

Preface

This annual report is a collection of data describing the work of the employees of the Cobb County Medical Examiner's Office; although it reflects the work completed by our office in the prior year, what this report does not make evident is the dedication of the employees of this office. The staff of the Cobb County Medical Examiner's Office strives to serve Cobb County and provide its citizens with accurate and timely death investigation while showing compassion for family and friends of our patients. The employees who served in our office in the past year are:

Administrative Personnel
Michael Gerhard, D-ABMDI, Operations
Manager
Lisa Miller, Part-Time Administrative
Assistant
Blossom Pugh, Accreditation Coordinator
Becky Youngblood, Administrative Assistant

Forensic Investigators
Allison Gaines, MBS, D-ABMDI
Martin Jackson, D-ABMDI
Cara Rolfe, PhD, F-ABMDI
Holly Rymer, D-ABMDI
Temperance Stoddard, MS, F-ABMDI

Forensic Technicians Lisa Bailey, D-ABMDI Jada Henderson Tyrone White Shana Wooldridge Medical Examiners
Christopher Gulledge, MD, MS, Chief
Medical Examiner
Cassie Boggs, MD, Deputy Chief Medical
Examiner
Abraham Philip, MD, Medical Examiner

Without these individuals, Cobb County's Medical Examiner Office would not have been able to serve the county during 2018 and the needs of the citizens and agencies who depend on the Medical Examiner's Office would not have been met. For the dedication to your work and for regularly exceeding the expectations of your respective positions, thank you.

The role of a Medical Examiner's Office is to determine the cause and manner of deaths that occur within its jurisdiction. Although this information is most often thought of as applying to the individual whose death is being investigated, analysis of the entirety of the data collected and produced by the Medical Examiner's Office can also be of benefit to the community when it is used by the public health, public safety, and planning departments serving the community. This report is a compilation of the data for 2018 in hopes of such service. Our office is dedicated to the service of our community, and so this document is one that evolves as the needs and interests of our community change.

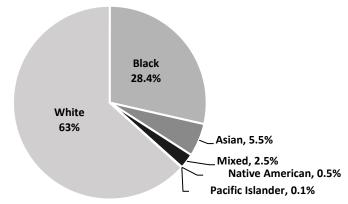
Cassie Boggs, MD Deputy Chief Medical Examiner

Table of Contents

Introduction	4
All Reported Deaths	7
All Accepted Jurisdiction Deaths	9
Deaths by Manner	
Natural	12
Accident	15
Homicide	18
Suicide	22
Undetermined	25
Special Populations	
Drug Related Deaths	29
Children	37
1-17 Years old	39
Infants	40
Motor Vehicle Related Deaths	42
Death Certificate Investigations	15

INTRODUCTION

The Cobb County Medical Examiner's Office (CCMEO) serves Cobb County which covers an area of 345 square miles. Cobb County has an estimated population of 755,754 as of July 1, 2018. According to the estimated 2018 census data, the demographics of the county were 63% White, 28.4% Black, 5.5% Asian, 0.5% Native American, 0.1% Pacific Islander, and 2.5% of mixed demographics.



Cobb County Demographics (US Census Bureau 2018 Estimate)

The mission of the CCMEO is to provide Cobb County with accurate and timely medico-legal death investigations and quality postmortem examinations, where the causation of death occurred within the geographic boundaries of Cobb County and was the result of homicide, suicide, accident, or a death where the cause and manner were not apparent. The deaths that fall under the jurisdiction of the CCMEO are defined by § 45-16-24 (The Georgia Death Investigation Act) as deaths that occur:

- (1) As a result of violence;
- (2) By suicide or casualty;
- (3) Suddenly when in apparent good health;
- (4) In any suspicious or unusual manner, with particular attention to those persons 16 years of age and under;
- (5) After birth but before seven years of age if the death is unexpected or unexplained;
- (6) As a result of an execution carried out pursuant to the imposition of the death penalty under Article 2 of Chapter 10 of Title 17;
- (7) When an inmate of a state hospital or a state, county, or city penal institution;
- (8) After having been admitted to a hospital in an unconscious state and without regaining consciousness within 24 hours of admission;
- (9) As a result of an apparent drug overdose; or
- (10) When unattended by a physician.

Although the deaths that fall under the jurisdiction of the CCMEO are defined by law, the extent of examination, if any, required for these deaths is at the discretion of the Medical Examiner.

The municipalities served by the office include Marietta, Kennesaw, Smyrna, Acworth, Powder Springs, and Austell. The CCMEO additionally covers two federal parks and the unincorporated areas of Cobb County. Deaths occurring within Cobb County fall under the jurisdiction of the CCMEO with some exceptions such as those deaths occurring on state property and are thus investigated by the Georgia Bureau of Investigation and military personnel who die on Dobbins Air Reserve Base and fall under the jurisdiction of the Armed Forces Medical Examiner System. Additionally, deaths that occur outside of Cobb County, but resulted from an injury that occurred within Cobb County, also fall under CCMEO jurisdiction.

Upon the reporting of a death to the CCMEO, jurisdiction of the case is either declined or accepted. Cases are declined because the case belongs to another jurisdiction for investigation or the case need not have been reported to the CCMEO and a treating physician of the decedent should sign the death certificate. Cases accepted for jurisdiction by the CCMEO means that the death certificate will be signed by the Medical Examiner.

Depending upon the circumstances of the death, the Medical Examiner may sign the death certificate based upon the review of medical records, perform an external examination, or perform an autopsy which may be limited in the dissection depending upon the details of the case. To meet the mission of the CCMEO, the Medical Examiner makes determinations of cause and manner of death based on investigative information and any necessary examination of the deceased.

The findings of the Medical Examiner are available to the judicial system for criminal cases, law enforcement agencies for assistance in investigations, the health department for community health surveillance, local hospitals for quality control and education, family members of the deceased for understanding of medical history and cause of death, and the general public under the rules of the Open Records Act.

Operations

Deaths are reported to the CCMEO via Forensic Investigators who are responsible for assigning a sequential case number and collecting information about the death and the circumstances surrounding the death. Based on this information, and as needed in consultation with the Medical Examiner, the Investigator establishes whether the case falls within the jurisdiction of the CCMEO, if any scene investigation is required, and, when necessary, has the body transported to the CCMEO facility. The Medical Examiner then determines the extent of examination that is required, the ancillary testing that is needed to determine the cause and manner of death, and if further identification of the body is needed. After completion of the examination, the body is released as per the request of the legal next of kin. The written autopsy report is completed once all additional investigation and testing results are available.

The Medical Examiners for the CCMEO are physicians licensed to practice medicine in the state of Georgia and continue to meet the annual requirements for continuing medical education for maintenance of licensure. Additionally, the current Medical Examiners have completed training in anatomic pathology and clinical pathology as well as subspecialty training in forensic pathology. The current Medical Examiners gained certification through the American Board of Pathology (ABP) in anatomic, clinical, and forensic pathology and continue to meet the annual requirements for maintenance of certification.

The investigative staff of the CCMEO are all certified as Diplomates or Fellows of the American Board of Medicolegal Death Investigators (ABMDI), which is an organization that sets the guidelines for the performance of Death Investigators in the United States. Each Investigator at the CCMEO continues to meet the ongoing requirement for continuing education as set forth by the ABMDI.

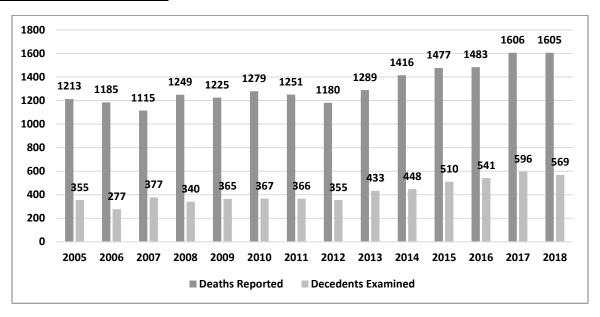
Data

The data within this report were compiled from the CCMEO database MEDEX and other documentation within our office to include tracking spreadsheets and, when necessary, the case files. Much of the data was hand collected and analyzed from more than one source within our office, and as such, discrepancies in the data are likely due to human error in the documentation and data entry processes. The CCMEO is currently in the process of establishing a new database for the office, the database selected has the ability to compile data for future annual reports using the database rather than depending exclusively on office staff man-hours.

Data Trends

Given the lack of detailed annual reports on deaths in Cobb County prior to 2015, analysis of trends in the data is limited at this time; however, as data continues to be collected and analyzed in future years, identification and analysis of trends will be possible and will be used to improve the health and safety of the citizens of Cobb County. If historical data concerning reportable aspects for deaths occurring in Cobb County is available, it is embedded within the body of the report.

ALL REPORTED DEATHS



Deaths Reported and Decedents Examined, 2005 to 2018

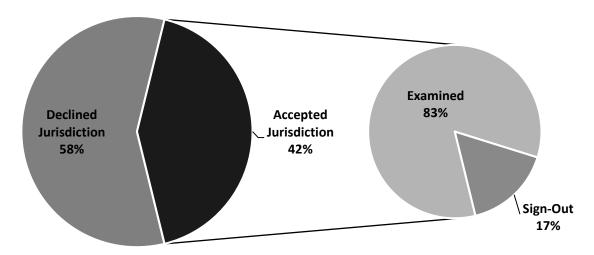
The number of deaths reported to the Medical Examiner's Office and the number of cases accepted for examination by a Medical Examiner steadily increased from 2012 to 2017. Given that the number of deaths is directly related to the population size, a plateau in the data would be expected if the population of the area served does not increase.

Total deaths reported by jurisdiction status and manner of death

Jurisdiction	Manner of Death	Frequency	Percent
	Accident	270	39.8%
	Homicide	18	2.7%
	Natural	268	39.5%
Accepted	Suicide	91	13.4%
	Undetermined	24	1.5%
	Pending*	3	0.4%
	Not Applicable**	5	0.7%
	Total =	679	100%
Other (Abandone	d Cremains)	1	0.1%
Declined		925	57.6%
Accepted		679	42.3%
	Total =	1605	100%

^{*}Three cases that are pending further investigation, medical records, and arson reports at the time of data collection.

^{**}Three case were identified as animal bones and two cases were fetuses. Fetal deaths follow a different reporting system in the state of Georgia where manner of death is not reported.



Declined vs. Accepted Jurisdiction with Examined vs. Sign-Out

Investigation into the death determines if jurisdiction is initially accepted. However, acceptance of jurisdiction by the CCMEO solely means that a Medical Examiner will sign the death certificate. Acceptance of jurisdiction does not always necessitate a postmortem examination of the body; "sign-out" cases are those which the Medical Examiner issues the death certificate without having examined the body. These cases include:

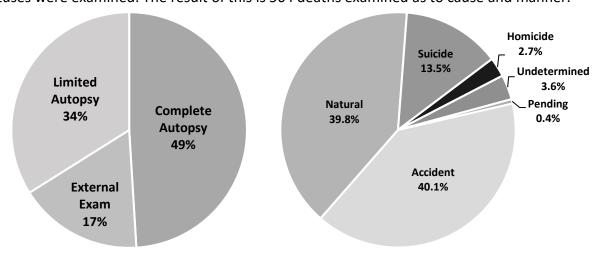
- 1) Deaths that occurred after hospitalization with documentation of injuries in accidental and suicidal manners of death where the treating physicians had determined the cause of death but could not sign the death certificate because the manner was not natural. In Georgia, a Medical Examiner or coroner must sign the death certificate per state law if the manner of death is not natural.
- 2) Non-natural deaths that were not reported to the CCMEO at the time of death and the remains were no longer available for examination. These deaths are most often detected by funeral homes or the Office of Vital Records, who notifies the CCMEO to initiate a death certificate investigation.
- 3) Natural deaths where an attending physician existed and was known at the time of death, and the death does not fall under the jurisdiction of the CCMEO, but upon notification to the physician of the death, the physician refuses to sign the death certificate. As a service to the family, in these cases, the CCMEO will subpoen a required medical records and issue a death certificate.

ALL ACCEPTED JURISDICTION DEATHS

Accepted jurisdiction cases by	y manner of death and	procedure performed
	,	

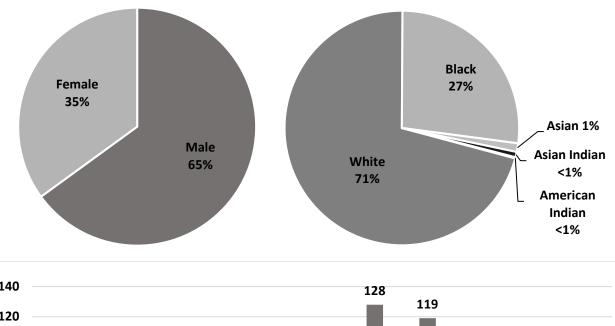
Manner of		Procedure P	erformed			
Death	Complete Autopsy	·		Sign-Out	Total	Percentage
Accident	121	64	19	66	270	40.1%
Homicide	18	1	-	-	18	2.7%
Natural	90	63	71	44	268	39.8%
Suicide	22	63	6	-	91	13.5%
Undetermined	23	1	-	-	24	3.6%
Pending	2	-	-	1	3	0.4%
Total =	276	191	96	111	674	100%

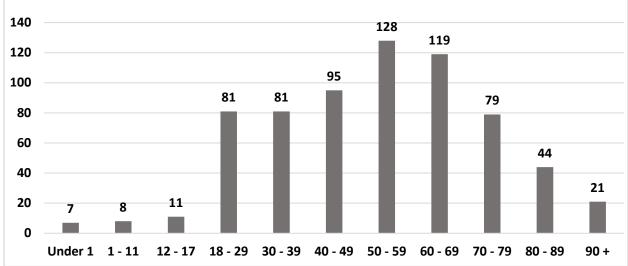
Of the 674 cases of accepted jurisdiction, 111 deaths were handled as sign-outs, and therefore, the body was released without examination or was not available for examination at the time the death was reported to the CCMEO. 569 cases were examined by a Medical Examiner at the CCMEO office. Three of the reported deaths were not human but were animal bones. Two fetuses were examined. The result of this is 564 deaths examined as to cause and manner.



Type of Autopsy Performed and Manner of Death

The extent of the examination that is required for a case is determined by the Medical Examiner based upon the information known, and sometimes unknown, about the case at the time of the examination. In certain types of cases, such as homicides, even if the cause and manner of death are known at the time of autopsy, due to the needs of the community and the judicial system, a complete autopsy is performed. When possible, the Medical Examiner will honor family wishes about the extent of the examination performed within the bounds of the Georgia Death Investigation Act and best practices within the field of forensic pathology.





Accepted Jurisdiction by Sex, Race and Age

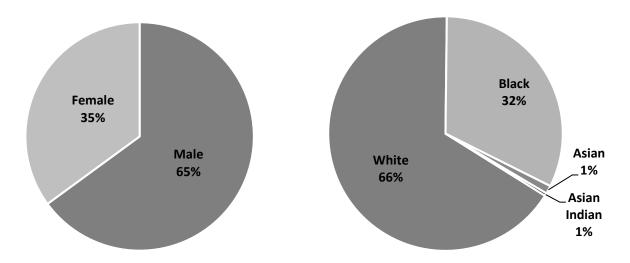
• Our current database has no consistent method for tracking ethnicity of a decedent; therefore, only race can be reported.

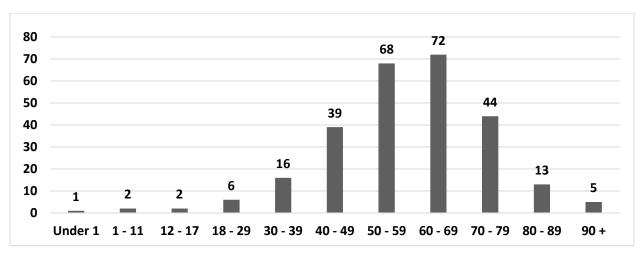
DEATHS BY MANNER

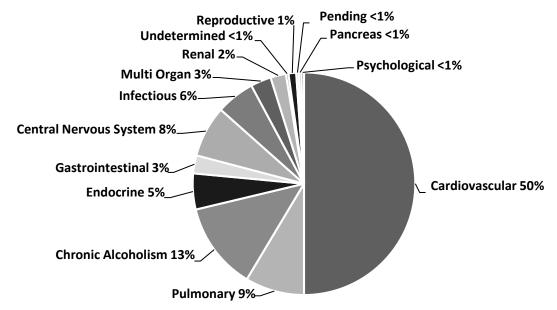
NATURAL

Accepted jurisdiction cases of natural deaths by major organ system / cause of death

Cardiovascular Aortic Aortic & Hypertensive Hypertensive Ischemic	134 8
Aortic & Hypertensive Hypertensive	
Hypertensive	
	29
Ischemic	39
L	48
NOS	10
Chronic Alcoholism	34
Central Nervous System	20
ALS	1
Cerebral Aneurysm	2
Dementia	4
Seizure Disorder	4
Stroke	9
Endocrine (Diabetes)	14
Gastrointestinal	7
Adenocarcinoma of Colon	2
Crohn's Disease	1
Meconium Peritonitis	1
Hemorrhage NOS	2
Tongue Carcinoma	1
Infectious	15
Central Nervous System	1
Connective (Soft tissue & Skeletal) Tissue	4
Gastrointestinal/Hepatobiliary	2
Multifocal/Multi-Organ	2
Respiratory	6
Multi-Organ	8
Failure to Thrive/Senescence	2
Morbid Obesity	6
Pancreas	1
Pancreatitis	1
Psychological	1
Anorexia Nervosa	1
Pulmonary	23
Adenocarcinoma of Lung	2
Asthma	1
Chronic Obstructive Pulmonary Disease	6
Pulmonary Thromboembolism	9
Other	5
Renal	6
Chronic Kidney Disease	6
Reproductive	3
Breast Carcinoma	2
GYN Carcinoma	1
Undetermined	1
Pending	1







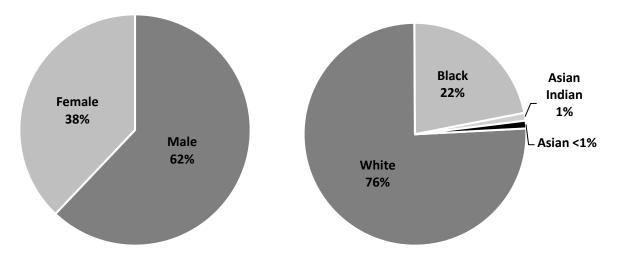
Natural Deaths by Sex, Race, Age and Cause of Death

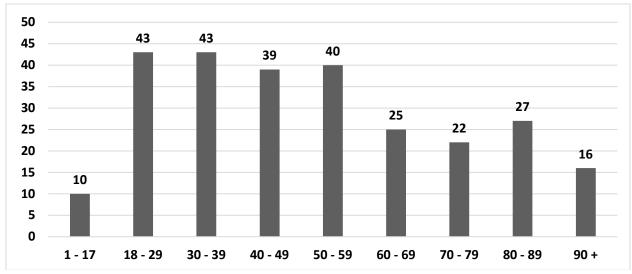
- In keeping with national trends, the organ system most commonly causing death in Cobb County is the cardiovascular system with ischemic cardiovascular disease processes being the most common.
- Chronic ethanol abuse results in pathological changes in multiple organs including the
 liver and heart. Deaths due to chronic alcoholism can be the result of cardiomyopathy
 caused by the myocardial toxic effects of ethanol, gastrointestinal hemorrhage, liver
 failure resulting in encephalopathy or body cavity effusions, and other metabolic
 derangements. Chronic ethanol abuse deaths are considered separately from acute
 alcohol intoxication deaths, which are considered drug related and thus usually
 accidental in manner.

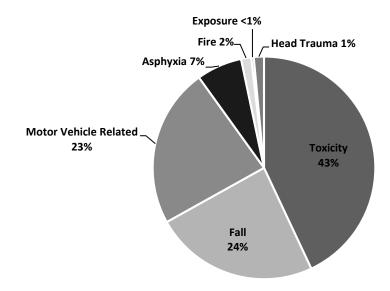
Accepted jurisdiction cases of accidental deaths by sex, race, age and cause of death

ACCIDENT

			A	sphyx	ia							Mot	or Ve	hicle	
		Choking	Drowning	Autoerotic	Carbon Dioxide	Positional	Drug and/or Alcohol Toxicity	Fall	Fire	Exposure	Head Trauma NOS	Blunt Force	Fire	Entrapment	Total
SEX	Female	3	2			1	39	33	1		2	19			100
SE	Male	3	5	2	1	1	73	32	3	1		42	1	1	165
	Asian					1		2							3
щ	Asian							2				1			
RACE	Indian														3
_	Black		7			1	18	7				24			57
	White	6		2	1		94	54	4	1	2	36	1	1	202
	T		ı	ı		ı	1			-			ı		ı
	1 - 17		4	1		1			1			3			10
	18 - 29		1				19					21	1	1	43
	30 - 39		2				30		1			10			43
ш	40 - 49				1		30	2				6			39
AGE	50 - 59						21	6		1	1	11			40
	60 - 69	1		1			12	4				7			25
	70 - 79	2						15	2		1	2			22
	80 - 89	3				1		22				1			27
	90 +							16							16
	Total =	6	7	2	1	2	112	65	4	1	2	61	1	1	265







Accidental Deaths by Sex, Race, Age and Cause of Death

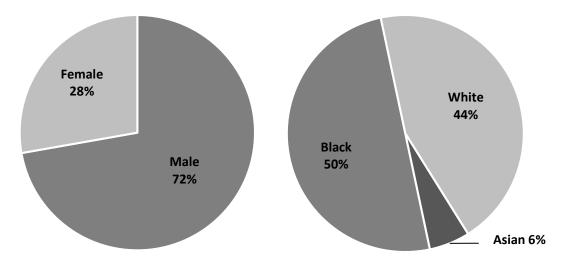
- In Cobb County, accidental drug related deaths were nearly twice as common as motor vehicle related deaths in 2018.
- Accidental drug related deaths are more common in the individual 30-39, 40-49, and 50-59 age brackets than all accidental drug related deaths in persons younger than 29.
- Males were more likely than females to die of an accidental manner of death.

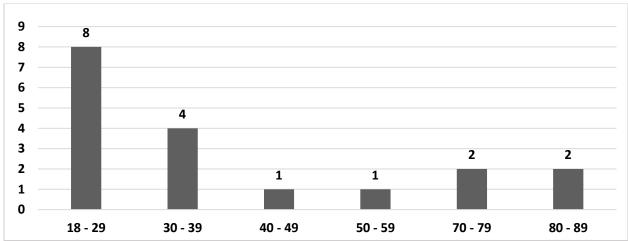
HOMICIDE

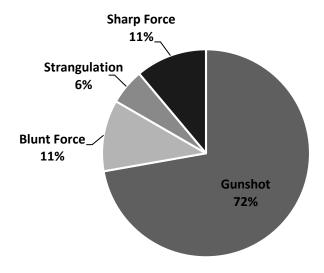
A complete autopsy is performed on all homicides occurring within the Cobb County jurisdiction, and all homicides, by definition, will have jurisdiction accepted by the Medical Examiner's Office.

Accepted jurisdiction cases of homicide deaths by sex, race, age and cause of death

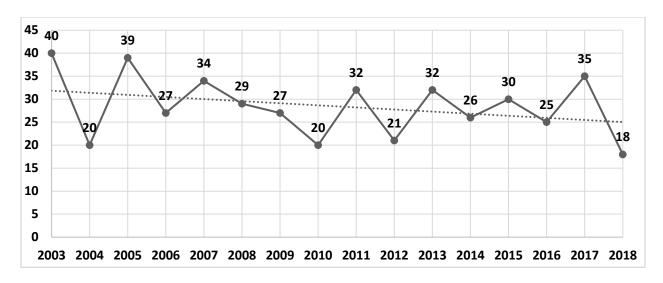
		Gunshot Wound	Sharp Force	Blunt Force Injury	Strangulation	Total
SEX	Female	2	1	1	1	5
S	Male	11	1	1		13
ш	Asian	1				1
RACE	Black	6	2		1	9
E	White	6		2		8
	18 - 29	7			1	8
	30 - 39	2	2			4
AGE	40 - 49	1				1
¥	50 - 59	1				1
	70 - 79	1		1		2
	80 - 89	1		1		2
	Total =	13	2	2	1	18



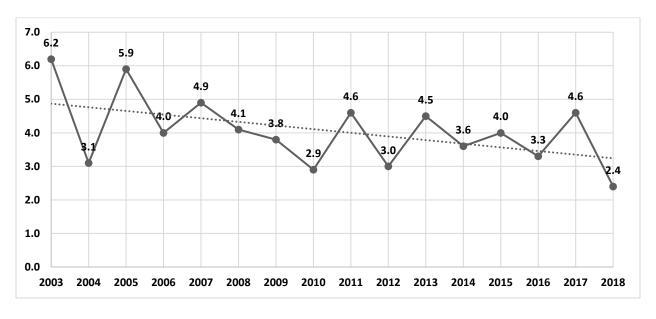




Homicide by Sex, Race, Age and Cause of Death

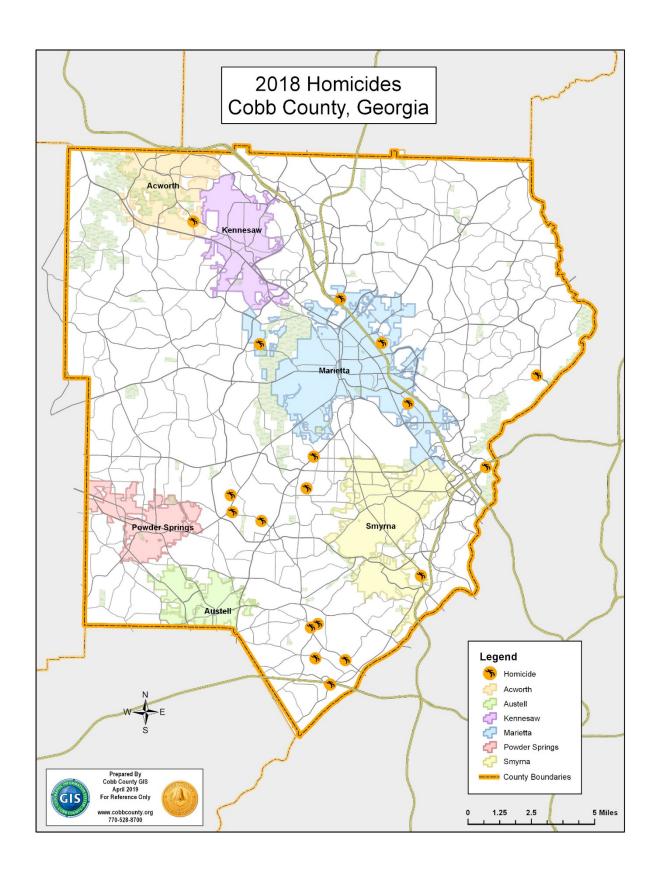


Homicide Totals, 2003-2018



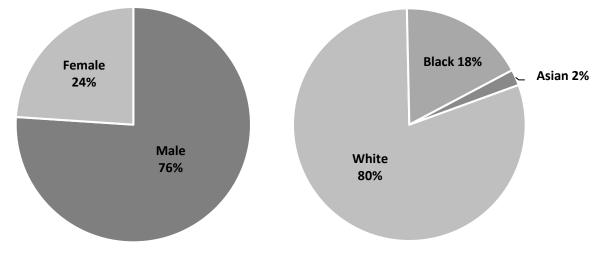
Homicide Rate per 100,000 Population, 2003-2018

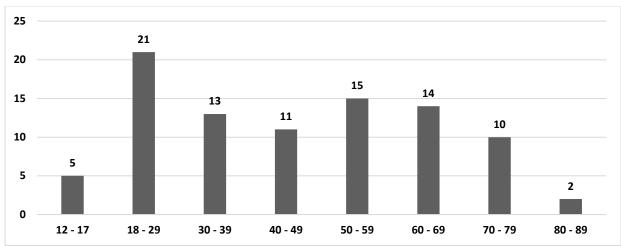
- Firearms were involved in 72% of homicides.
- 72% of homicide victims were males.
- The number of homicides decreased by nearly half, relative to 2017 data.
- No persons under the age of 18 died by a homicidal manner in 2018.

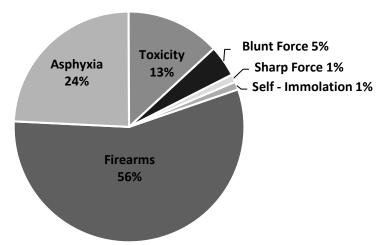


SUICIDEAccepted jurisdiction cases of suicide deaths by sex, race, age and cause of death

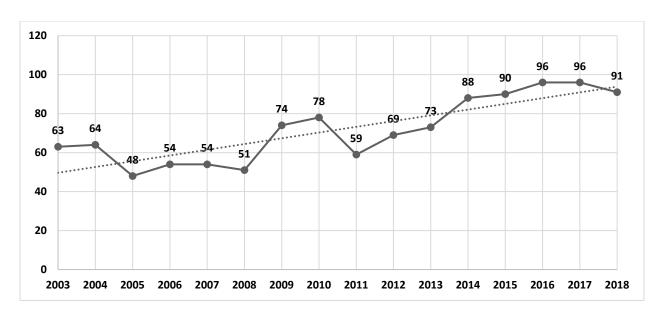
			Aspł	nyxia		Fire	arm	Ю	Blunt	Force	g		
		Exhaust	Drowning	Plastic Bag	Hanging	Gunshot Wound	Shotgun Wound	Drug and/or Alcohol Toxicity	dwnf	Transportation	Sharp Force Trauma	Self-Immolation	Total
SEX	Female		1		6	6		9					22
SE	Male	1		1	13	39	6	3	2	2	1	1	69
Е	Asian					1		1					2
RACE	Black				3	5	2	2	2	1		1	16
<u> </u>	White	1	1	1	16	39	4	9		1	1		73
	1 - 17				3		1	1					5
	18 - 29				4	12	1	2	2				21
	30 - 39				4	6	1	1				1	13
AGE	40 - 49				1	6	1	3					11
A	50 - 59			1	3	6		3		1	1		15
	60 - 69	1			3	5	2	2		1			14
	70 - 79		1		1	8							10
	80 - 89					2							2
	Total =	1	1	1	19	45	6	12	2	2	1	1	91



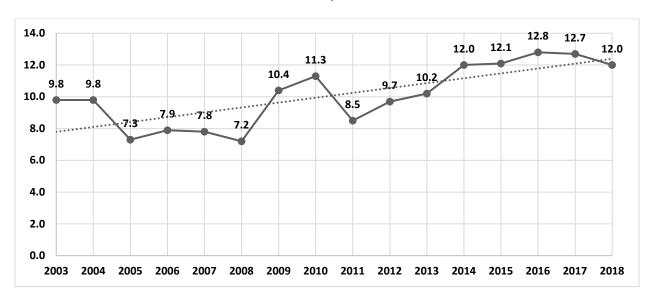




Suicides by Sex, Race, Age and Cause of Death



Suicide Totals, 2003-2018



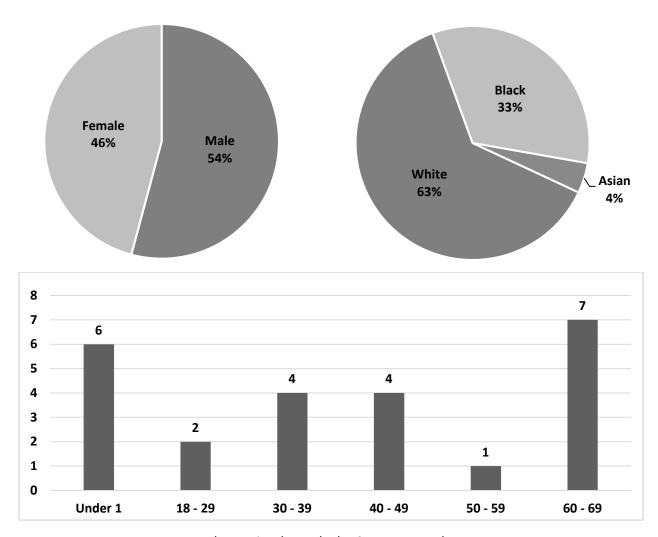
Suicide Rate per 100,000 Population, 2003-2018

- Firearms were the most common method of suicide.
- 76% of suicide victims were male.
- Persons with a suicidal manner of death are significantly more likely to identify as white.
- More males than females died by a suicidal manner.
- The age bracket with the greatest number of suicides was the 18-29-year bracket.

UNDETERMINED

Accepted jurisdiction cases of undetermined manner deaths by sex, race, age and cause of death

		Blunt Force Trauma	Natural Disease w/ Possible Non-Natural Contributing Factors	Seizure Disorder	Drugs and/or Alcohol Present	Drugs & Fire	Gunshot Wounds	Sudden Infant Death (Possible Unsafe Sleeping)	Undetermined Cause	Total
SEX	Female		1		2	1			7	11
SE	Male	1		3	2		1	1	5	13
ш	Asian								1	1
RACE	Black	1		3	1				3	8
E	White		1		3	1	1	1	8	15
	Under 1							1	5	6
	18 - 29			2						2
AGE	30 - 39				2				2	4
¥	40 - 49			_	1		1		2	4
	50 - 59		_	1				_		1
	60 - 69	1	1		1	1			3	7
	Total =	1	1	3	4	1	1	1	12	24



Undetermined Deaths by Sex, Race and Age

The above cases were assigned an undetermined manner of death and are different from cases where the cause of death is certified as undetermined. Cases in which the cause of death is undetermined can be certified as any manner of death. In many cases where the cause of death is undetermined, no evidence of an injury or disease process could be found at autopsy usually because such cases are caused by a physiological derangement or because advanced decomposition had developed.

Of the 674 deaths certified by the CCMEO, 24 were certified as having an undetermined manner. An undetermined manner means that at the end of the investigation and examination, the known circumstances of the case could be explained by more than one manner or not enough information is known to determine a manner.

Six of the undetermined deaths in Cobb County in 2018 were in infants under 1 year of age and are discussed below in *Special Populations*.

Of the total 24 cases; 12 had identifiable causes of death but circumstances concerning the cases could be explained by more than one manner of death. The remaining 12 cases could not have a cause of death determined despite complete examination and investigation.

SPECIAL POPULATIONS

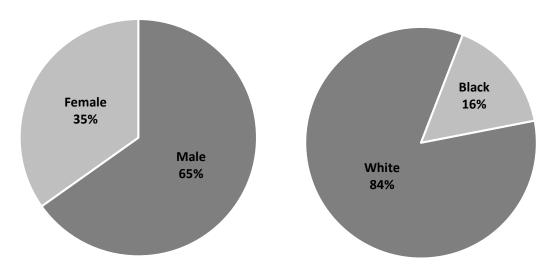
DRUG RELATED DEATHS

Acute Accidental Drug Toxicity Deaths

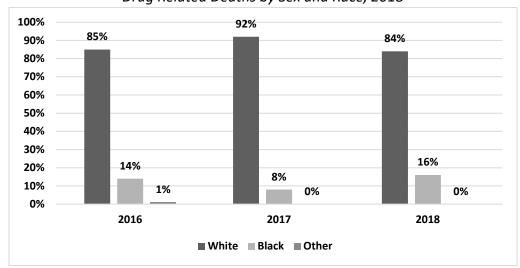
Acute accidental drug toxicity deaths are commonly caused by a combination of multiple drugs rather than one single drug. In 2018 there were 112 decedents who died of an acute accidental drug and/or alcohol toxicity. The table below is a tallied list of all the drugs or drug classes involved; the table does not sum to 112 because most of the decedents had multiple drugs in their blood that were determined to contribute to the death. In addition to prescription and illicit drugs, ethanol is also often present in drug toxicity deaths, and depending on the other drug, present, can contribute to the death or occasionally may be the sole cause of death.

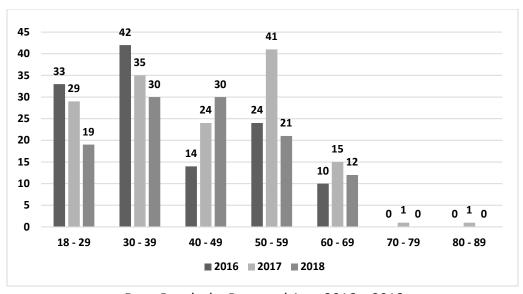
Drugs related to the cause of death

DRUG TYPE and/or CLASS	2015	2016	2017	2018
FENTANYL / DESIGNER OPIOIDS (4-ANPP, acryl fentanyl, butyryl fentanyl, car fentanyl, cycloproplyfentanyl, fentanyl, furanyl fentanyl, methoxy acetyl fentanyl, para-fluor butyryl fentanyl/FIBF, U-47700)	33	41	44	35
Heroin	41	36	37	43
Morphine	26	10	20	12
Oxycodone	22	15	26	17
Hydrocodone	-	4	10	4
OTHER OPIOIDS (hydromorphone, methadone, meperidine, mitragynine, oxymorphone)	-	3	14	9
OTHER NARCOTICS (buprenorphine, tramadol)	3	1	4	0
Alprazolam	21	14	31	16
OTHER BENZODIAZEPINES (chlordiazepoxide, clonazepam, diazepam, lorazepam, midazolam, nordiazepam)	5	0	10	6
Cocaine	14	17	33	17
Methamphetamine / Amphetamine	22	18	30	29
NON-NARCOTIC PAIN MEDICATION / SEDATIVES (gabapentin, pregabalin, zolpidem)	5	1	10	2
ANTI-DEPRESSANTS (amitriptyline, bupropion, citalopram, doxepin, fluoxetine, imipramine, meprobamate, nortriptyline, paroxetine, quetiapine, risperidone, sertraline, trazadone)	11	2	13	10
MUSCLE RELAXERS (carisoprodol, cyclobenzaprine)	-	2	8	3
OTHER PRESCRIPTION MEDICATIONS (buprenorphine, busiprone, butalbital, carbamazepine, clozapine, duloxetine, diltiazem, flecainide, hydroxyzine, insulin, lamotrigine, nadolol, olanzapine, phentermine, phenobarbital, promethazine, propranolol, promethazine, temazepam, topiramate, trimethobenzamide, venlafaxine, valproic acid, zolpidem)	-	3	6	12
OVER THE COUNTER MEDICATIONS (acetaminophen, dextromethorphan, diphenhydramine, loperamide, phenylpropanolamine, salicylate)	5	2	9	6
OTHER DRUGS OF ABUSE (dinitrophenol, difluoroethane, ethylene glycol, GHB, isopropanol, pentylone)	10	5	2	7
Ethanol	13	17	21	19

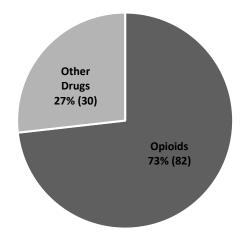


Drug Related Deaths by Sex and Race, 2018



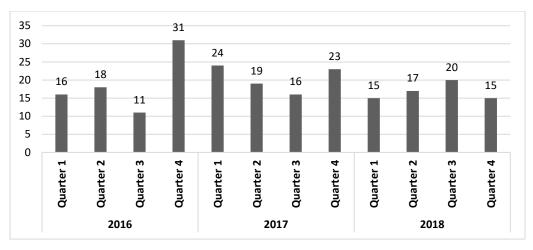


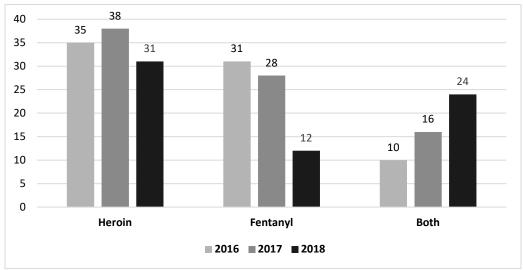
Drug Deaths by Race and Age, 2016 – 2018



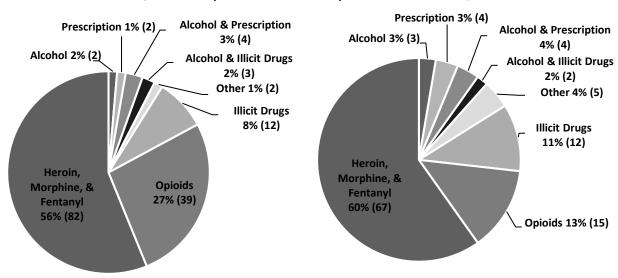
Acute Accidental Drug Toxicity Deaths, 2018

- Acute accidental drug toxicity deaths continue to be a significant portion of the deaths in Cobb County. Within the subset of deaths investigated by the CCMEO, the number of drug related deaths is nearly equal to the number of deaths caused by cardiovascular diseases.
- The overall number of acute accidental drug toxicity deaths in 2018 (112) decreased relative to 2017 (146) with the greatest decrease in the deaths of individuals in to 50-59 years age bracket.
- The age brackets with the highest number of acute accidental drug toxicity deaths in 2018 were 30-39 and 40-49, which is a shift from 2017 when the 50-59 age bracket had the greatest number of deaths due to acute accidental drug toxicity.
- Certain drugs, such as cocaine, heroin, and methamphetamine, are by definition, illicit; however, diversion of drugs such as oxycodone and alprazolam allow persons to obtain these prescription medications via illicit means. Whether a person whose death is caused by prescribed or diverted sources of these drugs often cannot be determined. Fentanyl has the added complication that sophisticated clandestine laboratories are capable of manufacturing it, so fentanyl deaths can be related to prescribed sources, diverted prescription sources, or illicit production. However, most deaths caused by acute accidental fentanyl toxicity have been due to illicit sources.





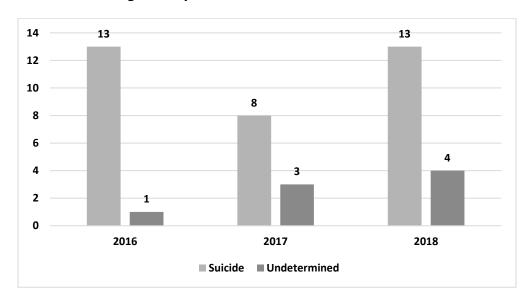
Heroin and/or Fentanyl Related Deaths by Quarter and Years, 2016 – 2018



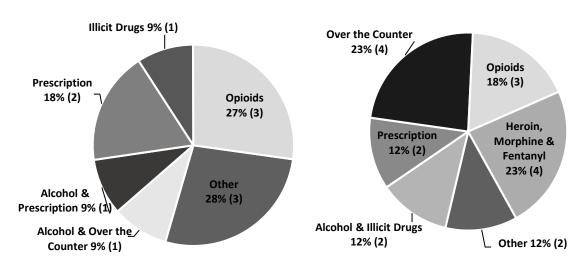
Acute Accidental Drug Toxicity Deaths, 2017 & 2018

- Longitudinal monitoring of the acute accidental deaths caused by toxicity of heroin and fentanyl and its analogs demonstrates waxing and waning in the number of these deaths when examined quarterly; however, the total number of these deaths in 2018 (67 deaths) decreased relative to 2017 (82 deaths).
- The number of deaths due to acute accidental opioid toxicity decreased by more than half from 2017 (39 deaths) to 2018 (15 deaths).
- The number of acute accidental deaths due to all opioids (including heroin and fentanyl) decreased in 2018 (82) relative to 2017 (121) as demonstrated in the 2017 and 2018 comparative pie charts.

Acute Non-Accidental Drug Toxicity Deaths



Acute Non-Accidental Drug Toxicity Deaths by Manner, 2016 – 2018



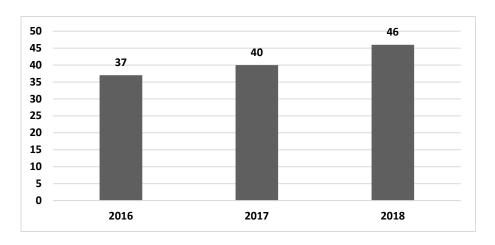
Acute Non-Accidental Drug Toxicity Deaths, 2017 & 2018

Comments:

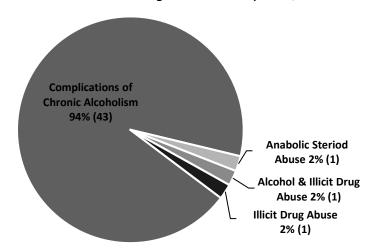
Acute non-accidental drug toxicity deaths also occur. The cases in this data set are
those individuals whose deaths were ruled to be either suicidal in manner or
undetermined in manner. The manner of death in these cases would be ruled
undetermined if circumstances of the case indicated the possibility of both a suicidal
and accidental death, and the investigation could not determine which was the more
likely manner.

Death Related to the Consequences of Chronic Drug Abuse

Chronic alcohol and drug abuse cause complications due to the repetitive toxicity to various organs. The toxicity in these deaths takes years to manifest in most cases, and the organs that are involved vary depending upon the drug class involved. Per the National Association of Medical Examiners standards, deaths that occur due to the chronic toxicity of drug usage are classified as natural deaths.



Chronic Alcohol and Drug Use Deaths by Year, 2016 – 2018



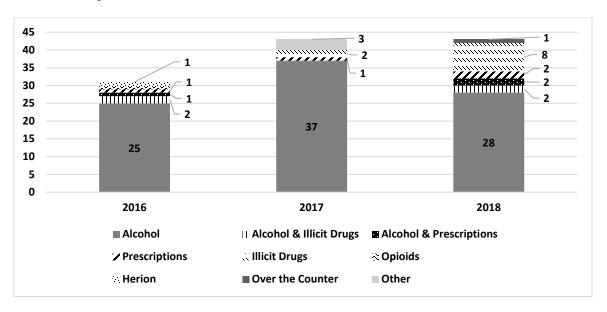
Deaths due to Chronic Use of Alcohol & Drugs, 2018

Comments:

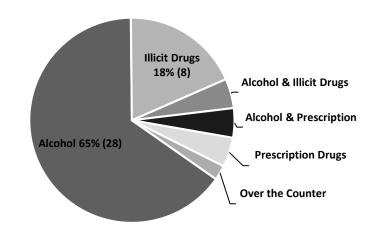
All drugs have the potential to cause chronic toxic effects. Alcohol is the drug that is
most commonly associated with chronic toxic effects due to prevalence of its use and
the recognized medical complications of its chronic use. The toxicity of alcohol is
discussed in the Natural Deaths section above.

Drugs Contributing to Death

Deaths due to injuries, both intentional (such as suicidal hanging) and unintentional (such as drowning and motor vehicle collision) are frequently associated with the use of drugs. The types of drugs and combinations of the types of drugs involved are shown below. The data shown below does not reflect all instances where drugs (including alcohol) were suspected to be involved, but only cases where the presence of these drugs was also reflected in the other conditions significant to the death on the death certificate.



Drugs and/or Alcohol Contribute to Death, 2016 – 2018



Deaths Where Drugs Contributed to the Cause of Death, 2018

Comments:

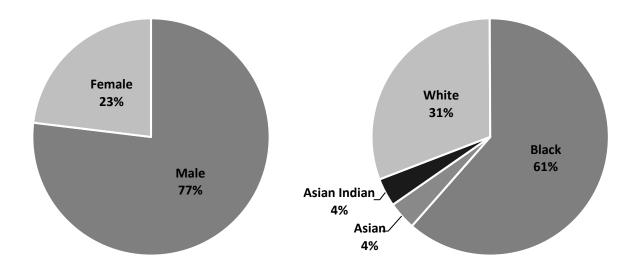
Alcohol was the drug most commonly indicated to have been a significant contributing
factor in traumatic deaths. The preponderance of alcohol in this data set is likely multifactorial in that it's use is prevalent in the population but also because it has a defined
legal standard as to what concentration in the blood is enough for intoxication.

CHILDREN (defined as 17 years and younger)

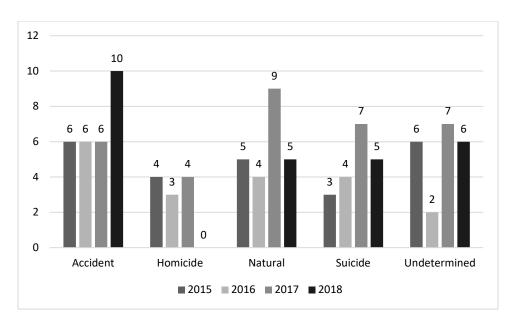
All children and infant deaths occurring in Georgia are required to be reported to the local Medical Examiner or Coroner according to the Georgia Death Investigation Act. Although all deaths in children must be reported to the CCMEO, not all the deaths in this population required an examination. Certain fetal demise cases may fall under the jurisdiction of the Medical Examiner depending on the circumstances of the case, but these are the exception rather than the rule for such deaths. Additionally, natural deaths in children due to documented complications of prematurity and diagnosed terminal diseases such as childhood cancers would not require a medicolegal investigation nor acceptance of jurisdiction by the Medical Examiner.

Accepted jurisdiction cases of children by sex, race, age and manner of death

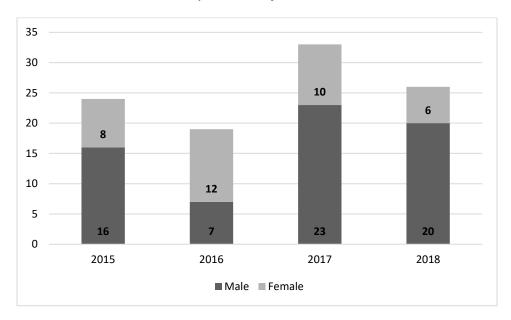
		Accident	Natural	Suicide	Undetermined	Total
SEX	Female	2	1		3	6
SE	Male	8	4	5	3	20
	Asian				1	1
RACE	Asian Indian	1				1
RA	Black	6	4	3	3	16
	White	3	1	2	2	8
	Under 1		1		6	7
AGE	1 - 11	6	2			8
	12 - 17	4	2	5		11
	Total =	10	5	5	6	26



Children (17 and younger) by Sex and Race



Child Deaths by Manner of Death, 2015 – 2018



Child Deaths by Sex, 2015 – 2018

1-17 YEARS OLD

Accepted jurisdiction cases of children aged 1 - 17 years by sex, race, manner and cause of death

						Mar	nner						
			A	ccident			N	latura	al	Suicide			
Cau	use of Death	Autoerotic Asphyxia	Positional Asphyxia	Blunt Force Injuries (Motor Vehicle)	Fire	Drowning	Cardiac Event	Seizure	Sepsis	Asphyxia (Hanging)	Prescription Drugs	Shotgun Wound	Total
SEX	Female			1		1		1					3
SE	Male	1	1	2	1	3	2		2	3	1	1	17
Œ	Asian Indian			1									1
RACE	Black		1	1		4		1	2	3			12
	White	1		1	1		1				1	1	6
	Total =	1	1	2	2	4	1	1	2	3	1	1	19

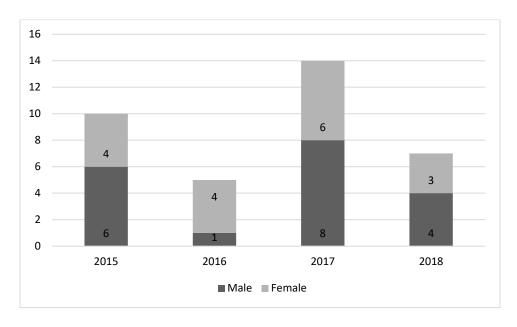
Comment:

• The most common manner of death among the 1 to 17-year-old population was accident, with a total of ten (of 19) total deaths.

INFANTS (defined as less than 1 year of age)

Accepted jurisdiction cases of infants by sex, race, manner, and cause of death

		Manner of Death			
		Natural	Undetermined		
Cause of Death		Meconium Peritonitis	Sudden Unexplained Infant Death (Unsafe Sleep Environment)	Undetermined	Total
SEX	Female			3	3
	Male	1	1	2	4
RACE	Asian			1	1
	Black	1		3	4
	White		1	1	2
Total =		1	1	5	7



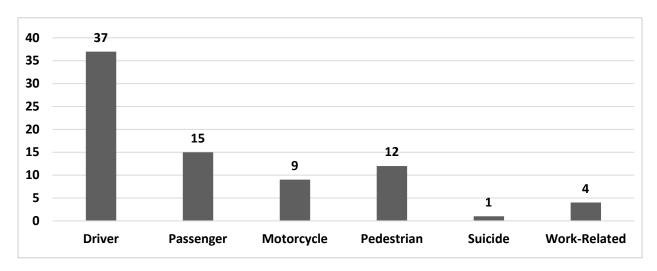
Infant Deaths by Sex, 2015 - 2018

Comments:

• The most common manner of death for infants (defined as <1 year of age) is "undetermined". This classification of infant deaths is in following with national trends and recommendations due to the nature of infant deaths. In the infant population, the risk of an accidental asphyxial component (such as in overlay or inappropriate bedding)

- contributing to the death is great enough that it is the national standard to certify such deaths as an undetermined manner unless a definitive cause of death is found.
- Following national trends, the CCMEO has shifted terminology for cause of death in infant with a risk of an asphyxia component to the death from Sudden Unexplained Infants Death to Undetermined. This shift happened during the 2018 year, thus the SUID death shown in the graph was certified before the change in terminology and would now be classified as an undetermined cause and undetermined manner.

MOTOR VEHICLE RELATED DEATHS



Motor Vehicle Related Deaths by Role of Decedent

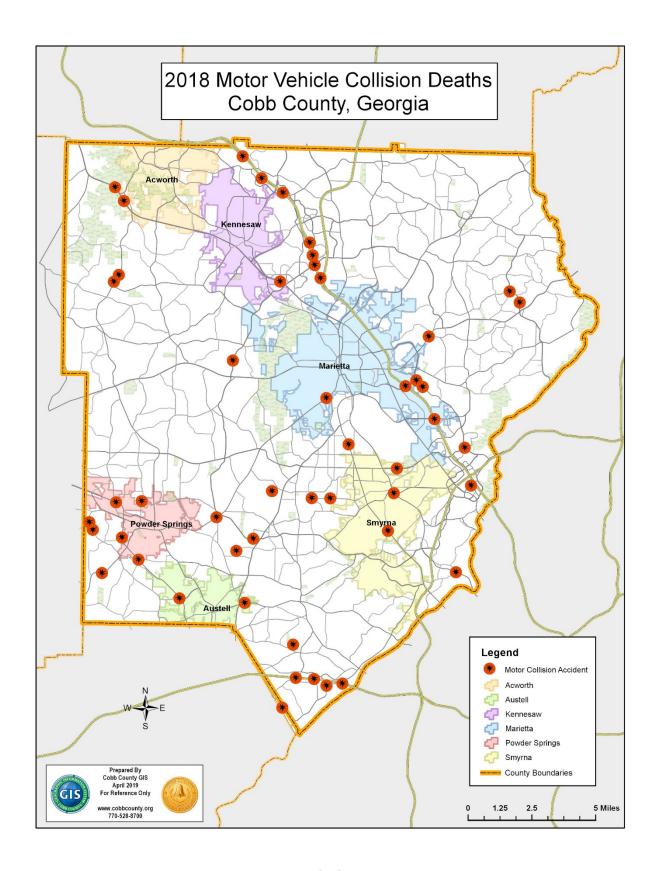
Some deaths are reflected in the above chart more than once because they were able to be applicable in to more than one category. Therefore, the chart above appears to represent more than the total number of motor vehicle related deaths described below.

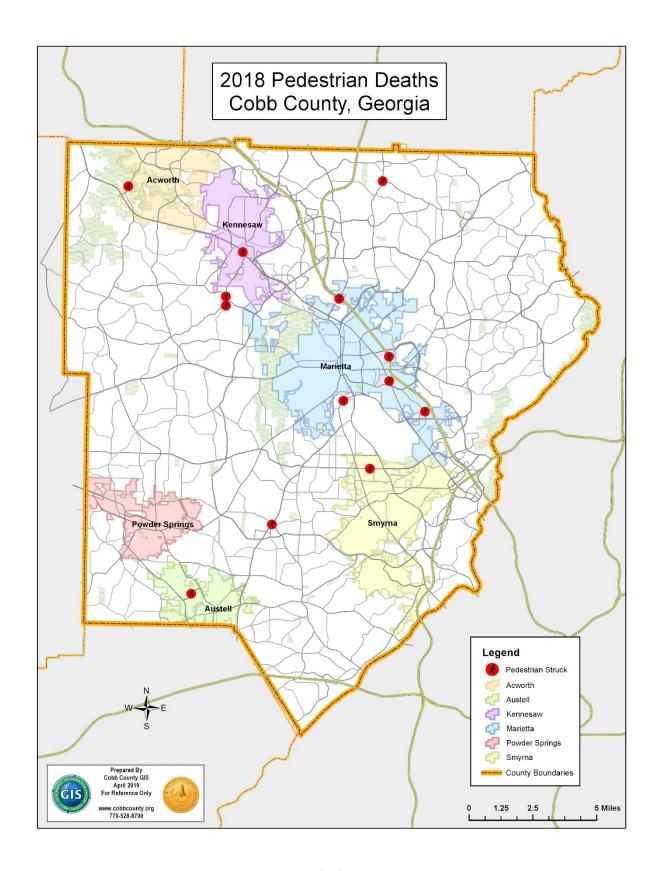
Comments:

• There was a total of 64 motor vehicle related deaths including pedestrians struck by a motor vehicle.

Alcohol-Related Motor Vehicle Deaths:

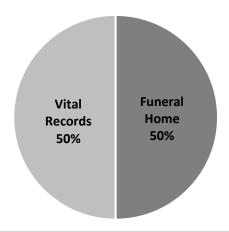
- For 11 cases, documentation available could not determine if alcohol was involved (ex. delayed reporting, prolonged survival interval, or driver not tested).
- Alcohol was involved in 24 of 53 of the accidents.
- Seven (of 12) pedestrians tested above the legal limit for alcohol.
- Nine (of 37) deceased drivers of motor vehicles tested above the legal limit for alcohol.
- Six of the accidents involved a surviving driver who was shown to have tested above the legal limit for alcohol.

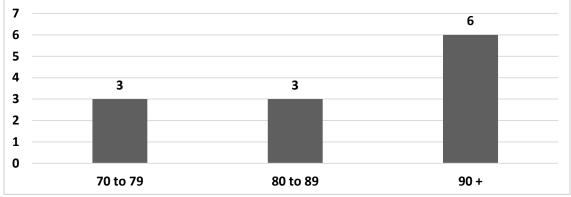


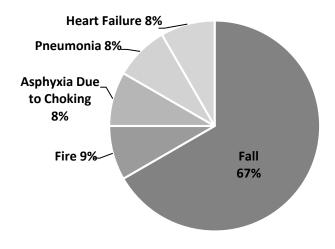


DEATH CERTIFICATE INVESTIGATIONS

When the reporting of a death to the CCMEO is delayed for any reason, there is the possibility that the body will not be available for examination to determine the cause and manner of death. These deaths are reported to the CCMEO by external agencies that are involved in the circumstances and events surrounding a death, such as Vital Records, the organization that reviews all death certificates, or funeral homes. When these deaths are reported to our office, the available records are reviewed to determined cause and manner of death retroactively.







Death Certificate Investigation by Source, Age and Cause of Death

When deaths are not reported in a timely fashion, the body is routinely not examined because often the disposition of the remains (burial or cremation) has already occurred. No exhumations were required in 2018.

Death certificate investigations are evaluated separately from other sign-out work because these are cases that fall under the Medical Examiner jurisdiction and thus should have been reported to the CCMEO. Two types of deaths are routinely represented in the death certificate investigations: non-natural elder deaths, such as those due to complications of falls, and delayed deaths, such as when a person overdoses on illicit drugs but death occurs days to weeks later because of medical complications despite hospitalization. There is currently no system in place to consistently screen for these deaths, so the extent of how many such deaths occur versus how many are reported to our office is unknown.