2017 ANNUAL REPORT

BOULDER COUNTY CORONER'S OFFICE

Emma R. Hall

Boulder County Coroner

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Office of the Boulder County Coroner

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To the Citizens of Boulder County,

It is my pleasure to present the 2017 annual report for the Boulder County Coroner's Office. This report highlights statistical information from the office over the calendar year and should serve as a valuable resource to understand our obligation to Boulder County. Our case load, total scene responses and total autopsies for 2017 remained consistent with the dramatic increase observed first in the year 2013. Nonetheless, providing the citizens of Boulder County with the highest quality service continued to be the priority of the office.

In putting this information together, we did not see a lot of fluctuation in most areas from the annual report the previous year. As a result, we did not note any emerging trends or changes to share with you. One statistic we did notice was Boulder County had 8 homicides this year; a number that the county has not had since 2009. For reference, in 2016 we had only 4 homicides in the county.

As in previous years, the office continued to make community and professional outreach a priority. Staff provided many presentations and trainings for community organizations, health care administrations, and law enforcement agencies to name a few. This is always a fantastic opportunity to educate those who have an interest in the general operation of the Coroner's Office. Additionally, we had a lot of growth internally in our office which benefited the overall efficiency, professionalism and morale. We also took great strides this year with our Reserve Program. We created an effective team of individuals to help with the day to day case load and in return were able to provide them with lots of experience and education.

In addition to the above, the office collaboration with the North Central Regional Mass Fatality Planning Committee and the Colorado Coroner's Association (CCA) as well as numerous other organizations continued. Another positive mention was that I was elected to serve as a board member for the CCA. Our staff also continued to serve on the Child Fatality Prevention Team, the state-led organization that reviews child fatality cases with the intention of identifying ways to prevent child deaths throughout the state. We also continued to be represented on the Elder Justice Coalition group. This is another important group, of a variety of backgrounds, who gather to discuss how best to educate law enforcement and first responders particularly about the needs and rights of our aging population.

Another very exciting accomplishment this year I am happy to share was the implementation of our case management system. This new computer system provided efficiencies to the day to day functions in all our departments. This also provided a mobile case entry process for our investigators which was an enormous success. It addition, this system allows us to securely maintain all case related information in one electronic location. This also began the process of the legacy preservation goal. This is a goal to have all the offices legacy case information scanned into the case management system. Big steps were made toward this goal of having all historical information preserved, and I know there will be more progress to come. All the above became the beginning steps the office took on for its goal toward accreditation.

I am honored and proud to have had the opportunity to serve the citizens of Boulder County for another great year.

ERHall

EMMA R. HALL
Coroner

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INTRODUCTION

MISSION STATEMENT

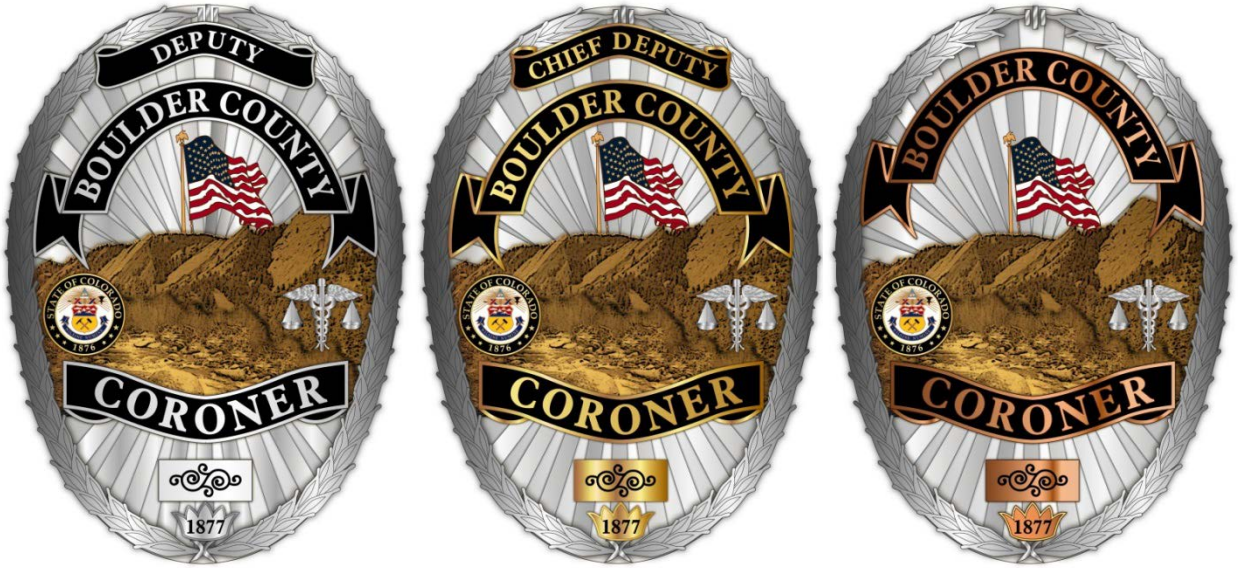
The mission of the Boulder County Coroner's Office is to conduct thorough and fair investigations into deaths falling under its jurisdiction with professionalism and integrity to determine the manner and cause of death in a timely manner. The core values of the office are integrity, excellence and compassion; the office is committed to maintaining the integrity of the investigations it conducts by setting high standards of accountability and preserving confidentiality, the office is committed to serving with excellence by establishing and preserving community trust through professional conduct, the office is committed to providing compassion, dignity and respect for the deceased and their families.

FUNCTION OF THE OFFICE

The Office of the Boulder County Coroner is a creation of the Colorado Constitution and the Colorado Revised Statutes §30-10-601 through 621. Under those statutes the Coroner is required to make all proper inquiry regarding the cause and manner of death of any person under his/her jurisdiction.

The cause of death may be defined as the disease or injury that resulted in the death of an individual. Examples of causes of death may include: "heart disease", "pneumonia", "gunshot wound", or "blunt force trauma". The manner of death is a medico-legal term that describes the circumstances of an individual's death, and is an opinion based on the "preponderance of evidence". When a natural disease process (such as heart disease or diabetes) causes death, the manner of death typically would be classified as **Natural**. The manner of death is classified as **Accident** when the death is the result of a hostile environment, and the event is not expected, foreseen, or intended. The manner of death is classified as **Suicide** when the person acts with the intent of causing his or her own death. When the death is the result of the killing of one human being by another, the manner of death is classified as **Homicide.** Homicide is a medico-legal term and should not be confused with such terms as "murder" or "manslaughter" which are used by the criminal justice system to describe the degree of criminal intent in a particular homicide. When there is insufficient evidence to determine the cause and/or manner of death, both the cause and manner of death may be classified as **Undetermined**. In other instances, the cause of death may be readily apparent, but the evidence that indicates manner of death may be equivocal, thereby leading to a manner of death of Undetermined. The manner of death is classified primarily to aid survivors in understanding the events surrounding an individual's death and for statistical purposes.

BOULDER COUNTY CORONER BADGE



Badge Shape: Oval Shield

Border: Laurel Wreath

Sun Rays: In the background of the badge there are twenty-two distinctive sun rays. The thirteen upper rays are a reminder of the responsibilities and the qualities the office holds in the search for the truth. The office has a responsibility to investigate deaths for the deceased, their families and community as a whole. The office serves with professionalism, integrity, excellence, compassion, accountability, confidentiality, dignity and respect. All of these qualities are also represented in the Coroner's mission statement. The lower nine rays represent the cities within Boulder County: Lyons, Longmont, Louisville, Boulder, Superior, Lafayette, Erie, Nederland and Ward.

Banners:

- All banners are black in color.
- The deputy's rank is proudly denoted on a banner at the top of the badge.
- A second banner near the top of the badge prominently displays "BOULDER COUNTY".
- A third banner near the bottom of the badge prominently displays "CORONER".
- The bottom banner personalizes each badge with a badge number assigned by the Coroner.

Crown: In Middle English, the word "coroner" referred to an officer of the crown, derived from the French *couronne* and Latin *corona*, meaning "crown". The crown is represented at the base of the badge with 5 points demonstrating the branches of death investigation every coroner and deputy serves to investigate: Natural, Accident, Suicide, Homicide and Undetermined. The year 1877 in inscribed into the crown to represent the year the first Coroner took office in Boulder County, Seth D. Bowker, who served from 1877-1881.

Centerpiece: The centerpiece of the badge is an image of Boulder Creek for which the county was named after; in the background are the Boulder Flatirons which are a popular icon of the Boulder area. There is an American flag atop the flatirons. On the left side of the center piece is the Colorado state symbol and on the right side is a medical legal symbol.

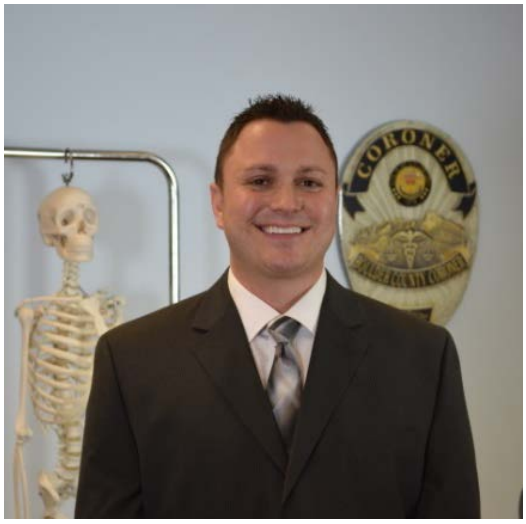
Rank Designation:

- *Deputy:* Silver Borders on each rocker/banner, silver lettering.
- *Chief Deputy:* Gold border on each rocker/banner, gold lettering.
- *Coroner:* Copper border on each rocker/banner, and copper lettering.

STAFF

The 2017 staff of the Boulder County Coroner's Office consisted of the following:

Elected Coroner: Emma R. Hall. Ms. Hall is a Boulder County native who grew up in Lyons on Hall Ranch. She comes from a pioneer family that has lived in the county since the 1870s. Ms. Hall is responsible for the day to day administration of the office as well as the daily management of cases. She is ultimately responsible for the determinations of cause and manner of death for the cases in which the office takes jurisdiction. Ms. Hall is a graduate of Niwot High School and Metropolitan State College of Denver, with a degree in Criminalistics (the study of evidence). Her background includes experience and training in death investigation, autopsies and forensic pathology, crime scene investigation, evidence analysis, elder abuse, child death investigation, blood stain pattern analysis, forensic anthropology, mass fatalities and emergency management, aquatic death and homicidal drowning. Ms. Hall is a registered Medicolegal Death Investigator with The American Board of Medicolegal Death Investigators. Ms. Hall is additionally a Certified Death Investigator with the Colorado Coroner's Association as well as a member of the Colorado Coroner's Association. She co-chairs the Elder Abuse Fatality Review Team with District Attorney Stan Garnett. Ms. Hall attends a number of meetings throughout the county and state to include Boulder County Elected Official/Department Head meetings, mass fatality planning meetings, fire and flood planning meetings, Boulder County Child Fatality Review Team meetings, Boulder County Law Enforcement Chiefs meetings, Metro Area Coroner meetings, and the Colorado Forensic Investigators meetings. Additionally, Ms. Hall serves on the Board of the Colorado Coroner's Association and as the President of the Criminal Justice/Forensics Advisory Board at Arapahoe Ridge High School in Boulder. Ms. Hall's true passion in the field is being able to provide answers to as many questions as possible to the family in each investigation and to help the family in their healing process.



Chief Deputy Coroner: Dustin Bueno. Mr. Bueno is responsible for the day to day administration of the office and the management of the investigations and pathology staff. Mr. Bueno has over 15 years of combined experience working in, and managing, the field of medico-legal death investigation and private investigations. Mr. Bueno was previously at the Adams County Coroner's Office where he held positions as a Deputy Coroner, a Supervisor and a Chief Deputy; as a supervisor and field training officer he created a death investigation training program and wrote numerous office policies and procedures still in use today. He has managed and participated in the conception and implementation of two, state of the art, Coroner Facilities in Colorado. Mr. Bueno is experienced in assisting with autopsy procedures and has extensive training in toxicology, radiography, latent fingerprint collection and identification, and photography to name a few. Mr. Bueno has produced numerous educational presentations for law enforcement and the community, and he has taught on numerous career related topics as well as trained many Deputy Coroner's currently employed across the state of Colorado. Mr. Bueno and his wife are both Colorado natives with two wonderful children. He loves the outdoors and anything involving the Rocky Mountains.

Board Certified Forensic Pathologist: Daniel C. Lingamfelter, D.O., Forensic Pathologist. Dr. Daniel Lingamfelter is a 2004 graduate of University of North Texas Health Science Center. His post graduate training consisted of an Anatomic and Clinical Pathology Residency at the University of Missouri-Kansas City, and a Forensic Pathology Fellowship at the University of Texas Southwest Medical Center. Dr. Lingamfelter is board certified by the American Board of Pathology in Forensic Pathology, Anatomic and Clinical Pathology and has taught at the University of Missouri School of Medicine and at Texas Christian University. Dr. Lingamfelter has published many journal articles and has given many presentations throughout the nation and Canada.

Board Certified Forensic Pathologist: Dawn B. Holmes, M.D., Forensic Pathologist. Dr. Dawn B. Holmes is a forensic pathologist who moved to Colorado in July 2012. She earned her bachelor's degree in Food Science and Human Nutrition from the University of Florida in Gainesville, FL; earned her medical degree at the University of South Carolina in Columbia, SC; completed her Anatomic and Clinical Pathology residency at Rush University Medical Center in Chicago, IL; and completed her fellowship in Forensic Pathology at the Office of the Cook County Medical Examiner in Chicago, IL. Dr. Holmes is board certified in Anatomic, Clinical, and Forensic Pathology and has been practicing since 2011. In her spare time, she enjoys coin collecting, snow skiing, running, traveling, and spending time with her family.

Board Certified Forensic Pathologist: John Carver, J.D., M.D., Forensic Pathologist. Dr. John Carver is a life-long Coloradan who practiced oil and gas law for fourteen years before returning to medical school (C.U., class of 2000). He completed pathology residency training at C.U., and did a fellowship year in forensic pathology in Milwaukee, WI. He is board-certified in anatomic, clinical and forensic pathology, and is an Associate Clinical Professor in the department of pathology at the C.U. School of Medicine. Over the past ten years he has performed autopsies for, and testified in numerous jurisdictions in Colorado, including the Larimer County Coroner's Office, Denver Office of the Medical Examiner, and Jefferson County Coroner's Office.

Deputy Coroner: Brandon Dixon. Mr. Dixon grew up in the Golden area and attended college at the University of Colorado at Denver. He graduated with a degree in history and has worked in the investigative field ever since. Mr. Dixon has five years' experience working in the private sector doing financial and insurance based investigative work prior to joining the coroner's office. Mr. Dixon handles a portion of the caseload, as well as, handling various day-to-day operations of the office.

Deputy Coroner: Kimberly Wright. Mrs. Wright has a Bachelor's Degree in Criminal Justice from the University of Wyoming. Throughout her final year at the university, Mrs. Wright worked as a Deputy Coroner with the Albany County Coroner's Office. Upon completing her degree in December 2014, Mrs. Wright joined the Boulder County Coroner's Office. Mrs. Wright handles a portion of the caseload, leads the Child Fatality Prevention and Review Team meetings, as well as handling various day-to-day operations.

Deputy Coroner: Cari Lehl. Mrs. Lehl has a Bachelor's Degree and Master's Degree in Forensic Science and a minor in psychology. During her studies, she interned with the Weld County Coroner's Office, the Arapahoe County Coroner's Office, the Miami-Dade Medical Examiner's Office, and the Denver Police Department. Mrs. Lehl handles a portion of the caseload, as well as handling various day-to-day operations of the office.

Deputy Coroner: Laurissa Lampi. Mrs. Lampi has a Bachelor's Degree and Master's Degree in Criminal Justice with a minor in Forensic Science. During her studies, she interned for the Bexar County Medical Examiner's Office. After completion of her undergraduate studies, she worked for the Texas Department of Family and Protective Services. She served six years in the United States Air Force as an Arabic Linguist and has two Associate's Degrees in Arabic and Cryptologic Language Analysis. Mrs. Lampi handles a portion of the caseload, as well as handling various day-to-day operations of the office.

Deputy Coroner: Jordan Steiner. Mr. Steiner has a Bachelor's Degree in Anthropology and a minor in Mathematics from the University of Colorado, Boulder. Following college, he attended the Red Rocks Community College Law Enforcement Academy where he graduated with academic and arrest control honors. Mr. Steiner handles a portion of the caseload, as well as handling various day-to-day operations of the office.

Deputy Coroner: Tahlia Cristobal. Ms. Cristobal has a Bachelor's Degree in Biology and a Minor in Criminalistics from Metropolitan State University of Denver. She started her forensic education at a young age and went through a Forensic Science vocational school while in high school. While in college, Ms. Cristobal completed an internship with the Boulder County Coroner's Office. This experience then led to her full time employment with Boulder County as a Deputy Coroner. Ms. Cristobal handles a portion of the caseload, as well as handling various day-to-day operations of the office.

Pathology Assistant: Cory Martin. Ms. Martin joined the Boulder County Coroner's office in September of 2011 as an Autopsy Technician Intern and was subsequently hired upon completion of her internship. Ms. Martin holds degrees in opera performance from Indiana University, Bloomington, gemological certifications from the Gemological Institute of America and a bachelor's degree in biology from Metropolitan State University, Denver. Ms. Martin is responsible for the day-to-day operation of the morgue and assists at autopsies.

Pathology Assistant: Katie Becker. Ms. Becker has a Bachelor's Degree in Sociology with a concentration in Criminal Justice from Colorado State University. Ms. Becker is responsible for the day-to-day operation of the morgue and assists at autopsies.

Administrative Supervisor: Donna Lee. Ms. Lee has an extensive background in office administration. Her career included providing administrative assistance to employers such as the State of Colorado, AT&T/Lucent Technologies/Avaya Communications and the City of Northglenn. Donna is responsible for assisting the Coroner in the administration of the office.

Administrative Technician: Noelle Mockler. Ms. Mockler has a Master's Degree in Forensic Psychology from Marymount University in Arlington, VA and Bachelor's Degree in Criminal Justice and Criminology from Metropolitan State University. After completion of her graduate degree, she worked primarily in the human service field in the DC area for approximately 5 years before moving back to Colorado.

FACILITIES

Groundbreaking for the Boulder County Coroner Facility located at 5610 Flatiron Parkway occurred in March of 2014. The facility was completed in the spring of 2015. The office is designed to welcome and assist those coming to the Boulder County Coroner's Office. The staff is available to law enforcement personnel, community partners and family members, from 8:00 A.M. to 4:30 P.M. (Closed for lunch from 12 P.M. to 1 P.M.). After hours coroner's office staff is available 24/7 through Boulder County Dispatch.

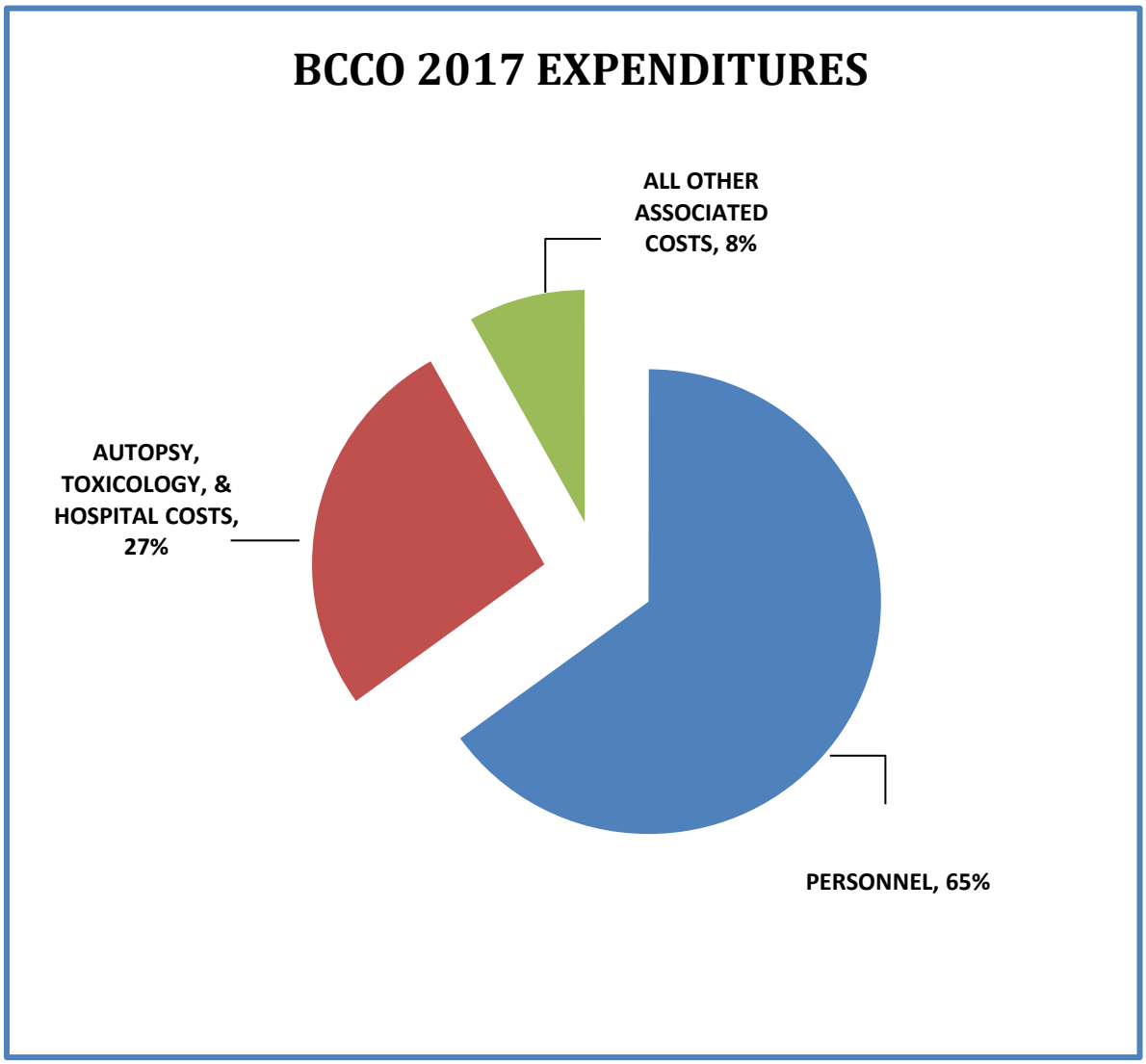
The building is a stand-alone facility which includes a 1060 square foot autopsy suite featuring state-of-the-art amenities to allow for the most safe work environment possible for the staff and for public health in general. The suite includes two full function stainless steel autopsy tables in addition to a 202 square foot isolation room with an+ independent reverse flow air system. The morgue features a remote controlled body lift system, surgical lamps, natural light for energy conservation, pan/tilt/zoom (PTZ) and fixed security cameras with medical detail zoom capabilities and remote communication with conference rooms, and a walk in freezer and refrigerator capable of storing up to 30 bodies each.

FUNDING

The funding for the coroner's office comes from the general fund. The general fund is the common use fund where the majority of the county's core services are funded. The coroner's office has an appropriation which is split between personnel and operating expenditures. The majority of the revenues that go into the general fund include property tax, motor vehicle fees, recording fees, other fees and charges for service, interest on investments, and intergovernmental revenues. Additional information is available through the Boulder County Budget Office.

EXPENDITURES

The 2017 expenditures for the Boulder County Coroner's Office was $1,207,301. This is 0.29% of the total adopted 2017 Boulder County budget of $422,451,547.



DESCRIPTION OF REPORTABLE CASES

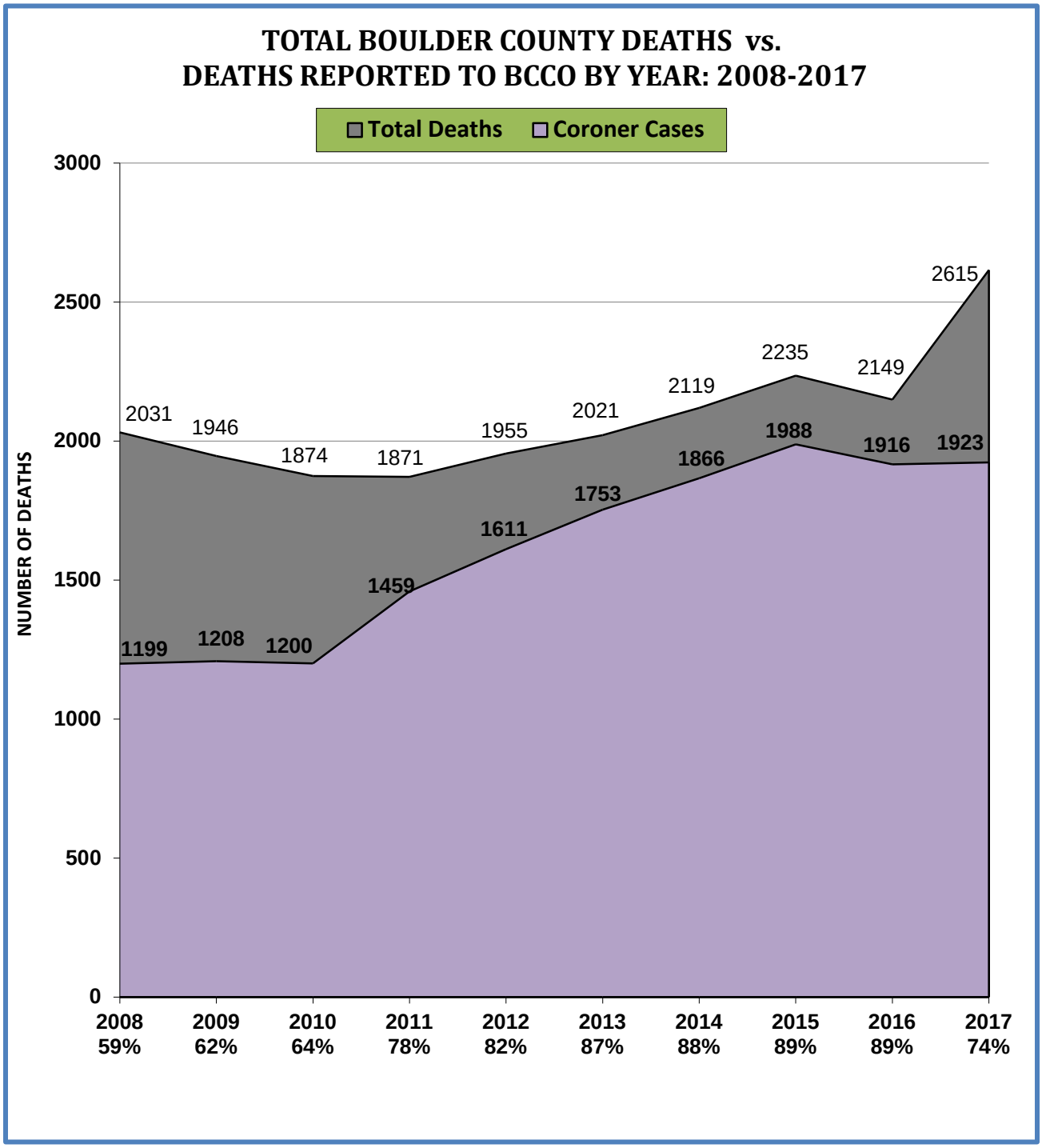
In accordance with Colorado Revised Statute §30-10-606, the following deaths are **reportable** to the Boulder County Coroner's Office:

- If the death is or may be unnatural as a result of external influences, violence or injury;
- Death due to the influence of or the result of intoxication by alcohol, drugs or poison;
- Death as a result of an accident, including at the workplace;
- Death of an infant or child is unexpected or unexplained;
- Death where no physician is in attendance or when, though in attendance, the physician is unable to certify the cause of death;
- Death that occurs within twenty-four hours of admission to a hospital;
- Death from a disease which may be hazardous or contagious or which may constitute a threat to the health of the general public;
- Death occurs from the action of a peace officer or while in custody of law enforcement officials or while incarcerated in a public institution;
- Death was sudden and happened to a person who was in apparent good health;
- When a body is unidentifiable, decomposed, charred or skeletonized;
- Circumstances that the coroner otherwise determines may warrant further inquiry to determine cause and manner of death or further law enforcement investigation.

It should be emphasized that, although a particular death may be "reportable" to the coroner's office; an autopsy may not be necessary depending upon the circumstances.

PERCENTAGES OF BOULDER COUNTY DEATHS REPORTED TO THE CORONER

Per the US Census, the 2017 estimated population of Boulder County was 322,514. A death certificate is filed with the Boulder County Public Health Department for each death that occurs in Boulder County. The Public Health Department keeps track of the total number of deaths that occur in Boulder County. A portion of the deaths that occur in Boulder County are reported to the Boulder County Coroner's Office. The chart below shows a yearly total of all deaths that occurred in Boulder County and a yearly total of all deaths reported to the Boulder County Coroner.



AUTOPSIES BY YEAR

In approximately thirteen percent of the deaths that were investigated by the Boulder County Coroner's Office in 2017, an autopsy or skeletal examination was performed to aid in the determination of the cause and manner of death, to document disease, to identify injury patterns, or to recover evidence. Included in almost all autopsies are toxicology tests that may be helpful in determining the cause and manner of death. Toxicology testing and histology review is performed on various specimens collected at autopsy. Several laboratories are used for drug testing. Screening tests include alcohol, illicit drugs, commonly abused prescription and non-prescription drugs, and other substances as needed.

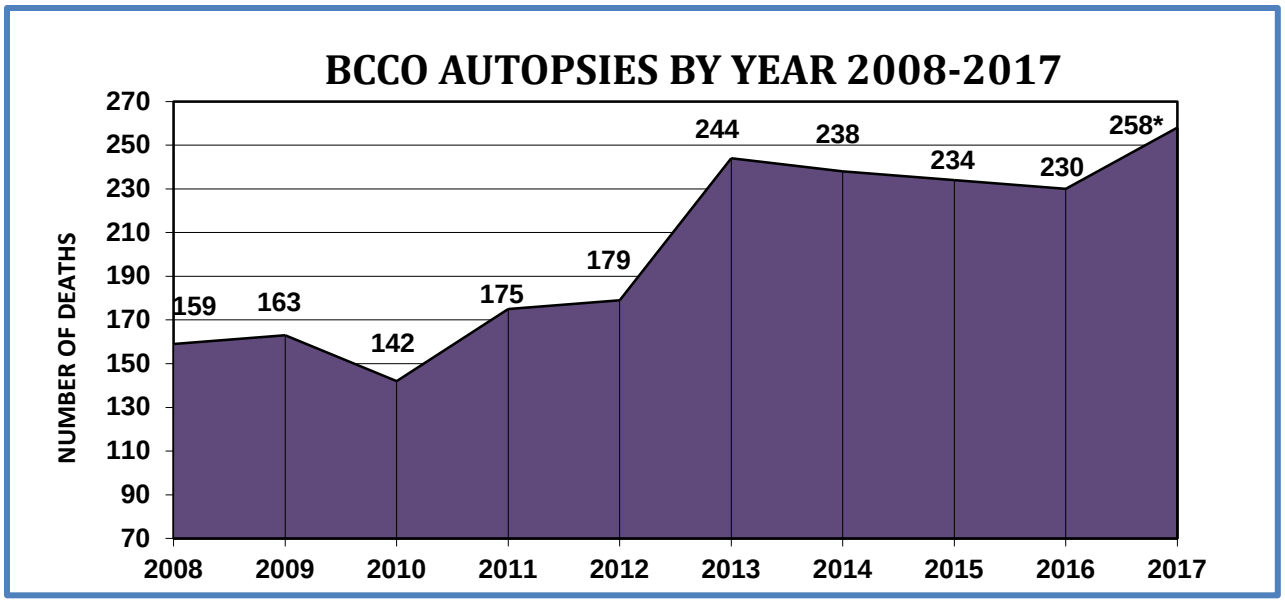
In 2011, House Bill 11-1258 was passed. The bill states that the coroner shall perform forensic autopsies with the most recent version of the "Forensic Autopsy Performance Standards" adopted by the National Association of Medical Examiners (NAME). And that all forensic autopsies must be performed by a board-certified forensic pathologist.

The "Forensic Autopsy Performance Standards" listed by NAME are as follows:

Medicolegal death investigation officers are appointed or elected to safeguard the public interest. Deaths by criminal violence, deaths of infants and children, and deaths in the custody of law enforcement agencies or governmental institutions can arouse public interest, raise questions, or engender mistrust of authority. Further, there are specific types of circumstances in which a forensic autopsy provides the best opportunity for competent investigation, including those needing identification of the deceased and cases involving bodies of water, charred or skeletonized bodies, intoxicants or poisonings, electrocutions, and fatal workplace injuries. Performing autopsies protects the public interest and provides the information necessary to address legal, public health, and public safety issues in each case. For categories other than those listed below, the decision to perform an autopsy involves professional discretion or is dictated by local guidelines. For the categories listed below, the public interest is so compelling that one must always assume that questions will arise that require information obtainable only by forensic autopsy.

A forensic pathologist shall perform a forensic autopsy when:

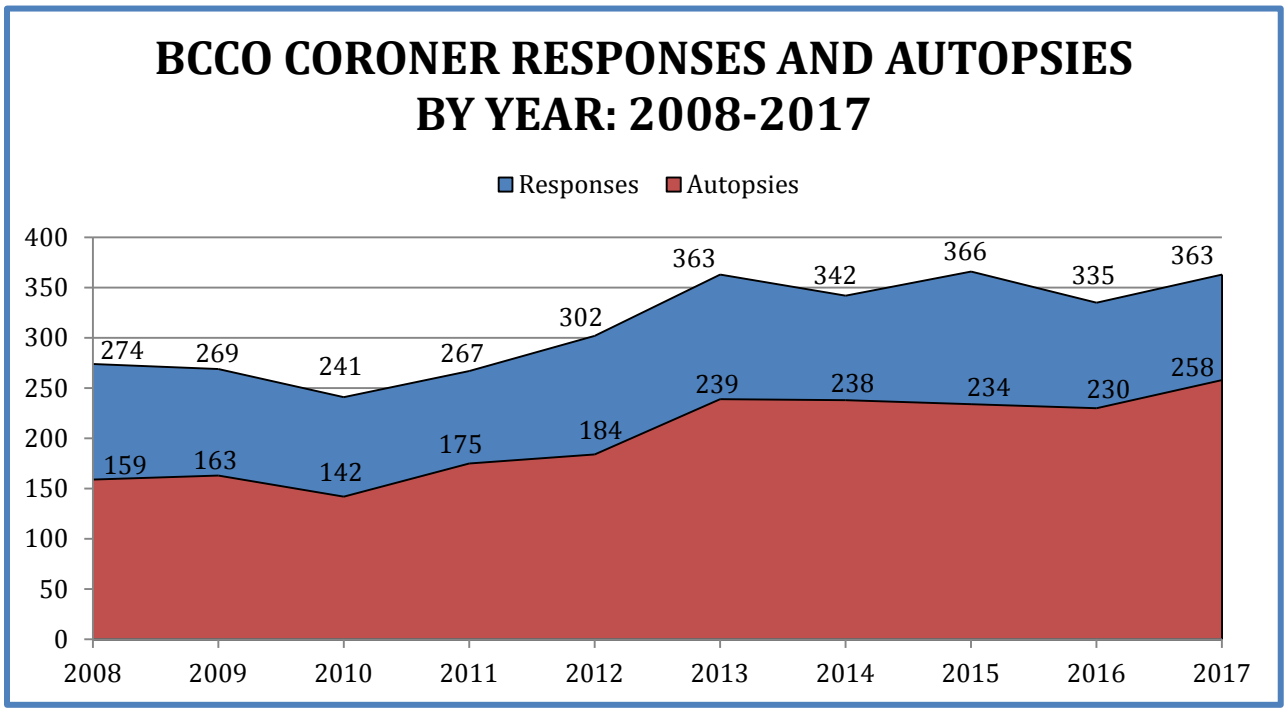
- The death is known or suspected to have been caused by apparent criminal violence.
- The death is unexpected and unexplained in an infant or child.
- The death is associated with police action.
- The death is apparently non-natural and in custody of a local, state, or federal institution.
- The death is due to acute workplace injury.
- The death is caused by apparent electrocution.
- The death is by apparent intoxication by alcohol, drugs, or poison, unless a significant interval has passed, and the medical findings and absence of trauma are well documented.
- The death is caused by unwitnessed or suspected drowning.
- The body is unidentified and the autopsy may aid in identification.
- The body is skeletonized.
- The forensic pathologist deems a forensic autopsy is necessary to determine cause or manner of death, or document injuries/disease, or collect evidence.
- The deceased is involved in a motor vehicle incident and an autopsy is necessary to document injuries and/or determine the cause of death.



Note: *The Boulder County Coroner's Office performed 258 autopsies (including one skeletal examination) in 2017 (one of the autopsies was a 2016 case), additionally there was one 2016 case in which the autopsy was performed in 2017.

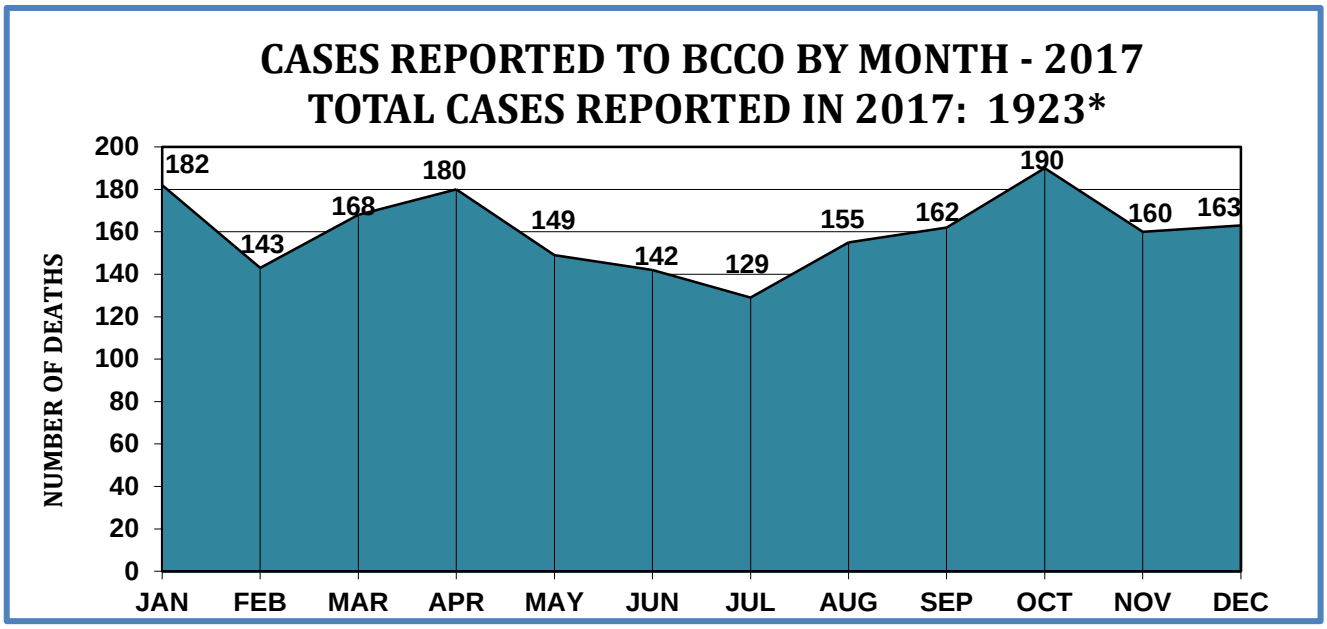
CORONER RESPONSE AND AUTOPSY TOTALS

The Boulder County Coroner's Office makes a physical response to a low percentage of its total case load and performs an autopsy on an even lower percentage of its total case load. The chart below shows the annual trend lines for both the responses and the autopsies.



Note: * There were 258 cases in 2017 that required autopsies; one of the autopsies performed in 2017 was a 2016 case.

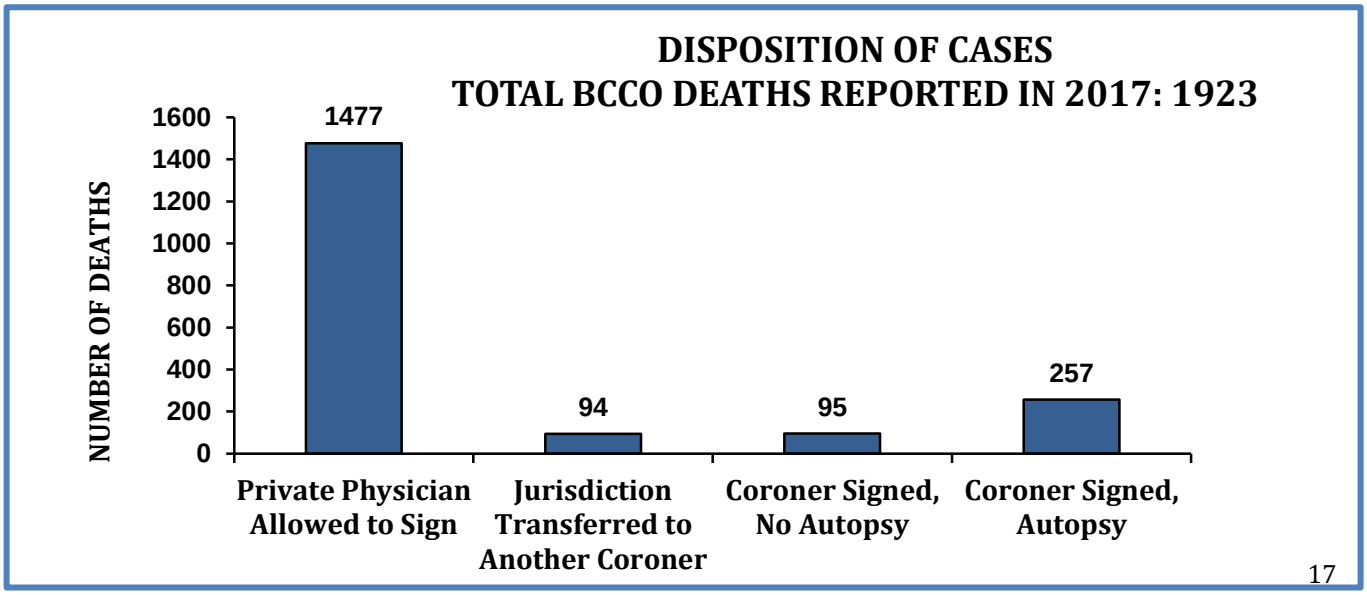
CASES BY MONTH



Note: *The total number of cases reported includes 94 cases that were transferred to other coroners. See **Transfer of Jurisdiction** section of this report for further explanation.

DISPOSITION OF CASES

Deaths that fall under the jurisdiction of the coroner are handled in one of four ways. Most commonly, if the death is due to natural disease and if a private physician who has treated the decedent is able to certify the cause of death, the coroner may allow the private physician to sign the death certificate. Or the coroner may assume jurisdiction over the death and conduct an investigation and an autopsy to determine cause and manner of death and then issue a death certificate. Or the coroner may assume jurisdiction of a death and conduct an investigation, but not perform an autopsy. Or, even though a death may have occurred in the county, a "transfer of jurisdiction" may occur to the coroner of the county where the initiating event causing death occurred or where the decedent was transported from (i.e. by ambulance) prior to death. The transfer of jurisdiction is allowed according to Colorado Revised Statute §30.10.606.



TRANSFER OF JURISDICTION

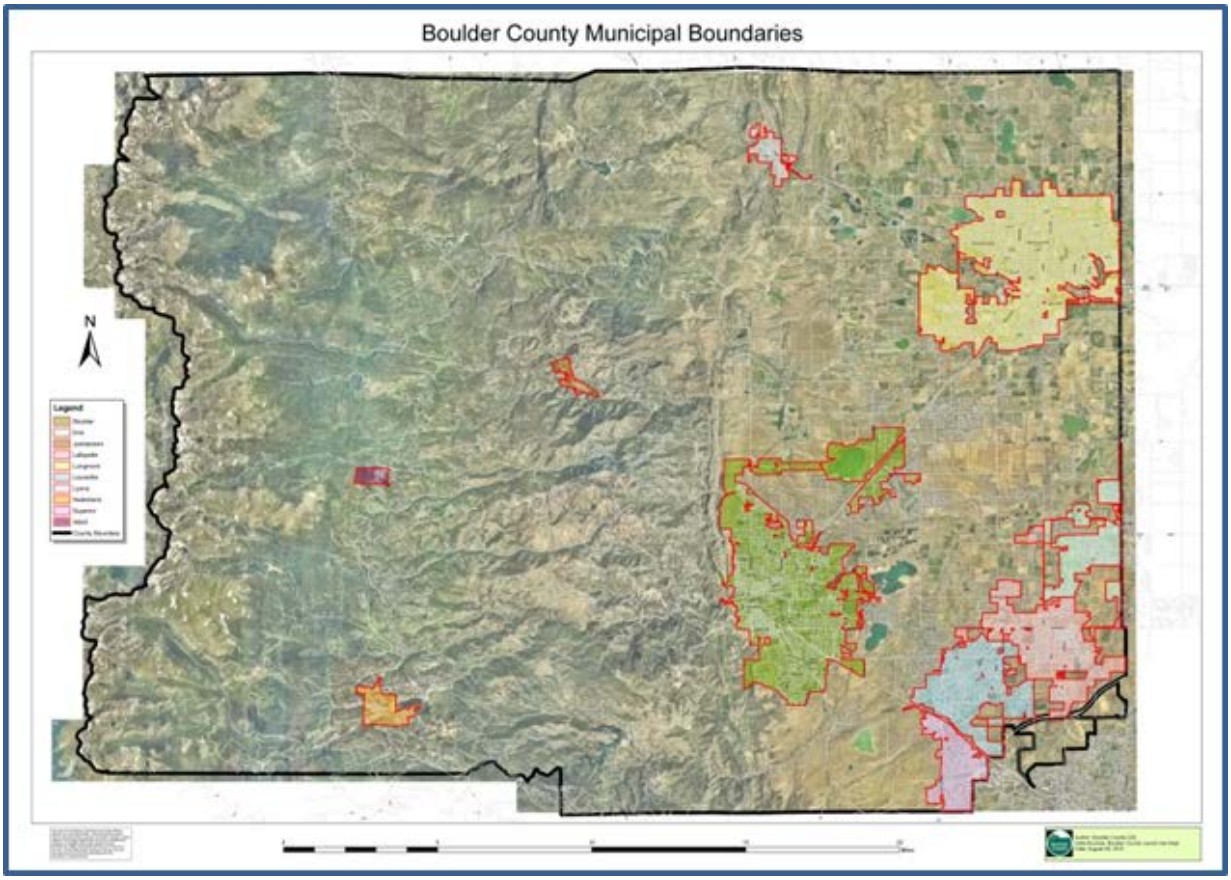
Occasionally, deaths that occur in Boulder County are due to an "initiating event" that occurred in another county. For example, an individual may die in a hospital from injuries that they sustained in an accident that occurred in another county, or an individual may collapse at their residence (in another county), be transported to a hospital in Boulder County, and subsequently die in that hospital. In these cases, the Boulder County Coroner will transfer jurisdiction (subsequent investigation and certification) to the coroner of the county in which the "initiating event" occurred.

In 2017, the jurisdictions of 94 cases were transferred to other coroners in surrounding counties. Fifty cases were natural deaths, thirteen were traffic accidents, twenty-seven were non-traffic accidents, three were suicides, and one was a homicide. Forty-four of the cases were transferred to Adams/Broomfield County, twenty-five were transferred to Weld County, twenty-three were transferred to Jefferson County, one was transferred to Gilpin County, and one was transferred to Arapahoe County.

Thirty-five of the transferred cases were deaths that occurred in an emergency department. Twenty-nine of them occurred at Good Samaritan Medical Center (GSMC), one occurred at Avista Adventist Hospital, three occurred at Longmont United Hospital, and two occurred at Longs Peak Hospital in Longmont.

In 77% of the cases (72 total) that were transferred to other coroners, the decedents were transported to Exempla Good Samaritan Medical Center from areas outside of Boulder County (this includes the 29 GSMC ED deaths).

For statistical purposes, in the sections to follow, transferred cases will not be counted among the deaths investigated by Boulder County, unless otherwise noted.

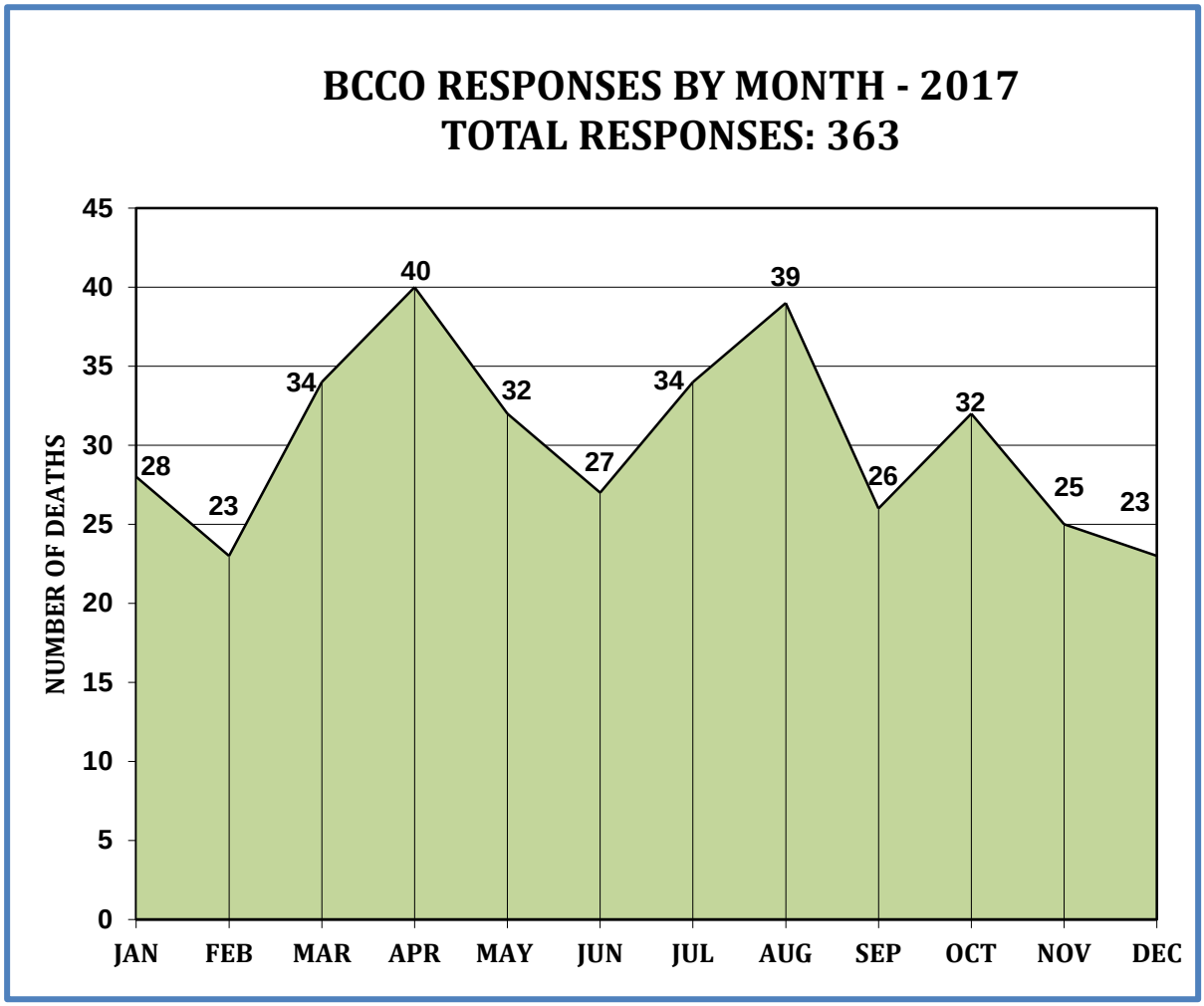


CORONER RESPONSES BY MONTH

The Boulder County Coroner's Office is called to action by either receiving a phone report of a death or by receiving a notification and response request from law enforcement. When a death is reported to the office by phone it is typically being reported by a hospice agency, a care center or a hospital. The coroner's office will make a determination if a response is necessary; if not, a phone report is taken and the office may follow up with attaining additional medical records and conducting further interviews as needed. A response is made by the coroner's office to the care center or hospital if further information is needed at the time of death.

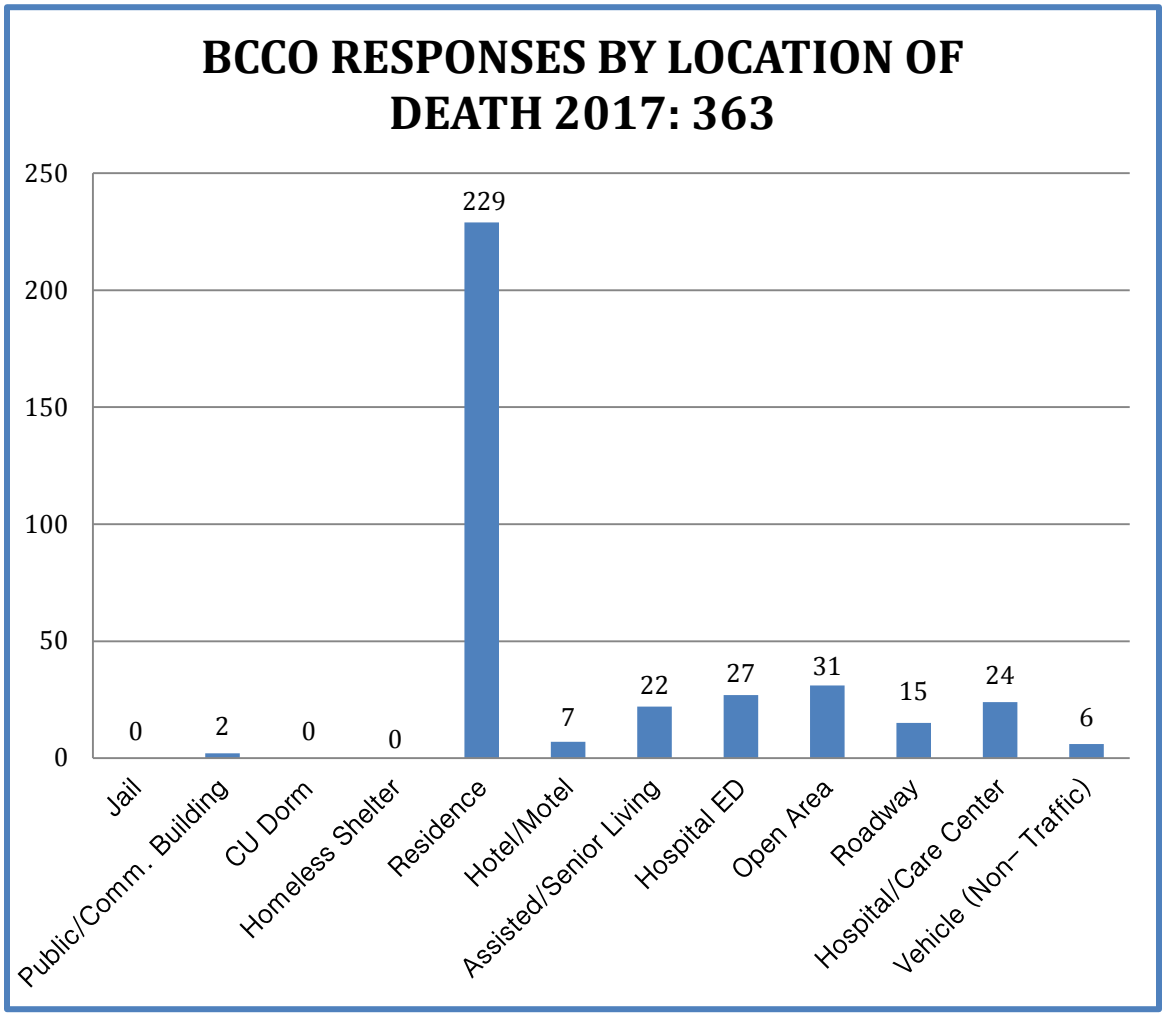
Most responses made by the coroner's office are to death scenes where law enforcement was notified and requested the coroner's office. Law enforcement has jurisdiction over the scene, while the coroner's office has jurisdiction over the body, therefore, both agencies work together to accomplish their individual responsibilities. The coroner's office is responsible for determining manner and cause of death, identifying the decedent and notifying the next of kin. Law enforcement's responsibility is to determine and document any crime that may have occurred or the lack thereof.

In 2017, 363 scene responses were made which was 19% of all of the deaths reported to the Boulder County Coroner's Office.



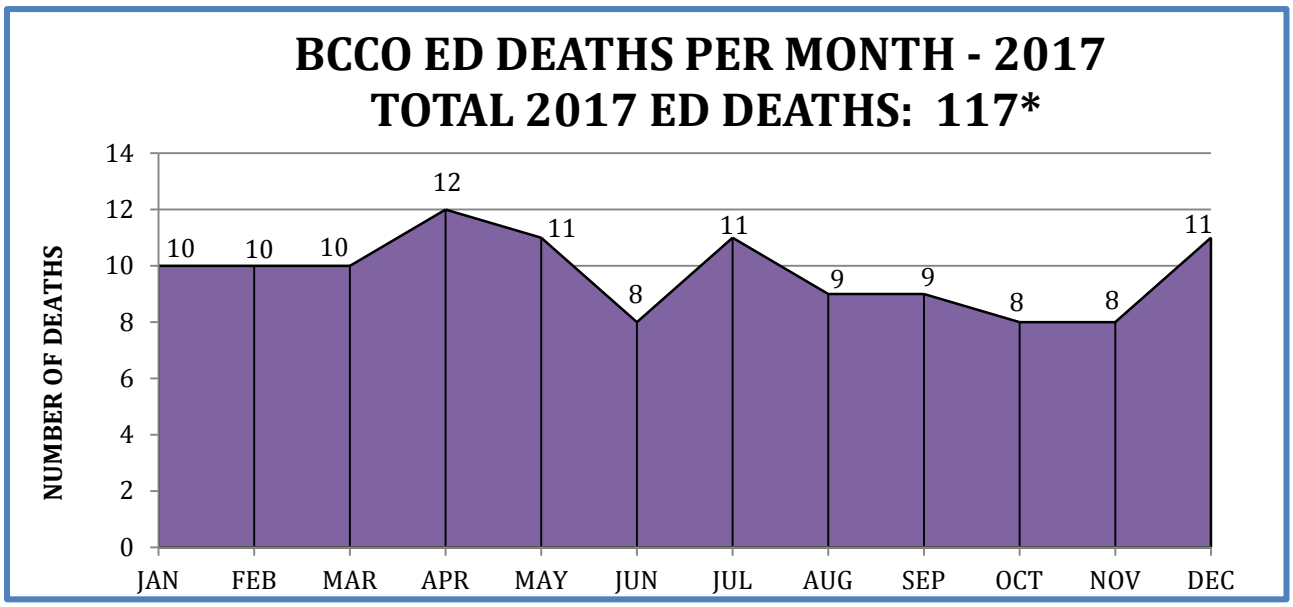
CORONER REPONSES BY LOCATION OF DEATH

BCCO all-terrain response vehicle, equipped for mountain responses.



EMERGENCY DEPARTMENT CALLS BY MONTH

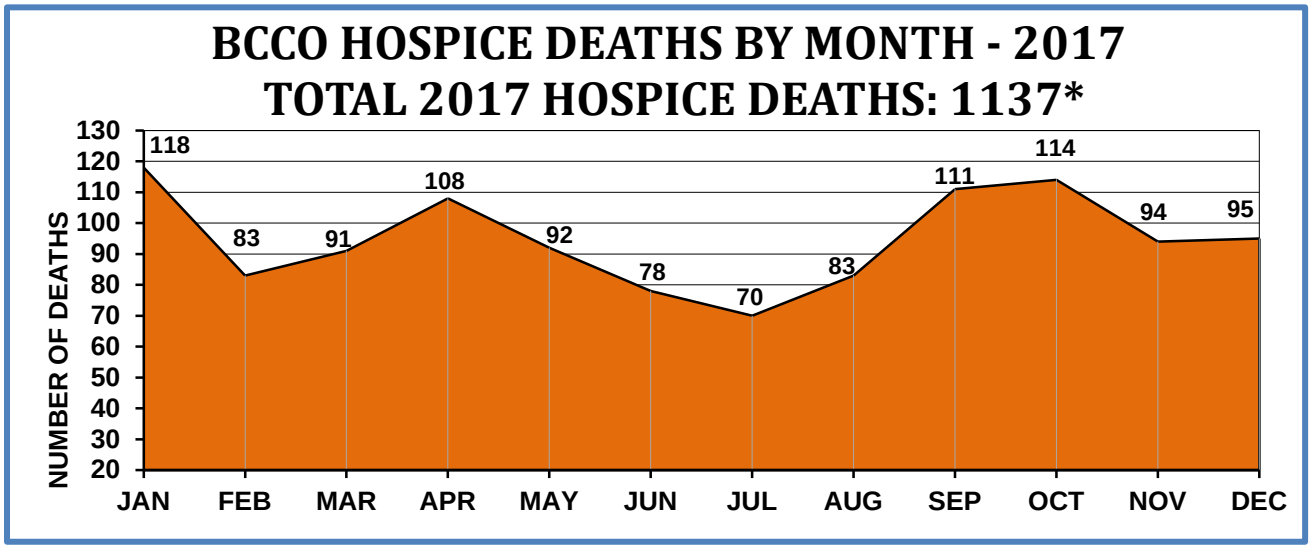
Deaths that occur in an emergency department are required to be reported to the coroner's office. Hospitals in Boulder County include Boulder Community Hospital Foothills, Longmont United Hospital, Good Samaritan Medical Center, and Avista Adventist Hospital.



Note: *The total number of cases reported include 35 cases that were transferred to other coroners. See **Transfer of Jurisdiction** of this report for further explanation.

HOSPICE CASES BY MONTH

Deaths occurring under hospice care in Boulder County are reported to the Boulder County Coroner's Office. There are several hospice organizations operating throughout Boulder County. Of the 1137 hospice cases, reported to the Boulder County Coroner's Office, 1095 (96%) were natural deaths, and 42 (4%) were accidental deaths. Of the 1137 hospice cases, none of them included an autopsy.



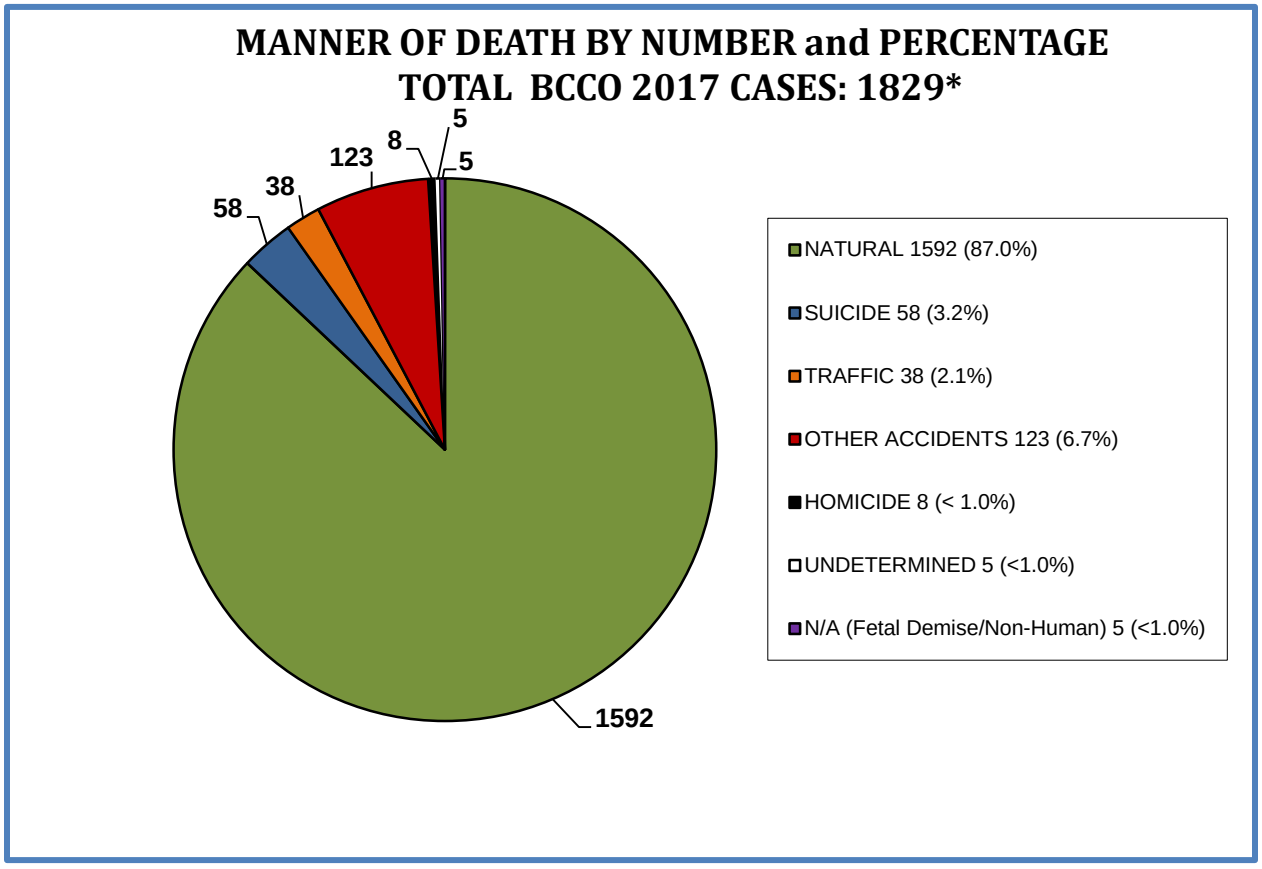
Note: *This total excludes the 4 hospice cases that were transferred to other coroners.

MANNER OF DEATH

One of the main responsibilities of the coroner's office is to determine the manner of death. The manner of death is a classification of death based on the circumstances surrounding the cause of death and how that cause came to be. There are five manners of death: Natural, Suicide, Accident, Homicide and Undetermined. The manner of death is one of the items that must be reported on the death certificate. The manner of death was added to the US Standard Certificate of Death in 1910; it was added by public health officials as a way to code and classify cause of death information for statistical purposes. It should be noted that the medicolegal definition of Homicide means death caused by another, and is not based on intent. A ruling of Homicide does not indicate or imply criminal intent.[1]

MANNER OF DEATH BY NUMBER AND PERCENTAGE

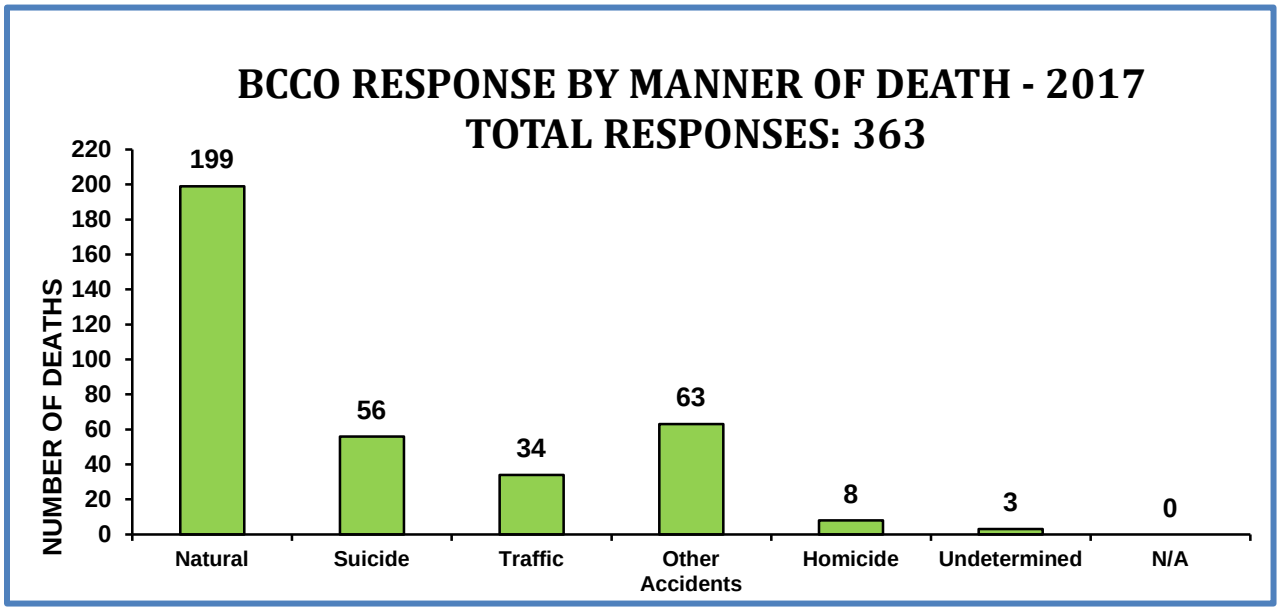
A large majority of the cases investigated by any medical examiner or coroner's office are natural deaths. In Boulder County that figure was 1592 cases, or 87.0% in 2017. Included within these natural deaths were 1095 hospice cases.



Note: ***The 94 cases transferred to other coroners are not included in this total.

Note: Statistical information may not coincide with information available from the Colorado Health Department. The State Health Department tracks death statistics by the county of residence, not by the county where the injury or death occurred.

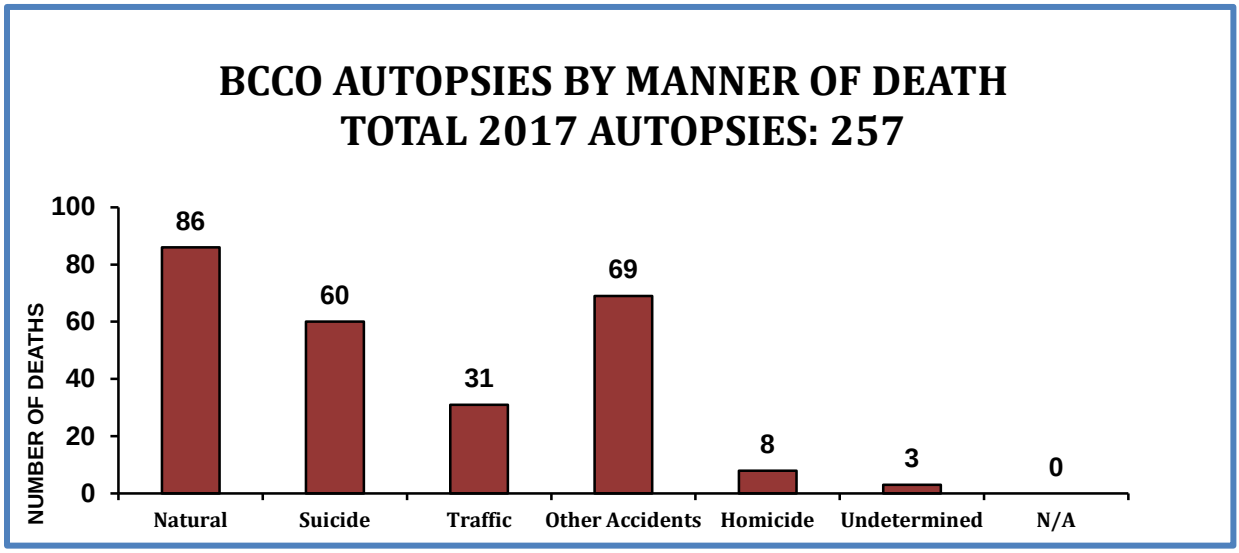
CORONER RESPONSE BY MANNER



Note: The apparent absence of a scene investigation in some suicides, motor vehicle, and other accident cases may be due to the extended survival of the victim in a hospital, or because the victim was transported by emergency personnel to a hospital outside the county and subsequently died away from the scene.

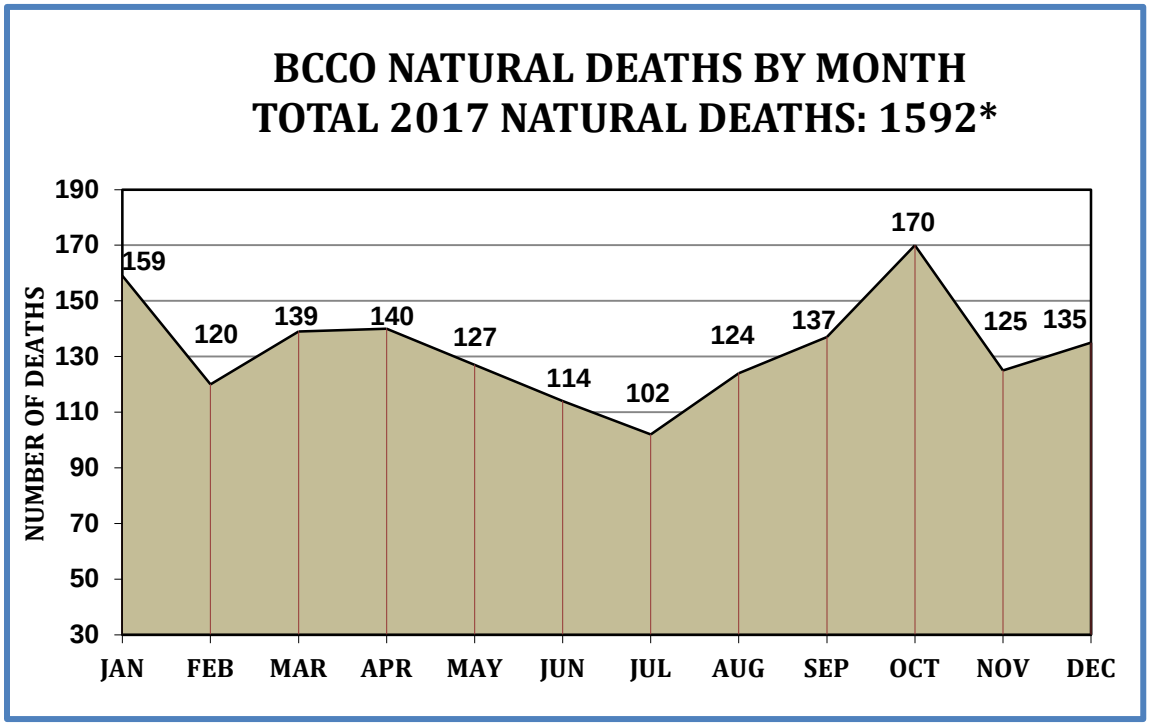
AUTOPSIES BY MANNER OF DEATH

In addition to following the "Forensic Autopsy Performance Standards" adopted by the National Association of Medical Examiners (NAME), the Coroner weighs many factors in order to determine whether an autopsy should be performed. Autopsies are performed in all homicides, most infant deaths, most deaths of individuals without an established medical history, deaths involving possible criminal action, most motor vehicle accident deaths, and most suicides.



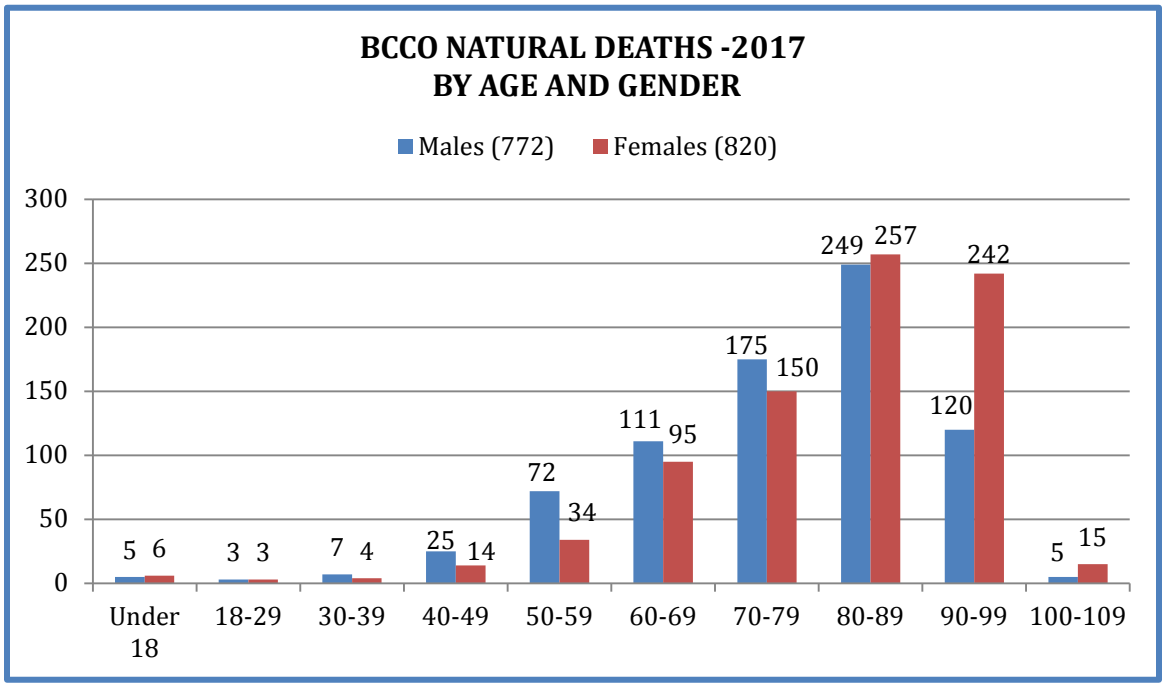
NATURAL DEATHS BY MONTH

Natural deaths comprise the majority of all deaths nationwide and holds true for the cases handled by the Boulder County Coroner's Office.



Note: *This total does not include the 50 natural deaths transferred to other coroners.

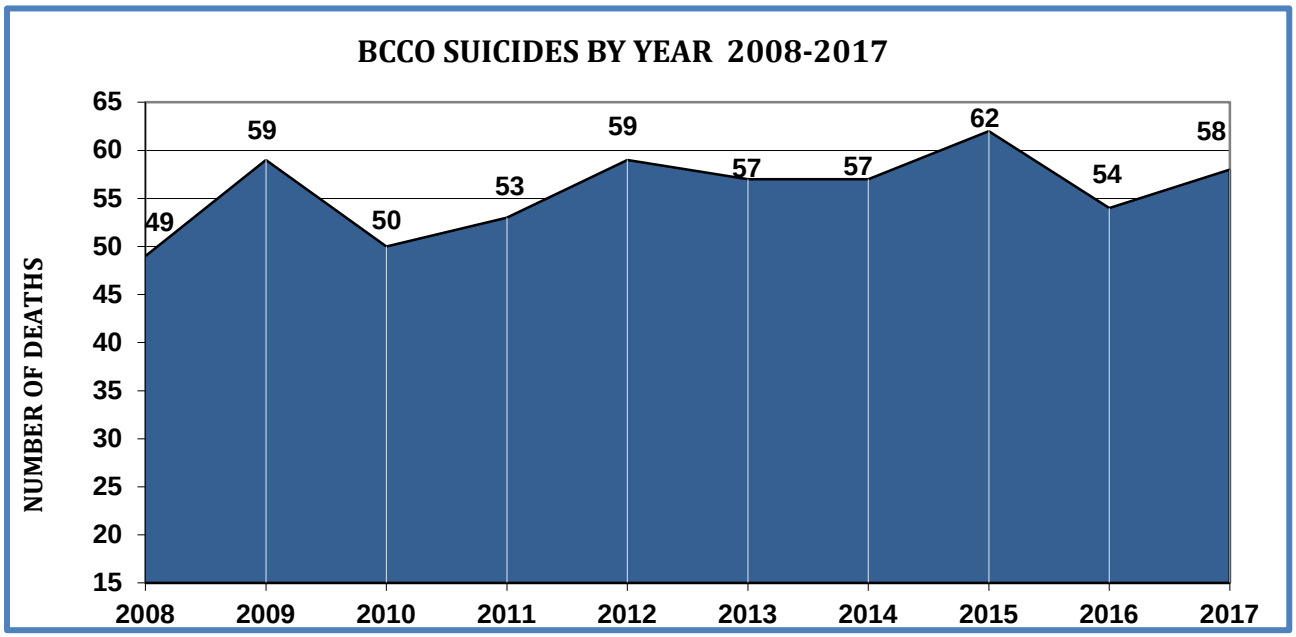
NATURAL DEATHS BY AGE AND GENDER



SUICIDES

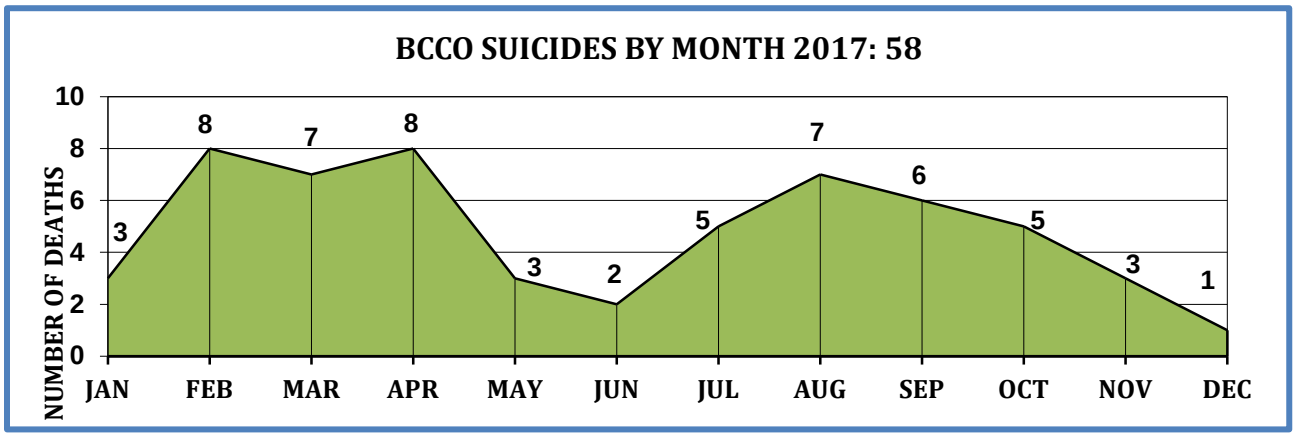
Suicide is defined as the intentional act of killing oneself. Nationally, men are three to five times more likely to commit suicide than women, but women attempt suicide more frequently than men. The most common method of committing suicide is with firearms, followed by hanging, suffocation, and ingestion of poisons.[2] In 2017 in Boulder County, the most common method used was a firearm, followed by hanging and then by prescription medication.

SUICIDES BY YEAR



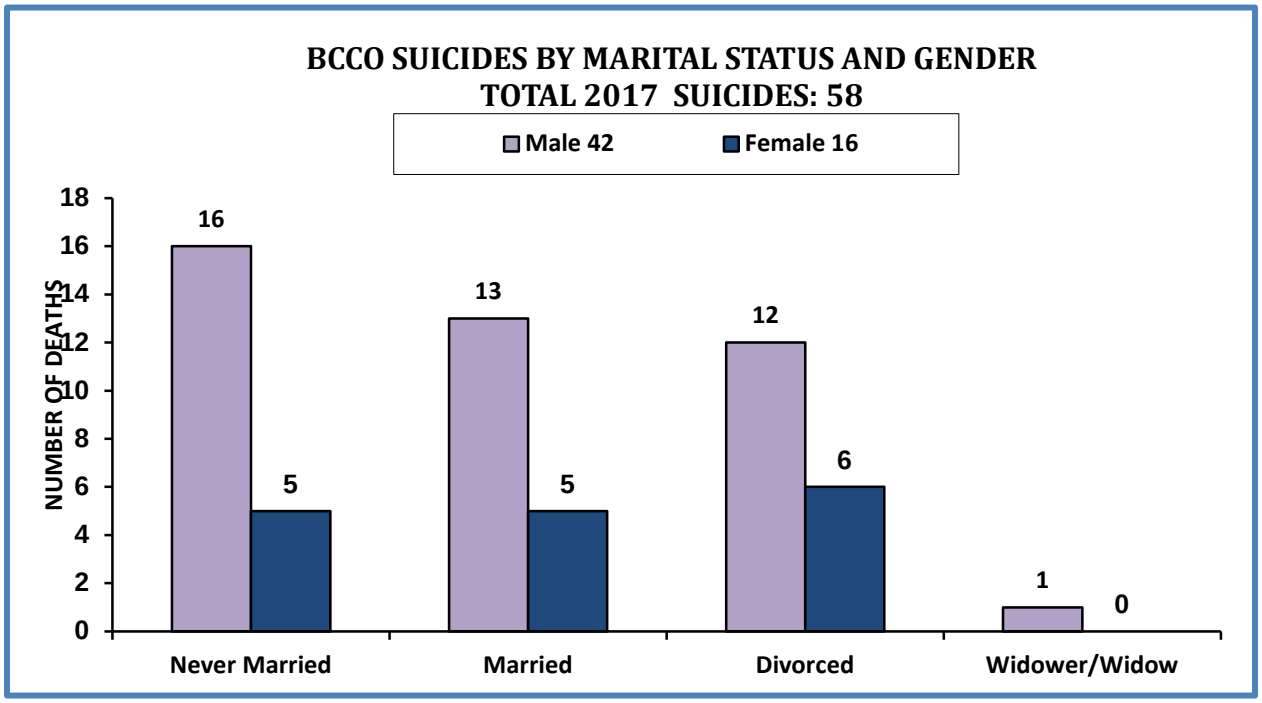
Note: There were a total of 61 suicides reported to the Boulder County Coroner's Office in 2017. The Boulder County Coroner's Office investigated 58 of those cases and transferred jurisdiction of three cases to other coroners.

SUICIDES BY MONTH

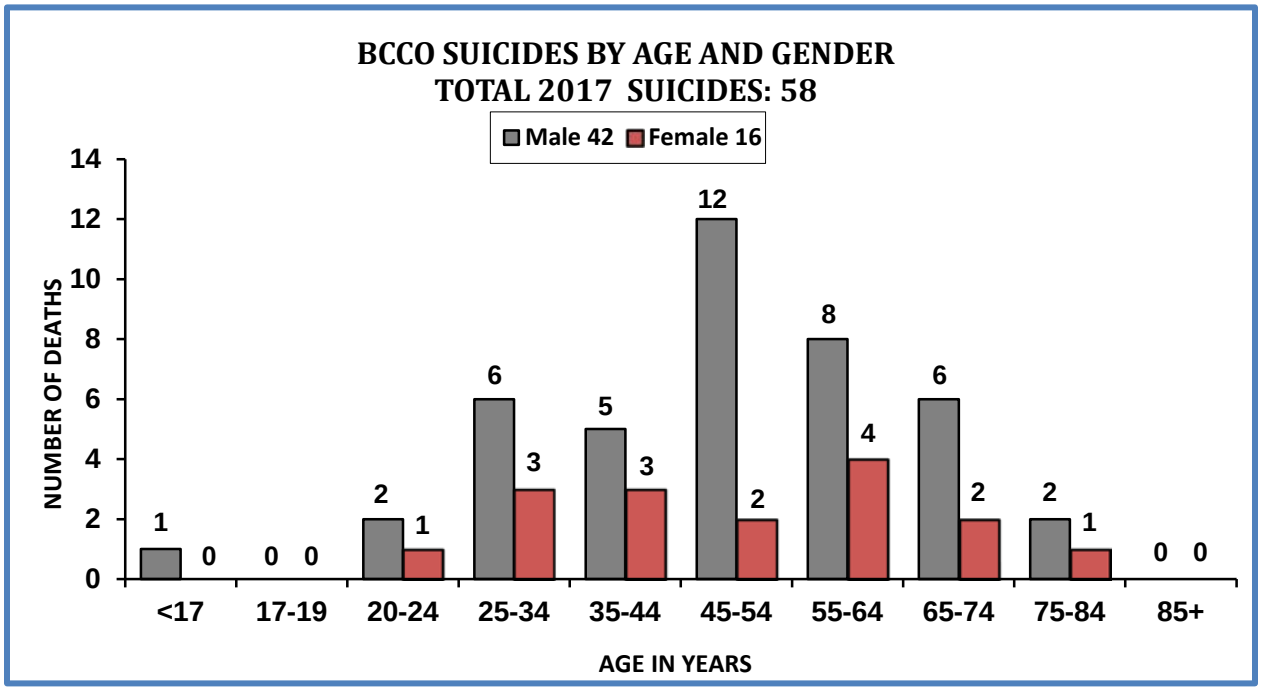


Note: Four of the suicides were non Boulder County residents and one of the suicides was a transient.

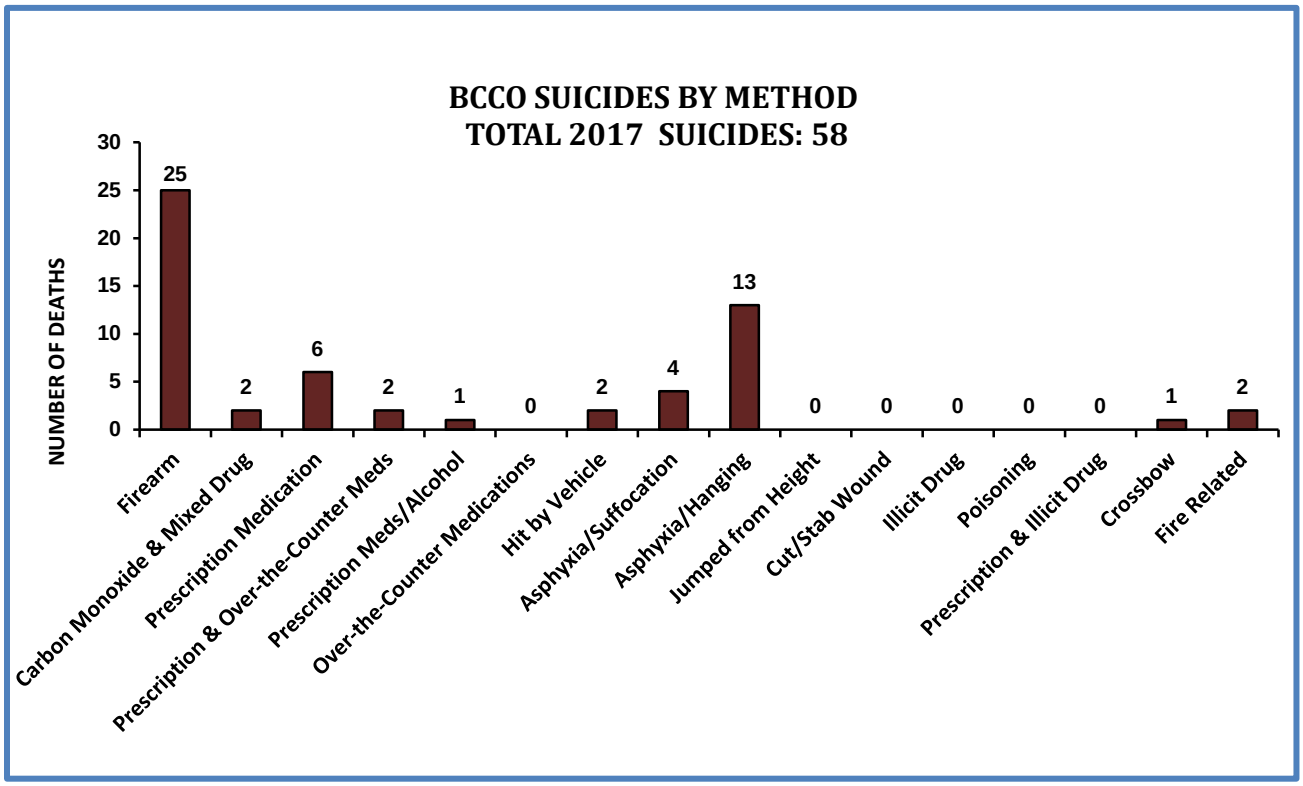
SUICIDES BY MARITAL STATUS AND GENDER



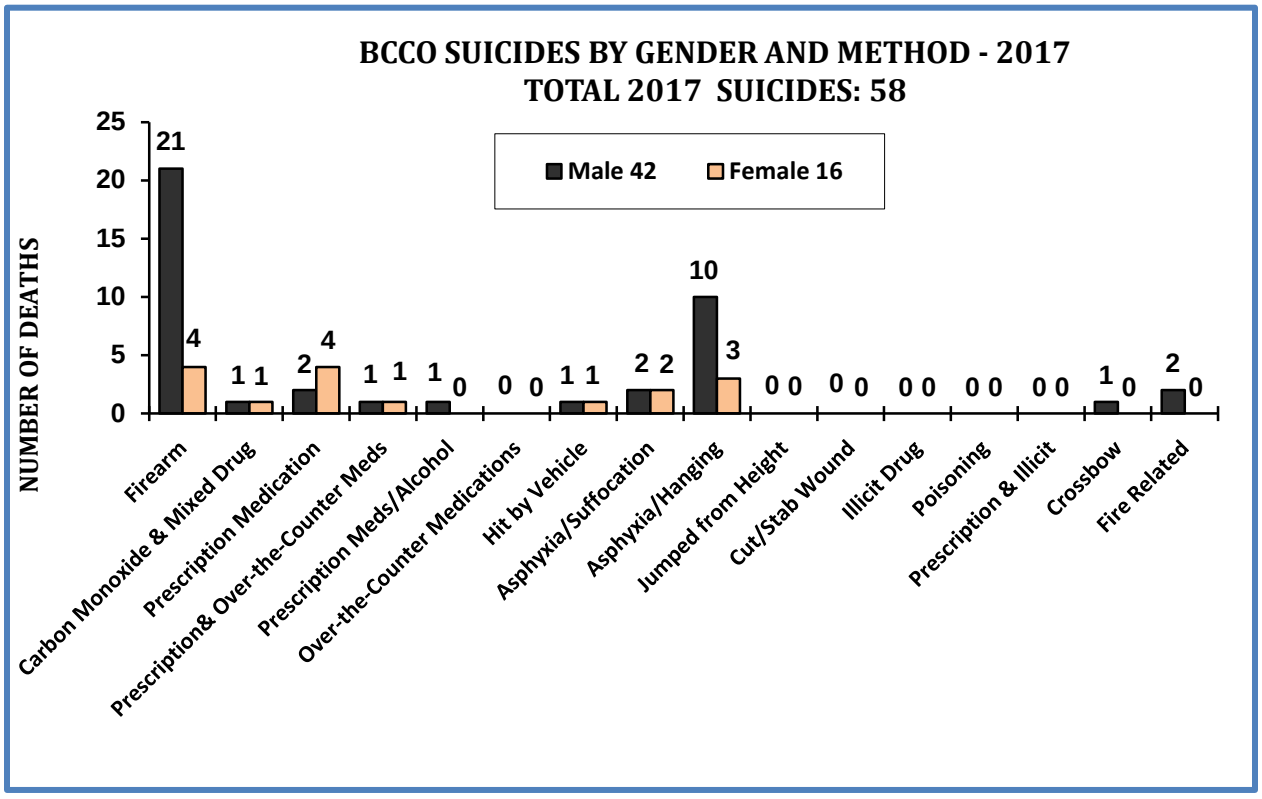
SUICIDES BY AGE AND GENDER



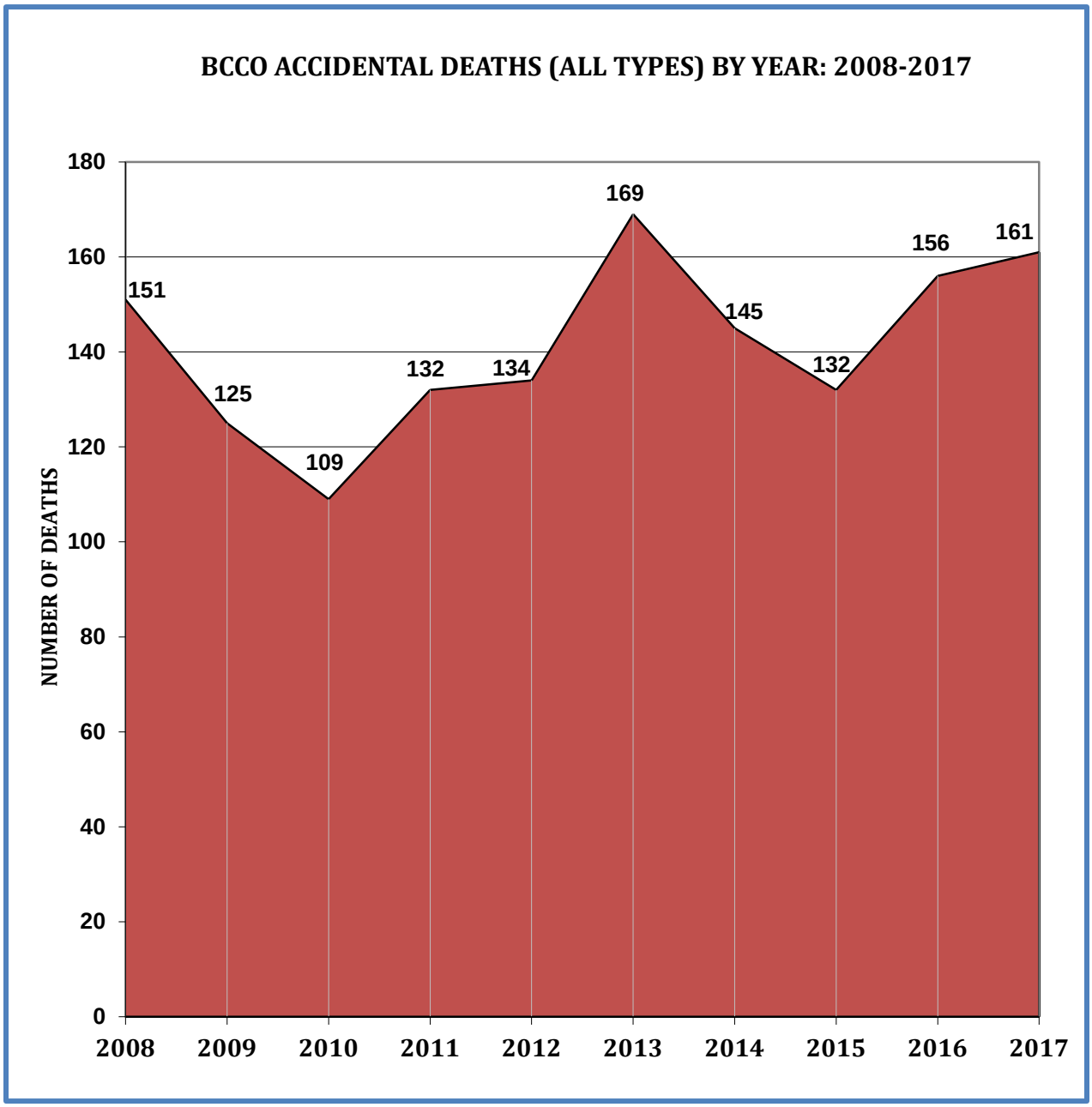
SUICIDES BY METHOD



SUICIDES BY GENDER AND METHOD



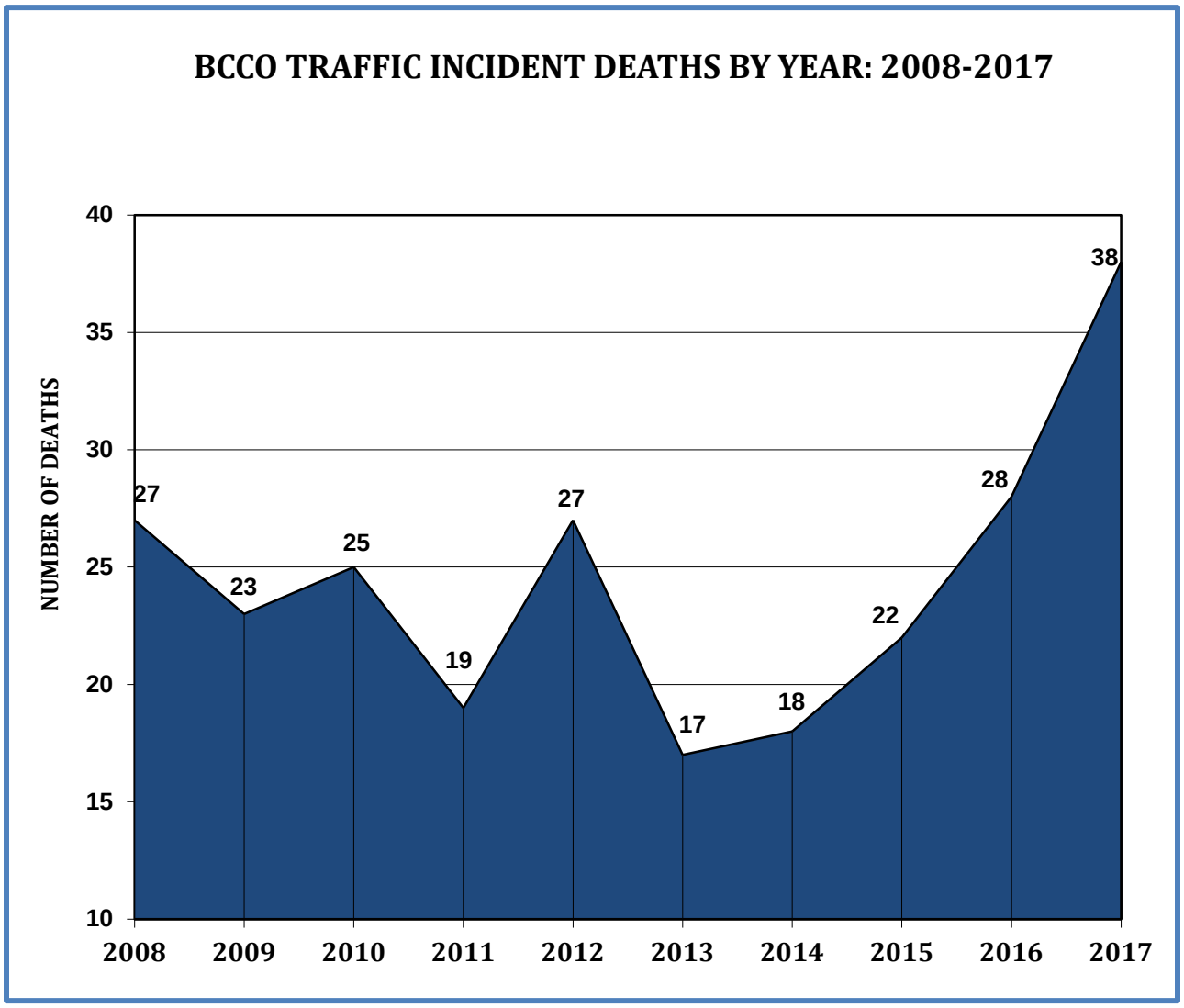
ACCIDENTAL DEATHS BY YEAR, ALL TYPES



Note: In 2017, a total of 201 accidental deaths were reported to the Boulder County Coroner, forty of those cases were transferred to other coroners.

TRAFFIC INCIDENT DEATHS BY YEAR

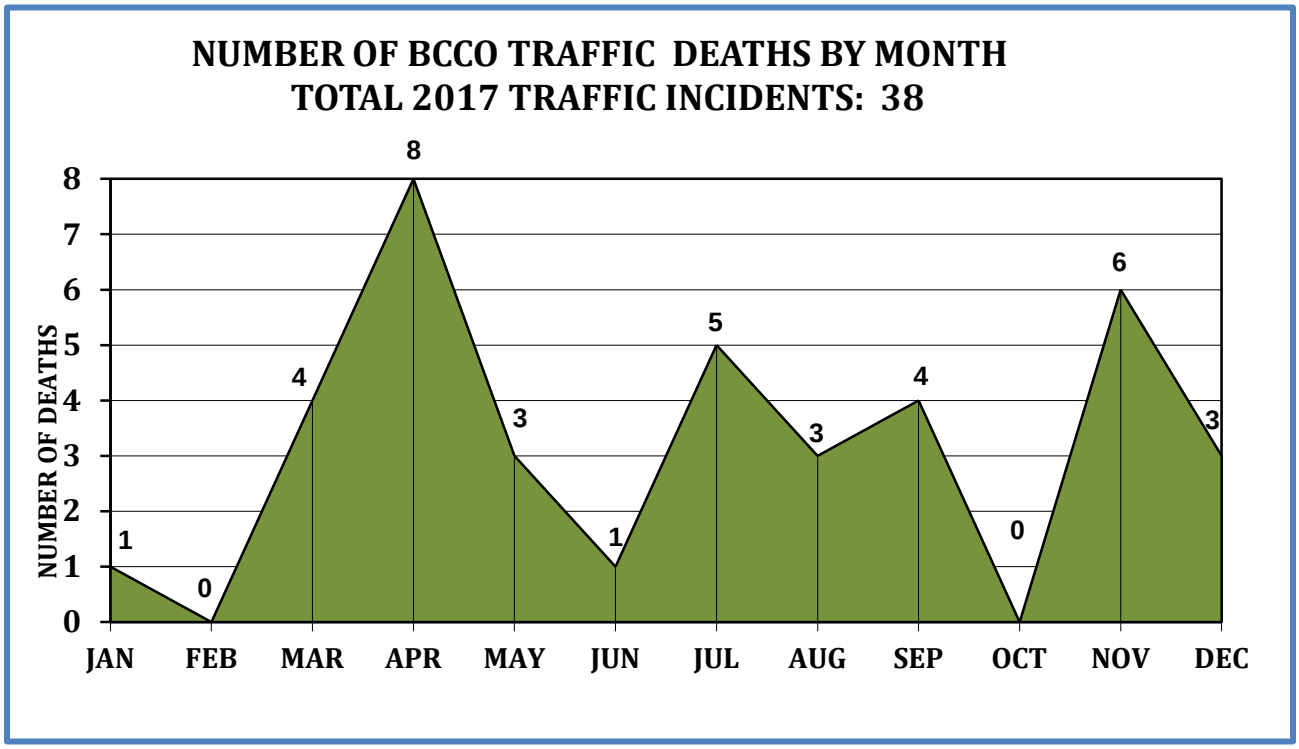
For the purpose of this report, deaths of occupants of a motor vehicle, motorcycle, bicycle-vehicle incidents, or all-terrain vehicle, and vehicle-pedestrian incidents, are considered to be traffic incident deaths.



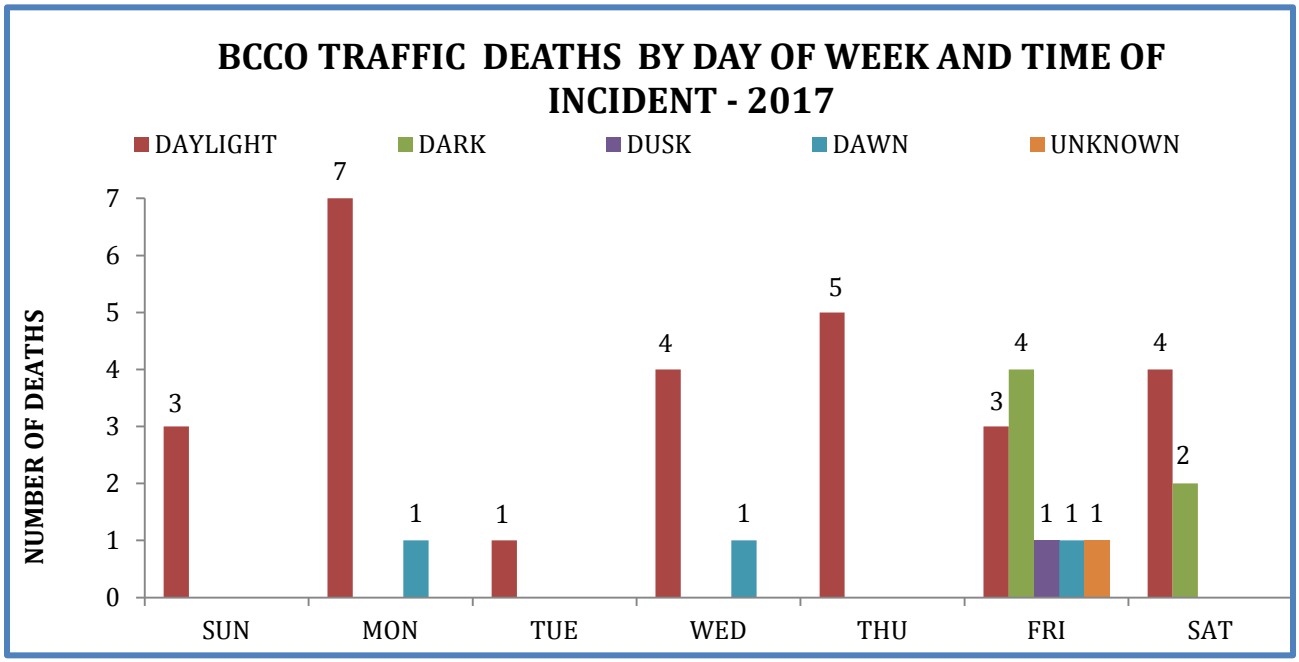
The Boulder County Coroner's Office investigated thirty-eight deaths resulting from traffic incidents in 2017, all of which occurred in Boulder County. Of the thirty-eight cases, twenty-eight of the victims were male and ten were female. Their ages ranged from one to eighty-six years of age. Twenty-four people died due to injuries or complications from injuries sustained in motor vehicle incidents (including automobiles, pickup trucks, SUVs and vans), five people died in motorcycle incidents, one person died in an ATV related incident, four people died as a pedestrian struck by a motor vehicle, four people that died were bicyclists involved in a collision with another vehicle. Among the twenty-four vehicle fatalities, twenty-one were drivers and three were passengers. Thirteen of the drivers were wearing seatbelts. Of the motorcycle deaths, all five were drivers, three of which were wearing a helmet. The ATV related death was a driver who was wearing a helmet.

Note: There were a total of 51 traffic incident deaths reported to the Boulder County Coroner's Office in 2017. The Boulder County Coroner's Office investigated 38 of these cases; the other thirteen cases were transferred to another coroner's jurisdiction.

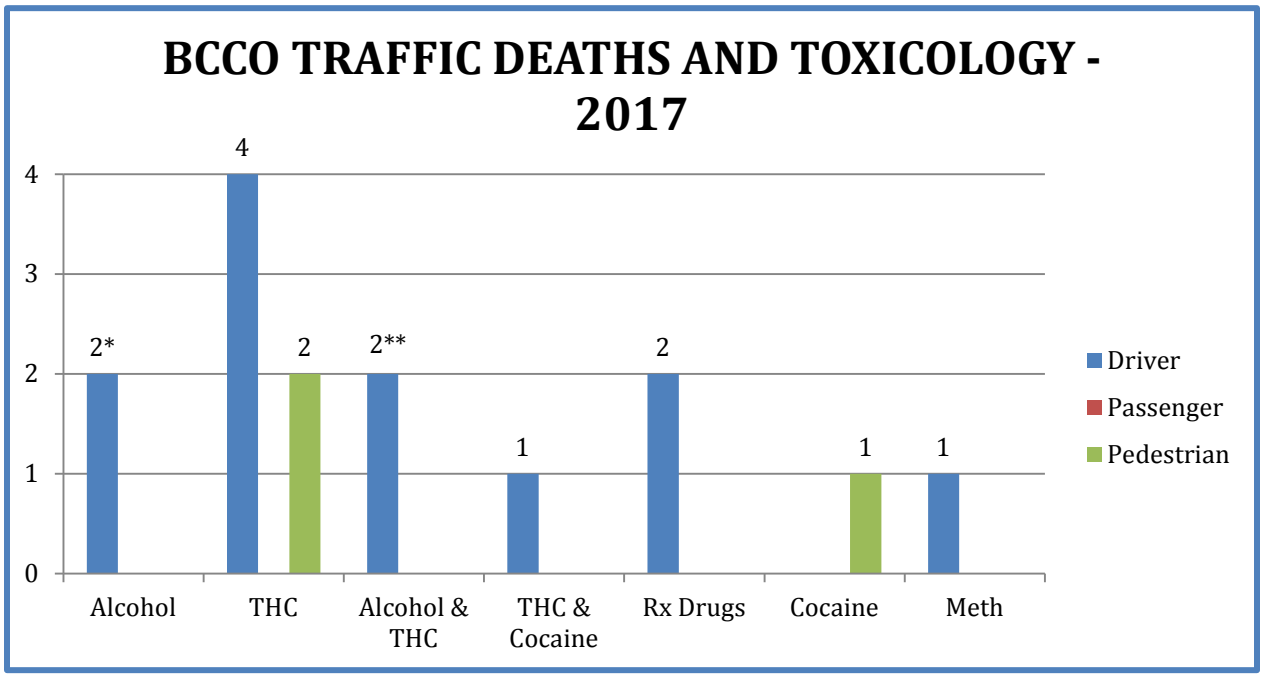
TRAFFIC DEATHS BY MONTH



TRAFFIC DEATHS BY DAY OF WEEK AND TIME OF INCIDENT



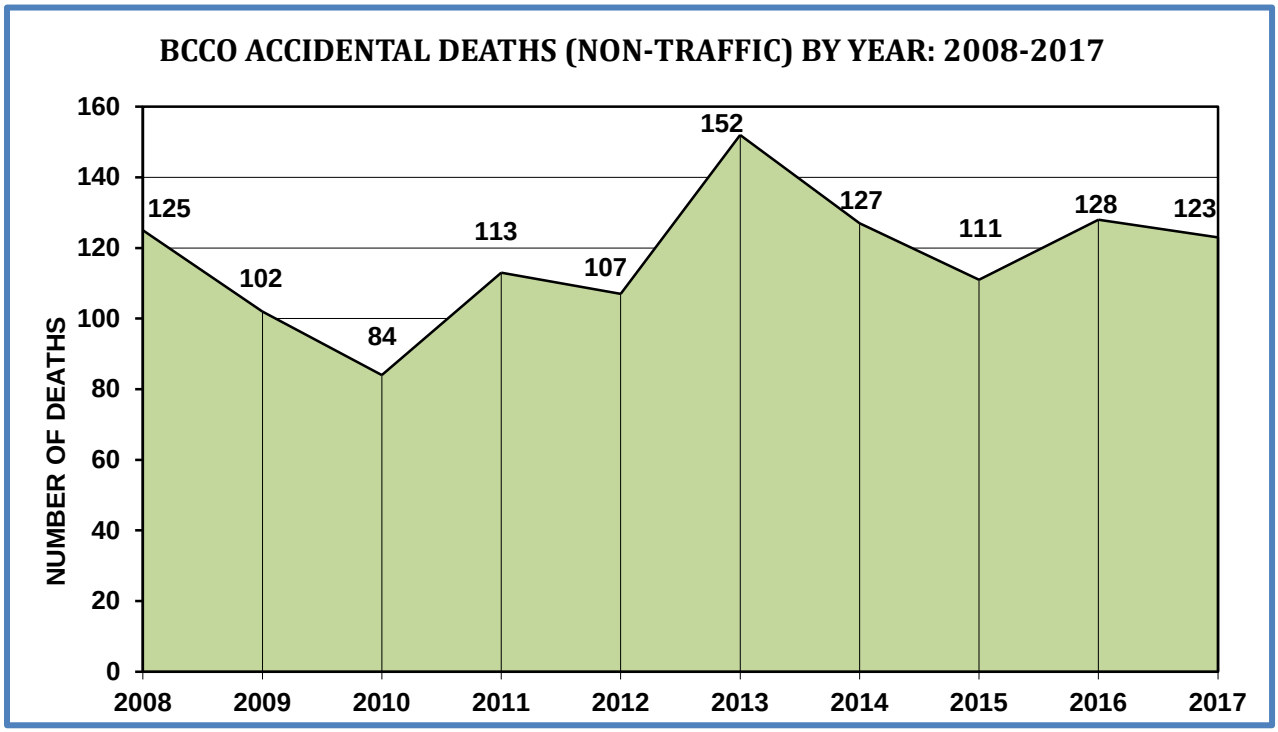
Note: The graph displays the information based on the time of incident, not the death.



In Colorado in 2017, a driver is presumed to be Driving While Ability Impaired (DWAI) when a blood alcohol or breath concentration (BAC) is between .050% and .079%. Prior to July 1, 2004, the blood alcohol concentration threshold was .10% to be considered Driving Under the Influence (DUI). As of July 1, 2004, a driver is presumed to be Driving Under the Influence when the BAC is 0.080% or higher. The legal drinking age is 21.

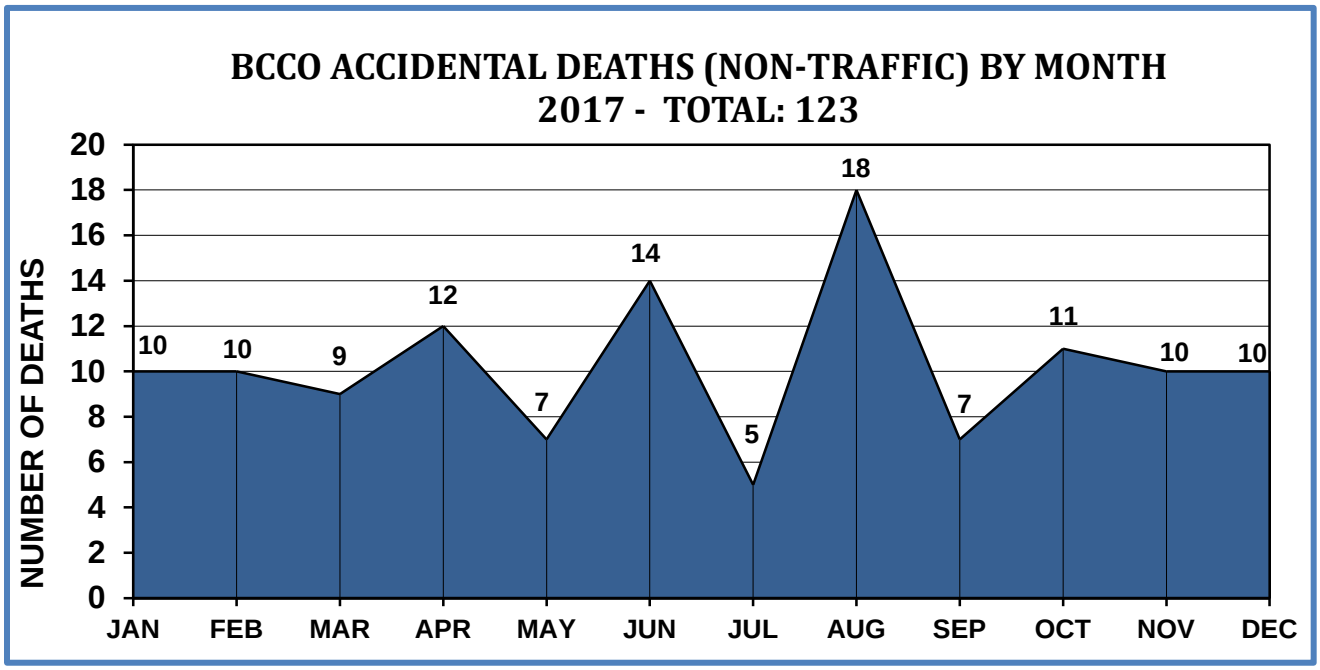
Notes: *The blood alcohol concentrations of these drivers were 0.062% and 0.153%. ** The blood alcohol concentrations of these drivers were 0.031% and 0.189%.

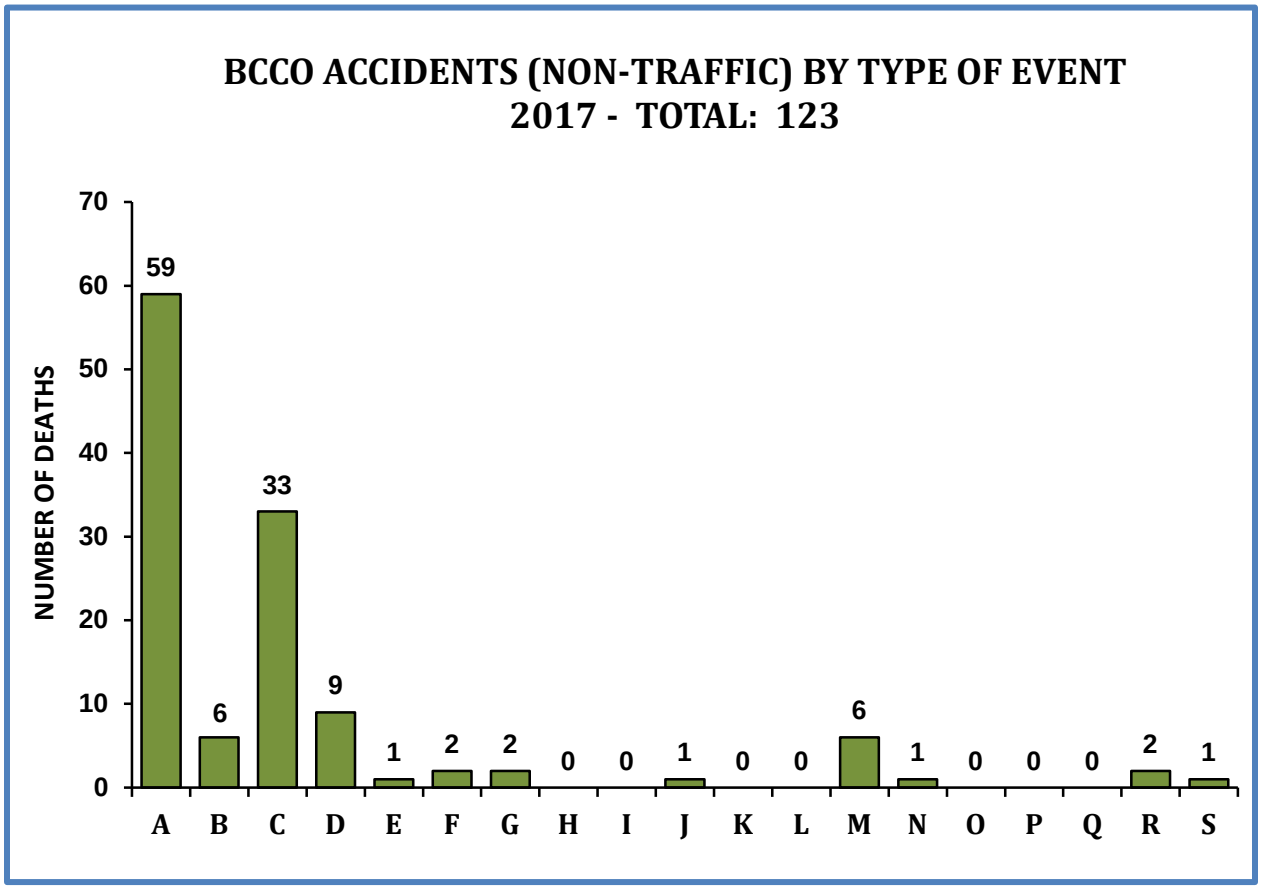
NON-TRAFFIC ACCIDENTAL DEATHS



Note: There were a total of 150 non-traffic accidents reported to the Boulder County Coroner's Office in 2017. The Boulder County Coroner's Office investigated 123 of those cases and transferred jurisdiction of 27 cases to other coroners.

NON-TRAFFIC ACCIDENTS BY MONTH

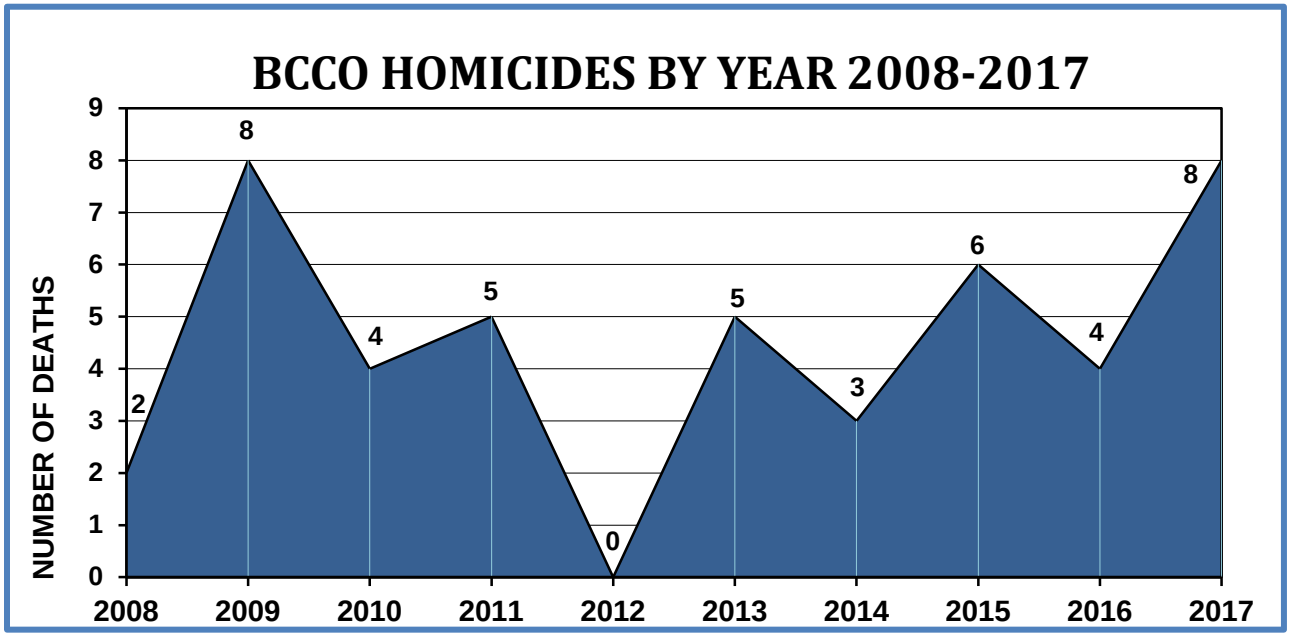




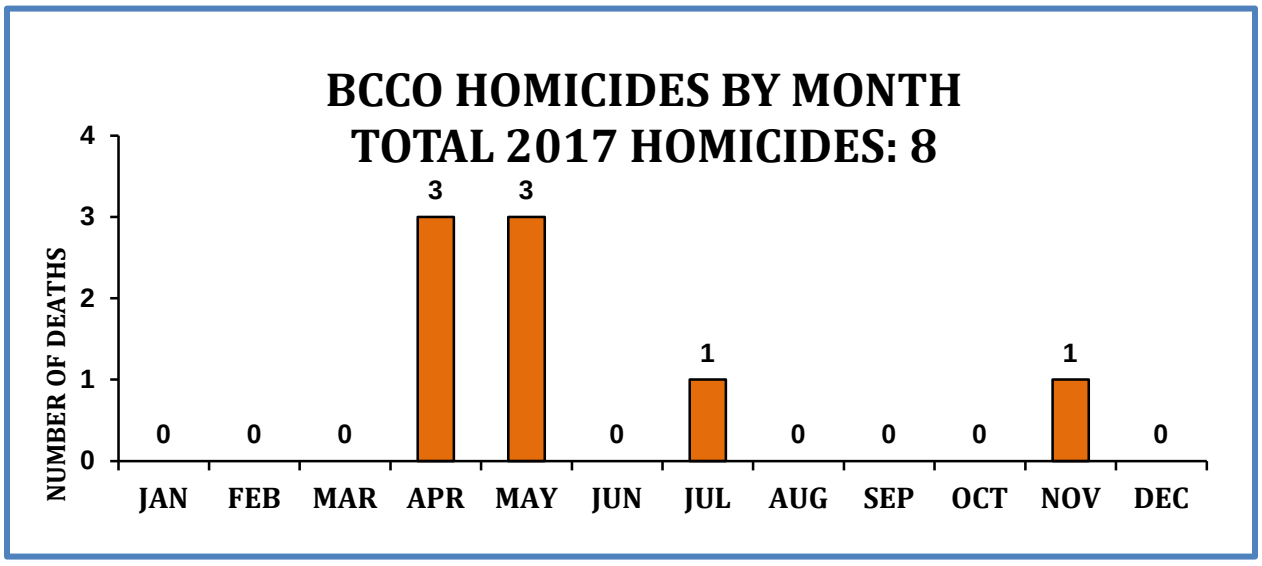
LEGEND:

A - Fall (Non-Recreational)
B - Fall/Recreational
C - Drug Overdose (All Types)
D - Drug Overdose in combination with Alcohol
E - Alcohol
F - Positional Asphyxia
G - Drowning
H - Electrocution
I - Fall from Height
J - Aspirated on Food
K - Medical Misadventure
L - Airplane Crash
M - Environmental
N - Thermal Injuries
O - Blunt Force Injuries
P - Injury due to Animal
Q – Industrial
R – Firearms Related
S - Unknown

HOMICIDES BY YEAR



HOMICIDES BY MONTH

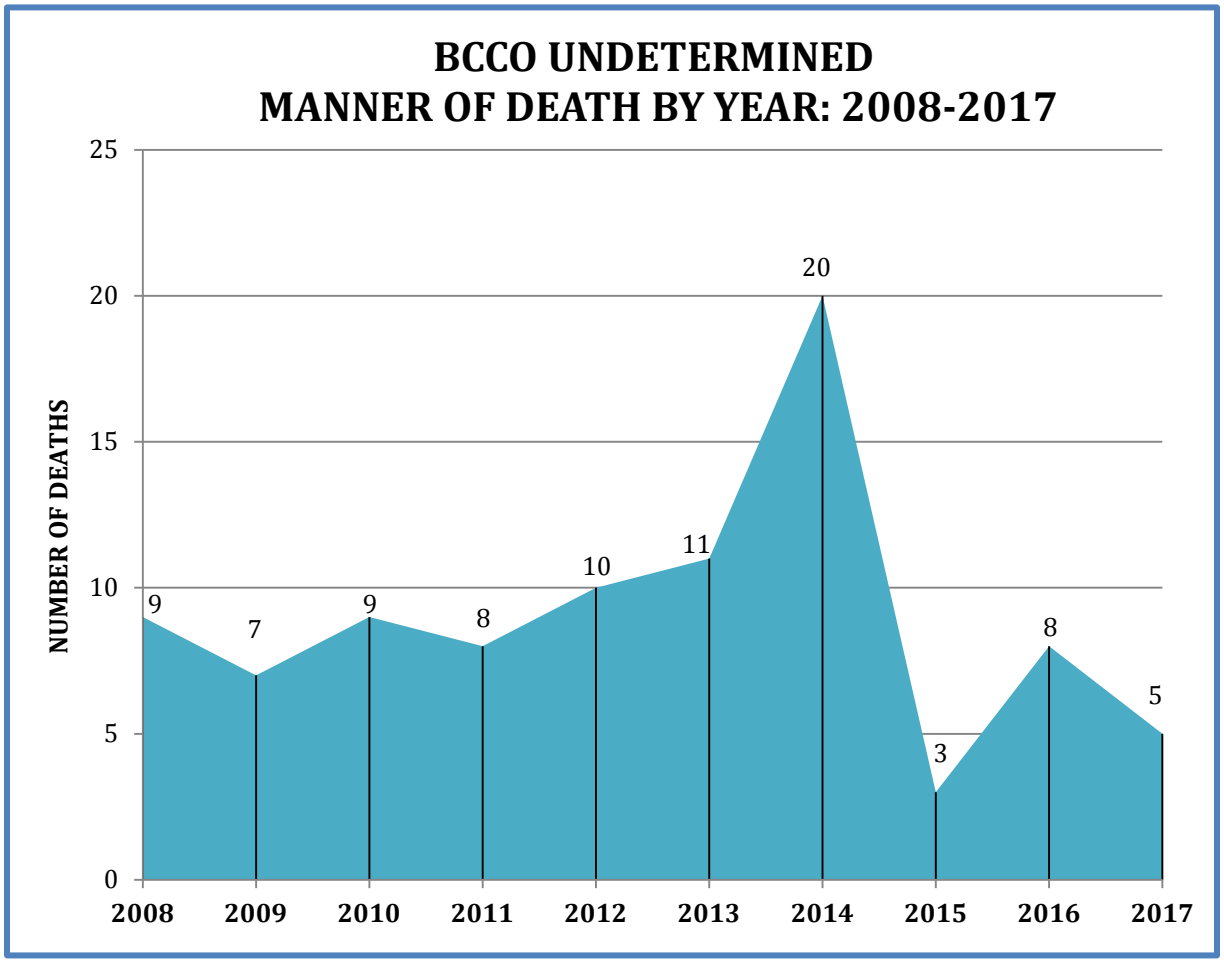


Note: In 2017, five of victims of homicide were male, and three were female. Four of the victims died of firearm wounds (0 were officer involved shootings), three victims died of sharp force/stabbing injuries and one died from blunt force injuries. There were a total of nine homicides reported to the Boulder County Coroner's Office in 2017. The Boulder County Coroner's Office investigated eight of these cases; there was one case that was transferred to another coroner's jurisdiction.

DEATHS OF UNDETERMINED MANNER

Occasionally, medical examiners and coroners encounter cases that, despite a complete autopsy, comprehensive toxicology tests, and a thorough scene investigation, no cause of death can be determined. Medical examiners and coroners also encounter cases where the cause of death is quite apparent; but the evidence supporting the manner of death is equivocal or insufficient to make a determination. The determination of manner of death is an opinion based on the "preponderance of evidence". An example might be a case in which the cause of death is a drug overdose, but, from the information available, it is not certain whether the manner of death is accident or suicide. Therefore, the manner of death may be certified as undetermined.

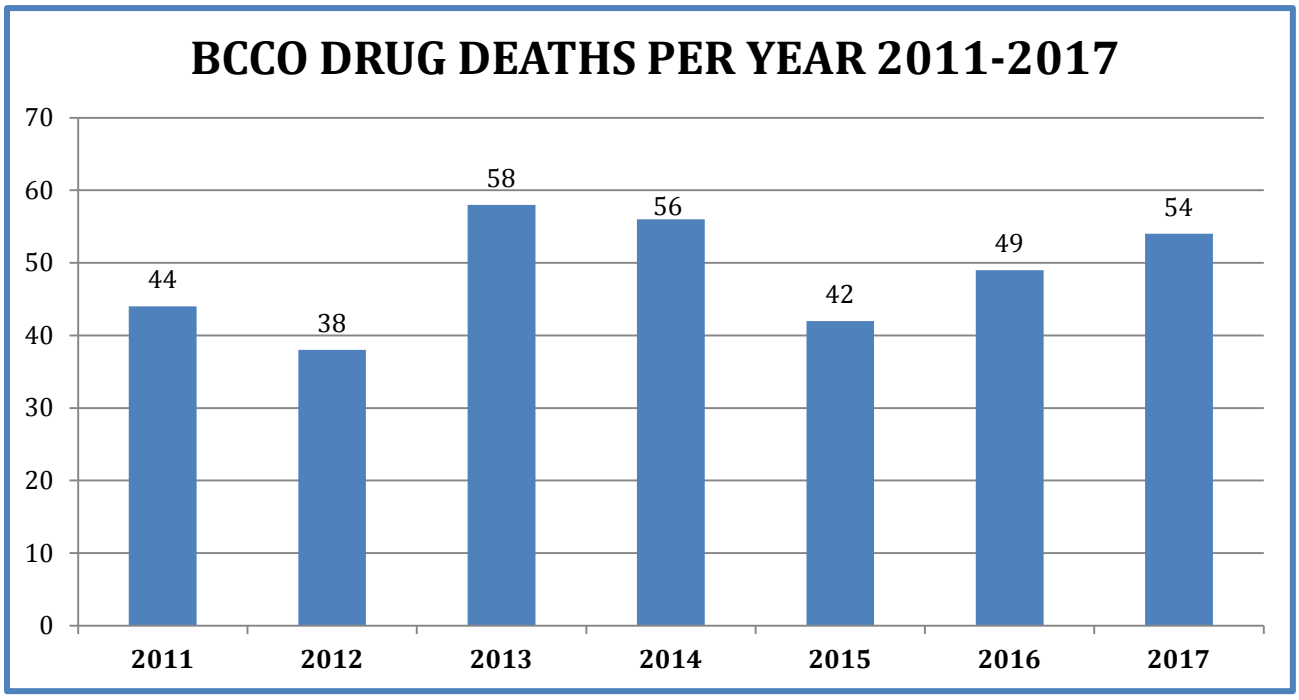
UNDETERMINED MANNER BY YEAR



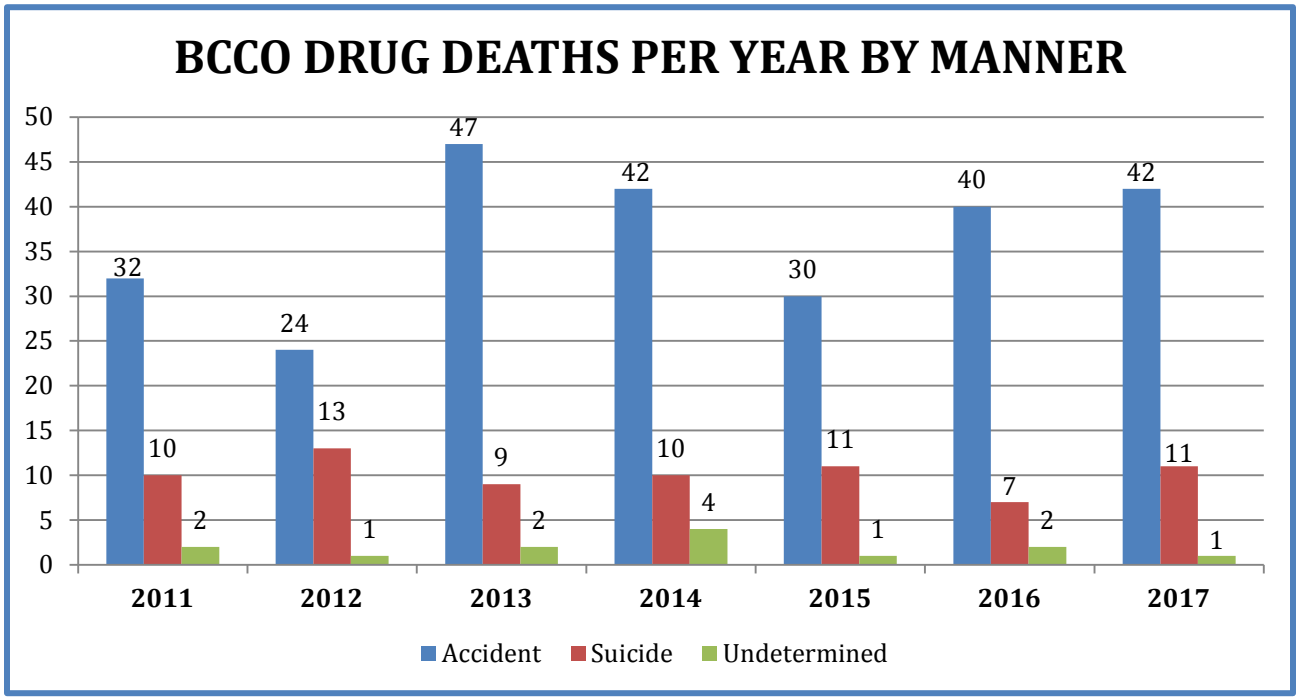
Note: There were a total of 5 cases reported to the Boulder County Coroner's Office in 2017 that were ruled with an undetermined manner of death; none of the cases transferred to another coroner's office were ruled undetermined in 2017. In one of these 5 cases skeletal remains were discovered and the manner and cause of death are undetermined, however the death certificate is pending identification.

While the office ruled undetermined for the manner of death in these 5 cases in 2017, 2 of the cases listed an undetermined cause of death as well; in one case a specific cause of death could not be interpreted, and the second case was skeletal remains where not enough evidence was present for a more accurate cause of death.

DRUG DEATHS BY YEAR 2011-2017

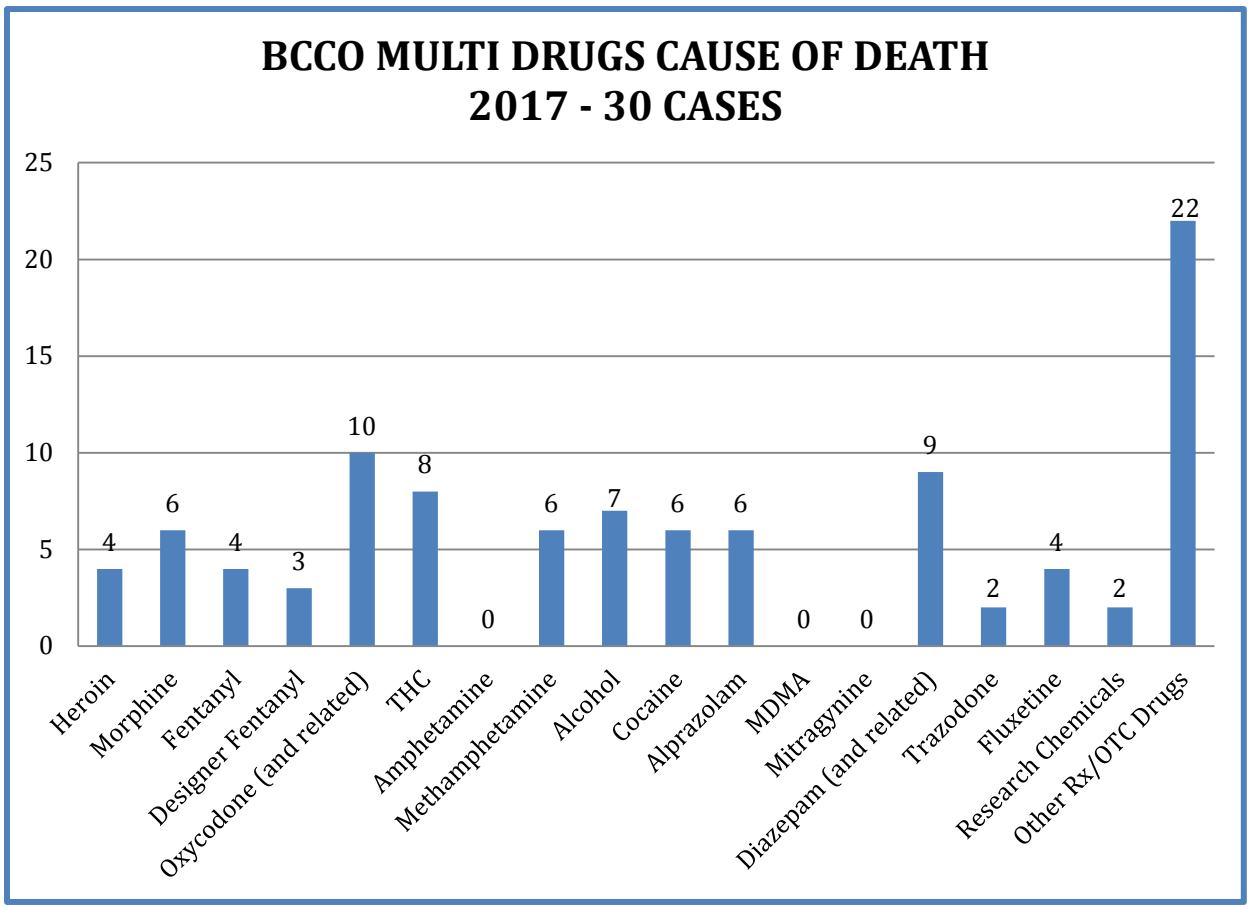


DRUG DEATHS BY MANNER 2011-2017



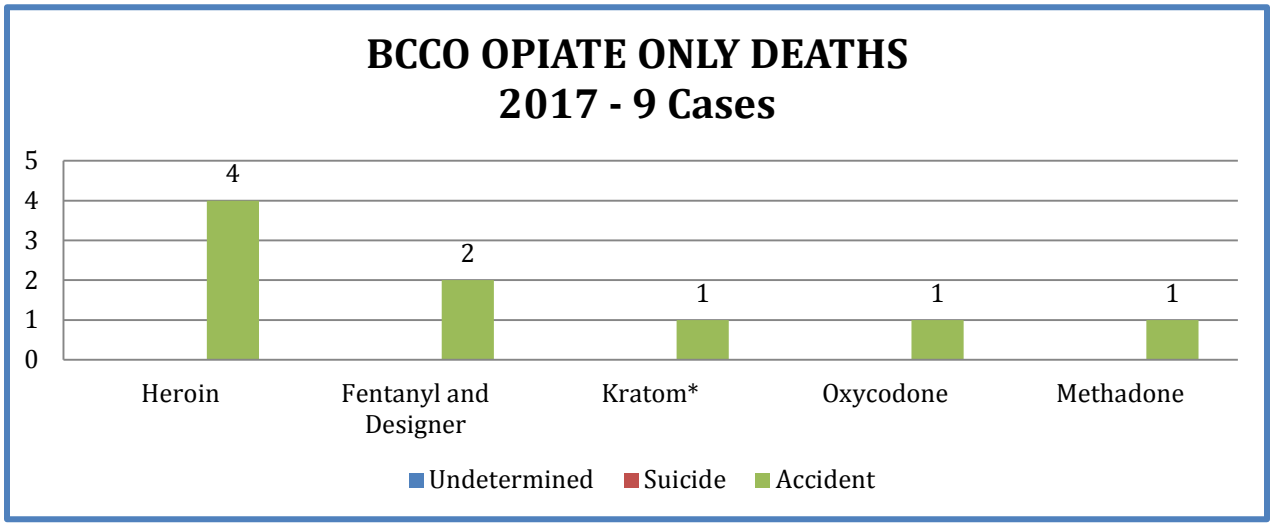
DRUGS OF ABUSE: MULTI DRUG DEATHS

Many drug abuse deaths are listed with multi drug intoxication for the cause of death; this is due to the complications that come from interpreting the use of more than one drug at a time, their individual levels and the combined effects of the varying levels. The chart below indicates the drugs that were found in the 30 multi drug deaths the county had in 2017.



DRUGS OF ABUSE BY OPIATES

Opioid is used to designate all substances, both natural and synthetic, that bind to opioid receptors in the brain. The psychoactive compounds found in the opium plant include morphine and codeine. Heroin is one of several semi-synthetic opioids derived from the morphine. Examples of opioids include Heroin, Morphine, Merpidine, Codeine, Tramadol, Oxycodone, Hydrocodone, Hydromorphone, and Fentanyl.



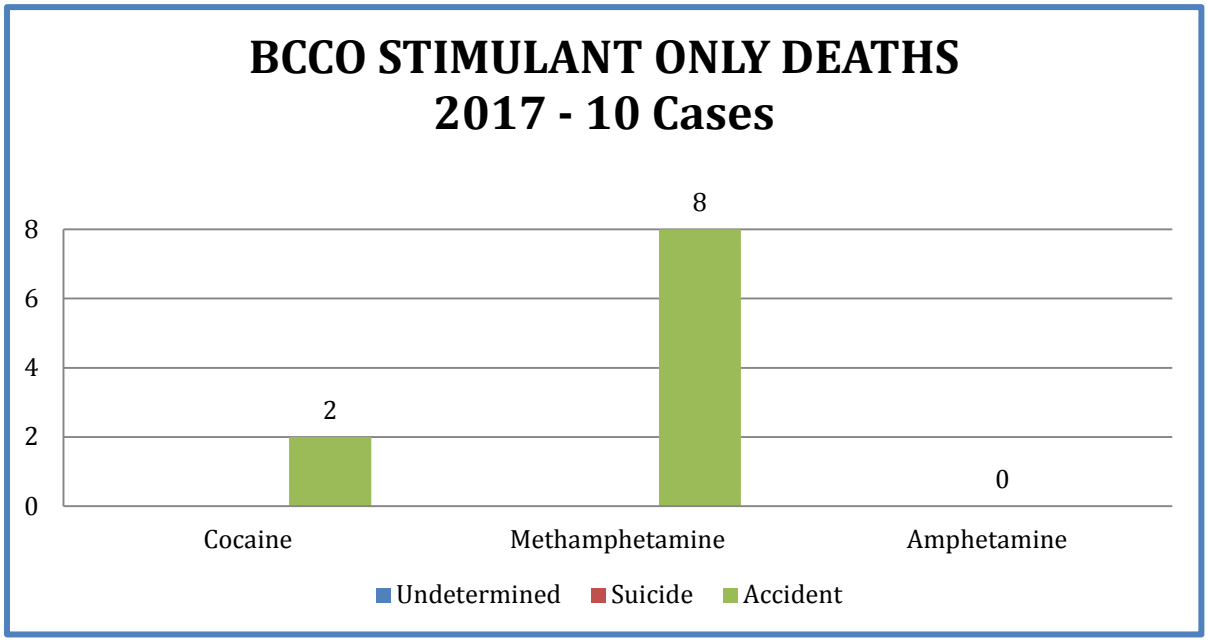
Note: * Mitragynine is an alkaloid found in the plant Kratom which originates from Asia. The leaves of the plant are consumed for their stimulant and analgesic effects and these effects are attributed to mitragynine. Mitragynine interacts with opioid receptors in the brain and can cause similar effects to those of more well-known pharmaceutical opioids. However, mitragynine has reportedly been known to act as a stimulant as well depending upon dosage. At this time the substance is being researched and investigated by the DEA along with the greater medical community to better understand its potential uses, classification, and any concerns it may pose to the general public.

In addition to the opiate only deaths there were an additional 21 cases where the death was a result of opiates mixed with additional substances. The chart below breaks the 21 cases down between catagores of different types of substances and manners of death.

Substances	Accident	Undetermined	Suicide
Opiates and Alcohol	1		
Opiates and Anxiety/Depression Meds	5		
Opiates and Stimulants	6		
Opiates and Stimulants with Alcohol	2		
Opiates and Stimulants and Anxiety/Depression Meds	2		
Opiates and 3 or more Substances	2	1	1
Opiates and OTC Meds			1

DRUGS OF ABUSE BY STIMULANTS

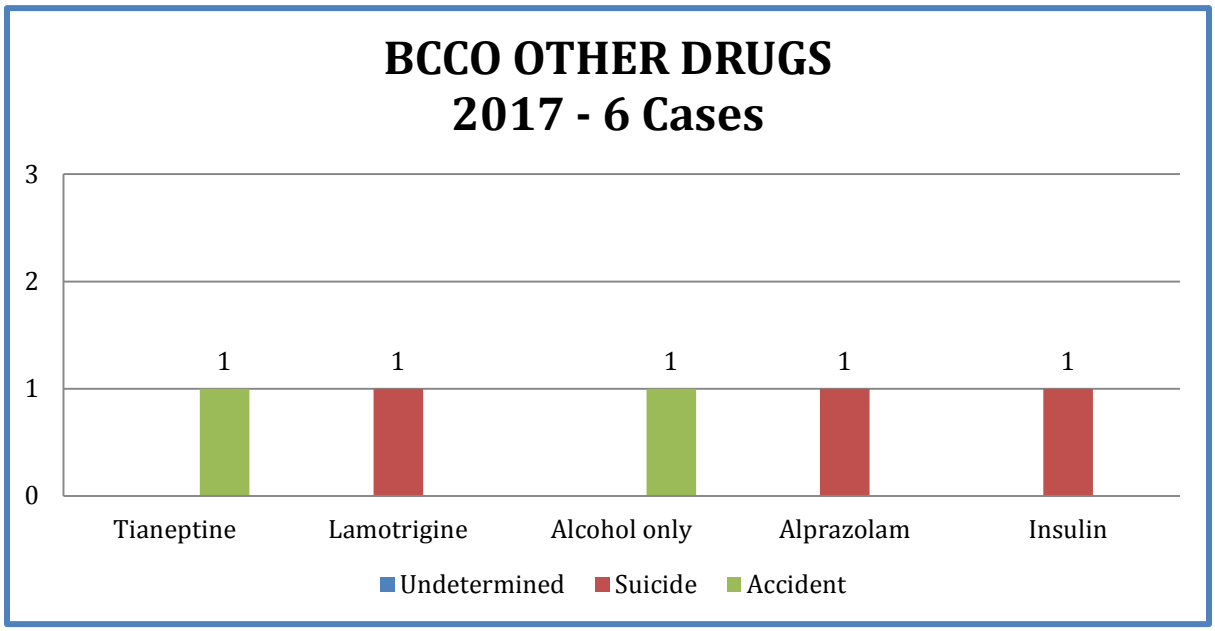
Stimulants (also known as psychostimulants) is a broad term that covers many drugs including those that increase activity of the body, drugs that are pleasurable and invigorating, and drugs that have sympathomimetic effects. Due to their characteristic "up" feeling, stimulants are also occasionally referred to as "uppers". Stimulants are widely used throughout the world as prescription medicines as well as without a prescription (either legally or illicitly) as performance-enhancing or recreational drugs. Examples of stimulants include Cocaine, Amphetamine, Methylene-3,4 dixoy-Methamphetamine (MDMA), Methamphetamine, ecstasy, bath salts, Focalin, Adderall and Ritalin.



Note: In addition to the 10 stimulant only deaths listed in the chart above, there were an additional 12 cases where stimulants resulted in multi drug deaths which are shown on the Multi Drugs Death chart.

DRUGS OF ABUSE: OTHER CATEGORIES

These drugs represent a wide variety of substances abused in Boulder County. Some can be purchased at liquor stores, some require prescriptions from a medical doctor and some are manufactured or purchased elsewhere.



Tianeptine is an antidepressant medication primarily used to treat major depression along with anxiety, asthma, and irritable bowel syndrome. It is a controlled substance in many countries and currently is not approved for use in the United States. There was one death this year attributed to Tianeptine which was ruled an accident.

Lamotrigine is a drug used in the treatment of epilepsy, frequently in combination with other anticonvulsant drugs. It is often used to treat seizures in patients two years and older and may also be used as maintenance treatment in patients with bipolar disorder. One death was attributed to lamotrigine this year and was ruled a suicide.

Alcohol is the most commonly abused substance. Examples of alcohols are the following: alcoholic beverages, antifreeze, medical (antiseptics and hand sanitizers), alcohol fuels, preservatives, and solvents. Alcohol beverages are common in most homicides, suicides, many accidents, and can exacerbate normal medical conditions. The most common alcohol causing death was ethanol.

Alprazolam, typically sold under the brand name Xanax, is a DEA Schedule IV second-generation benzodiazepine, which is effective at very low doses. It shares the actions of other benzodiazepines in the management of anxiety disorders and short-term relief of anxiety associated with depressive symptoms. One death was attributed to alprazolam this year and was ruled a suicide.

Insulin is a naturally occurring hormone in the human body secreted by the pancreas. Many people with diabetes are prescribed insulin, either because their bodies do not produce insulin or do not use insulin properly. Misuse of insulin can be potentially deadly and may be ruled accidental or suicidal depending upon circumstances. A single death was attributed to insulin this year and was ruled a suicide.

DROWNINGS

Drowning as a cause of death is a diagnosis of exclusion, diagnosis of exclusion is described as a diagnosis of a medical condition that is reached by eliminating all other possible diagnoses. If an individual is found in water and all other possible causes of death have been excluded, one *may* be able to conclude the cause of death is drowning. Presumed drowning cases require complete autopsies, in order to exclude all other causes of death.

In 2017, there were two drowning deaths. Both cases were ruled accidental deaths, in one case there was a missing person found in a pond and in the second case there was a person found in a bathtub within a residence with a seizure disorder.

CHILD DEATHS

In 2013 Senate Bill 13-255 passed mandating that starting January 1st, 2015 each county form a local Child Fatality Review and Prevention Team (CFRPT). Moving the reviews to local teams from the state team would create a broader scope, with the state mandating which cases would be reviewed (birth – 17) that involve unintentional injury, violence, motor vehicle incident, child abuse/neglect, sudden unexpected infant death, suicide or undetermined cases. The teams provide the state with individual case findings to develop a community approach to issues surrounding child deaths. They review manner and cause of death and evaluate the means by which the fatality might have been prevented. The teams report case findings to public/private agencies that have responsibilities for children and make prevention recommendations to reduce the number of child fatalities.

Each team must consist of the following:

- County department(s) of public health
- Local law enforcement agencies
- District attorney's office
- School districts
- County department(s) of human services
- Coroner's office
- County attorney's office

Additional agencies that may be included are: Hospitals or other emergency medical services, Social services, Mental health professionals, Pediatricians, Child advocacy centers, and Victim advocates.

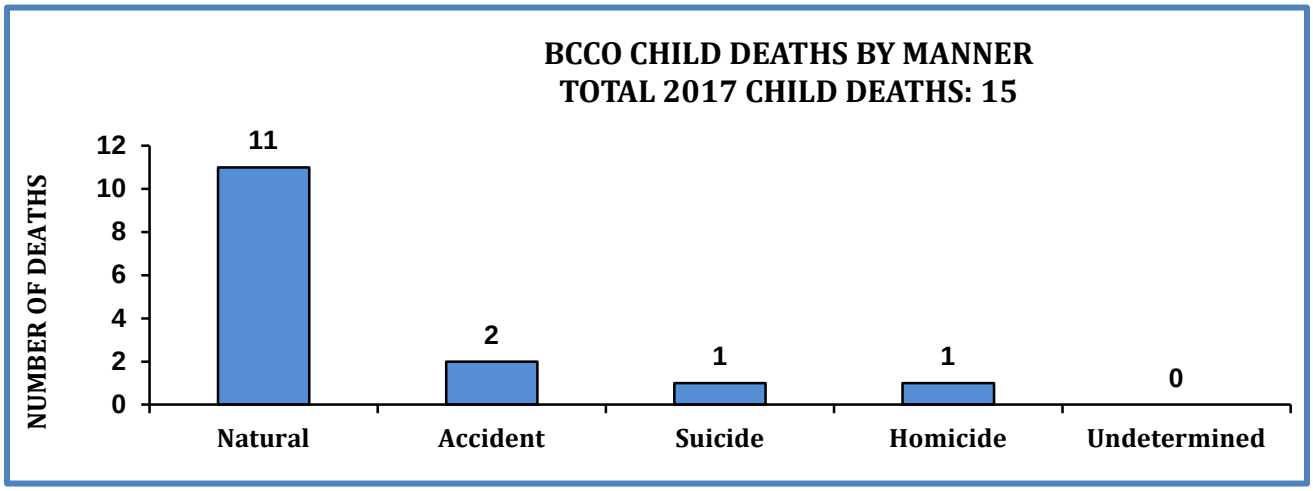
In 2014, the office worked closely with the Public Health Department to bring the agencies together so that the team could start reviewing the 2014 child deaths starting in January of 2015. Public Health asked the Coroner's Office to become the coordinator for the team; currently Boulder County is the only county in Colorado to participate in this way as the coordinator. In 2017, the team reviewed five 2016 child death cases.

In Boulder County, a total of fifteen child deaths (<18 years of age) were investigated by the Coroner's Office in 2017. Two additional child death cases were transferred to other coroners. Any of the fifteen 2017 child death cases selected for review by the state will be reviewed in 2018 by the Boulder County Child Fatality Review and Prevention Team.

Note: Statistical information may not coincide with information available from the Colorado Health Department. The State Health Department tracks death statistics by the county of residence, not by the county in which the injury or death occurred.

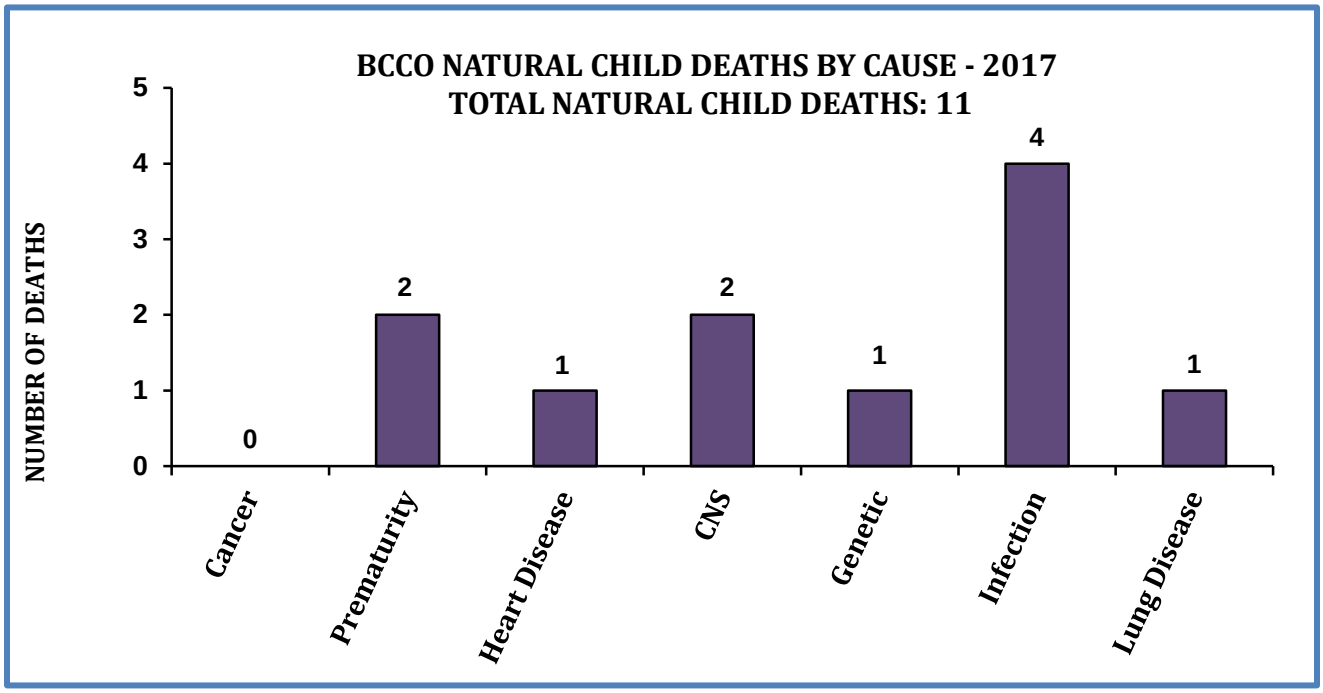
BCCO Conference room where CFRPT meetings are held.

CHILD DEATHS BY MANNER OF DEATH



- **Accident:** The two accidental deaths were due to: trauma resulting from a climbing fall (age 17), and trauma resulting from being ejected from a parked vehicle (age 2).
- **Suicide:** The suicide deaths was a result of hanging (age 13).
- **Homicide:** The homicide case was due to multiple stab wounds (age 4).

CHILD DEATHS BY CAUSE OF NATURAL DEATHS

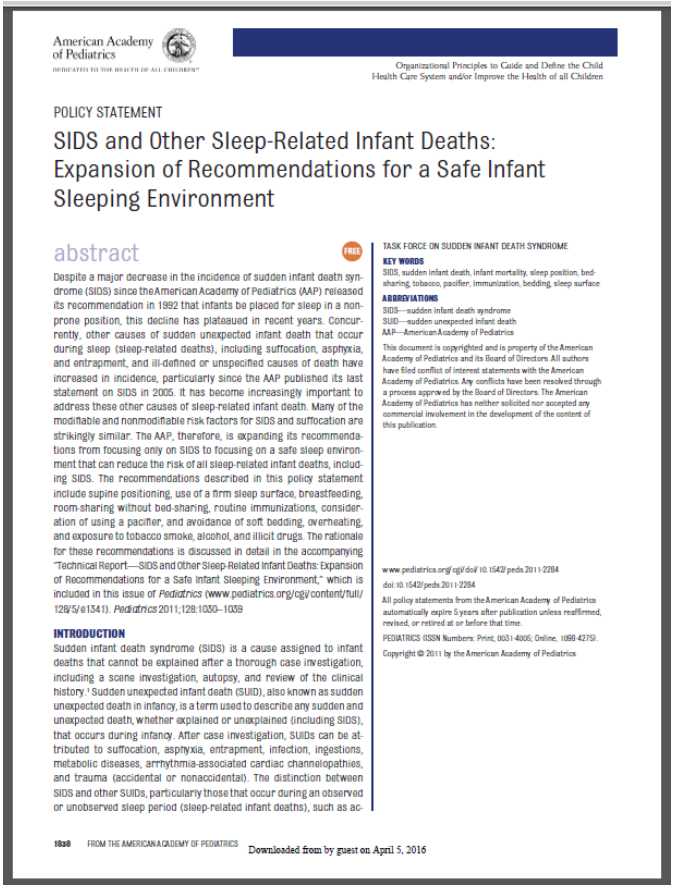


SUDDEN UNEXPLAINED INFANT DEATH (SUID) AND SUDDEN INFANT DEATH SYNDROME (SIDS)

The Center for Disease Control and Prevention (CDC) defines sudden unexplained infant death (SUID) as deaths in infants less than 1 year of age that occur suddenly and unexpectedly, and whose cause of death are not immediately obvious prior to investigation. The CDC defines sudden infant death syndrome (SIDS) as the sudden death of an infant less than 1 year of age whose cause of death cannot be explained after a thorough investigation is conducted, including a complete autopsy, examination of the death scene, and review of the clinical history. While the CDC has separate definitions for these two terms, the classification of the manner of death and written description of the cause of death in these types of cases do vary throughout the nation.

SIDS is a diagnosis of exclusion, diagnosis of exclusion is described as a diagnosis of a medical condition that is reached by eliminating all other diagnoses. Therefore, to determine the cause of death is SIDS, a coroner or medical examiner must conduct a thorough case investigation which includes examination of the death scene, including the sleeping environment and bedding, a review of the medical history, perform a complete autopsy and further testing. These cases are a collaborative effort with law enforcement and at times the District Attorney's Office. Once a thorough investigation is conducted and no other possible cause of death is determined only then *may* a determination of SIDS be made. Many times, when a thorough case investigation is conducted, an explanation is found such as natural disease or disorder, positional asphyxia, suffocation, hyper or hypothermia, neglect, homicide, etc. Other times, there may be signs of potential issues but no clear and obvious reason for death, most often the finding of an unsafe sleep environment is found. At times, there may be no indication of potential issues and the cause of death is truly unknown.

The American Academy of Pediatrics (AAP) started its "Back to Sleep" campaign in 1992 informing the public of its recommendation that infants be placed for sleep in a non-prone position on their back, in an effort to prevent SIDS deaths. The CDC makes ongoing efforts to prevent SUID and SIDS deaths and on October 17, 2011 they published a new statement on SIDS, which stated that there has been a major decrease in the incidence of SIDS since 1992, however, the decline has plateaued in recent years. In the 2011 statement, AAP reported that since their previous statement on SIDS in 2005 they have seen an increase in SUID deaths occurring during sleep. Therefore, the AAP expanded its recommendations to focus on safe sleep environments that can reduce the risk of all sleep-related infant deaths including SIDS. Their recommendations include: supine positioning, use of a firm sleep surface, breastfeeding, room-sharing without bed-sharing, routine immunization, consideration of a pacifier, and avoidance of soft bedding, overheating, and exposure to tobacco smoke, alcohol, and illicit drugs.[3]



American Academy of Pediatrics

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

POLICY STATEMENT

SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment

abstract

FREE

Despite a major decrease in the incidence of sudden infant death syndrome (SIDS) since the American Academy of Pediatrics (AAP) released its recommendation in 1992 that infants be placed for sleep in a nonprone position, this decline has plateaued in recent years. Concurrently, other causes of sudden unexpected infant death that occur during sleep (sleep-related deaths), including suffocation, asphyxia, and entrapment, and ill-defined or unspecified causes of death have increased in incidence, particularly since the AAP published its last statement on SIDS in 2005. It has become increasingly important to address these other causes of sleep-related infant death. Many of the modifiable and nonmodifiable risk factors for SIDS and suffocation are strikingly similar. The AAP, therefore, is expanding its recommendations from focusing only on SIDS to focusing on a safe sleep environment that can reduce the risk of all sleep-related infant deaths, including SIDS. The recommendations described in this policy statement include supine positioning, use of a firm sleep surface, breastfeeding, room-sharing without bed-sharing, routine immunizations, consideration of using a pacifier, and avoidance of soft bedding, overheating, and exposure to tobacco smoke, alcohol, and illicit drugs. The rationale for these recommendations is discussed in detail in the accompanying "Technical Report—SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment," which is included in this issue of *Pediatrics* (www.pediatrics.org/cgi/content/full/128/5/e1341). *Pediatrics* 2011;128:1030–1039

TASK FORCE ON SUDDEN INFANT DEATH SYNDROME

KEY WORDS

SIDS, sudden infant death, infant mortality, sleep position, bed-sharing, tobacco, pacifier, immunization, bedding, sleep surface

ABBREVIATIONS

SIDS—sudden infant death syndrome
SUID—sudden unexpected infant death
AAP—American Academy of Pediatrics

www.pediatrics.org/cgi/doi/10.1542/peds.2011-2284
doi:10.1542/peds.2011-2284

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

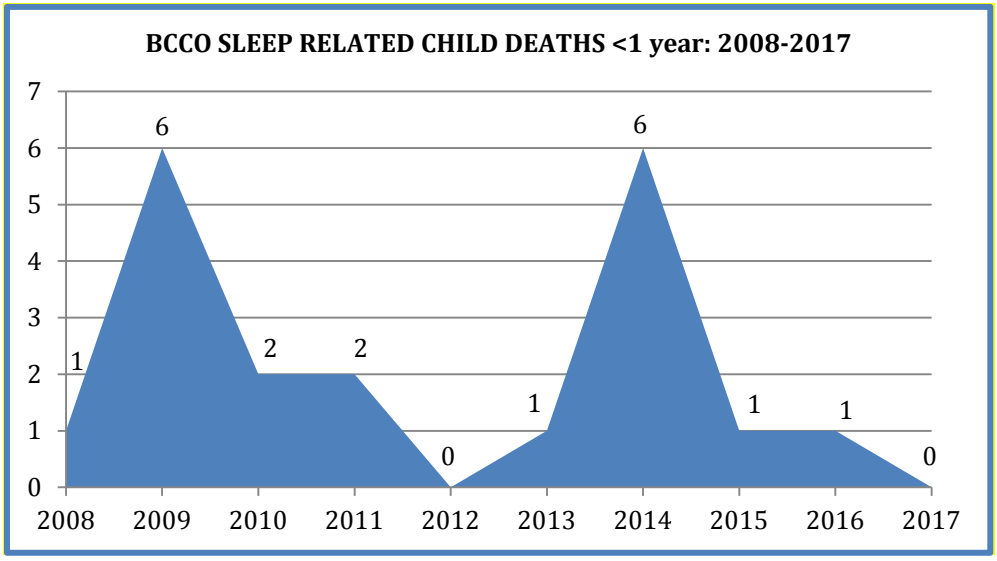
INTRODUCTION

Sudden infant death syndrome (SIDS) is a cause assigned to infant deaths that cannot be explained after a thorough case investigation, including a scene investigation, autopsy, and review of the clinical history.[1] Sudden unexpected infant death (SUID), also known as sudden unexpected death in infancy, is a term used to describe any sudden and unexpected death, whether explained or unexplained (including SIDS), that occurs during infancy. After case investigation, SUIDs can be attributed to suffocation, asphyxia, entrapment, infection, ingestions, metabolic diseases, arrhythmia-associated cardiac channelopathies, and trauma (accidental or nonaccidental). The distinction between SIDS and other SUIDs, particularly those that occur during an observed or unobserved sleep period (sleep-related infant deaths), such as ac-

Ongoing efforts to encourage safe sleep environments are also being made by the CDC and the National Institute of Child Health and Human Development (NICHD). The NICHD among other literature has published brochures advertising safe sleep. Many of these resources can be found on the CDC's website www.cdc.gov. An example is provided below.

10 YEAR CHILD DEATH STUDY

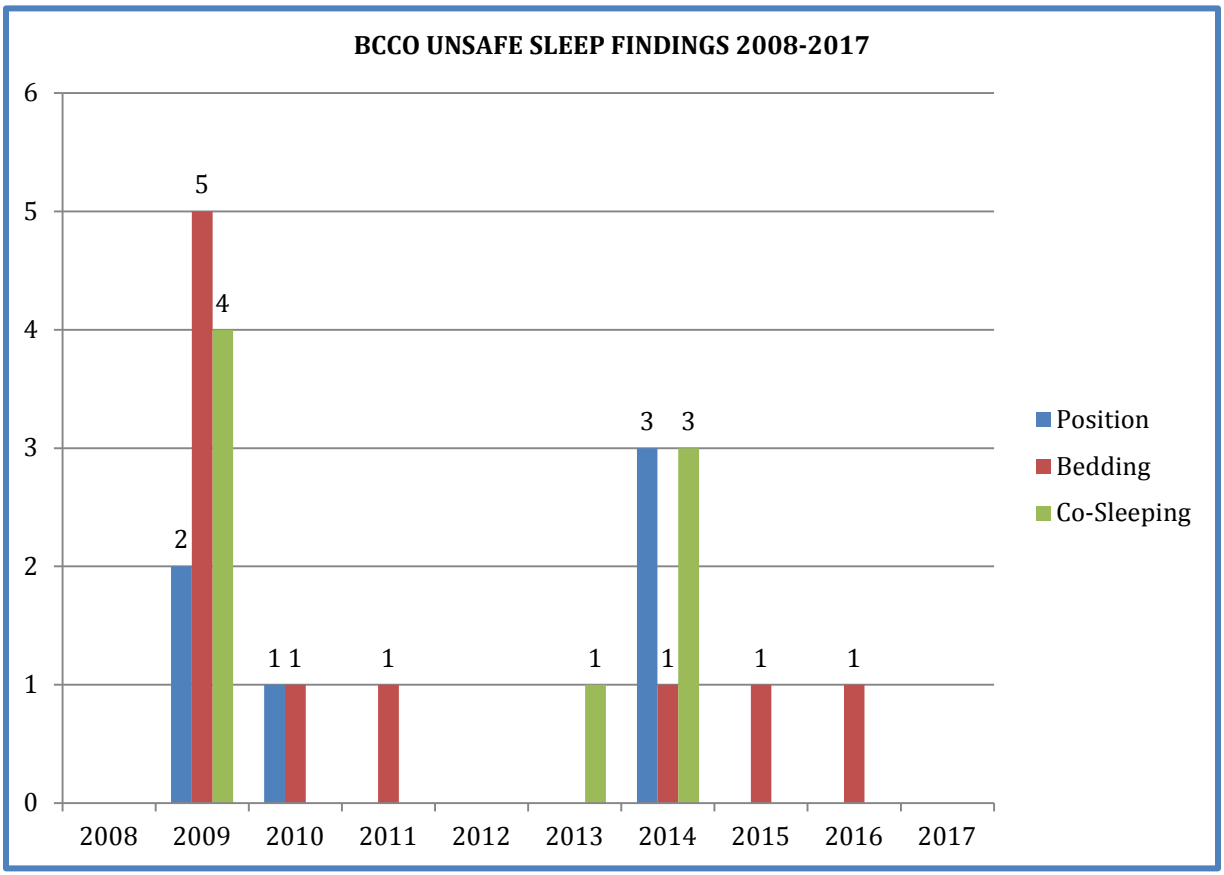
The cases that were included in this study were children under the age of 1 year that died in their sleep. There were a total of 20 cases included in this study.



UNSAFE SLEEP FINDINGS IN 10 YEAR CHILD DEATH STUDY

There were four cases where the unsafe sleep findings were categorized as none, unknown, not ideal, or undetermined; however, the other 16 cases all had at least one finding of an unsafe sleep environment, many of them had more than one finding. The graph below shows the findings, by occurrence, in three types of unsafe sleep categories: position, bedding, and co-sleeping. The non-recommended position the infant was placed in most often was on the stomach.

Of the 20 cases, the investigating law enforcement jurisdictions were as follows: Boulder County Sheriff's Office – 1, Boulder PD – 2, Lafayette PD – 3, Longmont – 10, and Louisville – 4. There were 9 females and 11 males. The ages were as follows: the youngest case was less than 1 month at 13 days, there were 7 cases from 1-3 months, 8 cases from 3-6 months and 4 cases from 6-9 months (the oldest was 9 months). The ethnicities of the children were as follows: Caucasian – 16, African American – 2, Hispanic – 1 and Indian – 1.



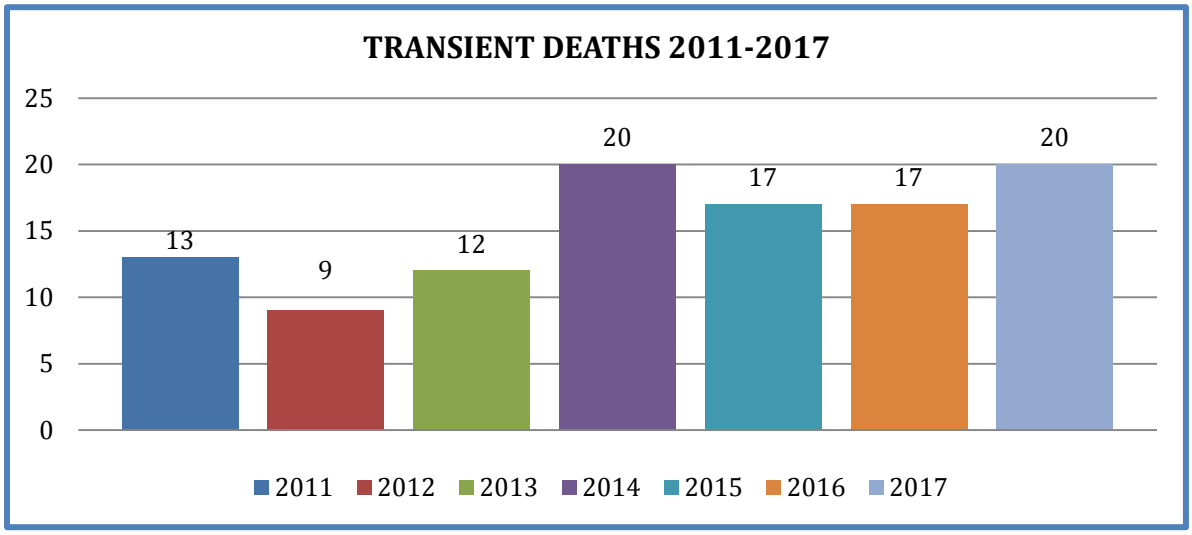
Based on the cases included in this 10 year child death study, Boulder County is a prime location for additional support and promotion of safe sleep environments for infants. As these cases continue to be reviewed by the local Boulder County Child Fatality and Prevention Team, more recommendations will be made to the state on preventing these types of child fatalities.

In the 8 cases where co-sleeping was a finding, the toxicology levels are unknown of the individual whom the infant was co-sleeping with; however, in 4 of the 9 cases there was suspicion or self-reporting of use of alcohol, drugs, prescription drugs or a combination thereof.

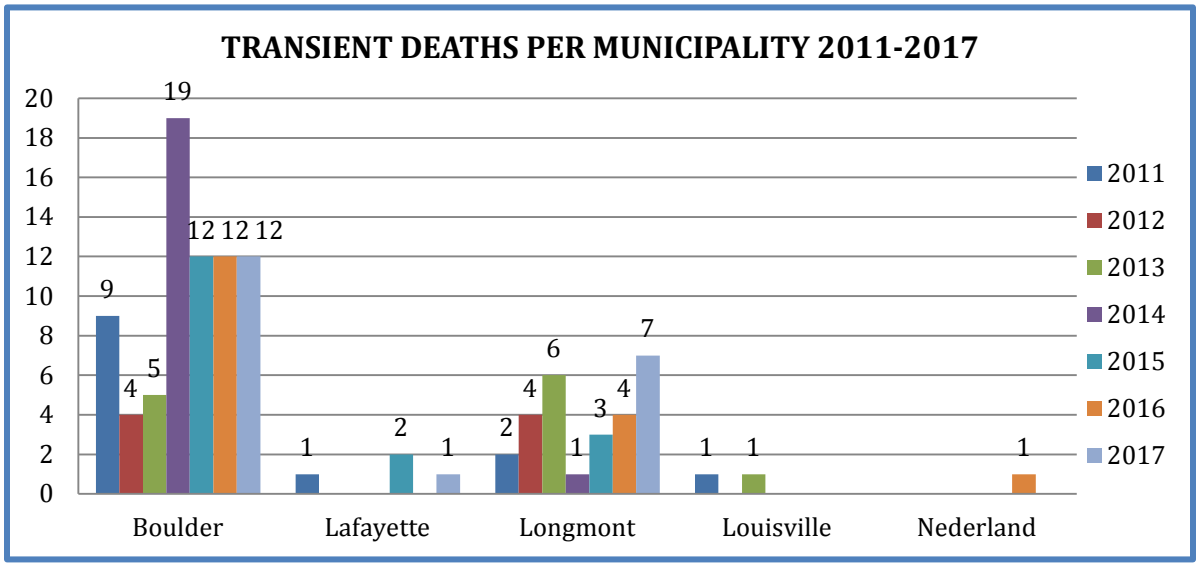
TRANSIENT/HOMELESS DEATHS

The Boulder County Coroner's Office started to notice an increase in the amount of transient/homeless deaths in the city of Boulder mid-year 2014. Due to the increase, a mid-year detailed report was created to offer information to city and county leaders as well as the public on these types of deaths. While the office did its' best to track these kinds of deaths to ensure the best possible information, it should be noted that not all deaths that occur in Boulder County are reported to the Coroner's Office. An example of this would be if a person dies at a nursing home or a person who dies more than 24 hours after being admitted to a hospital, the death may not be reported if the person dies of natural causes. Also, not all transients that die are reported as having lived on the streets at the time of their death. For example, a nurse reporting the death of a person who dies under hospice care or in a care facility may not necessarily know that the person was homeless at a point prior to their admission. Therefore, the total number of transient deaths on file at the coroner's office may vary from numbers on file with other organizations. That being said, the following covers a few statistics on what information is available.

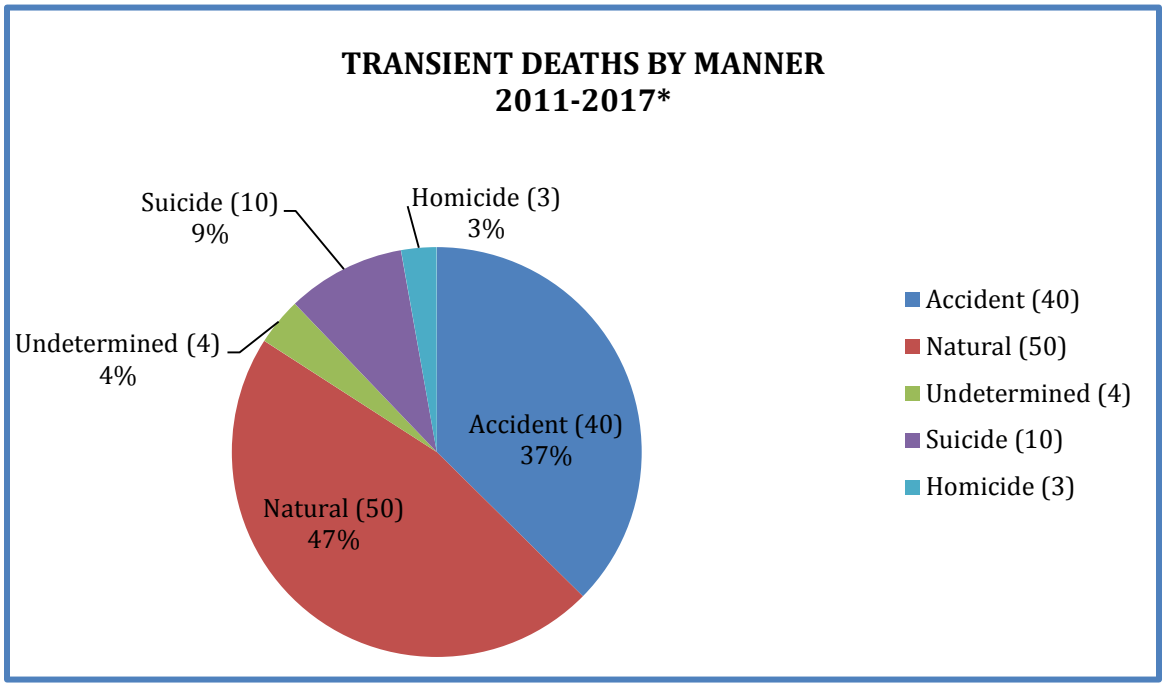
TRANSIENT DEATHS BY YEAR



TRANSIENT DEATHS PER MUNICIPALITY



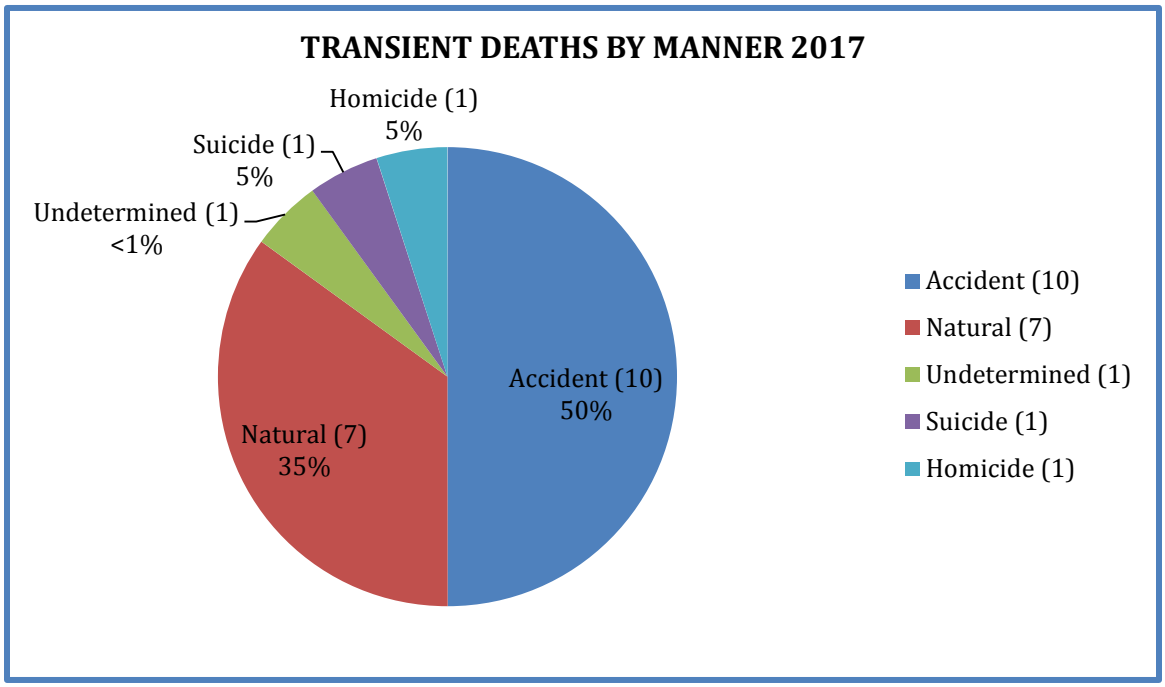
TRANSIENT DEATHS BY MANNER OF DEATH 2011-2017



Note: Of the transient/homeless deaths tracked from 2011 to 2017, 91 were male and 16 were female, one case was a fetal demise of a transient female. Ages of the decedents over the years ranged from 22 to 86.

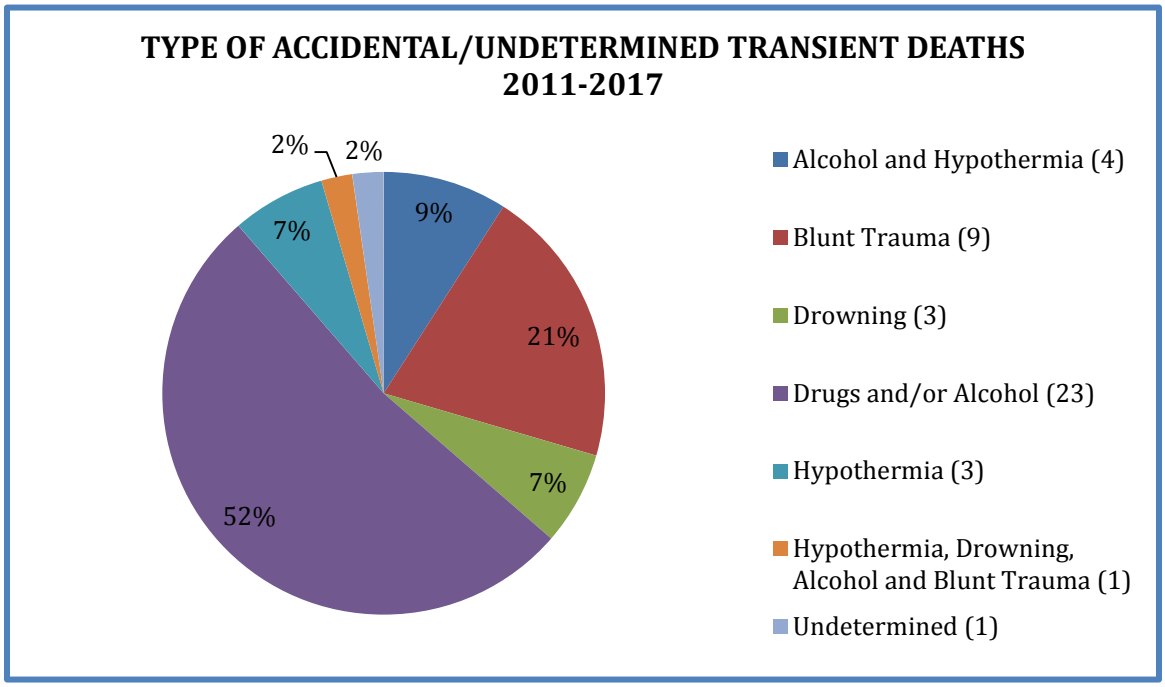
*One case from 2014 was a fetal demise; therefore, no manner of death was assigned.

TRANSIENT DEATHS BY MANNER OF DEATH 2017

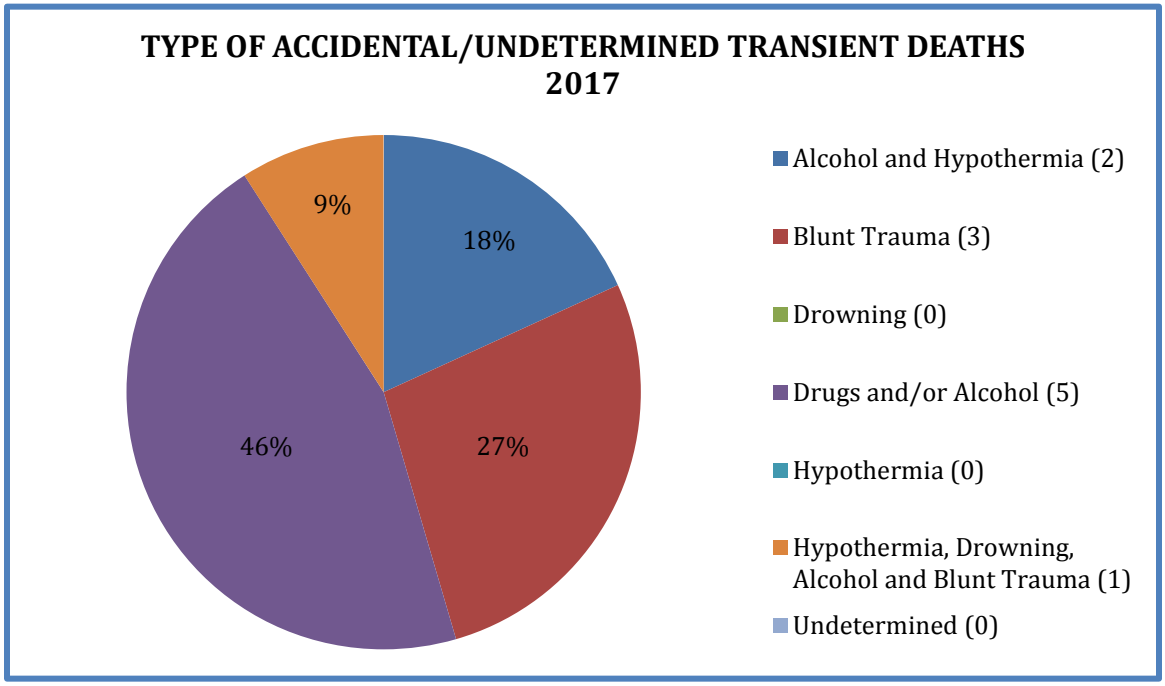


Note: Of the transient/homeless deaths tracked in 2017, 17 were male and 3 were female. Ages of the decedents in 2017 ranged from 37-71 along with the death of a one day old baby belonging to a transient female.

TYPE OF ACCIDENTAL/UNDETERMINED TRANSIENT DEATHS 2011-2017



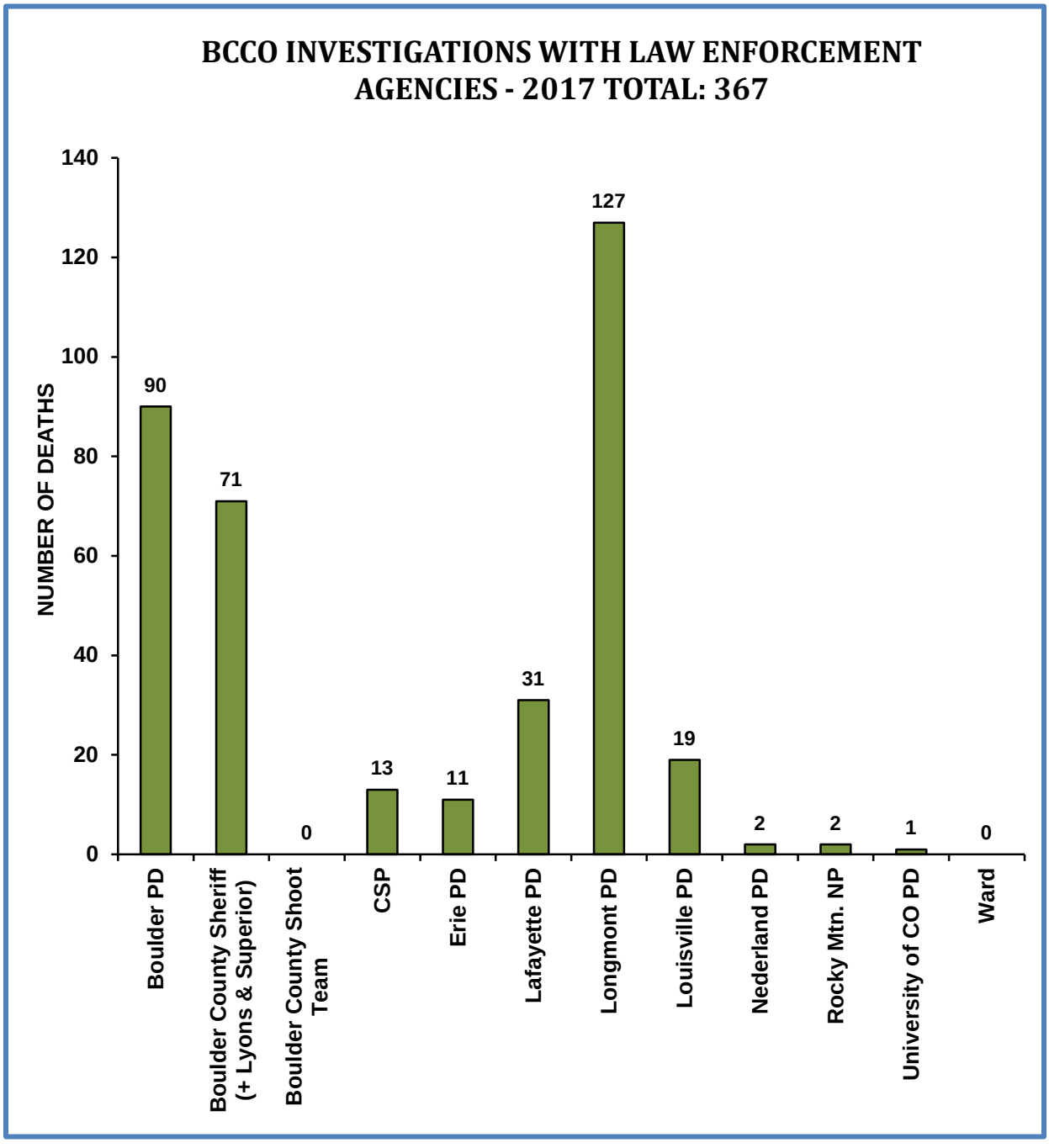
TYPE OF ACCIDENTAL/UNDETERMINED TRANSIENT DEATHS 2017



LAW ENFORCEMENT

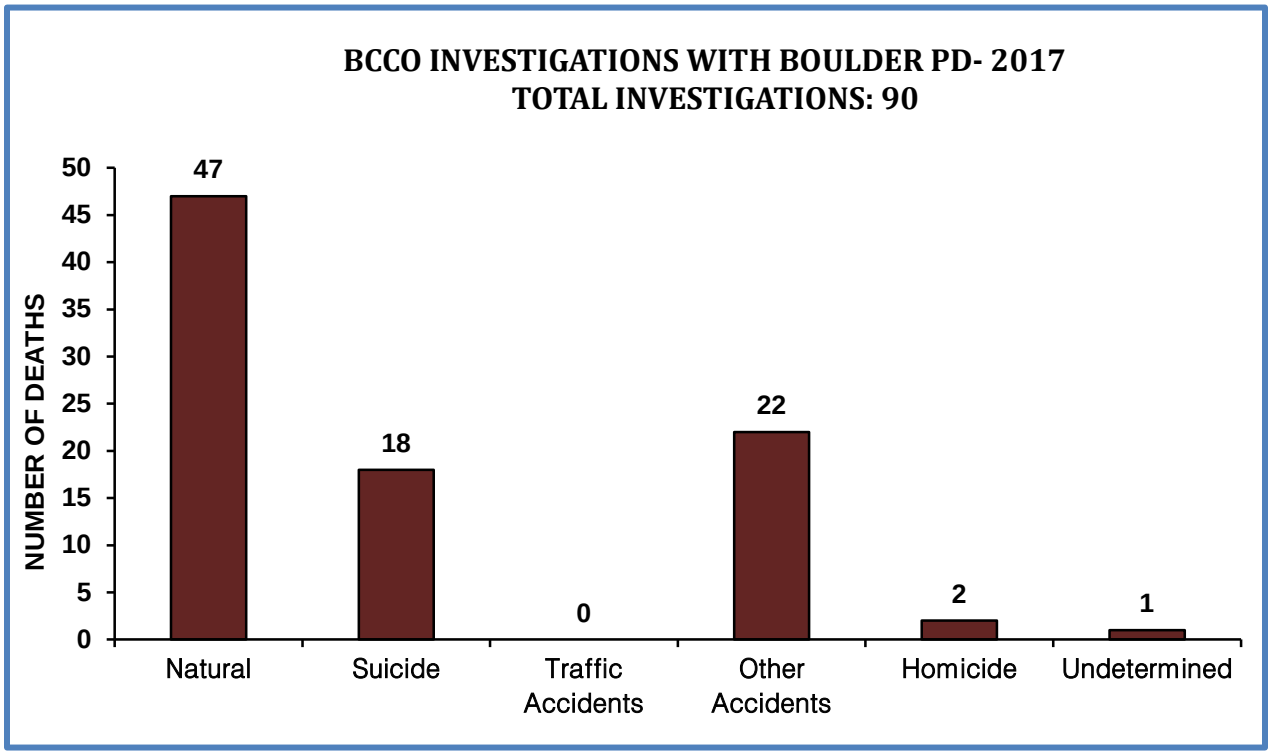
The Boulder County Coroner's Office works with the law enforcement agencies that cover jurisdiction in Boulder County. The charts in this section show the number of cases investigated with these agencies. Please note that the number of investigations listed may differ from those in the "Coroner Response" section of this report because the coroner's office also works with law enforcement on cases in which people die in the hospital as a delayed result of non-natural circumstances (i.e. auto incidents).

INVESTIGATIONS WITH LAW ENFORCEMENT AGENCIES

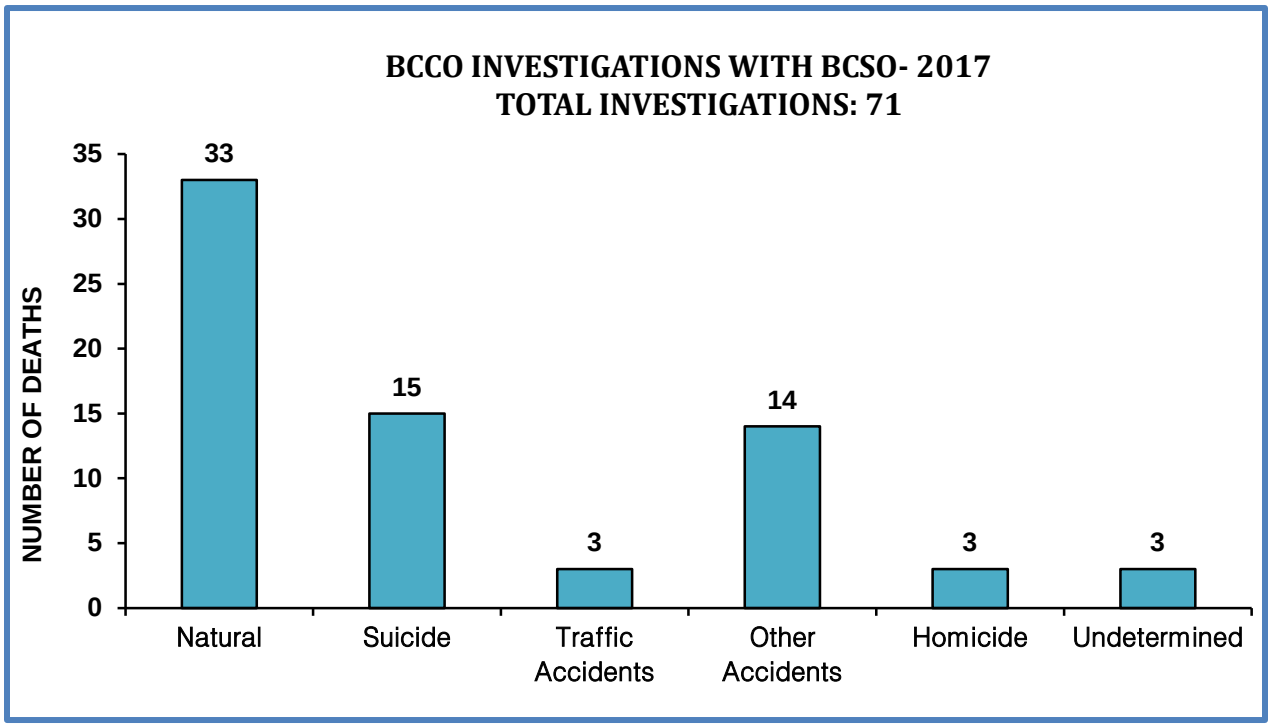


Note: The jurisdiction of the Boulder County Sheriff's Department includes unincorporated areas of Boulder County and the towns of Superior and Lyons.

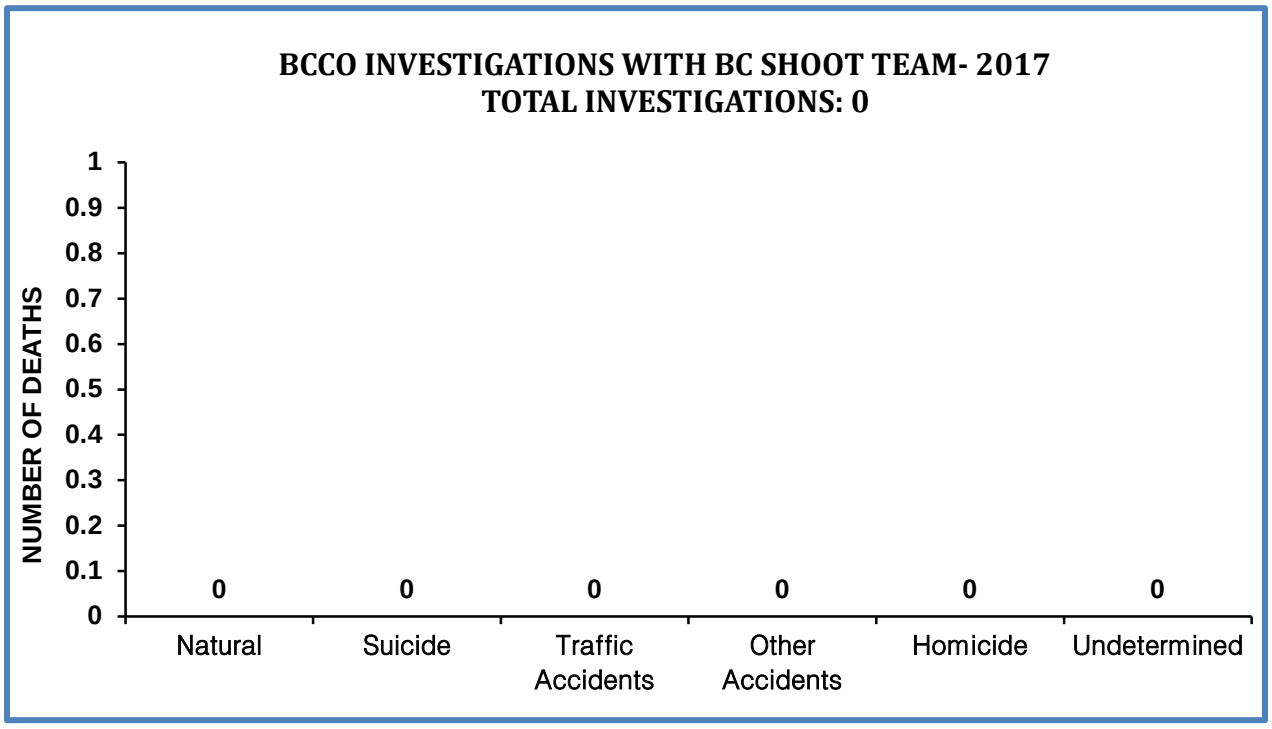
BOULDER POLICE DEPARTMENT



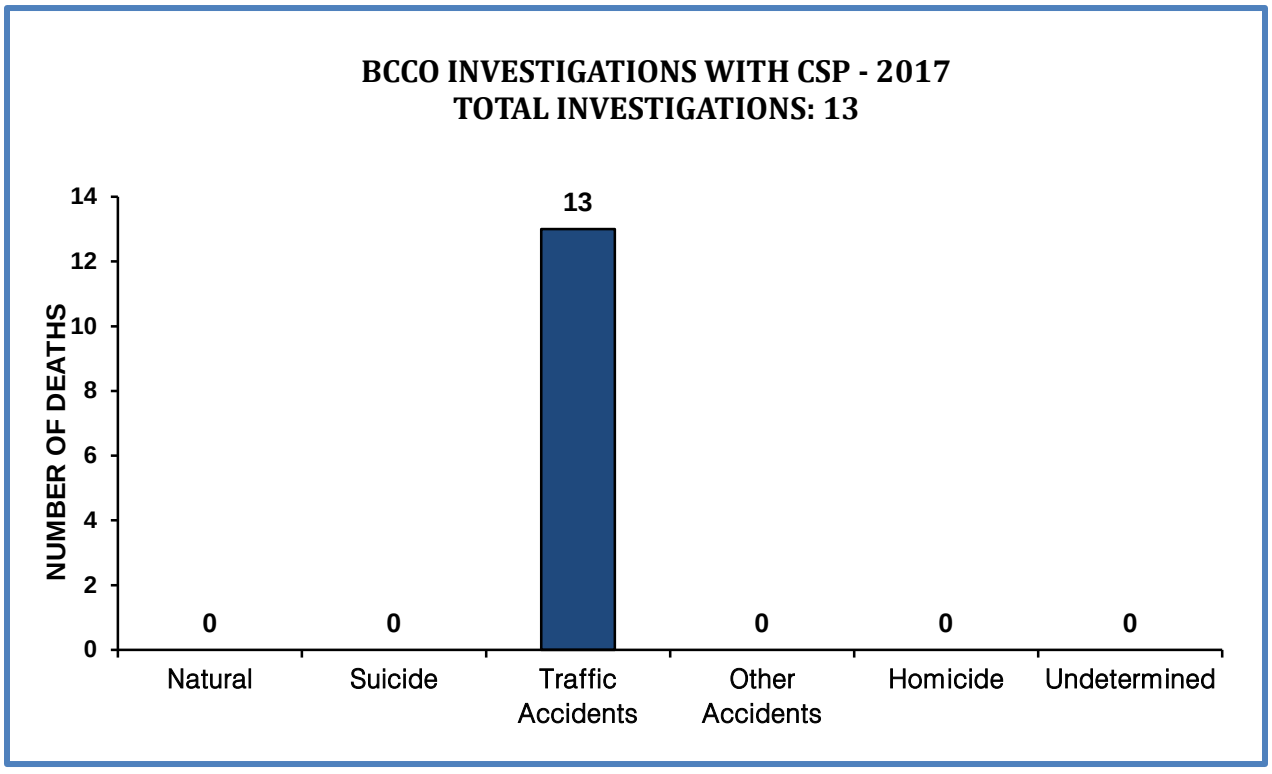
BOULDER COUNTY SHERIFF'S OFFICE



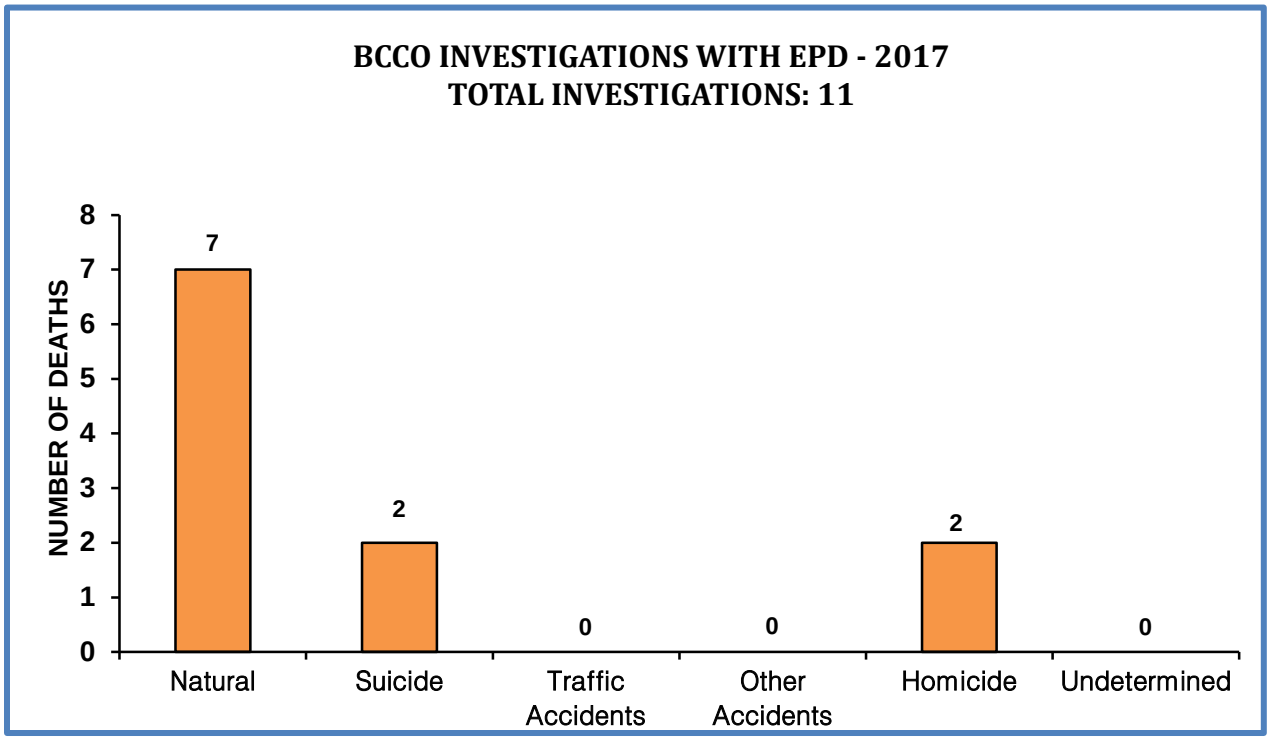
BOULDER COUNTY SHOOT TEAM



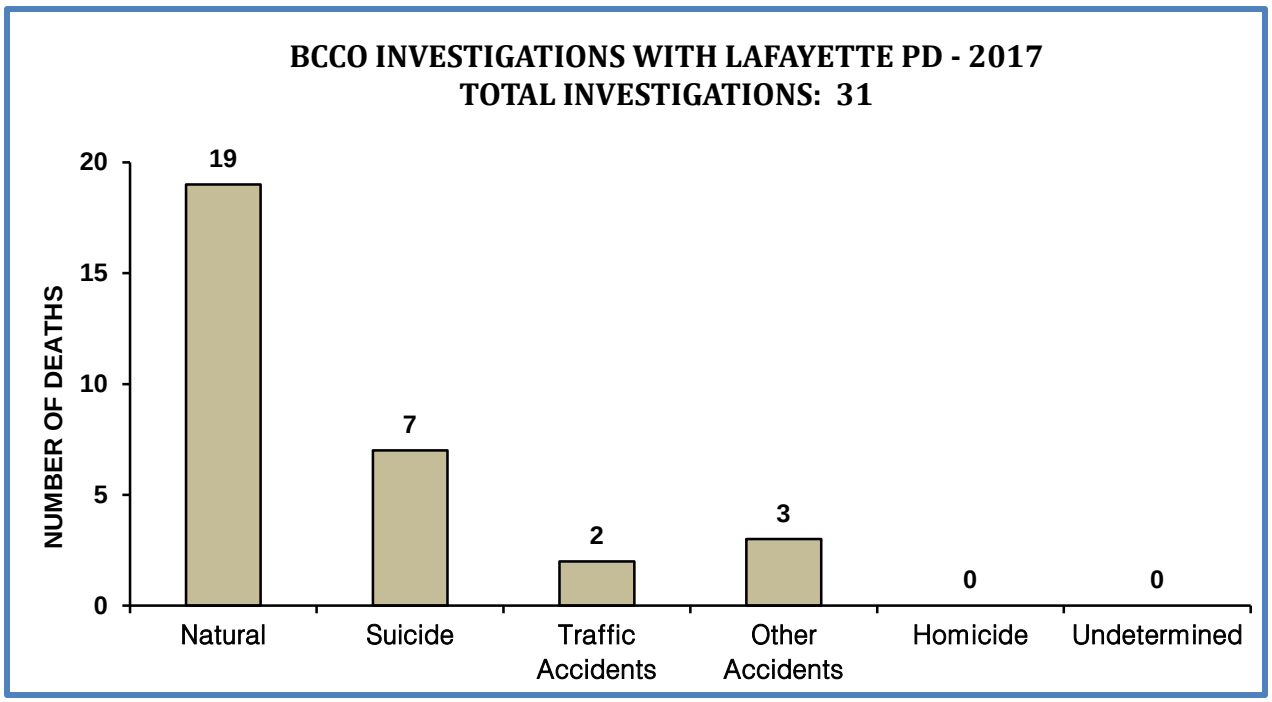
COLORADO STATE PATROL



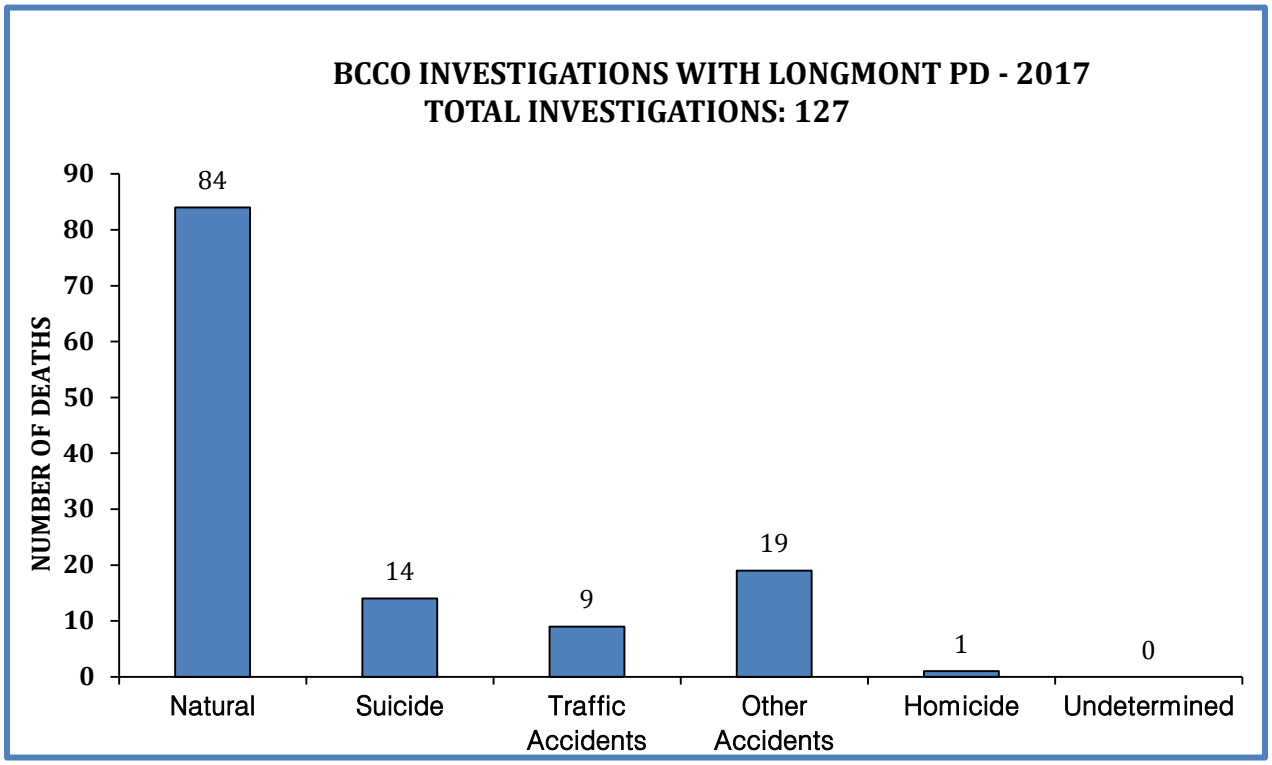
ERIE POLICE DEPARTMENT



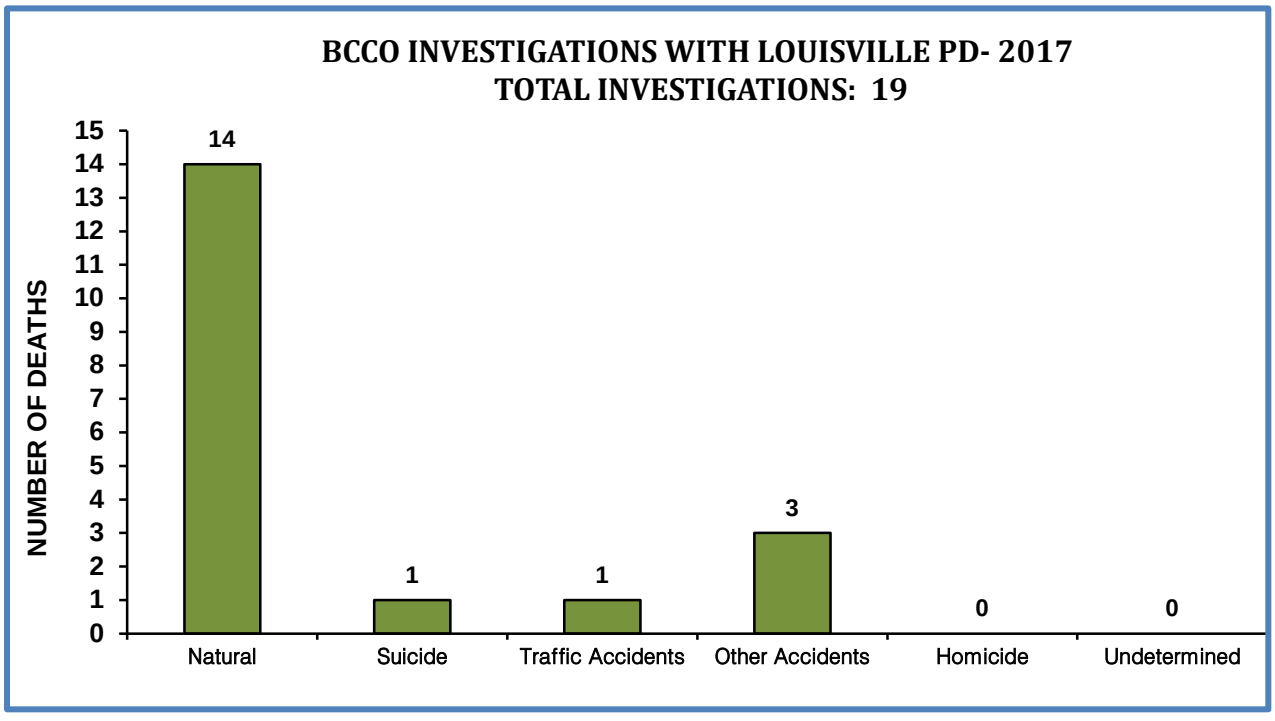
LAFAYETTE POLICE DEPARTMENT



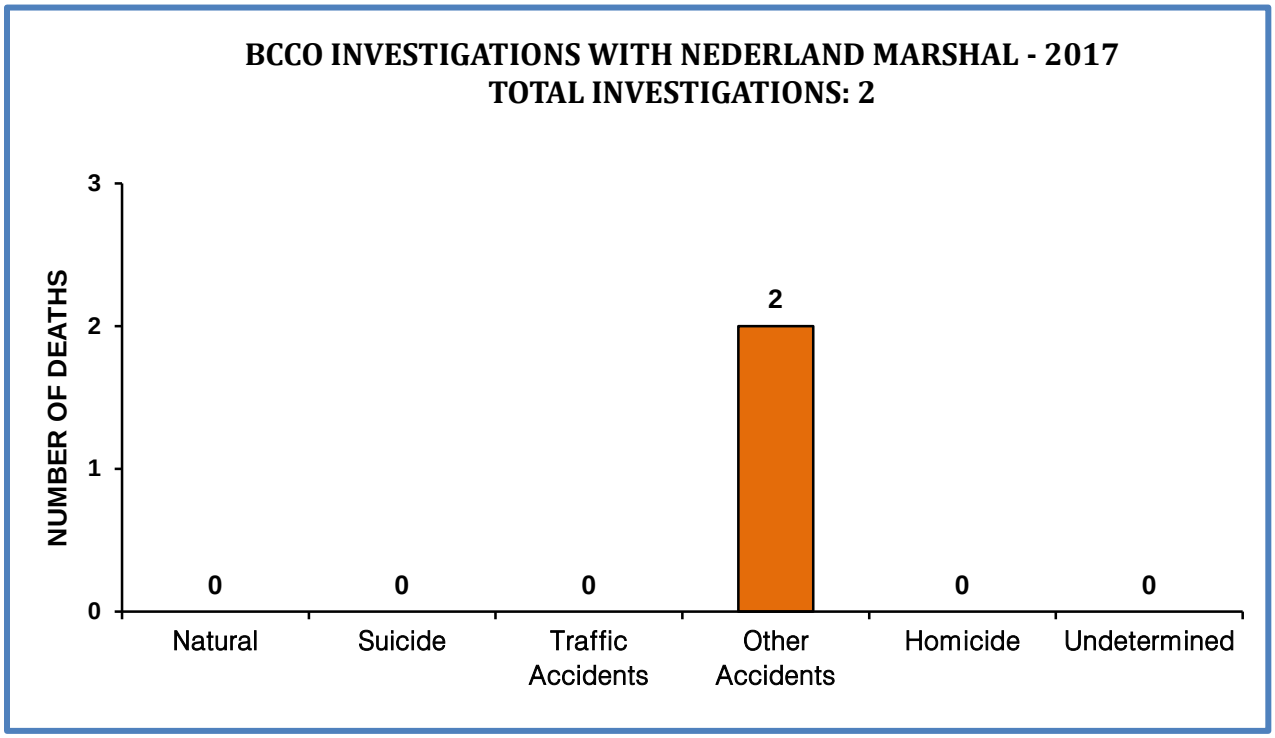
LONGMONT POLICE DEPARTMENT



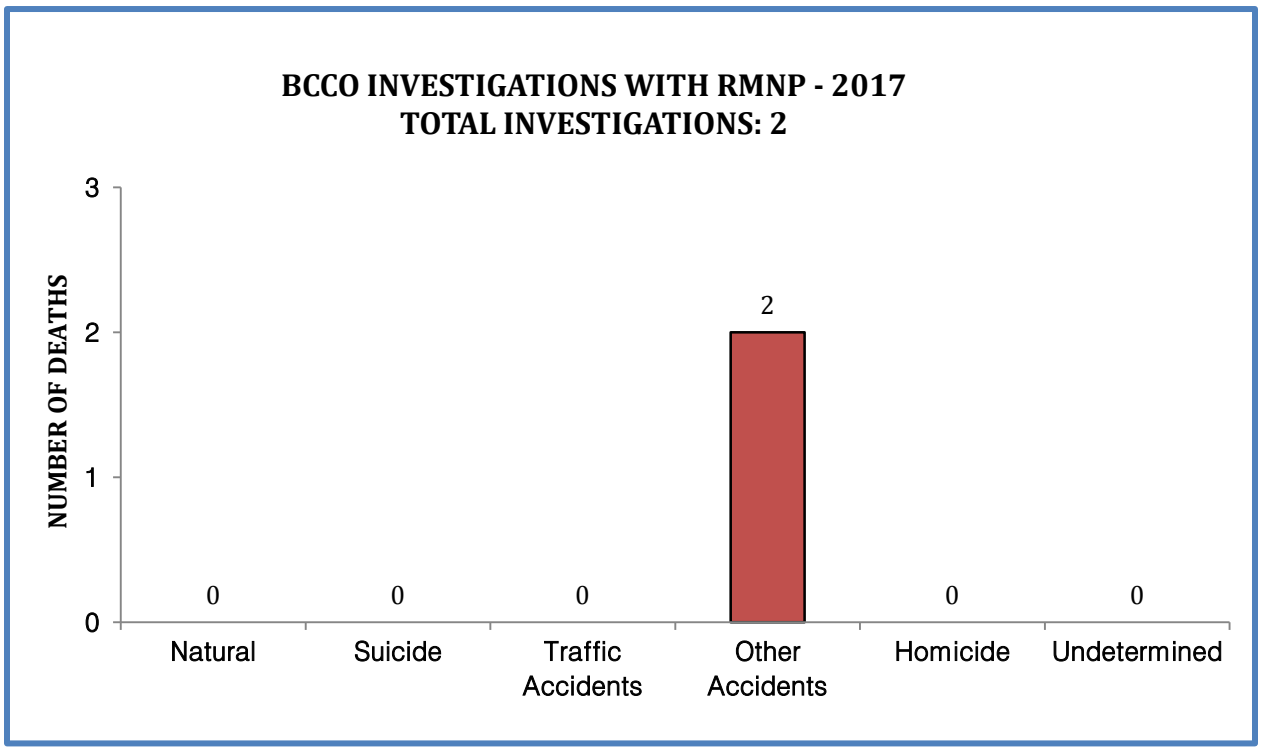
LOUISVILLE POLICE DEPARTMENT



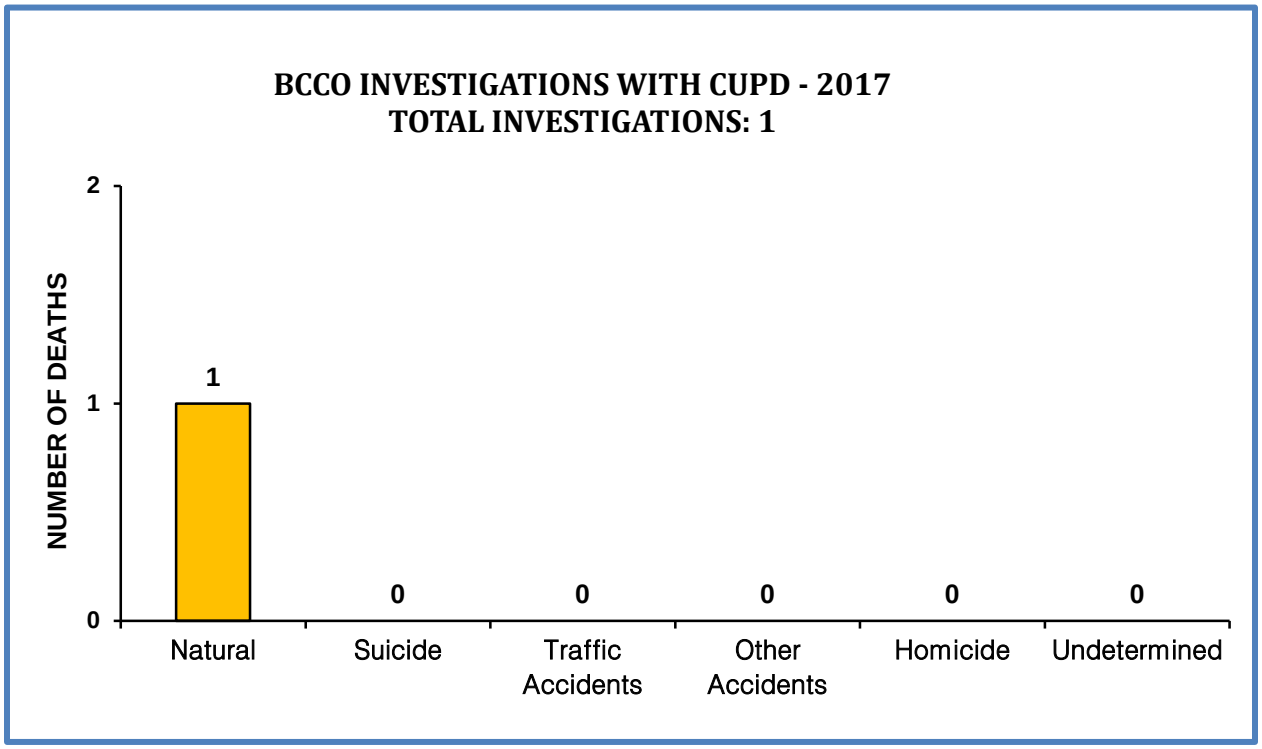
NEDERLAND MARSHAL



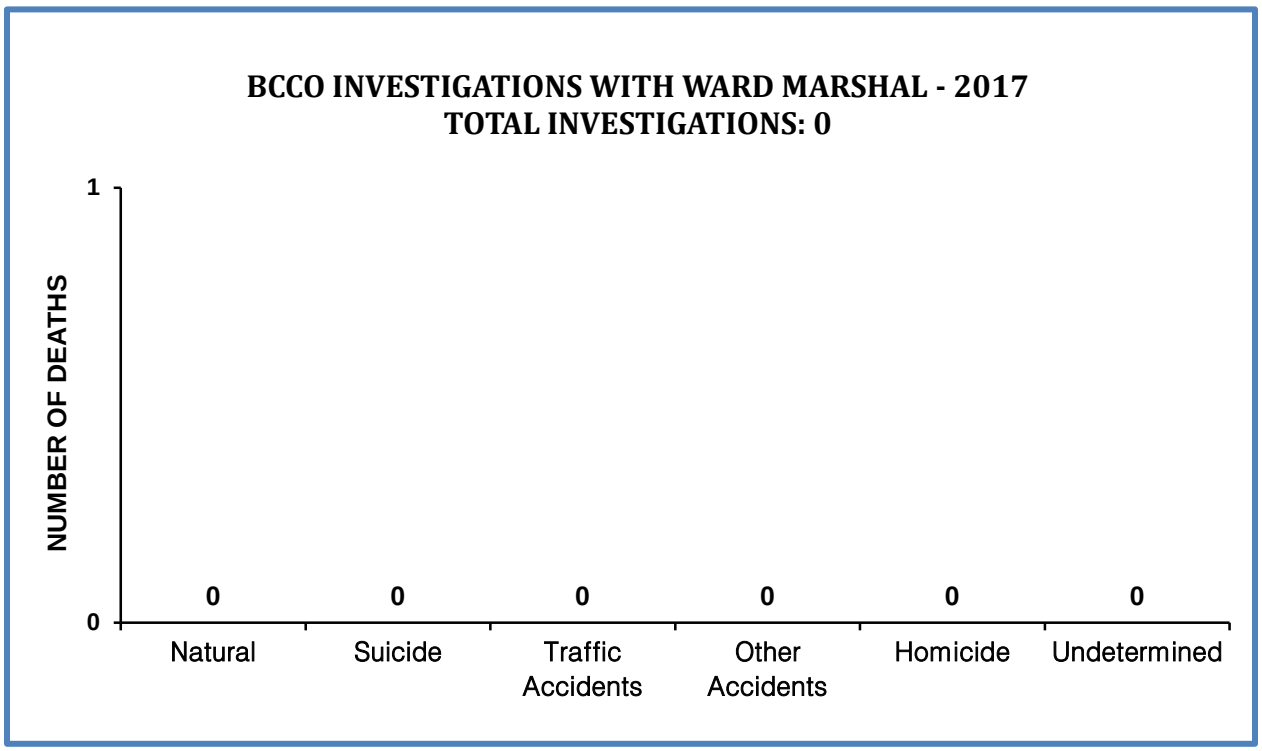
ROCKY MOUNTAIN NATIONAL PARK



UNIVERSITY OF COLORADO POLICE DEPARTMENT



WARD MARSHAL



UNIDENTIFIED REMAINS

Boulder County Coroner's Office has investigated the deaths of the following individuals whose identities remain unknown.

UNIDENTIFIED BLACK MALE

Discovered: October 10, 1993

NamUs Case Number: UP516
Ancestry: African Descent
Approximate Age: 25-35
Height: 5'7"
Weight: 165-175 lbs.
Eye Color: Brown
Hair: short curly black hair with bi-frontal balding.
Scars/Tattoos: On left eyebrow, obliquely oriented, well healed 17mm scar.
Clothing: Black socks; Short black sweat pants, brand name "Pro Spirit", overlaying a pair of long white sweat pants, brand name "Jerzees"; a white windbreaker-type shell with a hood and blue trimmed with zippers half way up front, brand name "Windcrest"; ankle length black hiking-type boots; and a blue mesh baseball cap with a New York Mets logo. Napkin with the logo "Dujour's Casual Café" was also found in his pocket.
Dental: Teeth in excellent repair with no dental work.

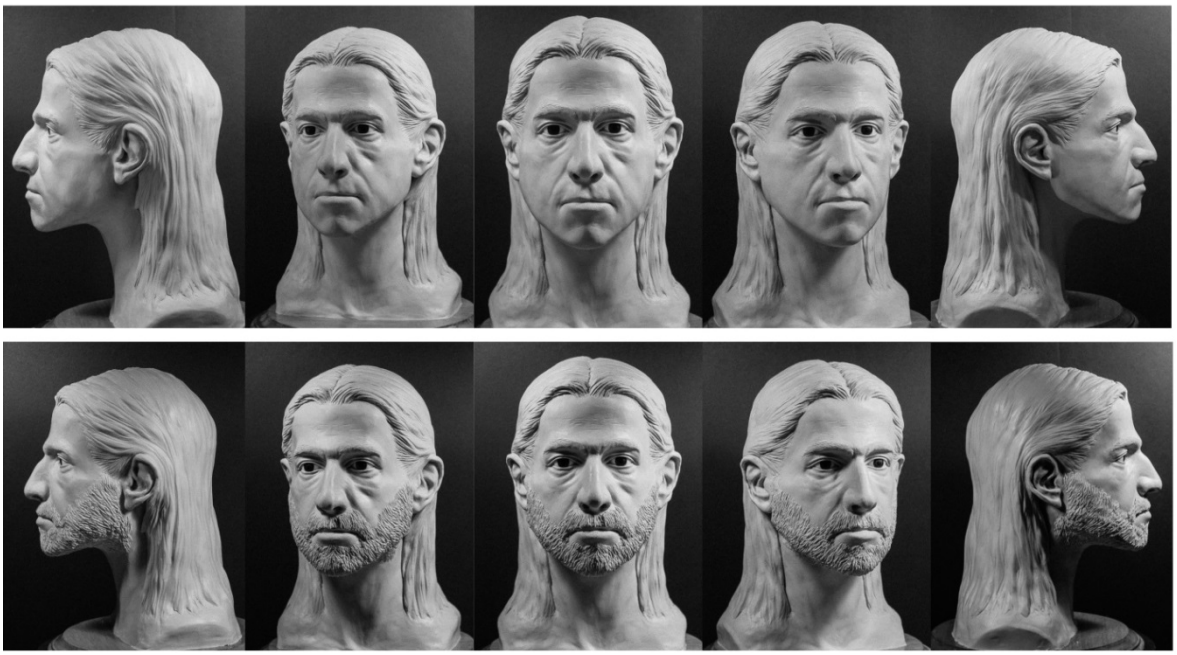
A well-nourished male of African descent was found near the base of the second Flatiron in Boulder, CO. Forensic Anthropology and Dentistry suggest he might have been a recent immigrant to America from North Africa. No obvious injury was found. An autopsy did not reveal cause of death. Some clothing and personal effects were found near him, but no camping gear or identification was present. He had a pair of thick-rimmed red prescription glasses.

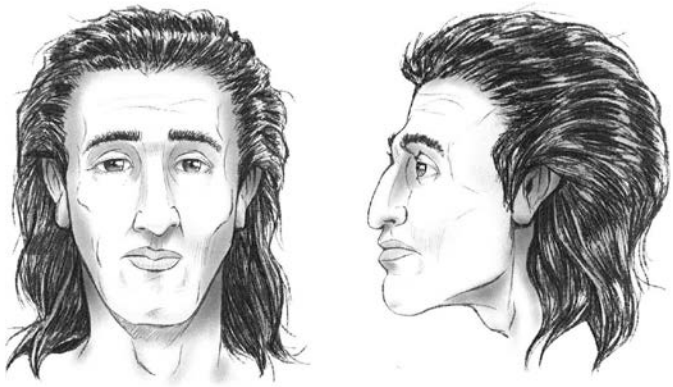
UNIDENTIFIED CAUCASIAN MALE

Discovered: November 21, 1993

NamUs Case Number: UP517
Ancestry: Caucasian
Approximate Age: 25-32
Height: 5'3" – 5'6"
Weight: 150-165 lbs.
Eye Color: Unknown
Hair: Shoulder-length coarse straight dark blond to light brown hair
Scars/Tattoos: None
Clothing: T-shirt, blue denim jeans, white socks and white athletic-type shoes.
Dental: Teeth in extremely poor repair with dental work.

The remains of a mostly skeletonized Caucasian male were found on the North Slope of Gregory Canyon in Boulder County, CO. An autopsy did not reveal a cause of death, but the man may have been suffering from Chronic Iron Deficiency Anemia.





Facial Approximation

UNIDENTIFIED CAUCASIAN FEMALE INFANT

Discovered: October 12, 2001

Approximate Age: Infant

A Caucasian female infant was found placed in a dumpster behind a grocery store. The investigation is ongoing.

UNIDENTIFIED MALE SKELETAL REMAINS

Reported: November 8, 2013

NamUs Case Number: UP12154
Ancestry: European descent and/or African ancestry
Approximate Age: 32.59 +/- 5 years
Height: 5' 7.2" +/- 3.3 inches
Weight: N/A
Eye Color: Unknown
Hair: Unknown
Scars/Tattoos: Unknown
Clothing: Unknown
Dental: Maxillary left second premolar and mandibular left second premolar missing post mortem. The right mandibular third molar and both maxillary third molars appear to have never formed. Linear striations indicating possible biological stress during childhood when the adult teeth were forming.

These are skeletal human remains that were turned over to the Boulder County Coroner's Office from the Longmont VFW. The remains were reported to be that of a Native American Female, however an osteological analysis completed by Metropolitan State University of Denver-Human Identification Laboratory has concluded that the remains are that of an adult male approximately 32.59 +/- 5 years at the time of death and that the ancestry analysis indicates that the individual is not of Native American descent, although analysis is not able to definitively identify the ancestry. Analysis suggests that the remains are likely archaeological, although there is no definitive answer as to how long ago the individual died.

The interpretation from the Osteological Report states the following:

"The skeletal remains are consistent with a young adult male with antemortem trauma indicating interpersonal violence at some time in the life of the individual. The discoloration of the skeletal remains and root markings on the bones along with the lack of modern medical intervention for fracture repair and absence of evidence of modern dental work suggest the specimen is likely archaeological. The porotic hyperostosis, which was active at death, and linear enamel hypoplasias indicate biological stress during childhood when the adult teeth were forming. The ancestry analysis indicates the individual is not of Native American descent, though an unambiguous ancestry cannot be identified. Additionally, the postmortem breakage of several teeth, postmortem damage to several bones, and the missing elements (ribs and small bones) are consistent with the story told by the VFW "Last Man Standing Club" that the remains were dug up by one of their members many years ago."

Given that the specimen is likely archeological, it is not probable the identity will be determined, however until such time that an identification or additional information on where the remains originated from, the remains will be kept by the coroner's office.

UNIDENTIFIED CAUCASIAN OR MIXED RACE MALE REMAINS

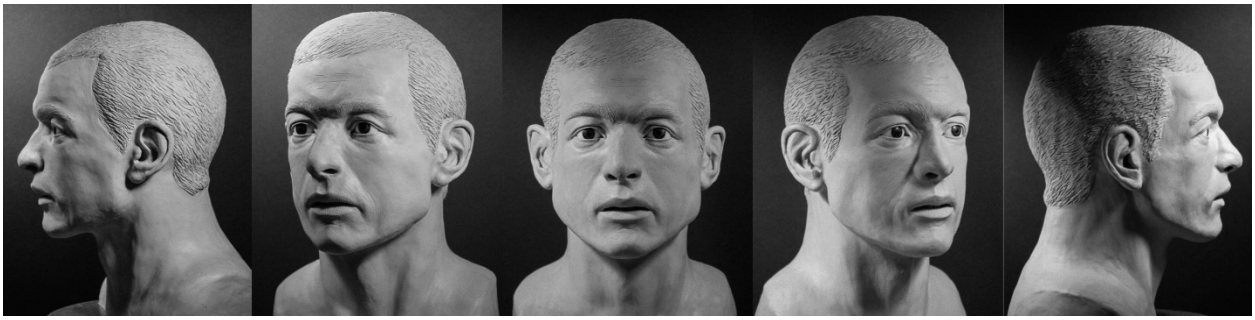
Discovered: October 2, 2017

NamUs Case Number: UP17188
Ancestry: Indeterminate
Approximate Age: 30-60
Height: Unknown
Weight: Unknown
Eye Color: Unknown
Hair: Unknown
Scars/Tattoos: Unknown
Clothing: None found with remains
Dental: Teeth in fair repair with dental work and antemortem extractions.

The human skull of a male was found in the area of Mudd Lake in Boulder County, CO. An anthropological examination did not reveal a cause of death. The human mandible of a male was later found in the same general area. The mandible and skull were compared to each other and were found to be from the same decedent.

The interpretation from the Anthropological Report states the following:

"Biological profile: likely male, indeterminate ancestry, broadly estimated at 30-60 years, indeterminate stature. Healed antemortem fractures are noted (left nasal bone, left maxillary frontal process)."



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1 National Association of Medical Examiners, A Guide for Manner of Death Classification First Edition, February 2002, p. 3.

2 Colorado Dept. of Public Health and Environment, Violence in Colorado: Trends and Resources, University of Colorado, 1994, p. 123

3 Published online October 17, 2011 Pediatrics Vol. 128 No. 5 November 1, 2011 pp e1341-e1367 (doi: 10.1542/peds. 2011-2285)