
Annual Report 2019

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



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



National Accredited Office

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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 of health risks and safety hazards;
- To 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 purpose and function of the Milwaukee County Medical Examiner's Office (MCMEO) is to determine the cause and manner of death in those deaths that fall under the jurisdiction of the Medical Examiner's Office (as outlined in WI State Statute 979.01).

The Medical Examiner's Office staff applies their knowledge and experience in the field of death investigation forensic pathology, and toxicology laboratory science to perform comprehensive, professional investigations, which clarify the circumstances surrounding these deaths. Through the identification, documentation and accurate interpretation of relevant forensic scientific information, the Medical Examiner's Office may provide information for use in criminal and civil litigation. This information may also serve to protect public health and safety by identifying contagious diseases; by identifying environmental hazards in the workplace, home and community; and, by tracking local mortality trends (trends in homicides, suicides, motor vehicle fatalities, drug and alcohol related deaths, etc.). As part of our investigation, we may collect evidence, obtain laboratory specimens, and make positive identification of decedents.

The MCMEO is also committed to providing service to other jurisdictions, through the performance of forensic autopsies, assistance with training and education, toxicology analyses, and consultation on medicolegal issues. It is the ultimate goal of the office to lead the way in standardizing, improving and professionalizing death investigation in the State of Wisconsin.

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 conduct an investigation into the cause and manner of all deaths in which the next-of-kin selected cremation for dispositions.

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 <i>therapeutic</i> drug is a medication or substance used in the prevention, diagnosis or treatment of a disease or symptom. A <i>recreational</i> drug is a substance used for its personal stimulation, euphoria or mood-altering properties (includes alcohol).
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 taking of one’s own life.

Glossary of Terms (Continued)

Homicide	The death is the result of an intentional harmful act of another person, whether or not that action was intended to cause death.
Undetermined	A death is certified as undetermined when, after complete investigation, insufficient evidence exists to make a 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 if they reach high levels.
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 refers to trauma from a cause that is not otherwise specified or does not meet the definitions of other categories.

How and Why the Medical Examiner's Office Functions

Approximately 8,000 to 9,000 deaths occur in Milwaukee County annually. With a population of just under over 950,000, this equates to approximately 1 percent of the population per year. Many deaths occur in hospitals, nursing homes, hospice care or under the immediate care of a physician and are not unexpected. Others occur as the result of obvious non-natural events (accidents, suicides and homicides). Many of the remaining deaths are unexplained, unexpected and/or suspicious.

All deaths in the State of Wisconsin must be explained by means of a certified death certificate, a legal document which is kept on permanent file with the county and state vital records offices. This document must be filled out and signed by a medical physician caring for the deceased, or by a Medical Examiner/Coroner who has assumed legal jurisdiction over the death. Only a Medical Examiner or Coroner can certify a death as an accident, suicide or homicide because these cases must be investigated by the proper authorities.

In the State of Wisconsin, a county must establish an office to investigate unexplained and non-natural deaths. This office must be run by a Coroner (an elected official) or a Medical Examiner (an official appointed by the County Executive and/or County Board). In most counties in Wisconsin, Coroners and Medical Examiners are not required to be physicians or forensic pathologists. However, due to the population of Milwaukee County, Milwaukee County is required to have a Board-Certified Forensic Pathologist as its Medical Examiner.

As mentioned above, the criteria for assuming jurisdiction over a death is outlined in WI state statute 979.01. This statute details that when a person becomes aware of a death occurring in Milwaukee County and it is known to be related to non-natural causes, or if it is felt to meet one of the criteria spelled out in the statute, the death must be reported to the Milwaukee County Medical Examiner's Office (MCMEO).

Upon receiving notification of a death, the death will be assigned to a forensic investigator to investigate the circumstances and to determine if the death indeed falls within the authority of the office, based on state statute 979.01. If the death is felt to not fall under its authority, jurisdiction will be declined, and the certification of the death certificate will be referred to the decedent's personal physician. If no physician can be found or if the physician refuses to sign the death certificate, MCMEO will assume jurisdiction and certify the death.

If the death is felt to fall under the jurisdiction of the MCMEO, the next step will be to determine what level of investigation is necessary to determine the cause and manner of death.

Every death is evaluated individually to determine what level of investigation is needed. Some cases may be adequately investigated by obtaining medical records, performing an external exam of the body, and speaking to physicians, family members and/or witnesses. Some cases may require a scene investigation where the forensic investigator goes to the scene of the death to investigate. Some will require an autopsy and toxicology studies. Some may

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require additional laboratory studies, follow-up interviews, and the review of police reports and other records.

A typical case requires many hours to determine the cause and manner of death. A complex case can take weeks or months and require extensive investigation and research by the MCMEO. Specimens sent to outside laboratories for preparation and/or testing may delay the completion of a case for weeks to months.

In the end, all information collected from the investigation is utilized to determine the cause and manner of death. The office generates an investigative report on each case reported, with autopsy or external examination reports generated for every decedent examined by the forensic pathologist. Diagrams, digital photographs and other documentation are also maintained in the permanent file/database.

Often, the forensic pathologist is required to testify in court with regards to his or her findings and opinions. While most of this testimony is related to criminal cases, the pathologists occasionally testify in civil proceedings, as well.

Financial Aspects of the MCMEO

The MCMEO is a county department, which utilizes tax dollars to operate. In addition to this, MCMEO generates revenue from its services thereby offsetting costs and diminishing its reliance on the tax levy. In 2019, approximately 66 percent of the total operating budget was paid for with revenue dollars.

Revenue is also generated by charging fees for cremation permits, as well as completing death certifications. Body transport is also charged at cost and covers the expense of transport for this office, which generates no net revenue. Other jurisdictions utilizing the services of the office are charged for the performance of referral autopsies, toxicology testing, and for expert witness testimony by the forensic pathologists and/or toxicologists. The office also charges a rental fee to a Wisconsin tissue procurement organization to use the autopsy suite for tissue procurement procedures, and temporary body storage.

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Deaths in Milwaukee County in 2019 (by Manner of Death)

MANNER	NUMBER	PERCENTAGE
Natural	850	42.6%
Accident	839	42.1%
Suicide	115	5.8%
Homicide	130	6.5%
Undetermined	59	3.0%

ME CASES JURISDICTION ACCEPTED	1,993
CREMATION ONLY INVESTIGATIONS	3,206
JURISDICTION WAIVED	932
NON-REPORTABLE	622
CONSULTATION EXAM/OTHER JURISDICTION	603

There were 7,597 deaths reported to the Milwaukee County Milwaukee County in calendar year 2019.

Of the 1,993 cases where jurisdiction was accepted, 1110 cases were autopsied (55.7%). Additionally, 23 external exams (14 external exam-only and 9 external exams with toxicology), and 14 private autopsies for suspected CJD cases 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.

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Deaths by Manner: **Accident**

The second most common manner of death certified by the Milwaukee County Medical Examiner’s office was “accident.” Accidental death refers to unintentional deaths resulting from interaction with a “hostile environment” such as drowning or fire.

In 2019, 839 deaths were certified as accidents and comprised 42.1% of all deaths investigated, compared to 805 (41%) in 2018. The two most frequent causes of accidental death across all age groups were drug-related with 401 deaths (47.8%) and falls with 282 (33.6%) deaths.

2019 Accidental Deaths By Age and Sex

Death Type/Age Category		<1	1 - 5	6 - 12	13 - 17	18 - 25	26 - 55	56 - 74	75+	Total
	Male	0	0	0	0	1	4	0	1	6
	Female	1	0	0	0	0	1	0	5	7
		1	0	0	0	1	5	0	6	13
Alcohol Related	Female	0	0	0	0	0	2	2	0	4
	Male	0	0	0	0	1	1	1	0	3
		0	0	0	0	1	3	3	0	7
Asphyxia	Male	0	0	0	0	0	1	8	2	11
	Female	1	1	0	0	0	0	4	3	9
		1	1	0	0	0	1	12	5	20
Blunt Force Trauma	Male	0	0	0	0	2	4	0	2	8
	Female	0	1	0	0	1	0	0	3	5
		0	1	0	0	3	4	0	5	13
Burn	Female	0	0	0	0	0	0	1	0	1
	Male	0	0	0	0	0	0	1	1	2
		0	0	0	0	0	0	2	1	3
Carbon Monoxide (non-fire)	Female	0	0	0	0	1	0	1	0	2
	Male	0	0	0	0	1	0	0	0	1
		0	0	0	0	2	0	1	0	3
Drowning (non-boat)	Male	0	0	0	0	1	3	0	1	5
	Female	0	1	0	0	1	0	1	0	3
		0	1	0	0	2	3	1	1	8
Drug Related	Male	0	0	0	0	15	189	73	0	277
	Female	0	0	1	0	8	91	24	0	124
		0	0	1	0	23	280	97	0	401
Electrocution	Male	0	0	0	0	0	2	0	0	2
		0	0	0	0	0	2	0	0	2

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Environmental Exposure	Male	0	0	0	0	0	2	5	3	10
	Female	0	0	0	0	0	0	0	1	1
		0	0	0	0	0	2	5	4	11
Falls	Male	0	0	0	0	0	7	30	85	122
	Female	0	0	0	0	0	4	28	128	160
		0	0	0	0	0	11	58	213	282
Fire Related Injury	Female	0	0	0	0	0	1	1	0	2
	Male	0	1	0	0	0	0	3	0	4
		0	1	0	0	0	1	4	0	6
Gunshot Injury	Male	0	1	0	0	0	0	0	0	1
		0	1	0	0	0	0	0	0	1
Motorized Vehicle - Driver	Male	0	0	0	0	7	18	12	3	40
	Female	0	0	0	0	0	2	2	0	4
		0	0	0	0	7	20	14	3	44
Motorized Vehicle - Passenger	Female	0	1	0	0	2	1	1	1	6
	Male	1	0	0	1	3	1	0	0	6
		1	1	0	1	5	2	1	1	12
Motorized Vehicle - Pedestrian	Male	0	0	0	0	0	4	4	2	10
	Female	0	1	1	0	0	4	1	0	7
		0	1	1	0	0	8	5	2	17
Trauma NOS	Female	0	0	0	0	0	0	0	1	1
	Male	0	0	0	0	0	1	0	0	1
		0	0	0	0	0	1	0	1	2
Water Related Incident	Male	0	0	0	0	0	0	1	0	1
	Female	0	0	0	0	0	2	0	0	2
		0	0	0	0	0	2	1	0	3
Total		3	6	2	1	44	343	199	242	840

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2019 Accidental Deaths by Race and Sex

Death Type/Race		Asian/Pacific Islander	Black	Eastern Indian	Hispanic	Multi-Racial	Native American	White	Total
	Female	0	0	0	0	1	0	6	7
	Male	0	3	0	0	0	0	3	6
		0	3	0	0	1	0	9	13
Alcohol Related	Female	0	1	0	0	0	0	3	4
	Male	0	0	0	1	0	0	2	3
		0	1	0	1	0	0	5	7
Asphyxia	Female	0	3	0	0	1	0	5	9
	Male	1	3	0	0	0	0	7	11
		1	6	0	0	1	0	12	20
Blunt Force Trauma	Female	0	3	0	0	0	0	2	5
	Male	0	2	0	2	0	0	4	8
		0	5	0	2	0	0	6	13
Burn	Female	0	1	0	0	0	0	0	1
	Male	0	1	0	0	0	0	1	2
		0	2	0	0	0	0	1	3
Carbon Monoxide (non-fire)	Female	0	2	0	0	0	0	0	2
	Male	0	1	0	0	0	0	0	1
		0	3	0	0	0	0	0	3
Drowning (non-boat)	Female	0	0	0	0	0	0	3	3
	Male	0	1	0	0	1	0	3	5
		0	1	0	0	1	0	6	8
Drug Related	Female	0	33	0	9	1	3	78	124
	Male	1	79	1	30	0	3	163	277
		1	112	1	39	1	6	241	401
Electrocution	Male	0	0	0	2	0	0	0	2
		0	0	0	2	0	0	0	2
Environmental Exposure	Female	0	0	0	0	0	1	0	1
	Male	0	7	0	1	0	0	2	10
		0	7	0	1	0	1	2	11
Falls	Female	1	16	2	7	0	0	134	160
	Male	3	6	0	8	0	0	105	122
		4	22	2	15	0	0	239	282
Fire Related Injury	Female	0	1	0	0	0	0	1	2
	Male	0	4	0	0	0	0	0	4
		0	5	0	0	0	0	1	6

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Gunshot Injury	Male	0	1	0	0	0	0	0	1
		0	1	0	0	0	0	0	1
Motorized Vehicle - Driver	Female	0	2	0	0	0	0	2	4
	Male	1	21	0	1	0	0	17	40
		1	23	0	1	0	0	19	44
Motorized Vehicle - Passenger	Female	0	2	0	1	0	0	3	6
	Male	0	5	0	1	0	0	0	6
		0	7	0	2	0	0	3	12
Motorized Vehicle - Pedestrian	Female	0	3	0	1	0	0	3	7
	Male	0	4	0	2	0	0	4	10
		0	7	0	3	0	0	7	17
Trauma NOS	Female	0	0	0	0	0	0	1	1
	Male	0	0	0	1	0	0	0	1
		0	0	0	1	0	0	1	2
Water Related Incident	Female	0	0	0	0	0	0	2	2
	Male	0	0	0	0	0	0	1	1
		0	0	0	0	0	0	3	3
Total		7	201	3	67	4	7	551	840

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Deaths by Manner: **Natural**

The most common manner classification certified by the Milwaukee County Medical Examiner’s Office in 2019 were “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.

In 2019, 850 deaths were certified as natural and comprised 42.6% of all deaths investigated, compared to 831 (43%) in 2018. The most frequent cause of natural death across all age groups was cardiovascular with 619 deaths (72.8%). The majority of these deaths occurred in the 56-74 year age group (318) and in men (407 males versus 212 females).

2019 Natural Deaths By Age and Sex

Type/Age in years		<1	1 - 5	6 - 12	13 - 17	18 - 25	26 - 55	56 - 74	75+	Total
	Female	0	0	0	0	0	0	2	0	2
	Male	0	0	0	0	1	0	0	0	1
		0	0	0	0	1	0	2	0	3
Alcohol Related	Female	0	0	0	0	0	10	15	1	26
	Male	0	0	0	0	0	24	49	3	76
		0	0	0	0	0	34	64	4	102
Autoimmune	Female	0	0	0	0	0	2	1	3	6
		0	0	0	0	0	2	1	3	6
		0	0	0	0	0	4	25	10	39
Cancer	Female	0	0	0	0	0	1	7	2	10
	Male	0	0	0	0	0	3	18	8	29
		0	0	0	0	0	4	25	10	39
Cardiovascular	Female	0	0	0	0	0	41	89	82	212
	Male	0	0	0	0	2	96	229	80	407
		0	0	0	0	2	137	318	162	619
Central Nervous System	Female	0	0	0	0	0	4	6	16	26
	Male	0	0	1	0	1	5	15	6	28
		0	0	1	0	1	9	21	22	54
Congenital	Female	1	0	0	0	0	0	0	0	1
	Male	0	0	0	1	1	1	1	0	4
		1	0	0	1	1	1	1	0	5
e	Female	0	0	0	0	0	0	1	0	1
		0	0	0	0	0	0	1	0	1
		0	0	0	0	1	4	19	9	33
Endocrine	Female	0	0	0	0	1	4	19	9	33
	Male	0	0	0	0	2	15	45	9	71
		0	0	0	0	3	19	64	18	104

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Gastrointestinal	Female	0	0	0	0	0	4	1	0	5
	Male	0	0	0	0	0	2	4	0	6
		0	0	0	0	0	6	5	0	11
Hematologic	Female	0	0	0	1	0	1	0	1	3
	Male	0	0	0	0	0	1	2	0	3
		0	0	0	1	0	2	2	1	6
Infectious	Female	0	0	0	0	0	6	3	0	9
	Male	0	1	0	0	0	5	5	0	11
		0	1	0	0	0	11	8	0	20
Kidney Disease	Female	0	0	0	0	0	0	0	1	1
	Male	0	0	0	0	0	1	0	1	2
		0	0	0	0	0	1	0	2	3
Liver Disease	Female	0	0	0	0	0	2	3	0	5
	Male	0	0	0	0	0	1	7	0	8
		0	0	0	0	0	3	10	0	13
Metabolic/Nutritional	Female	0	0	0	0	0	4	7	4	15
	Male	0	0	0	0	1	8	16	0	25
		0	0	0	0	1	12	23	4	40
Neoplastic	Female	0	0	0	0	0	0	1	1	2
	Male	0	0	0	0	0	0	3	1	4
		0	0	0	0	0	0	4	2	6
Neurodegenerative	Male	0	0	0	0	0	0	2	0	2
		0	0	0	0	0	0	2	0	2
Other	Female	0	0	0	0	0	1	0	0	1
	Male	0	0	0	0	0	1	0	0	1
		0	0	0	0	0	2	0	0	2
Respiratory	Female	0	0	0	0	0	5	11	8	24
	Male	0	0	0	0	2	7	28	10	47
		0	0	0	0	2	12	39	18	71
Undetermined	Female	0	0	0	0	0	2	2	0	4
		0	0	0	0	0	2	2	0	4
Vascular	Female	0	0	0	0	0	2	5	2	9
	Male	0	0	0	0	0	3	0	0	3
		0	0	0	0	0	5	5	2	12
Total		1	1	1	2	9	216	433	188	851

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2019 Natural Deaths by Race and Sex

Type/Race		APIA	Black	Eastern Indian	Hispanic	Multi-Racial	Native American	White	Total
	Female	0	0	0	0	0	0	2	2
	Male	0	0	0	0	0	0	1	1
		0	0	0	0	0	0	3	3
Alcohol Related	Female	0	8	0	0	0	0	18	26
	Male	1	11	1	3	1	0	59	76
		1	19	1	3	1	0	77	102
Autoimmune	Female	0	3	0	0	0	1	2	6
		0	3	0	0	0	1	2	6
Cancer	Female	0	2	0	0	0	0	8	10
	Male	0	8	0	0	0	0	21	29
		0	10	0	0	0	0	29	39
Cardiovascular	Female	2	60	1	3	0	4	142	212
	Male	4	118	3	12	0	2	268	407
		6	178	4	15	0	6	410	619
Central Nervous System	Female	1	5	0	1	0	0	19	26
	Male	2	11	0	2	0	0	13	28
		3	16	0	3	0	0	32	54
Congenital	Female	0	1	0	0	0	0	0	1
	Male	0	0	0	1	0	0	3	4
		0	1	0	1	0	0	3	5
e	Female	0	1	0	0	0	0	0	1
		0	1	0	0	0	0	0	1
Endocrine	Female	0	11	0	0	0	1	21	33
	Male	1	20	1	5	0	1	43	71
		1	31	1	5	0	2	64	104
Gastrointestinal	Female	0	1	0	0	0	0	4	5
	Male	0	3	0	1	0	0	2	6
		0	4	0	1	0	0	6	11
Hematologic	Female	0	1	0	0	0	0	2	3
	Male	0	2	0	0	0	0	1	3
		0	3	0	0	0	0	3	6
Infectious	Female	0	2	0	0	0	0	7	9
	Male	0	4	0	0	1	0	6	11
		0	6	0	0	1	0	13	20
Kidney Disease	Female	0	1	0	0	0	0	0	1
	Male	0	1	0	1	0	0	0	2
		0	2	0	1	0	0	0	3

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Liver Disease	Female	0	4	0	0	0	0	1	5
	Male	0	3	0	1	0	0	4	8
		0	7	0	1	0	0	5	13
Metabolic/Nutritional	Female	0	5	0	0	0	1	9	15
	Male	0	3	2	1	0	1	18	25
		0	8	2	1	0	2	27	40
Neoplastic	Female	0	1	0	0	0	0	1	2
	Male	0	1	0	0	0	0	3	4
		0	2	0	0	0	0	4	6
Neurodegenerative	Male	0	0	0	0	0	0	2	2
		0	0	0	0	0	0	2	2
Other	Female	0	1	0	0	0	0	0	1
	Male	0	1	0	0	0	0	0	1
		0	2	0	0	0	0	0	2
Respiratory	Female	1	6	0	0	0	1	16	24
	Male	0	11	0	1	0	2	33	47
		1	17	0	1	0	3	49	71
Undetermined	Female	1	1	0	0	0	0	2	4
		1	1	0	0	0	0	2	4
Vascular	Female	0	1	0	0	0	0	8	9
	Male	0	0	1	0	0	0	2	3
		0	1	1	0	0	0	10	12
Total		11	241	5	22	2	7	563	851

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Deaths by Manner: **Suicide**

Suicide is defined as the intentional taking of one's own life. A total of 115 (5.8%) deaths were certified as suicide by the Milwaukee County Medical Examiner's Office in the year 2019. This is down slightly from 2018 which had 117 (6%) deaths classified as suicide. Gunshot injury related suicides represented 37.4% of all suicidal deaths and Asphyxial deaths came in second at 36.5%. 73% of all suicides certified in 2019 were male.

2019 Suicide Deaths By Age and Sex

Death Type/Age Category		6 - 12	13 - 17	18 - 25	26 - 55	56 - 74	75+	Total
	Male	0	0	0	0	1	0	1
	Female	0	0	0	0	1	0	1
Asphyxia	Female	0	1	0	10	0	0	11
	Male	1	4	5	16	4	1	31
Blunt Force Trauma	Male	1	5	5	26	4	1	42
	Female	0	0	0	0	1	0	1
Burn	Male	0	0	0	1	0	0	1
	Female	0	0	0	1	0	0	1
Drowning (non-boat)	Male	0	0	0	1	0	1	2
	Female	0	0	1	1	0	0	2
Drug Related	Male	0	0	1	2	0	1	4
	Female	0	0	0	3	1	1	5
Falls	Male	0	0	0	6	3	2	11
	Female	0	0	0	9	4	3	16
Gunshot Injury	Male	0	0	0	3	2	0	5
	Female	0	0	0	0	1	0	1
Sharp Force Injury	Male	0	1	10	16	9	2	38
	Female	0	0	2	3	0	0	5
Total	Male	0	1	12	19	9	2	43
	Female	0	0	1	0	0	0	1
Total		1	6	19	60	22	7	115

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2019 Suicide Deaths by Race and Sex

Death Type/Race		Asian/Pacific Islander	Black	Eastern Indian	Hispanic	Native American	White	Total
	Male	0	0	0	0	0	1	1
		0	0	0	0	0	1	1
Asphyxia	Female	0	2	0	1	1	7	11
	Male	2	2	1	4	1	21	31
		2	4	1	5	2	28	42
Blunt Force Trauma	Male	0	0	0	0	0	1	1
		0	0	0	0	0	1	1
Burn	Male	0	0	0	0	0	1	1
		0	0	0	0	0	1	1
Drowning (non-boat)	Female	0	0	0	0	0	2	2
	Male	0	1	0	0	0	1	2
		0	1	0	0	0	3	4
Drug Related	Female	0	1	0	3	0	7	11
	Male	0	0	0	0	0	5	5
		0	1	0	3	0	12	16
Falls	Female	0	0	0	0	0	1	1
	Male	0	0	1	1	0	3	5
		0	0	1	1	0	4	6
Gunshot Injury	Female	1	1	0	1	0	2	5
	Male	0	7	0	1	0	30	38
		1	8	0	2	0	32	43
Sharp Force Injury	Female	0	0	0	0	1	0	1
		0	0	0	0	1	0	1
Total		3	14	2	11	3	82	115

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Deaths by Manner: **Homicide**

For the purpose of this report, homicide is defined as death “at the hands of another” regardless of intent. 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.

The Milwaukee County Medical Examiner’s Office had 131 cases certified as homicides which comprised nearly 6.5% of all deaths investigated in 2019. This is up from 2018 wherein 122 (6%) deaths were certified as homicides. Male gunshot injury homicides far exceeded all other combinations of categories and gender with 80 male deaths representing 61% of all homicide deaths.

2019 Homicide Deaths By Age and Sex

Death Type/Age Category		<1	1 - 5	13 - 17	18 - 25	26 - 55	56 - 74	Total
	Male	0	0	0	1	1	0	2
	Female	1	0	0	0	0	0	1
Asphyxia		1	0	0	1	1	0	3
	Female	0	0	0	0	1	0	1
Blunt Force Trauma		0	0	0	0	1	0	1
	Male	3	1	0	0	3	1	8
Fire Related Injury	Female	0	0	0	0	1	0	1
		3	1	0	0	4	1	9
Gunshot Injury	Male	0	0	5	21	50	4	80
	Female	0	1	1	4	13	1	20
Motorized Vehicle - Driver		0	1	6	25	63	5	100
	Male	0	0	0	0	1	0	1
Motorized Vehicle - Pedestrian		0	0	0	0	1	0	1
	Female	0	0	0	0	1	0	1
Sharp Force Injury		0	0	0	0	3	1	4
	Female	0	0	0	1	7	3	11
Total	Male	0	0	0	1	10	4	15
		4	2	6	27	81	11	131

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2019 Homicide Deaths By Race and Sex

Death Type/Age Category		Black	Hispanic	Multi-Racial	White	Total
	Female	1	0	0	0	1
	Male	0	2	0	0	2
		1	2	0	0	3
Asphyxia	Female	0	1	0	0	1
		0	1	0	0	1
Blunt Force Trauma	Male	4	1	1	2	8
	Female	0	0	0	1	1
		4	1	1	3	9
Fire Related Injury	Male	1	0	0	0	1
		1	0	0	0	1
Gunshot Injury	Male	61	10	2	7	80
	Female	17	1	0	2	20
		78	11	2	9	100
Motorized Vehicle - Driver	Male	1	0	0	0	1
		1	0	0	0	1
Motorized Vehicle - Pedestrian	Female	1	0	0	0	1
		1	0	0	0	1
Sharp Force Injury	Female	3	0	0	1	4
	Male	6	1	0	4	11
		9	1	0	5	15
Total		95	16	3	17	131

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Deaths by Manner: **Undetermined**

A death certified as undetermined is one in which manner cannot be determined after 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. Only 3 percent of all deaths were certified as undetermined in Milwaukee County in 2019.

2019 Undetermined Deaths By Age and Sex

Death Type/Age Category		<1	1 - 5	18 - 25	26 - 55	56 - 74	75+	Total
	Female	1	0	0	0	0	0	1
	Male	1	0	1	3	2	1	8
		2	0	1	3	2	1	9
Blunt Force Trauma	Male	0	0	0	0	0	1	1
		0	0	0	0	0	1	1
Cardiovascular	Male	0	0	0	1	0	0	1
		0	0	0	1	0	0	1
Drug Related	Male	0	1	0	0	0	0	1
	Female	0	0	0	1	0	0	1
		0	1	0	1	0	0	2
Gunshot Injury	Male	0	0	0	1	1	0	2
		0	0	0	1	1	0	2
Motorized Vehicle - Pedestrian	Male	0	0	0	1	0	0	1
		0	0	0	1	0	0	1
Undetermined	Male	7	0	1	10	5	0	23
	Female	8	1	2	8	2	0	21
		15	1	3	18	7	0	44
Total		17	2	4	25	10	2	60

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2019 Undetermined Deaths By Race and Sex

Death Type/Age Category		Black	Hispanic	Multi-Racial	Native American	White	Total
	Female	0	0	0	0	1	1
	Male	3	0	0	1	4	8
		3	0	0	1	5	9
Blunt Force Trauma	Male	0	0	0	0	1	1
		0	0	0	0	1	1
Cardiovascular	Male	0	0	0	0	1	1
		0	0	0	0	1	1
Drug Related	Male	0	0	1	0	0	1
	Female	0	0	0	0	1	1
		0	0	1	0	1	2
Gunshot Injury	Male	1	0	0	0	1	2
		1	0	0	0	1	2
Motorized Vehicle - Pedestrian	Male	0	0	0	0	1	1
		0	0	0	0	1	1
Undetermined	Male	13	1	2	0	7	23
	Female	15	0	1	0	5	21
		28	1	3	0	12	44
Total		32	1	4	1	22	60

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. Six full-time forensic pathologists, two toxicologists, three forensic chemists, a staff of thirteen 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.

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.

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

Activity	2019
Scene visits by Medical Examiner Investigators	1,351
Bodies transported by office or order of the office	1,142
Bodies unidentified after examination	0
Organ and/or tissue donations	51
Unclaimed bodies	46
Number of exhumation permits issued	18
Autopsies performed for outside jurisdictions and private parties	617
Cases with toxicology testing performed	1,056

