

# Kent County Medical Examiner



## 2010 Annual Report

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

## 2010 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 is now accredited by the National Association of Medical Examiners (NAME) for a three year period. 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 2010, there were 5,232 deaths in Kent County. The Medical Examiner's Office was contacted regarding 1,368 of these deaths of which 328 required autopsies.

However, while the high standards to which we adhere provide the foundation for quality investigative practices, it is the practitioners – the Deputy Chief Medical Examiner and Medical Examiner Investigators - who ultimately yield results. 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. This excellent work was achieved at nearly a 25% reduction in expenses from 2009 despite a 6% increase in workload. 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 2010 Annual Report.

Respectively submitted,



Stephen D. Cohle, MD  
Chief Medical Examiner

# Office of the Kent County Medical Examiner

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700 Fuller N.E., Grand Rapids, MI 49503  
Phone (616) 632-7247; Fax (616) 632-7088  
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

Lindsey E. Bonner  
Medical Examiner Investigator

Jason S. Chatman (6/2000-6/2010)  
Medical Examiner Investigator

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

Richard Washburn  
Kent County Conveyance Specialist and  
Scene Investigator

Dolly M. Olthoff  
Medical Examiner Support Staff

Carmen M. Perez  
Medical Examiner Support Staff and  
Child Death Review Coordinator

## 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, 2009 and 2010

	2009		2010	
	Amount	Percentage	Amount	Percentage
Medical examiner (compensation)	\$ 180,096	14.8%	\$ 178,030	18.0%
Autopsies	839,164	69.2%	613,045	62.1%
Body transport	82,417	6.8%	82,380	8.3%
Support services	52,148	4.3%	53,944	5.5%
Administration	60,000	4.9%	60,000	6.1%
<b>Total</b>	<b>\$1,213,825</b>	<b>100.0%</b>	<b>\$ 987,399</b>	<b>100.0%</b>

Average cost per case investigated                                \$1,294                                \$986

## 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.

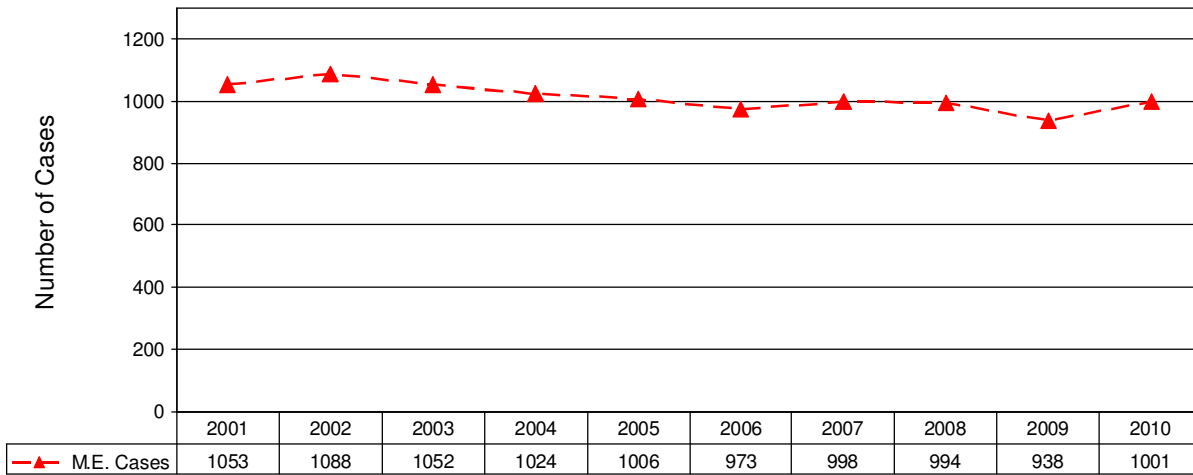
\*\*\*The 48 hour requirement triggers an investigation when there has been no medical attendance of any kind (i.e., nursing care, etc.)

### 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 may be significant injuries that mandate full autopsy.

# 2010 Medical Examiner Caseload

**Figure 1: Accepted Kent County Medical Examiner Cases, 2001-2010**

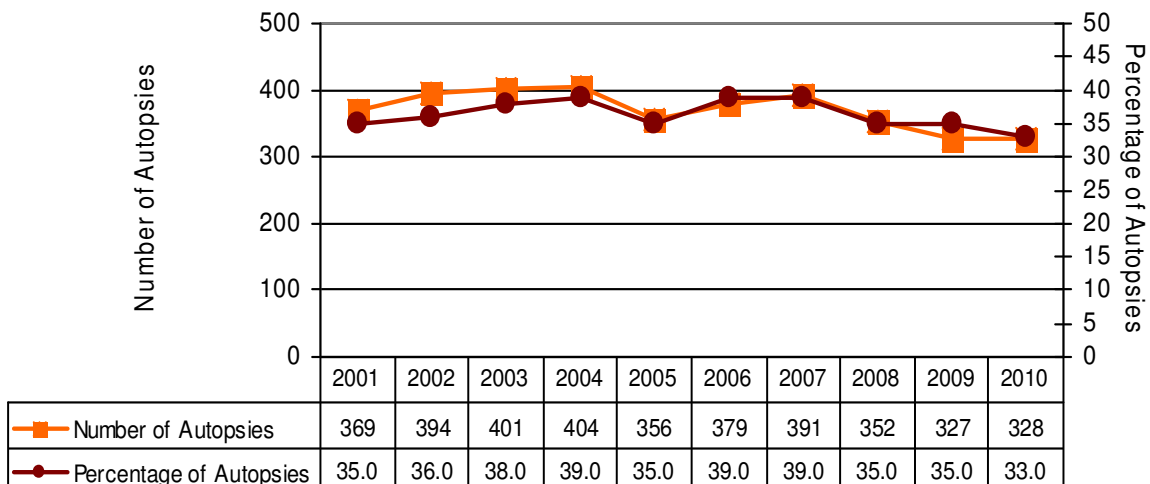


**Total Referred Medical Examiner Cases in 2010: 1,368**

Accepted	1,001	73.2%
Declined	367	26.8%

In 2010, there were 5,232 deaths in Kent County. The medical examiner was contacted regarding 1,368 of these deaths. Only 1,001 cases were accepted for investigation, while 367 were declined and did not fall within the requirements for investigation by the Medical Examiner's Office.

**Figure 2: Medical Examiner Cases with Autopsy, 2001-2010**



Of the 328 autopsies performed, 305 were charged to Kent County. The remaining 23 autopsies were performed either by a request from the family or another county.

## 2010 Medical Examiner Caseload

Figure 3: Referred Medical Examiner Caseload by Month, 2006-2010

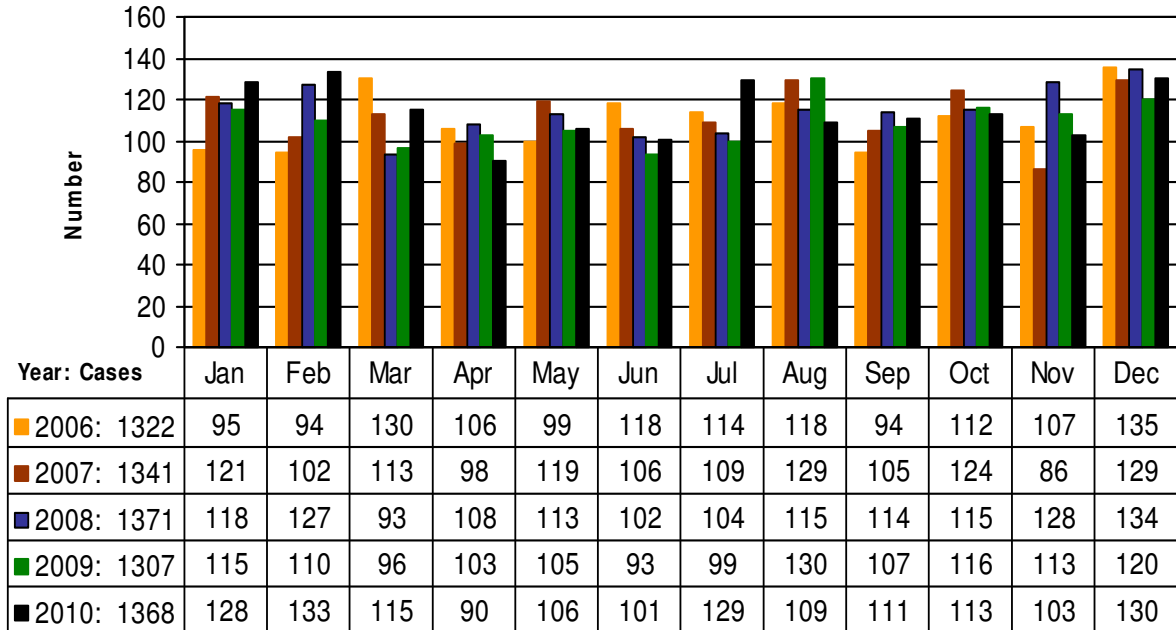
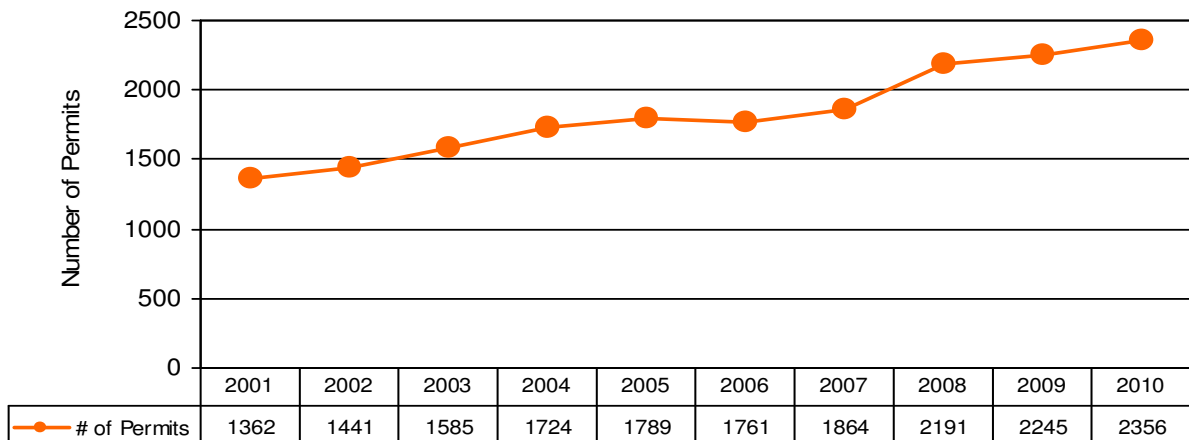
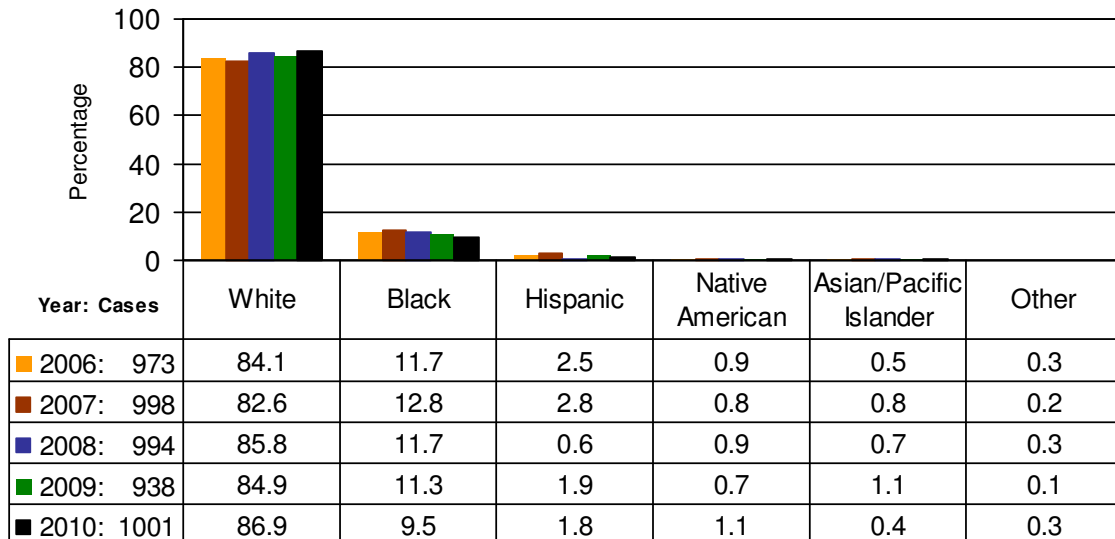


Figure 4: Cremation Permits Issued, 2001-2010

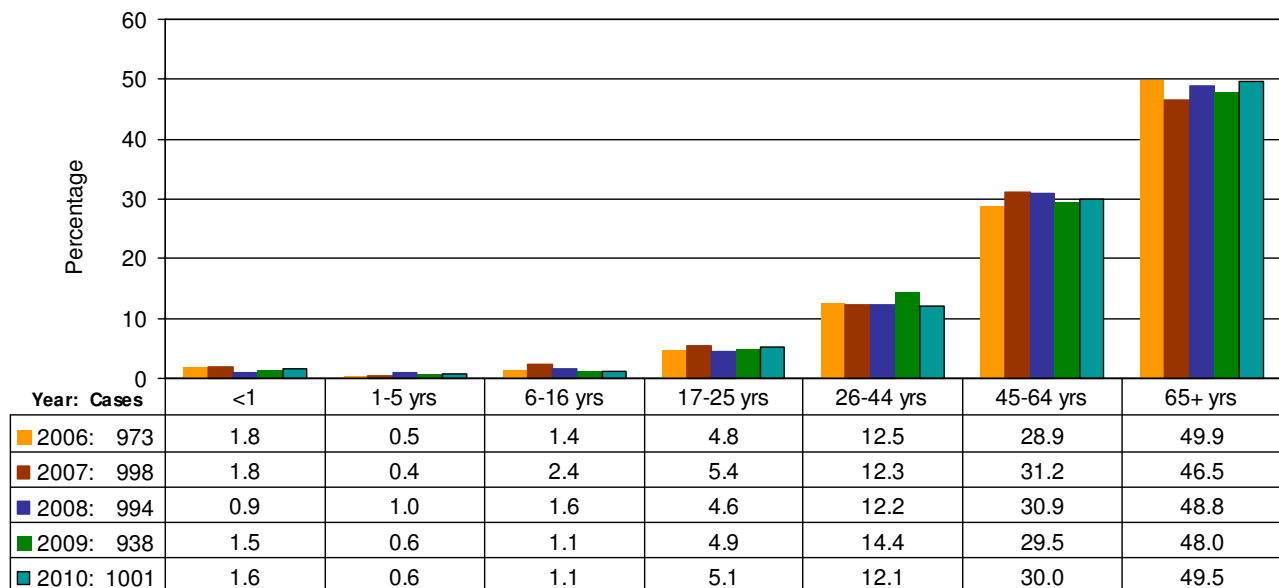


## Demographics of Medical Examiner Cases

**Figure 5: Medical Examiner Cases by Race/Ethnicity, 2006-2010**



**Figure 6: Medical Examiner Cases by Age at Death, 2006-2010**



**Table 1: Medical Examiner Cases by Gender, 2006-2010**

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Female	39.5%	38.6%	36.5%	37.7%	37.8% (378 cases)
Male	60.5%	61.3%	63.5%	62.3%	61.9% (620 cases)
Unknown		0.1%(fetus)			0.3% (3 cases-bones)

# Manner of Death

Figure 7: Medical Examiner Cases by Manner of Death, 2001-2010

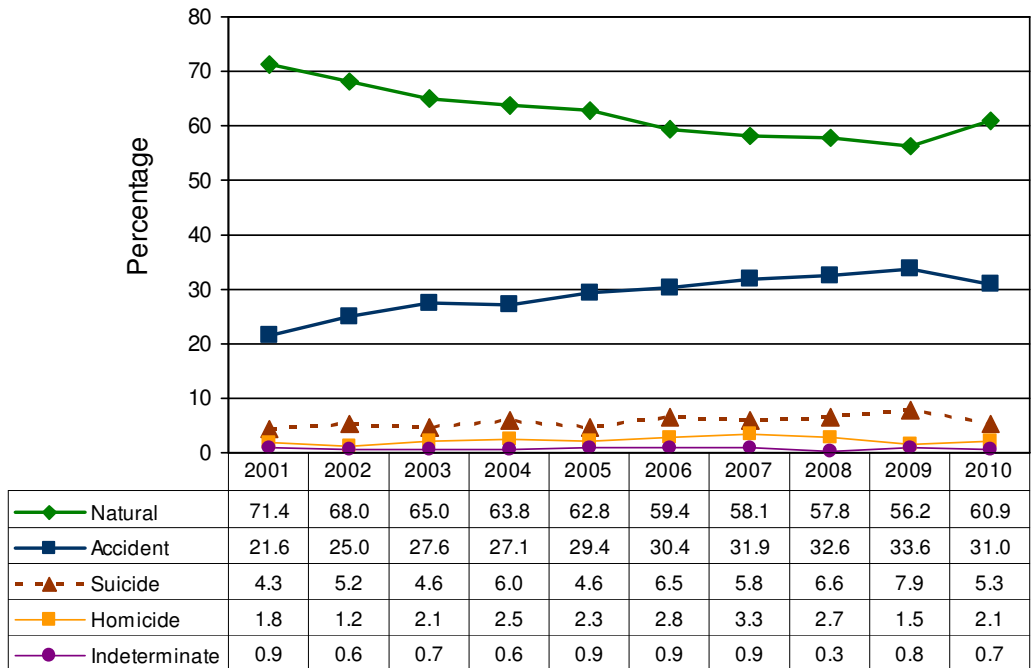
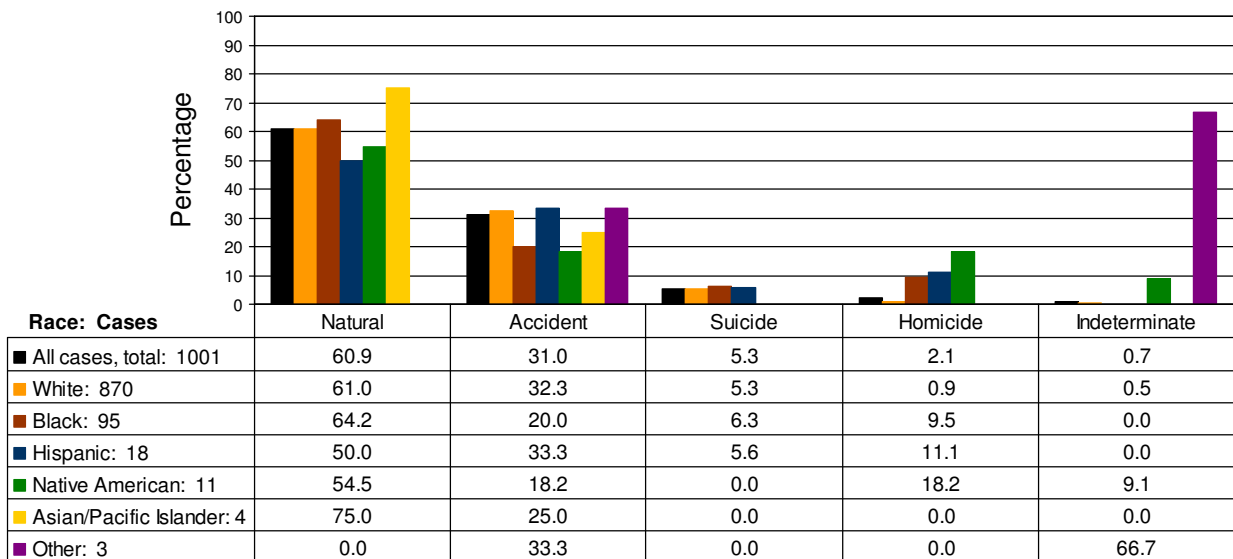


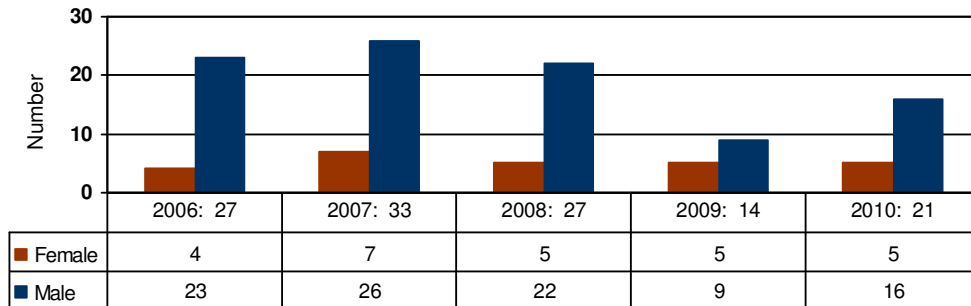
Figure 8: Manner of Death by Race/Ethnicity, 2010



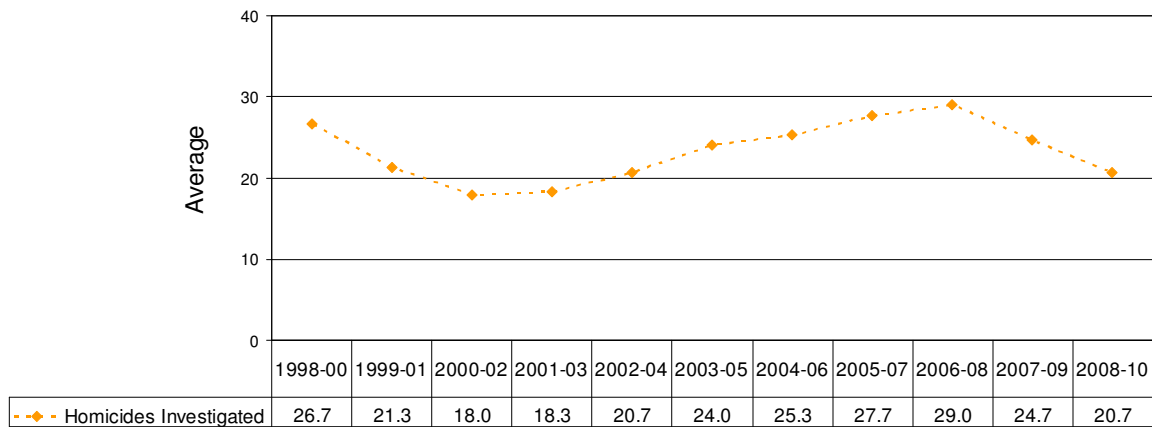


# Manner of Death

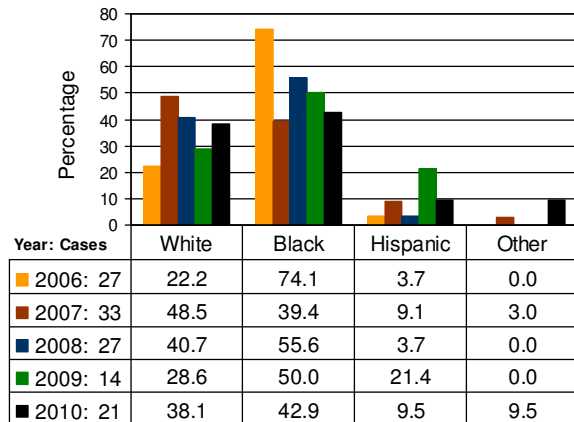
**Figure 9: Kent County Homicides by Gender, 2006-2010**



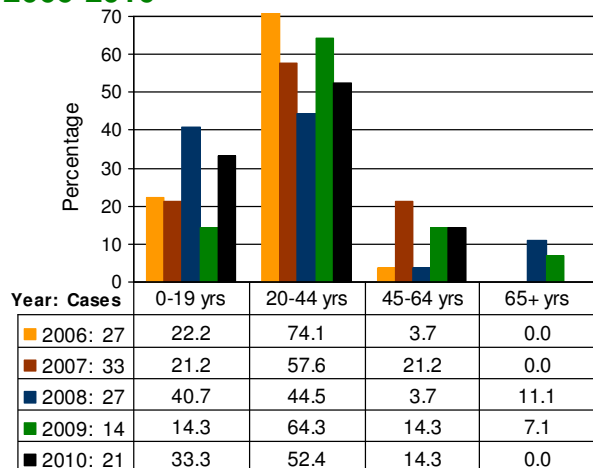
**Figure 10: Kent County Homicides, Three-Year Moving Averages, 1998-2010**



**Figure 11: Homicides by Race, 2006-2010**

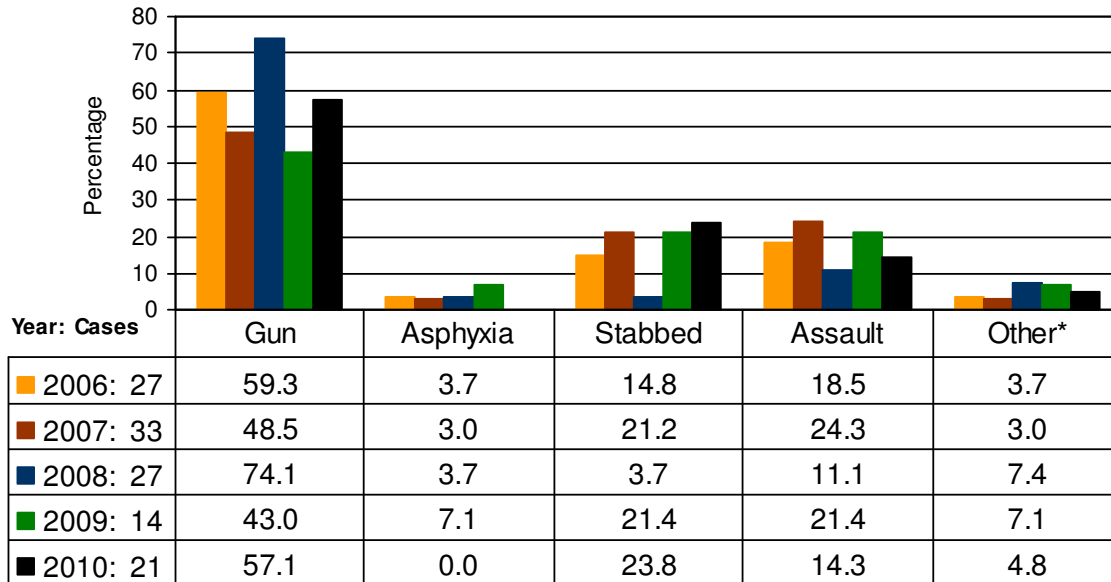


**Figure 12: Homicides by Age, 2006-2010**



## Manner of Death

**Figure 13: Homicide Cases by Method Used, 2006-2010**



\*For 2010, there was 1 homicide where the cause of death was due to pedestrian struck by vehicle.

**Table 2: Gun Homicides by Age, 2006-2010**

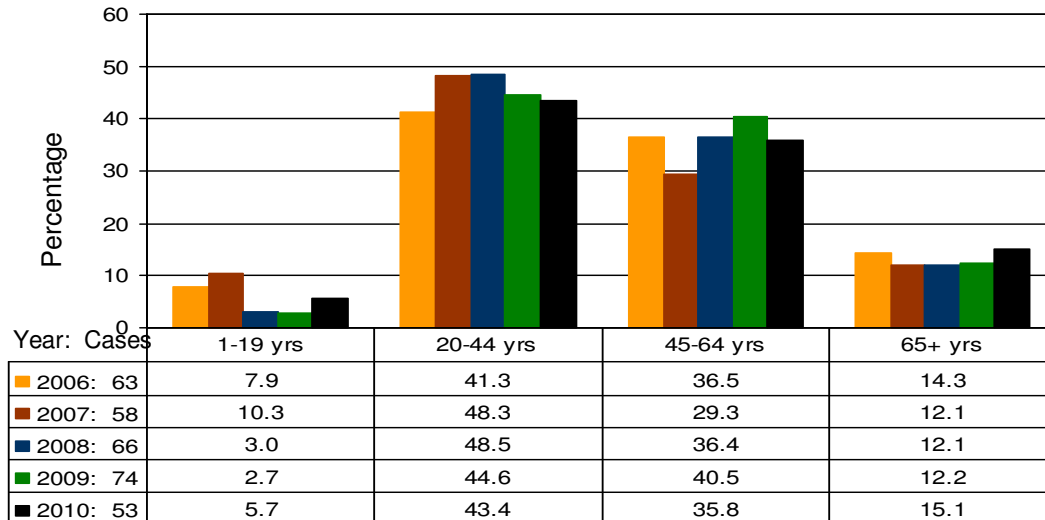
Year: Cases	AGE			
	0-19 yrs	20-29 yrs	30-39 yrs	40+ yrs
2006: 16	3	7	2	4
2007: 16	4	8	2	2
2008: 20	8	6	3	3
2009: 6	1	3	2	0
2010: 12	5	1	2	4

**Table 3: Suicide Cases by Race, 2006-2010**

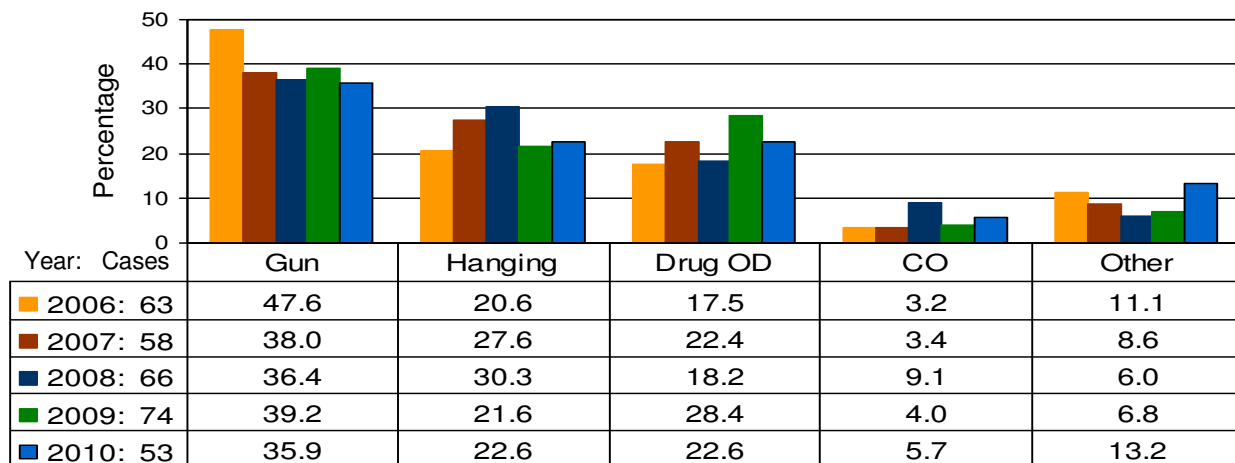
	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Native American</u>	<u>Asian</u>
2006: 63	92.1%	4.8%	3.2%	0.0%	0.0%
2007: 58	89.7%	5.2%	1.7%	1.7%	1.7%
2008: 66	89.4%	7.6%	1.5%	1.5%	0.0%
2009: 74	93.2%	5.4%	1.4%	0.0%	0.0%
2010: 53	86.8%	11.3%	1.9%	0.0%	0.0%

## Manner of Death

**Figure 14: Suicide Cases by Age, 2006-2010**



**Figure 15: Suicide Cases by Method Used, 2006-2010**

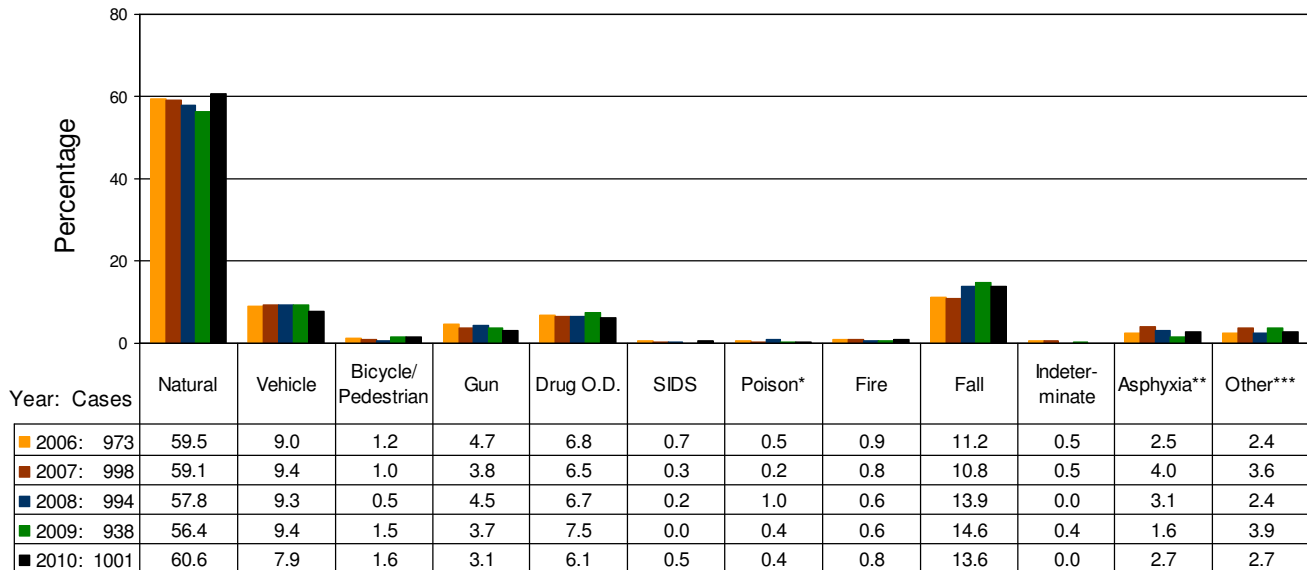


In 2010, CO is carbon monoxide poisoning, while Other consists of drowning (1), fire (1), asphyxia (2), exsanguination (1) and motor vehicle (2).

Of the 53 suicide deaths for 2010, females accounted for 14 (26.4%) deaths, while males accounted for 39 (73.6%).

## Cause of Death

**Figure 16: Medical Examiner Cases by Cause of Death, 2006-2010**

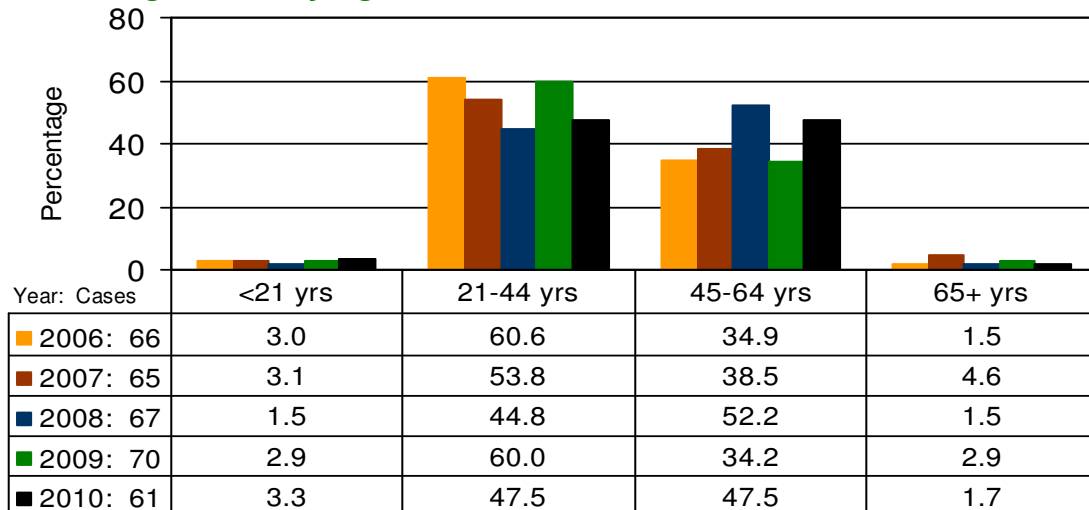


\*Poison includes carbon monoxide poisoning (4).

\*\*Asphyxia includes deaths from choking on food (4; 14.8%), hanging (14; 51.9%), strangulation (1; 3.7%), trapped under object (3; 11.1%), smothering/suffocation (co-sleeping) (2; 7.4%), choking on medication (1; 3.7%) and suffocation (2; 7.4%).

\*\*\*Other is comprised of deaths from hyperthermia (1; 3.7%), electrocution (3; 11.1%), exsanguination (1; 3.7%), jumping from moving vehicle (1; 3.7%), stabbing (5; 18.6%), diving accident (1; 3.7%), drowning (6; 22.2%), anoxic encephalopathy d/t wedging (1; 3.7%), arrhythmia d/t cold water emersion (1; 3.7%), medical complications from choking on food (1; 3.7%), physical abuse/assault (3; 11.1%), and unidentified bones (human 1; 3.7%, non-human 2; 7.4%).

**Figure 17: Drug Deaths by Age, 2006-2010**

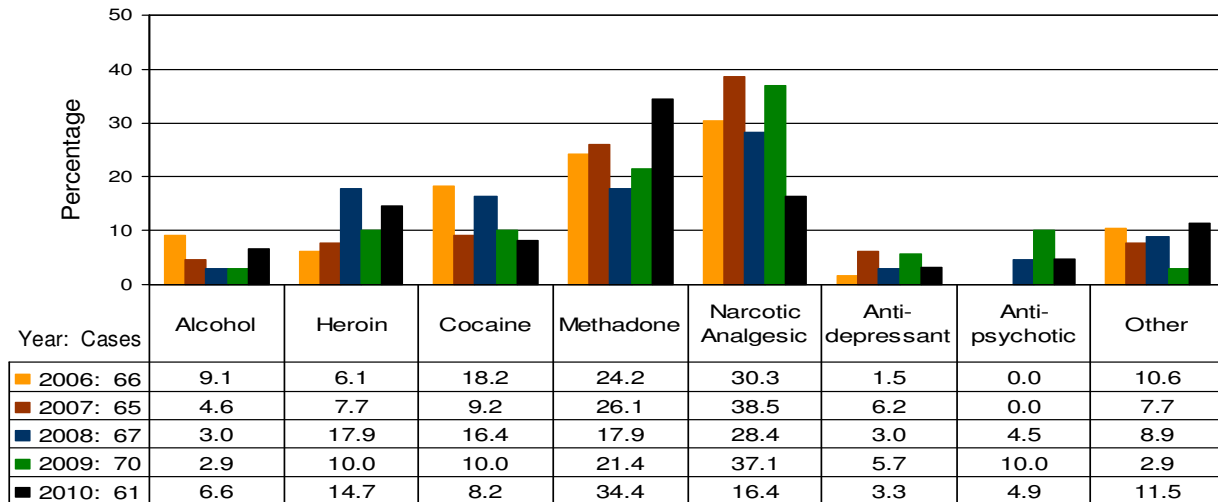


**Table 4: Drug Deaths by Gender, 2010**

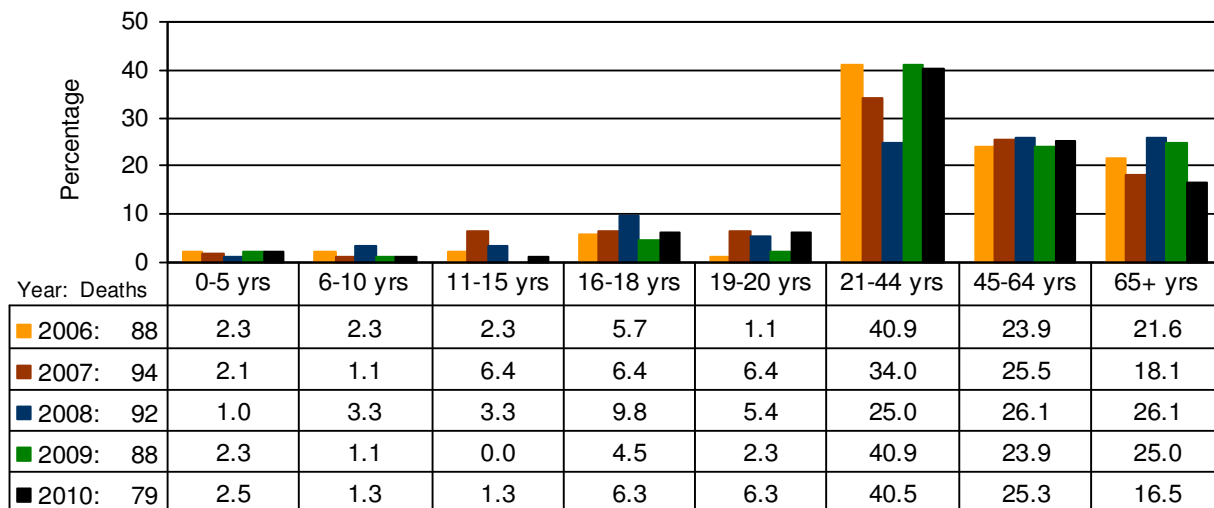
	<u>Female (22)</u>	<u>Male (39)</u>
Accident	14	32
Suicide	5	7
Indeterminate	3	0

## Cause of Death

**Figure 18: Drug Deaths by Drug of First Mention, 2006-2010**



**Figure 19: Vehicular Deaths by Age, 2006-2010**



**Table 5: Vehicular Deaths by Gender, 2006-2010**

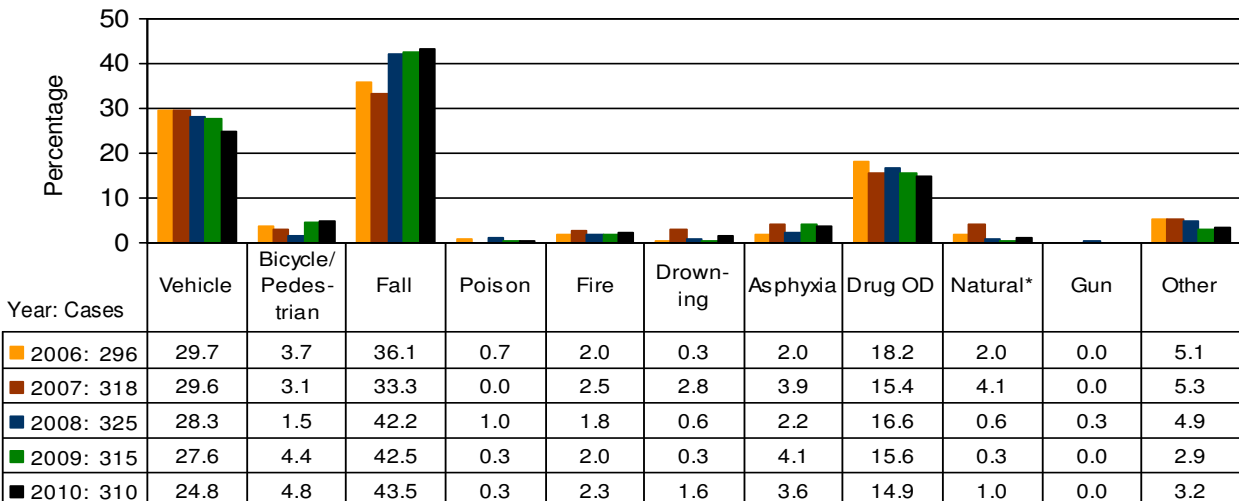
	Female	Male
2006: 88	28.4% (25)	71.6% (63)
2007: 94	28.7% (27)	71.3% (67)
2008: 92	29.3% (27)	70.7% (65)
2009: 88	43.2% (38)	56.8% (50)
2010: 79	32.9% (26)	67.1% (53)

**Table 6: Bicycle/Pedestrian Deaths by Age, 2006-2010**

	<21 yrs	21-44 yrs	45-64 yrs	65+ yrs
2006: 11	0	4	5	2
2007: 10	4	2	3	1
2008: 5	1	0	2	2
2009: 14	4	5	5	0
2010: 16	3	6	2	5

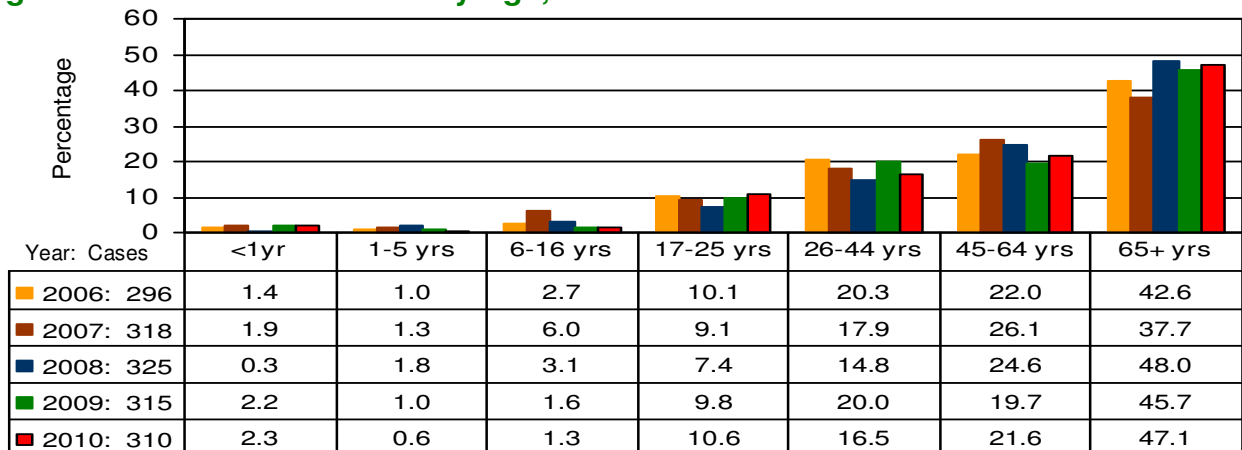
## Cause of Death

**Figure 20: Accidental Deaths by Cause, 2006-2010**

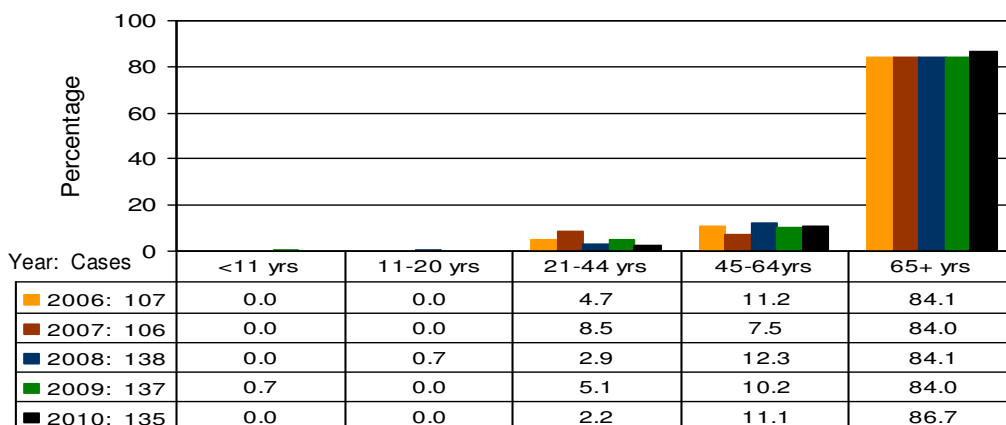


\*A natural cause of death can have a contributing factor that determines the death to be accidental. There were 3 deaths that fell into this category in 2010 from acute cocaine toxicity (1), fractured right ankle (1) and lacerated brachial artery (1).

**Figure 21: Accidental Deaths by Age, 2006-2010**



**Figure 22: Deaths Resulting from Falls by Age, 2006-2010**



## MISCELLANEOUS

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### Unclaimed Bodies 2006-2010

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 2010, this office processed 24 unclaimed bodies.

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Medical Examiner Cases	6	10	14	15	9
Not Medical Examiner Cases	13	8	15	6	15
Total Cases	14	18	29	21	24

Deceased are considered unclaimed when they absolutely have no legal next of kin, and others fall under this category due to 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 2006-2010

The Child Death Review Team reviews the deaths of those in Kent County who are 18 and younger. In 2010, there were 26 child death cases reviewed. Of these cases, 5 were deaths from 2009 and 21 were deaths from 2010.

	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Natural	4	4	7	3	2
SIDS	5	5	2	1	4
Vehicular Accident	4	10	11	2	4
Accidental	4	11	7	8	7
Suicide	3	4	1	2	3
Homicide	2	5	5	3	6
Indeterminate	3	1	1	2	0
Total Cases	25	40	34	21	26

Natural includes deaths from medical complications of prematurity (1), ruptured saccular ((Berry) aneurysm of brain (1) and SIDS (4).

Vehicular Accident includes deaths from motor vehicles (3) and snowmobile (1).

Accidental includes deaths from suffocation (4; 3 co-sleeping and 1 couch), hyperthermia (1), hanging (1) and mixed drug toxicity (1).

Suicide includes deaths from gun (1) and hanging (2).

Homicide includes deaths from gun (4), shaken baby (1) and craniocerebral trauma (1).

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Created by:  
Carmen D. Marrero-Perez  
Medical Examiner Support Staff