



2012 Annual Report

Daniel J. Spitz, M.D.
Chief Medical Examiner

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Mark A. Hackel
County Executive

MACOMB COUNTY HEALTH DEPARTMENT

Medical Examiner's Office

43585 Elizabeth Road * Mount Clemens, Michigan 48043

Phone: 586-469-5214 * Fax 586-469-6636

www.macombgov.org/publichealth

William J. Ridella M.P.H., M.B.A.
Director/Health Officer

Kevin P. Lokar, M.D.
Medical Director

Daniel J. Spitz, M.D.
Chief Medical Examiner

To the Macomb County Executive and Citizens of Macomb County:

The Medical Examiner's duty is to investigate deaths which occur in the county to determine the cause and manner of death. In 2012 we again surpassed the number of deaths investigated over previous years. When compared to 2011, the workload showed a 7% increase in the number of deaths investigated. The number of cremation permits issued also increased by 2%. We expect to see these numbers continually rise as they have progressively gone up over the past several years.

In 2012, the Medical Examiner's Office investigated 1,930 deaths, performed 572 forensic examinations and issued 3,362 cremation permits. Additionally, 1,856 home hospice deaths were reported to the Medical Examiner's Office. There was a 14% increase in the number of deaths related to natural disease and a 25% decrease in the total number of suicides, compared to 2011, and a 7% decrease in the total number of accidents and a 50% decrease in the total number of homicides in 2012 when compared to the previous year.

Drug related deaths have been at an all time high for the past few years. Abused prescription medications along with heroin and cocaine abuse continue to be major concerns here in Macomb County.

During 2012 we continued to support the efforts of the Gift of Life Organ and Tissue Procurement Agency and the Michigan Eye Bank. As part of the agreement the Medical Examiner staff evaluates and reports deaths that may meet donor criteria. This agreement continues to benefit the citizens of Macomb County, the Gift of Life Agency and Michigan Eye Bank.

I would like to thank the Macomb County Executive for his continued support which enables the Medical Examiner staff to provide this valuable and necessary service to the citizens of Macomb County.

I am pleased to present you with the Macomb County Medical Examiner's 2012 annual report.

Respectfully Submitted,

Daniel J. Spitz, M.D.
Chief Medical Examiner

Laws Governing the Medical Examiner's Office

Act 1891 of 1953, MCL 52.201-52.216, requires Macomb County and every Michigan county to appoint a county medical examiner who is a physician licensed by the State of Michigan to carry out the duties and functions specified in the Act, including "being in charge of the office of the county medical examiner and promulgating rules relative to the conduct of his office".

The primary role of a county medical examiner is to determine the cause of death and the manner of death in cases where death has occurred violently, accidentally, unexpectedly, or without medical attendance, ascertaining identity of the decedent and notifying the next of kin. The county medical examiner has broad powers and specific responsibilities to act under the aforementioned section of State law to carry out that mission.

Act 181 of 1953, MCL Section 52.201 – 52.216



MISSION STATEMENT

The mission of the Macomb County Medical Examiner's Office is to provide medicolegal investigations into all deaths requiring a public inquiry to determine and record the cause and manner of death for all decedents' families and the legal and medical communities in accordance with the highest level of professionalism, compassion and efficiency.

ADMINISTRATION

In January 2012, the Medical Examiner's Office initiated several administration changes, directed at increasing the efficiency, quality and accountability of the office.

In order to achieve these goals, it was decided to change the administrative model of the office by increasing the administrative responsibilities of the Chief Medical Examiner. This resulted in the Chief Medical Examiner becoming the director of the Medical Examiner's Office with supervisory responsibility over the professional and support staff.

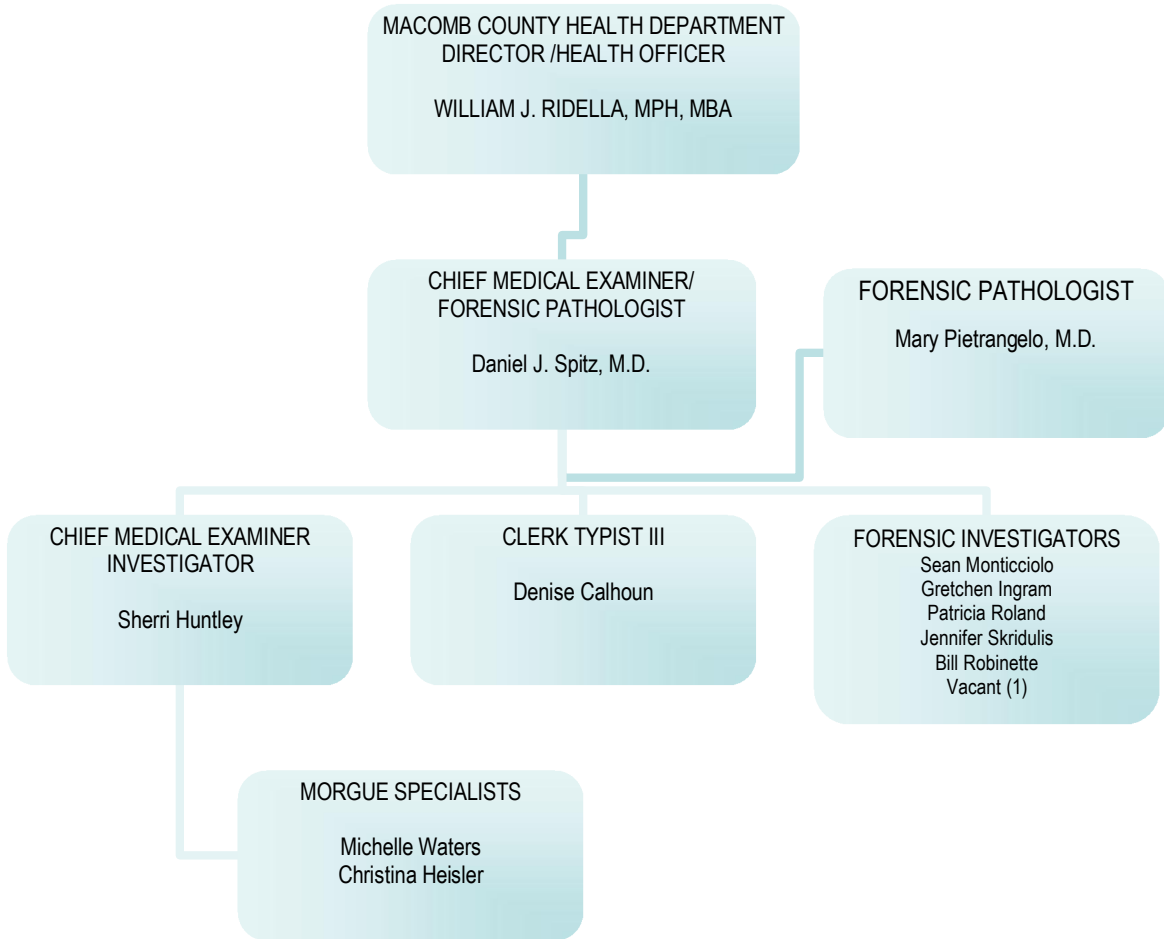
The added administrative responsibilities for the Chief Medical Examiner resulted in the creation of a second forensic pathologist position which would allow for distribution of the autopsy workload between two doctors. In July 2012, this position was filled with a board certified forensic pathologist.

The addition of a second forensic pathologist allowed the office to initiate the process of becoming accredited by the National Association of Medical Examiners (NAME). While NAME accreditation is not mandated or required, it is felt that accreditation would allow for greater emphasis to be placed on policies and procedures and help increase the professionalism of the staff. Going forward, newly hired forensic investigators would be required to obtain board certification by the American Board of Medicolegal Death Investigators (ABMDI) within 1 year of hire. Currently, the office has 2 board certified investigators and it is anticipated that all of the forensic investigators would obtain this certification during the next year.

In an effort to further a positive community presence, in late 2011 the County signed a formal agreement with the Gift of Life Organ and Tissue Procurement Agency (GOL) and Michigan Eye Bank (MEB). The agreement has enhanced these relationships and has directly resulted in a significant increase in the number of organ and tissue donors. Additionally, the Medical Examiner's Office continues to engage in various teaching endeavors which involve local and regional schools, forensic internships and other community awareness projects.

Organization Chart

Macomb County Medical Examiner's Office



Final Budget 2012

Macomb County Medical Examiner's Office	
Revenues	Expenses
1,408,452.00	1,408,452.00

Macomb County Medical Examiner's Facility

The Medical Examiner facility was built in 2007 and has a 6,000 square foot morgue with a designated viewing area for families, a 40 degree walk-in cooler, four autopsy stations, digital X-ray equipment and a special dissection room for decomposed/infectious cases.



Macomb County Demographics

Macomb County is located in southeastern Michigan and comprises the northeastern portion of the Detroit metropolitan area. Macomb County is the ninth smallest of Michigan's 83 counties with 479 square miles yet it ranks third in population with 840,978 residents, an increase in population of 6.7% since 2000 (788,149).

Among the County's 27 municipalities are three of the ten largest cities in Michigan: Warren (3rd), Sterling Heights (6th), and Clinton Township (10th).

CENSUS SUMMARY PROFILE	2000	2010	%change	2000	2010	%change
	Numbers			Percent		
White	721,882	705,693	-2.24	91.59	83.91	-8.38
Black or African American	21,151	72,053	240.66	2.68	8.57	219.77
Hispanic or Latino	12,436	19,095	53.56	1.58	2.27	43.67
American Indian and Alaska Native	2,255	2,351	4.26	0.29	0.28	-3.45
Asian	16,743	24,908	48.77	2.12	2.96	39.62
Native Hawaiian and Other Pacific Islander	157	168	7.01	0.02	0.02	0
Other Race	685	803	17.23	0.09	0.10	11.11
Two or More Races	12,841	15,907	23.88	1.63	1.89	15.95
Total Population	799,149	840,978	5.23			

Source: 2010 data from U.S. Census Bureau

Activities of the Medical Examiner's Office

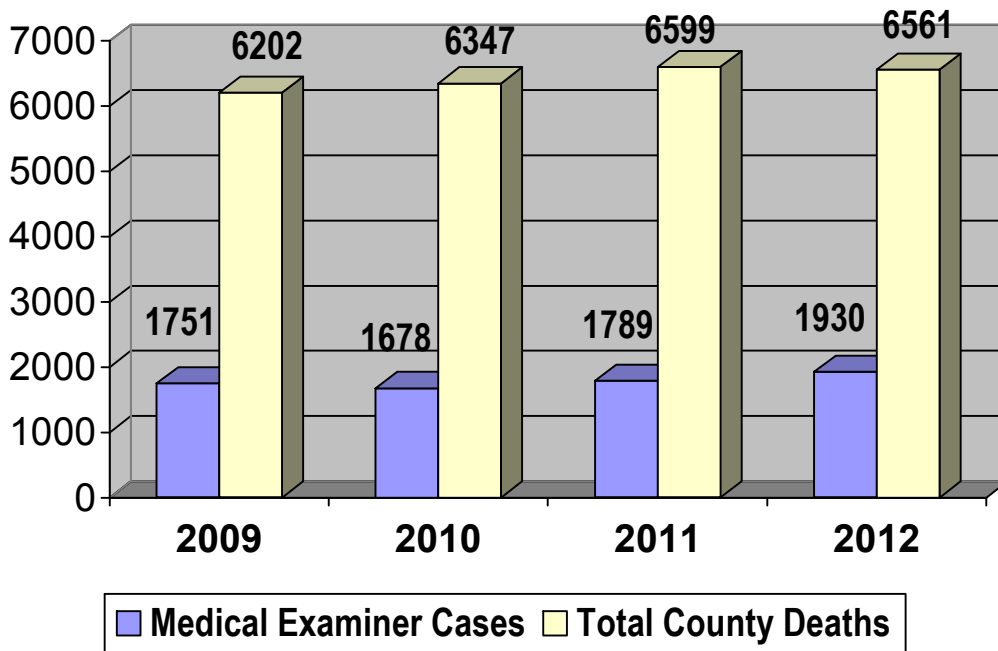
- As part of the duties of the Medical Examiner's Office, autopsy and investigative reports are prepared and maintained on all cases.
- The Macomb County Medical Examiner's Office fulfills legal obligations by testifying in criminal and civil proceedings relating to the cause and manner of death.
- Public health emergencies can take on many forms ranging from naturally occurring events (storms, floods, fires) to manmade events including delivery of weapons of mass destruction (bomb/blast, chemical, nuclear, or biological). In partnership with other county services, the Medical Examiner's Office developed the Macomb County Mass Fatality Plan which addresses mortuary surge capacity events and methods to respond and mitigate such issues.
- As part of its greater role in promoting a safe and viable community, a portion of the Medical Examiner's duties includes serving on the Macomb County Child Death Review Team (MCCDRT). The MCCDRT is composed of various county wide agencies that review and discuss comprehensive information regarding specific child death cases. The team reviews the circumstances involved in the death, and documents the investigative actions, services provided or needed, key risk factors with recommendations and/or actions taken by the MCCDRT team to improve coordination and effectiveness of child protection, investigation and legal processes. Since 2001, over 249 child death cases have been reviewed.
- Teaching has always been an integral portion of the Medical Examiner's Office duties. Such academic endeavors include forensic pathology lectures and presentations at Wayne State University. Teaching rotations at the Medical Examiner facility include Wayne State Forensic Investigation internship, Macomb Community College EMT and surgical tech students, Baker College EMT, Macomb County Sheriff cadets and individual autopsy observations for law enforcement personnel, nurses and medical students. The Medical Examiner's Office is also involved in community projects such as drinking and driving campaigns for local high schools, and lectures for community groups and health care providers involving substance abuse, forensic nursing, trauma management, etc.
- The Medical Examiner's Office continues to work closely with the Gift of Life Organ and Tissue Procurement Agency and the Michigan Eye Bank. In 2011 an agreement was signed between Macomb County and Gift of Life Michigan which increased the number of potential donors. In 2012 we had 307 referrals to Gift of Life which resulted in 11 tissue donors and 81 referrals to the Michigan Eye Bank which resulted in 18 procurements.

TOTAL CASES FOR 2012

Macomb County Population	840,978
Number of Deaths in Macomb County	6,561
Macomb County Medical Examiners Cases	1,930
(Includes 15 unspecified cases incl. non human bones, tissue, fetuses, etc.)	
Forensic Examinations	572

Local deaths (those that occur within the boundaries of Macomb County) that fall under the jurisdiction of the Medical Examiner are transported by a body transport company to the Macomb County Medical Examiner's Office (MCMEO) for examination. In most cases, a MCMEO investigator attends the scene in person and performs a preliminary examination of the scene and body. The Medical Examiner and investigative staff are on call and available 24 hours/day, 365 days/ year.

Not all bodies transported to the MCMEO for examination are autopsied. The Medical Examiner may choose to either perform an autopsy or an external examination. In most autopsies and external examinations, blood, urine and vitreous fluid specimens are collected for toxicological analysis.



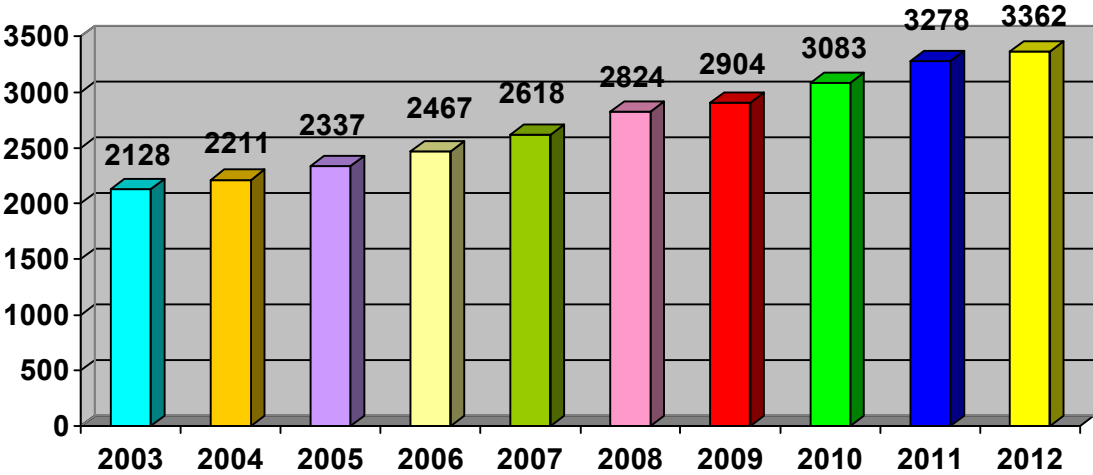
CREMATION PERMITS

In Macomb County, the Medical Examiner's Office is required to sign cremation permit authorizations before a body is cremated. In order for a cremation permit to be issued, the death certificate is reviewed and in some cases a more detailed investigation is required prior to authorization.

Cremation permits issued in 2012 showed a 2.6% increase from 2011.

The cremation permit fee was increased in January 2012 to \$75.00. \$251,925.00 in revenue was generated in 2012 for the 3,362 cremation permit authorizations; (there were 3 fees waived) this was a \$120,805.00 increase from 2011.

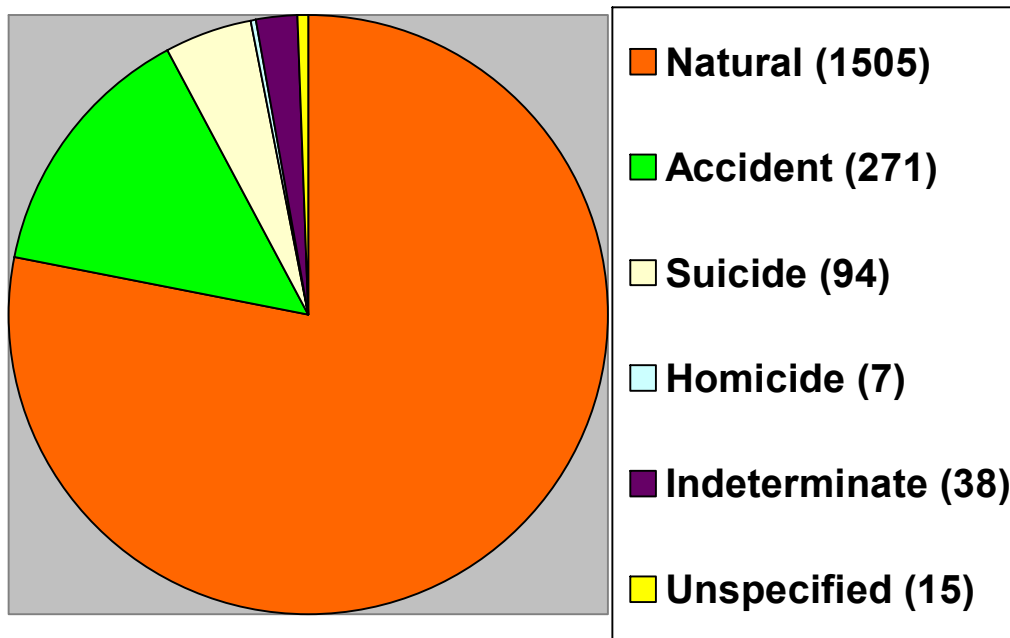
CREMATION PERMIT AUTHORIZATIONS BY YEAR 2003 – 2012



MANNER OF DEATH

Manner of Death is one of the items that must be reported on the death certificate and is a classification of death based on the circumstances, autopsy findings, toxicology results and all available information associated with the death investigation.

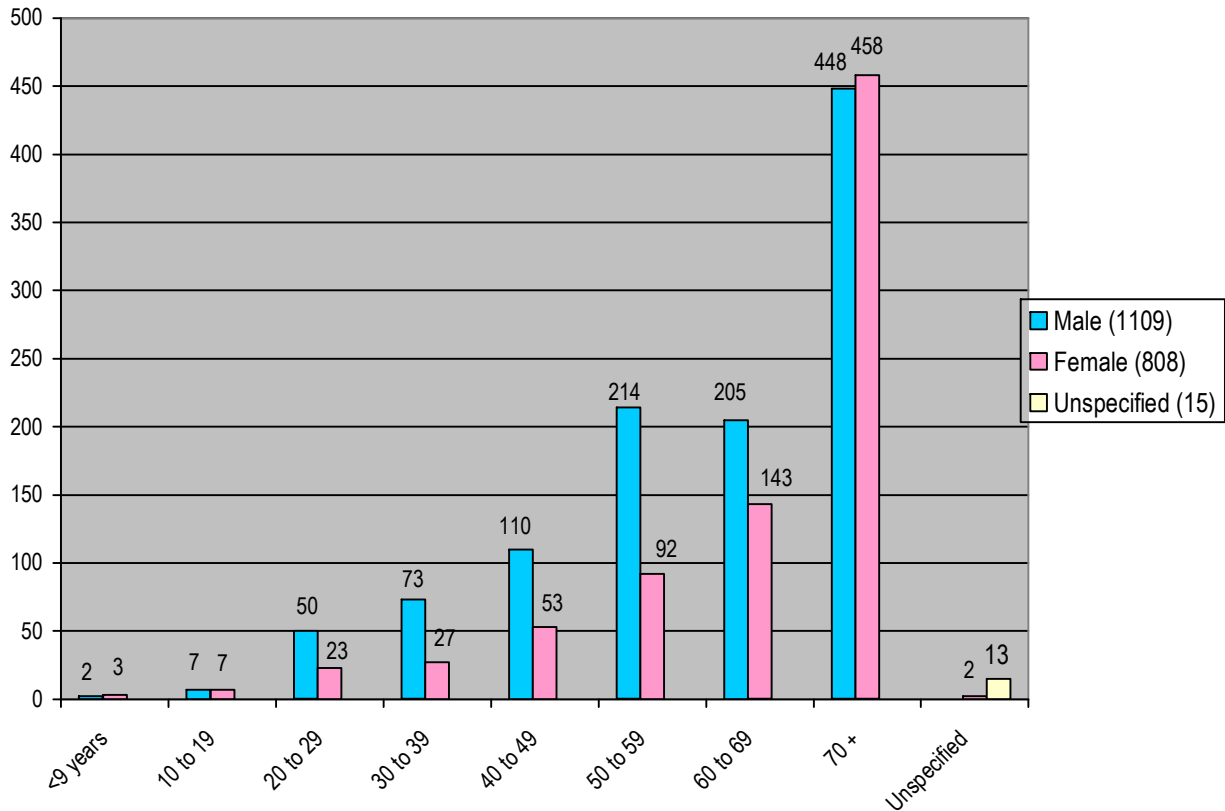
<u>Cases by Manner of Death</u>	<u>Number</u>	<u>Percent</u>
Natural	1,505	77.98%
Accident	271	14.04%
Suicide	94	4.87%
Homicide	7	0.36%
Indeterminate	38	1.97%
Unspecified (non human bones, etc.)	15	0.78%



MANNER OF DEATH

Cases by Age and Gender

There were a total of 1,930 forensic investigations in 2012, of these 1,109 (57.46%) were males; 808 (41.87 %) were females and 13 (0.67%) case are unknown tissue/ non-human bones.

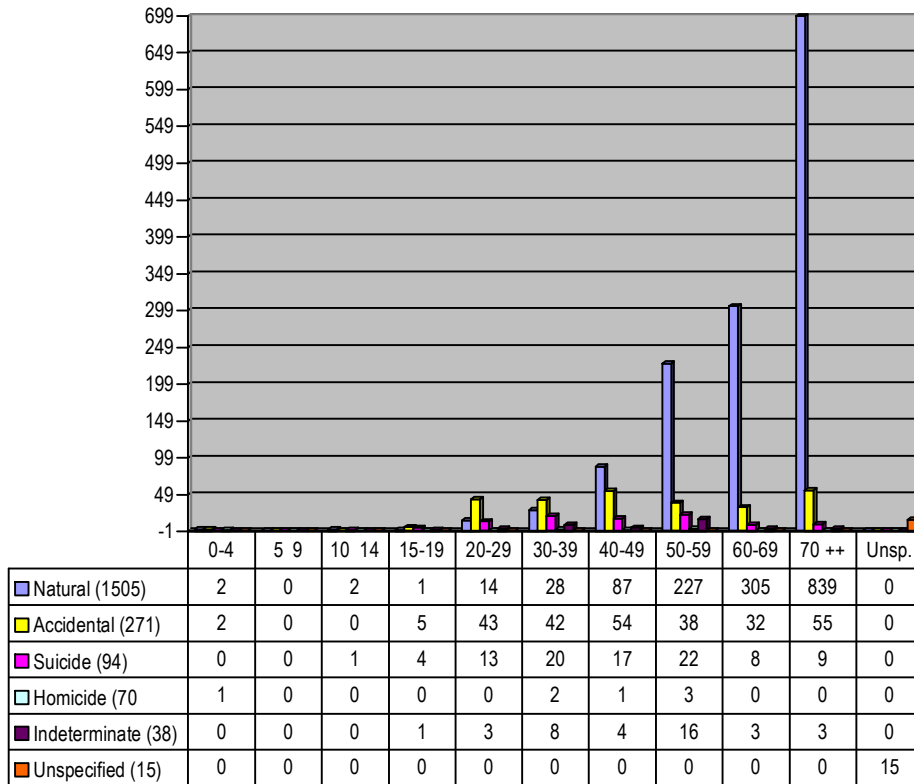


Age Group	Male	Female	Bones/Unspecified	Total
0 – 19 Years	9	10	0	19
20 Years and Older	1,100	796	0	1,896
Unspecified	0	2	13	15
Total	1,109	808	13	1,930

Randy Hanzlick, M.D., et al. A Guide for Manner of Death Classifications: Basic, General “rules” for classifying manner of death (National Association of Medical Examiners, 2005)

MANNER OF DEATH

Cases by Age and Means



Cases by Race and Gender

Race	Male	Female	Total
White	988	714	1,702
African American	73	60	133
American Indian	4	0	4
Asian Pacific	6	4	10
Other	12	8	20
Multiracial	26	22	48
Total Cases	1,109	808	1,917

MANNER OF DEATH – Natural

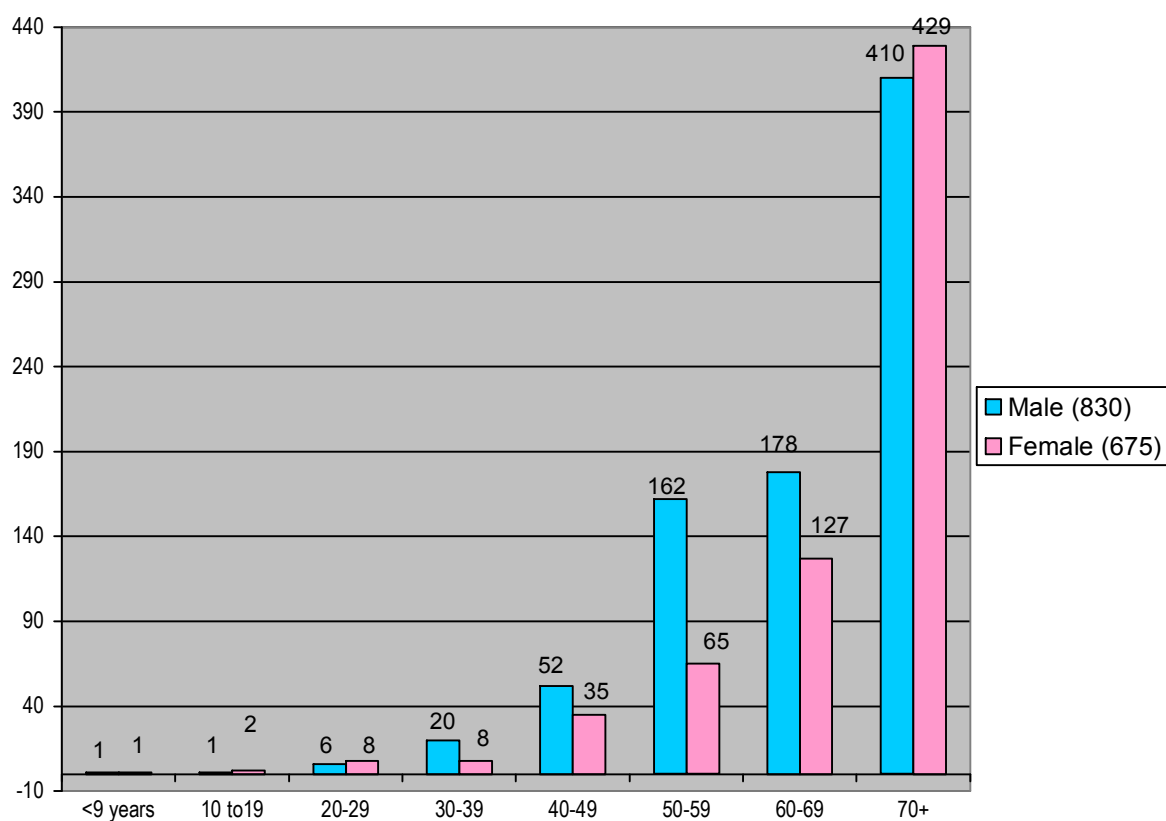
Natural Cases by Age and Gender

Natural deaths represented 77.98% (1,505/1,930) of all medical examiner cases.

Males accounted for 55.15% (830/1,505) of the total natural deaths cases; **females** accounted for 44.85% (675/1,505) of the natural death cases.

The male 70+ age group accounted for 49.39% (410/830) of all male natural cases while the female 70+ age group accounted for 63.56% (429/675) of all female natural death cases.

Both the combined male/female 70+ age groups represented 55.74% (839/1,505) of all the natural death cases.

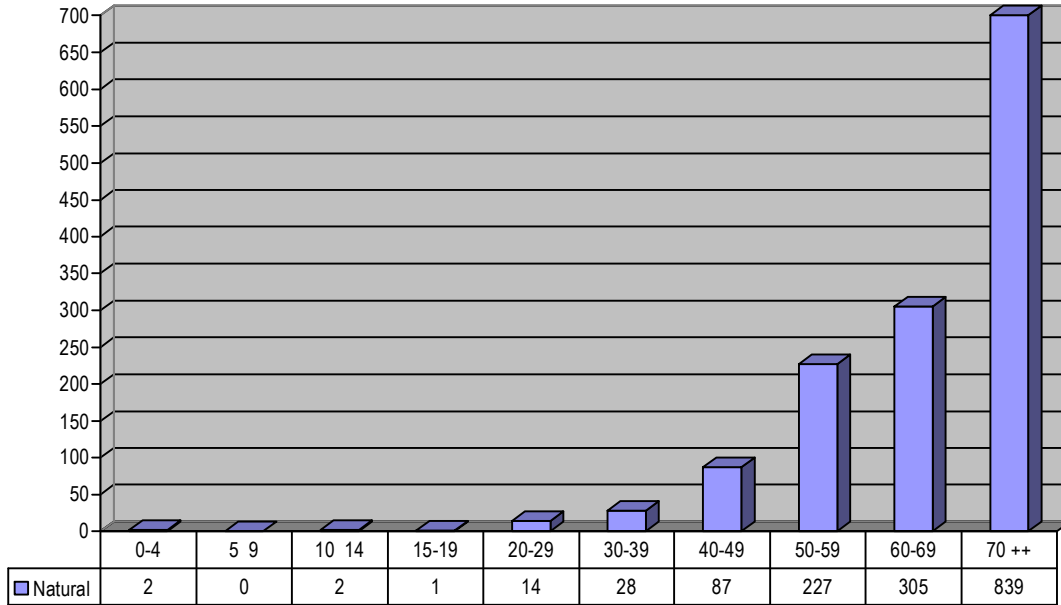


Age Group	Male	Female	Total	Percent
0-19 Years	2	3	5	0.34%
20 Years and Older	828	672	1,500	99.66%
Total Cases	830	675	1,505	100%

Randy Hanzlick, M.D., et al. A Guide for Manner of Death Classifications: Basic, General “rules” for classifying manner of death (National Association of Medical Examiners, 2005)

MANNER OF DEATH – Natural

Natural Cases by Age



Natural Cases by Race and Gender

Race	Male	Female	Total
White	740	598	1,338
African American	60	55	115
American Indian	4	0	4
Asian Pacific	4	4	8
Multiracial	15	13	28
Other	7	5	12
Total	830	675	1,505

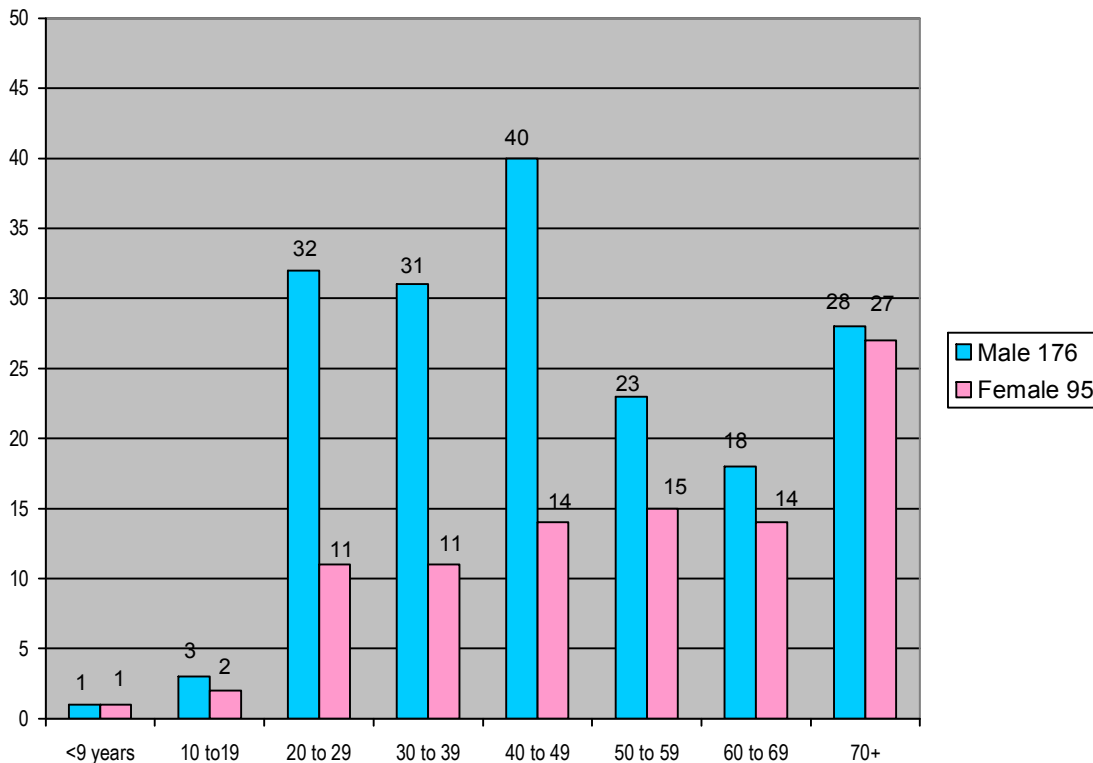
MANNER OF DEATH – Accident

Accident Cases by Age and Gender

Accidental deaths represented 14.04% (271/1930) of all medical examiner cases.

Males accounted for 64.94 (176/271) of the total accidental death cases; **females** accounted for 35.06% (95/271) of the cases.

The male 40-49 age group accounted for 22.72% (40/176) of all male accidental deaths. The highest female age grouping was the 70+ age group accounting for 28% (27/95) of all female accidental deaths.

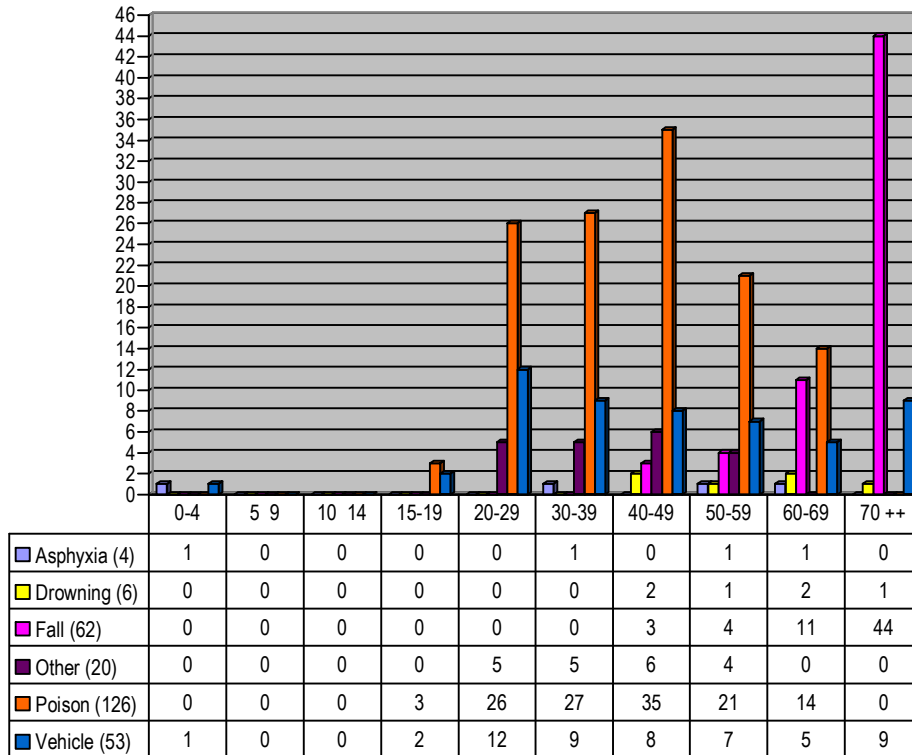


Age Group	Male	Female	Total	Percent
0-19 Years	4	3	7	2.58%
20 Years and Older	172	92	264	97.42
Total Cases	176	95	271	100%

¹ Randy Hanzlick, M.D., et al. A Guide for Manner of Death Classifications: Basic, General “rules” for classifying manner of death (National Association of Medical Examiners, 2005) ⁵

MANNER OF DEATH – Accident

Accident Cases by Age and Means



Accidental poisoning accounted for 46.49% (126/271) of all accidental death cases with the 40-49 age group having the highest percent of all accidental poisoning deaths.

Falls accounted for the second highest accidental death cases or 22.88% (62/271) with the majority of deaths occurring in the 70 year old and older age group.

Accidental Cases by Race and Gender

Race	Male	Female	Total
White	156	84	240
African American	8	5	13
Multiracial	7	4	11
Asian Pacific	1	0	1
Other	4	2	6
Total	176	95	271

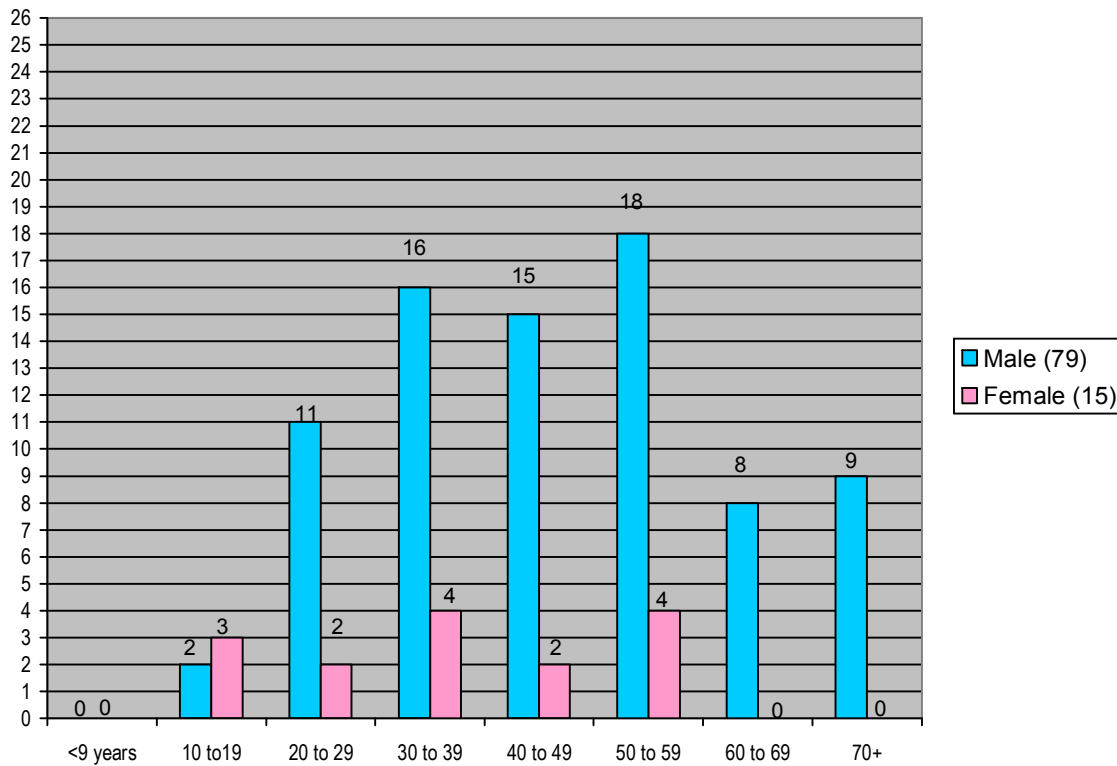
MANNER OF DEATH – Suicide

Suicide Cases by Age and Gender

Suicide deaths represented 4.87% (94/1,930) of all medical examiner cases.

Males accounted for 84.04% (79/94) of the total suicide death cases; **females** accounted for 15.96% (15/94) of the suicide cases.

The male 50-59 age group accounted for 22.79% (18/79) while the 30-39 age group accounted for 20.25% (16/79) of all male suicide cases. The 30-39 and 50-59 female age groups each represented 26.67% (4/15) of all female suicide cases.

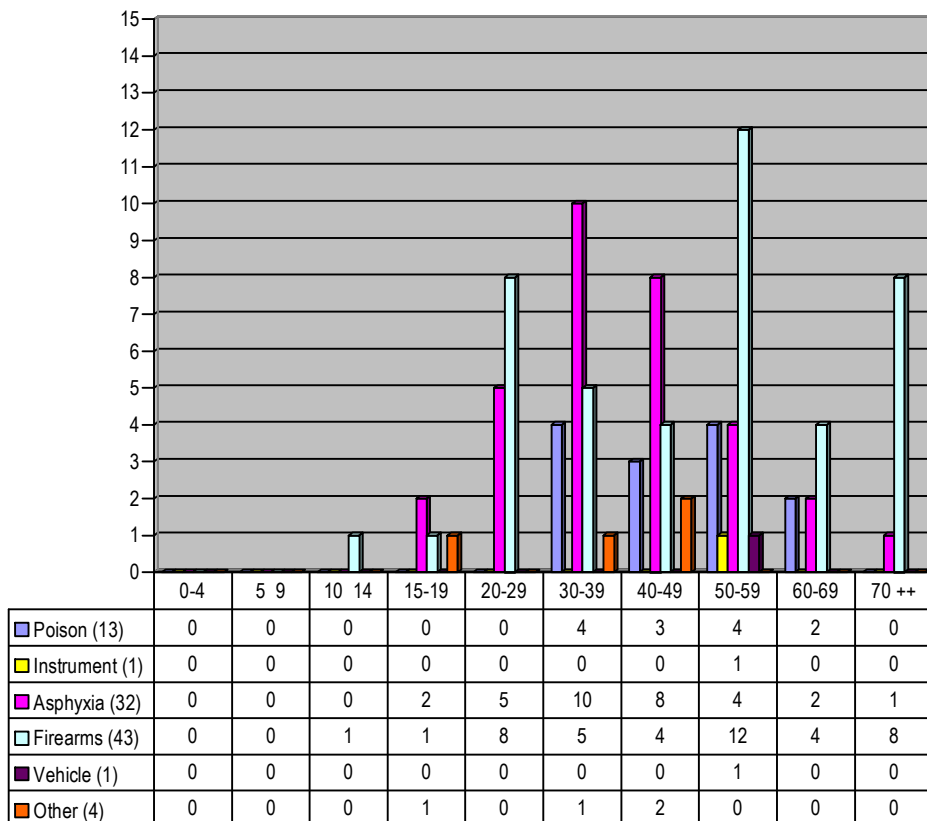


Age Group	Male	Female	Total	Percent
0-19 Years	2	3	5	5.32%
20 Years and Older	77	12	89	94.68%
Total Cases	79	15	94	100%

¹ Randy Hanzlick, M.D., et al. A Guide for Manner of Death Classifications: Basic, General “rules” for classifying manner of death (National Association of Medical Examiners, 2005) ⁵

MANNER OF DEATH – Suicide

Suicide Cases by Age and Means



Firearm suicide cases represented 45.75% (43/94) of all suicides, asphyxia accounted for 34.04% (32/94) and poisoning 13.83% (13/94).

The 50-59 age group (firearms) accounted for 12.77% (12/94) of cases, while the 30-39 age group had 10.64% (10/94) for asphyxial deaths.

Suicide Cases by Race and Gender

Race	Male	Female	Total
White	77	13	90
African American	1	0	1
Asian Pacific	1	0	1
Multiracial	0	1	1
Other	0	1	1
Total	79	15	94

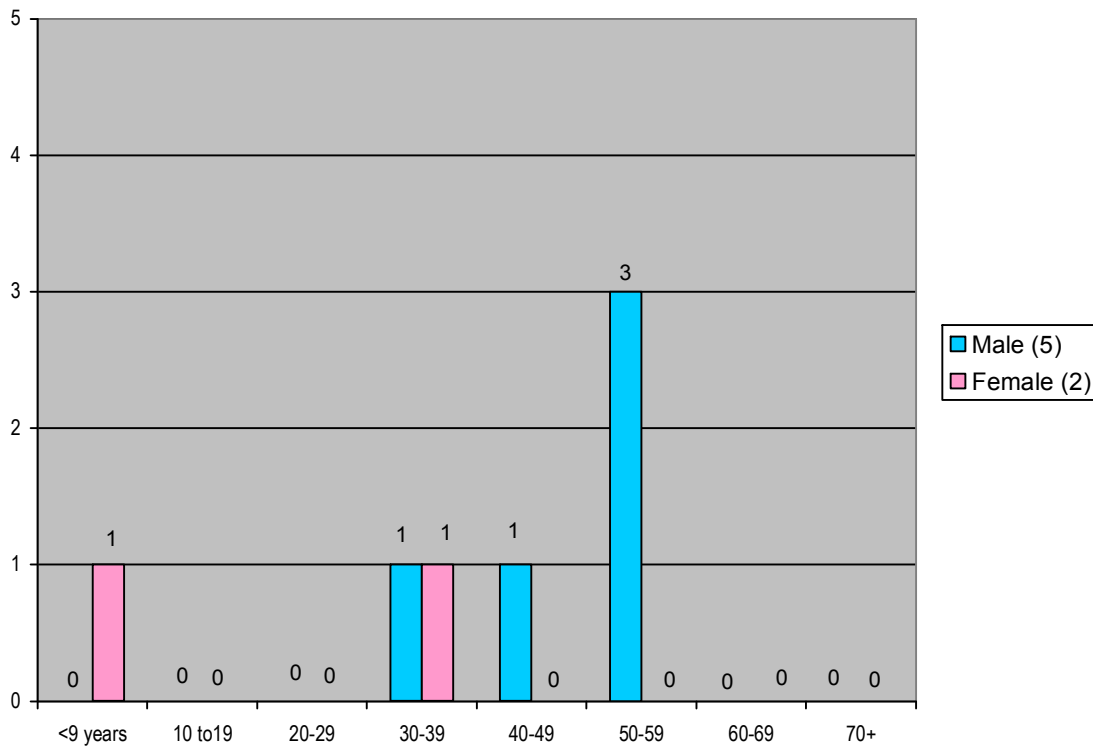
MANNER OF DEATH – Homicide

Homicide Cases by Age and Gender

Homicide deaths represented 0.36% (7/1,930) of all medical examiner cases.

Males accounted for 71.43% (5/7) of the total homicide death cases; **females** accounted for 28.57% (2/7) of the homicide cases.

The male 50-59 age group accounted for 42.86% (3/7) of all male homicide victims while the 9 years and under along with 30-39% female age groups accounted for the 2 of the 7 female homicide cases.

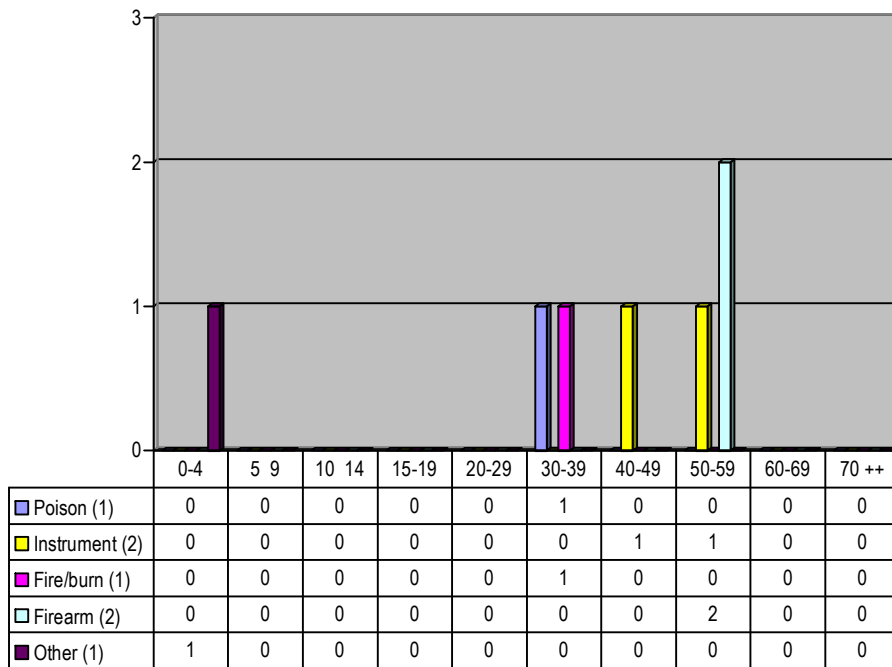


Age Group	Male	Female	Total	Percent
0-19 Years	0	1	1	15%
20 Years and Older	5	1	6	85%
Total Cases	5	2	7	100%

¹ Randy Hanzlick, M.D., et al. A Guide for Manner of Death Classifications: Basic, General “rules” for classifying manner of death (National Association of Medical Examiners, 2005) ⁵

MANNER OF DEATH – Homicide

Homicide Cases by Age and Means



Deaths by firearms accounted for 28.57% (2/7) of all homicide cases with the 50-59 age group having the highest rate or 28.57% (2/7) of all the firearm homicide deaths.

Instrument homicides also accounted for the 28.57% (2/7) with the instrument deaths occurring in the 40-49 and 50-59 age range.

Homicide Cases by Race and Gender

Race	Male	Female	Total
White	1	1	2
African American	1	0	1
Multiracial	2	1	3
Other	1	0	1
Total	5	2	7

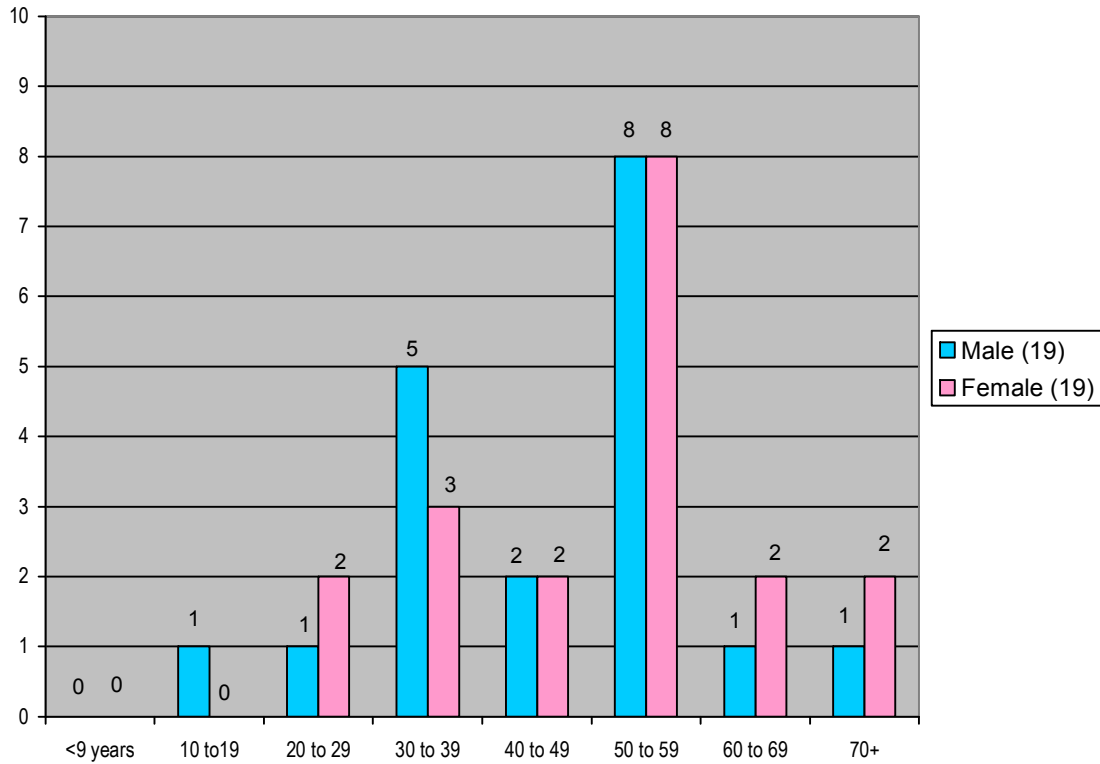
MANNER OF DEATH – Indeterminate

Indeterminate Cases by Age and Gender

Indeterminate deaths represented 1.97% (38/1,930) of all medical examiner cases.

Males and females each accounted for 50% (19/38) of the total indeterminate death cases.

The 50-59 age group represented the highest age group for indeterminate cases or 42.10% (16/38).

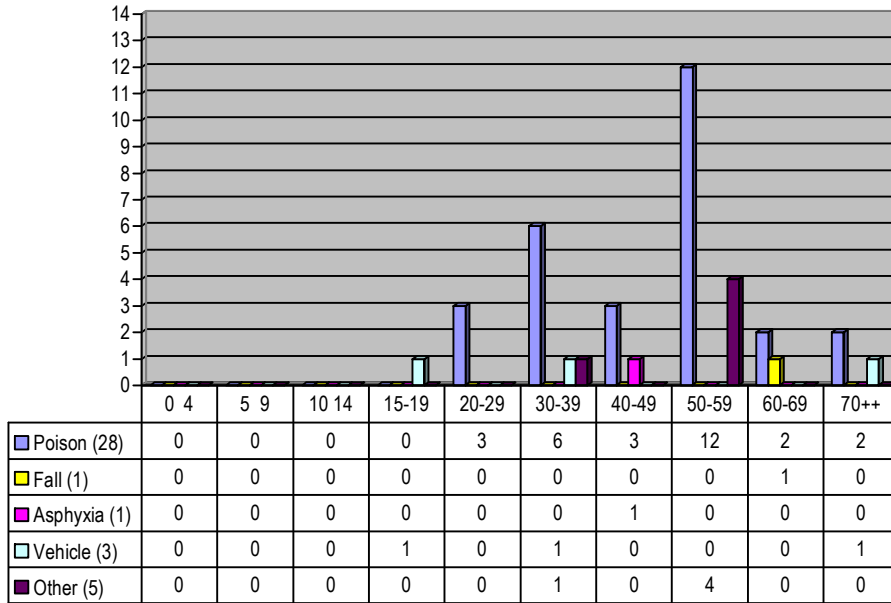


Age Group	Male	Female	Total	Percent
0-19 Years	1	0	1	2.63%
20 Years and Older	18	19	37	97.37%
Total Cases	19	19	38	100%

¹ Randy Hanzlick, M.D., et al. A Guide for Manner of Death Classifications: Basic, General “rules” for classifying manner of death (National Association of Medical Examiners, 2005) ⁵

MANNER OF DEATH – Indeterminate

Indeterminate Cases by Age and Means



Poisoning accounted for 73.68% (28/38) of all indeterminate death cases with the 50-59 age group having the highest or 31.58% (12/38) of all indeterminate poisoning deaths.

Indeterminate Cases by Race and Gender

Race	Male	Female	Total
White	14	16	30
African American	3	0	3
Multiracial	2	3	5
Total	19	19	38