

Kent County Medical Examiner



2020 Annual Report

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

2020 Kent County Medical Examiner Annual Report

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

Herein, I present the Kent County Medical Examiner 2020 Annual Report. Our case load of accepted medical examiner cases for 2020 was up to 1,386 cases. This is a substantial increase from 2019 in which there were 1,226 cases. An additional 988 cases were declined by our investigators. This compares with 622 declined cases for 2019.

Our autopsies were up to 380 as opposed to 358 in 2018 and 2019 which represents a slow increase over the last 10 years except for a large increase in 2017 at 420 cases. The number of cremation permits issued increased to 4,181, an increase of 200 over 2019. These have a financial impact on our budget, as we generate \$70 per cremation permit issued.

As usual, about 60% of our deaths were naturals and nearly a third were accidents. The most common kind of accidental death was falls, accounting for nearly 40% of the total deaths. The second most common was drug overdose at 25%. Several years ago, overdose deaths eclipsed vehicle deaths as the second most common cause of accidental deaths. The vast majority of fall deaths occurred in elderly individuals who suffered fractured hips. Suicides decreased to 4.5% of our cases, although homicides increased to 3.8%.

Among overdose deaths, narcotic analgesic deaths caused a whopping 71% of our total drug deaths. This represents an increase of 29% from 2016. These deaths are largely due to fentanyl overdoses. Prescribed narcotics such as oxycodone and hydrocodone represent only a small percent of these narcotic analgesic deaths.

Successes of our office include the very high metrics achieved in our performance measures. Most of these have to do with the rapidity of response time and we met our goals in well over 90% in all categories. We have also achieved recertification of our death investigation system by the National Association of Medical Examiners. We continue to lead the state in donations of organs and tissue to the Gift of Life and in fact are number one in Michigan in that category.

Our office continues to contribute to the well being of Kent County residents by vigorous and thorough death investigation and are grateful for the support that we have had to do this.

Respectively submitted,



Stephen D. Cohle, MD
Kent County Chief Medical Examiner

Office of the Kent County Medical Examiner

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Medical Examiner Personnel

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

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

Roberto Anaya, Jr.
 Medical Examiner Investigator

Elizabeth L. Brown, D-ABMDI
 Medical Examiner Investigator

Christine Candia (resigned 7/31/20)
 Medical Examiner Investigator

Paul R. Davison, F-ABMDI
 Medical Examiner Investigator

Cynthia L. Debiak, RN
 Medical Examiner Investigator

Jodi L. Noble
 Medical Examiner Investigator

Peter J. Noble
 Medical Examiner Investigator

Theodore E. Oostendorp
 Medical Examiner Investigator

Thomas A. Wodarek
 Medical Examiner Investigator

Daniel Hopkins
 Kent County Conveyance Specialist

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

Sharon L. Smith
 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, 2019 and 2020

	2019		2020	
	<u>Amount</u>	<u>Percentage</u>	<u>Amount</u>	<u>Percentage</u>
Medical examiner (compensation)	\$ 257,324	16.7%	\$ 284,217	17.0%
Autopsies	1,131,838	73.3%	1,219,596	72.9%
Body transport	83,782	5.4%	102,388	6.1%
Support services	10,652	.07%	6,821	0.4%
Administration	60,000	3.9%	60,000	3.6%
Total	\$1,543,596	100.0%	\$1,673,022	100.0%
Average cost per case investigated		\$1,259		\$1,207

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.

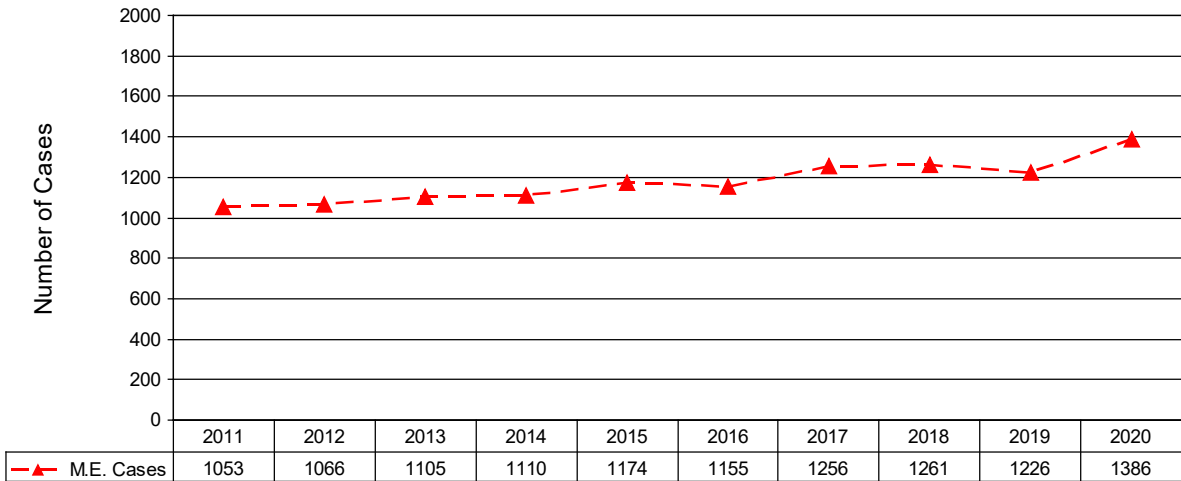
***The 48 hour requirement triggers an investigation when there has been no medical attendance of any kind (i.e., nursing care, etc.)

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 maybe significant injuries that mandate full autopsy.

2020 Medical Examiner Caseload

Figure 1: Accepted Kent County Medical Examiner Cases, 2011-2020

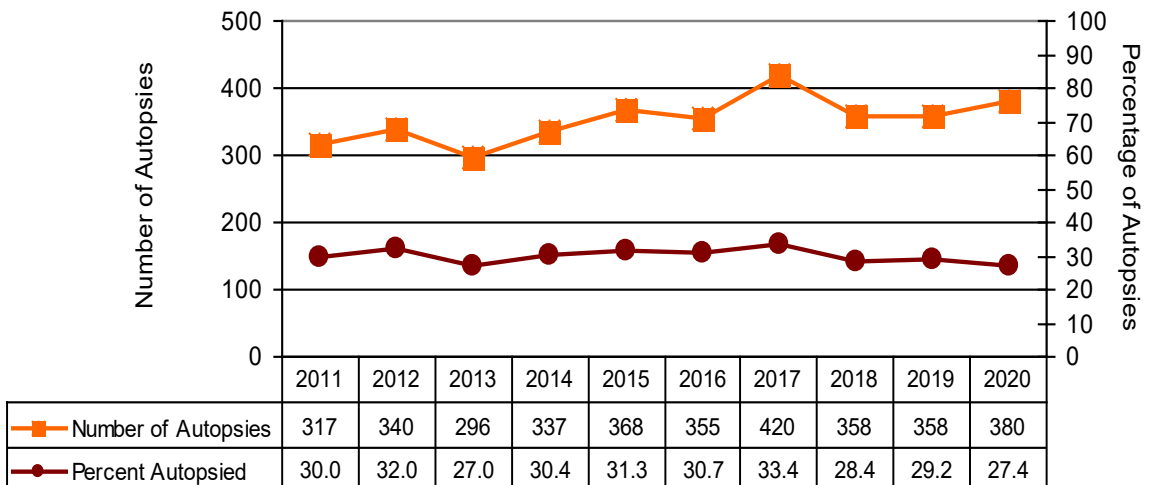


Total Referred Medical Examiner Cases in 2020: 2,374

Accepted	1,386	58.4%
Declined	988	41.6%

In 2020, there were 6,884 deaths in Kent County. The medical examiner was contacted regarding 2,374 of these deaths. 1,386 cases were accepted for investigation, while 988 were declined and did not fall within the requirements for investigation by the Medical Examiner’s Office. There were no exhumations in 2020. In 2020, there were 178 referrals to Gift of Life and Eversight resulting in 35 tissue donors and 22 eye donors.

Figure 2: Medical Examiner Cases with Autopsy, 2011-2020



Of the 380 autopsies performed, 376 were charged to Kent County. The remaining 4 autopsies were performed at the request of other counties. Toxicology was performed on 403 cases with 27 of those being views (107) and 14 where only toxicology was performed. There were no partial autopsies performed.

2020 Medical Examiner Caseload

Figure 3: Referred Medical Examiner Caseload by Month, 2016-2020

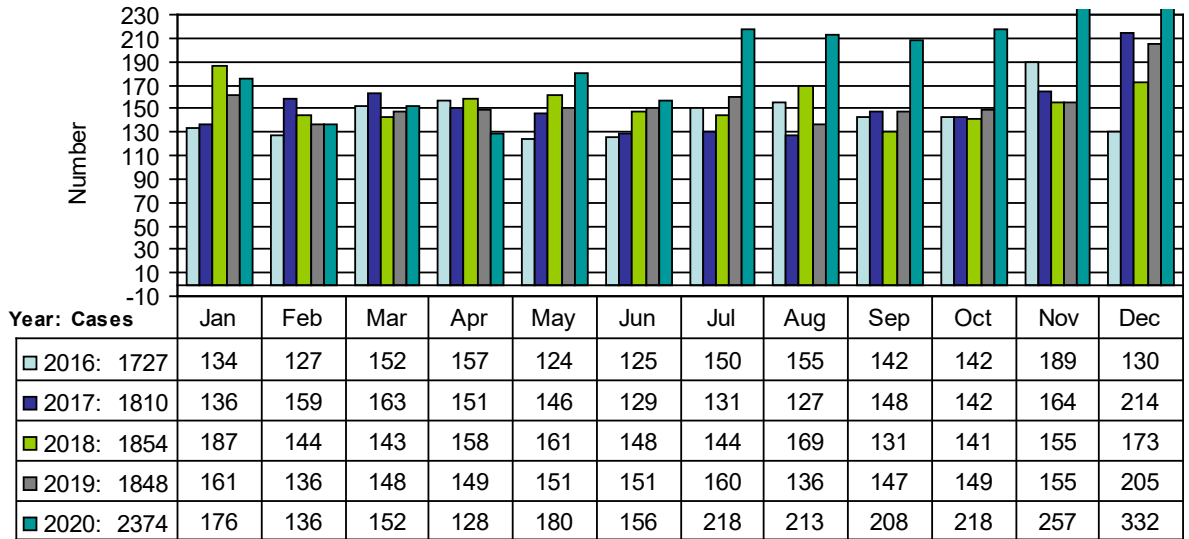
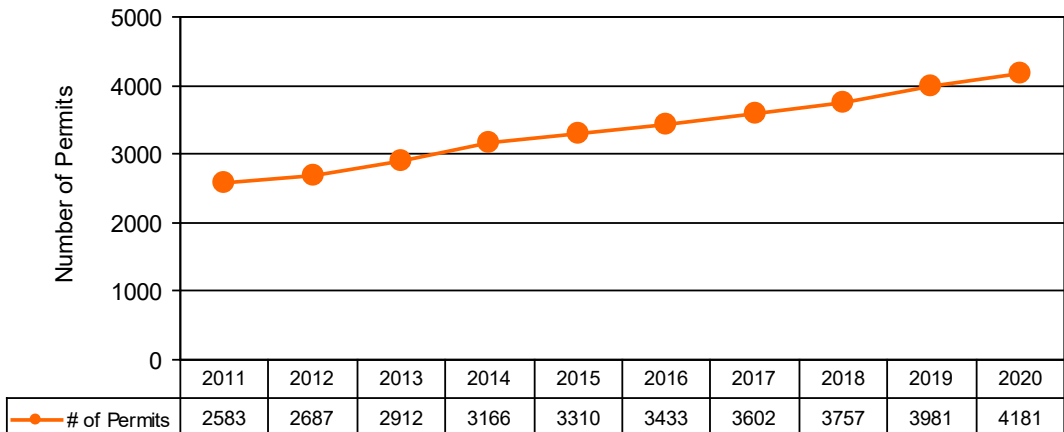


Figure 4: Cremation Permits Issued, 2011-2020



Demographics of Medical Examiner Cases

Figure 5: Medical Examiner Cases by Race/Ethnicity, 2016-2020

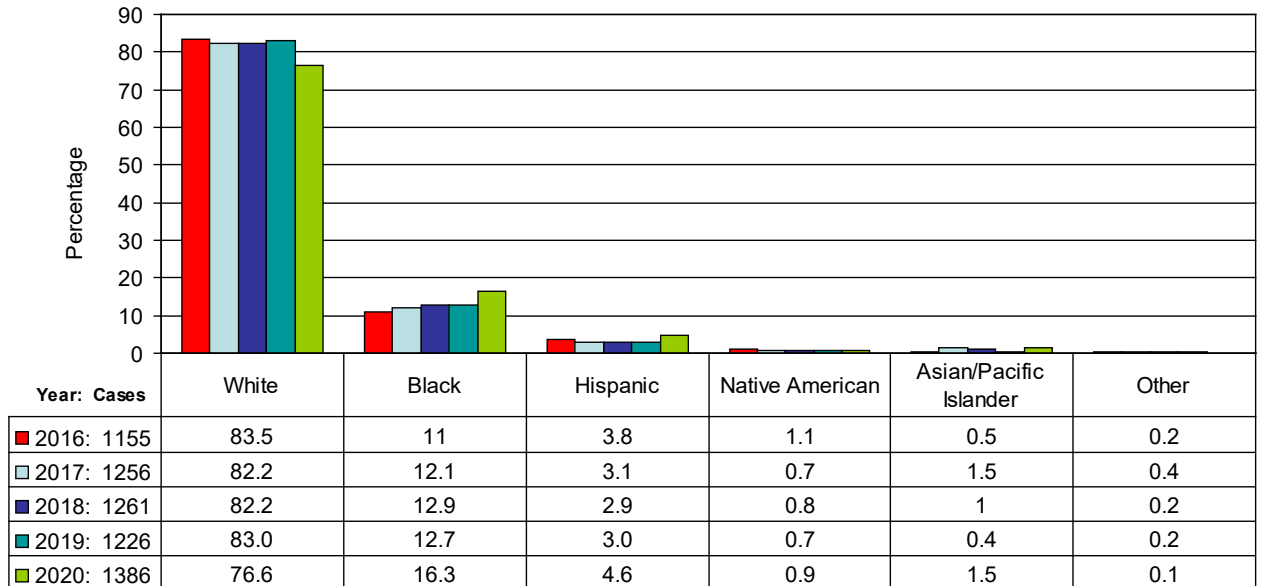


Figure 6: Medical Examiner Cases by Age at Death, 2016-2020

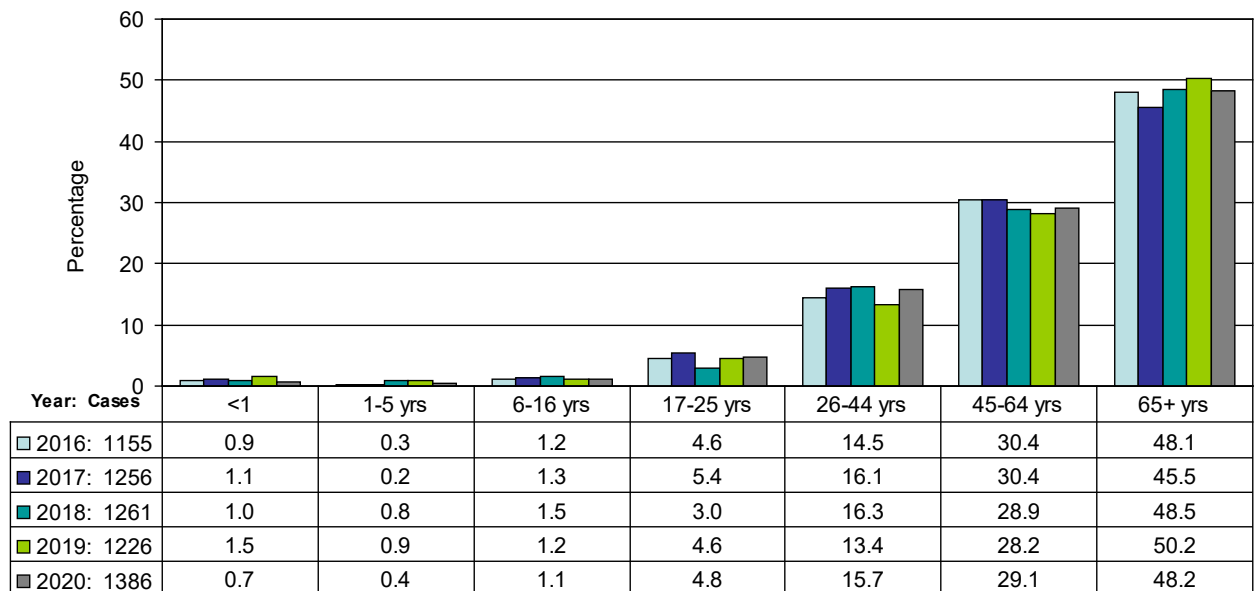


Table 1: Medical Examiner Cases by Gender, 2016-2020

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Female	39.8%	37.9%	39.1%	36.4%	35.5% (492 cases)
Male	60.2%	62.1%	60.9%	63.5%	64.5% (894 cases)
Unknown				0.1% (1 fetus)	

Manner of Death

Figure 7: Medical Examiner Cases by Manner of Death, 2011-2020

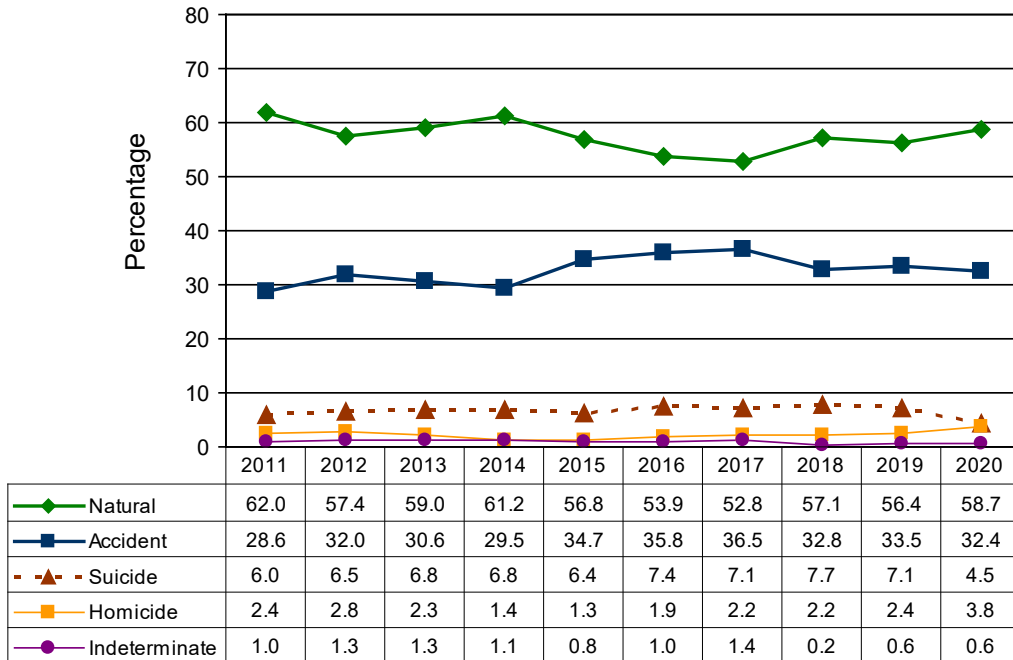
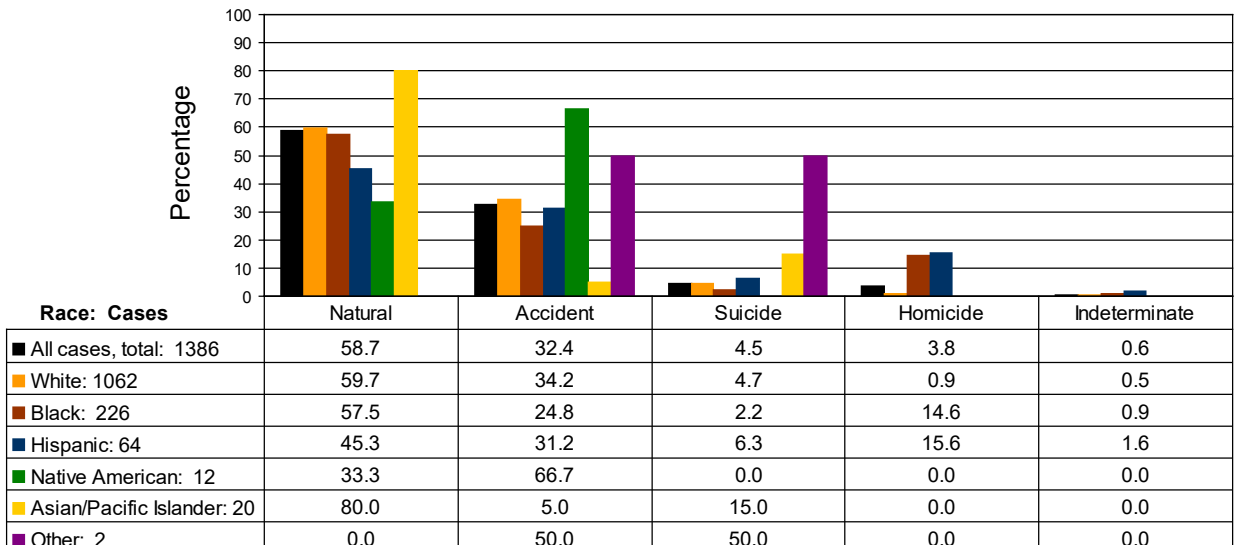


Figure 8: Manner of Death by Race/Ethnicity, 2020



Manner of Death

Figure 9: Kent County Homicides by Gender, 2016-2020

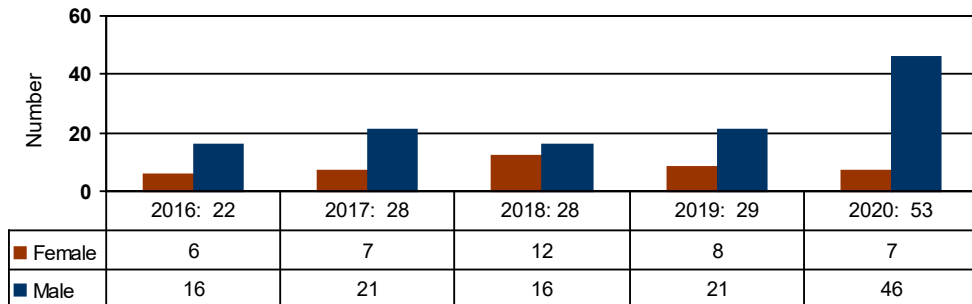


Figure 10: Kent County Homicides, Three-Year Moving Averages, 2008-2020

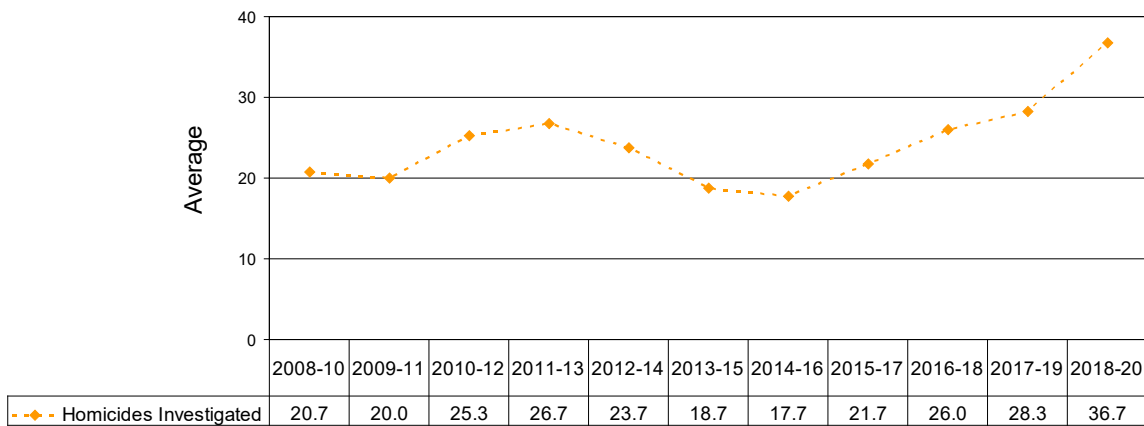


Figure 11: Homicides by Race, 2016-2020

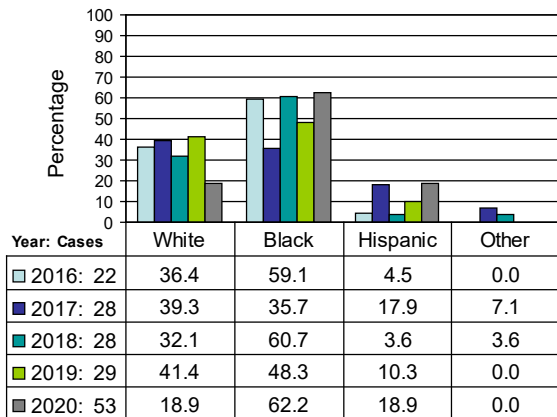
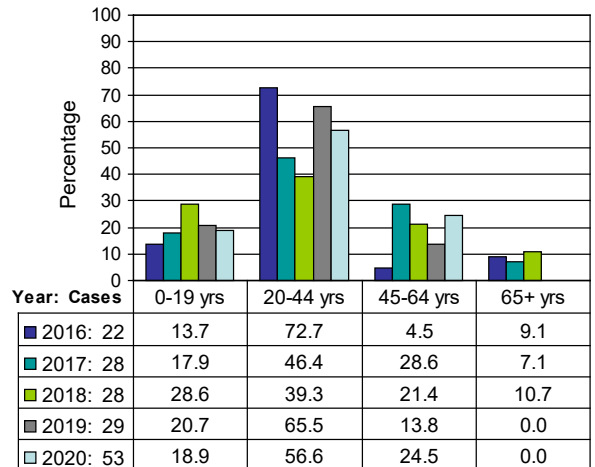


Figure 12: Homicides by Age, 2016-2020



Manner of Death

Figure 13: Homicide Cases by Method Used, 2016-2020

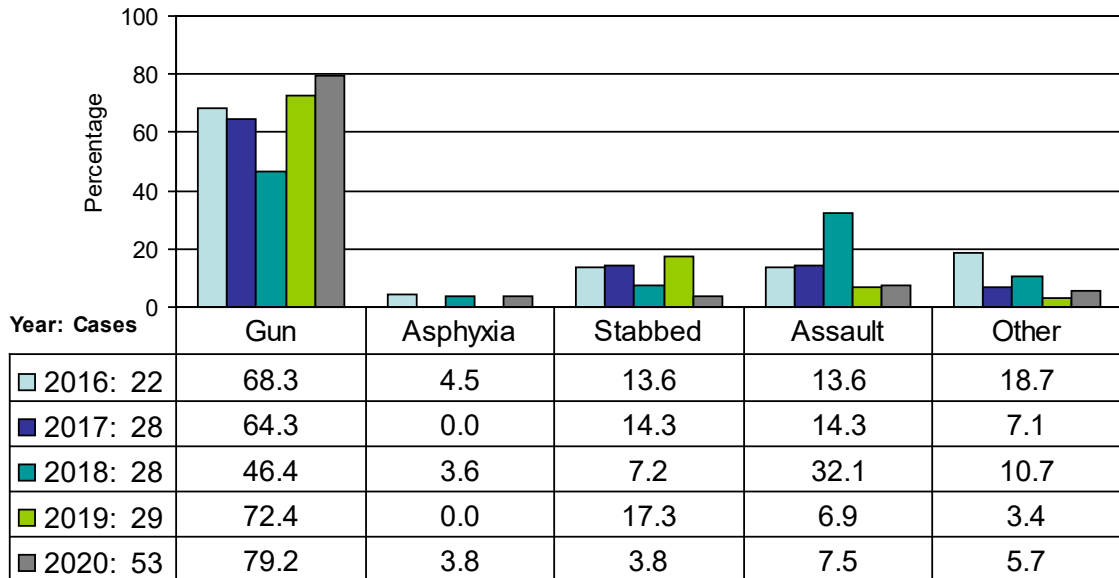


Table 2: Gun Homicides by Age, 2016-2020

Year: Cases	AGE			
	0-19 yrs	20-29 yrs	30-39 yrs	40+ yrs
2016: 15	1	8	3	3
2017: 18	2	9	1	6
2018: 13	2	5	0	6
2019: 21	5	10	3	3
2020: 42	6	17	7	12

Table 3: Suicide Cases by Race, 2016-2020

	<u>White</u>	<u>Black</u>	<u>Hispanic</u>	<u>Native American</u>	<u>Asian</u>
2016: 86	83.7%	7.0%	3.5%	3.5%	2.3%
2017: 89	87.7%	2.2%	4.5%	2.2%	3.4%
2018: 97	83.5%	8.2%	6.2%	0.0%	2.1%
2019: 87	81.6%	8.1%	9.2%	0.0%	1.1%
2020: 63	79.4%	9.5%	6.3%	0.0%	4.8%

Manner of Death

Figure 14: Suicide Cases by Age, 2016-2020

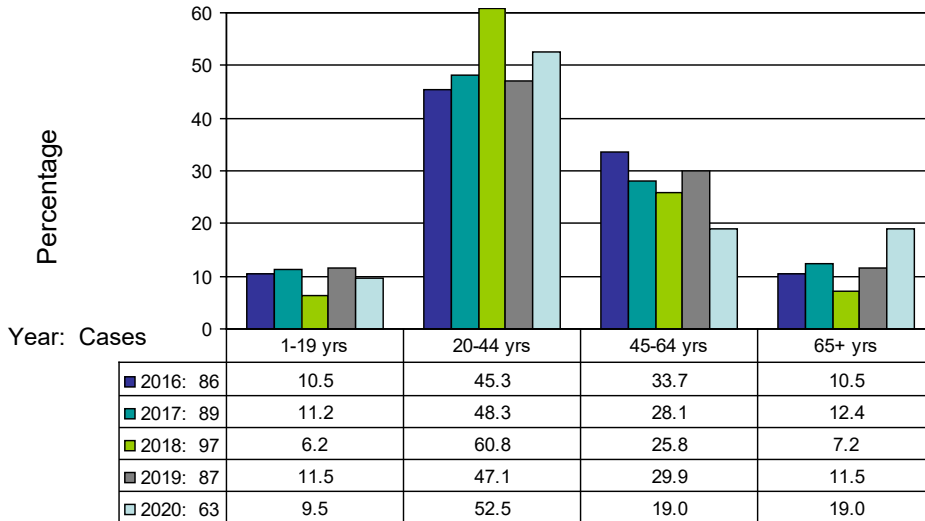
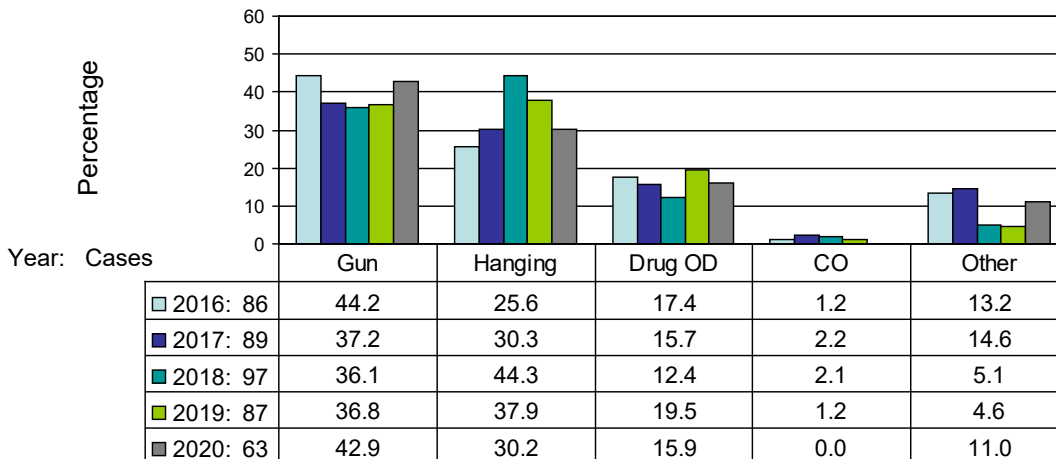


Figure 15: Suicide Cases by Method Used, 2016-2020

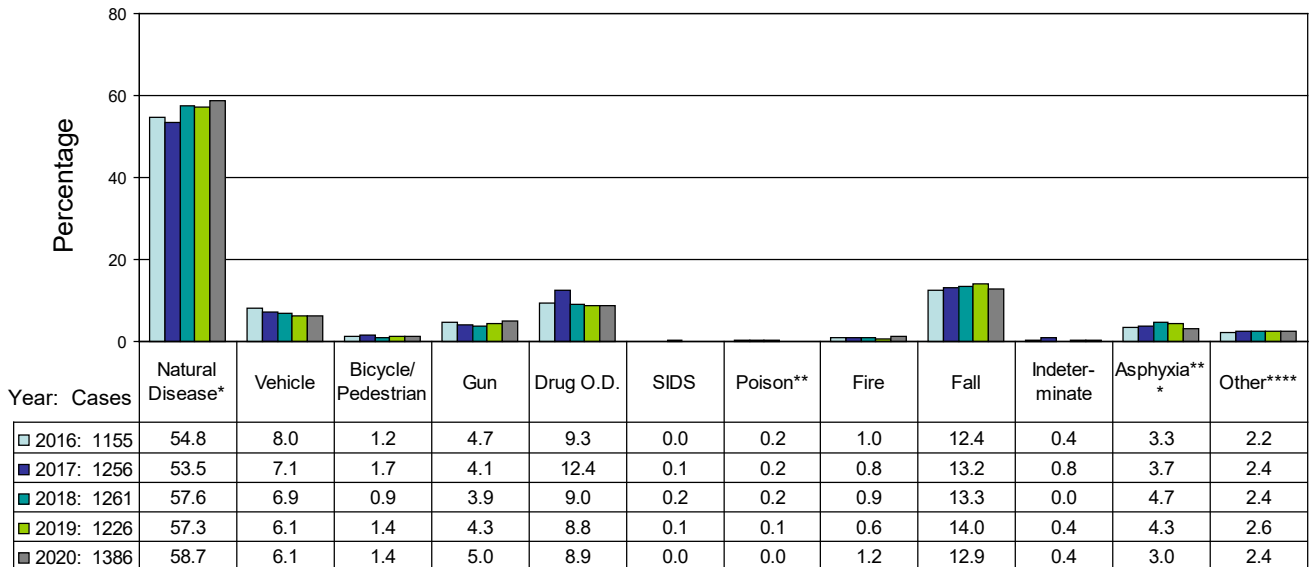


In 2020, Other consists of suffocation (2), drowning (2), arrow to head (1), jumped from parking ramp (1), and jumped from overpass (1).

Of the 63 suicide deaths for 2020, females accounted for 21 (33.3%) deaths, while males accounted for 42 (66.7%).

Cause of Death

Figure 16: Medical Examiner Cases by Cause of Death, 2016-2020



*Natural: alcohol (74); cancer (31); cardiovascular (566); CNS (12); respiratory (60); and other (70).

**Poison includes carbon monoxide poisoning (0).

***Asphyxia includes deaths from hanging (19); choking on food (11); suffocation by plastic bag (1); inhaled nitrogen bottle (1); between wall and mattress (1); co-sleeping (2); positional asphyxia (2); and strangulation (4).

****Other includes deaths from assault (4); drowning (11); stabbed (2); hypothermia (3); hit/crushed/entrapped by object (3); arrow to head/chest (2); sepsis due to cellulitis of arm (1); electrocution (1); swimming accidents (2); AIDS (1); infective endocarditis due to intravenous drug use (1); and COVID 19 (3).

Figure 17: Drug Deaths by Age, 2016-2020

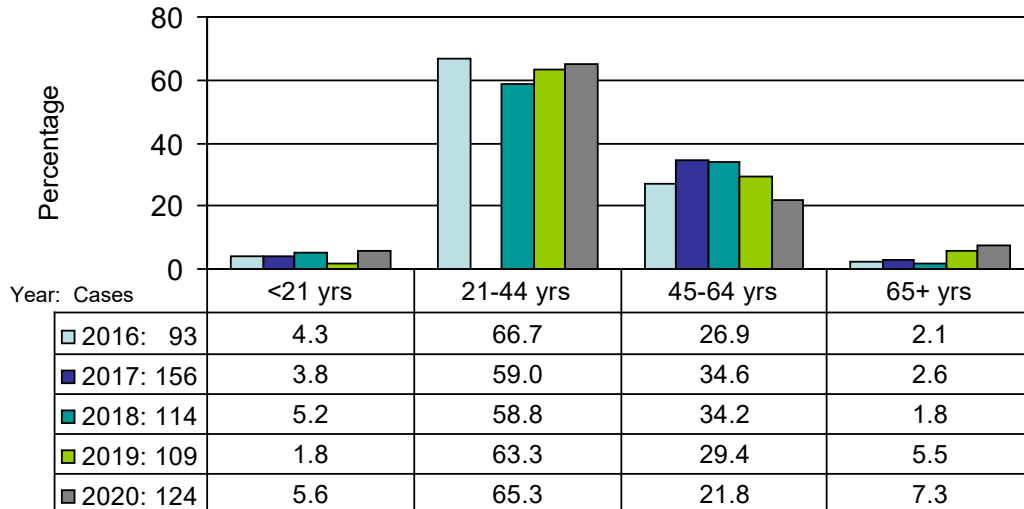


Table 4: Drug Deaths by Gender, 2020

	<u>Female (33)</u>	<u>Male (91)</u>
Accident	27	87
Suicide	6	4

Cause of Death

Figure 18: Drug Deaths by Drug of First Mention, 2016-2020

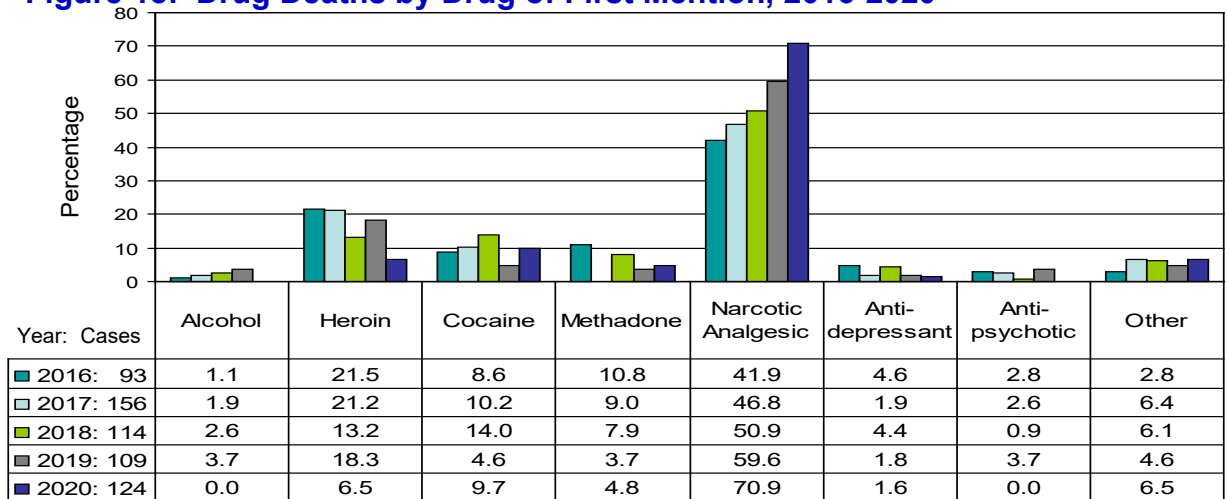


Figure 19: Vehicular Deaths by Age, 2016-2020

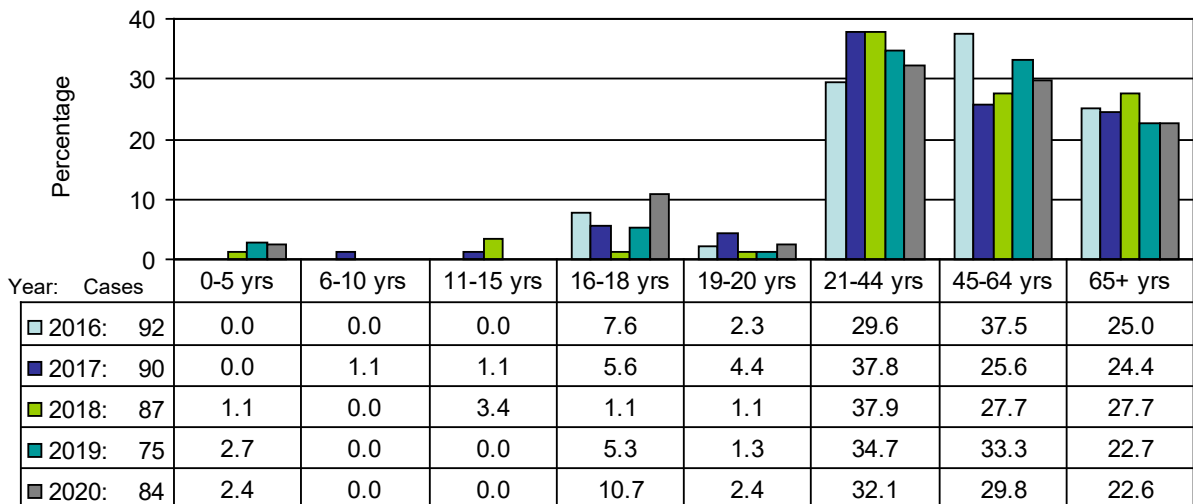


Table 5: Vehicular Deaths by Gender, 2016-2020

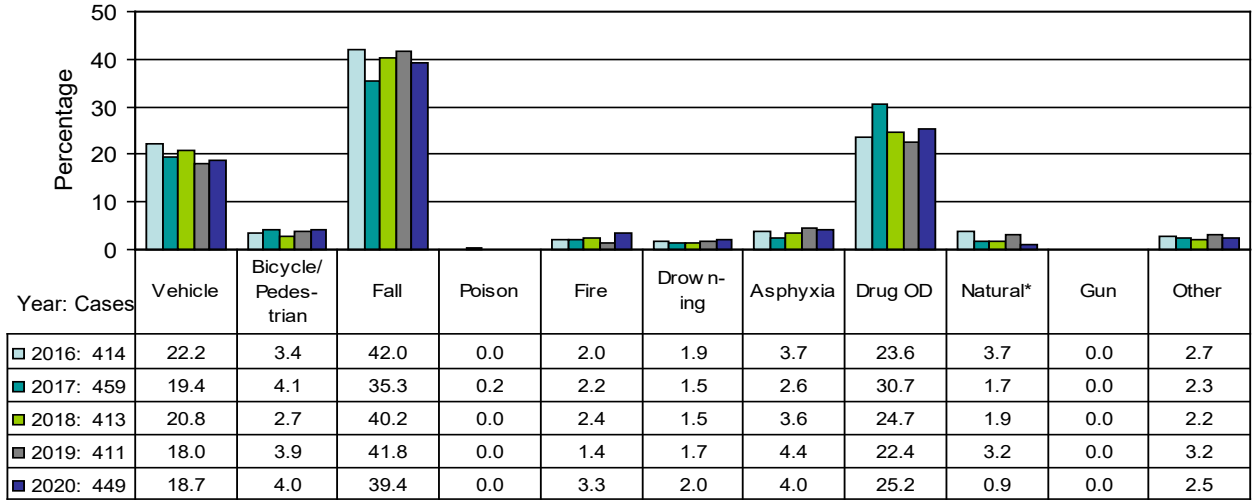
	Female	Male
2016: 92	40.2% (37)	59.8% (55)
2017: 90	30.0% (27)	70.0% (63)
2018: 87	37.9% (33)	62.1% (54)
2019: 75	34.7% (26)	65.3% (49)
2020: 84	34.5% (29)	65.5% (55)

Table 6: Bicycle/Pedestrian Deaths by Age, 2016-2020

	<21 yrs	21-44 yrs	45-64 yrs	65+ yrs
2016: 14	2	6	4	2
2017: 21	3	8	5	5
2018: 11	3	3	3	2
2019: 17	3	3	8	3
2020: 20	3	6	7	4

Cause of Death

Figure 20: Accidental Deaths by Cause, 2016-2020



*A natural cause of death can have a contributing factor that determines the death to be accidental. There were 4 deaths that fell into this category in 2020 from drug overdoses (3) and fall (1).

Figure 21: Accidental Deaths by Age, 2016-2020

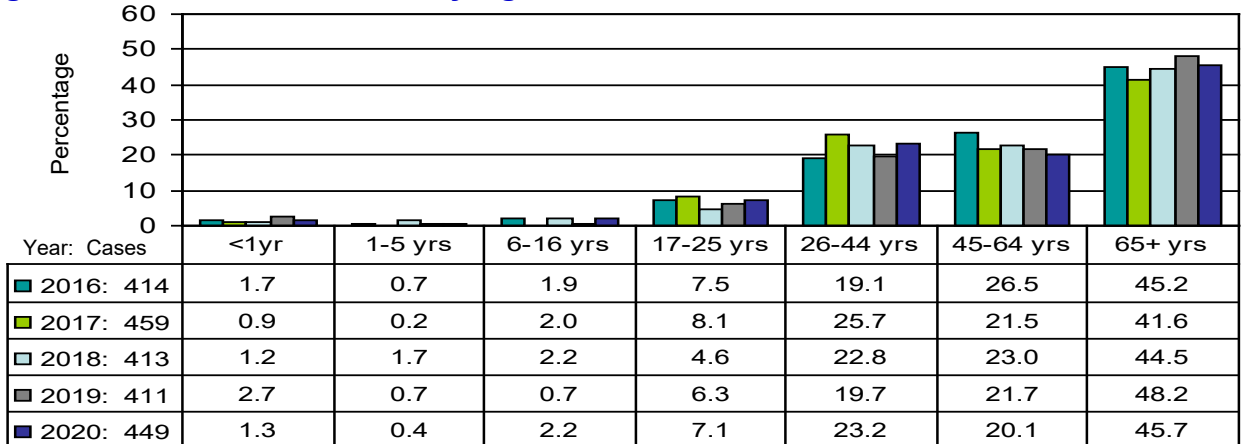
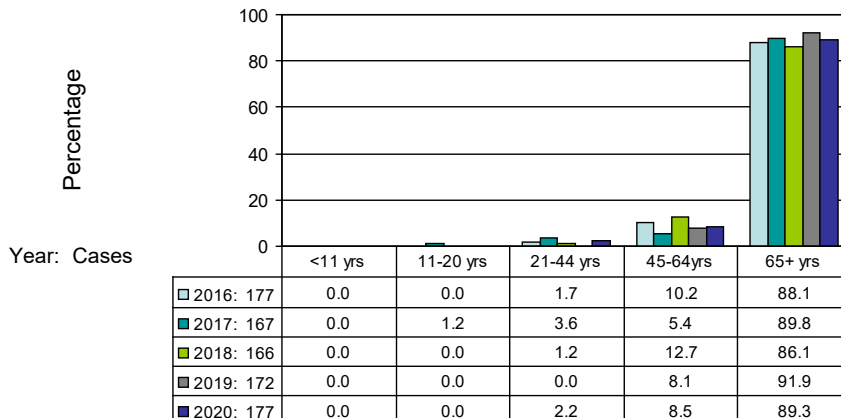


Figure 22: Deaths Resulting from Falls by Age, 2016-2020



MISCELLANEOUS

Unclaimed Bodies 2016-2020

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 2020, the office processed 40 unclaimed bodies.

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Medical Examiner Cases	9	15	13	20	16
Not Medical Examiner Cases	18	22	17	21	24
Total Cases	27	37	30	41	40*

*Of the 40 cases, 1 had assesses that was handled by the Public Administrator.

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 2016-2020

The Child Death Review Team reviews the deaths of those in Kent County who are 17 and younger. In 2020, there were 20 child death cases reviewed.

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>
Natural	3	1	0	1	1
SIDS	0	0	4	0	1
Vehicular Accident	2	5	3	2	1
Accidental	9	6	5	9	10
Suicide	3	4	4	4	2
Homicides	4	2	5	5	2
Indeterminate	0	2	0	2	3
Total Cases	21	20	21	23	20

Accidental includes death by suffocation (2), drowning (2), co-sleeping (3), and house fire (3).

Suicide includes death by hanging (2).

Homicide includes death by gun (2).

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