# SEDGWICK COUNTY REGIONAL FORENSIC SCIENCE CENTER PATHOLOGY DIVISION ANNUAL REPORT

#### PATHOLOGY DIVISION 2022 ANNUAL REPORT

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#### **HISTORY/OVERVIEW**

The Regional Forensic Science Center officially opened on December 21<sup>st</sup>, 1995. The Center houses the Pathology Division (including the Office of the District Coroner) and the Forensic Science Laboratories. The Pathology Division is organized into two sections: Medical Investigations and Autopsy Services.

As mandated by law [KSA 22a-231], the District Coroner has the responsibility for investigating deaths within Sedgwick County that are a result of violence, unlawful means, suddenly when in apparent health, not regularly attended by a physician, any suspicious or unusual manner, when in police custody, or when the determination of the cause of death is held to be in the public interest. The primary goal of investigation and the postmortem examination is to determine cause and manner of death in order to generate a death certificate.

Cause of death is the injury or disease that results in death. Manner of death is determined by circumstances in which the death occurred and includes natural, accident, homicide, suicide, and undetermined. Undetermined manner of death is used when circumstances are unknown or are unclear.

Since 2013, the number of cases reported annually to the office has averaged 3,564, with a 28.8% increase in deaths reported and a 39.0% increase in cases falling under Coroner jurisdiction (cases accepted). While no significant change in cases reported or accepted occurred compared to the year prior, a fairly significant increase for each has occurred since 2019.

The Pathology Division has been accredited by the National Association of Medical Examiners (NAME) since 2001.

#### **MISSION**

The Forensic Science Center strives to provide the highest quality medicolegal and advanced forensic laboratory services to Sedgwick County. Death Investigation and Forensic Autopsy services are conducted in a compassionate and objective manner to achieve accurate certification of cause and manner of death. The Forensic Laboratory services provide unbiased and accurate analytical testing to support the resolution of criminal cases. As an independent agency operating under the Division of Public Safety, the Forensic Science Center collaborates with public health and criminal justice stakeholders to reduce crime and prevent deaths.

#### **PATHOLOGY LEADERSHIP**

Director

Shelly Steadman, PhD

**District Coroner-Chief Medical Examiner** 

Timothy S. Gorrill, MD, PhD

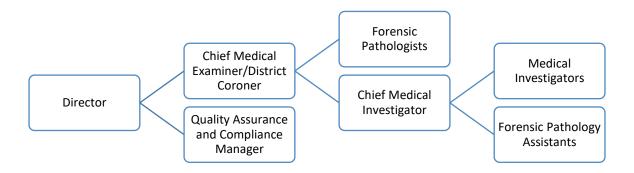
**Chief Medical Investigator** 

Shari L. Beck, F-ABMDI

**Quality Assurance and Compliance Manager** 

Robert C. Hansen II, M.S.F.S.

#### **PATHOLOGY ORGANIZATION**



#### **COUNTIES SERVED**

In 2022, the majority of service provided was for Sedgwick County; however, the Center does provide on a fee for service basis, autopsy examinations for many of the counties in the southcentral region of the state. In total, pathology examinations were performed on cases from 13 counties in 2022 [Figure 1].

According to the latest census data, the approximate population living in Sedgwick County is 525,525 and the approximate metropolitan population including the contiguous counties is 753,201.

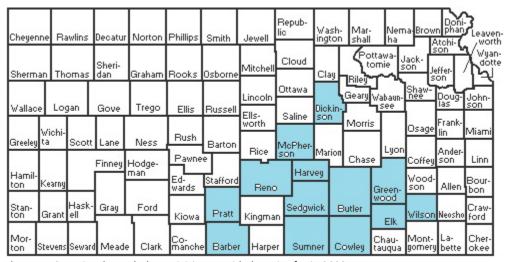
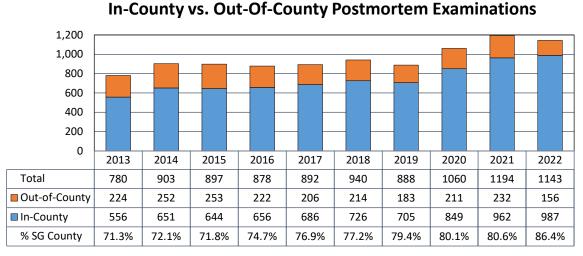


Figure 1: Counties the Pathology Division provided service for in 2022.

#### **DISTRIBUTION OF CASES: IN-COUNTY VS OUT-OF-COUNTY**

The Pathology Division serves as a resource to other counties in the state of Kansas. In 2022, approximately 13.6% of the examinations were performed for other counties [Figure 2]. Overall there has been an approximate 46.5% [Figure 3] increase in case examinations since 2013, with Sedgwick County cases increasing by 77.5% [Figure 2]. Figure 2 illustrates that there has been a 2.5% increase in cases originating within Sedgwick County and a 32.7% decrease in cases originating outside of Sedgwick County in 2022 when compared to 2021.

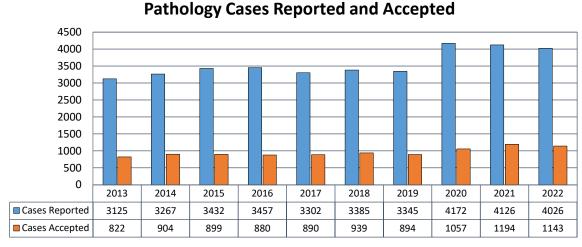


**Figure 2:** Ten (10) year comparison of the number of postmortem examinations. Examinations include Full and Partial Autopsies, External Examinations, Non-human Skeletal Remains, and Records Reviews.

#### **MEDICAL INVESTIGATIONS**

The Pathology division has a Chief Medical Investigator and five Medical Investigators. The Medical Investigators are on duty every day, twenty-four hours a day, and seven days a week. The Medical Investigator serves as the "eyes" and "ears" of the Coroner. The investigators triaged 4026 reported deaths in 2022.

The District Coroner accepted jurisdiction or assisted in 1143 [Figure 3] of the deaths reported. On average, over the last 10 years, coroner accepted cases constitute 27.0% of the total number reported to the office. Also, since 2013 there has been a 28.8% increase in the number of reported deaths and a 39.1% increase in the number of coroner cases accepted for examination in 2022.



**Figure 3:** Pathology cases reported include all deaths that were reported to the Center. Pathology cases accepted include Records Reviews, Autopsies, Partial Autopsies, External Examinations, and Non-human Skeletal Remains.

Medical Investigators may attend the scene of a death when it occurs outside of a hospital setting. Pertinent circumstantial and physical observations are documented and photographed, and items of evidence are collected in accordance with state law, good forensic principles and accreditation requirements established by the National Association of Medical Examiners [NAME]. The number of scene investigations by Medical Investigators per year [Figure 4] has shown a steady increase over the last 10 years, although the number was essentially flat in 2022 compared to the year prior. Also, between 2013 and 2022 there has been a 79.6% increase in the number of death scenes attended by medical investigators.

#### **Scene Investigations**

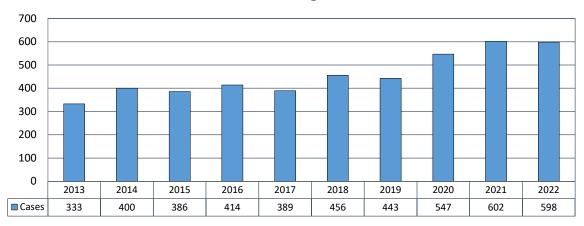


Figure 4: Number of scenes attended by Medical Investigators.

#### **CASE EXAMINATIONS**

**Figure 5** shows the number of postmortem exams, that includes full autopsies, partial autopsies, and external examinations. External examinations are performed in cases where scene investigation, circumstances, medical history, and the exam are sufficient to certify the death.

Since 2013, the average for full autopsies, external examinations, and partial examinations are 597, 202, and 39, respectively. In 2022, approximately 65% of the examinations were full autopsies, 31.5% were externals examinations, and 3.5% were partial examinations.

#### **Autopsy, External, and Partial Examinations**

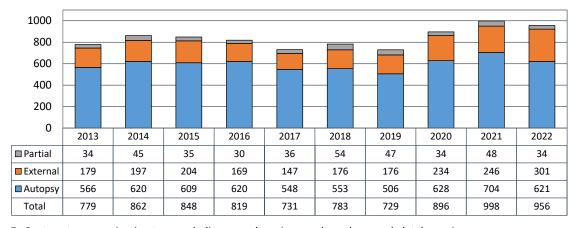
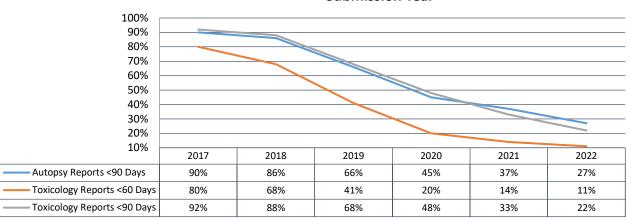


Figure 5: Postmortem examination type excluding records reviews and non-human skeletal remains.

#### **AUTOPSY REPORTS**

One important metric to monitor the work efficiency of the Pathology Division is the percentage of autopsy reports completed within 90 days of the examination. Usually, the percentage of cases that meet this mark is dependent upon how quickly the Toxicology Laboratory can complete testing and how quickly the case pathologist can complete his/her autopsy reports following the toxicology report being issued. In 2022, the pathology division saw a decrease in the percentage of cases that meet the goal of 90% cases completed within 90 days from examination [Figure 6]. There are several reasons why this occurred, including case volume increases for both Pathology and Toxicology, validations of new methods in the Toxicology lab, and continued staffing issues within the Toxicology Laboratory and Pathology Division.

## Percent of Autopsy Reports Issued Within 90 Days per Examination Year and Percent of Toxicology Post-mortem Reports Issued Within 60 and 90 Days per Submission Year



**Figure 6:** Percentage of autopsy reports issued within 90 days from examination per examination year and the percentage of Toxicology Postmortem reports issued within 60 days of submission per submission year. The goal for the autopsy reports is to have 90% of reports issued within 90 days from examination and the goal of the Toxicology Laboratory is to complete 90% of cases within 60 days from submission.

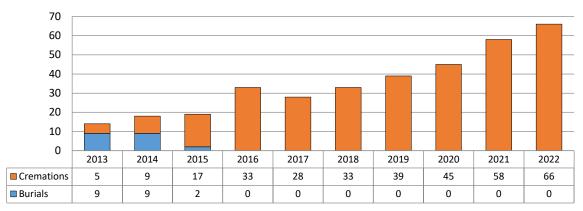
#### INDIGENT BURIALS AND CREMATIONS

Bodies that are under the jurisdiction of the Coroner shall be delivered to the immediate family or the next of kin of the deceased. If after a diligent search, no family member or concerned party is found that is willing to claim the remains, pursuant to KSA 22a-215, Sedgwick County is required to provide final disposition for the bodies of unclaimed deceased persons. In accordance with this statute, a procedure has been established by the Center to facilitate the necessary arrangements regarding indigent cremations. The Center maintains a contract with a local mortuary service to handle the disposition of the remains.

As of 2016, the Center cremates all unclaimed bodies under its jurisdiction [**Figure 7**]. The cremains are retained indefinitely in a respectful manner.

Since 2013, there has been a 1,320% increase in the number of indigent burials and cremations dispositioned by the Center.

#### **Indigent Burials and Cremations**



**Figure 7:** Number of Indigent Burials/Cremations for which the Center was responsible. In 2016, the County changed policy to allow for cremation only for final disposition.

#### **Cremation Permits**

In the state of Kansas, the Coroner is also charged with the investigation of death if the body is to be cremated. The investigation involves confirmation that the death certificate is appropriately executed, and that no further circumstances exist which may have contributed to the death. This may involve interviews with medical personnel, families or other interested parties, and/or a review of medical records. If the cause of death is unclear or falls under the jurisdiction of the Coroner, a postmortem examination and issuance of a revised death certificate may be required prior to cremation. **Figure 8** illustrates the number of cremations were similar for 2021 and 2022; however, were up approximately 75.6% since 2013.

#### **Annual Cremation Permits**

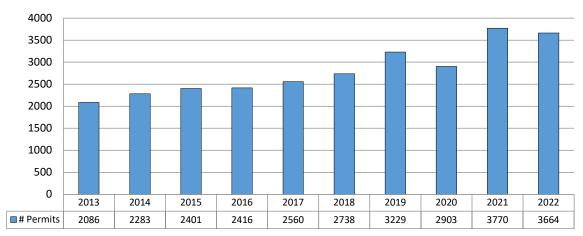


Figure 8: The number of cremation permits per year over a 10 year period.

#### **TISSUE DONATIONS**

The Pathology Division works in cooperation with procurement agencies to facilitate organ and tissue donation in cases where the death falls under the jurisdiction of the Coroner. **Figure 9** provides the annual count of eye, organ, and/or tissues donations since 2013.

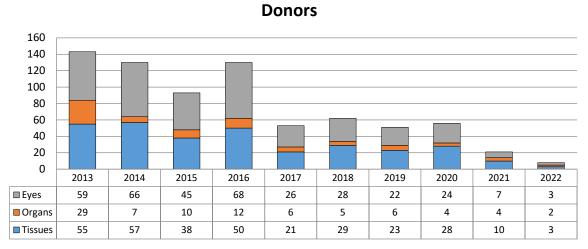


Figure 9: Annual count of eye, organ, and/or tissues donations.

#### CAUSE AND MANNER OF DEATH

#### **Cause of Death**

The cause of death is a term used to indicate the medical cause of death. It lists the disease(s) or injuries that caused death. Specific cause of death information is recorded on the death certificate and is entered into the Vital Statistics System of the State of Kansas.

The reason(s) why an accident occurred, a person took their own life, or why one person killed another person are not investigated by the medical examiner for the purpose of death certification.

#### **Manner of Death**

The District Coroner's Office is responsible for determining the manner of death, which is a way to categorize death as required by the Kansas Department of Health and Environment. The classifications of manner of death are natural, accidental, suicide, homicide, and undetermined.

**Figure 10** shows the breakdown of the deaths by manner. Homicides are deaths that result from injuries caused by the actions by another person. Homicides constituted 3.5% of the cases for 2022. The majority (78%) of these deaths resulted from gunshot wounds.

Suicides are defined as deaths that result from a purposeful action to end one's own life. In 2022, approximately 12.3% of the cases were certified as suicides.

Approximately, 50.7% of deaths were certified as accidents, which are those that resulted from an unintentional event or chain of events. This category includes most motor vehicle accidents, falls, and accidental drug overdoses.

Natural deaths are those that are solely caused by natural disease and constituted approximately 29.9% of the cases. The most common cause of death in cases of sudden, unexpected natural death is coronary artery disease.

Cases that were classified as an undetermined manner of death constituted approximately 3.4% of the total caseload.

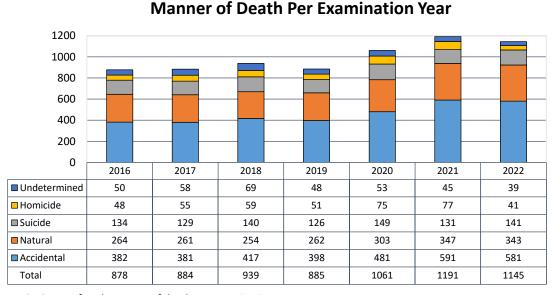
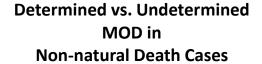


Figure 10: Count of each manner of death per examination year.

The manner of death (MOD) can be placed into two general categories, determined or undetermined. **Figure 11** illustrates the percentages of these two categories for cases with a cause of death that is non-natural.



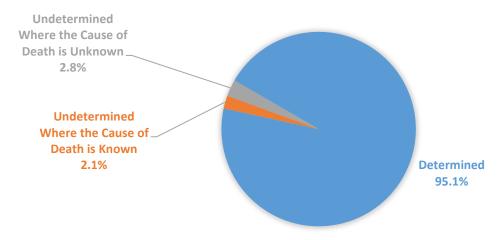


Figure 11: Percentage of determined versus undetermined manners of death.

**Table 1** illustrates the cause of death for cases where the manner was ruled non-natural. In 2022, toxicity (ethanol and/or drug) was the leading cause of non-natural deaths.

Non-natural Cause of Death	<b>Number of Deaths</b>	Percentage of Total
Toxicity (Ethanol and/or Drug)	321	40.4
Blunt Force Injuries	161	20.2
Firearms Injuries	119	14.9
Other	118	14.8
Hanging	33	4.1
Drowning	11	1.3
Hypothermia or Hyperthermia	10	1.2
Asphyxia (Strangulation or Suffocation)	8	1.0
Sharp Force Injuries	6	0.7
Smoke Inhalation and/or Thermal Injuries	6	0.7
Toxic Substance Poisoning	1	0.1

Table 1: Number of causes of non-natural deaths and the respective percentage of the non-natural deaths total.

#### **Accidents**

**Table 2** illustrates that approximately 15.3% of all accidental deaths were related to motor vehicle accidents (MVA) and approximately 51.3% were overdoses.

Mechanism of Injury	Number of Deaths	Percentage of Total
Overdose	294	51.3
Fall	97	16.9
Motor Vehicle	88	15.3
Medical Miscellaneous	55	9.5
Other	17	2.9
Submersion	7	1.2
Environmental Exposure	7	1.2
Fire Exposure	5	0.8
Firearms Injuries	1	0.1
Hanging	1	0.1
Mechanical Restraint	1	0.1

Table 2: Number of accidental deaths and the respective percentage of each mechanism of injury for all accidental deaths.

#### **Motor Vehicle Deaths**

**Figure 12** illustrates the percentage of motor vehicle deaths categorized by what is known about the restraint of the occupier, or if the decedent was a cyclist, which includes motorcyclist and bicyclists, or a pedestrian. There were 93 motor vehicle deaths (MVA) examined. As illustrated, unknown occupiers to the Coroner had the greatest percentage of deaths in 2022. An unknown occupier is a decedent that the Medical Investigators were unable to determine where the person was seated in the vehicle.

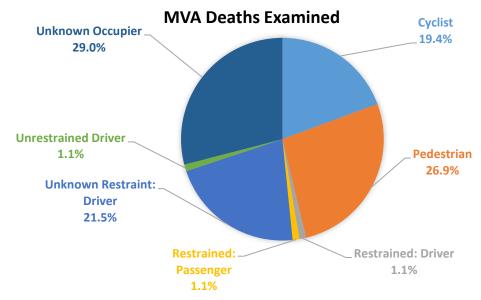


Figure 12: Motor vehicle deaths (MVA) per decendent restraint category.

In **Figure 13** is the number of motor vehicle accident fatalities per the weekday the death occurred.

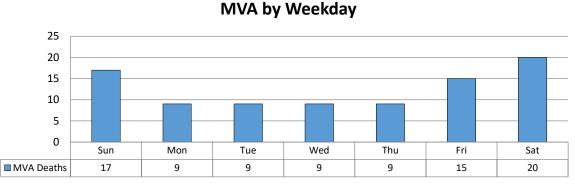
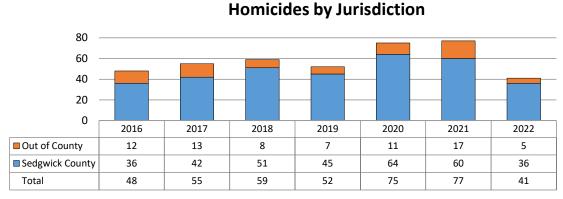


Figure 13: The number of motor vehicle accident fatalities per the weekday the death occurred.

#### **Homicides**

In 2022 there were 41 homicides that were examined by the District Coroner's Office, a decrease of approximately 46.7% from the prior year. As illustrated in **Figure 14**, most homicides originated within Sedgwick County.



**Figure 14:** The number of homicides examined that were determined by the RFSC categorized as originating in Sedgwick County versus all other counties.

**Figure 15** illustrates the percentage of homicides by decedent gender.

#### **Homicides by Gender**

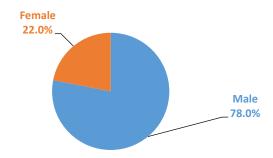


Figure 15: Percentage of homicides per decedent gender.

Figure 16 illustrates the percentage of homicides by race.

#### **Homicides by Race**

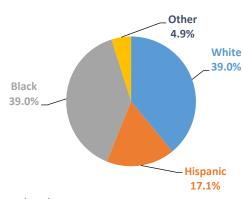


Figure 16: Percentage of homicides per decedent race.

**Figures 17 and 18** illustrate the number of homicides categorized by decendent gender and race over the past 8 years.

#### Male Homicides by Race

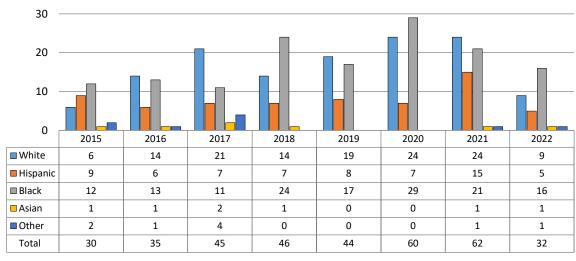


Figure 17: The number of males that died by homicide categorized by race over the past 8 years.

#### **Female Homicides by Race**

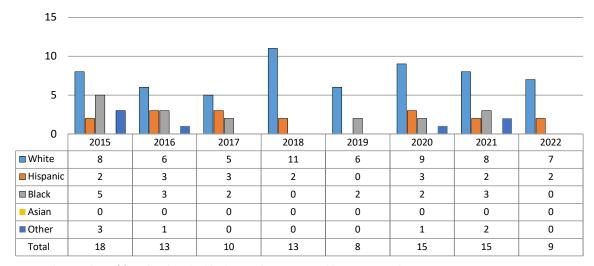


Figure 18: The number of females that died by homicide categorized by race over the past 8 years.

There were 41 homicide cases examined in 2022. **Figure 19** illustrates the number of cases categorized by age group. As depicted, most homicides occurred within the age group of 19-29 years old.

**Homicides Examined by Age Group** 

### 15 10 5 0 1-18 YRS 19-29 YRS 30-39 YRS 40-49 YRS 50-59 YRS 60-69 YRS 70-79 YRS 80+ YRS

0

0

Figure 19: The number of homicides examined categorized by the decedent age.

12

14

■ Homicides

There were 41 homicides reported in 2022. **Figure 20** illustrates the number of homicide cases that occurred in 2022 categorized by the month of occurrence. The chart shows that most homicides occurred in February.

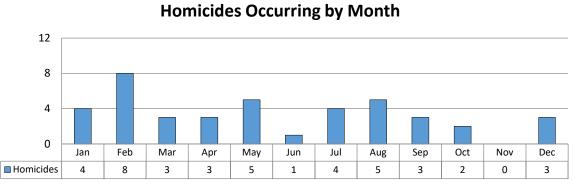


Figure 20: The number of cases determined to be homicides categorized by month the death occurred.

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**Figure 21** illustrates the number of homicide cases that occurred in 2022 categorized by the weekday of occurrence. The chart shows that most homicides occurred on Saturday.

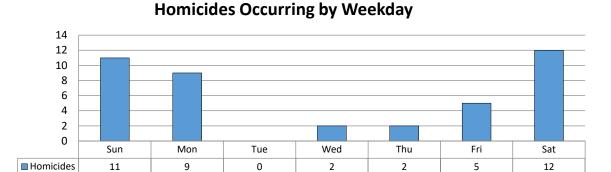


Figure 21: Number of cases determined to homicides categorized by day of the week the death occurred.

**Figure 22** illustrates the percentage of homicides occurring in 2022 categorized by what was determined to be the cause of death. As depicted, most homicides were caused by the use of firearms.

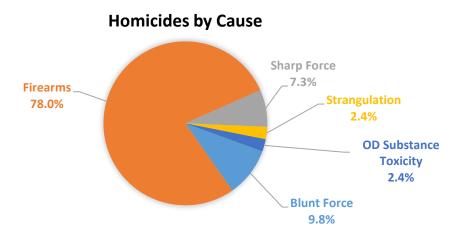


Figure 22: Homicides by cause.

#### **Suicides**

There were 140 cases were certified as suicide occurring in 2022, compared to 130 in 2021. Thus in 2021, 10.9% of Coroner cases were ruled suicide, while in 2022, that percent rose slightly to 12.% of the total cases under the jurisdiction of the Coroner. **Figure 23** shows a range of 109 to 150 of total suicides over the past eight years.

#### **Suicides by Jurisdiction**

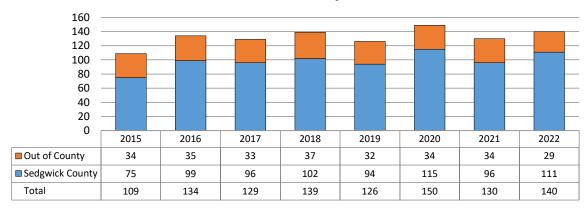


Figure 23: Suicides by county jurisdiction (Sedgwick County vs. Out of County).

**Figure 24** provides the percentage of suicides by gender. In 2022, males committed 83.6% of suicides and females committed 16.4%.

#### **Suicides by Gender**

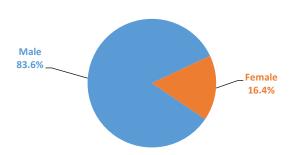


Figure 24: Percentage of suicides by gender.

**Figure 25** provides the percentage of suicides by race. The race that committed the greatest percentage of suicides is White (85.7), with Asian (2.1%) being the lowest percentage reported.

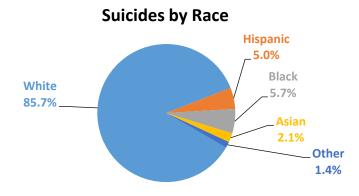


Figure 25: Suicide percentages categorized by race.

Figures 26 and 27 provide the number of suicides by gender broken down by race.

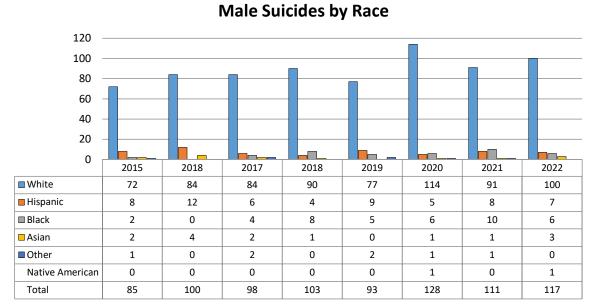


Figure 26: Number of suicides committed by males categorized by race per year of death.

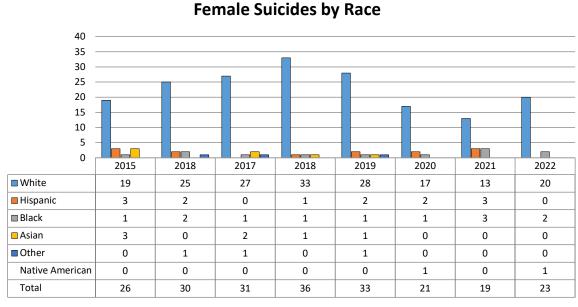


Figure 27: Number of suicides committed by females categorized by race per year of death.

As shown in **Figure 28**, most suicides were committed by people between the ages of 30 and 39.

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#### **Suicides by Age Group**

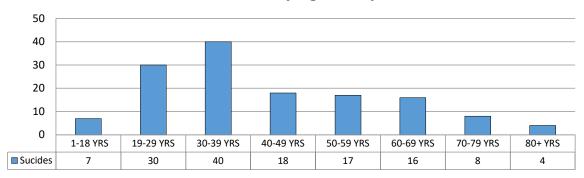


Figure 28: The number of suicides categorized by the decedent age.

**Figure 29** illustrates the number of cases that were determined to be suicides in 2022 categorized by the month of occurrence. The chart shows that most suicides occurred in May.

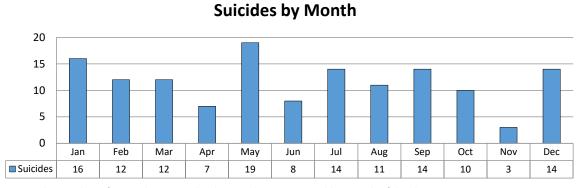


Figure 29: The number of cases determined to be suicides categorized by month of death.

**Figure 30** illustrates the number of cases that were determined to be suicides in 2022 categorized by the weekday of occurrence. The chart shows that more suicides happened on a Monday than any other day of the week.

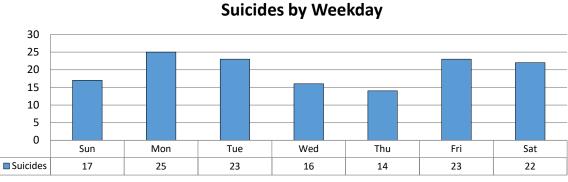


Figure 30: Number of suicides categorized by day of the week death occurred.

In 2022, the most common suicide methods were use of firearms (61) followed by asphyxia (hanging, strangulation, suffocation, or CO poisoning) (33) [Figure 31].

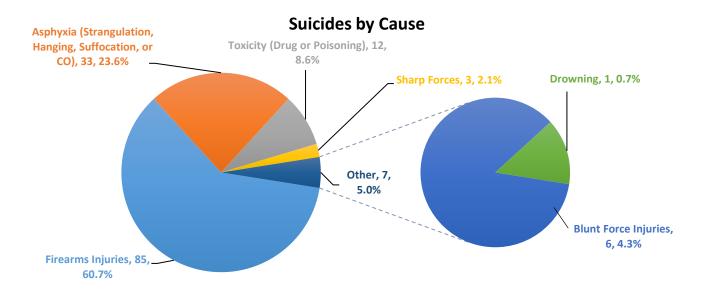


Figure 31: Suicides by cause.

#### **TOXICOLOGY**

In 2022, there were 978 pathology cases submitted to the toxicology laboratory, and increase of approximately 1.7% from the prior year [Figure 32].

Number of Postmortem Cases Submitted to the

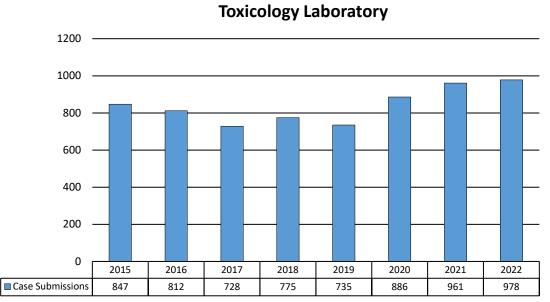


Figure 32: Number of Postmortem case submitted to the Toxicology Laboratory since 2015.

#### **Drivers**

In 2022, there were specimens from 90 postmortem cases submitted for testing to the toxicology laboratory from decedents of motor vehicle related deaths. [Figure 33] depicts the results of testing for ethanol (EtOH) and drugs.

Approximately 36.7% of fatally injured motor vehicle occupiers had neither EtOH nor drugs in their system. Thirty-three (33) decedents from motor vehicle related deaths tested negative for EtOH and negative for drugs, 18 were positive for EtOH and negative for drugs, 11 were positive for EtOH and positive for drugs, and 26 were negative for EtOH and positive for drugs. Additionally, there were 2 cases that tested positive for drugs, but did not undergo EtOH testing.

Of the EtOH positive blood specimens [**Figure 34**], 18 resulted in values of 0.24 gm% or higher range, 5 in the 0.16 to 0.23 gm% range, 4 in the 0.08 to 0.15 gm% range, and 2 tested below 0.08 gm%. The highest blood alcohol result was 1.007 gm%.

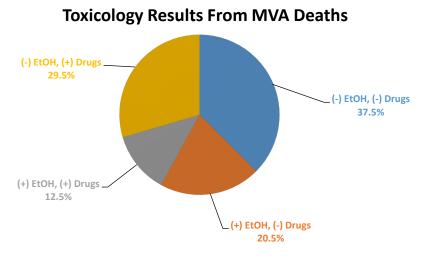
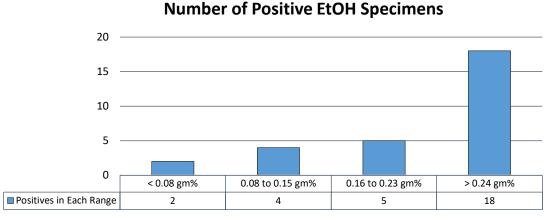


Figure 33: Ethanol and drug results from fatally injured drivers and/or occupants.



**Figure 34:** Illustrates the number of positive EtOH specimens within categorized as below the legal limit (< 0.08 gm%), above the legal limit (0.08 to 0.15 gm%), twice the legal limit (0.16 to 0.23 gm %), and three times or more over the legal limit (> 0.24 gm%).

#### **Drug Related Deaths**

Drug related deaths is a general term for deaths caused by drug use. These deaths may include, but not necessarily limited to, overdoses, deliberate poisonings, accidental poisonings, suicides, health issues related to drug use, deaths due to accidents, or other deaths where a drug is detected in a Toxicology Postmortem specimen.

In drug related deaths, it is very common for the Toxicology Laboratory to detect opioids, methamphetamine, and/or a benzodiazepine in the specimens collected at autopsy or the hospital. They are especially very commonly detected in cases determined to be overdoses, although they are not necessarily detected in every case.

Of particular interest for public health and public safety are overdose deaths and other death types that had either an opioid, methamphetamine, or a benzodiazepine detected. Information about these are provided below.

#### **Overdoses**

Overdose deaths are a type of drug related death that can be either accidental or intentional. In 2022, there were a total of 309 overdose fatalities [Figure 35], which equates to an approximate 94.3% increase since 2015 [Figure 36].

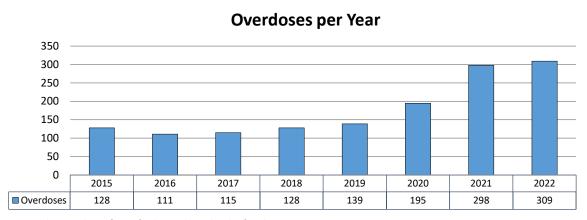


Figure 35: The number of certified overdose deaths for the past 8 years.

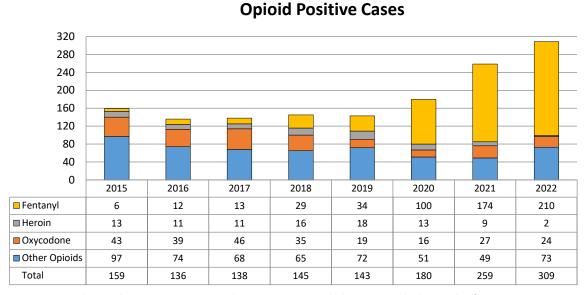
**Table 3** illustrates the count of overdose deaths in 2022 within each age group. The greatest number of overdose deaths occurred in the 31 to 40 year old age group.

	Age Group	Number of Deaths (All Counties)	Number of Deaths (Sedgwick County)
2022	0-20	21	20
	21-30	53	47
	31-40	75	61
	41-50	65	59
	51-60	54	47
	61-70	36	30
	71-80	5	5

**Table 3:** Illustrates the number of overdose deaths within each age group for all cases examined and how many of those were from Sedgwick County.

#### **Opioid Positive Postmortem Cases**

Deaths where an opioid was detected were at another record high in 2022 with a total of 309 (previous high was 259 in 2021). The range of opioid positive postmortem cases over the past eight years is 136 to 309 with an average of approximately 183. **Figure 36** provides the count of opioid related deaths broken down into four categories (Fentanyl, Heroin, Oxycodone, and Other Opioids).



**Figure 36:** Opioids detected in Postmortem Toxicology cases. The graph depicts opioids detected in four categories; fentanyl, heroin, oxycodone, and all other opioids. The counts are formulated by a method where: 1.) If a case has fentanyl detected it is counted as fentanyl; 2.) If a case does not have fentanyl detected and heroin is detected then it is counted as heroin; 3.) If a case has neither fentanyl nor heroin detected and oxycodone is detected then it is counted as oxycodone; and, 4.) If a case has neither fentanyl nor heroin nor oxycodone detected and has any other opioid detected then it is counted as other opioids.

**Table 4** illustrates the count of fentanyl positive postmortem cases in 2022 within each age group. The greatest number of deaths in which fentanyl was detected occurred in the 31 to 40 year old age group.

	Age Group	Number of Deaths (All Counties)	Number of Deaths (Sedgwick County)
2022	0-20	21	20
	21-30	37	34
	31-40	53	45
	41-50	43	40
	51-60	22	21
	61-70	16	13

**Table 4:** Illustrates the number of fentanyl positive postmortem cases within each age group for all cases examined and how many of those were from Sedgwick County.

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**Table 5** illustrates the count of opioid positive postmortem cases per non-natural manner and cause of death. Additionally, there were 28 cases determined to be natural that the decedent had an opioid detected in their toxicology specimens.

	Manner of Death	Cause of Death	Number of Deaths
2022	Accidental	OD Substance Toxicity	230
	Accidental	Blunt Force Injuries	12
	Accidental	Hypothermia	1
	Accidental	Suffocation Asphyxia	1
	Accidental	Drowning	2
	Accidental	Other	4
	Accidental	Toxic Substance Poisoning	1
	Homicide	Firearms Injuries	1
	Suicide	Firearms Injuries	7
	Suicide	OD Substance Toxicity	4
	Suicide	Suffocation Asphyxia	1
	Undetermined	Other	3
	Undetermined	OD Substance Toxicity	2

Table 5: Number of non-natural opioid positive postmortem cases categorized by manner of death and cause of death.

#### Methamphetamine Positive Postmortem Cases

Methamphetamine positive postmortem cases have also shown a steady increase over the last several years. In fact, methamphetamine was detected in the highest number of cases (199) ever recorded at the Center in 2022. The range of methamphetamine positive postmortem cases over the past eight years is 71 to 199 with an average of approximately 121.

**Table 6** illustrates the count of methamphetamine related deaths per non-natural manner and cause of death. Additionally, there were two cases determined to be natural where methamphetamine was detected in the decedent's toxicology specimens.

	Manner of Death	Cause of Death	Number of Deaths
2022	Accidental	OD Substance Toxicity	143
	Accidental	Blunt Force Injuries	18
	Accidental	Thermal Injuries	1
	Accidental	Other	4
	Accidental	Hypothermia	2
	Homicide	Firearms Injuries	7
	Homicide	Sharp Force Injuries	2
	Homicide	Blunt Force Injuries	1
	Suicide	Hanging Asphyxia	8
	Suicide	Firearms Injuries	5
	Suicide	OD Substance Toxicity	1
	Suicide	Blunt Force Injuries	1
	Undetermined	Other	2
	Undetermined	OD Substance Toxicity	1
	Undetermined	Blunt Force Injuries	1

**Table 6:** The number of non-natural methamphetamine positive postmortem cases categorized by manner of death and cause of death.

#### **Benzodiazepine Positive Postmortem Cases**

Benzodiazepine positive postmortem cases have also shown a steady increase over the last several years. In fact, benzodiazepines were detected in the highest number of cases (118) ever recorded at the Center in 2022. The range of benzodiazepine positive postmortem cases over the past eight years is 38 to 118 with an average of approximately 98.

**Table 7** illustrates the count of benzodiazepine related deaths per non-natural manner and cause of death. Additionally, there were seventeen cases determined to be natural where a benzodiazepine was detected in the decedent's toxicology specimens.

	Manner of Death	Cause of Death	Number of Deaths
2022	Accidental	OD Substance Toxicity	73
	Accidental	Blunt Force Injuries	6
	Accidental	Other	2
	Accidental	Hypothermia	1
	Accidental	Drowning	1
	Suicide	Hanging Asphyxia	5
	Suicide	Firearms Injuries	5
	Suicide	OD Substance Toxicity	5
	Suicide	Suffocation Asphyxia	1
	Undetermined	Other	2

**Table 7:** The number of non-natural benzodiazepine positive postmortem cases categorized by manner of death and cause of death.