

# Kent County Medical Examiner



## 2002 Annual Report

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

# 2002 Kent County Medical Examiner Annual Report

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

The year 2002 was one of both change and growth for the Kent County Medical Examiner program. Most notably, Dr. Douglas Mack, who had served as Kent County Chief Medical Examiner for nearly 25 years, retired and was replaced by Dr. David Persaud, who resigned and was replaced by me. I have served as Kent County Deputy Chief Medical Examiner for 20 years. Other changes in the types and causes of deaths investigated by the Medical Examiner, as well as growing demand for Medical Examiner data, knowledge and consultation, served to reaffirm the importance of the Medical Examiner program as a resource in the community.

The total number of deaths referred to the Medical Examiner in 2002 (accepted cases 1088; 261 declined cases) increased slightly over 2001 (1053 accepted cases; declined cases were not tracked at this time), while the autopsy rate (36%) remained similar to that of the previous 10 years. The Medical Examiner caseload fluctuates during the year, with the highest number of cases occurring during summer months and the lowest number during winter months.

The race/ethnicity of Medical Examiner cases remained largely unchanged in 2002 -- 85% white, slightly over 10% black, about 3% Hispanic and 1% other -- and generally reflects the racial/ethnic makeup of the county as a whole. As has been observed in the past, males are more likely to die of causes or under circumstances typically referred to the Medical Examiner and in 2002, 60% of Medical Examiner cases were male and 40% were female.

Regarding cause and manner of death, approximately 68% of Medical Examiner cases are deaths of natural causes, with 25% accidents, 5% suicides, and just over 1% homicides; no determination can be made in about 1% of cases. While the overall number of homicides continued to decline, a disproportionate number of homicides occurred in blacks. Similarly, a disproportionate number of suicides occurred among Hispanics. There has been no significant change in the number of drug deaths for the past several years; however, changes in the presumed popularity of different drugs are notable. Deaths due to cocaine and methadone tripled and quadrupled respectively from the previous year, while the number of deaths due to heroin/morphine declined 70% since 2001. In addition, only 3% of drug deaths were due to oxycodone in 2002 compared to 13.3% in 2001. Vehicular deaths accounted for 132 deaths in 2002 -- 30 more than in 2001, and 13 more than in 2000. Most of these deaths occurred in persons 21-44 years of age (38.6% of all vehicular deaths). Overall, vehicular deaths accounted for about half of all accidental deaths.

In addition to investigating deaths in 2002, Medical Examiner staff was busy with many other activities. Cremation permits increased by nearly 100 over the previous year -- to 1,441 -- generating \$36,025 in revenue for Kent County. Public and professional education continued to be in high demand and Medical Examiners made presentations to City High School Anatomy classes, the Cascade Rotary, the Emergency Nurses Association, and a state association of prosecutors. Cases were presented and/or reviewed at Spectrum Health-Butterworth Campus and St. Mary's Mercy Medical Center, and monthly at the Kent County Child Death Review Conference (page 14).

Professional development continued to be a priority of the Medical Examiner program as well. Dr. Start and I attended the annual conferences of the Michigan Association of Medical Examiners, the National Association of Medical Examiners, the American Academy of Forensic Sciences, the United States Canadian Academy of Pathology, and the International Academy of Forensic Sciences.

Sincerely,

Stephen D. Cohle, MD  
Interim Chief Medical Examiner

# Office of the Kent County Medical Examiner

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700 Fuller N.E., Grand Rapids, MI 49503  
phone (616) 336-3021, fax (616) 336-3943  
Medical Examiner Exchange (616) 247-6700

## Medical Examiner Personnel

Douglas A. Mack, MD, MPH  
Chief Medical Examiner (retired 07/02)

David H. Persaud, MD, MPH  
Chief Medical Examiner (07/02-10/02)

Stephen D. Cohle, MD  
Interim Chief Medical Examiner (10/02-12/02)  
Deputy Chief Medical Examiner, Forensic  
Pathologist

Jason S. Chatman  
Medical Examiner Investigator

John T. Connolly  
Medical Examiner Investigator

Paul R. Davison, D-ABMDI  
Medical Examiner Investigator

Ramon B. Lang, MD (deceased 12/02)  
Deputy Medical Examiner

Martha J. Scholl, D-ABMDI  
Medical Examiner Investigator

Larry J. Stalsonburg, DO, D-ABMDI  
Deputy Medical Examiner (resigned 06/02)

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

Richard Washburn  
Kent County Conveyance Specialist and  
Scene Investigator

Susan Atwood  
Administrative Assistant, Spectrum Health -  
Blodgett Campus

Amy Kjaer  
Medical Examiner Support Staff

Carmen D. Perez  
Medical Examiner Support Staff  
Child Death Team 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 American Board of Medicolegal Death Investigators are designated as Diplomats and use the letters "D-ABMDI" following their names.

## Medical Examiner Program Expenditures, 2001 and 2002

	2001		2002	
	Amount	Percentage	Amount	Percentage
Medical Examiner (compensation)	\$126,333	13.7%	\$121,426	13.1%
Autopsies	622,413	67.5%	606,424	65.4%
Cadaver transportation	69,290	7.5%	66,603	7.2%
Support services	29,625	3.2%	53,475	5.8%
Administration	75,000	8.1%	80,000	8.6%
<b>Total</b>	<b>\$922,561</b>	<b>100.0%</b>	<b>\$927,928</b>	<b>100.0%</b>
Average cost per case investigated	\$876		\$853	

# 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.

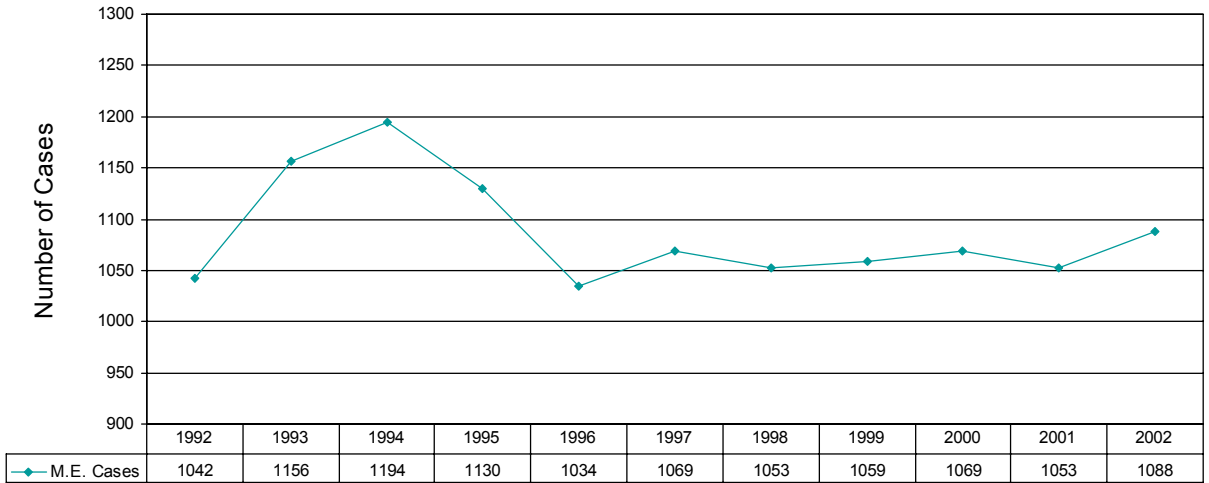
\*\*\* The 48 hour requirement triggers an investigation when there has been no medical attendance of any kind (i.e., nursing care, etc.)

## 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 17 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.

# 2002 Medical Examiner Caseload

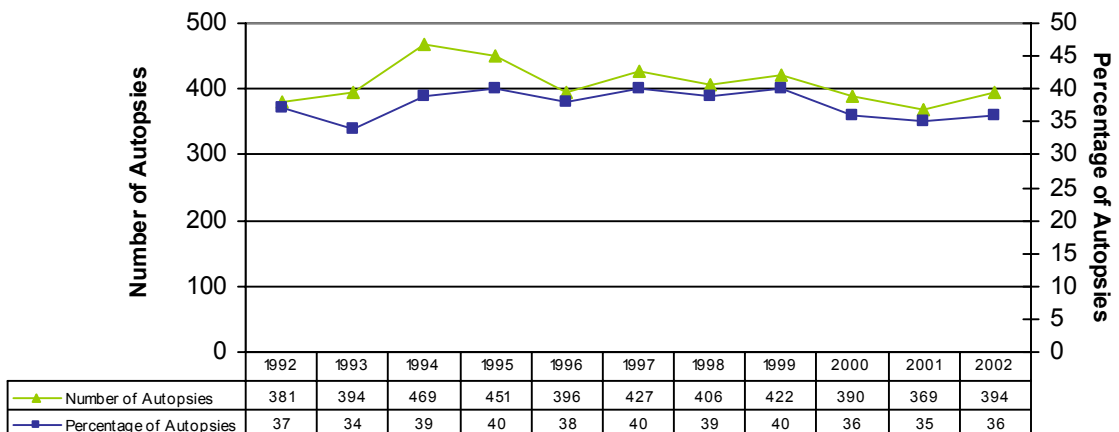
## Kent County Medical Examiner Cases, 1992-2002



## There was a total of 1349 Medical Examiner Cases in 2002

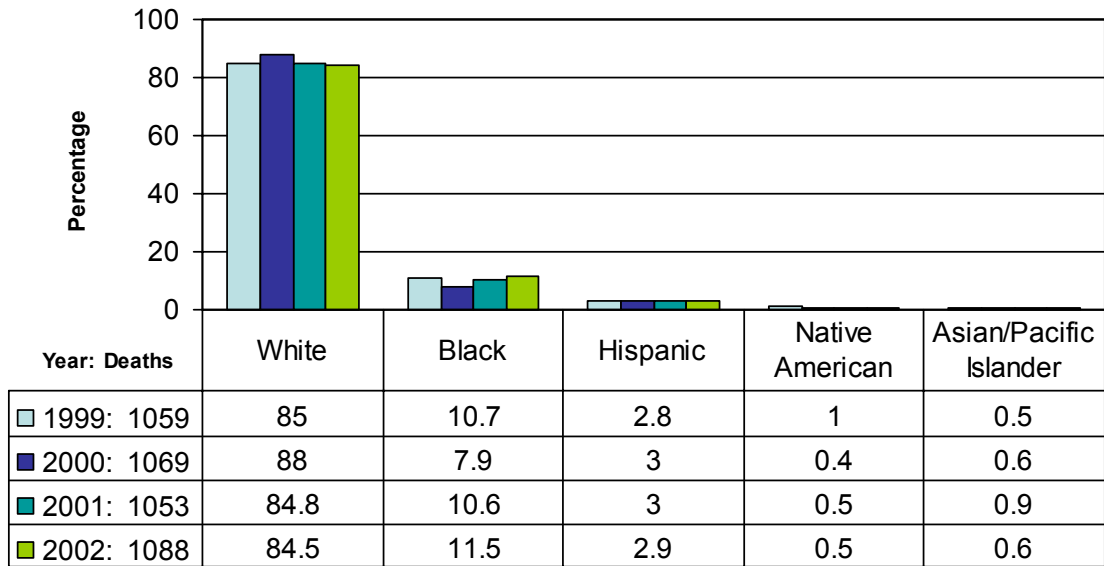
Accepted	1088	80.70%
Declined	261	19.3%

## Medical Examiner Cases with Autopsy, 1992-2002

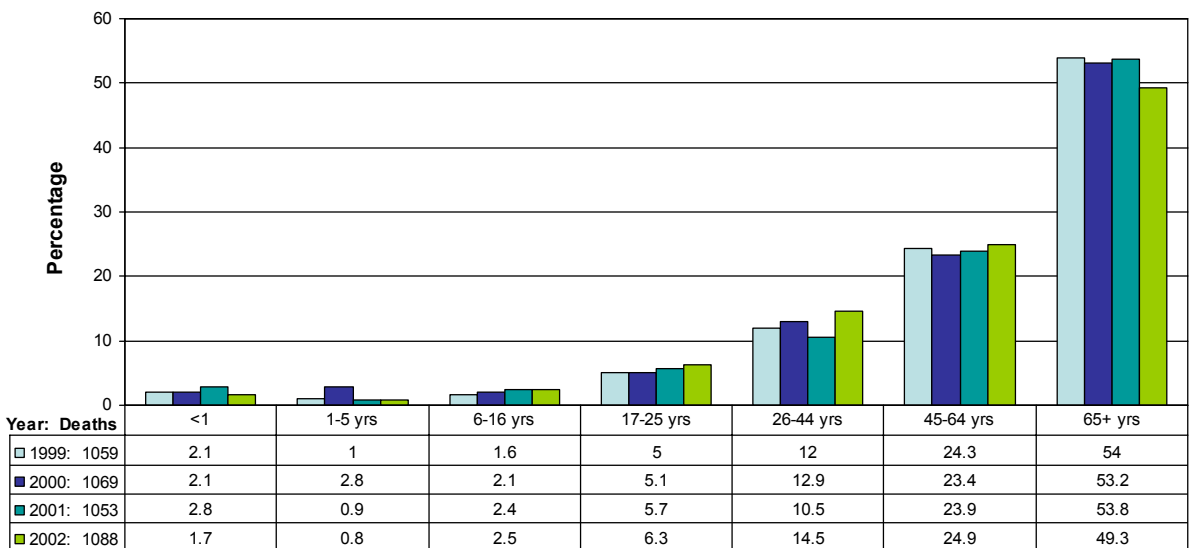


# Demographics of Medical Examiner Cases

## Medical Examiner Cases by Race/Ethnicity, 1999-2002



## Medical Examiner Cases by Age at Death (Number), 1999-2002



\*Out of the 1088 Medical Examiner cases for 2002, age could not be determined in 2 cases because only skeletal remains were found (1 human; 1 animal). These cases are not included in the totals for age at death.

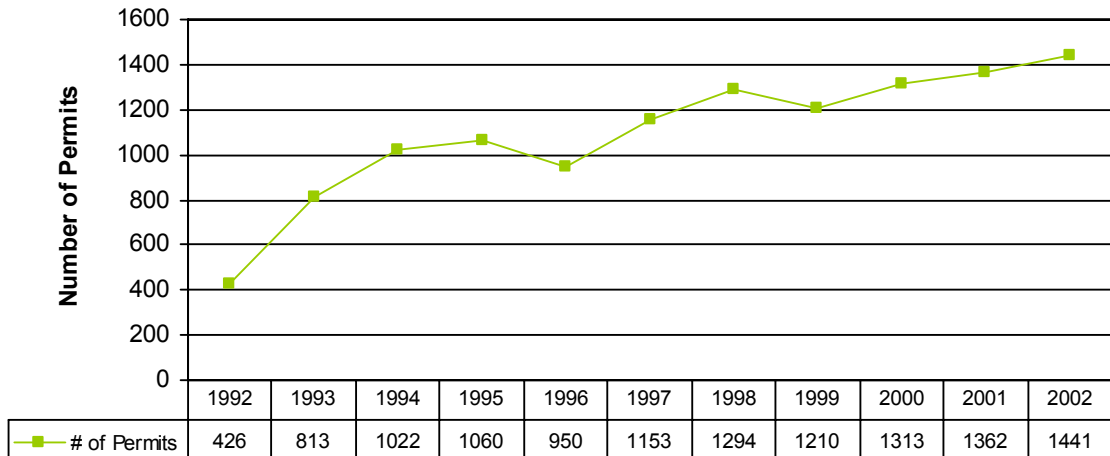
# Demographics of Medical Examiner Cases

## Medical Examiner Cases by Sex, 2001-2002

	<u>2001</u>	<u>2002</u>
Female	39.4%	39.4% (428 cases)
Male	60.6%	60.6% (657 cases)

\*Out of the 1088 Medical Examiner cases for 2002, sex could not be determined in 3 cases; 2 were stillborn fetuses and 1 case was animal remains. These 3 cases are not included in the totals for cases by sex.

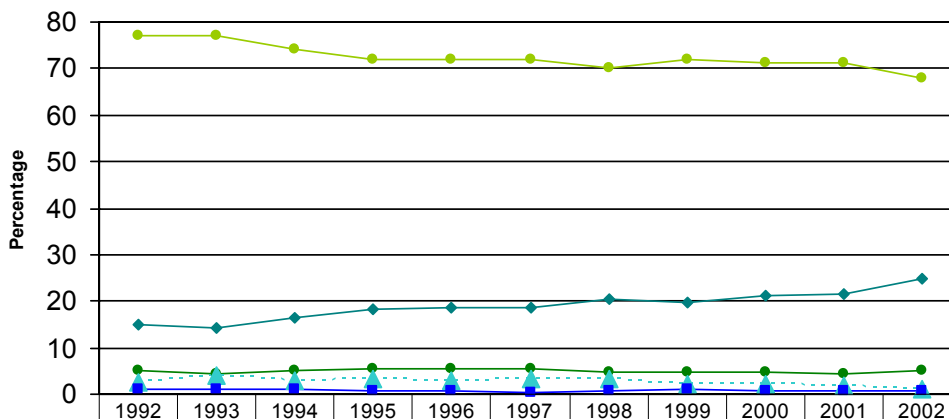
## Cremation Permits Issued, 1992-2002



# Manner of Death

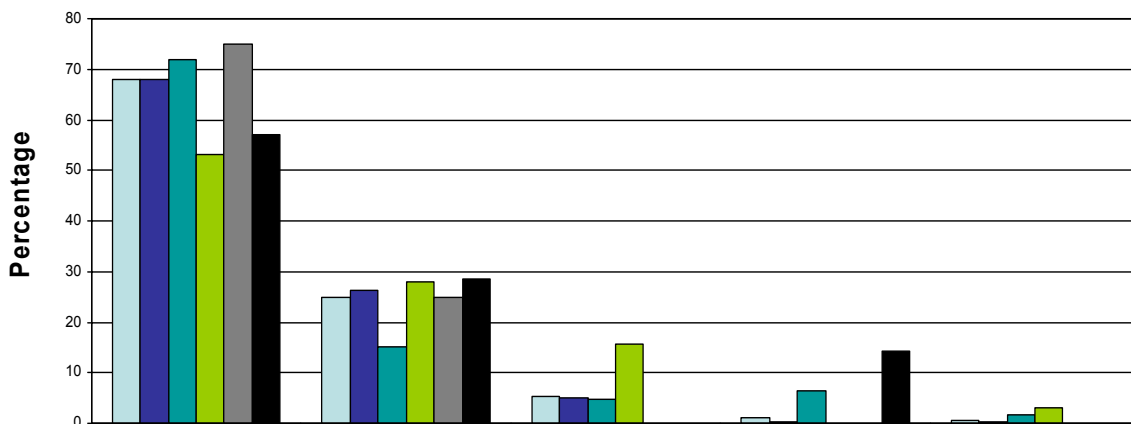
All of the following information is based on 1086 cases. The 2 cases not included out of the 1088 Medical Examiner cases were cases where only skeletal remains were found (1 human and 1 animal).

## Medical Examiner Cases by Manner of Death, 1992-2002



—●— Natural	77	77	74	72	72	72	70	72	71.1	71.4	68
—◆— Accident	14.8	14.1	16.6	18.1	18.6	18.6	20.6	19.7	21.1	21.6	25
—■— Suicide	5.1	4.3	5	5.4	5.3	5.6	4.7	4.7	4.8	4.3	5.2
- - -▲- - - Homicide	2.5	4	3	3.3	3	3.3	3.3	2.1	2.2	1.8	1.2
- - -■- - - Undetermined	1	1.1	1.1	0.8	0.8	0.4	0.8	1	0.8	0.9	0.6

## Manner of Death by Race/Ethnicity, 2002



□ All cases, total: 1086	68	25	5.2	1.2	0.6
■ White: 918	68	26.3	5	0.4	0.3
■ Black: 125	72	15.2	4.8	6.4	1.6
■ Hispanic: 32	53.1	28.1	15.6	0	3.1
■ Native American: 4	75	25	0	0	0
■ Asian/Pacific Islander: 7	57.1	28.6	0	14.3	0



# Manner of Death

## Kent County Homicides, 2000-2002

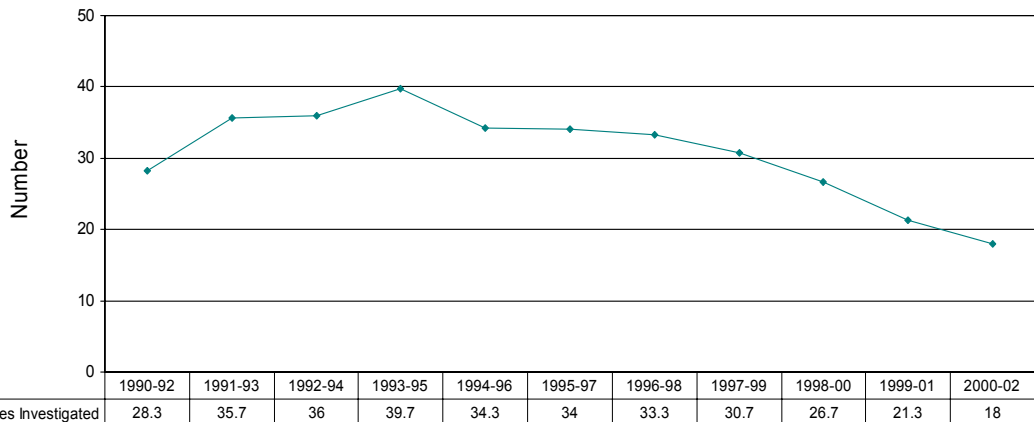
Year	<u>2000</u>	<u>2001</u>	<u>2002</u>
	22	19	13

Homicides by Gender, 2002

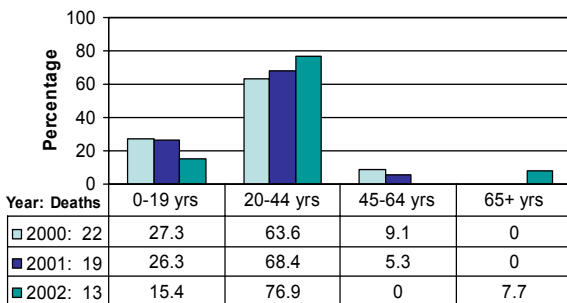
Female 2

Male 11

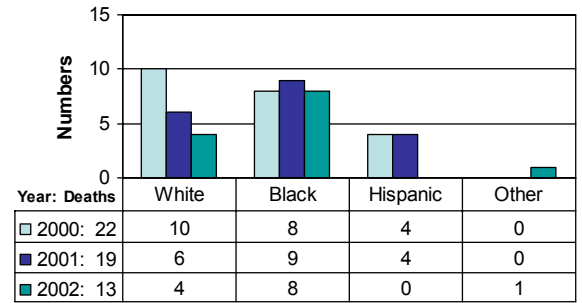
## Kent County Homicide, Three-Year Moving Averages, 1990-2002



## Homicides by Age, 2000-2002

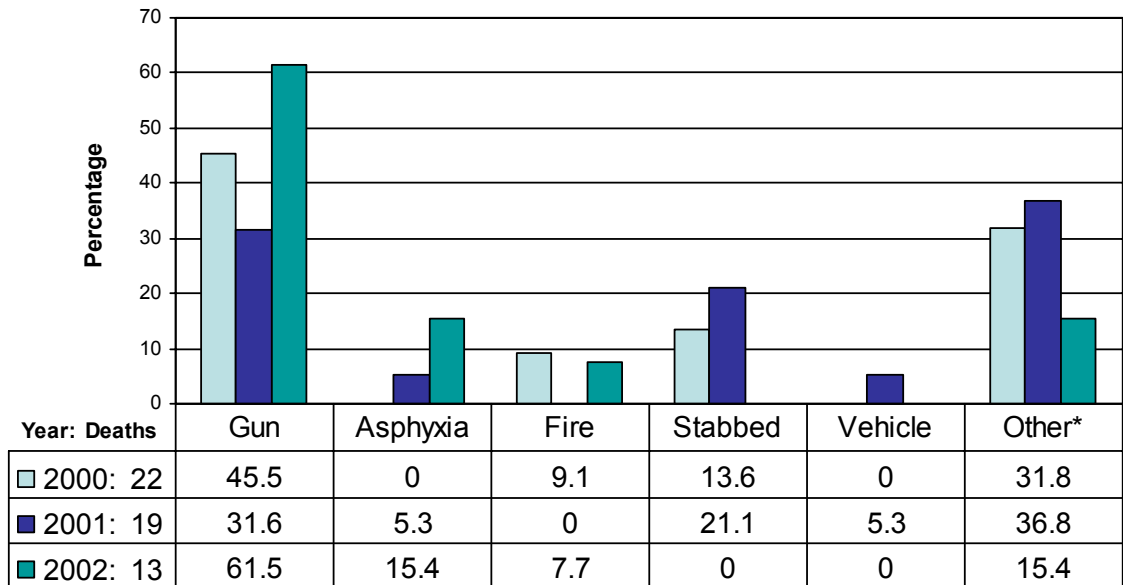


## Homicides by Race, 2000-2002



# Manner of Death

## Homicide Cases by Method Used, 2000-2002



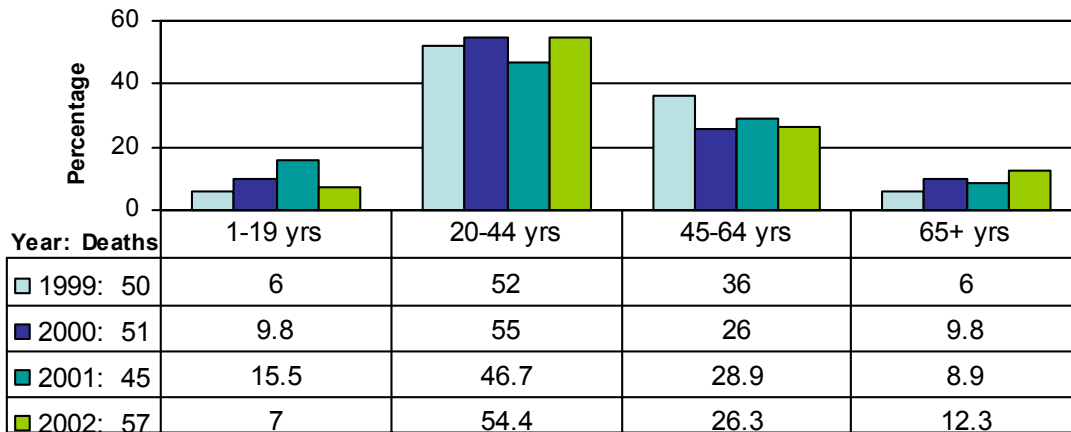
\*Other includes deaths caused by beatings, craniocerebral trauma or unknown.

## Gun Homicides by Age, 2000-2002

Year: Deaths	AGE			
	0-19 yrs	20-29yrs	30-39yrs	40+ yrs
2000: 10	1	6	1	2
2001: 6	1	3	1	1
2002: 8	1	4	1	2

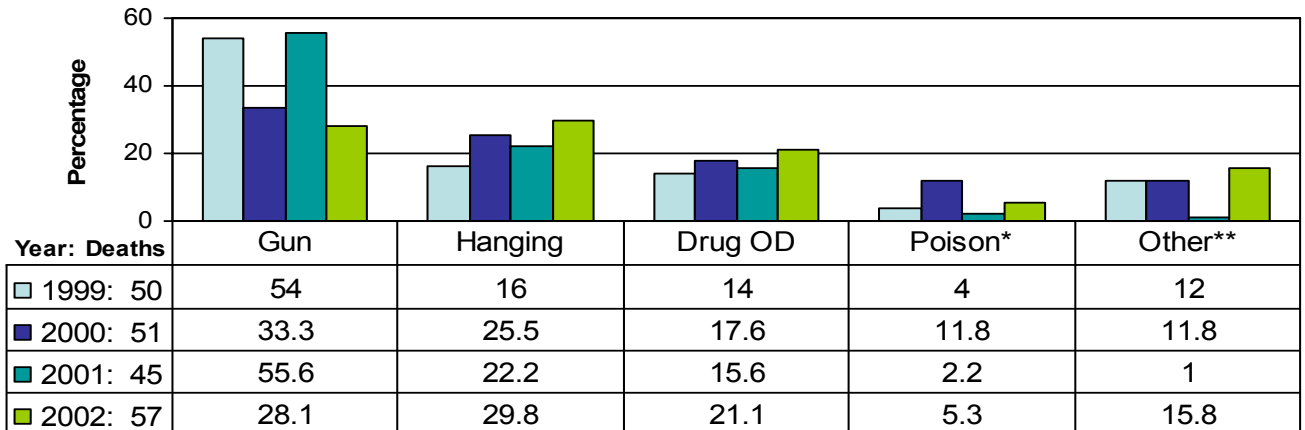
# Manner of Death

## Suicide Cases by Age, 1999-2002



There has been a decrease in suicides for the youngest (1-19 yrs) age group, but there has been an increase in the oldest (65+ yrs) age group.

## Suicide Cases by Method Used, 1999-2002



\*Poison includes carbon monoxide poisoning and other chemical poisoning.

\*\*Other includes the following: fire 5 (8.9%); fall 2 (3.6%); stabbed 1 (1.8%); vehicle 1 (1.8%).

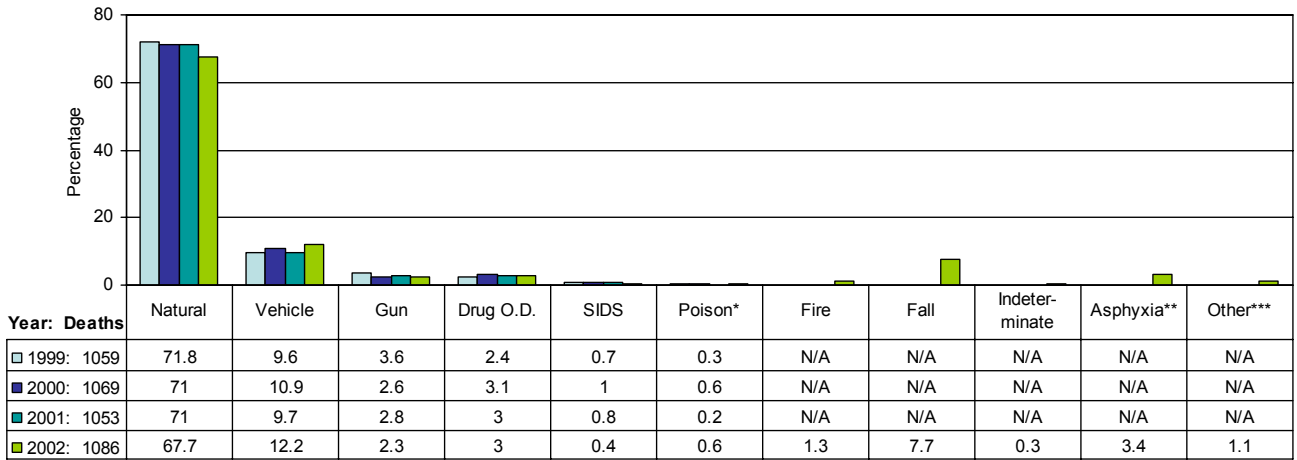
There were a total of 57 suicide deaths for 2002. Females accounted for 15 (26.3%) of those deaths, while males accounted for 42 (73.7%) of the suicides.

## Suicide Cases by Race, 2001-2002

	<u>White</u>	<u>Black</u>	<u>Hispanic</u>
2001: 45	91%	6.6%	2.2%
2002: 57	80.7%	10.5%	8.8%

# Cause of Death

## Medical Examiner Cases by Cause of Death, 1999-2002



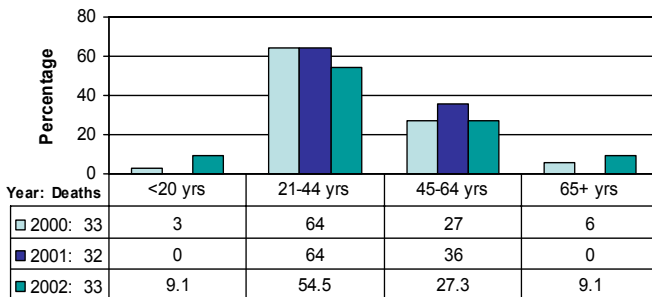
In 2002, more causes of death were being tracked for our records.

\*Poison includes carbon monoxide poisoning and other chemical poisoning.

\*\*Asphyxia includes deaths from choking, drowning, hanging, positional, strangulation, suffocation and traumatic occurrences.

\*\*\*Other includes deaths from chemical reactions, exsanguinations, hypothermia, medical complications, physical abuse and stabbings.

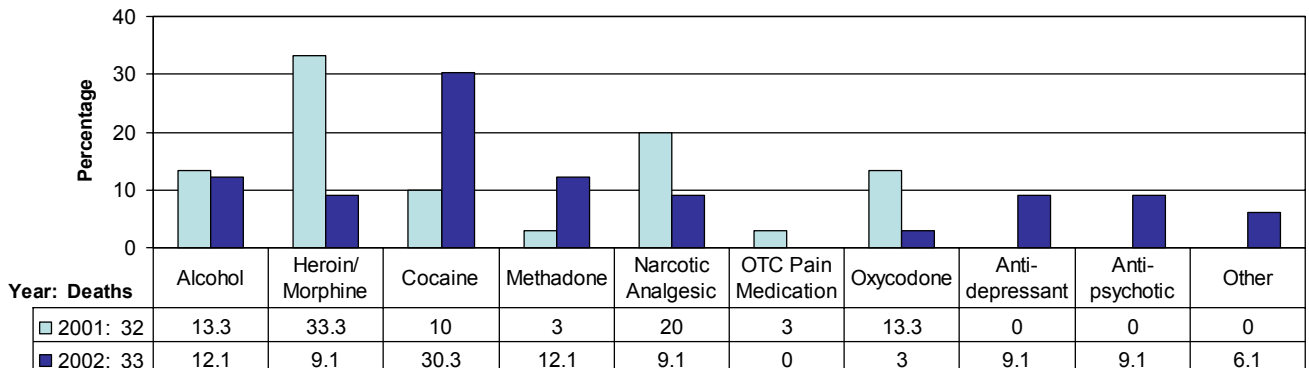
## Drug Deaths by Age, 2000-2002



## Drug Deaths by Gender, 2002

	Female (12)	Male (21)
Accident	4	17
Suicide	8	4

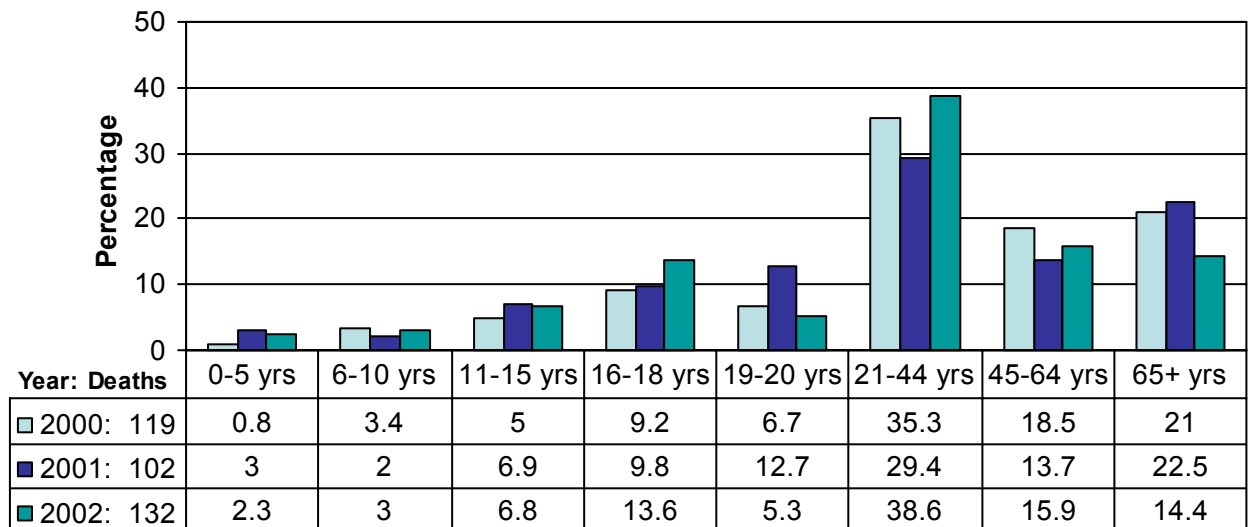
## Drug Deaths by Drug of First Mention (on Toxicology Report), 2001-2002



# Cause of Death

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## Vehicular Deaths by Age, 2000-2002

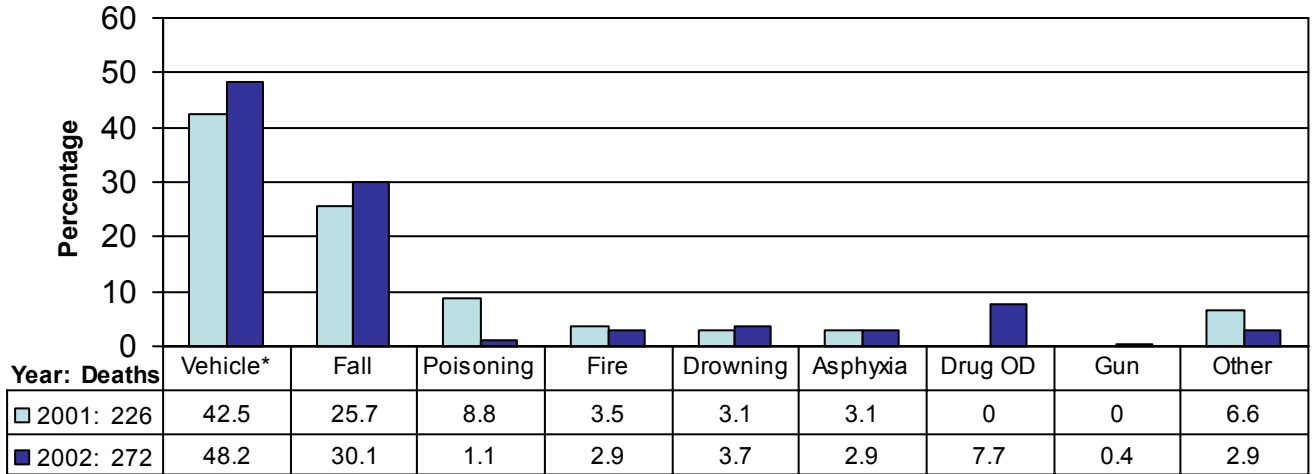


## Vehicular Deaths by Gender, 2001-2002

	<u>Female</u>	<u>Male</u>
2001: 102	40.9% (41)	59.8% (61)
2002: 132	31.1% (41)	68.9% (91)

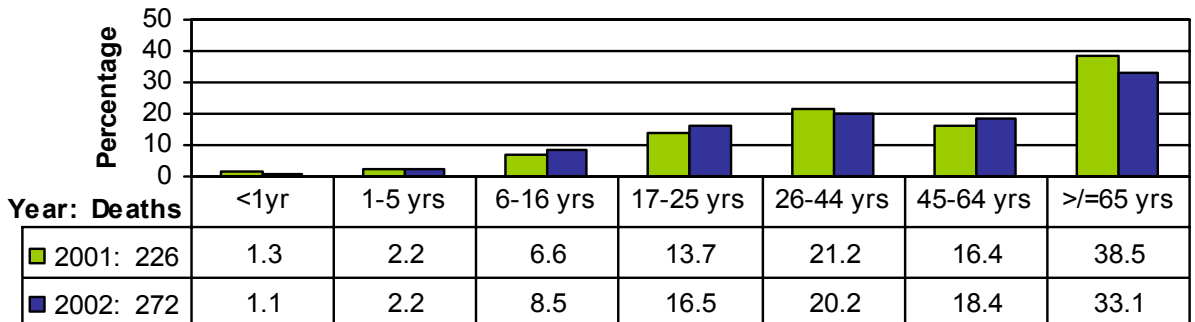
# Cause of Death

## Accidental Deaths by Cause, 2001-2002

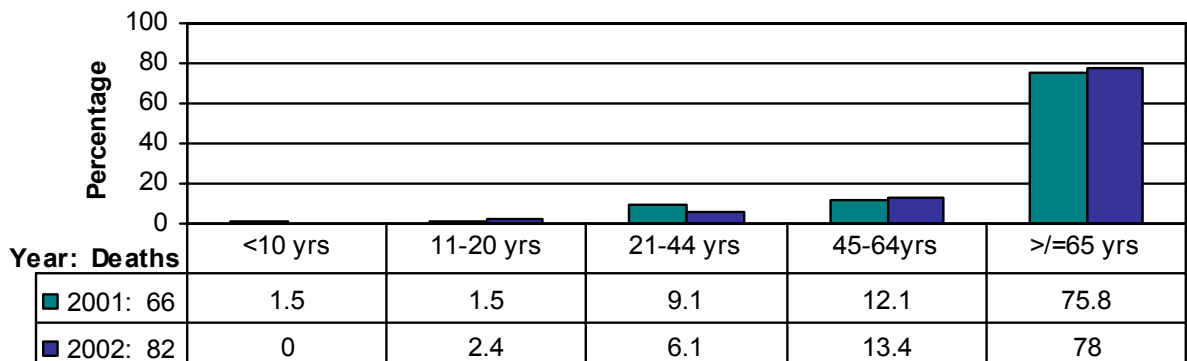


\*There were 132 vehicle deaths for 2002. One was by suicide and was not included as an accidental death.

## Accidental Deaths by Age, 2001-2002



## Deaths Resulting from Falls by Age, 2001-2002



# 2002 Child Death Review Meetings

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There were a total of 47 child death cases reviewed in 2002.

## Natural Deaths - 16

- SIDS - 7
  - Black – 3
  - White – 4
- Other - 9
  - Congenital anomalies - 3
  - Histiocytoid cardiomyopathy - 2
  - Viral myocarditis - 1
  - Strep-pneumo meningitis - 1
  - Congenital heart defect - 1
  - Acute & chronic myocarditis - 1

## Vehicular Accidents - 20

- Driver – 7; Passenger – 8
  - Seatbelt Worn – 6
  - Seatbelt Not Worn – 8
  - Unknown if Worn - 1
- Pedestrian – 4
- Bicyclist – 1
  - Helmet Not Worn – 1

## Accidental Deaths - 7

- Drug overdoses – 2
- Falls – 2
- Suffocations -2
- Fire - 1

## Suicides - 1

- Black – 1 (gun)

## Homicides - 1

- Black – 1 (child abuse)

## Undetermined - 2

- Strangulation – 1
- Undeterminable - 1

## Child Death Cases by Year

	<u>2001</u>	<u>2002</u>
Natural	19	16
Vehicular Accidents	10	20
Accidental	0	7
Suicides	3	1
Homicides	1	1
Undetermined	2	2
Total Cases	35	47