

# Kent County Medical Examiner



## 2021 Annual Report

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

## 2021 Kent County Medical Examiner Annual Report

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

I am pleased to present the Kent County Medical Examiner 2021 Annual Report. 2021 was a busy year, busier than past years. Our total caseload, which includes both accepted and declined cases, increased by 14%, resulting in 2,770 cases referred in 2021. Accepted cases are those deaths reported to us and deemed to be a medical examiner case, while declined cases are those reported to us which we determine do not warrant investigation under the Michigan Medical Examiner Law. Our expenditures decreased by \$48/case. Cremation permit requests, which generate income at \$70 per permit, increased by 10%.

In 2021, 62% of the deaths referred were natural, 30% accident, 5% suicide, 2% homicide and just under 1% were indeterminable, which is normal distribution. Fortunately, homicides decreased to 30 cases, whereas in 2020 our office investigated 53 homicides. In the accidental category, falls (mostly occurring in patients >65) accounted for 33% of the deaths, followed by drug overdoses (mostly fentanyl) at 27%, and motor vehicle crashes which accounted for 19% of accidental deaths. Traditionally, motor vehicle fatalities were more common than overdoses, but the current drug overdose epidemic has reversed that trend. Unfortunately, the 25 cases reviewed by the Child Death Review team represented a 20% increase from 2020.

Our office is authorized to make burial arrangements for decedents who may go unclaimed. Unclaimed body cases declined by 10% in 2021, thanks to the diligent efforts of our investigative and administrative staff, as well as several local funeral homes who are willing to provide burial services at significantly decreased cost.

We appreciate the help of law enforcement, the medical community, the Health Department, and other partners, as we strive to contribute to the health and well-being of the citizens of Kent County.

Respectfully submitted,



Stephen D. Cohle, MD  
Kent County Chief Medical Examiner



# 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.

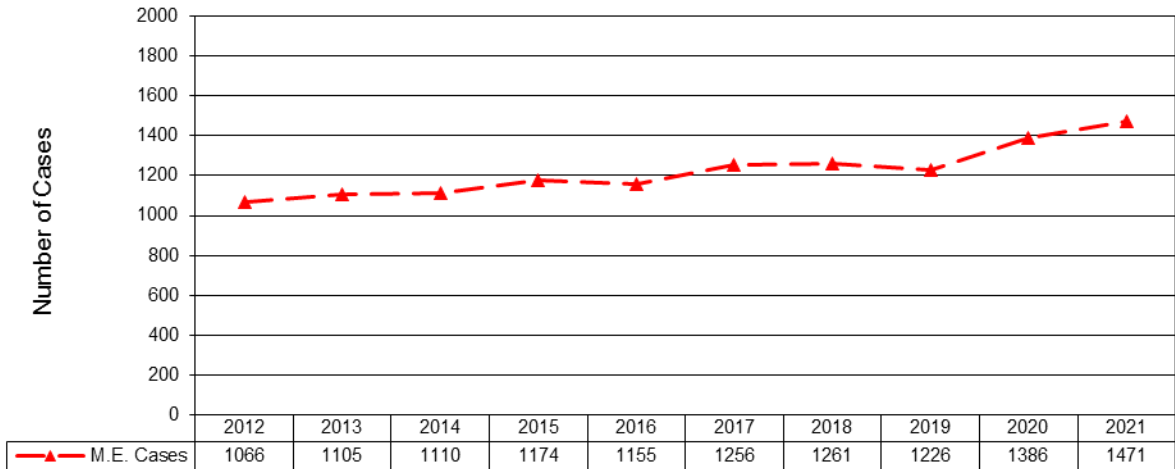
\*\*\*The 48 hour requirement triggers an investigation when there has been no medical attendance of any kind (i.e., nursing care, etc.)

## 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.

# 2021 Medical Examiner Caseload

**Figure 1: Accepted Kent County Medical Examiner Cases, 2012-2021**

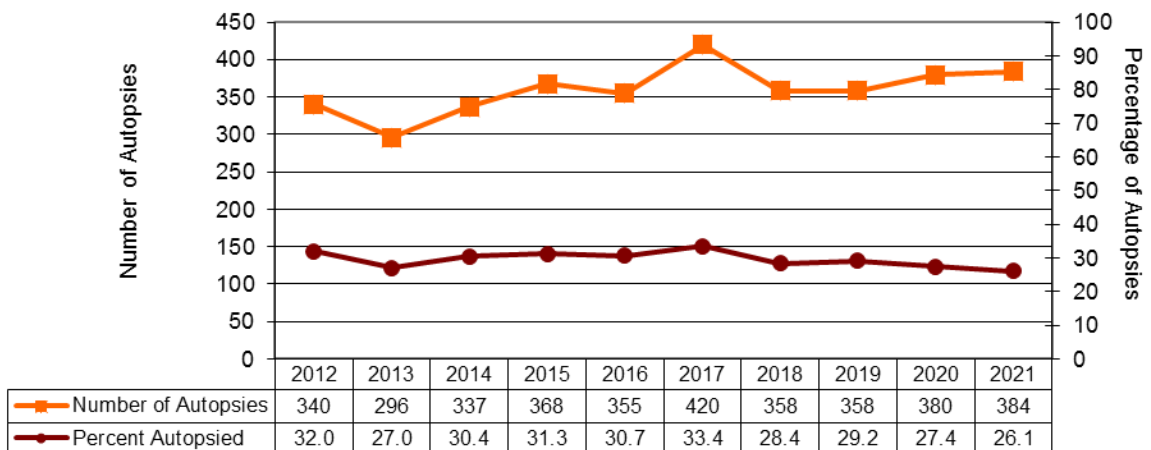


**Total Referred Medical Examiner Cases in 2021: 2,770**

Accepted	1,471	53.1%
Declined	1,299	46.9%

In 2021, there were 7,216 deaths in Kent County. The medical examiner was contacted regarding 2,770 of these deaths. 1,471 cases were accepted for investigation, while 1,299 were declined and did not fall within the requirements for investigation by the Medical Examiner’s Office. There were no exhumations in 2021. In 2021, there were 182 referrals to Gift of Life and Eversight resulting in 22 tissue donors and 14 eye donors.

**Figure 2: Medical Examiner Cases with Autopsy, 2012-2021**



Of the 384 autopsies performed, 379 were charged to Kent County. The remaining 5 autopsies were performed at the request of other counties. Toxicology was performed on 412 cases with 23 of those being views (104) and 22 where only toxicology was performed. There were no partial autopsies performed.

# 2021 Medical Examiner Caseload

Figure 3: Referred Medical Examiner Caseload by Month, 2017-2021

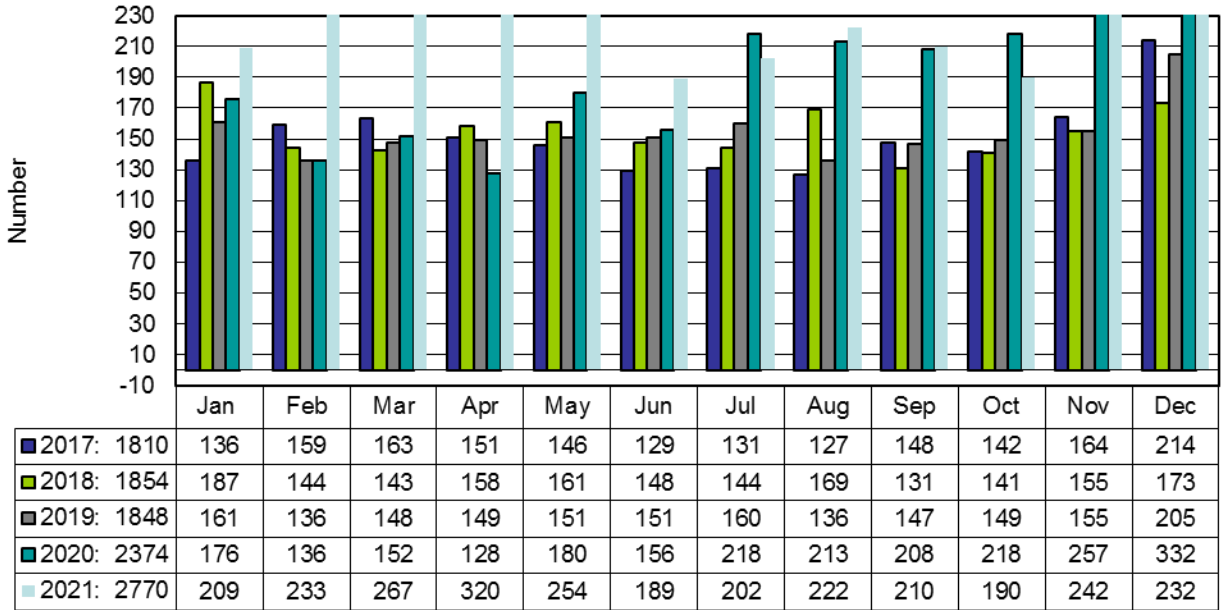
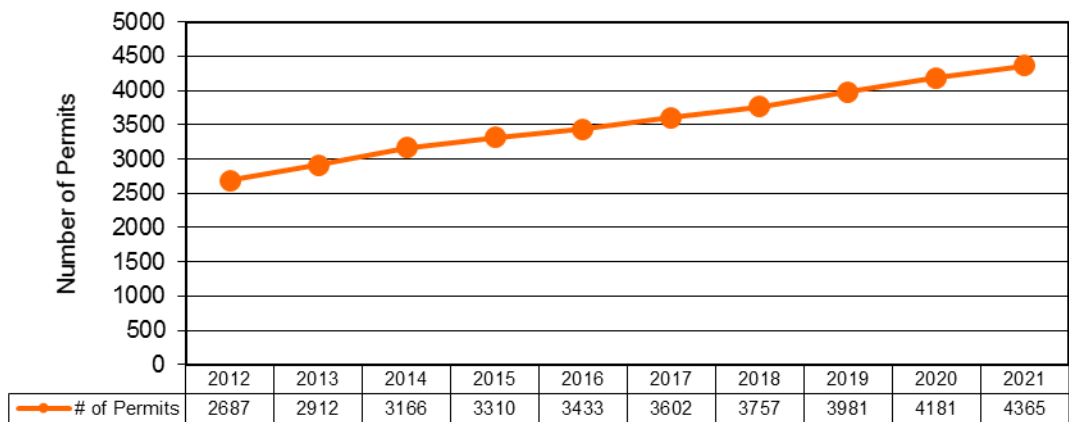
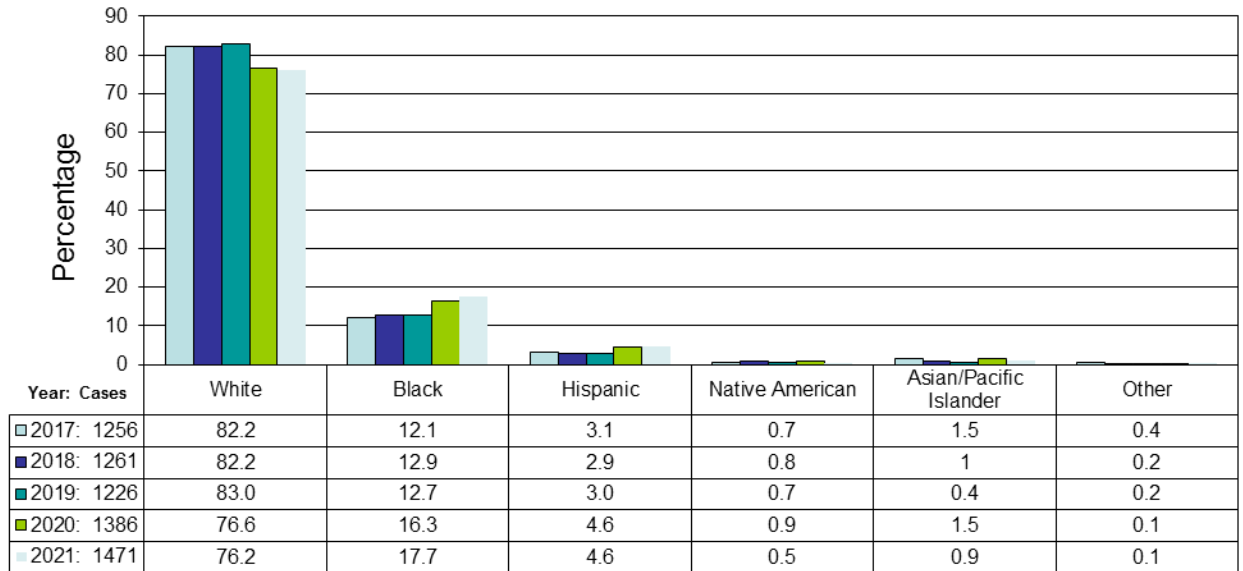


Figure 4: Cremation Permits Issued, 2012-2021

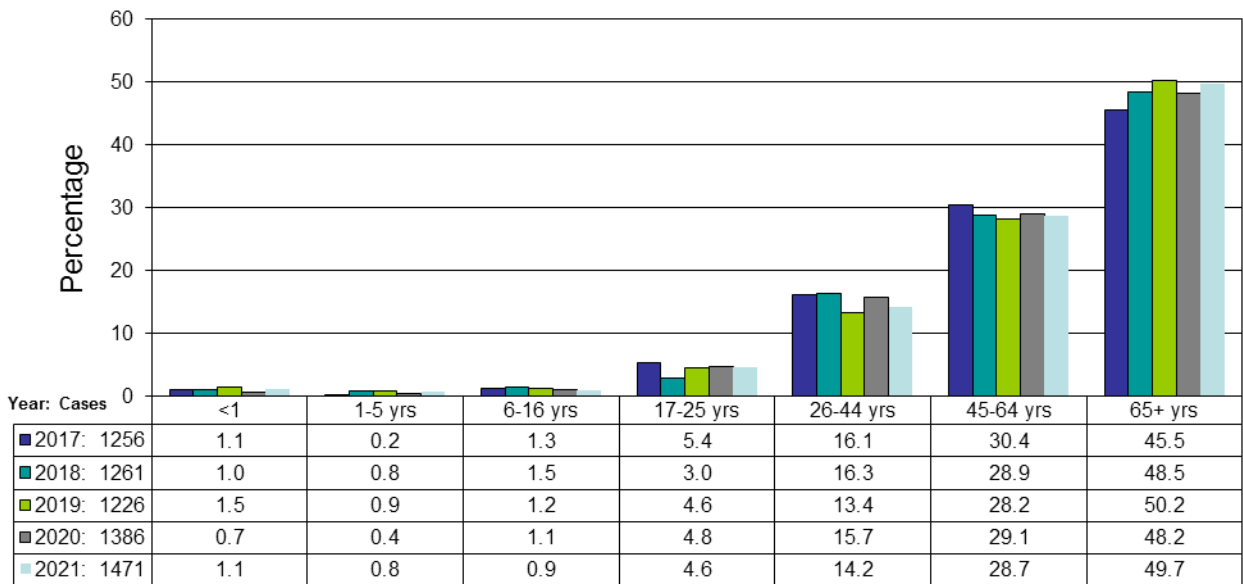


# Demographics of Medical Examiner Cases

**Figure 5: Medical Examiner Cases by Race/Ethnicity, 2017-2021**



**Figure 6: Medical Examiner Cases by Age at Death, 2017-2021**



**Table 1: Medical Examiner Cases by Gender, 2017-2021**

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Female	37.9%	39.1%	36.4%	35.5%	35.2% (518 cases)
Male	62.1%	60.9%	63.5%	64.5%	64.8% (953 cases)
Unknown			0.1% (1 fetus)		

# Manner of Death

Figure 7: Medical Examiner Cases by Manner of Death, 2012-2021

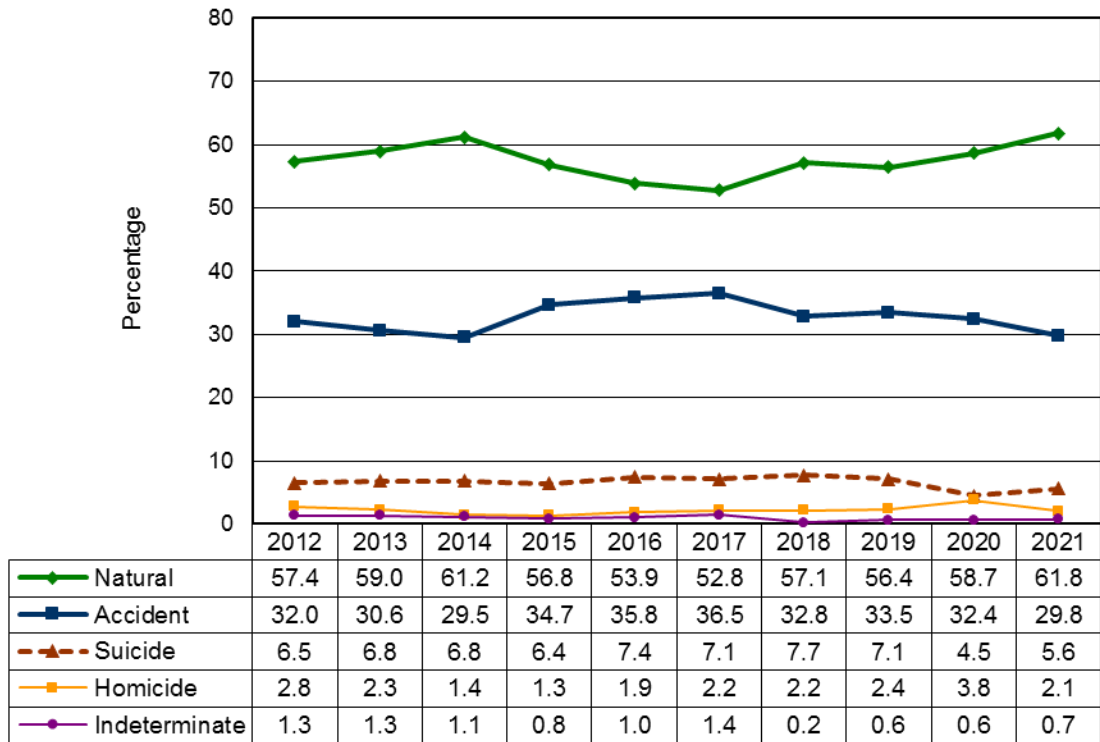
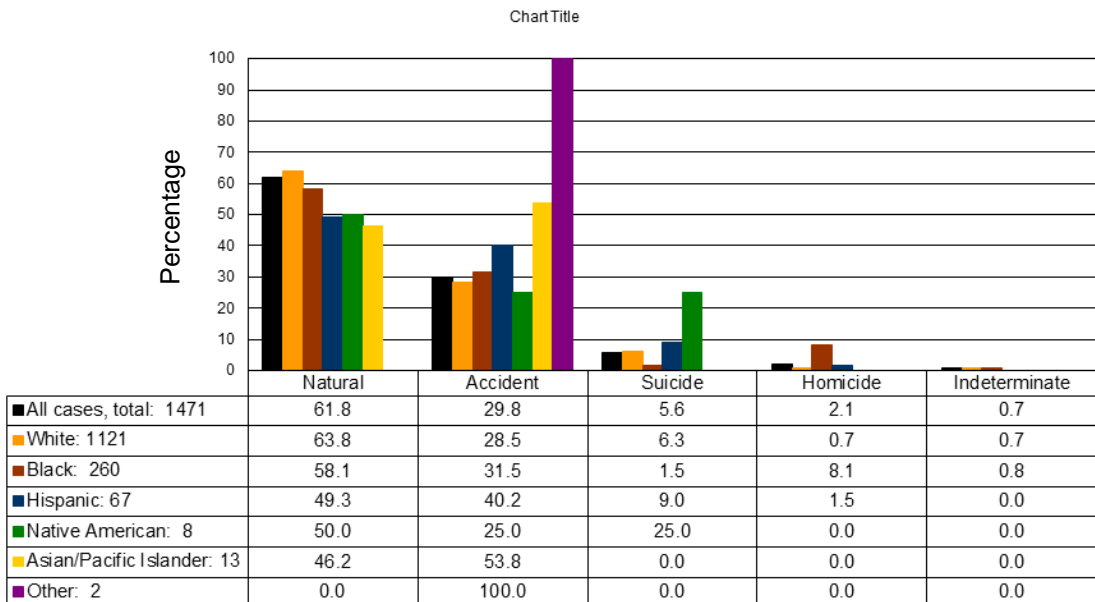


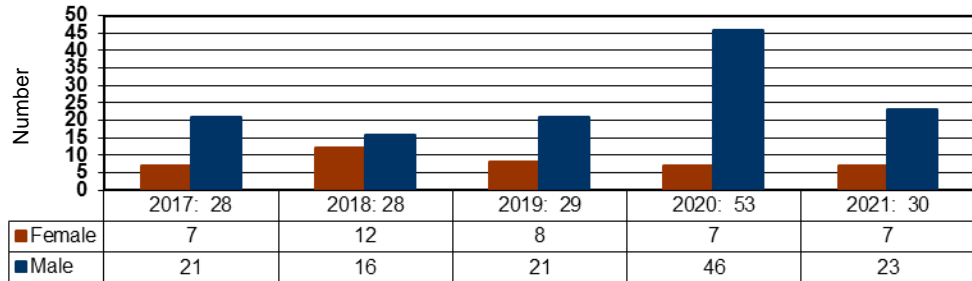
Figure 8: Manner of Death by Race/Ethnicity, 2021



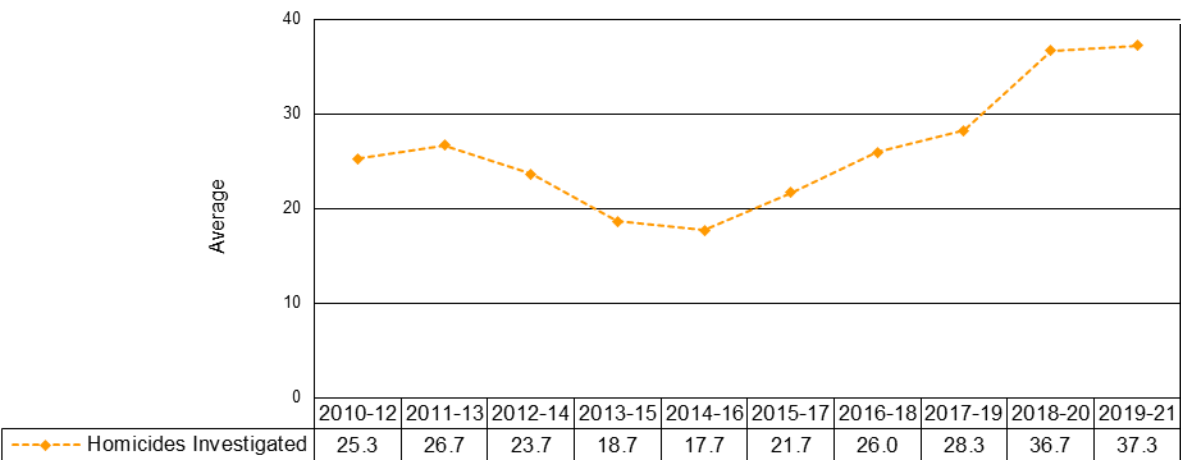


# Manner of Death

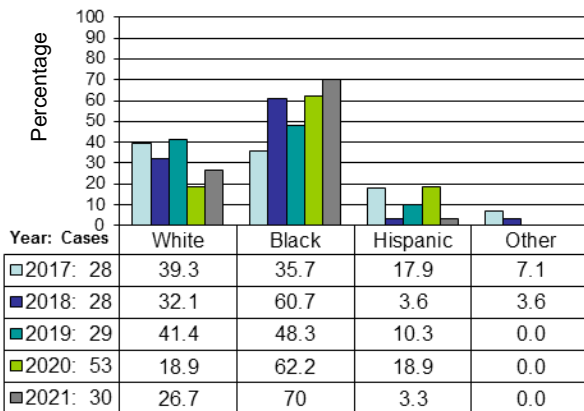
**Figure 9: Kent County Homicides by Gender, 2017-2021**



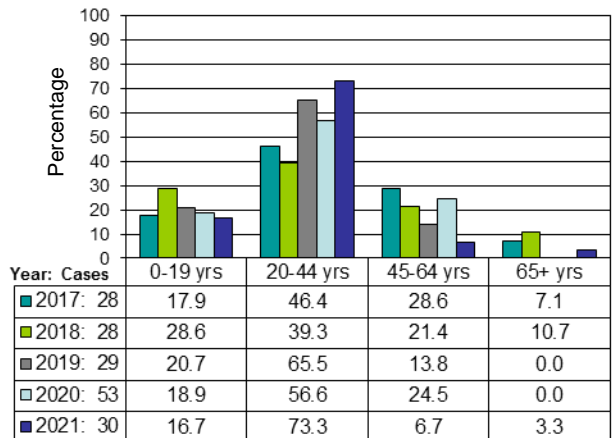
**Figure 10: Kent County Homicides, Three-Year Moving Averages, 2009-2021**



**Figure 11: Homicides by Race, 2017-2021**

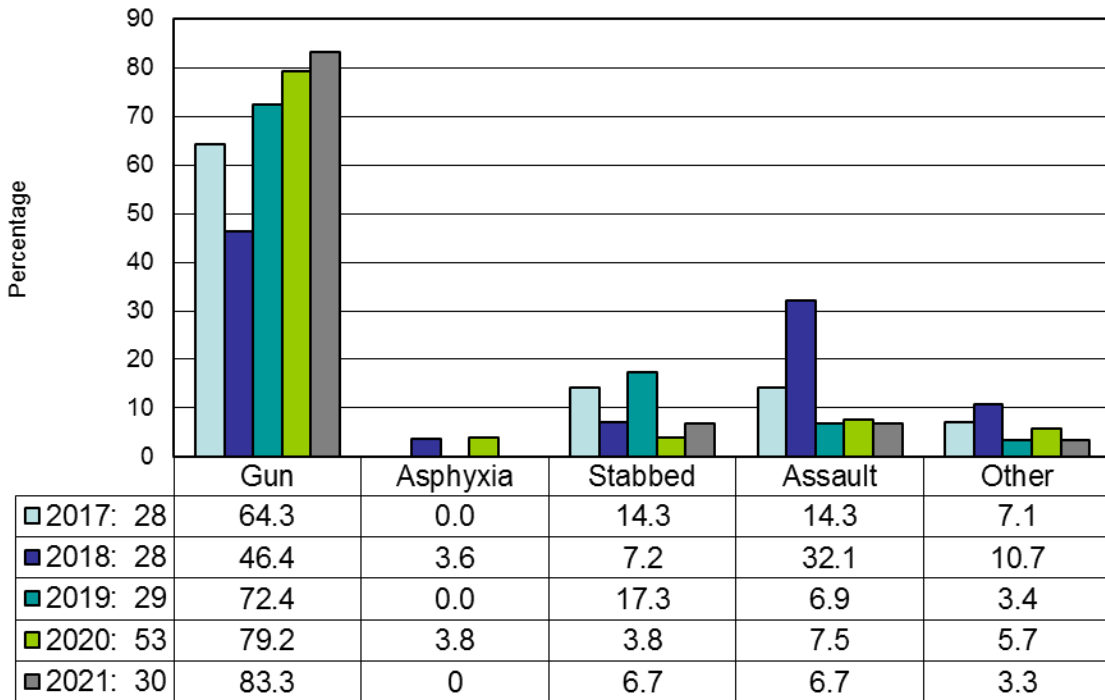


**Figure 12: Homicides by Age, 2017-2021**



# Manner of Death

**Figure 13: Homicide Cases by Method Used, 2017-2021**



**Table 2: Gun Homicides by Age, 2017-2021**

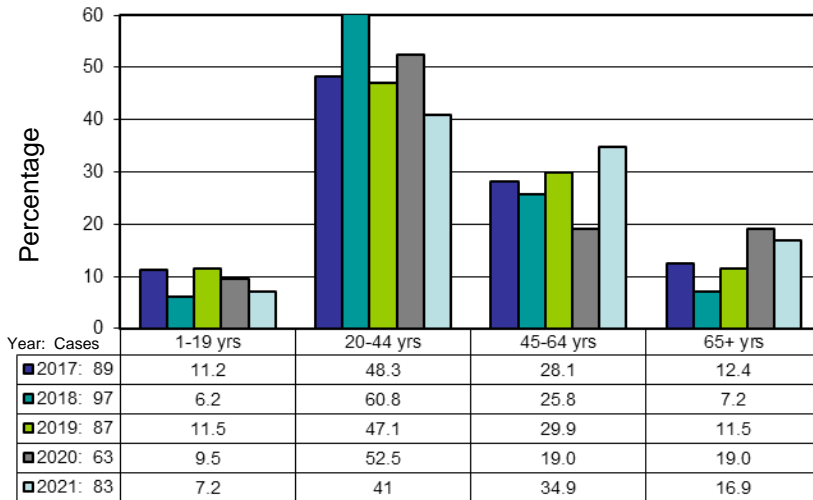
Year: Cases	AGE			
	0-19 yrs	20-29 yrs	30-39 yrs	40+ yrs
2017: 18	2	9	1	6
2018: 13	2	5	0	6
2019: 21	5	10	3	3
2020: 42	6	17	7	12
2021: 25	3	10	7	5

**Table 3: Suicide Cases by Race, 2017-2021**

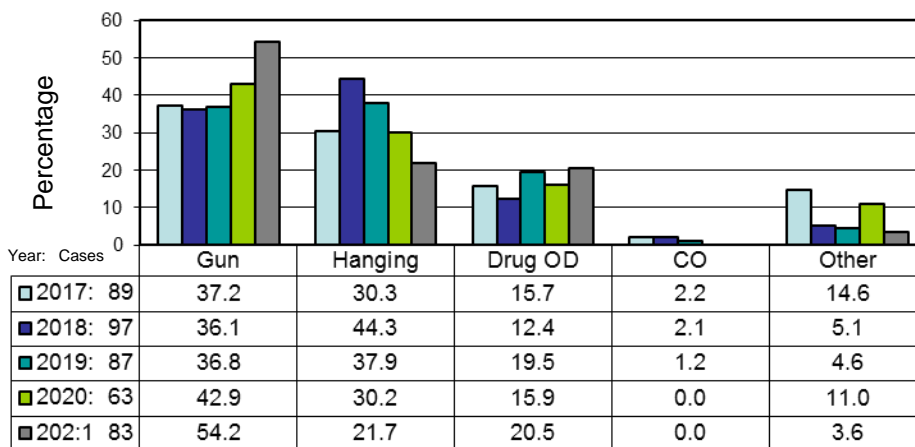
Year: Cases	White	Black	Hispanic	Native American	Asian
2017: 89	87.7%	2.2%	4.5%	2.2%	3.4%
2018: 97	83.5%	8.2%	6.2%	0.0%	2.1%
2019: 87	81.6%	8.1%	9.2%	0.0%	1.1%
2020: 63	79.4%	9.5%	6.3%	0.0%	4.8%
2021: 83	85.6%	4.8%	7.2%	2.4%	0.0%

# Manner of Death

**Figure 14: Suicide Cases by Age, 2017-2021**



**Figure 15: Suicide Cases by Method Used, 2017-2021**

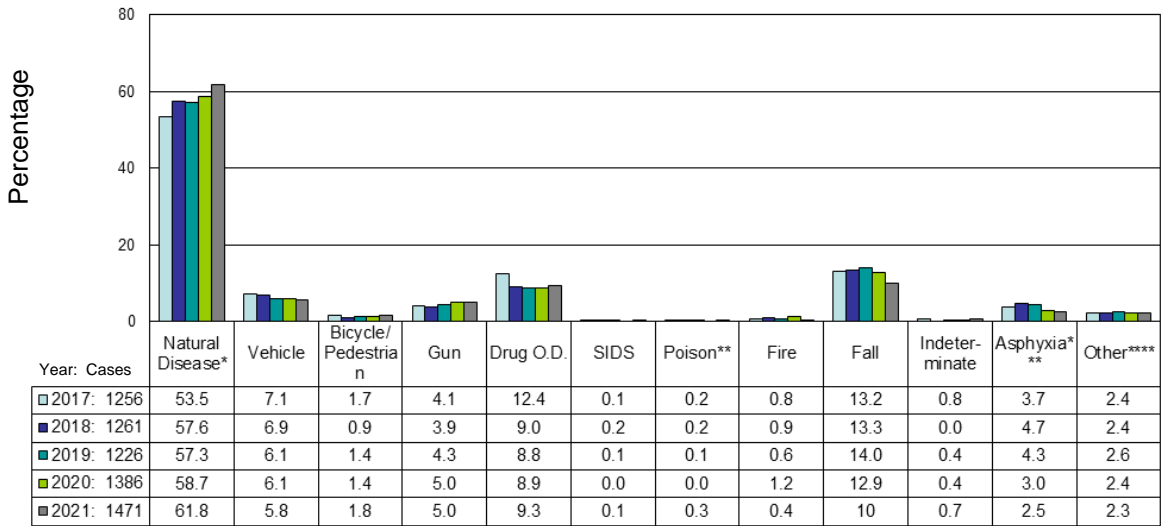


In 2021, Other consists of asphyxia by inhalation of helium (1), jumped in front of moving vehicle (1), stabbing (1).

Of the 83 suicide deaths for 2021, females accounted for 17 (20.5%) deaths, while males accounted for 66 (79.5%).

# Cause of Death

**Figure 16: Medical Examiner Cases by Cause of Death, 2017-2021**



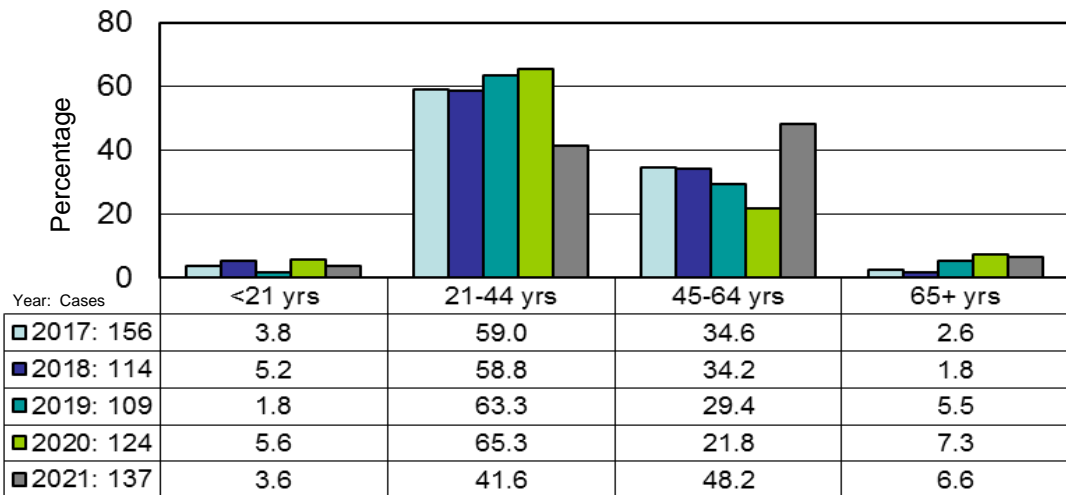
\*Natural: alcohol (93); cancer (31); cardiovascular (600); CNS (28); respiratory (100); and other (57).

\*\*Poison includes carbon monoxide poisoning (4).

\*\*\*Asphyxia includes deaths from hanging (18); choking on food (6); inhalation of helium bottle (1); co-sleeping (5); positional asphyxia (5); pinned between drywall/wood (1); and strangulation (1)

\*\*\*\*Other includes deaths from assault (2); drowning (13); stabbed (3); hypothermia (3); hyperthermia (1); hit/crushed/entrapped by object (6); swimming accident (1)

**Figure 17: Drug Deaths by Age, 2017-2021**

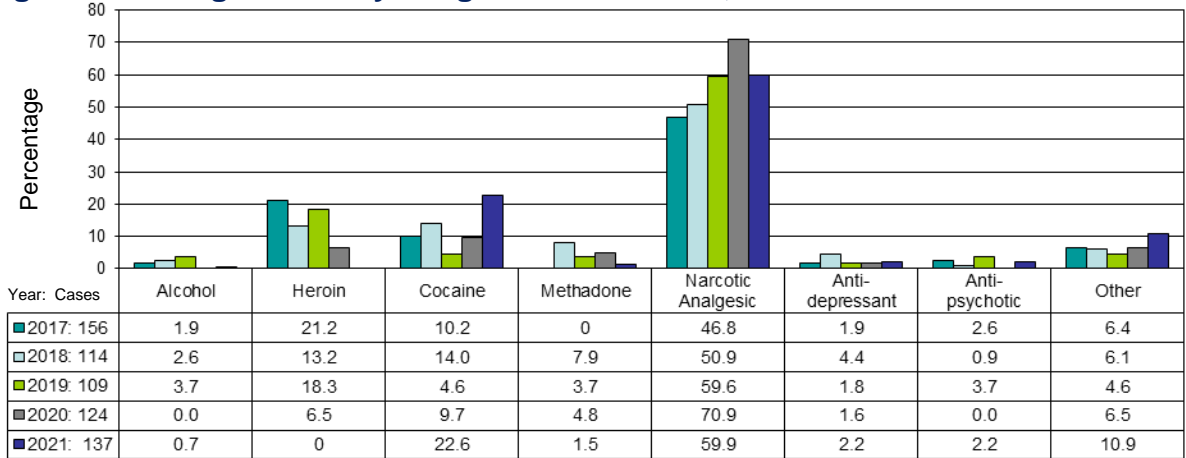


**Table 4: Drug Deaths by Gender, 2021**

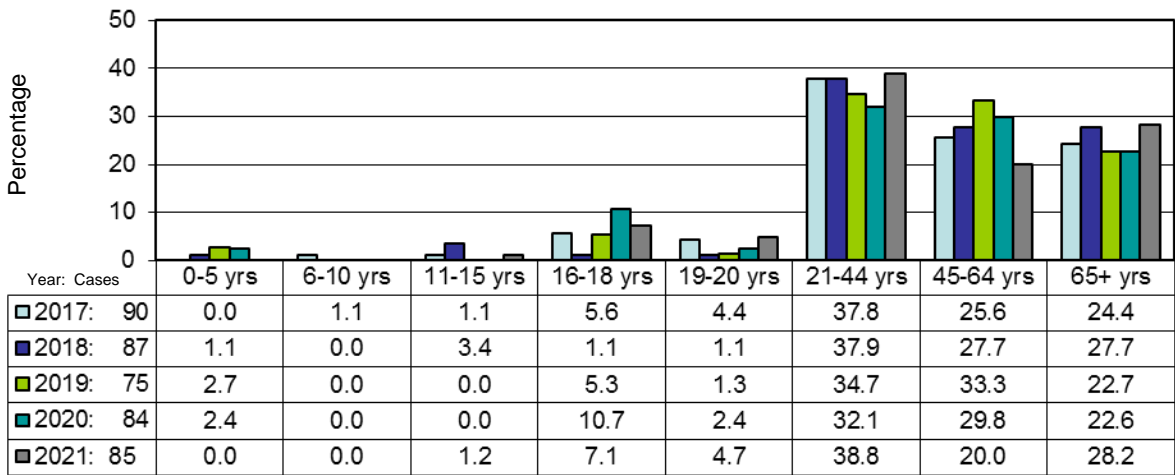
	<u>Female (42)</u>	<u>Male (95)</u>
Accident	34	85
Suicide	8	9
Indeterminate	0	1

# Cause of Death

**Figure 18: Drug Deaths by Drug of First Mention, 2017-2021**



**Figure 19: Vehicular Deaths by Age, 2017-2021**



**Table 5: Vehicular Deaths by Gender, 2017-2021**

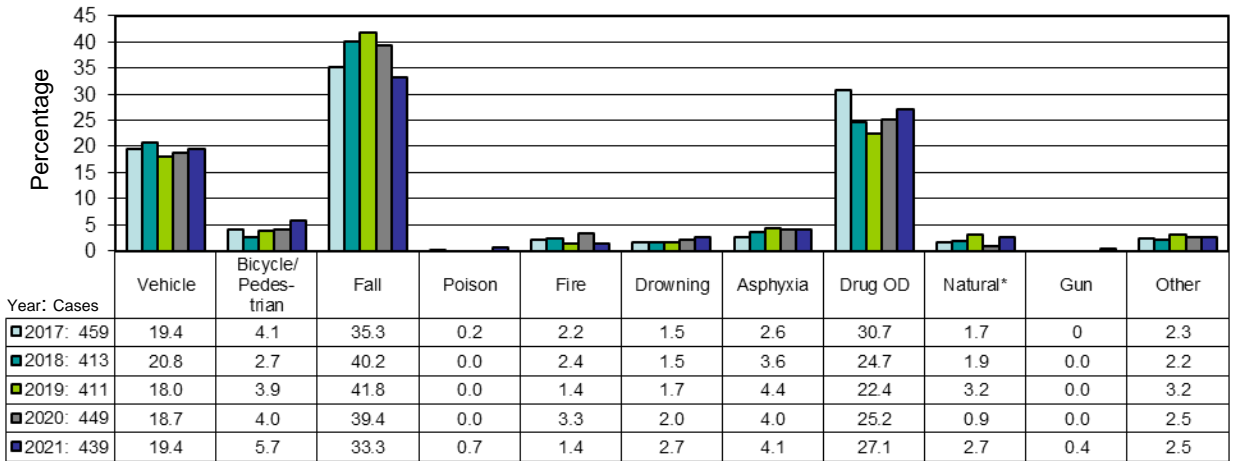
Year: Cases	Female	Male
2017: 90	30.0% (27)	70.0% (63)
2018: 87	37.9% (33)	62.1% (54)
2019: 75	34.7% (26)	65.3% (49)
2020: 84	34.5% (29)	65.5% (55)
2021: 85	30.6% (26)	69.4% (59)

**Table 6: Bicycle/Pedestrian Deaths by Age, 2017-2021**

Year: Cases	<21 yrs	21-44 yrs	45-64 yrs	65+ yrs
2017: 21	3	8	5	5
2018: 11	3	3	3	2
2019: 17	3	3	8	3
2020: 20	3	6	7	4
2021: 26	3	6	10	7

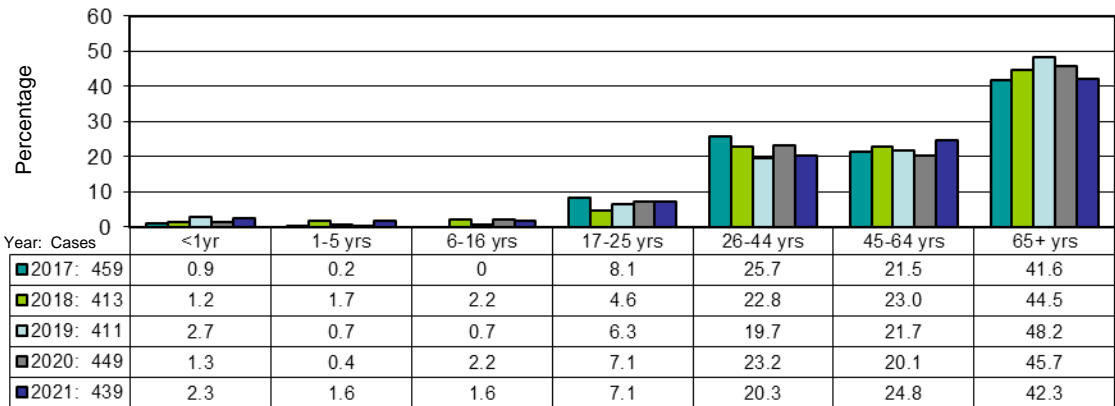
# Cause of Death

**Figure 20: Accidental Deaths by Cause, 2017-2021**

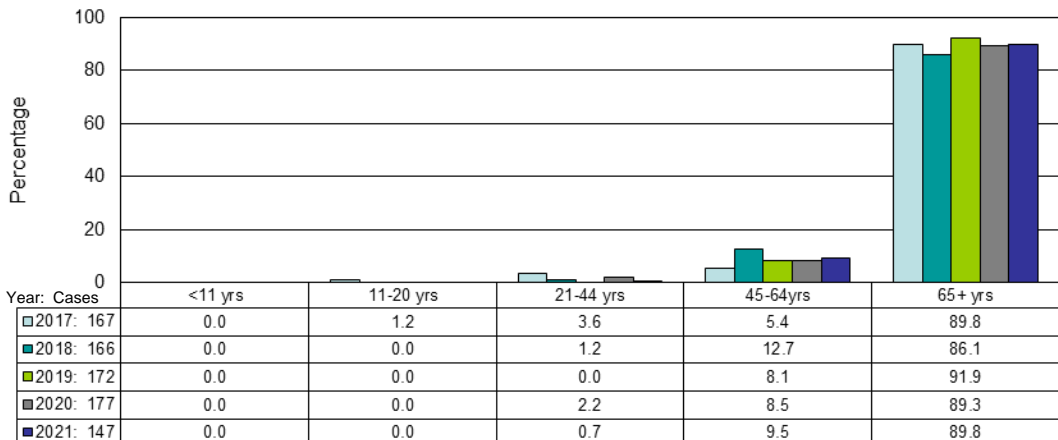


\*A natural cause of death can have a contributing factor that determines the death to be accidental. There were 12 deaths that fell into this category in 2021 from drug overdoses (10); fall (1) and hypothermia (1).

**Figure 21: Accidental Deaths by Age, 2017-2021**



**Figure 22: Deaths Resulting from Falls by Age, 2017-2021**



## MISCELLANEOUS

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### Unclaimed Bodies 2017-2021

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 Health & Human Services. In 2021, the office processed 36 unclaimed burials.

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Medical Examiner Cases	15	13	20	16	14
Not Medical Examiner Cases	22	17	21	24	22
Total Cases	37	30	41	40	36*

\*Of the 36 cases, 1 had assets, in which final disposition was handled by the Public Administrator.

Deceased are considered unclaimed when they absolutely have no legal next of kin. Others may fall under this category when family members are unable to afford the expense of a burial/cremation or prefer to not be involved with final disposition.

### Child Death Cases Reviewed 2017-2021

The Child Death Review Team reviews the deaths of those in Kent County who are 17 and younger. In 2021, there were 25 child death cases reviewed.

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Natural	1	0	1	1	3
SIDS	0	4	0	1	0
Vehicular Accident	5	3	2	1	2
Accidental	6	5	9	10	11
Suicide	4	4	4	2	2
Homicides	2	5	5	2	5
Indeterminate	2	0	2	3	2
Total Cases	20	21	23	20	25

Accidental includes death by suffocation (2), drowning (1), co-sleeping (6), drug toxicity (1), and gunshot wound (1).

Suicide includes death by hanging (1), and gunshot wound (1).

Homicide includes death by gun (4), and assault (1).

## **Kent County Medical Examiner 2021 Annual Report**

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