

Kent County Medical Examiner



2011 Annual Report

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

2011 Kent County Medical Examiner Annual Report

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 2011, there were 5,393 deaths in Kent County. The Medical Examiner's Office was contacted regarding 1,479 of these deaths of which 317 required autopsies.

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. 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 2011 Annual Report.

Respectively submitted,



Stephen D. Cohle, MD
Chief Medical Examiner

Office of the Kent County Medical Examiner

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Medical Examiner Personnel

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 Chief Medical Examiner and
 Forensic Pathologist

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 Medical Examiner Investigator

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

Lindsey E. Pitsch
 Medical Examiner Investigator

John T. Connolly
 Medical Examiner Investigator

Richard Washburn
 Kent County Conveyance Specialist and
 Scene Investigator

Paul R. Davison, F-ABMDI
 Medical Examiner Investigator

Dolly M. Olthoff
 Medical Examiner Support Staff

Cynthia L. Debiak, RN
 Medical Examiner Investigator

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

Peter J. Noble
 Medical Examiner Investigator

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, 2010 and 2011

	2010		2011	
	<u>Amount</u>	<u>Percentage</u>	<u>Amount</u>	<u>Percentage</u>
Medical examiner (compensation)	\$ 178,030	18.0%	\$ 182,739	14.1%
Autopsies	613,045	62.1%	919,845	70.7%
Body transport	82,380	8.3%	88,112	6.8%
Support services	53,944	5.5%	49,804	3.8%
Administration	60,000	6.1%	60,000	4.6%
Total	\$ 987,399	100.0%	\$1,300,500	100.0%
 Average cost per case investigated	 \$986		 \$1,235	

Medical Examiner Reportable Deaths and Autopsy

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.

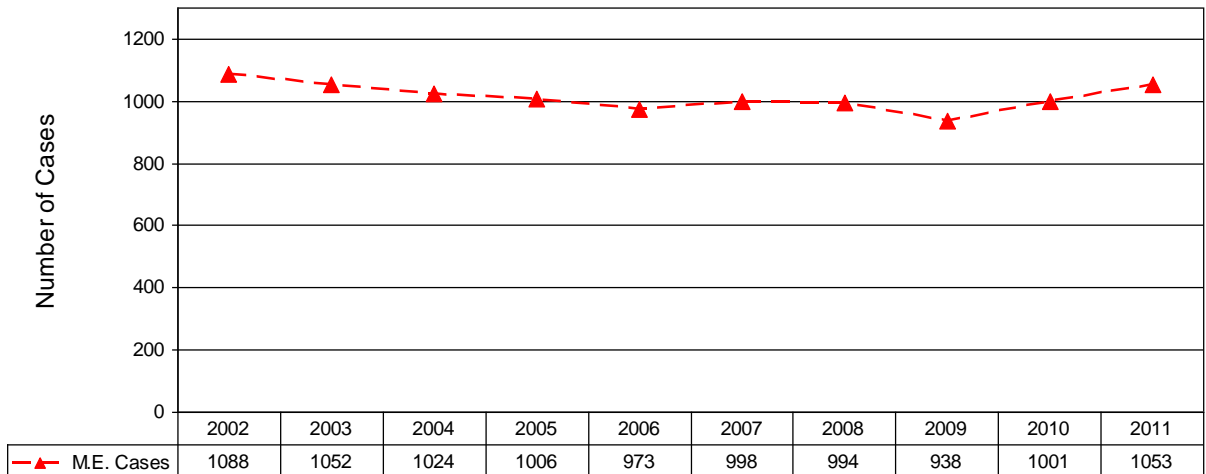
***The 48 hour requirement triggers an investigation when there has been no medical attendance of any kind (i.e., nursing care, etc.)

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.

2011 Medical Examiner Caseload

Figure 1: Accepted Kent County Medical Examiner Cases, 2002-2011

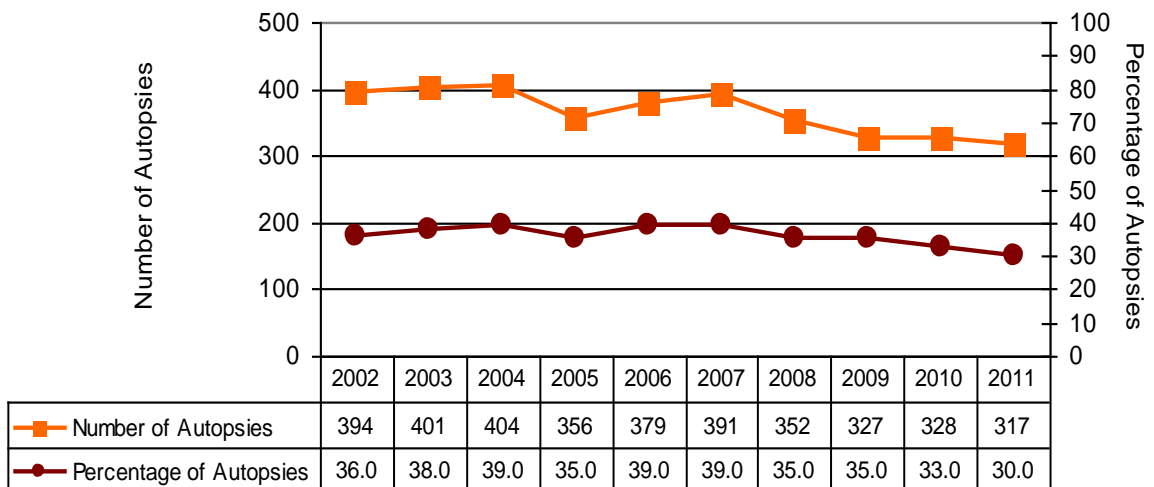


Total Referred Medical Examiner Cases in 2011: 1,479

Accepted	1,053	71.2%
Declined	426	28.8%

In 2011, there were 5,393 deaths in Kent County. The medical examiner was contacted regarding 1,479 of these deaths. Only 1,053 cases were accepted for investigation, while 426 were declined and did not fall within the requirements for investigation by the Medical Examiner’s Office.

Figure 2: Medical Examiner Cases with Autopsy, 2002-2011



Of the 317 autopsies performed, 306 were charged to Kent County. The remaining 11 autopsies were performed at the request of another county.

2011 Medical Examiner Caseload

Figure 3: Referred Medical Examiner Caseload by Month, 2007-2011

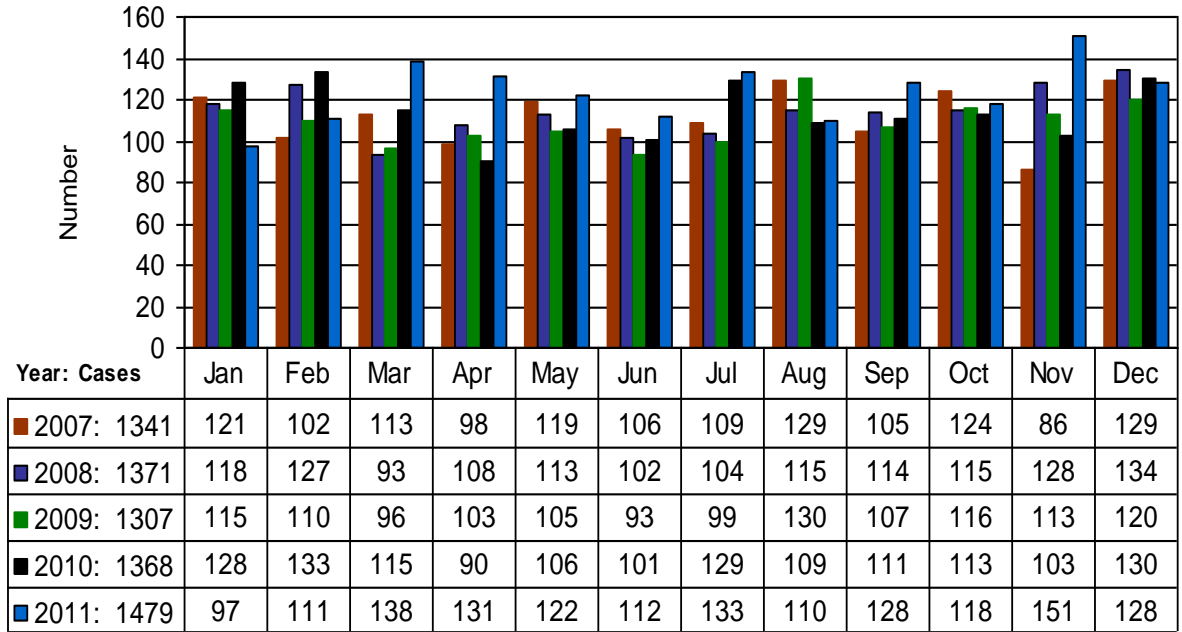
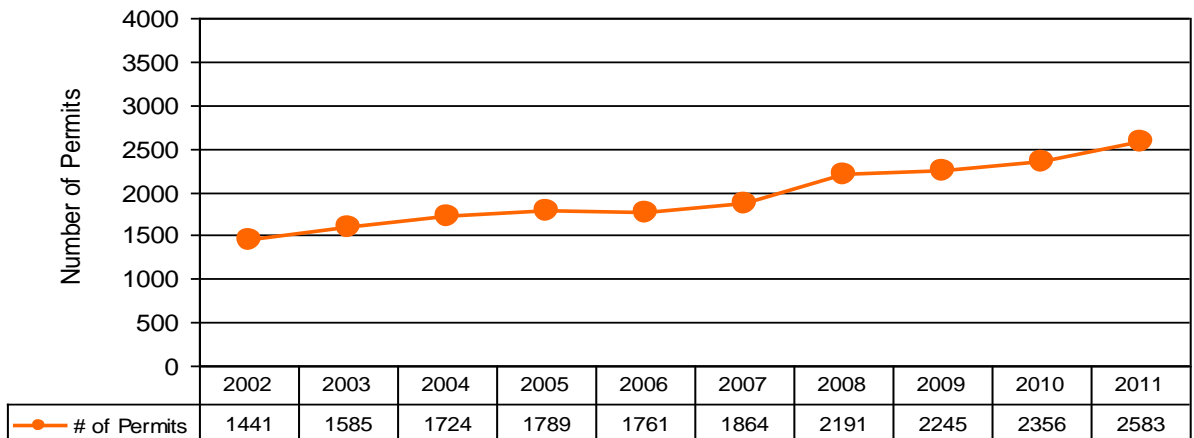


Figure 4: Cremation Permits Issued, 2002-2011



Demographics of Medical Examiner Cases

Figure 5: Medical Examiner Cases by Race/Ethnicity, 2007-2011

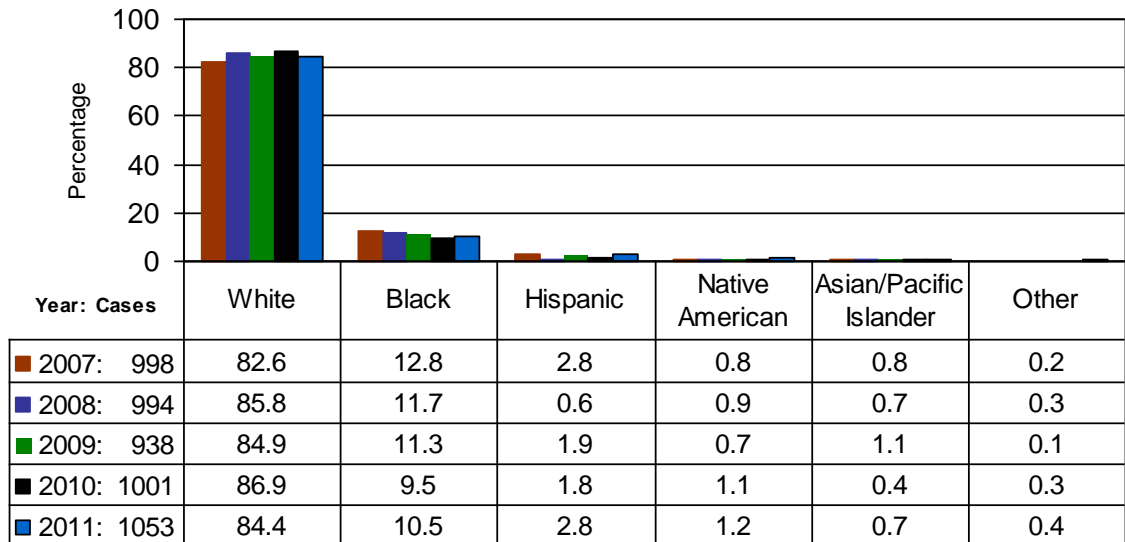


Figure 6: Medical Examiner Cases by Age at Death, 2007-2011

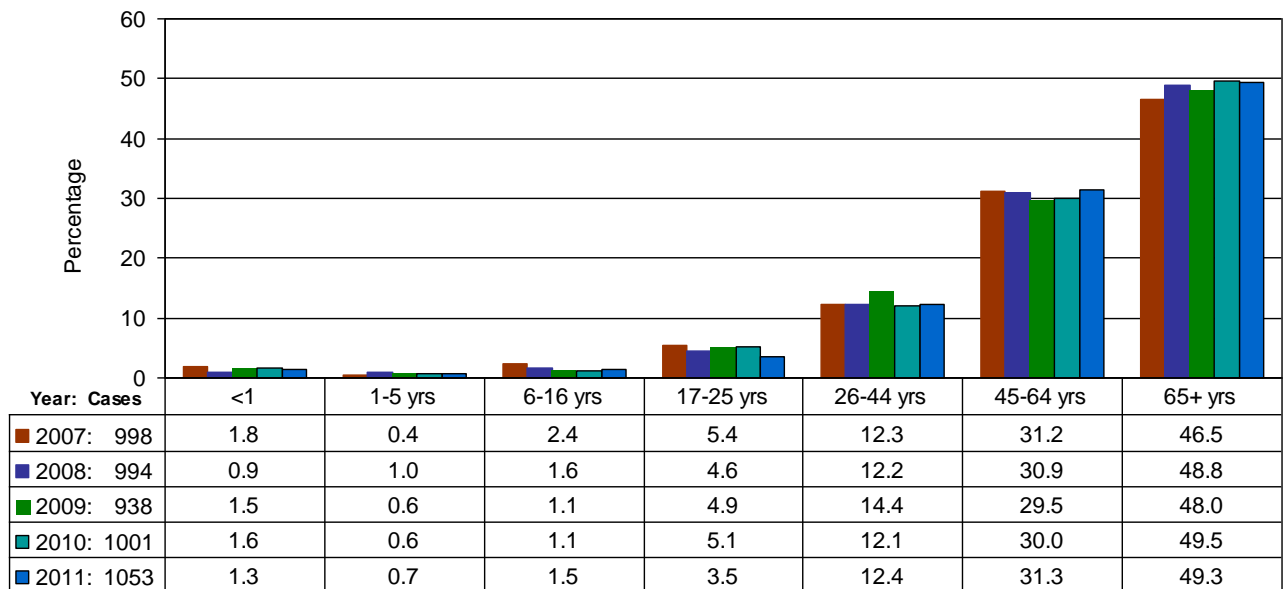


Table 1: Medical Examiner Cases by Gender, 2007-2011

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Female	38.6%	36.5%	37.7%	37.8%	39.5% (416 cases)
Male	61.3%	63.5%	62.3%	61.9%	60.5% (637 cases)
Unknown	0.1% (fetus)		0.3% (bones)		

Manner of Death

Figure 7: Medical Examiner Cases by Manner of Death, 2002-2011

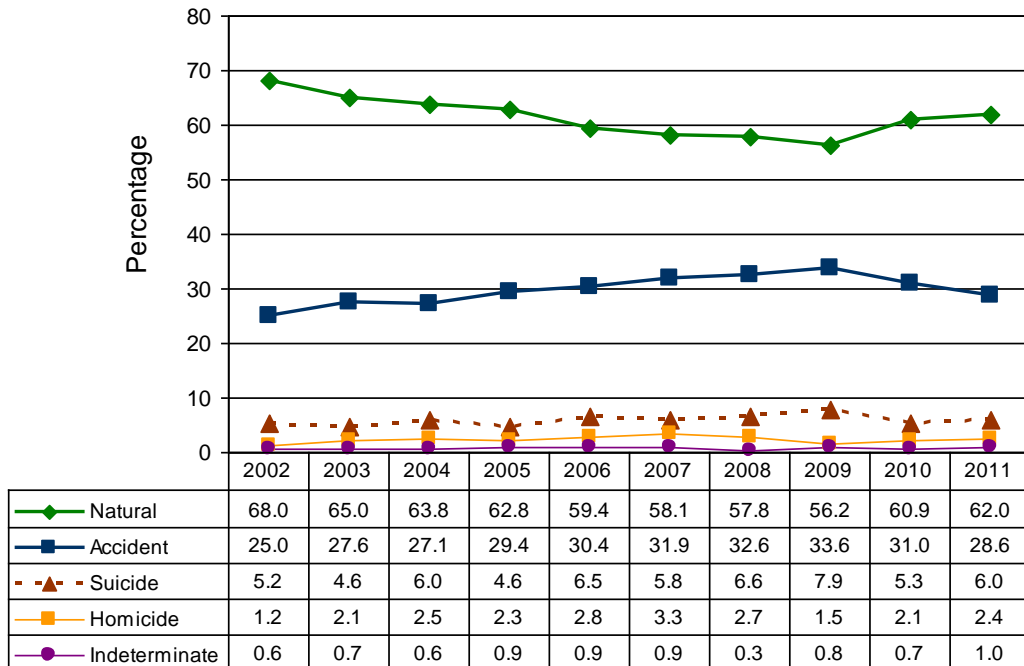
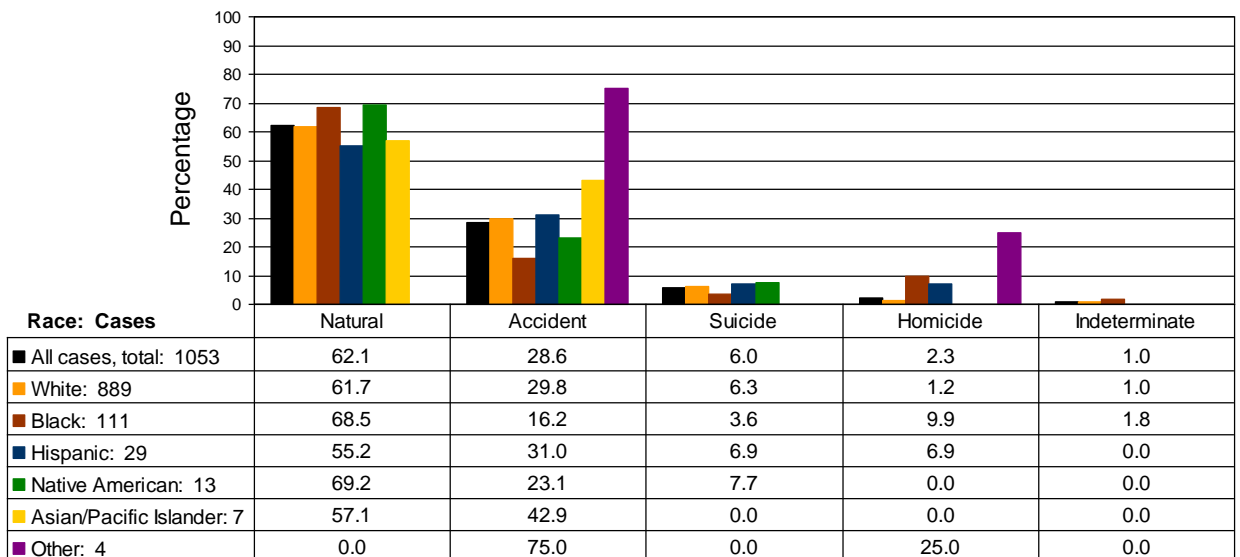


Figure 8: Manner of Death by Race/Ethnicity, 2011



Manner of Death

Figure 9: Kent County Homicides by Gender, 2007-2011

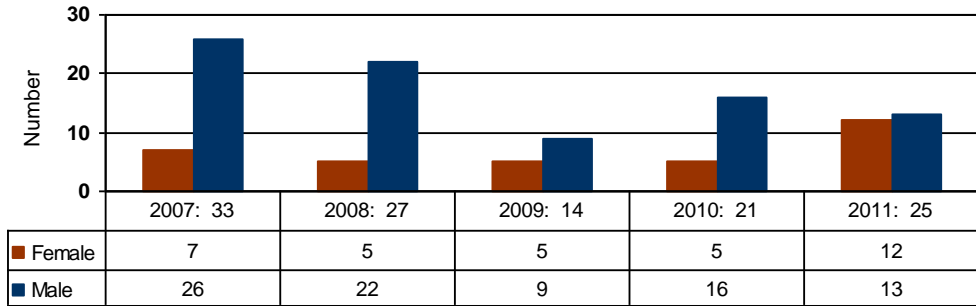


Figure 10: Kent County Homicides, Three-Year Moving Averages, 1999-2011

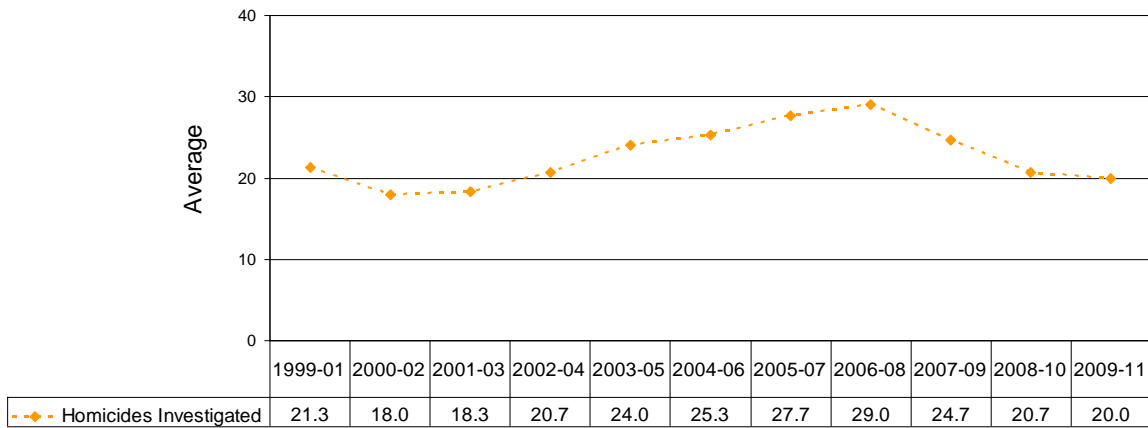


Figure 11: Homicides by Race, 2007-2011

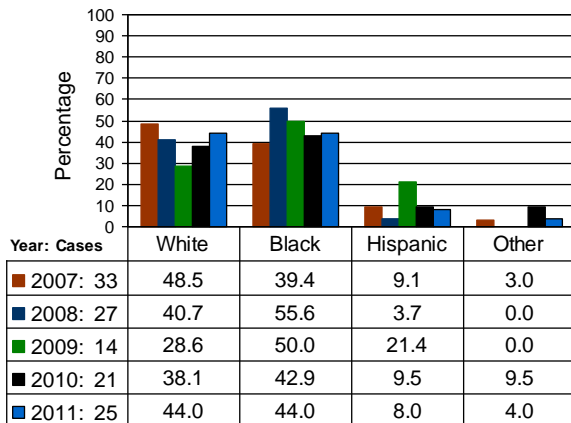
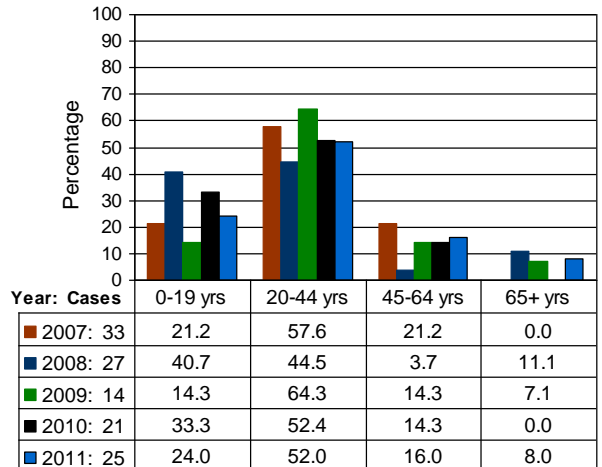
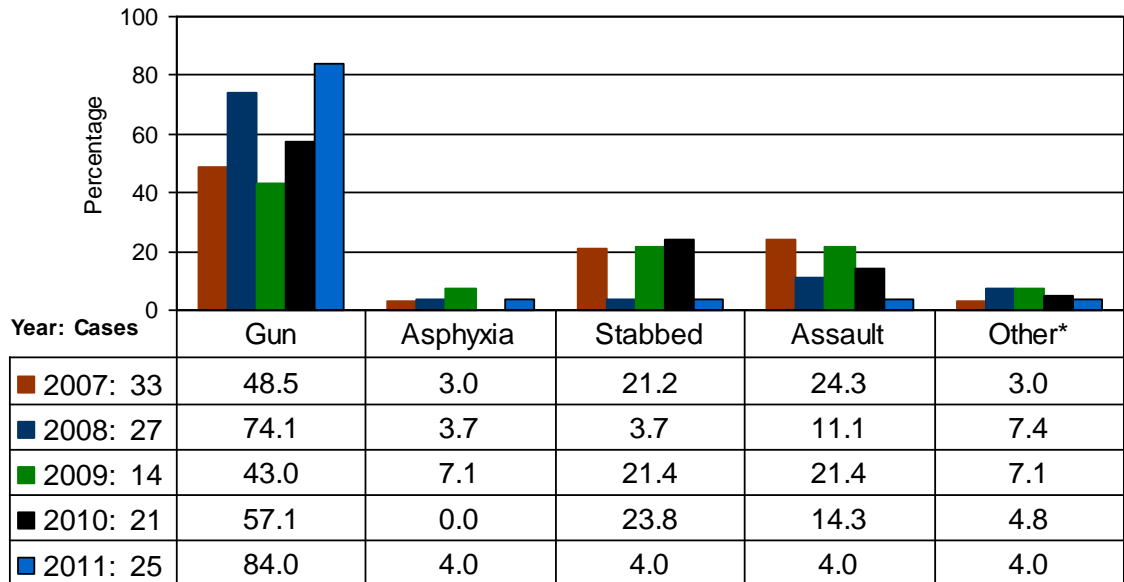


Figure 12: Homicides by Age, 2007-2011



Manner of Death

Figure 13: Homicide Cases by Method Used, 2007-2011



*For 2011, there was 1 homicide where the cause of death was due to blunt force injury of abdomen.

Table 2: Gun Homicides by Age, 2007-2011

Year: Cases	AGE			
	0-19 yrs	20-29 yrs	30-39 yrs	40+ yrs
2007: 16	4	8	2	2
2008: 20	8	6	3	3
2009: 6	1	3	2	0
2010: 12	5	1	2	4
2011: 21	5	9	3	4

Table 3: Suicide Cases by Race, 2007-2011

	White	Black	Hispanic	Native American	Asian
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%
2011: 63	88.9%	6.3%	3.2%	1.6%	0.0%

Manner of Death

Figure 14: Suicide Cases by Age, 2007-2011

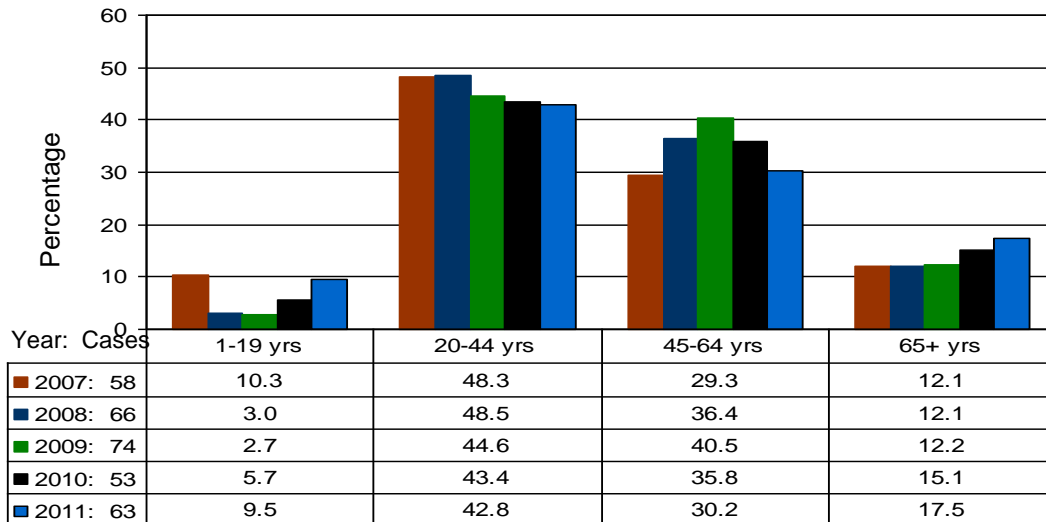
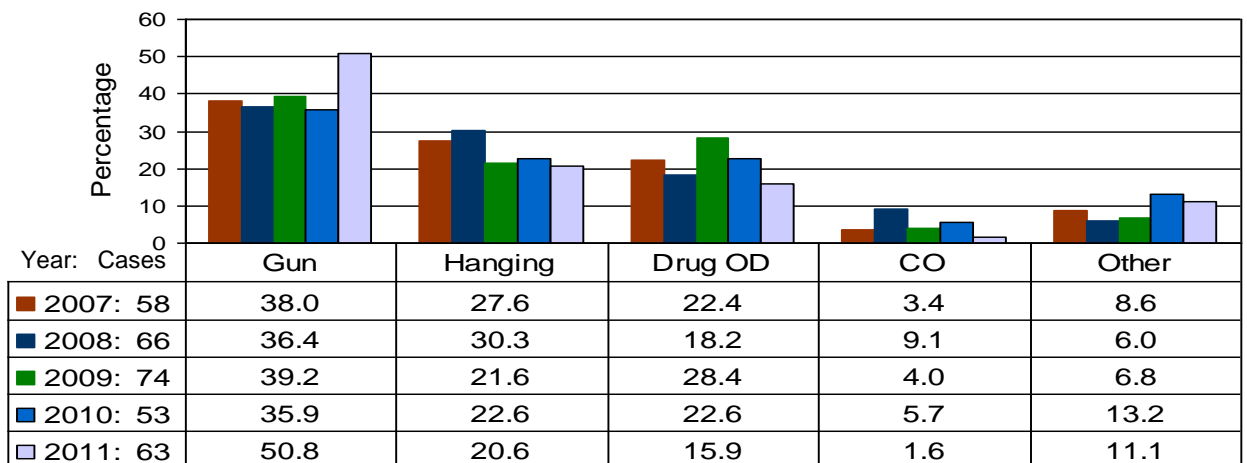


Figure 15: Suicide Cases by Method Used, 2007-2011

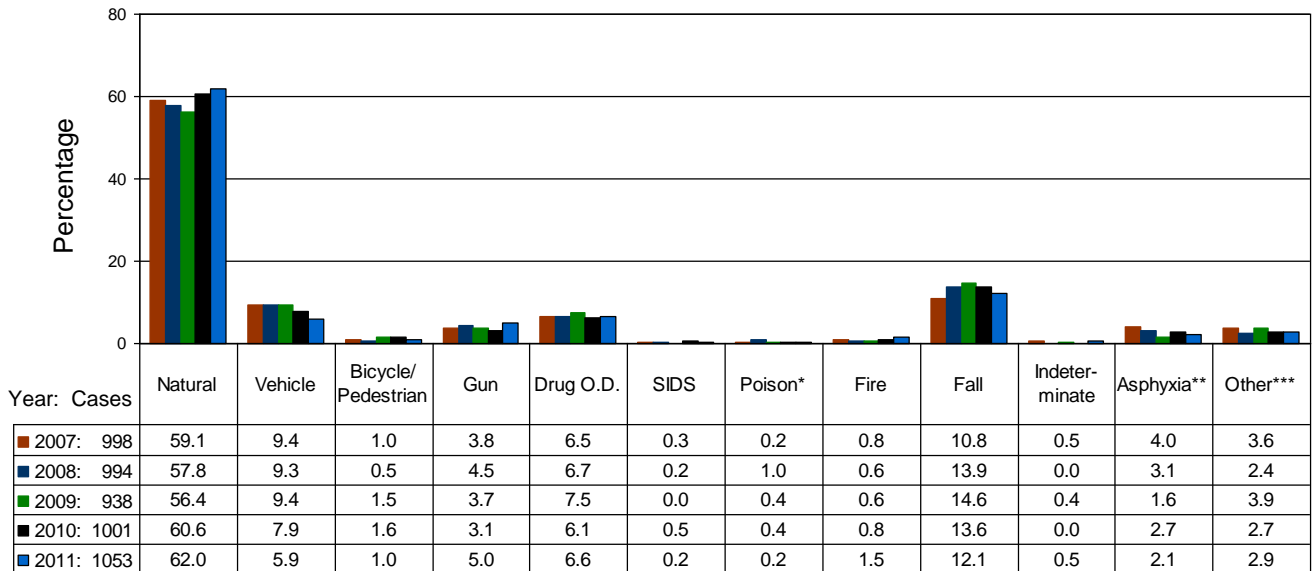


In 2011, CO is carbon monoxide poisoning, while Other consists of asphyxia (3), exsanguination (3) and motor vehicle (1).

Of the 63 suicide deaths for 2011, females accounted for 11 (17.5%) deaths, while males accounted for 52 (82.5%).

Cause of Death

Figure 16: Medical Examiner Cases by Cause of Death, 2007-2011



*Poison includes carbon monoxide poisoning (2).

**Asphyxia includes deaths from choking on food (1; 4.5%), hanging (13; 59.2%), strangulation (1; 4.5%), suffocation, (5; 22.7%) and suffocation (co-sleeping) (2; 9.1%).

***Other is comprised of deaths from hyperthermia (3; 9.7%), electrocution (1; 3.2%), exsanguination (3; 9.7%), stabbing (1; 3.2%), drowning (12; 38.8%), hypoxic encephalopathy d/t choking on food (1; 3.2%), medical complications from choking on food (1; 3.2%), physical abuse/assault (2; 6.5%), complications of prematurity (1; 3.2%), complications of quadriplegia (1; 3.2%), crushed by object/person (3; 9.7%), septicemia (1; 3.2%), and head injury-unknown origin (1; 3.2%).

Figure 17: Drug Deaths by Age, 2007-2011

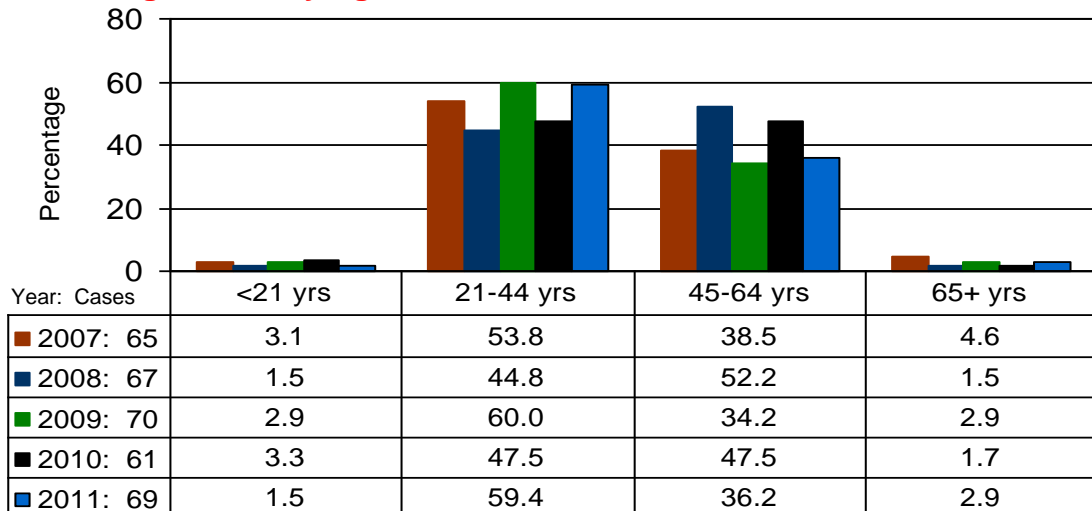


Table 4: Drug Deaths by Gender, 2011

	Female (24)	Male (45)
Accident	16	35
Suicide	5	5
Indeterminate	3	0
Natural		5*

*Acute Ethanol Abuse

Cause of Death

Figure 18: Drug Deaths by Drug of First Mention, 2007-2011

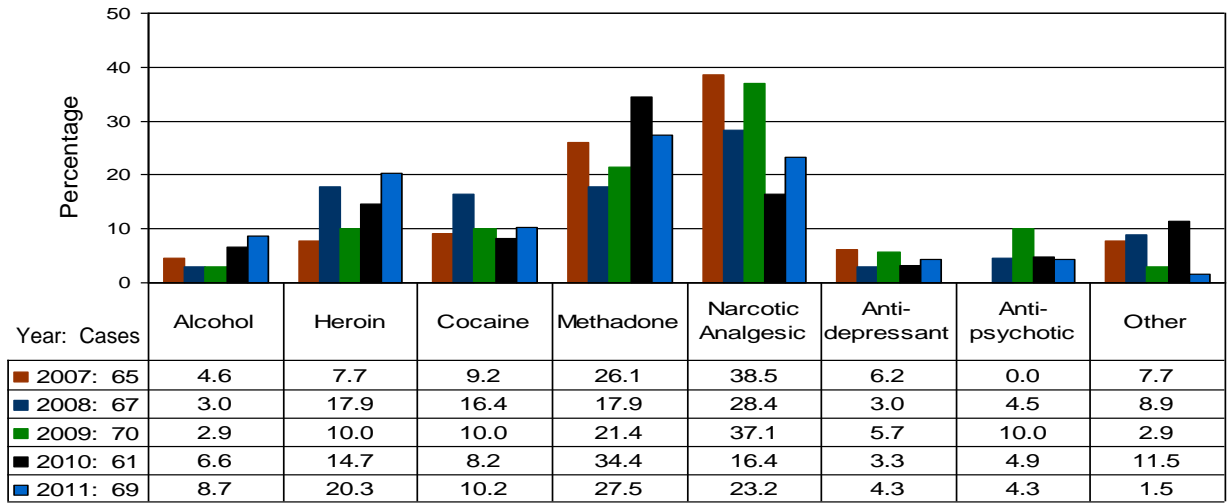


Figure 19: Vehicular Deaths by Age, 2007-2011

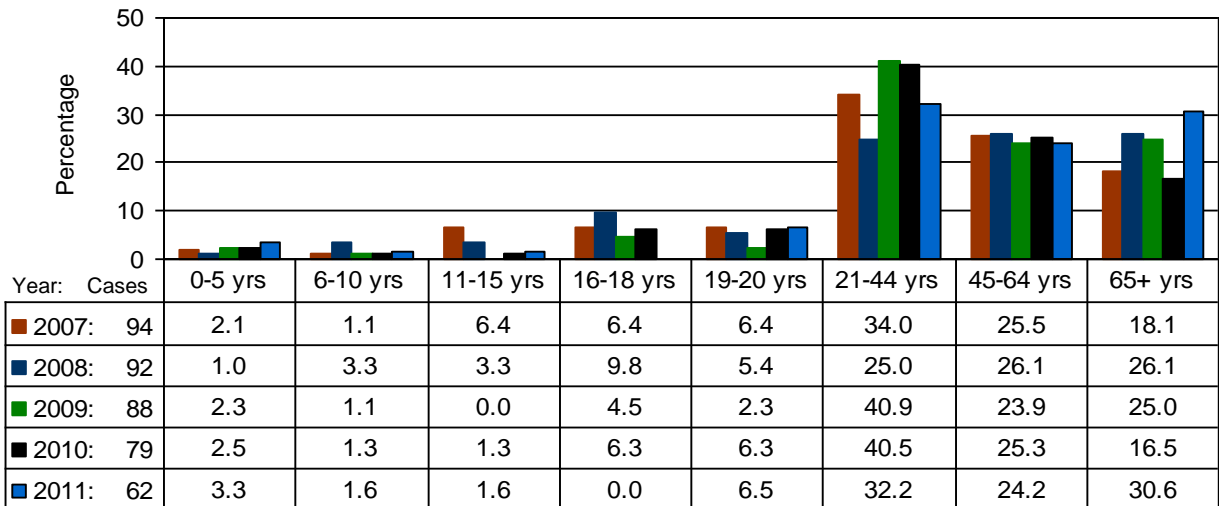


Table 5: Vehicular Deaths by Gender, 2007-2011

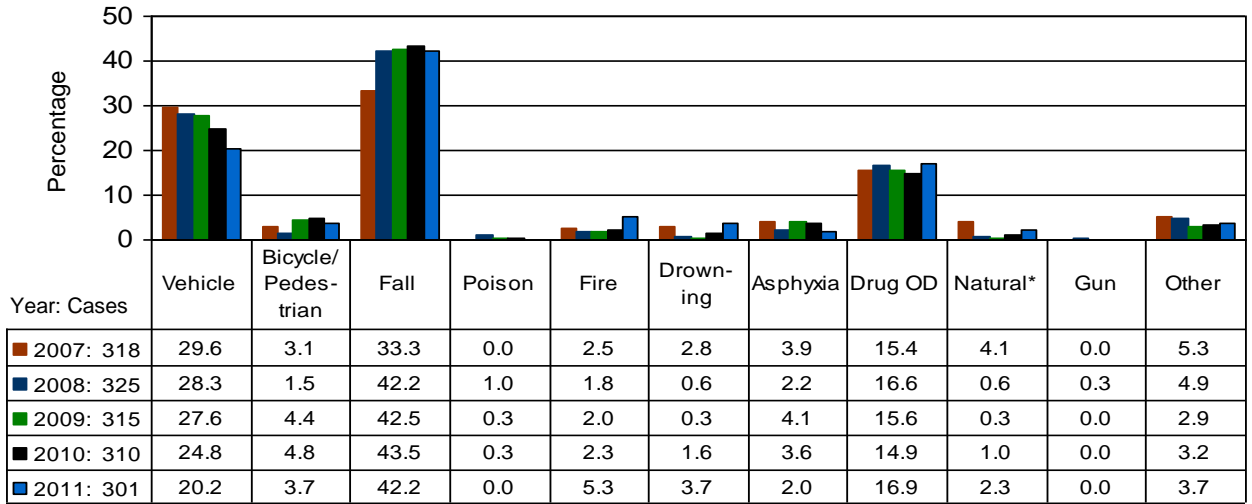
	Female	Male
2007: 94	28.7% (27)	71.3% (67)
2008: 92	29.3% (27)	70.7% (65)
2009: 88	43.2% (38)	56.8% (50)
2010: 79	32.9% (26)	67.1% (53)
2011: 62	32.3% (20)	67.7% (42)

Table 6: Bicycle/Pedestrian Deaths by Age, 2007-2011

	<21 yrs	21-44 yrs	45-64 yrs	65+ yrs
2007: 10	4	2	3	1
2008: 5	1	0	2	2
2009: 14	4	5	5	0
2010: 16	3	6	2	5
2011: 11	2	3	5	1

Cause of Death

Figure 20: Accidental Deaths by Cause, 2007-2011



*A natural cause of death can have a contributing factor that determines the death to be accidental. There were 7 deaths that fell into this category in 2011 from falls (4), acute cocaine toxicity (1), asphyxia by drowning (1) and Methadone toxicity (1).

Figure 21: Accidental Deaths by Age, 2007-2011

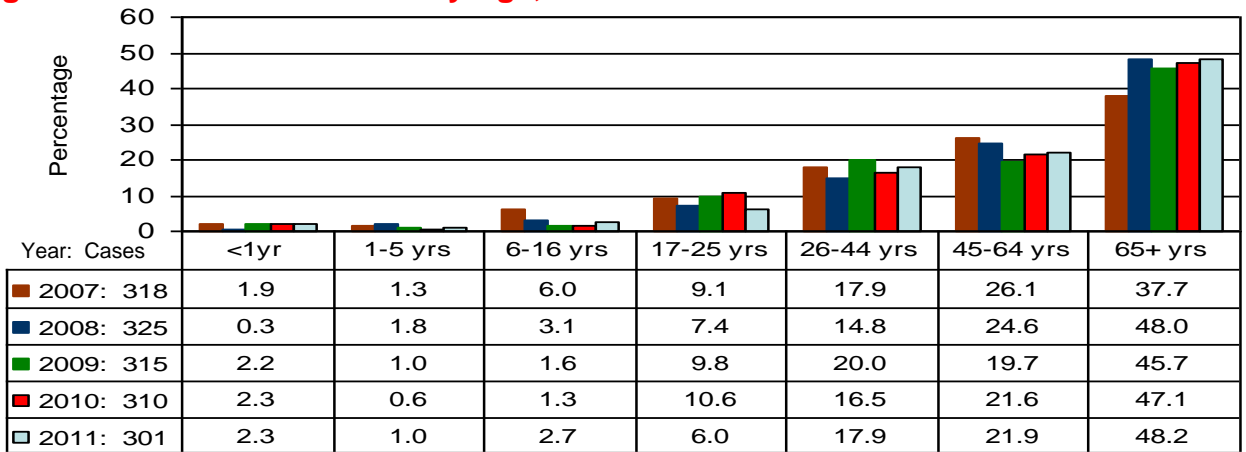
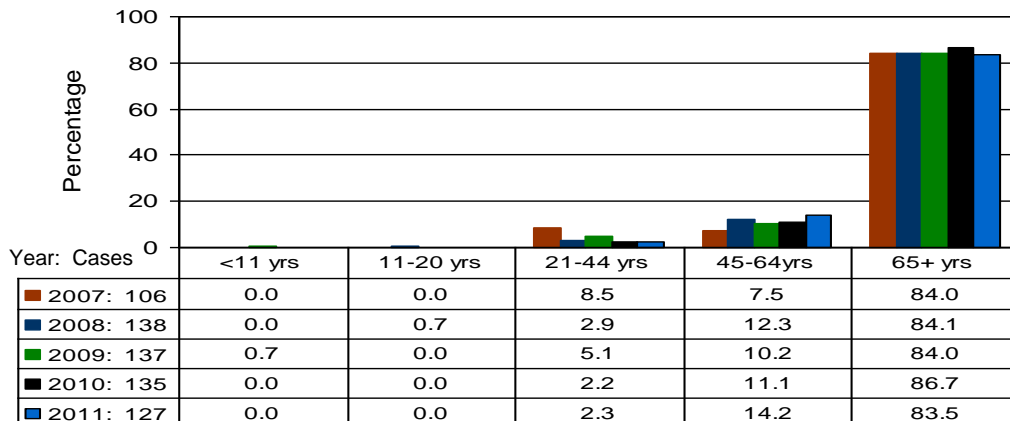


Figure 22: Deaths Resulting from Falls by Age, 2007-2011



MISCELLANEOUS

Unclaimed Bodies 2007-2011

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 2011, this office processed 26 unclaimed bodies.

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Medical Examiner Cases	10	14	15	9	12
Not Medical Examiner Cases	8	15	6	15	14
<hr/>					
Total Cases	18	29	21	24	26

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 2007-2011

The Child Death Review Team reviews the deaths of those in Kent County who are 18 and younger. In 2011, there were 27 child death cases reviewed. Of these cases, 3 were deaths from 2010 and 24 were deaths from 2011.

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>	<u>2011</u>
Natural	4	7	3	2	5
SIDS	5	2	1	4	1
Vehicular Accident	10	11	2	4	3
Accidental	11	7	8	7	8
Suicide	4	1	2	3	1
Homicide	5	5	3	6	5
Indeterminate	1	1	2	0	4
<hr/>					
Total Cases	40	34	21	21	27

Natural includes deaths from idiopathic epilepsy (1), bronchiolitis with focal acute bronchopneumonia (1), respiratory syncytial virus bronchiolitis/pneumonia (1), bronchopneumonia & interstitial pneumonia (1), and acute bilateral pulmonary emboli due to presumed deep venous thrombosis due to morbid obesity (1).

Vehicular Accident includes deaths from motor vehicle (2), and lawnmower (1).

Accidental includes deaths from drowning (3), house fire (1), co-sleeping (1), positional asphyxia in car seat (1), suffocation due to face down in bean bag (1), and face down in soft pillow (1).

Suicide includes death by gun (1).

Homicide includes deaths by gun (5).

Indeterminate includes deaths from the following categories: Found Body – based upon autopsy, toxicology and a thorough investigation of the circumstances a cause of death cannot be determined (2), Sudden Death – based upon autopsy, toxicology and a thorough investigation of the circumstances a cause of death cannot be determined (1), and Haloperidol toxicity (1).

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