

# Kent County Medical Examiner



## 2013 Annual Report

Office of the Medical Examiner  
700 Fuller N.E.  
Grand Rapids, Michigan 49503

## 2013 Kent County Medical Examiner Annual Report

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To the Kent County Board of Commissioners,  
and to the Citizens of Kent County:

The responsibility of determining the cause and manner of unexpected deaths in Kent County is one that the Medical Examiner staff takes very seriously. The results of these investigations provide valuable information which is used by public health personnel, the criminal justice system, families of the deceased, and other concerned parties.

I am pleased to announce that the Kent County Medical Examiner's Office has completed the annual renewal of accreditation by the National Association of Medical Examiners (NAME). This achievement is the result of years of work by all the Medical Examiner staff. We are one of two accredited offices in Michigan.

While many regard the Medical Examiner Program as being primarily concerned with the circumstances surrounding the end of life, Medical Examiners are equally concerned with the preservations of life. The chief, deputy chief, and administrative staff of the Medical Examiner's Office continue to spend many hours with the Child Death Review Team to examine all types of data related to the deaths of children 18 years of age and under in our community.

In 2013, there were 5,468 deaths in Kent County. The Medical Examiner's Office was contacted regarding 1,518 of these deaths of which 296 required autopsies.

We continue to maintain our accreditation by the National Association of Medical Examiners. Less than 1/10 of medical facilities nationwide accomplish this accreditation. We are 1 of 79 accredited facilities in the nation.

Heroin and methadone are the most common culprits of drug overdose deaths with a significant increase in heroin deaths over the past five years, while methadone abuse continues to be a scourge in our community. Thankfully, child deaths declined by 1/3 from 2012 to 2013.

While the high standards to which we adhere provide the foundation for quality investigative practices, it is the practitioners – the Deputy Chief Medical Examiner, David A. Start, MD, and the Medical Examiner Investigators – who ultimately are responsible for our success. Within the frame-work of investigative protocols, the Deputy Chief Medical Examiner and Medical Examiner Investigators must have latitude for judgment and the discretion to exercise it accordingly. I have always sought to direct our Medical Examiner Program in a manner that takes full advantage of the professional training and experience of the Kent County Deputy Chief Medical Examiner and Medical Examiner Investigators, and continue to be an advocate for their expertise as a critical component of a quality program.

On behalf of the Medical Examiner's Office of Kent County, I would like to thank the Board of Commissioners for their continued support of this program which enables the Medical Examiner staff to provide this valuable and necessary service for the citizens of Kent County. I also wish to express my deepest gratitude to the excellent staff of the Kent County Medical Examiner Program – the Deputy Chief Medical Examiner, Medical Examiner Investigators, and the administrative support staff – who keep this program running smoothly. It is my pleasure to present the Kent County Medical Examiner's 2013 Annual Report.

Respectively submitted,



Stephen D. Cohle, MD  
Chief Medical Examiner

# Office of the Kent County Medical Examiner

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Medical Examiner Exchange (616) 588-4500

## Medical Examiner Personnel

Stephen D. Cohle, MD  
Chief Medical Examiner and  
Forensic Pathologist

David A. Start, MD  
Deputy Chief Medical Examiner and  
Forensic Pathologist

John T. Connolly  
Medical Examiner Investigator

Paul R. Davison, F-ABMDI  
Medical Examiner Investigator

Cynthia L. Debiak, RN  
Medical Examiner Investigator

Peter J. Noble  
Medical Examiner Investigator

Theodore E. Oostendorp  
Medical Examiner Investigator

Lindsey E. Pitsch  
Medical Examiner Investigator

Daniel Hopkins  
Kent County Conveyance Specialist

Richard Washburn – Retired 3/31/13  
Kent County Conveyance Specialist and  
Scene Investigator

Carmen D. Marrero-Perez  
Office Administrator and  
Child Death Review Coordinator

Dolly M. Olthoff  
Medical Examiner Support Staff

## Board Certification

The American Board of Medicolegal Death Investigators (ABMDI) sets quality and process standards for death investigators. Medical examiners who pass the certification requirements of the ABMDI are designated as registered Diplomats (D-ABMDI). Medical examiners with continued time in investigation and who pass required tests are designated as certified Fellows (F-ABMDI).

## Medical Examiner Program Expenditures, 2012 and 2013

	2012		2013	
	<u>Amount</u>	<u>Percentage</u>	<u>Amount</u>	<u>Percentage</u>
Medical examiner (compensation)	\$ 185,591	14.9%	\$ 186,006	16.4%
Autopsies	860,695	69.1%	764,227	67.6%
Body transport	90,394	7.3%	73,812	6.5%
Support services	48,988	3.9%	47,193	4.2%
Administration	60,000	4.8%	60,000	5.3%
<b>Total</b>	<b>\$1,245,668</b>	<b>100.0%</b>	<b>\$1,131,238</b>	<b>100.0%</b>

Average cost per case investigated

\$1,169

\$1,024

## Medical Examiner Reportable Deaths and Autopsy

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The Michigan County Medical Examiners Law, P.A. 181 of 1953, as amended, and the Michigan Public Health Code, P.A. 368 of 1978, as amended, mandates that specific types of deaths (listed below, left) be referred to the medical examiner for investigation. Medical examiner investigation of a death may also be ordered by the county's prosecuting attorney, the Michigan Attorney General or, upon the filing of a petition, signed by six (6) electors of a county. Not all deaths referred to the medical examiner for investigation necessarily result in an autopsy; however, an autopsy is generally ordered in certain circumstances (listed below, right), to determine more accurately the cause and manner of death.

### Types of Deaths Reportable to the Medical Examiner, P.A. 368 of 1978

1. Sudden deaths and unexpected deaths (all deaths occurring in operating room, in recovery room, anesthesia related, natural death but not expected, occupational related deaths, subdural hematoma, intracerebral hemorrhage, etc.)\*
2. Accidental deaths (motor vehicle, burns, drowning, falls, broken bones, drug overdose, drug toxicity, subdural hematoma, recent or past trauma, etc.)
3. Violent deaths (homicide, gunshot, stabbing, suicide, subdural hematoma, etc.)\*
4. Suspicious circumstances surrounding a death.\*
5. Deaths occurring as a result of an abortion.
6. Upon written order of the prosecuting attorney or the attorney general or upon the filing of a petition signed by six (6) electors of a county.
7. Death of a prisoner in any county or city jail who dies while so imprisoned.
8. If a fetal death occurs without medical attendance at or after the delivery.

In terms of a physician attendance: for the purposes of the medical examiner program, we consider that an investigation is required when:

- A. The deceased was last seen by a physician more than \*\*ten (10) days before his or her death, if the cause of death appears to be other than the illness or condition for which the deceased was being treated.
- B. The attending physician cannot accurately determine the cause of death.
- C. When the deceased has not received any medical attention during the \*\*\*48 hours prior to the hour of death unless the attending physician, if any, is able to accurately determine the cause of death.

\* All trauma related deaths no matter when the trauma occurred.

\*\* The ten (10) day requirement relates solely to physician attendance.

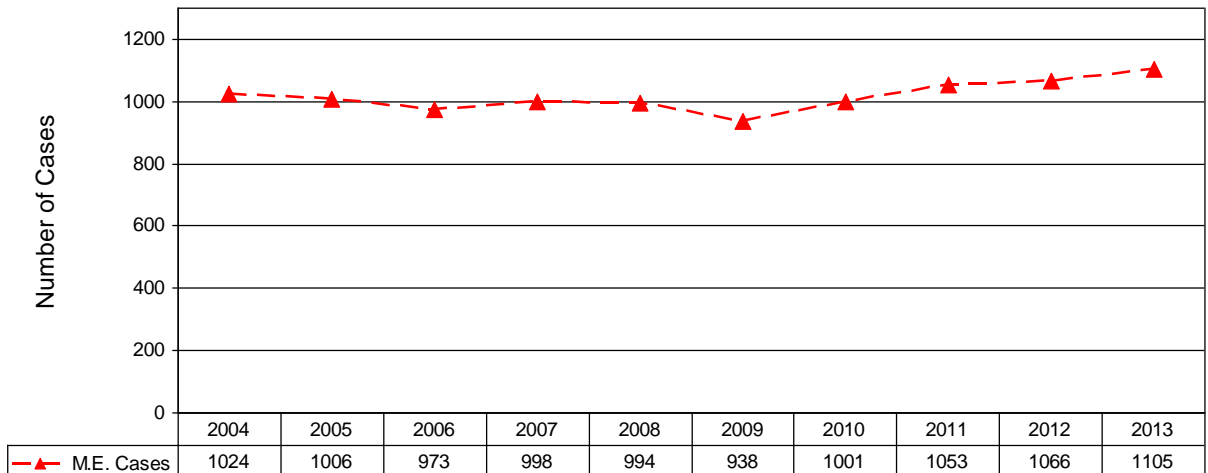
\*\*\*The 48 hour requirement triggers an investigation when there has been no medical attendance of any kind (i.e., nursing care, etc.)

### Types of Medical Examiner Cases for which Autopsy is Generally Ordered

1. Sudden deaths and unexpected deaths only when in the medical examiner's judgment, sufficient medical history is not available to determine cause and manner of death.
2. Accidental deaths such as motor vehicle, burns, drowning, etc. If an individual has been hospitalized for a length of time, it is the medical examiner's decision to order an autopsy.
3. Violent deaths such as homicide, suicide, gunshot, stabbing, etc.
4. Suspicious circumstances surrounding death, including unidentified bodies.
5. Death related to an abortion.
6. Sudden infant deaths (SIDS) and deaths of children 18 and under without significant medical history.
7. Death of a prisoner imprisoned at any county or city jail.
8. In a fetal death occurring without medical attendance at or after delivery.
9. An autopsy may be ordered at the discretion of the medical examiner if the cause of death appears to be other than the illness or condition for which the deceased was being treated, or if the attending physician cannot accurately determine the cause of death.
10. Anesthesia-related and unexpected deaths of patient in health care institutions.
11. Partial autopsies are not done because it is not best practice.
12. Views are performed in cases in which there is adequate history to explain the death, but there are external findings, such as injuries, that require direct examination to determine whether they maybe significant injuries that mandate full autopsy.

# 2013 Medical Examiner Caseload

**Figure 1: Accepted Kent County Medical Examiner Cases, 2004-2013**

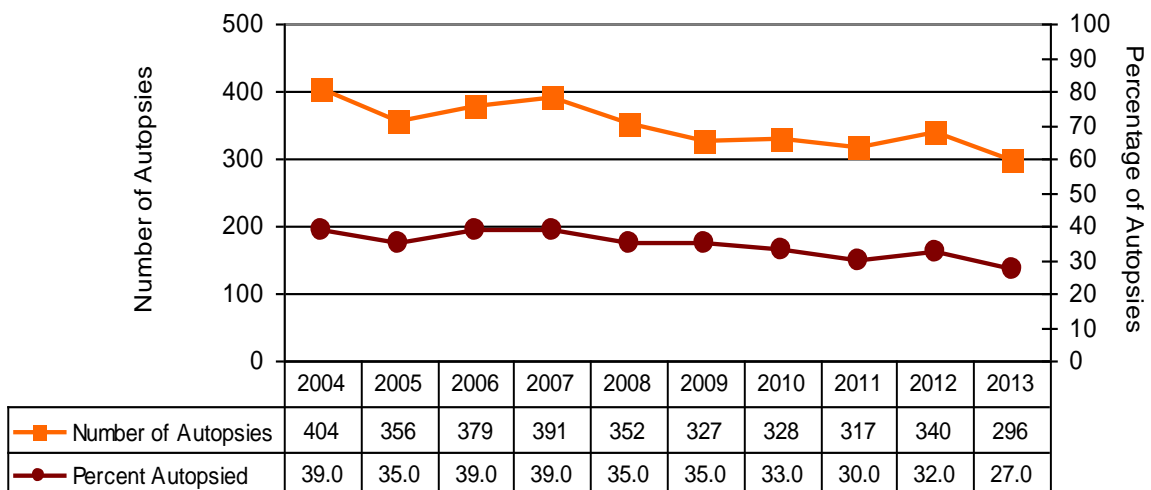


**Total Referred Medical Examiner Cases in 2013: 1,518**

Accepted	1,105	72.8%
Declined	413	27.2%

In 2013, there were 5,468 deaths in Kent County. The medical examiner was contacted regarding 1,518 of these deaths. 1,105 cases were accepted for investigation, while 413 were declined and did not fall within the requirements for investigation by the Medical Examiner’s Office.

**Figure 2: Medical Examiner Cases with Autopsy, 2004-2013**



Of the 296 autopsies performed, 284 were charged to Kent County. The remaining 12 autopsies were performed at the request of another county.

## 2013 Medical Examiner Caseload

Figure 3: Referred Medical Examiner Caseload by Month, 2009-2013

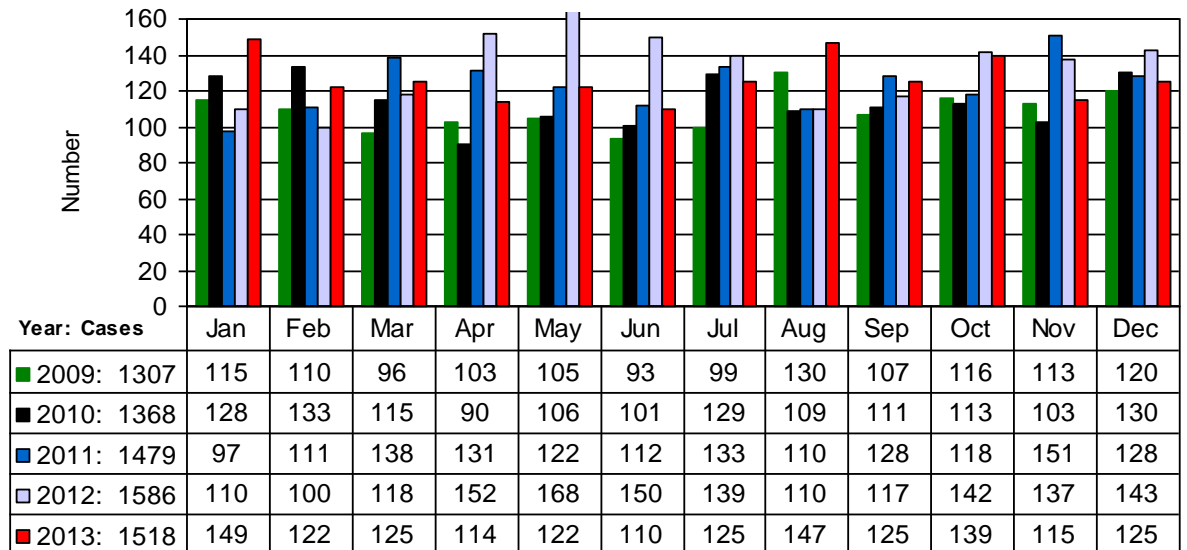
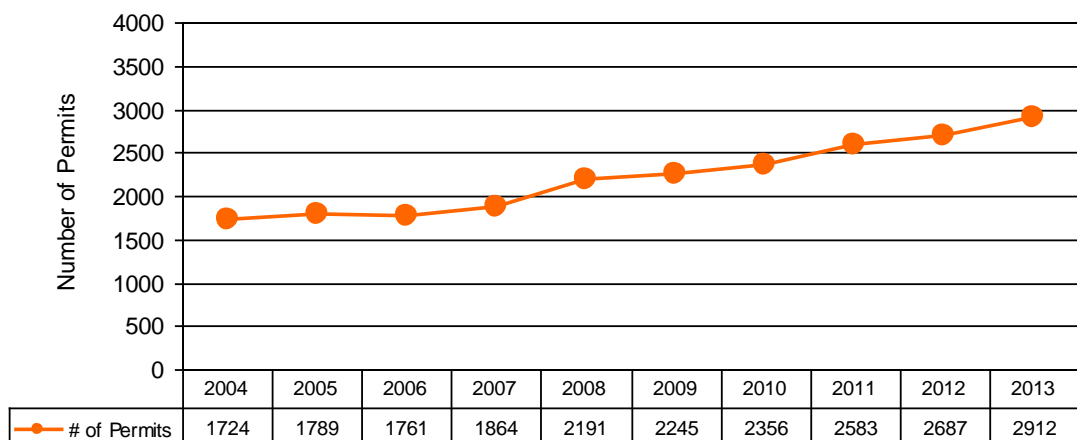
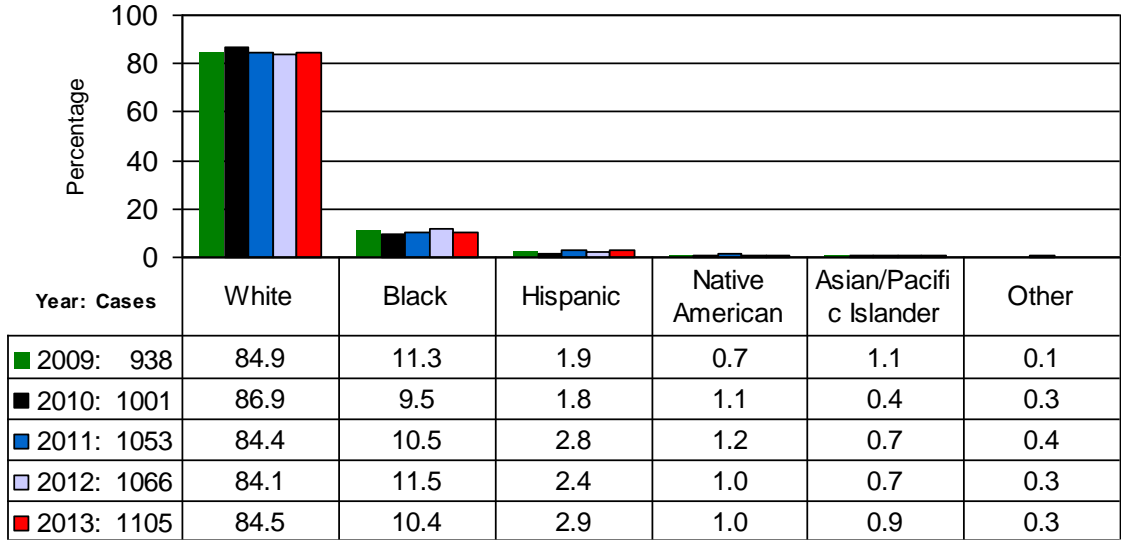


Figure 4: Cremation Permits Issued, 2004-2013

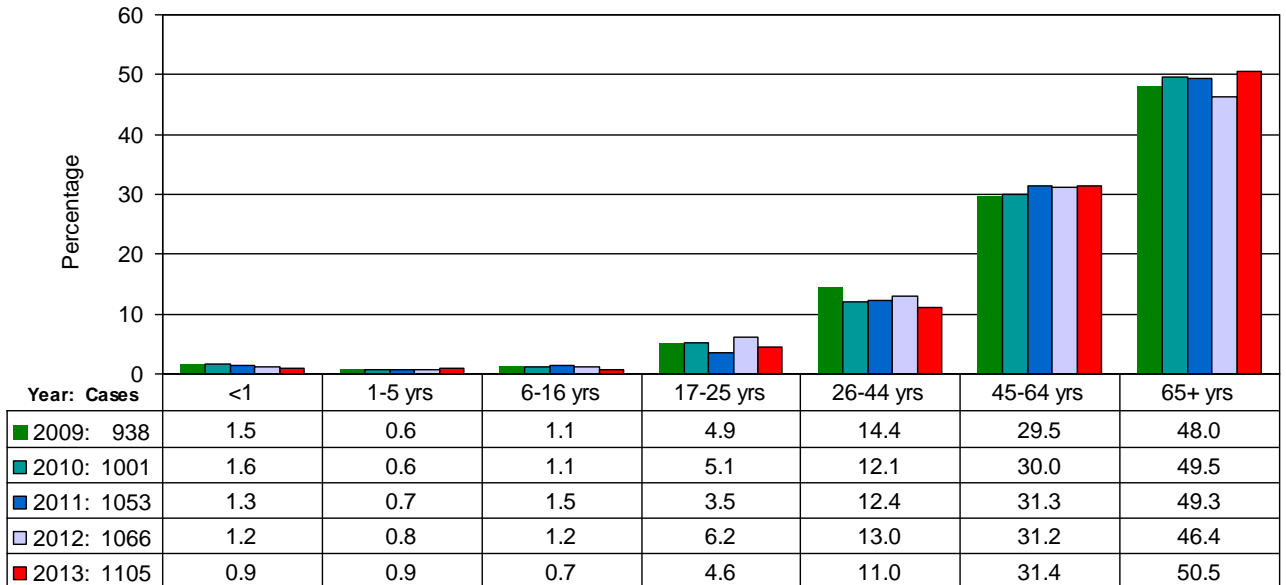


# Demographics of Medical Examiner Cases

**Figure 5: Medical Examiner Cases by Race/Ethnicity, 2009-2013**



**Figure 6: Medical Examiner Cases by Age at Death, 2009-2013**



**Table 1: Medical Examiner Cases by Gender, 2009-2013**

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Female	37.7%	37.8%	39.5%	35.8%	38.5% (425 cases)
Male	62.3%	61.9%	60.5%	64.2%	61.5% (680 cases)
Unknown		0.3% (bones)			

# Manner of Death

Figure 7: Medical Examiner Cases by Manner of Death, 2004-2013

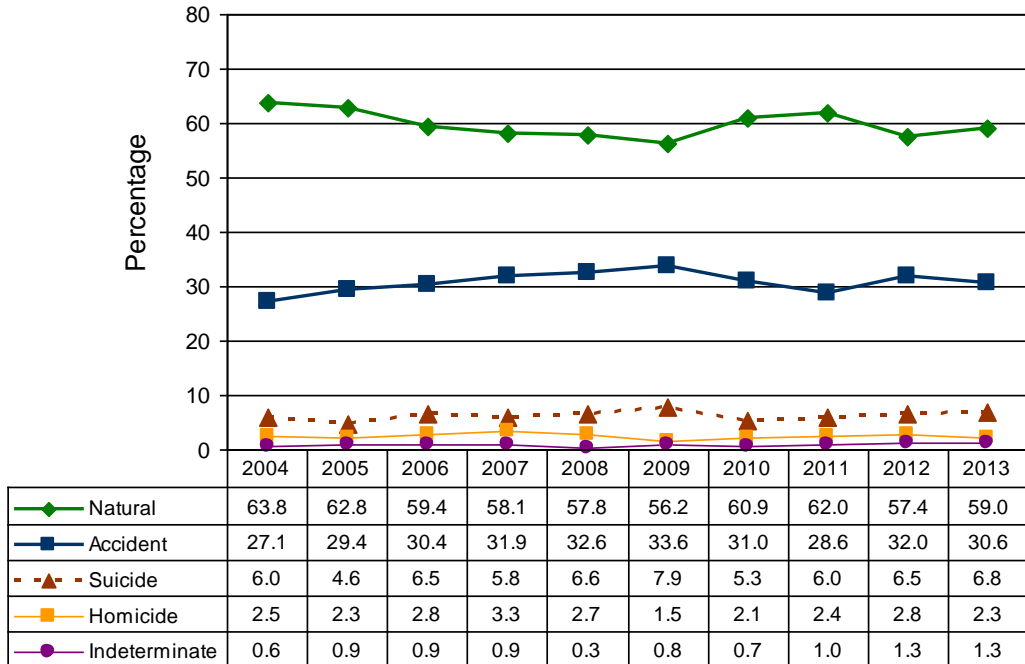
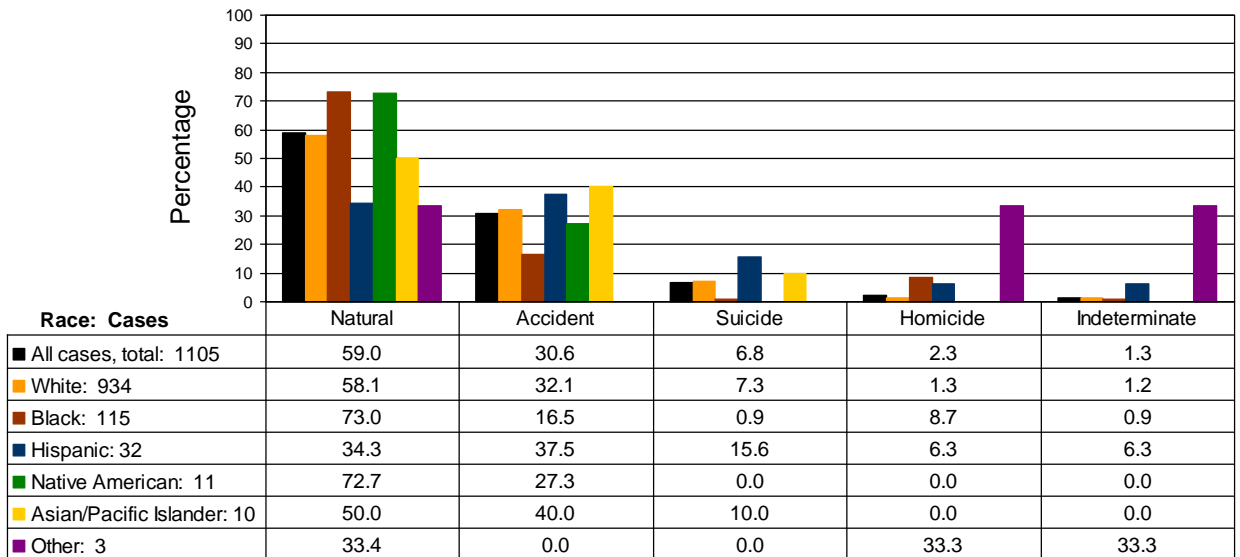


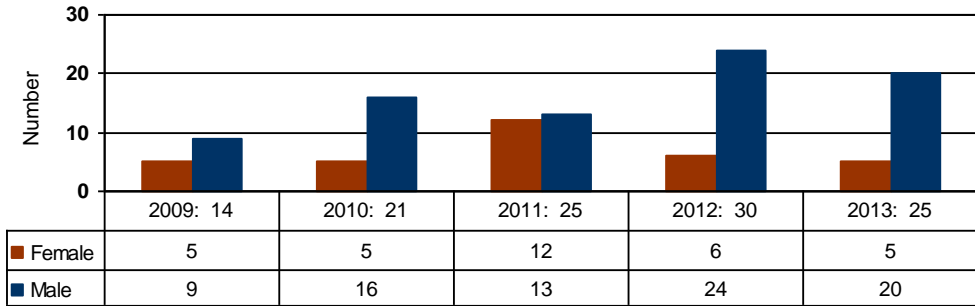
Figure 8: Manner of Death by Race/Ethnicity, 2013



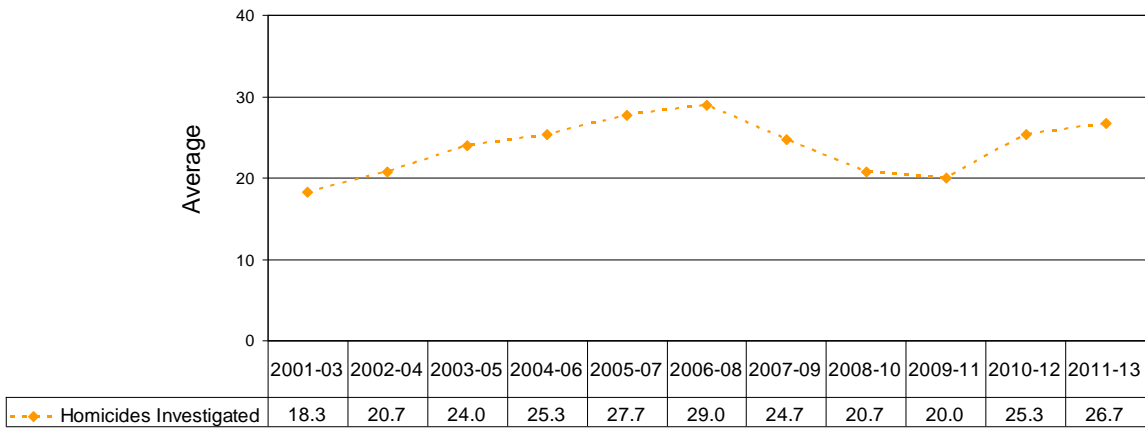


# Manner of Death

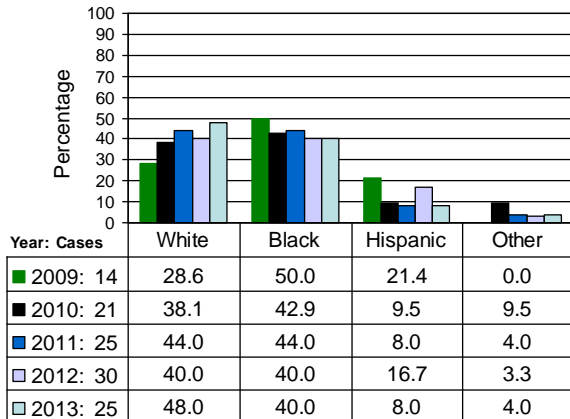
**Figure 9: Kent County Homicides by Gender, 2009-2013**



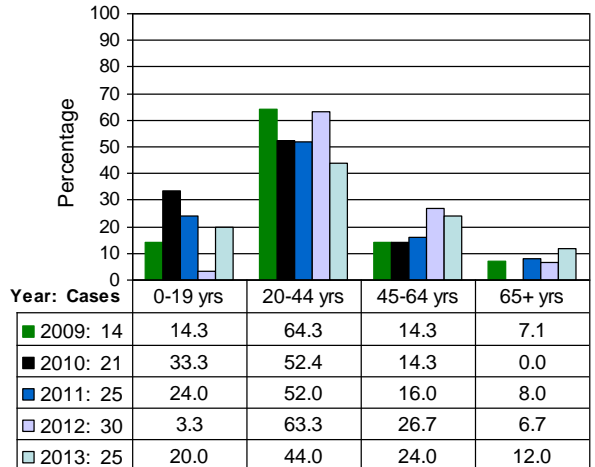
**Figure 10: Kent County Homicides, Three-Year Moving Averages, 2001-2013**



**Figure 11: Homicides by Race, 2009-2013**

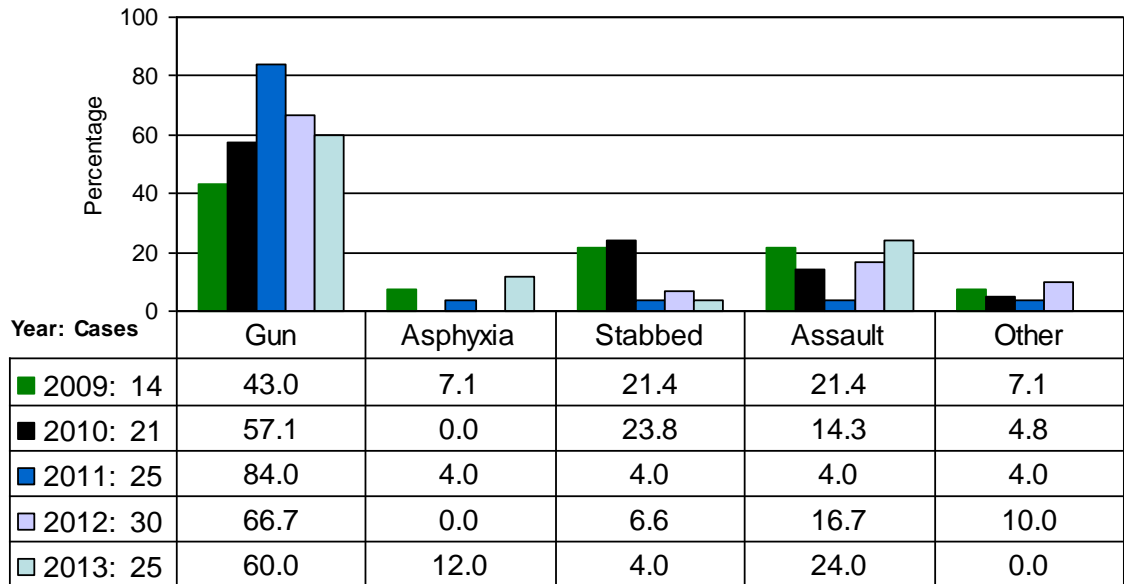


**Figure 12: Homicides by Age, 2009-2013**



# Manner of Death

**Figure 13: Homicide Cases by Method Used, 2009-2013**



**Table 2: Gun Homicides by Age, 2009-2013**

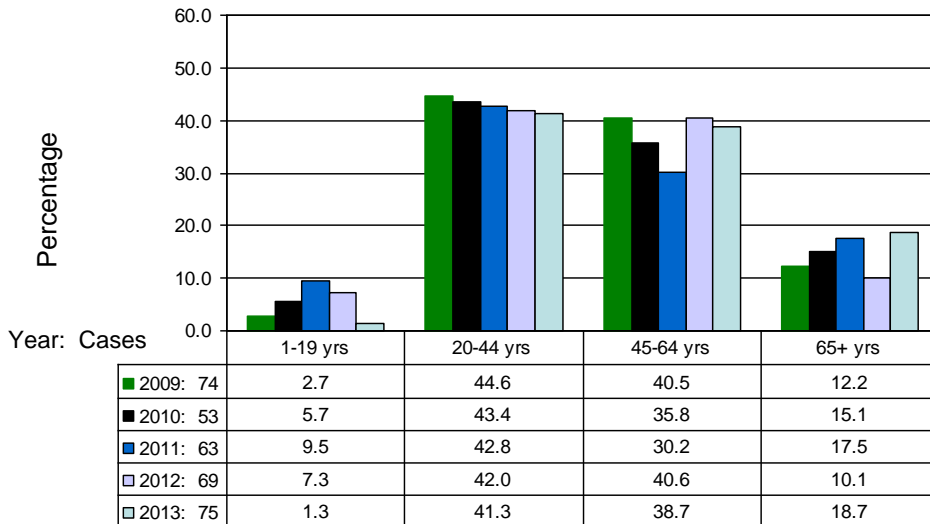
Year: Cases	AGE			
	0-19 yrs	20-29 yrs	30-39 yrs	40+ yrs
2009: 6	1	3	2	0
2010: 12	5	1	2	4
2011: 21	5	9	3	4
2012: 20	1	11	3	5
2013: 15	4	5	1	5

**Table 3: Suicide Cases by Race, 2009-2013**

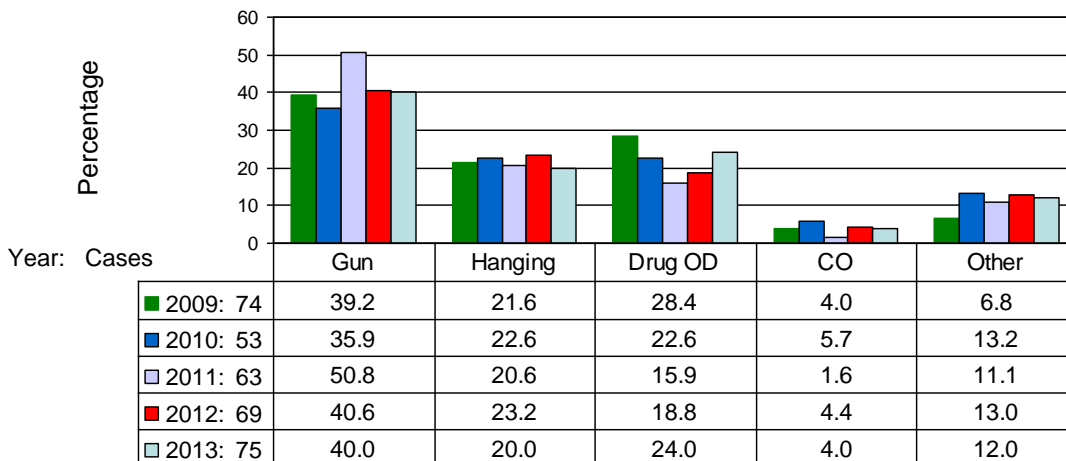
	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Native American</u>	<u>Asian</u>
2009: 74	93.2%	5.4%	1.4%	0.0%	0.0%
2010: 53	86.8%	11.3%	1.9%	0.0%	0.0%
2011: 63	88.9%	6.3%	3.2%	1.6%	0.0%
2012: 69	89.9%	5.8%	2.9%	0.0%	1.4%
2013: 75	90.7%	1.3%	6.7%	0.0%	1.3%

# Manner of Death

**Figure 14: Suicide Cases by Age, 2009-2013**



**Figure 15: Suicide Cases by Method Used, 2009-2013**

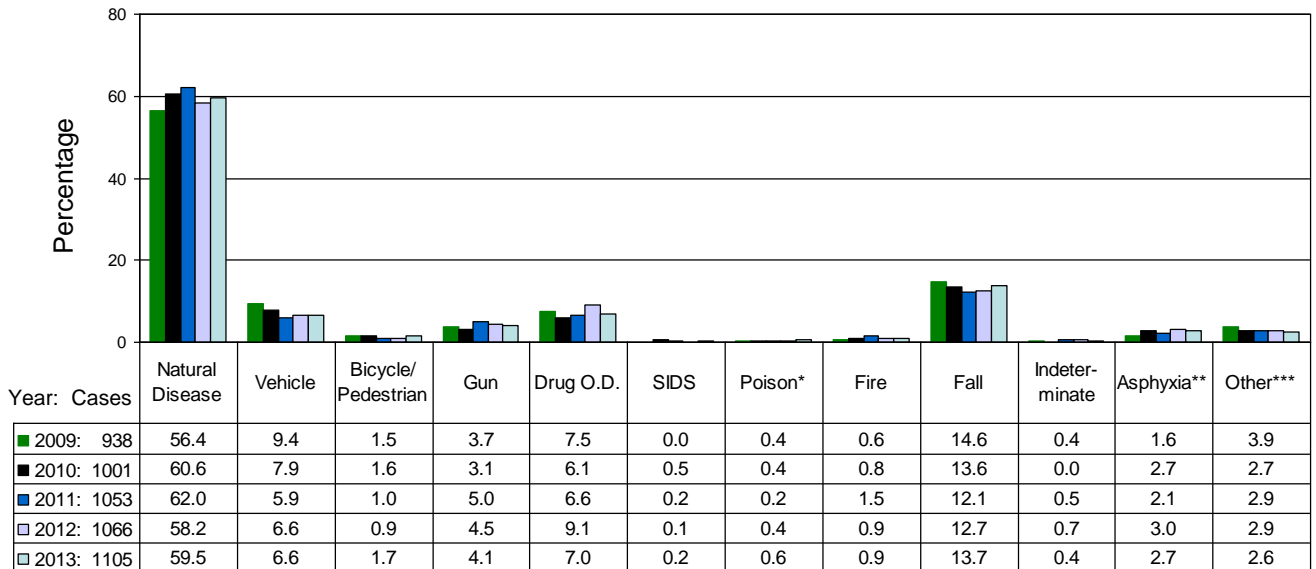


In 2013, CO is carbon monoxide poisoning, while Other consists of asphyxia (1), exsanguination (1), falls (1), fire (2), stabbing (2) and pedestrian (2).

Of the 75 suicide deaths for 2013, females accounted for 21 (28.0%) deaths, while males accounted for 54 (72.0%).

# Cause of Death

**Figure 16: Medical Examiner Cases by Cause of Death, 2009-2013**

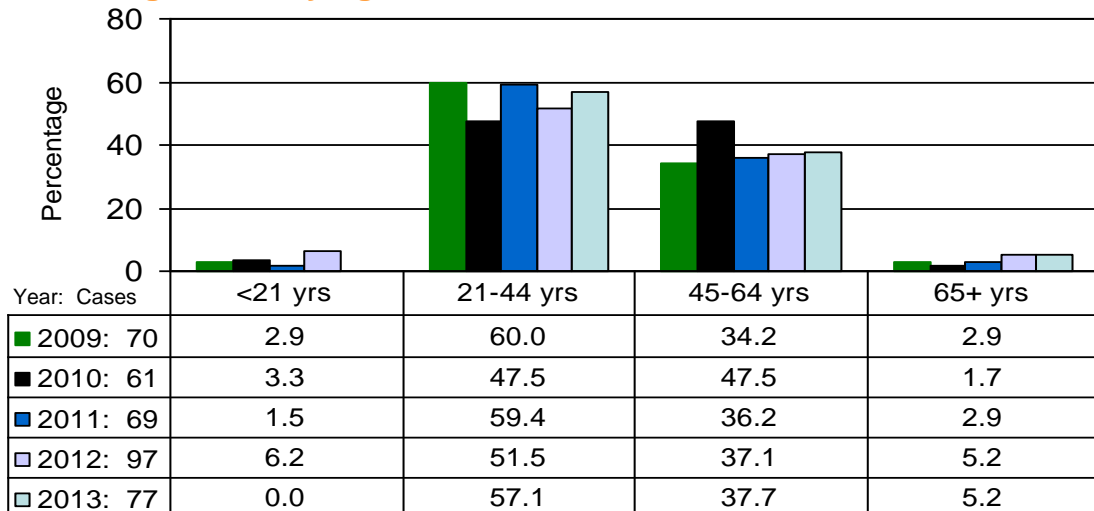


\*Poison includes carbon monoxide poisoning (6; 85.7%), ingestion of ethylene glycol (1; 14.3%).

\*\*Asphyxia includes deaths from choking on food (4; 13.3%), hanging (15; 50.0%), suffocation, (2; 6.8%), positional asphyxia (4; 13.3%), crushed by object (1; 3.3%) and strangulation (4; 13.3%).

\*\*\*Other is comprised of deaths from hyperthermia (1; 3.4%), exsanguination (2; 7.0%), stabbing (3; 10.4%), drowning (7; 24.1%), assault-physical abuse (6; 20.7%), fractured neck d/t swimming accident (1; 3.4%), crushed by object (4; 14.0%), medical complications from choking on food (1; 3.4%), aspiration of dental appliance (1; 3.4%), cutaneous scald type injury (1; 3.4%), surgical procedure (1; 3.4%), and head injury-unknown origin (1; 3.4%).

**Figure 17: Drug Deaths by Age, 2009-2013**

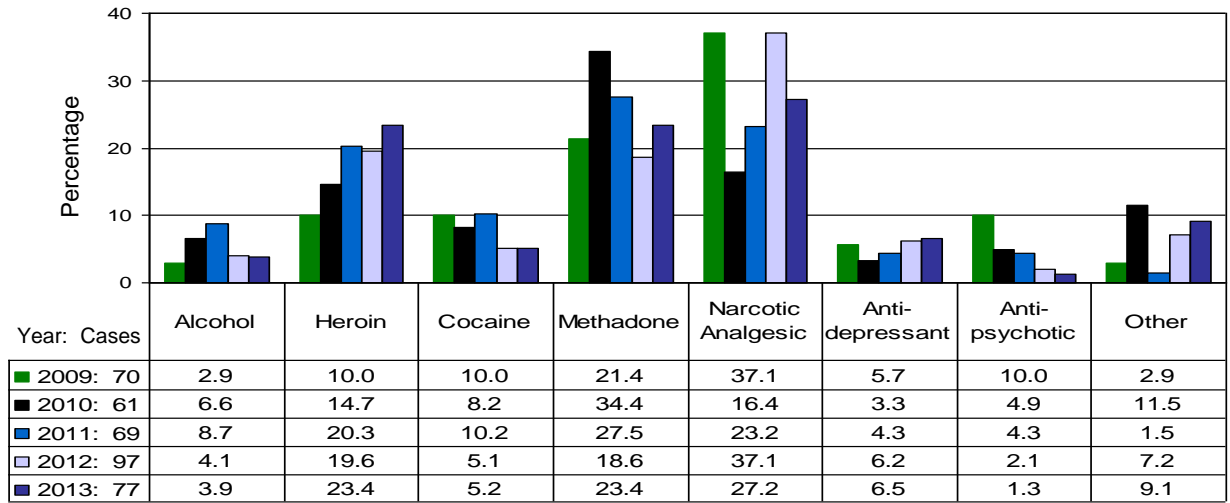


**Table 4: Drug Deaths by Gender, 2013**

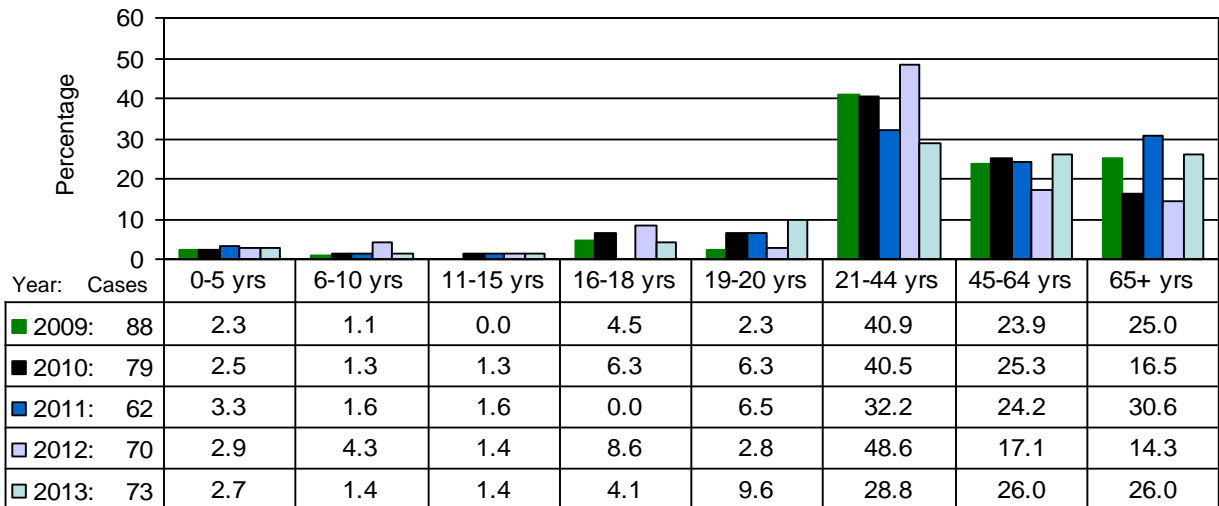
	Female (32)	Male (45)
Accident	17	41
Suicide	14	4
Indeterminate	1	

## Cause of Death

**Figure 18: Drug Deaths by Drug of First Mention, 2009-2013**



**Figure 19: Vehicular Deaths by Age, 2009-2013**



**Table 5: Vehicular Deaths by Gender, 2009-2013**

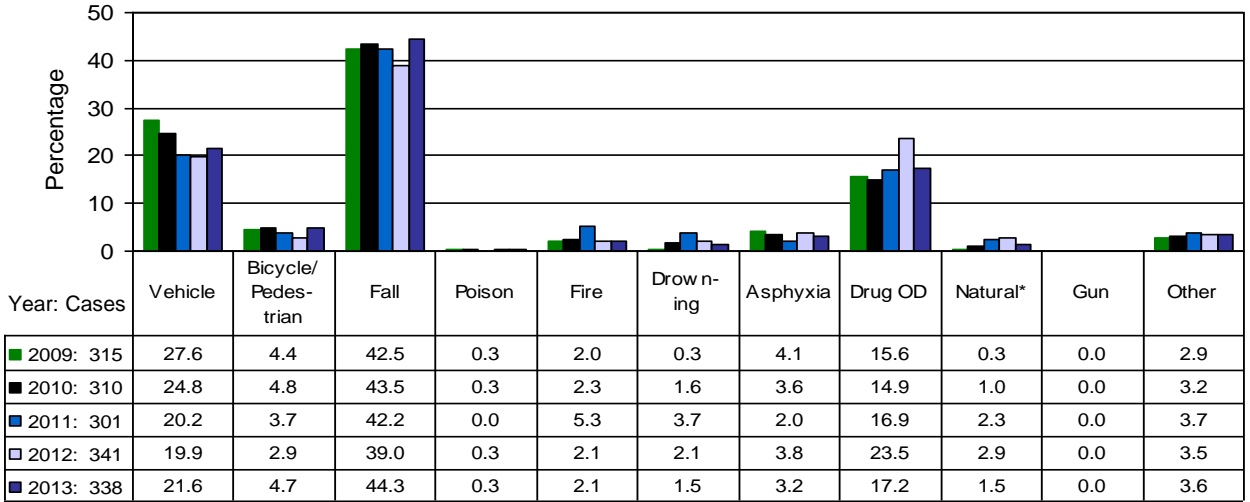
	Female	Male
2009: 88	43.2% (38)	56.8% (50)
2010: 79	32.9% (26)	67.1% (53)
2011: 62	32.3% (20)	67.7% (42)
2012: 70	30.0% (21)	70.0% (49)
2013: 73	28.8% (21)	71.2% (52)

**Table 6: Bicycle/Pedestrian Deaths by Age, 2009-2013**

	<21 yrs	21-44 yrs	45-64 yrs	65+ yrs
2009: 14	4	5	5	0
2010: 16	3	6	2	5
2011: 11	2	3	5	1
2012: 10	6	2	1	1
2013: 19	2	4	10	3

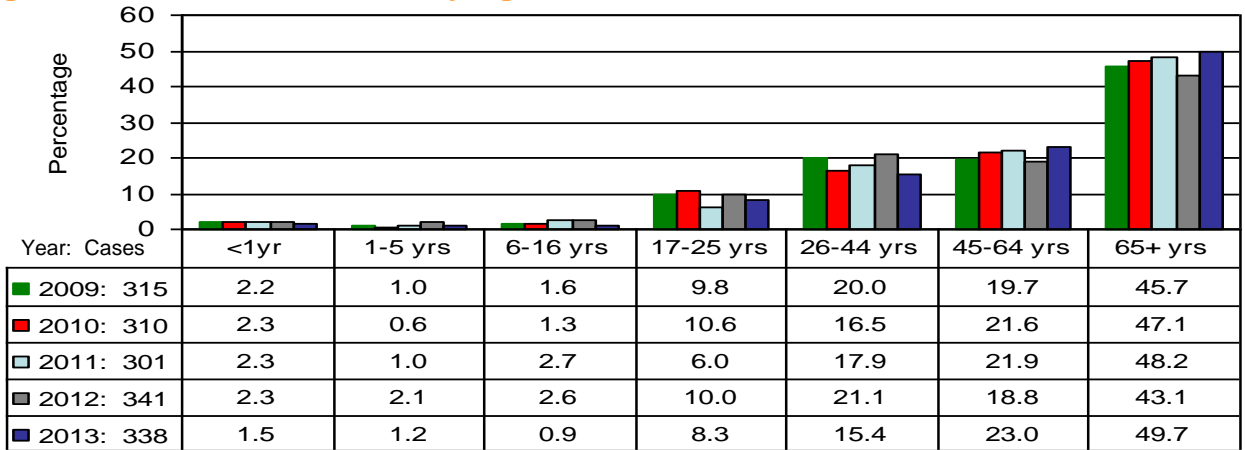
# Cause of Death

**Figure 20: Accidental Deaths by Cause, 2009-2013**

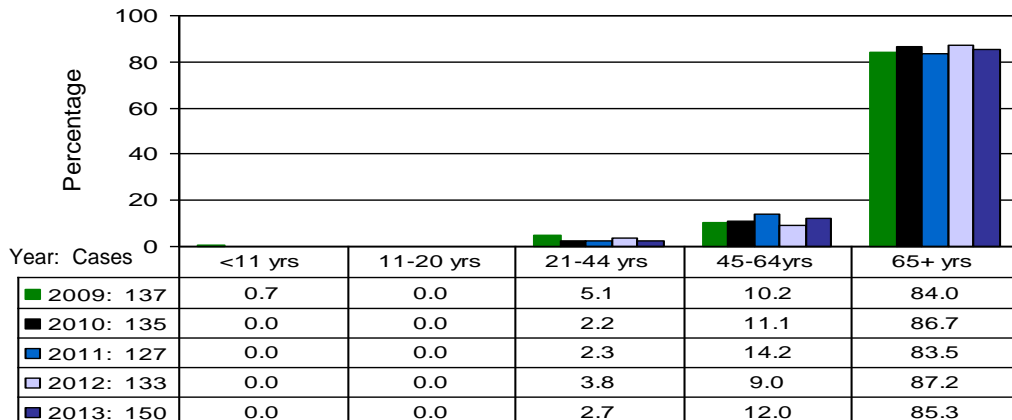


\*A natural cause of death can have a contributing factor that determines the death to be accidental. There were 5 deaths that fell into this category in 2013 from falls (3), methadone toxicity (1), and mixed drug toxicity (1).

**Figure 21: Accidental Deaths by Age, 2009-2013**



**Figure 22: Deaths Resulting from Falls by Age, 2009-2013**



## MISCELLANEOUS

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### Unclaimed Bodies 2009-2013

The Medical Examiner's Office handles all indigent burials in Kent County even if they do not fall under the medical examiner's jurisdiction with the assistance of the Michigan Department of Human Services. In 2013, the office processed 34 unclaimed bodies.

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Medical Examiner Cases	15	9	12	10	18
Not Medical Examiner Cases	6	15	24	20	16
Total Cases	21	24	26	30	34

Deceased are considered unclaimed when they absolutely have no legal next of kin, and others fall under this category when family members either can not afford the expense of a burial/cremation or just do not want anything to do with the funeral arrangements.

### Child Death Cases Reviewed 2009-2013

The Child Death Review Team reviews the deaths of those in Kent County who are 18 and younger. In 2013, there were 22 child death cases reviewed. Of these cases, 5 were deaths from 2012 and 17 were deaths from 2013.

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Natural	3	2	5	3	7
SIDS	1	4	1	1	0
Vehicular Accident	2	4	3	7	4
Accidental	8	7	8	14	5
Suicide	2	3	1	5	1
Homicides	3	6	5	1	5
Indeterminate	2	0	4	2	0
Total Cases	21	26	27	33	22

Natural includes deaths from medical complications of cardiac arrest with other significant conditions of chronic lung disease (1); bacterial meningitis (1); acute subarachnoid hemorrhage due to ruptured saccular aneurysm of brain (1); cerebral edema due to cerebral ischemia due to status epilepticus (1); lymphocytic laryngotracheitis-probable viral-type (1); medical complications of cerebral palsy (1); and nodoventricular (Mahaim) track (1).

Accidental includes deaths from drowning (1); suffocation, face down in pillow (1); face down in bassinet (1); soft bedding & co-sleeping (1); and TV fell on child (1).

Suicide includes death by hanging (1).

Homicide includes death by gun (4); and blunt force (1).

## **Kent County Medical Examiner 2013 Annual Report**

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