

MACOMB COUNTY MEDICAL EXAMINER



2011 Annual Report

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

Table of Contents

<p>LETTER FROM THE MEDICAL EXAMINER 2</p> <p>LAWS GOVERNING THE MEDICAL EXAMINER'S OFFICE..... 3</p> <p>MISSION STATEMENT..... 3</p> <p>ORGANIZATIONAL CHART..... 4</p> <p>BUDGET..... 4</p> <p>MEDICAL EXAMINER FACILITY..... 5</p> <p>MACOMB COUNTY DEMOGRAPHICS...6</p> <p>ACTIVITIES OF THE MEDICAL EXAMINER..... 7</p> <p style="padding-left: 20px;">Operations..... 7</p> <p style="padding-left: 20px;">Mass Disaster Preparation..... 7</p> <p style="padding-left: 20px;">Infant/Child Death Review Team..... 7</p> <p style="padding-left: 20px;">Gift of Life..... 7</p> <p>TOTAL CASES FOR 2011..... 8</p> <p>CREMATION PERMITS.....9</p> <p>MANNER OF DEATH..... 10</p> <p style="padding-left: 20px;">Manner of Death Age/ Gender.....11</p> <p style="padding-left: 20px;">Manner of Death Case Reports..... 11</p> <p style="padding-left: 20px;">Manner of Death Age/Means 12</p> <p style="padding-left: 20px;">Manner of Death Race/Gender.....12</p>	<p>MANNER OF DEATH - NATURAL..... 13</p> <p style="padding-left: 20px;">Natural Cases by Age/Gender..... 13</p> <p style="padding-left: 20px;">Natural Cases by Case Reports..... 13</p> <p style="padding-left: 20px;">Natural by Age/Means..... 14</p> <p style="padding-left: 20px;">Natural Cases by Race/Gender..... 14</p> <p>MANNER OF DEATH – ACCIDENT 15</p> <p style="padding-left: 20px;">Accident Cases by Age/Gender..... 15</p> <p style="padding-left: 20px;">Accident Cases by Case Reports.....15</p> <p style="padding-left: 20px;">Accident Cases by Age/Mean..... 16</p> <p style="padding-left: 20px;">Accident Cases by Race/Gender..... 16</p> <p>MANNER OF DEATH – SUICIDE.....17</p> <p style="padding-left: 20px;">Suicide Cases by Age/Gender..... 17</p> <p style="padding-left: 20px;">Suicide Cases by Case Report.....17</p> <p style="padding-left: 20px;">Suicide Cases by Age/Mean..... 18</p> <p style="padding-left: 20px;">Suicide Cases by Race/Gender..... 18</p> <p>MANNER OF DEATH–HOMICIDE..... 19</p> <p style="padding-left: 20px;">Homicide Cases by Age/Gender.....19</p> <p style="padding-left: 20px;">Homicide Cases by Case Reports..... 19</p> <p style="padding-left: 20px;">Homicide Cases by Age/Mean.....20</p> <p style="padding-left: 20px;">Homicide Cases by Race/Gender..... 20</p> <p>MANNER OF DEATH – INDETERMINATE 21</p> <p style="padding-left: 20px;">Indeterminate Cases by Age/Gender....21</p> <p style="padding-left: 20px;">Indeterminate Cases by Case Reports..21</p> <p style="padding-left: 20px;">Indeterminate Cases by Age/Mean..... 22</p> <p style="padding-left: 20px;">Indeterminate Cases by Race/Gender.. 22</p>
--	--

**Macomb County Medical Examiner
Daniel J. Spitz, M.D.
43585 Elizabeth Road, Mt. Clemens, Michigan 48043
Tel: (586) 469-5214 * Fax (586) 469-6636**

To the Macomb County Executive and the 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 2011 we again surpassed the number of deaths investigated over previous years. When compared to 2010, the workload showed a 3.9% increase in the number of deaths investigated. The number of cremation permits has also increased by 6%. We expect to see these numbers continually rise as they have progressively gone up over the past several years.

In 2011, the Medical Examiner's Office investigated 1789 deaths, performed 625 forensic examinations and issued 3278 cremation permits. Additionally, 1726 home hospice deaths were reported to the Medical Examiner's Office. There was a 7.5% increase in the number of deaths related to natural disease and also a 24.5 % increase in the number of suicide investigations, the number of homicides decreased by 2.6% and the number of accidents decreased by 3.28%.

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

We continue to support the efforts of the Gift of Life Organ and Tissue Procurement Agency and the Michigan Eye Bank and in 2011 we entered into a collaborative agreement. As part of the agreement the Medical Examiner staff evaluates and reports deaths that may meet donor criteria. It is hoped that this agreement will 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 2011 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 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**



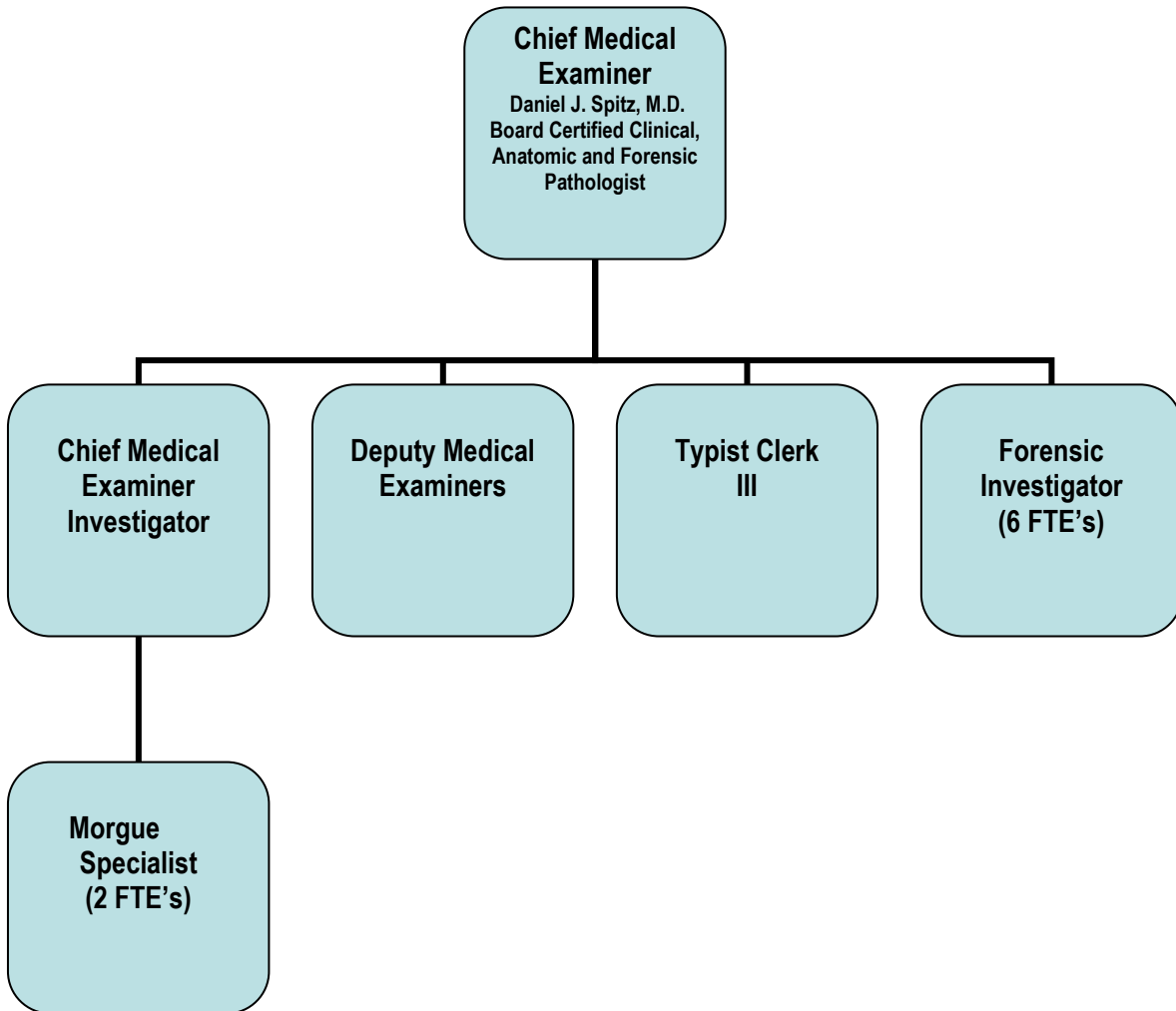
MISSION STATEMENT

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.

Organization Chart

Macomb County Medical Examiner's Office

The Medical Examiner is appointed by the Macomb County Executive for a 4 year term.



Budget 2011

Macomb County Medical Examiner's Office	
Revenues	Expenses
1,301,356.00	1,301,356.00

Macomb County Medical Examiner's Facility

The Medical Examiner facility was built in 2007 and has a 6000 square foot morgue with a discrete 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 of population of 6.7% since 2000 (788,149).

Among the County's 27 municipalities are three of the ten largest communities 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	219.26
Hispanic or Latino	12,436	19,095	53.56	1.58	2.27	43.91
American Indian and Alaska Native	2,255	2,351	4.26	0.29	0.28	-2.29
Asian	16,743	24,908	48.77	2.12	2.96	39.42
Native Hawaiian and Other Pacific Islander	157	168	7.01	0.02	0.02	0.28
Other Race	685	803	17.23	0.09	0.10	9.86
Two or More Races	12,841	15,907	23.88	1.63	1.89	16.09
Total Population	799,149	840,978	6.70			

Source: 2010 data from U.S. Census Bureau

Activities of the Medical Examiner's Office

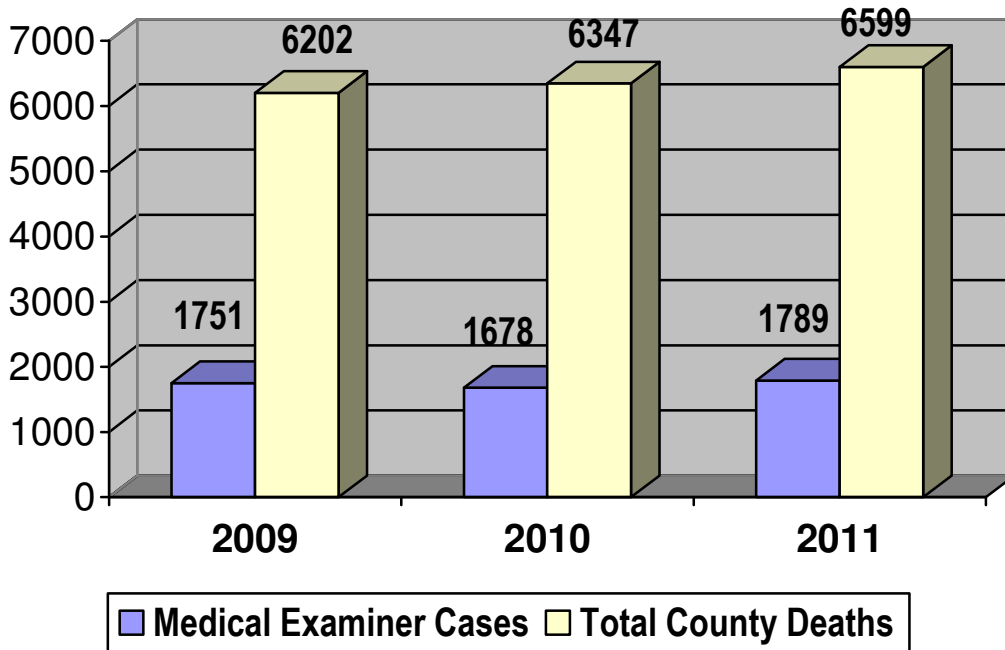
- As part of the duties of the Medical Examiner's Office, autopsy and investigative reports are prepared and maintained on all cases.
- The Macomb County Medical Examiner's Office also fulfills legal obligations by testifying in criminal and civil proceeding relating to the cause and manner of death.
- 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 230 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 techs, 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; 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 will increase the number of potential donors.

TOTAL CASES FOR 2011

Macomb County Population	840,978
Number of Deaths in Macomb County	6,599
Macomb County Medical Examiners Cases (Includes 8 cases of non human bones, 1 fetus)	1,789
Forensic Examinations	625

Local deaths (those that occur within the boundaries of Macomb County) that fall under the jurisdiction of the Medical Examiner are transported to the Macomb County Medical Examiner's Office (MCMEO) for examination by a contract body transport company. In many 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.

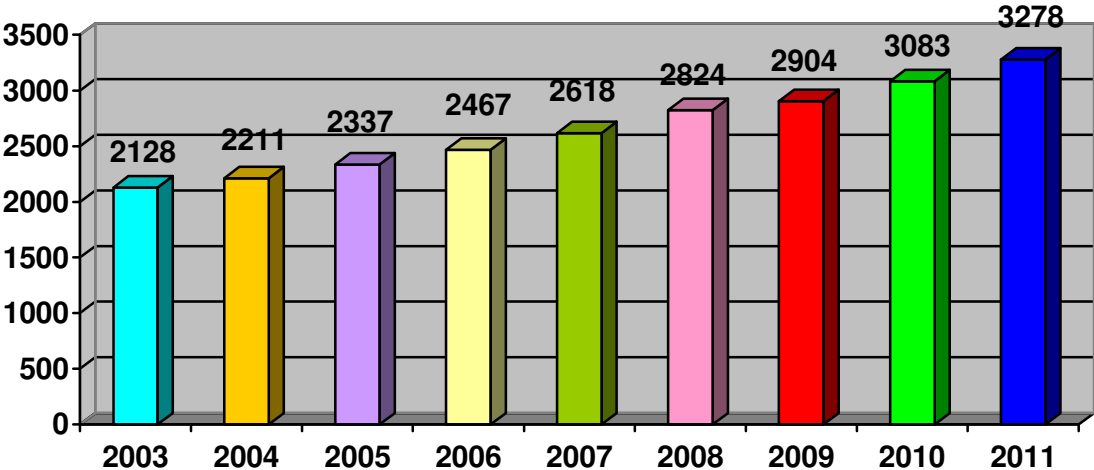


CREMATION PERMITS

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 2011 showed a 6% increase from 2010.

\$131,120.00 in revenue was generated in 2011 for cremation permit authorizations; this was a \$7800.00 increase from 2010. The cremation permit fee was increased in January 2012 to \$75.00.

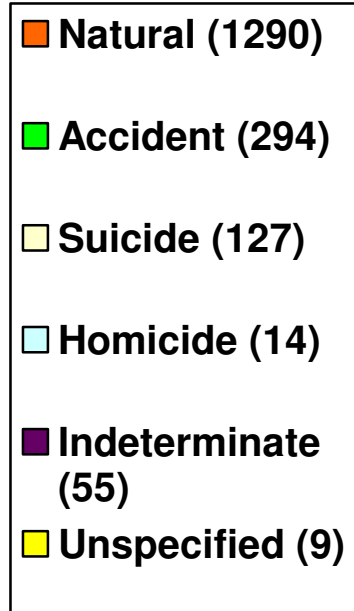
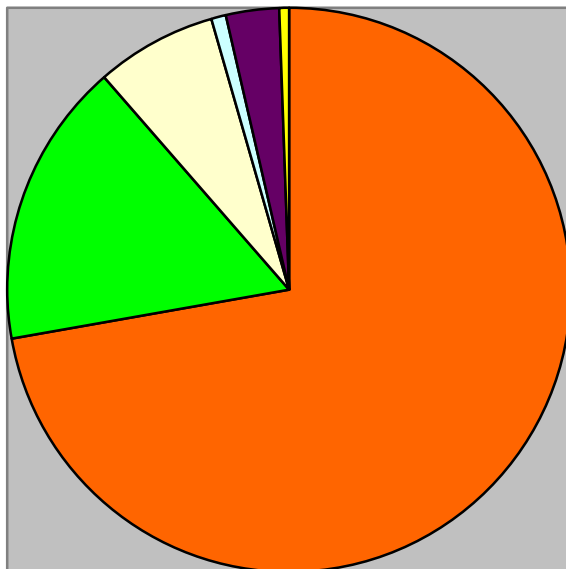
CREMATION PERMIT AUTHORIZATIONS BY YEAR 2003 – 2011



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.

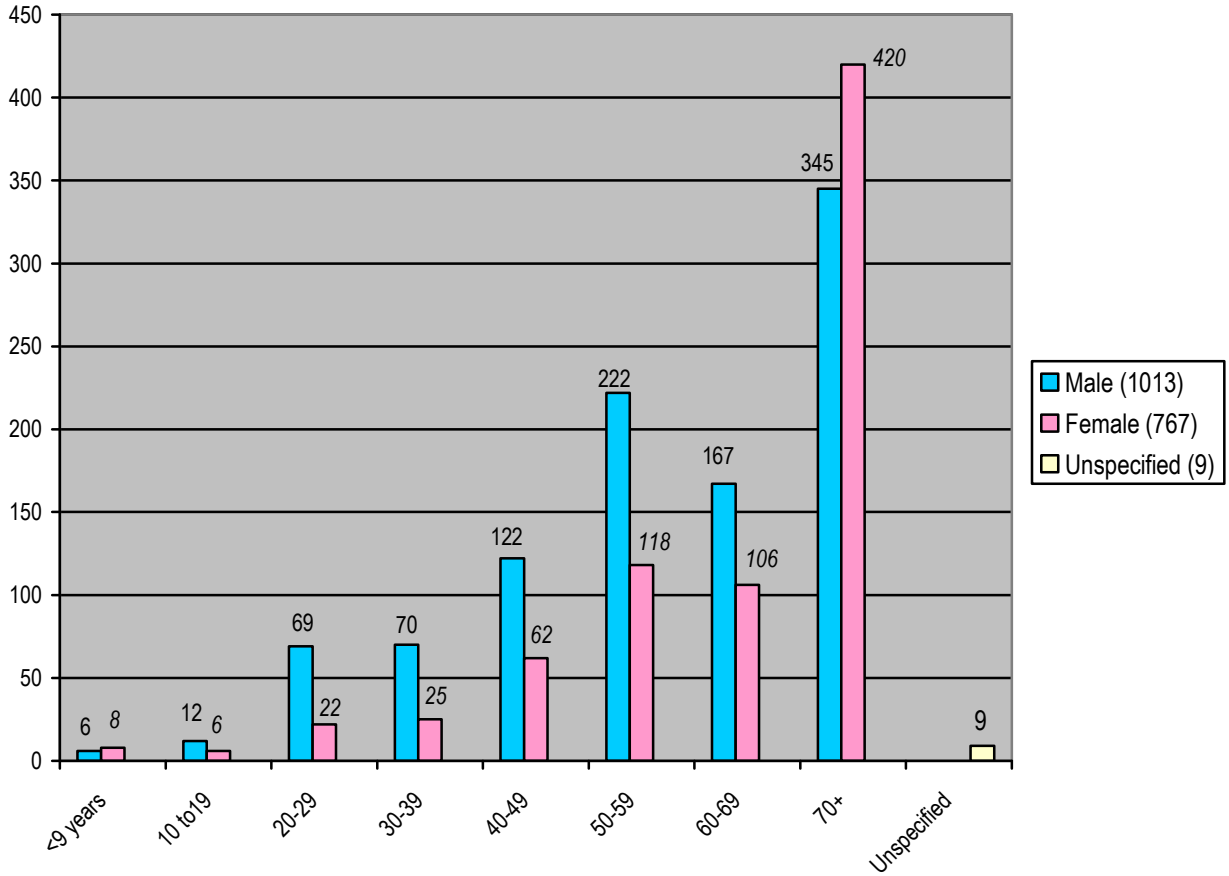
<u>Cases by Manner of Death</u>	<u>Number</u>	<u>Percent</u>
Natural	1290	72.11%
Accident	294	16.43%
Suicide	127	7.1%
Homicide	14	0.78%
Indeterminate	55	3.07%
Unspecified (Bones/fetus)	9	0.5%



MANNER OF DEATH

Manner of Death Cases by Age and Gender

There were a total of 1789 forensic investigations in 2011, of these 1013 (56.7%) were males; 767 (42.9%) were females and 9 (.4%) cases were non human bones.

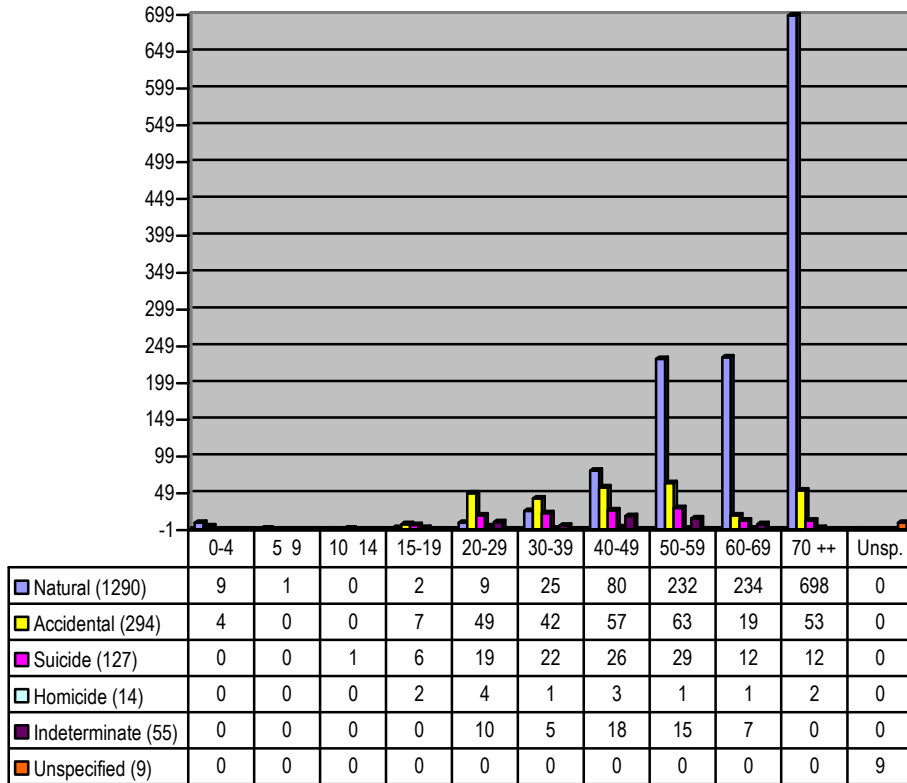


Age Group	Male	Female	Bones/Unspecified	Total
0 – 19 Years	18	14	1	33
20 Years and Older	995	753	0	1748
Unspecified	0	0	8	8
Total	1013	767	9	1789

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

Cases by Age and Means



Manner of Death Cases by Race and Gender

Race	Male	Female	Total
White	903	685	1588
African American	63	58	121
American Indian	0	2	2
Asian Pacific	5	4	9
Other	4	1	5
Multiracial	38	17	55
Total Cases	1013	767	1780

(8 cases of non-human bones/ 1 unspecified fetus not included on this chart)

MANNER OF DEATH – Natural

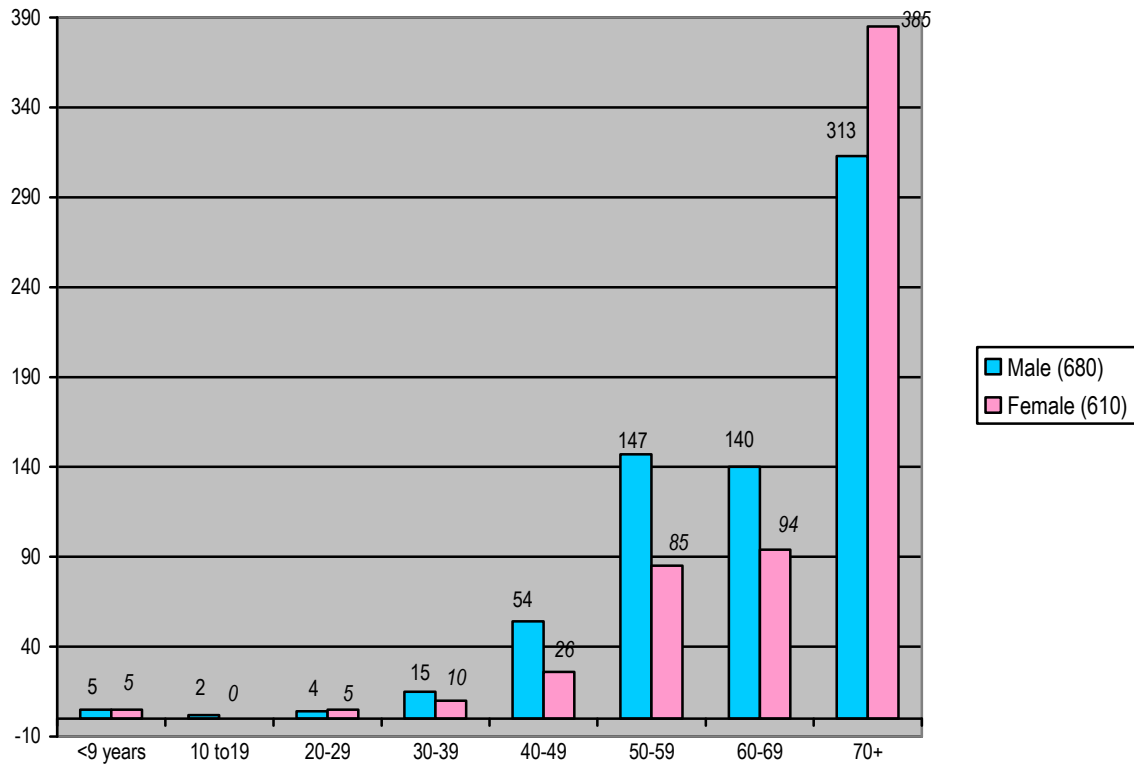
Natural Cases by Age and Gender

Natural deaths represented 72.11% (1290/1789) of all medical examiner cases.

Males accounted for 52.63% (680/1290) of the total natural deaths cases; **females** accounted for 47.28% (610/1290) of the natural death cases.

The male 70+ age group accounted for 46.09% (313/680) of all male natural cases while the female 70+ age group accounted for 63.11% (385/610) of the female natural death cases.

Both the combined male/female 70+ age groups represented 54.10% (698/1290) of all the natural death cases.

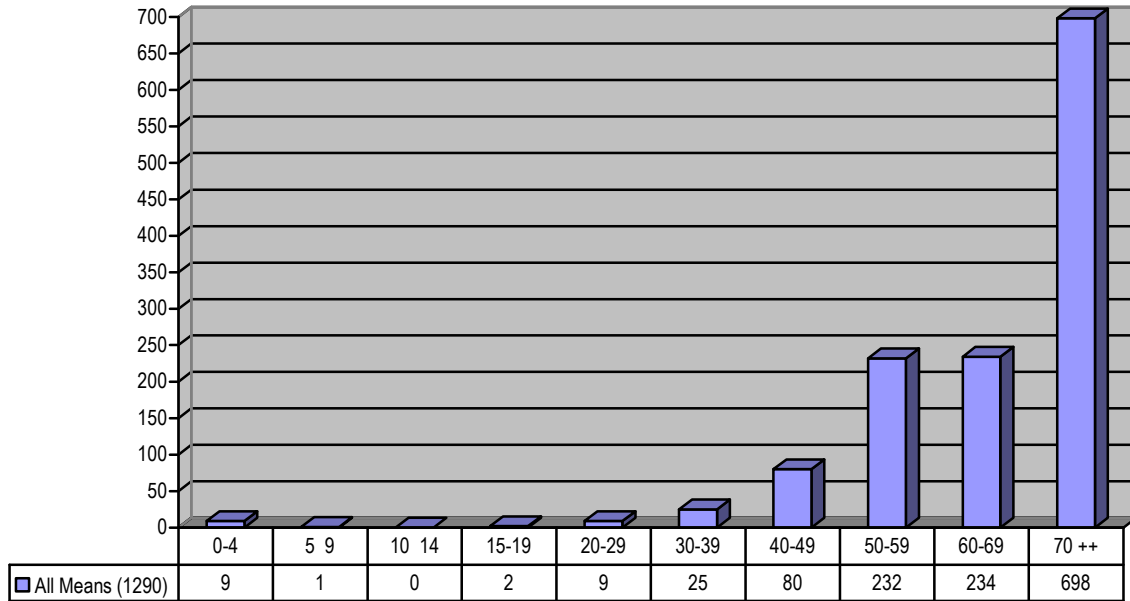


Age Group	Male	Female	Total	Percent
0-19 Years	7	5	12	.094%
20 Years and Older	673	605	1278	99.06%
Total Cases	680	610	1290	100%

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 – Natural

Natural Cases by Age and Means



Natural Cases by Race and Gender

Race	Male	Female	Total
White	607	545	1152
African American	42	47	89
American Indian	0	1	1
Asian Pacific	4	4	8
Multiracial	22	12	34
Other	5	1	6
Total	680	610	1290

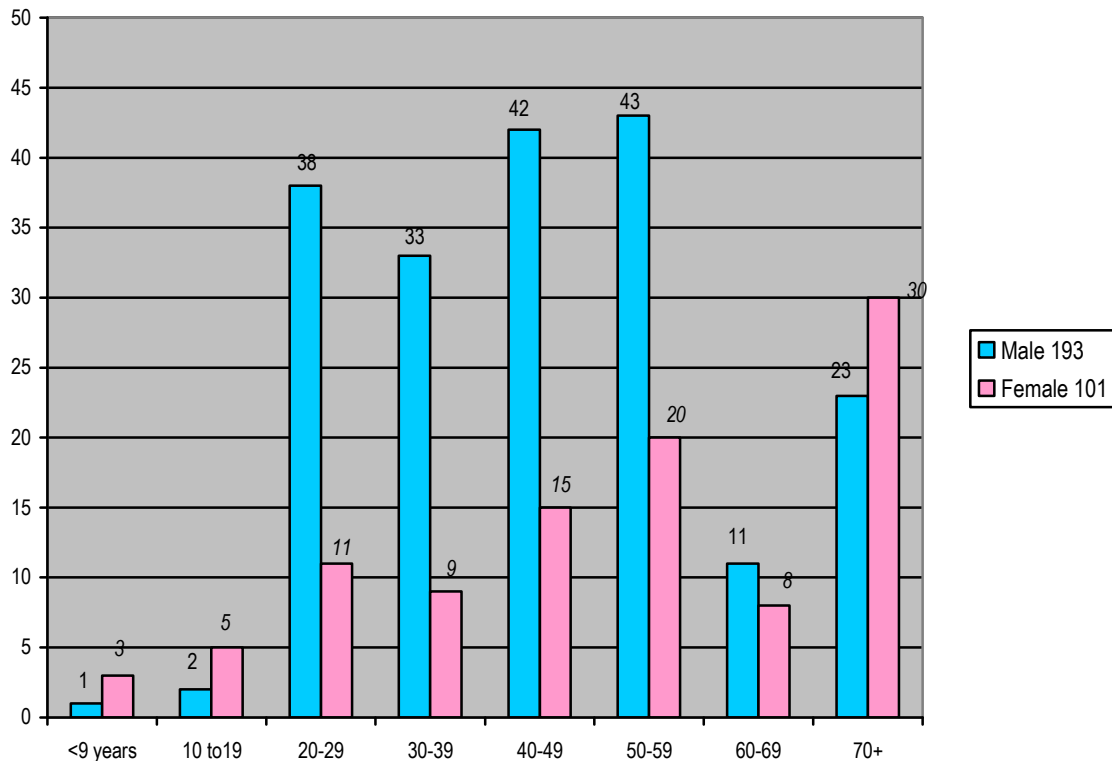
MANNER OF DEATH – Accident

Accident Cases by Age and Gender

Accidental deaths represented 16.43% (294/1789) of all medical examiner cases

Males accounted for 65.64% (193/294) of the total accidental death cases; **females** accounted for 34.35% (101/294) of the cases.

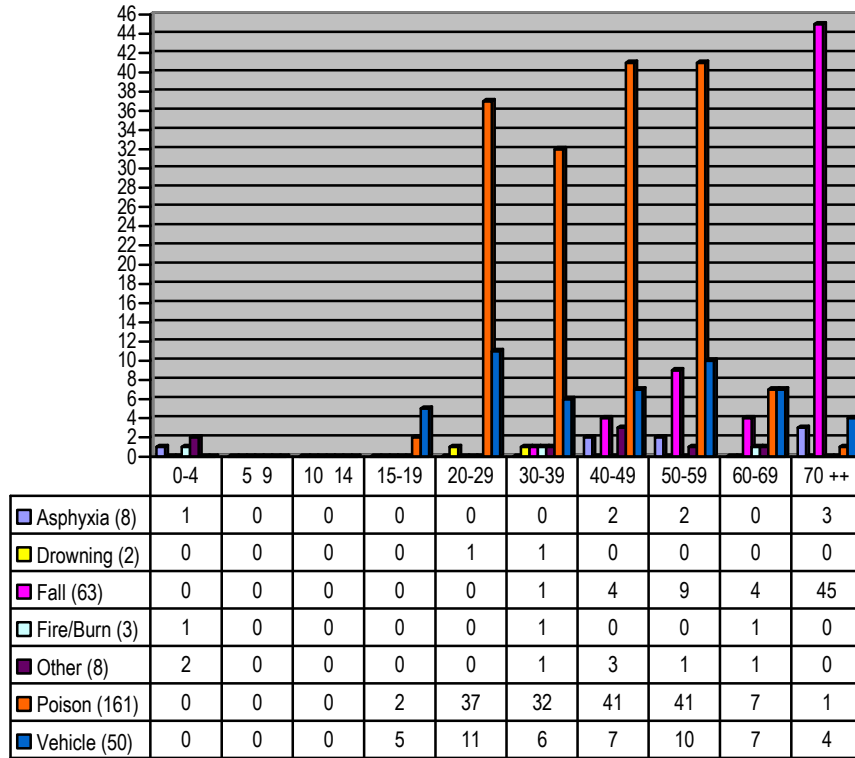
The male 50-59 age group accounted for 22.27% (43/193) of all male accidental deaths. The highest female age grouping was the 75+ age group accounting for 29.7% (30/101) of all female accidental deaths.



Age Group	Male	Female	Total	Percent
0-19 Years	3	8	11	3.75%
20 Years and Older	190	93	283	95.25%
Total Cases	193	101	294	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 45.3% (161/294) of all accidental death cases with the 40-49 and 50-59 age groups having the highest percent of all accidental poisoning deaths.

Falls accounted for the second highest accidental death cases or 21.42% (63/294) 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	173	88	261
African American	9	9	18
American Indian	0	1	1
Asian Pacific	0	0	0
Multiracial	11	3	14
Total	193	101	294

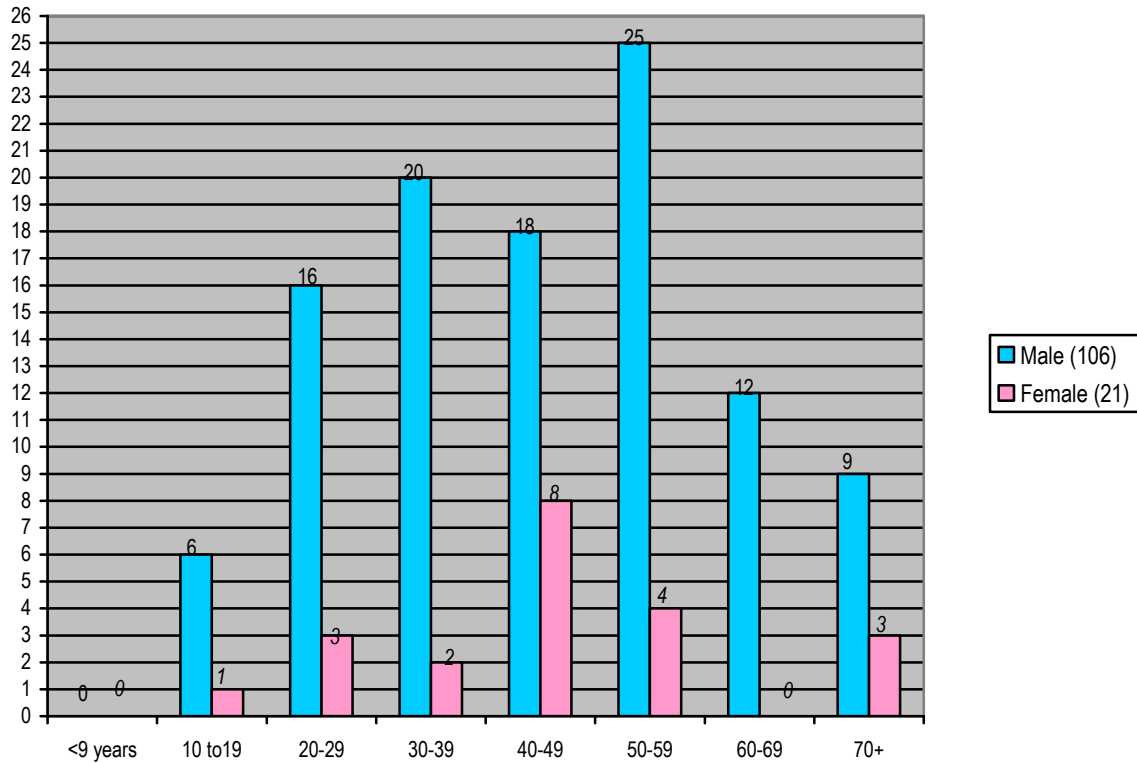
MANNER OF DEATH – Suicide

Suicide Cases by Age and Gender

Suicide deaths represented 7.1% (127/1789) of all medical examiner cases.

Males accounted for 83.46% (106/127) of the total suicide death cases; **females** accounted for 16.53% (21/127) of the suicide cases.

The male 50-59 age group accounted for 23.58% (25/106) while the 30-35 age group accounted for 18.86% (20/106) of all male suicide cases. The 40-49 female age group represented 38.09% (8/21) of all female suicide cases.

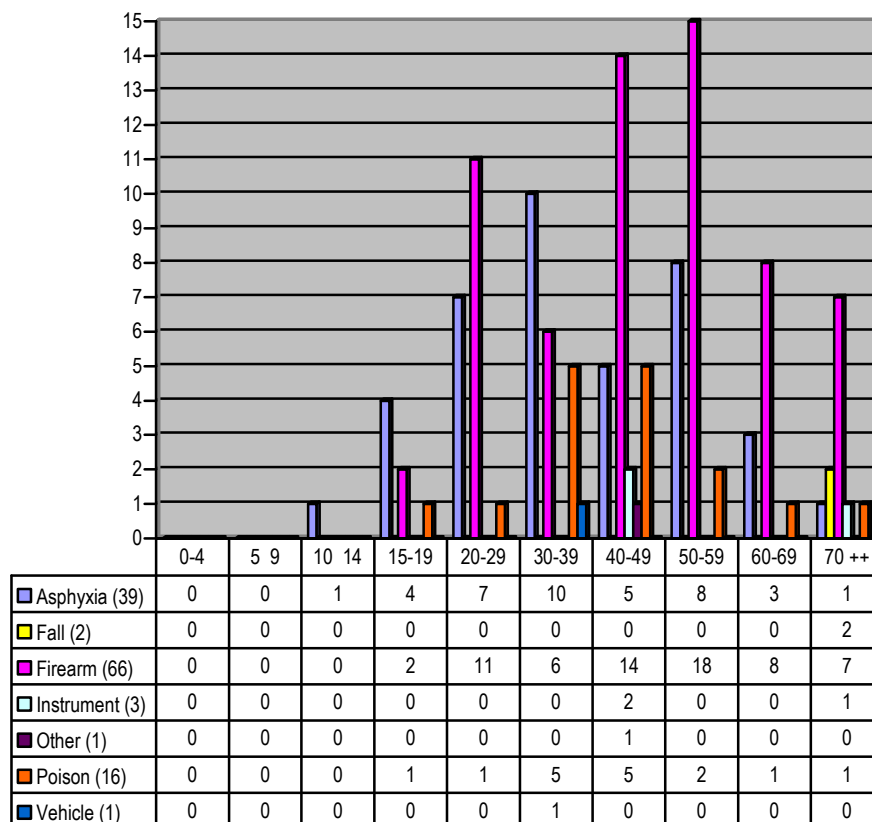


Age Group	Male	Female	Total	Percent
0-19 Years	6	1	7	5.51%
20 Years and Older	100	20	120	94.49%
Total Cases	106	21	127	100%

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 51.96% (66/127) of all suicides, asphyxia account for 30.70% (39/127) and poisoning 12.59% (16/127).

The 50-59 age group (firearms) accounted for 14.17% (18/127) of cases, while the 30-39 age group had 7.87% (10/127) for asphyxial deaths.

Suicide Cases by Race and Gender

Race	Male	Female	Total
White	94	21	115
African American	7	0	7
American Indian	0	0	0
Asian Pacific	1	0	1
Multiracial	4	0	4
Other	0	0	0
Unknown	0	0	0
Total	106	21	127

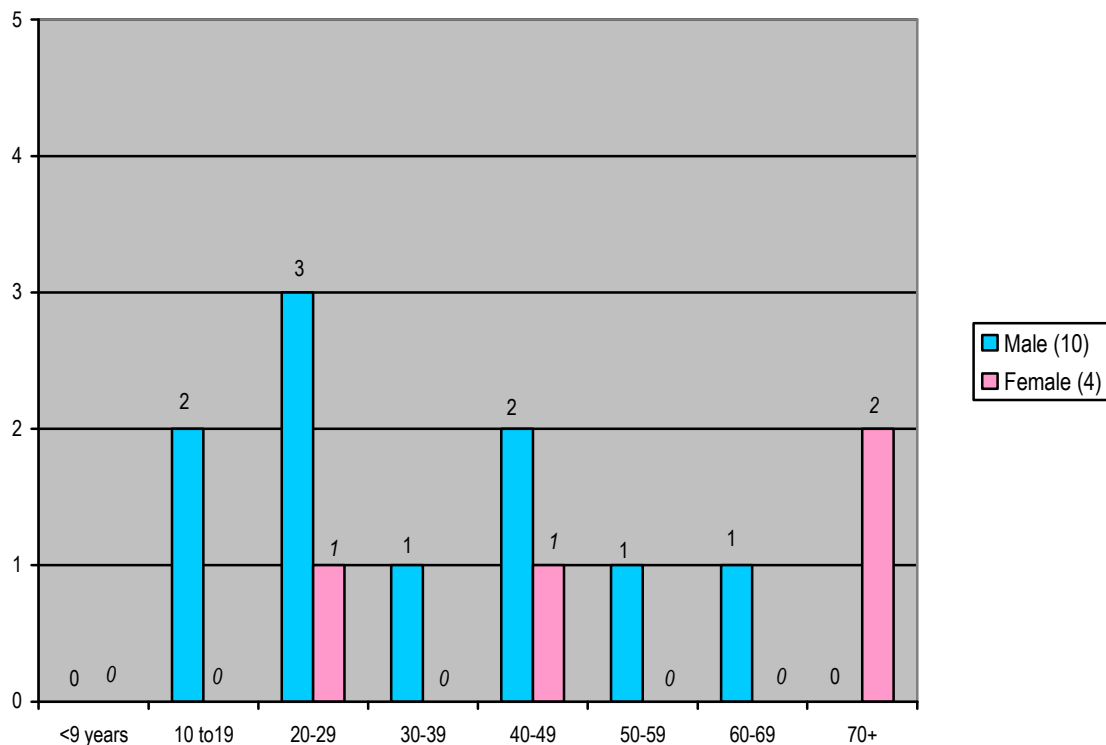
MANNER OF DEATH – Homicide

Homicide Cases by Age and Gender

Homicide deaths represented .08% (14/1789) of all medical examiner cases.

Males accounted for 71.42% (10/14) of the total homicide death cases; **females** accounted for 28.57% (4/14) of the homicide cases.

The male 20–29 age group accounted for 21.42% (3/14) of all male homicide victims while the 70+ female age group accounted for 50% (2/4) of the female homicide cases.

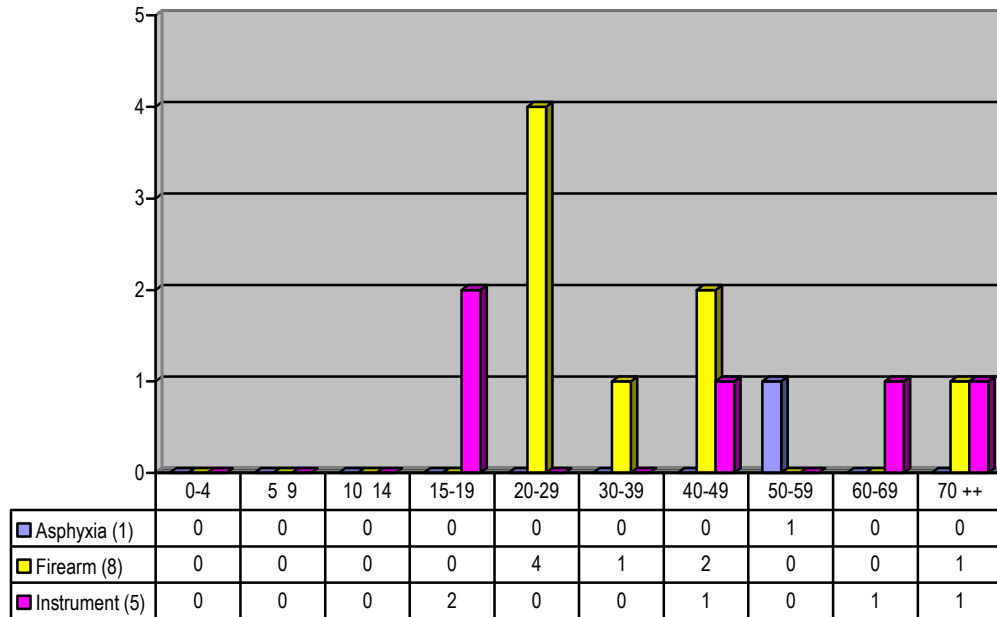


Age Group	Male	Female	Total	Percent
0-19 Years	2	0	2	14.28%
20 Years and Older	8	4	12	85.72%
Total Cases	10	4	14	100%

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



Firearm homicide cases accounted for 57.14% (8/14) of all homicide cases with the 20-29 age group having the highest rate or 50% (4/8) of all the firearm homicide deaths.

Instrument homicides accounted for the second highest homicide cases or 35.71% (5/14) with the majority of instrument deaths occurring in the 15-19 age range.

Homicide Cases by Race and Gender

Race	Male	Female	Total
White	5	3	8
African American	5	0	5
American Indian	0	0	0
Asian Pacific	0	0	0
Multiracial	0	1	1
Total	10	4	14

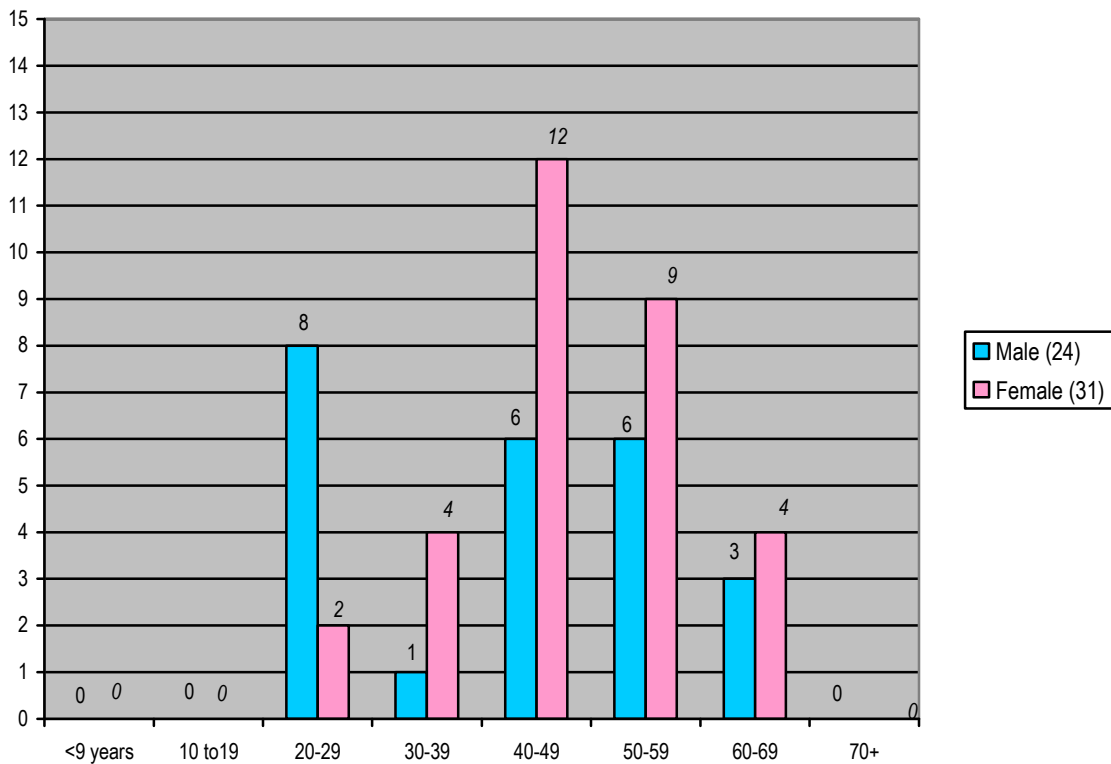
MANNER OF DEATH – Indeterminate

Indeterminate Cases by Age and Gender

Indeterminate deaths represented 3.07% (55/1789) of all medical examiner cases.

Males accounted for 43.63% (24/55) of the total indeterminate death cases; **females** accounted for 56.36% (31/55) of the indeterminate cases.

The 40-49 age group represented the highest age group for indeterminate cases or 32.72% (18/55).

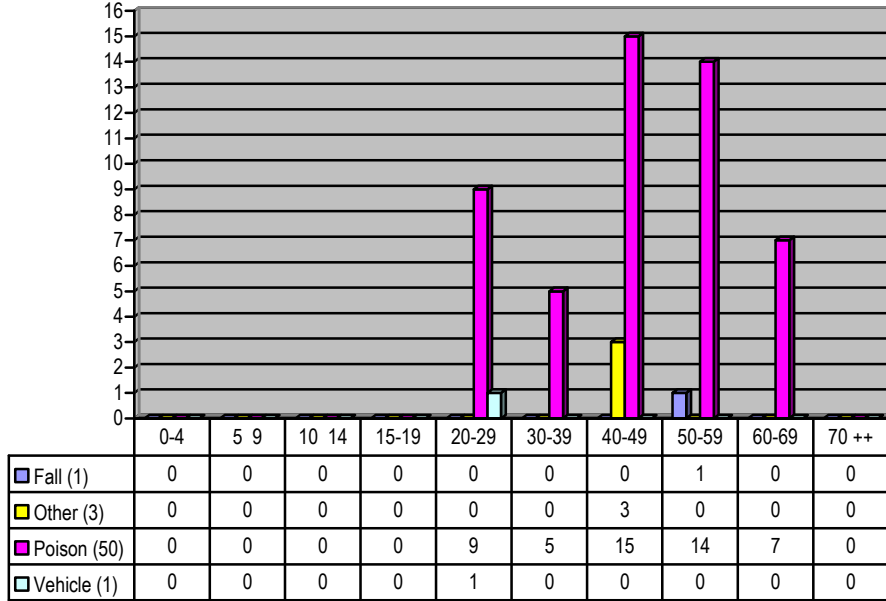


Age Group	Male	Female	Total	Percent
0-19 Years	0	0	0	0%
20 Years and Older	24	31	55	100%
Total Cases	24	31	55	100%

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 90.90% (50/55) of all indeterminate death cases with the 40-49 age group having the highest or 30% (15/50) of all indeterminate poisoning deaths.

Indeterminate Cases by Race and Gender

Race	Male	Female	Total
White	23	28	51
African American	0	2	2
American Indian	0	0	0
Asian Pacific	0	0	0
Multiracial	1	1	1
Total	24	31	55