Annual Report 2011

Protecting the interests of deceased individuals, their loved ones and the community



Milwaukee County Medical Examiner 933 West Highland Avenue Milwaukee, Wisconsin 53233

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Mission Statement

- To promote and maintain the highest professional standards in the field of death investigation;
- To provide timely, accurate and legally defensible determinations as to the cause and manner of death;
- To enhance public health and safety through reducing the incidence of preventable deaths;
- To foster public awareness and support the advancement of professional medical and legal education; and,
- To protect the interests of deceased individuals, their loved ones, and the communities we serve.

The Purpose and Function of the Medical Examiner's Office

The Milwaukee County Medical Examiner's Office is charged with investigating and determining the cause, circumstances and manner in each case of sudden, unexpected or unusual death. Additional activities important to the public health and safety function of the Medical Examiner include:

- Detect tuberculosis, hepatitis, meningitis and other infectious diseases to assist in prevention against the spread of communicable disease;
- Coordinate with other public health and safety organizations and entities to reduce the incidence of preventable deaths;
- Participate as part of the governmental response team for emergency management services;
- Issue death certificates for deaths investigated by this office;
- Conduct cremation investigations for all Milwaukee County deaths in which cremation is selected as a means of disposition;
- Maintain a forensic toxicology (drug) laboratory for testing blood and body fluid specimens for the presence of drugs, poisons or other toxic agents; and,
- Host an annual seminar designed to educate pathologists, coroners, attorneys, law enforcement officers, and other health professionals on a variety of topics related to forensic science.

Department Authority

Section 979.01 Wisconsin Statutes requires that any person having knowledge of an unexplained, unusual, or suspicious death, or a death due to homicide, suicide, or a death following an accident, whether the injury is or is not the primary cause of death, a death without a physician in attendance within 30 days preceding death, a death in which the attending physician refuses to sign the death certificate, etc., shall report such death to the medical examiner for investigation. Investigations are conducted by the office for certifying cause and manner of death. Furthermore, if a death appears to be a result of unlawful means, it is reported to the District Attorney pursuant to §979.04 (2), as well as the appropriate local law enforcement agency, for further investigation, and possible criminal prosecution.

Additional investigative responsibilities described in §979.10 direct the medical examiner to view the remains, and make an investigation into the cause and manner of all deaths in which the next-of-kin selected cremation for disposition.

Glossary of Terms

Cremation

A means for the disposition of human remains after death, consisting of the application of heat to reduce the remains to ashes. A document authorizing the cremation of human remains is required under the law prior to cremation. The medical examiner/coroner for the county in which the cremation is to be performed must authorize such disposition upon review and investigation of the death.

Death certificate

A document signed by a physician, medical examiner or coroner testifying that the circumstances and cause of death as contained in the certificate are verified by the certifier. This certification process is used for legal and evidentiary purposes in matters pertaining to the estate of the decedent, as well as for public health and vital records purposes.

Drug

Medication or substance other than food used for therapeutic or other (recreational) use. A *therapeutic* drug is a medication or substance used in the prevention, diagnosis or treatment of a disease or symptom. A *recreational* drug is a substance used for its personal stimulation, euphoria or mood-altering properties (includes alcohol).

Gender

The sex designation, whether male or female, of the individual being described

Jurisdiction

The medical examiner accepts jurisdiction on all deaths properly reported to this office under WI Statute §979, as described in the Department Authority section of this report. Not all deaths occurring in Milwaukee County are "reportable deaths" within the jurisdiction of the medical examiner.

Manner of death

The classification of circumstances surrounding the cause of death of an individual, as determined by the medical examiner and certified on the death certificate. The standard manners of death as used in death certification include: natural, accident, suicide, homicide and undetermined.

Natural

The cause of death is a physical disease of the body, ultimately resulting in cessation of bodily functions.

Accident

The cause of death is an unintentional injury, caused by a

condition or agent external to the decedent.

Suicide

The death is the result of a purposeful action toward the

intentional taking of one's own life.

Glossary of Terms

Homicide The death is the result of an intentional harmful act of another

person, whether or not that action was intended to cause death. A death is certified as undetermined when, after complete investigation, insufficient evidence remains to make a complete

determination as to one of the above classifications.

Poison A "toxin" is a substance that can harm an organism by other than

mechanical means. "Poison" simply means "too much," as even therapeutically useful substances can cause harm when given at high

levels.

Undetermined

Race The ethnic category to which an individual is assigned for vital statistics

reporting. The categories used in this report are: African American, Asian/Pacific Islander, Caucasian, Eastern Indian, Hispanic, Multi-

racial, and Native American.

Trauma NOS This is trauma with a cause that is not otherwise specified or does

not meet the definitions of other categories.

Deaths in Milwaukee County in 2011 (by Manner of Death)

MANNER	NUMBER	PERCENTAGE
Natural	963	57%
Accident	527	31%
Suicide	98	5%
Homicide	100	6%
Undetermined	16	<1%

ME CASES JURISDICTION ACCEPTED 1,704
CREMATION ONLY INVESTIGATIONS 2,461
JURISDICTION WAIVED 764
NON-REPORTABLE/OTHER JURISDICTION 324
CASES NOT REPORTED 3,331
TOTAL DEATHS, MILWAUKEE COUNTY 8,584

There were 8,584 deaths in Milwaukee County in calendar year 2011, as reported by the Wisconsin Department of Health, Vital Statistics division. http://www.dhs.wisconsin.gov/publications/P4/P45368-11.pdf

Of the 1,701 cases where jurisdiction was accepted, 977 cases were autopsied (57 percent). Additionally, 13 external exams (10 external exams and 3 external exams with toxicology) were performed. The Milwaukee County Medical Examiner's office does not perform partial autopsies or allow hospitals to perform autopsies under its jurisdiction. Autopsies were not performed in deaths where the reported circumstances, scene investigation, medical history or external examination offered information sufficient to certify the death. All suicides, homicides and most accidental deaths underwent autopsy.

Deaths by Manner: Natural

The majority of deaths occurring in Milwaukee County in 2011 were classified as "natural" deaths. Natural deaths come under jurisdiction of the medical examiner when they are sudden or unexpected, when the decedent has not been under the care of a health care provider, or when there are suspicious circumstances surrounding the death.

2011 Natural Deaths by Sex and Race

Type/Race		Unknown	APIA	Black	Eastern Indian	Hispanic	Multi- Racial	Native American	White	Total
NOS	Female	0	0	30	0	2	0	0	75	107
	Male	1	0	21	0	3	2	0	69	96
	Unknown	1	0	0	0	0	0	0	0	1
	Total	2	0	51	0	5	2	0	143	203
Alcohol related	Female	0	0	1	0	0	0	0	3	4
	Male	0	0	4	0	0	0	1	13	18
	Total	0	0	5	0	0	0	1	16	22
Cancer	Female	0	0	3	0	0	0	0	13	16
	Male	0	0	6	0	1	0	0	13	20
	Total	0	0	9	0	1	0	0	26	36
Cardiovascular	Female	0	4	57	2	1	0	1	144	209
	Male	1	3	83	0	5	0	2	255	349
	Total	1	7	140	2	6	0	3	399	558
Central	Female	0	0	10	0	0	0	0	15	25
Nervous	Male	0	0	6	0	3	0	0	12	21
System	Total	0	0	16	0	3	0	0	27	46
Endocrine	Female	0	0	4	0	0	0	0	5	9
	Male	0	0	4	0	0	0	0	6	10
	Total	0	0	8	0	0	0	0	11	19
Gastrointestinal	Female	0	0	1	0	0	0	0	3	4
	Male	0	0	0	0	0	0	1	10	11
	Total	0	0	1	0	0	0	1	13	15
Hemopoietic	Female	0	0	1	0	0	0	0	0	1
	Total	0	0	1	0	0	0	0	0	1
Kidney Disease	Male	0	0	0	0	0	0	0	2	2
	Total	0	0	0	0	0	0	0	2	2
Liver Disease	Female	0	0	0	0	0	0	0	1	1
	Male	0	0	1	0	0	0	1	6	8
	Total	0	0	1	0	0	0	1	7	9
Respiratory	Female	0	0	9	0	0	0	0	17	26
	Male	0	0	12	0	0	0	0	13	25
	Total	0	0	21	0	0	0	0	30	51
Total		3	7	253	2	15	2	6	675	963

Deaths by Manner: Accident

Accidental deaths refer to unintentional deaths resulting from interaction with a "hostile environment" such as drowning or fire. In Milwaukee County, 527 deaths certified as accidents in 2011 comprised 31% of all deaths investigated, compared to 493 in 2010.

The most frequent cause of accidental death across all age groups was falls, with 232 deaths (44%). The majority (181) occurred in the greater than 75 year age group (in the aging population), with differences in sex distribution. The majority of fall victims were female (103 verses 78 males).

The second most frequently occurring category of accidental deaths was drug-related deaths, comprising 173 (33%) of all reported accidental deaths. The majority (129) of drug-related deaths occurred in the 26-55 year age group and males were more than three times as likely to die in drug-related modes as females (95 men verses 34 women)

Motor vehicle fatalities were also a significant cause of accidental deaths, with 54 deaths (10%) attributed to accidental traffic fatalities.

2011 Accidental Deaths By Age and Sex

Injury Type/Ag Category	ge	<1	1 - 5	6 - 12	13 - 17	18 - 25	26 - 55	56 - 74	75 +	Total
Asphyxia	Male	2	0	0	0	0	2	5	2	11
	Female	2	0	1	0	1	1	2	2	9
	Total	4	0	1	0	1	3	7	4	20
Blunt force	Male	0	0	0	0	2	4	1	0	7
trauma	Total	0	0	0	0	2	4	1	0	7
Carbon	Male	0	0	0	0	0	3	0	0	3
monoxide (non-fire)	Total	0	0	0	0	0	3	0	0	3
Drug –	Male	0	0	0	0	11	95	17	0	123
related	Female	0	0	0	2	4	34	10	0	50
	Total	0	0	0	2	15	129	27	0	173
Environment	Male	0	0	0	0	0	3	2	0	5
al exposure	Female	0	0	0	0	0	0	0	1	1
	Total	0	0	0	0	0	3	2	1	6
Falls	Male	0	0	0	0	1	20	14	78	113
	Female	0	0	0	0	0	3	12	103	118
	Unknown	0	0	0	0	0	0	1	0	1
	Total	0	0	0	0	1	23	27	181	232
Fire - related	Male	0	0	1	0	0	4	2	1	8
injury	Female	0	0	0	0	1	3	1	2	7
	Total	0	0	1	0	1	7	3	3	15
Motorized	Male	1	0	0	0	1	1	0	2	5
vehicle –	Female	0	0	1	1	1	0	1	0	4
passenger	Total	1	0	1	1	2	1	1	2	9
Motorized	Female	0	0	0	1	1	2	3	0	7
vehicle -	Male	0	0	0	1	4	13	6	3	27
driver	Total	0	0	0	2	5	15	9	3	34
Motorized	Male	0	0	0	0	1	5	3	0	9
vehicle	Female	0	1	0	0	0	2	2	1	6
pedestrian	Total	0	1	0	0	1	7	5	1	15
Therapy	Male	0	0	0	0	0	2	1	1	4
related	Female	0	0	0	0	0	1	0	0	1
trauma	Total	0	0	0	0	0	3	1	1	5
Trauma NOS	Male	0	0	0	0	0	5	1	0	2
	Female	0	0	0	0	0	0	1	3	3
	Total	0	0	0	0	0	5	2	3	10
Water related	Male	0	0	1	0	2	1	0	0	4
incident	Female	0	0	0	0	0	2	0	1	3
	Total	0	0	1	0	2	3	0	1	7
Total		5	1	4	5	28	199	85	200	527

Deaths by Manner: Suicide

Suicide is defined as the intentional taking of one's own life. 98 deaths (5% of all deaths) were certified as suicide in Milwaukee County for the year 2011. In 2010, 114 deaths classified as suicide.

2011 Suicide Deaths By Age and Sex

Injury Type/Age Category		13 - 17	18 - 25	26 - 55	56 - 74	75+	Total
Asphyxia	Male	1	3	11	1	0	16
	Female	1	2	3	1	0	7
Blunt force	Male	0	0	1	0	0	1
trauma	Female	0	0	0	0	0	0
Carbon	Male	0	0	2	1	0	3
monoxide (non-fire)	Female	0	0	0	0	2	2
Drug - related	Female	0	0	7	0	0	7
	Male	0	1	3	2	0	6
Falls	Male	0	0	5	0	0	5
	Female	1	1	0	0	0	2
Gunshot injury	Male	1	4	20	5	4	34
	Female	0	2	3	3	0	8
Sharp force	Male	0	0	0	0	1	1
injury	Female	0	0	2	0	0	2
Trauma NOS	Male	1	0	1	1	0	3
	Female	0	0	0	0	0	0
Water related	Male	0	0	1	0	0	1
incident	Female	0	0	0	0	0	0
Total		5	13	59	14	7	98

Deaths by Manner: Homicide

For the purpose of this report, homicide is defined as death resulting from injuries inflicted by another person. The medical examiner determination of homicide rests solely on the medical evidence present at the time of the investigation, and is independent of the legal definition, which often includes the concept of intent. Milwaukee County had 100 cases certified as homicides in the year 2011, which comprised 6% all deaths investigated in 2011. This is a decrease in deaths as compared to 2010 where there were 106 deaths classified as homicide.

2011 Homicide Deaths By Age and Sex

Injury Type/Age Category		<1	1 - 5	13 - 17	18 - 25	26 - 55	56 - 74	Total
Abuse/Neglect	Male	1	0	0	0	0	0	1
	Female	0	1	0	0	0	0	1
Asphyxia	Female	0	0	0	0	2	0	2
	Male	1	1	0	0	0	1	3
Blunt force	Male	0	1	0	0	4	3	8
trauma	Female	1	1	0	0	0	0	2
Drug - related	Male	2	0	0	0	0	0	2
	Female	0	0	0	0	0	0	0
Falls	Female	0	1	0	0	0	0	1
	Male	0	0	0	0	0	0	0
Gunshot injury	Male	0	0	5	23	32	0	60
	Female	0	0	0	1	3	0	4
Motorized vehicle	Female	0	0	0	0	1	0	1
pedestrian	Male	0	0	0	0	0	0	0
NOS	Male	0	0	0	1	0	0	1
	Female	0	0	0	0	0	0	0
Sharp force	Female	0	0	0	1	3	0	4
injury	Male	0	0	0	0	6	2	8
Trauma NOS	Male	0	0	0	0	0	1	1
	Female	0	0	0	0	0	0	0
Water related	Male	0	0	0	0	1	0	1
incident	Female	0	0	0	0	0	0	0
Total		5	5	5	26	52	7	100

Deaths by Manner: Undetermined

A death certified as undetermined is one in which manner cannot be determined based on a full investigation. Circumstances in which the investigation may not reveal adequate findings include those in which there is a time delay between death and discovery of the body, or where there is no information as to the source or nature of the injuries or medical condition of the decedent prior to death. A death is certified as undetermined only after a complete investigation is concluded, including autopsy. Less than 1 percent of all deaths were certified as undetermined in Milwaukee County in 2011.

2011 Undetermined Deaths By Age and Sex

Injury Type/Age	Category	<1	6 - 12	18 - 25	26 - 55	56 - 74	75+	Total
Asphyxia	Male	0	1	0	0	0	0	1
	Female	0	0	0	0	0	0	0
Blunt force	Male	1	0	0	0	0	0	1
trauma	Female	0	0	0	0	0	0	0
Drug - related	Male	0	1	1	0	0	1	3
	Female	0	0	0	3	0	0	3
Falls	Male	0	0	0	0	1	1	2
	Female	0	0	0	0	0	0	0
Fire - related	Male	0	0	0	1	0	0	1
injury	Female	0	0	0	0	0	0	0
Motorized	Male	0	0	0	1	0	0	1
vehicle pedestrian	Female	0	0	0	0	0	0	0
Sudden	Female	1	0	0	0	0	0	1
Unexplained Infant Death	Male	0	0	0	0	0	0	0
Trauma NOS	Male	1	0	0	0	0	0	1
	Female	0	0	0	0	0	0	0
Total		3	2	1	5	1	2	14

Medical Examiner Activities

In addition to conducting death scene investigations, cremation investigations, autopsies and toxicology studies, a number of other activities are performed by medical examiner personnel as part of the death investigation process. These functions include:

- Death certification;
- Testifying at legal proceedings;
- Death notifications to next-of-kin;
- Body identification;
- Protection and legal disposition of property belonging to decedents;
- Burial arrangements for unclaimed bodies;
- Disinterment authorization; and,
- Lectures to law enforcement personnel, medical students, etc.

The statutory duties and responsibilities of the office are performed by the Medical Examiner, a licensed physician trained and board-certified in forensic pathology. Four full-time forensic pathologists, two toxicologists, three forensic chemists, a staff of twelve forensic investigators, as well as additional clerical, autopsy, and managerial personnel support the medical examiner function. A forensic pathology fellowship program through the Medical College of Wisconsin trains one to two pathologists annually in forensic pathology through the Medical Examiner's Office. In addition, two post-doctoral fellows in toxicology and therapeutic drug monitoring participate in a two-year training program through this office in conjunction with the Medical College of Wisconsin. The Medical Examiner's office gains the knowledge and expertise in modern toxicology methods through these fellowship programs without incurring any support costs, as these toxicology fellowship positions are funded through the Medical College of Wisconsin Department of Pathology.

Professional consultants in the specialized fields of forensic odontology (dentistry), forensic radiology, forensic anthropology, adult and pediatric cardiac pathology, and forensic neuropathology provide additional support. An autopsy facility and toxicology laboratory provide a secure facility for staff, visitors and evidence entrusted to our care.

The release and dissemination of medical and other information collected or retained by this office is another important activity. Autopsy reports, investigative reports and related data from individual investigations are provided to interested parties such as families, community-based health care providers, insurers, law enforcement, attorneys and others for their use. In addition, agencies such as the Drug Enforcement Administration, City of Milwaukee Health Department, Consumer Product Safety Commission, and Wisconsin Department of Transportation also receive periodic information from this office to further the data analysis and reporting of deaths investigated in Milwaukee County.

Medical Examiner Activities (continued)

Below are other miscellaneous statistics that pertain to the activities of the Medical Examiner's Office:

Activity	2011
Scene visits by Medical Examiner Investigators	1,085
Bodies transported by office or order of the office	1,050
Bodies unidentified after examination	1
Organ and/or tissue donations	77
Unclaimed bodies	17
Number of exhumations	17
Autopsies performed for outside jurisdictions and private parties	179
Cases with toxicology testing performed	931