviews within six months of notification of the death. In FY2012, the CFRC completed 45% of multi-agency and statistical reviews of child fatalities within six months of notification of death.

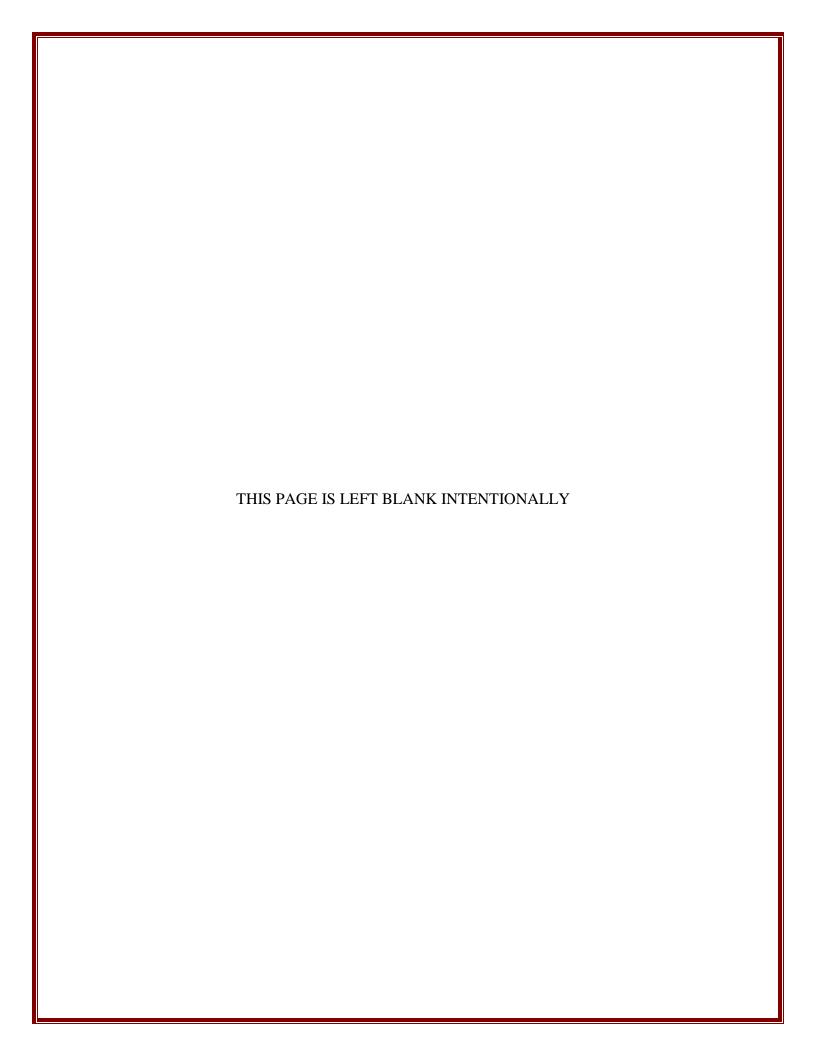
## Measure Nine:

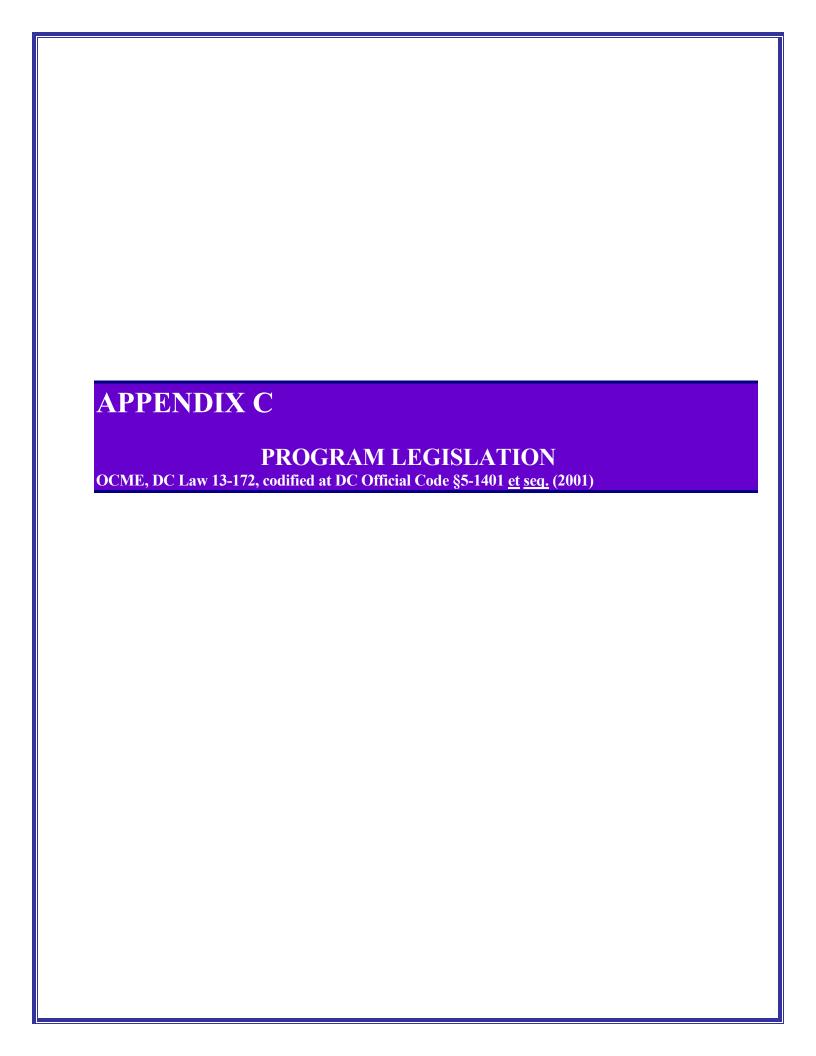
This measure required the DDFRC to review 75% of fatalities within three months of receipt of the investigative report from DDS (formerly MRDDA). One hundred percent (100%) of the cases were reviewed in this timeframe.

## **Other Activities**

OCME continues to provide educational services consistent with the District's mission in welcoming students and residents from area universities and hospitals. In 2012, the agency maintained its partnership with George Washington University (GW) in which agency personnel (including the Medical Examiners, Supervisory Medicolegal Investigator and Deputy Chief Toxicologist) served as GW faculty to teach forensic pathology, toxicology and death investigation for the GW Forensic Sciences graduate program. Agency staff also presented in-

house lectures and conferences for the State Department; National Youth Leadership Forum on Medicine, and various law enforcement entities within the District and at the federal level. The agency continues to offer internship opportunities for students in forensic science and physician assistant programs throughout the nation.						

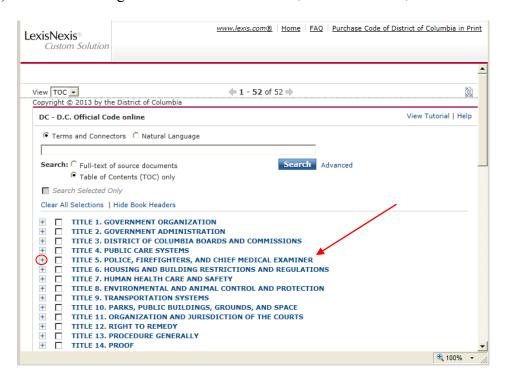




## All of the DC Code for District of Columbia Government agencies can be found at: http://www.lexisnexis.com/hottopics/dccode/

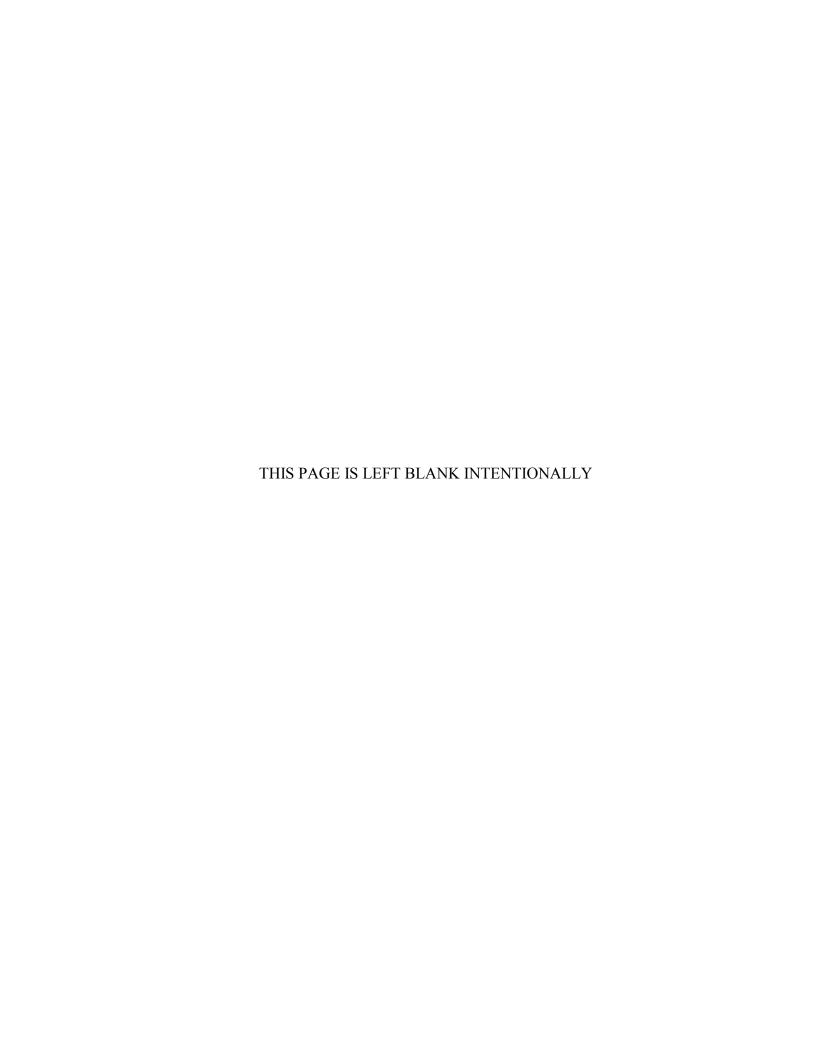
## Follow these steps to access the DC Code for the Office of the Chief Medical Examiner:

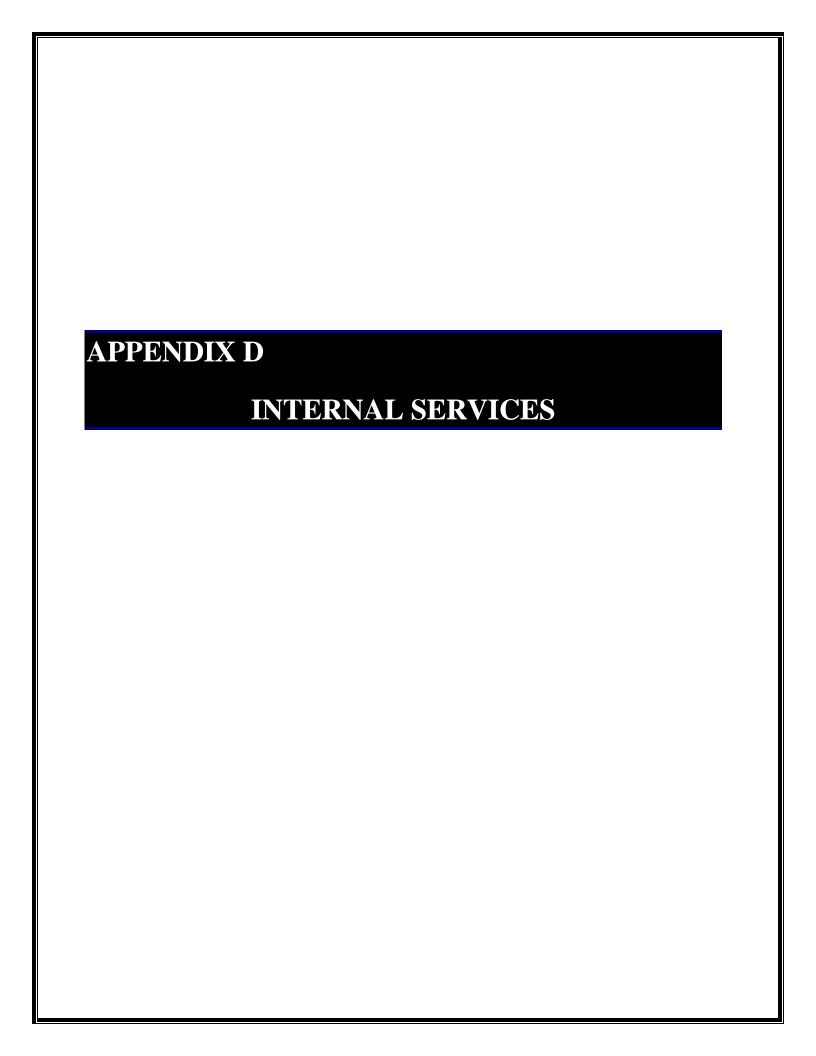
1) Click the "+" sign next to: TITLE 5. POLICE, FIREFIGHTERS, AND CHIEF MEDICAL EXAMINER

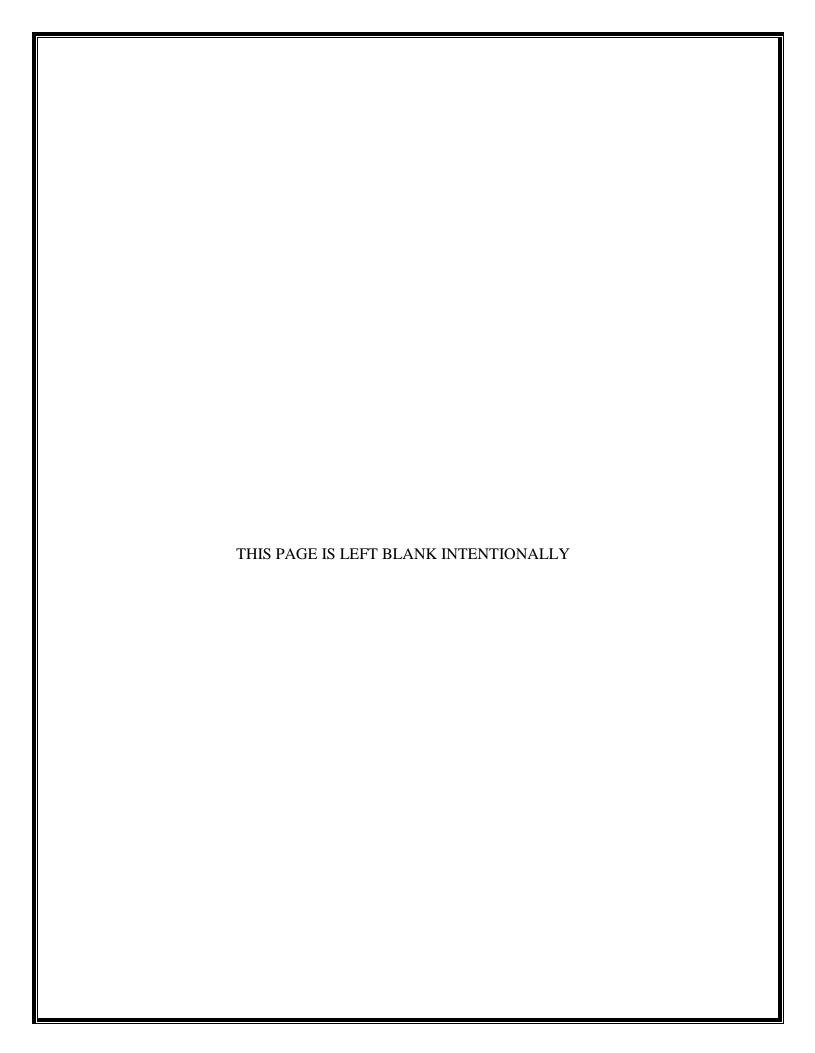


- 2) Then select: Chapter 14. Chief Medical Examiner
- 3) Then click the appropriate portion of the DC Code you prefer to review.

(i.e. § 5-1402. Establishment of the Office of the Chief Medical Examiner; appointments, qualifications, and compensation.)







## Wendt Center for Loss and Healing's RECOVER program

January 1, 2012 through December 31, 2012

November, 2012 marked the 13<sup>h</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. RECOVER staff includes licensed mental health professionals and clinically trained graduate school interns 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 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.

RECOVER counselors help decrease anxiety, stress, anger and preconceived misconceptions of the OCME by explaining the ID process, guiding families through necessary paperwork, preparing them for the identification photograph, and connecting them with Medico-legal investigators, medical examiners or other necessary OCME staff, helping get answers to questions. Depending on the needs of the individual or family RECOVER staff may discuss talking to children about death, preparing for a funeral, making funeral decisions, common reactions to death as well as accessing community resources. RECOVER staff works closely with OCME staff to make the Identification process for families as smooth, informative and compassionate as possible.

Since the inception of the program in November 1999, RECOVER staff has supported families through nearly 11, 000 decedent identifications. During this fiscal year (January 1, 2012 – December 31, 2012) RECOVER staff helped families through nearly 650 Identifications. During that year a total of 1400 people received therapeutic support, trauma/crisis/grief education and community based resources.

This year the RECOVER team continued to provide a monthly staff support session for OCME staff to address stress related issues, as well as learning to identify new effective coping strategies. Using music, art, games, and laugh OCME technicians, transcribers, doctors, investigators, intake specialists and medical records staff had the opportunity to decompress and take care of themselves while at work.

In addition to meeting the needs of families completing the process of identification and supporting OCME staff stress, RECOVER team members make themselves available to better educate OCME staff around the impact of crisis, loss and traumatic events on the different communities of people who must come to the OCME for decedent identification.



On the left is a piece of artwork created during a staff support session. With the backdrop of jazz and classical music, staff is invited to explore their stress and emotional well-being using art as a therapeutic medium. Mindful breathing is also used as a technique to help staff take better care of themselves.

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

## **HOURS AND LOCATION**

Hours of Operation: The Medical Examiner's office functions 24 hour a day 7 days a week. Office hours for the public are as follows:

Monday - Friday

Identifications: 10:00am until 4:30pm

Funeral Director Hours: 9:00am until 6:00pm

Funeral Director Pick-ups: Must be scheduled (9:00am – 6:00pm)

Saturday, Sunday and Holidays

Identifications: 10:00am until 4:30pm

Funeral Director Hours: 9:00am until 6:00pm

Funeral Director Pick-ups: Must be scheduled (2:00pm and 6:00pm)

Location:

401 E Street, SW – 5<sup>th</sup> and 6<sup>th</sup> Floors Washington, DC 20024

Contact Information: Telephone: 202-698-9000

Fax: 202-698-9100

Website: www.ocme.dc.gov

"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 its people, their respect for the laws of the land and their loyalty to high ideals."

William Gladstone, Prime Minister of England



Office of the Chief Medical Examiner 401 E Street,  $SW - 5^{th}$  and  $6^{th}$  Floors Washington, DC 20024 (202) 698-9000 Main (202) 698-9100 Fax

