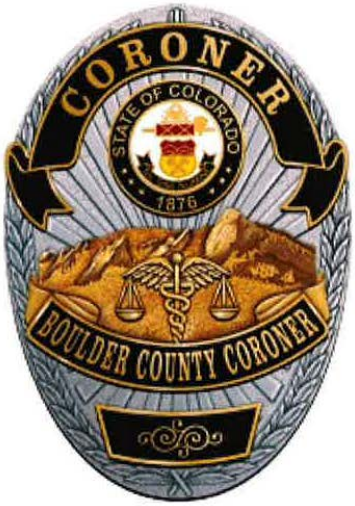
2011 ANNUAL REPORT

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,

Thank you for electing me to serve as the first female Boulder County Coroner. It has been my honor to serve our community over the last year. I am proud of the improvents we are making in the office. 2011 was a year that saw great change in the Coroner's Office, not only in Boulder County but throughout the state because of revisions mandated by the state legislature. The main legislative change impacting forensic pathology in Colorado was the requirement that all forensic autopsies must be performed by a board certified forensic pathologist and that coroners must follow National Association of Medical Examiners (NAME) standards. While these standards are set by law, it is the duty of the coroner to implement those standards through policies, procedures and training which set the expectations, requirements and accountability of the office. The staff participated in many trainings in 2011 to include continuing education on child fatalities, blood stain patterns, anthropology, and advanced death investigation.

National attention was drawn to the operation of coroner and medical examiner offices in 2011 when Propublica, PBS Frontline and NPR released their yearlong study on the nation's 2300 offices. With this type of coverage on the field of forensic pathology, it was imperative that I conducted a full assessment of the office to determine what standards were in place and how they compared to what was required. A full assessment revealed that an overwhelming amount of reorganization and updating were needed. Policies and procedures were put in place to ensure that required standards were being met, and that cases were documented thoroughly and in a timely manner.

Two major requests were made in 2011 for substantial improvements: first a case management system to include modern computer equipment, and second, funds for planning a new state-of-the-art facility where the entire coroner's office and morgue would be housed together as one unit, capable of handling the current and growing case load of the office. Both of these requests were presented to the Commissioners and subsequently approved in 2011. The projects will start in 2012.

The information in this report has been gathered from records held at the Boulder County Coroner's Office for the calendar year of 2011. Our staff strives to serve the public with the most accurate, complete and up-to-date information possible. We have compiled the statistics in this report to be of value to both government agencies and members of the public. If additional information or clarification is needed, please feel free to contact this office at 303-441-3535.

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 Statues (C.R.S.) 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.

STAFF

The 2011 staff of the Boulder County Coroner's Office consisted of the following:

Elected Coroner: Emma R. Hall. 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 of. Ms. Hall is a graduate of 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 certified Death Investigator and a member of the Colorado Coroner's Association. She co-chairs the Elder Abuse Fatality Review Team with District Attorney Stan Garnet. 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.

Board Certified Forensic Pathologist: Michael F. Arnall, M.D., P.C., Forensic Pathologist. Dr. Mike Arnall is a triple board certified forensic pathologist with 30 years experience in autopsies and death investigations. Dr. Arnall attended medical school in St. Louis, Missouri at the Washington University School of Medicine. He completed a fellowship in forensic pathology at the Denver County Coroner's Office, as well as a fellowship in surgical pathology at the Baylor College School of Medicine in Houston, Texas. Dr. Arnall has worked as a medical examiner and forensic pathologist in Florida, Massachusetts, New Zealand and multiple counties in Colorado. He has performed over 3000 autopsies and has testified as an expert in forensic pathology in over 200 homicide trials.

Board Certified Forensic Pathologist: Robert A. Kurtzman, DO, FCAP Forensic Pathology. Dr. Robert Kurtzman is a 1980 graduate of the Des Moines University College of Osteopathic Medicine and has been practicing medicine for 34 years. He is board certified by the American Osteopathic Board of Pathology in Anatomic Pathology, Laboratory Medicine and Forensic Pathology. He received his Forensic Pathology training under the direction of Dr. Werner Spitz at the Office of the Medical Examiner of Wayne County in Detroit, Michigan and continued to work in Southeast Michigan until he relocated to Grand Junction, Colorado in 1992. While in Colorado he has served as elected Coroner for Mesa County for two terms and as a contract Forensic Pathologist providing service to over 14 counties. His involvement in notable cases includes: the Northwest Airlines Flight 255 air disaster at the Detroit International Airport in 1987, Aspen ski accident death investigation of Michael Kennedy in 1998, Storm King Mountain fire forensic team in 1994 and the sudden death investigation of former Enron CEO Kenneth Lay.

Deputy Coroner: Susan Nichols. Ms. Nichols has over ten years of experience as an EMS educator, is a state certified EMT-B, and has a Bachelor's Degree in Human Resource Science. Ms. Nichols handles a portion of the caseload, as well as handling various day-to-day operations of the office.

Deputy Coroner: Lindsey Wolman. Ms. Wolman has experience as an EMT-B and Firefighter, is a nationally certified EMT-B, and has a Bachelor's degree in Health, Leisure, and Sports Studies with a minor in Psychology. Ms. Wolman handles a portion of the caseload, as well as handling various day-to-day operations of the office.

Deputy Coroner: Carolina Nicolosi. Ms. Nicolosi has a Bachelor's Degree in Psychology and is nationally certified as an EMT-B and a Pharmacy Technician. Ms. Nicolosi has over eight years of combined experience

working in pharmacy and EMS settings. Ms. Nicolosi also handles a portion of the caseload, as well as handling various day-to-day operations of the office.

Deputy Coroner: Amber Maggio. Ms. Maggio is a certified EMT-B and has completed extensive undergraduate training in Linguistics and Biological Psychology at the University of Colorado at Boulder. Ms. Maggio also handles a portion of the caseload, as well as handling various day-to-day operations of the office.

Deputy Coroner: Maury Miller. Mr. Miller has a Bachelor's degree in History from Colorado State University in Fort Collins. He has a combined work experience of 16 years of law enforcement and death investigation experience as well as teaching. Mr. Miller handles a portion of the caseload, as well as handling various day-to-day operations.

Deputy Coroner (Part-Time): Wendy Kane. Ms. Kane has a Bachelor's Degree in Business Management and an Associate's Degree in Criminal Justice and Applied Sciences. She has over 9 years of experience in investigations as a police officer and is also a certified massage therapist. Ms. Kane previously worked for the Colorado Bureau of Investigations Unit and is trained in fingerprint identifications. Ms. Kane handles a portion of the caseload, as well as handling various day-to-day operations.

Administrative Technician: Chris Arnaud. Mrs. Arnaud has over 20 years combined experience as a legal secretary and recruiter in a major San Francisco law firm and as an administrative assistant in the development department of the Catholic Youth Organization in San Rafael, CA. She is responsible for the administrative and accounting duties and the day-to-day operation of the office.

FACILITIES

The administrative offices of the Boulder County Coroner are located in the Criminal Justice Center at 6th Street and Canyon Boulevard in Boulder.

Location of Boulder County Coroner's Office.

The Boulder County Coroner's Office utilizes the morgue and autopsy facility at Boulder Community Hospital on a contract basis.

Location of Boulder County Coroner's morgue.

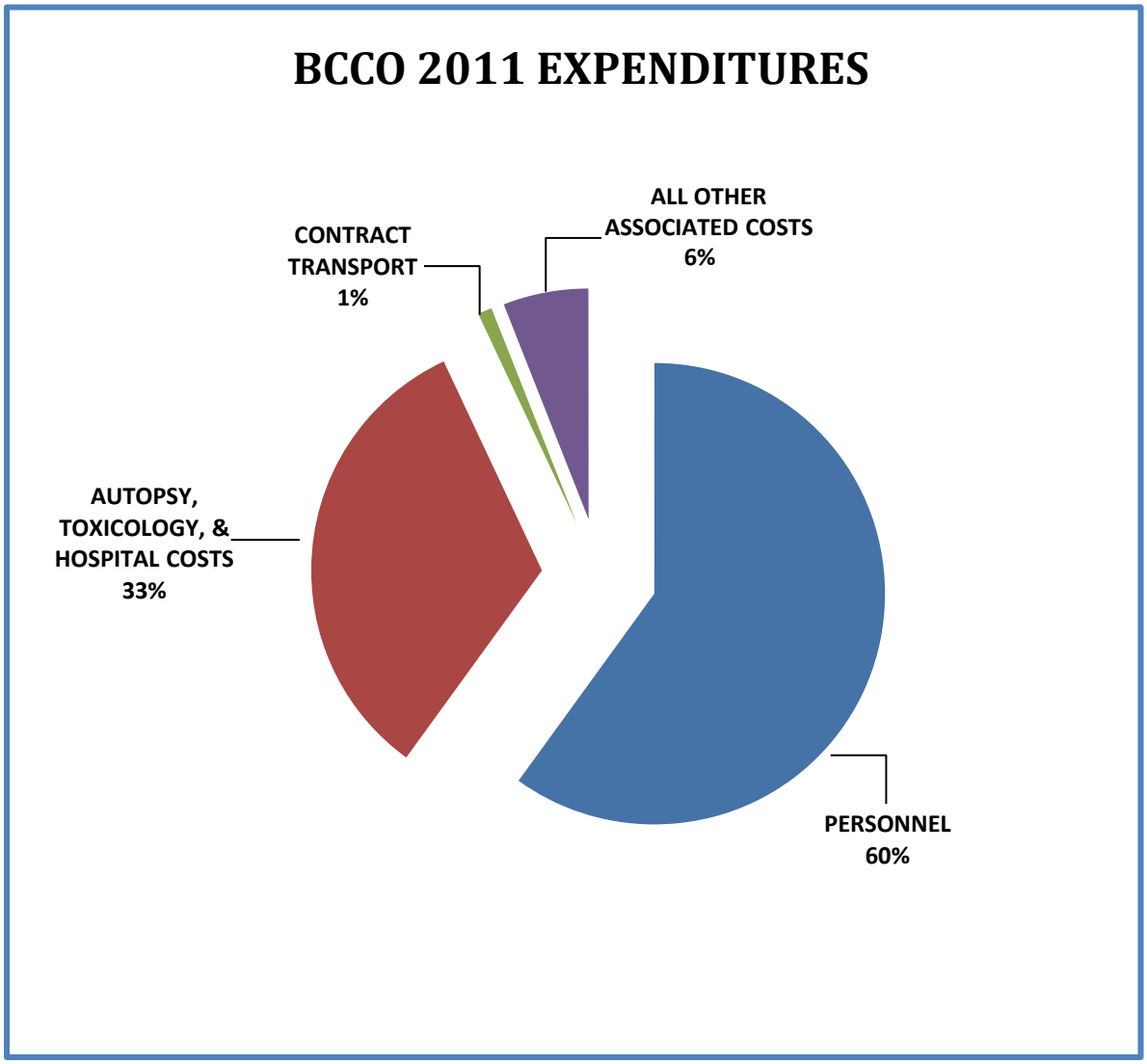
BUDGET

FUNDING

The funding for the coroner's office comes from the general fund. The general fund is a general 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, mother 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 2011 expenditures for the Boulder County Coroner's Office was $770,497.03. This is 0.27% of the total adopted 2011 Boulder County budget of $288,696,651.



DESCRIPTION OF REPORTABLE CASES

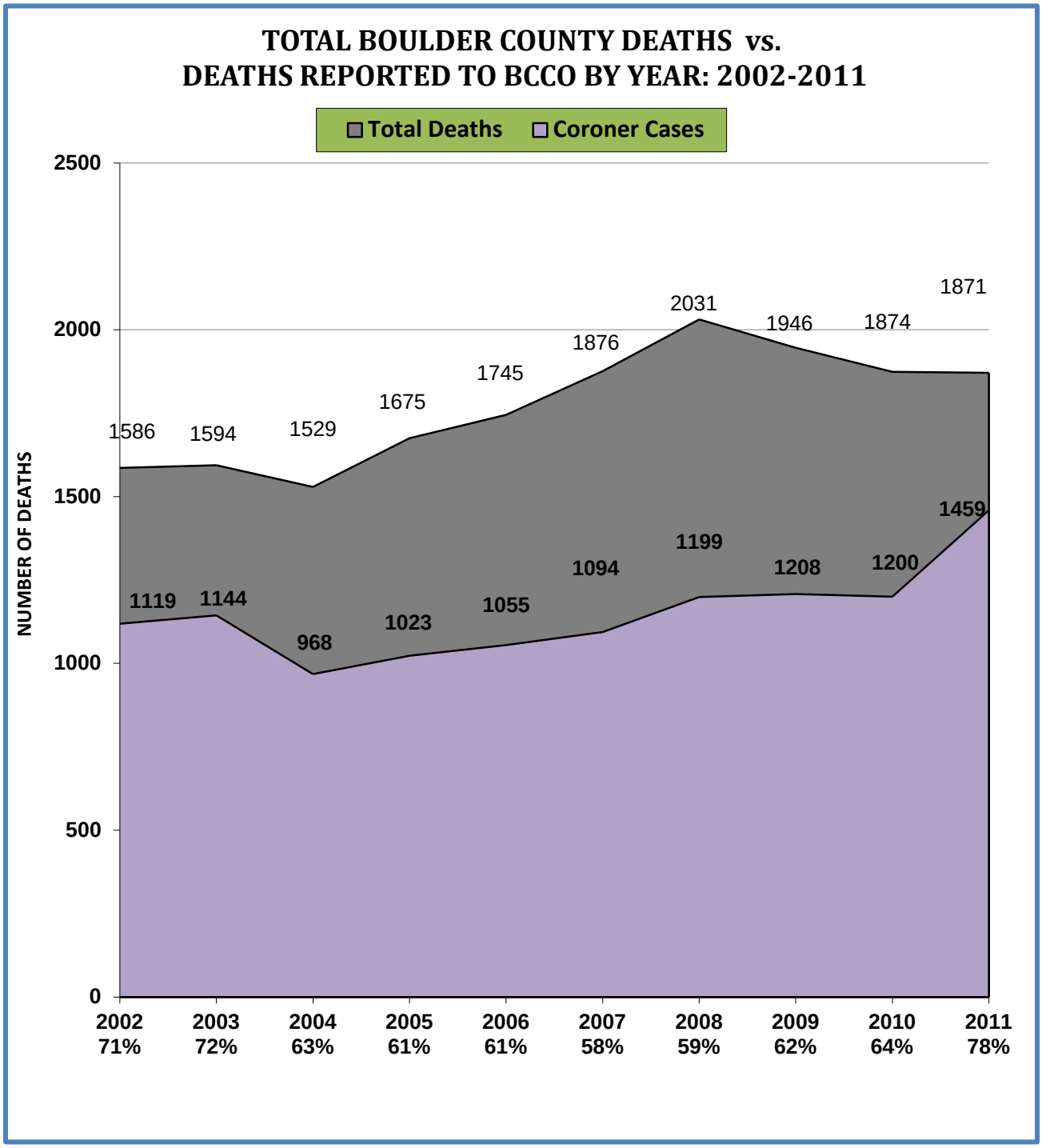
In accordance with CRS 30-10-606, the following deaths are **reportable** to the Boulder County Coroner's Office:

- 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 s 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

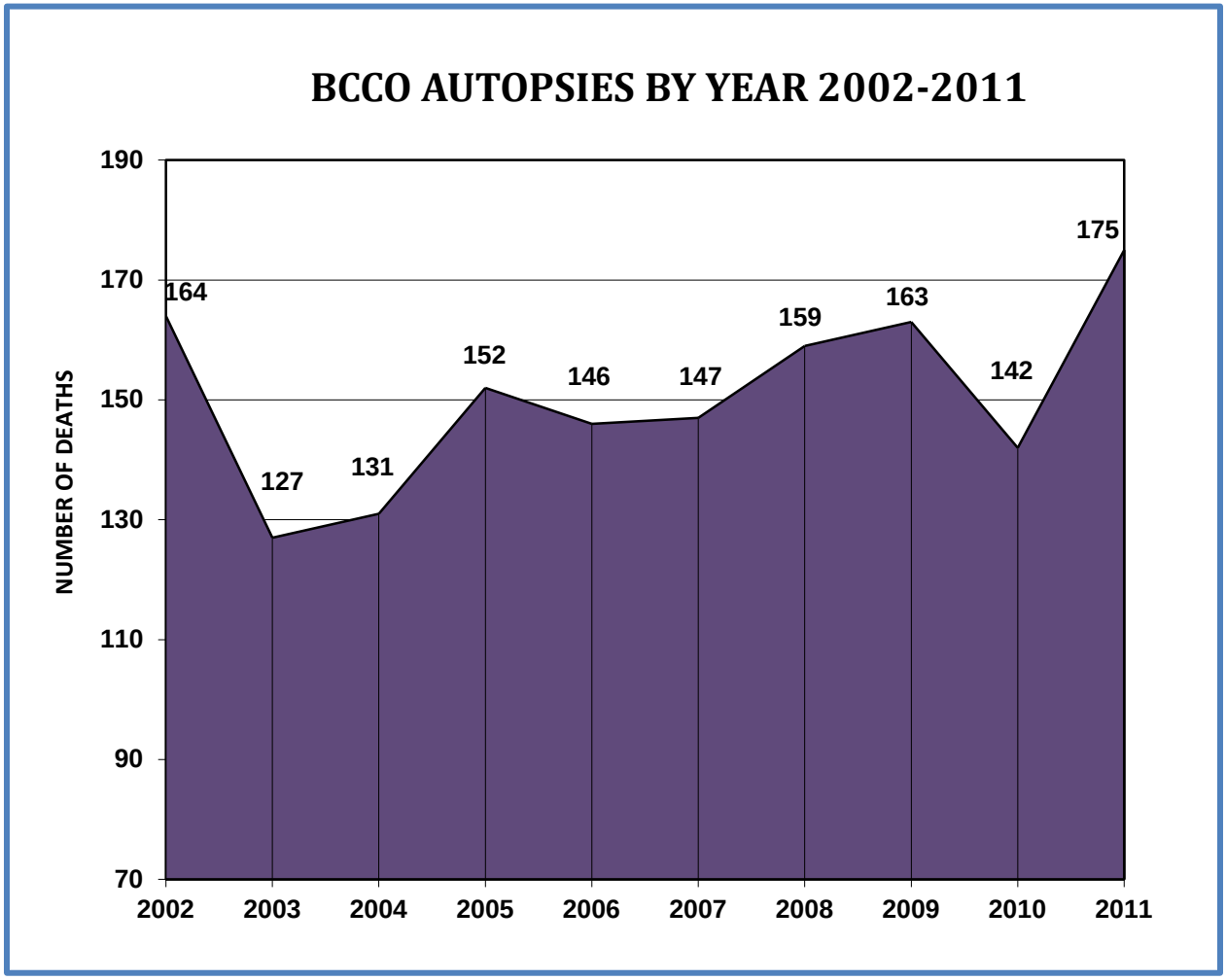
Per the US Census the 2011 estimated population of Boulder County was 295,487. A death certificate is filed with the Boulder County Public Health Department for each death that occurs in Boulder County. The Public Health Department keeps track of the total number of deaths that occur in Boulder County. 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

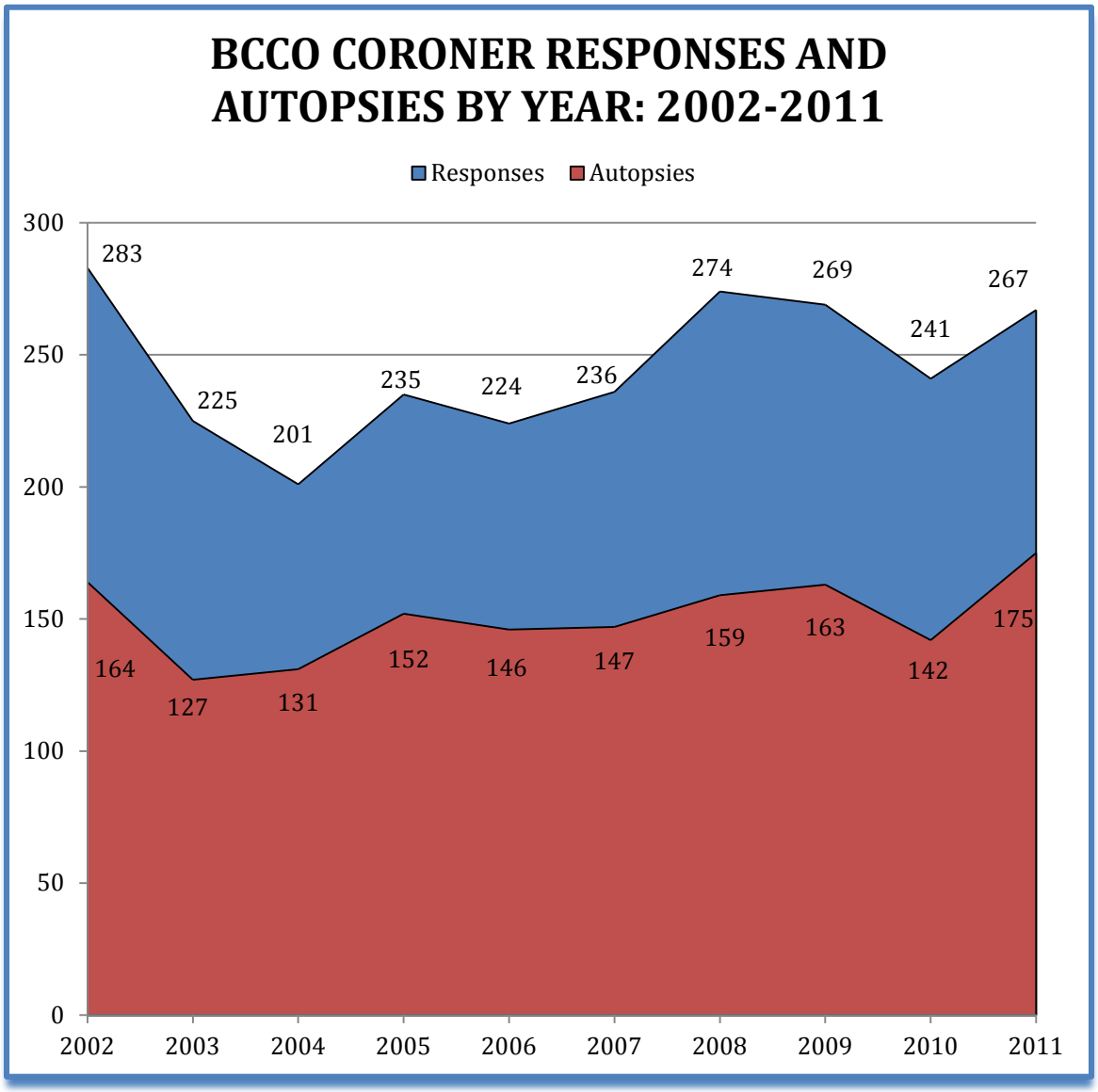
In approximately twelve percent of the deaths that were investigated by the Boulder County Coroner's Office in 2011, an autopsy or skeletal postmortem examination was performed to aid in the determination of the cause and manner of death, to document disease, to identify injury patterns, or to recover 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.

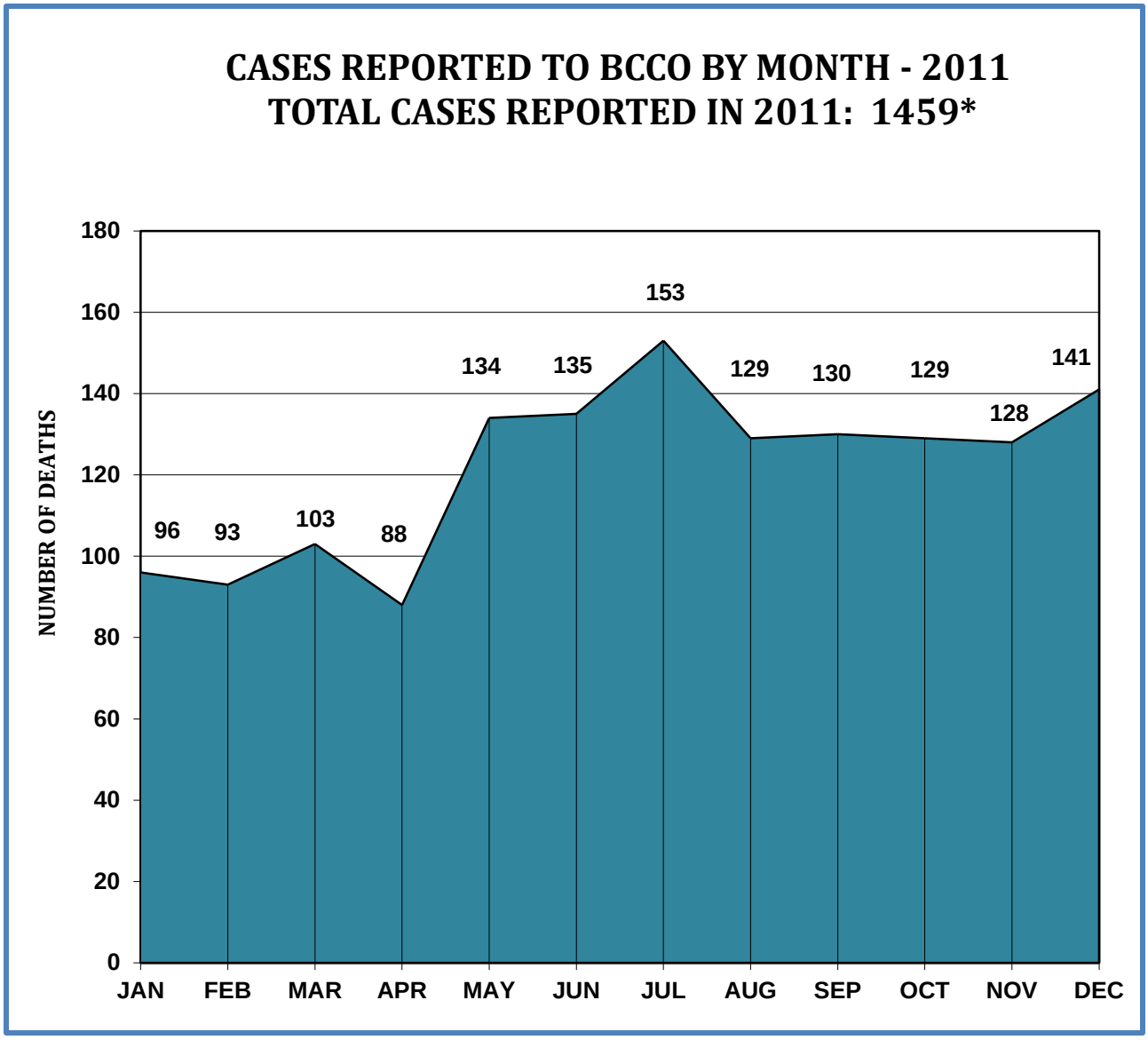


CORONER RESPONSE AND AUTOPSY TOTALS

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



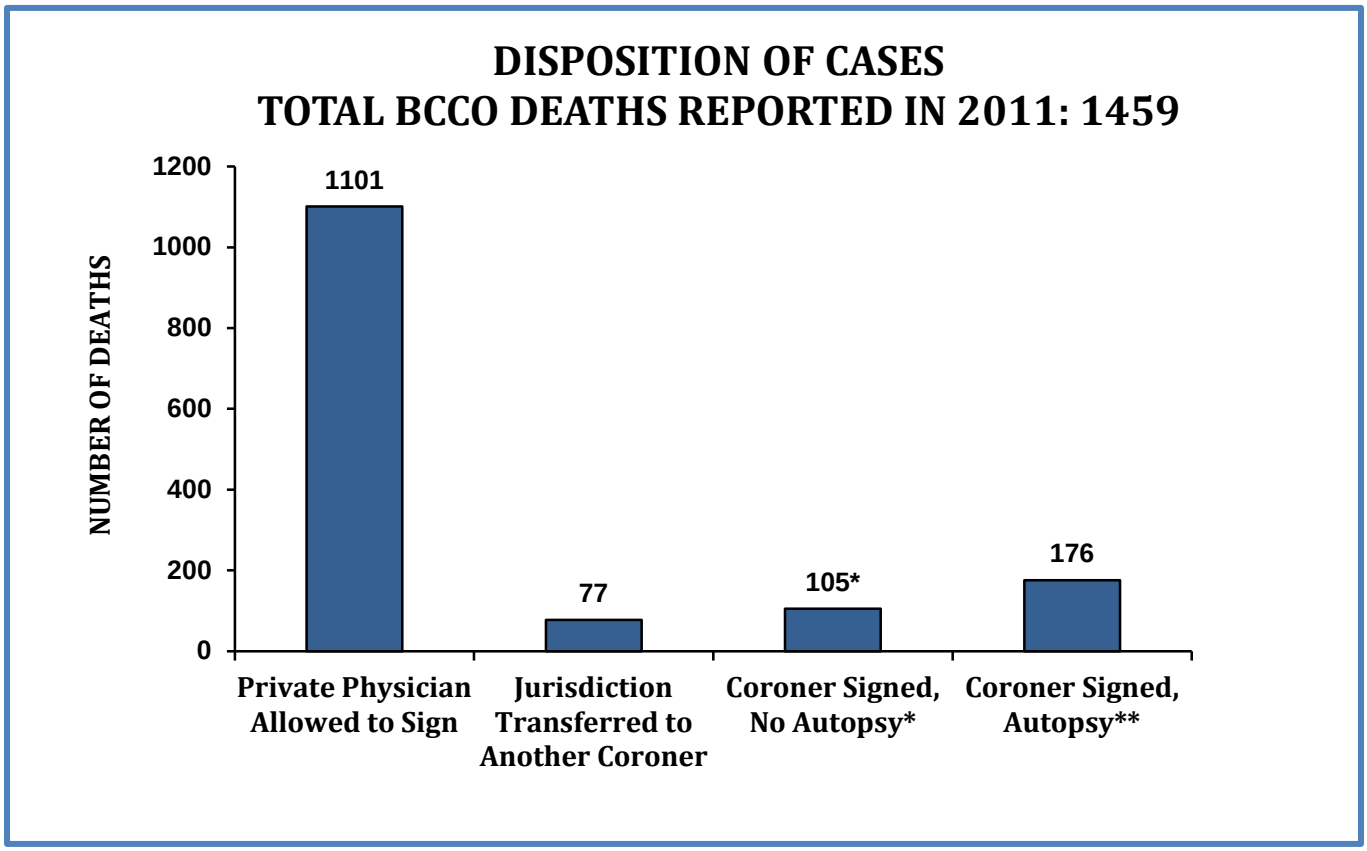
CASES BY MONTH



*The total number of cases reported includes 77 cases that were transferred to other coroners/physicians. See **Transfer of Jurisdiction** of this report for 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 (i.e. by ambulance) from prior to death. The transfer of jurisdiction is allowed according to Colorado Revised Statute 30.10.606.



Notes: *The total number "Coroner Signed, No Autopsy" includes one case in which the court declared a 2003 missing person deceased in April 2011. **The total number of "Coroner Signed, Autopsy" includes one case in which the death occurred in 2011 and the autopsy was performed in 2012, it was not counted in the 2011 autopsies.

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 he/she sustained in an accident that occurred in another county, or an individual may collapse at his/her 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 2011, the jurisdiction of seventy seven* cases were transferred to other coroners in surrounding counties. Forty-three cases were natural deaths, five were traffic accidents, twenty-four were non-traffic accidents, three were suicide, one was undetermined, and one was N/A (fetal demise). Thirty-nine of the cases were transferred to Adams County, nineteen were transferred to Weld County, ten were transferred to Jefferson County, three were transferred to Larimer County, five were transferred to Denver County, and one was transferred to Arapahoe County.

Twenty-seven of the transferred cases were deaths that occurred in the emergency departments at Exempla Good Samaritan Medical Center, Longmont United Hospital and Advista Adventist Hospital.

In forty-one (53%) of the cases that were transferred to other coroners, the decedents were transported to Exempla Good Samaritan Medical Center from areas outside of Boulder County.

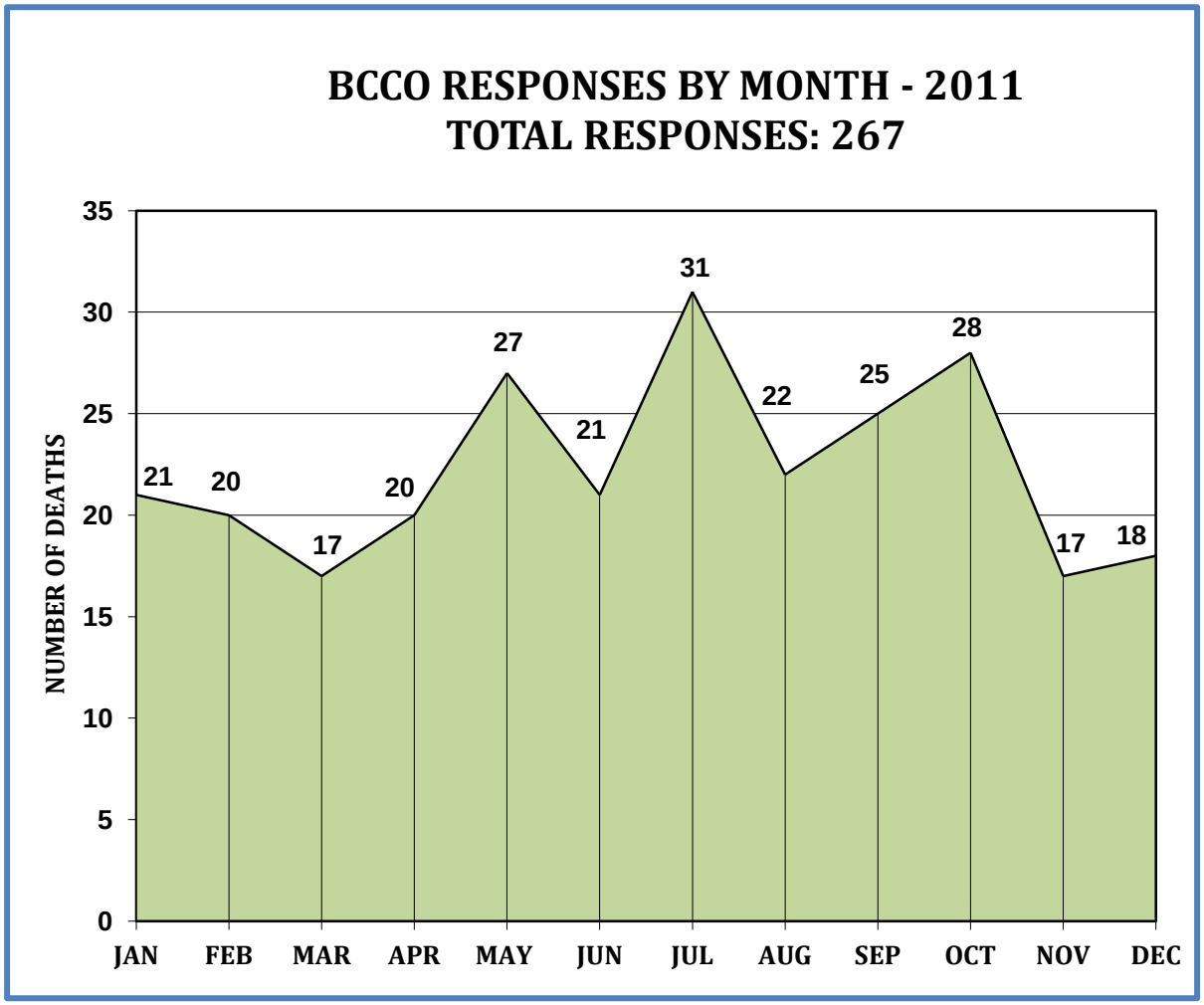
For statistical purposes, in the sections to follow, transferred cases will not be counted among the deaths investigated by Boulder County, unless otherwise noted.

CORONER RESPONSES BY MONTH

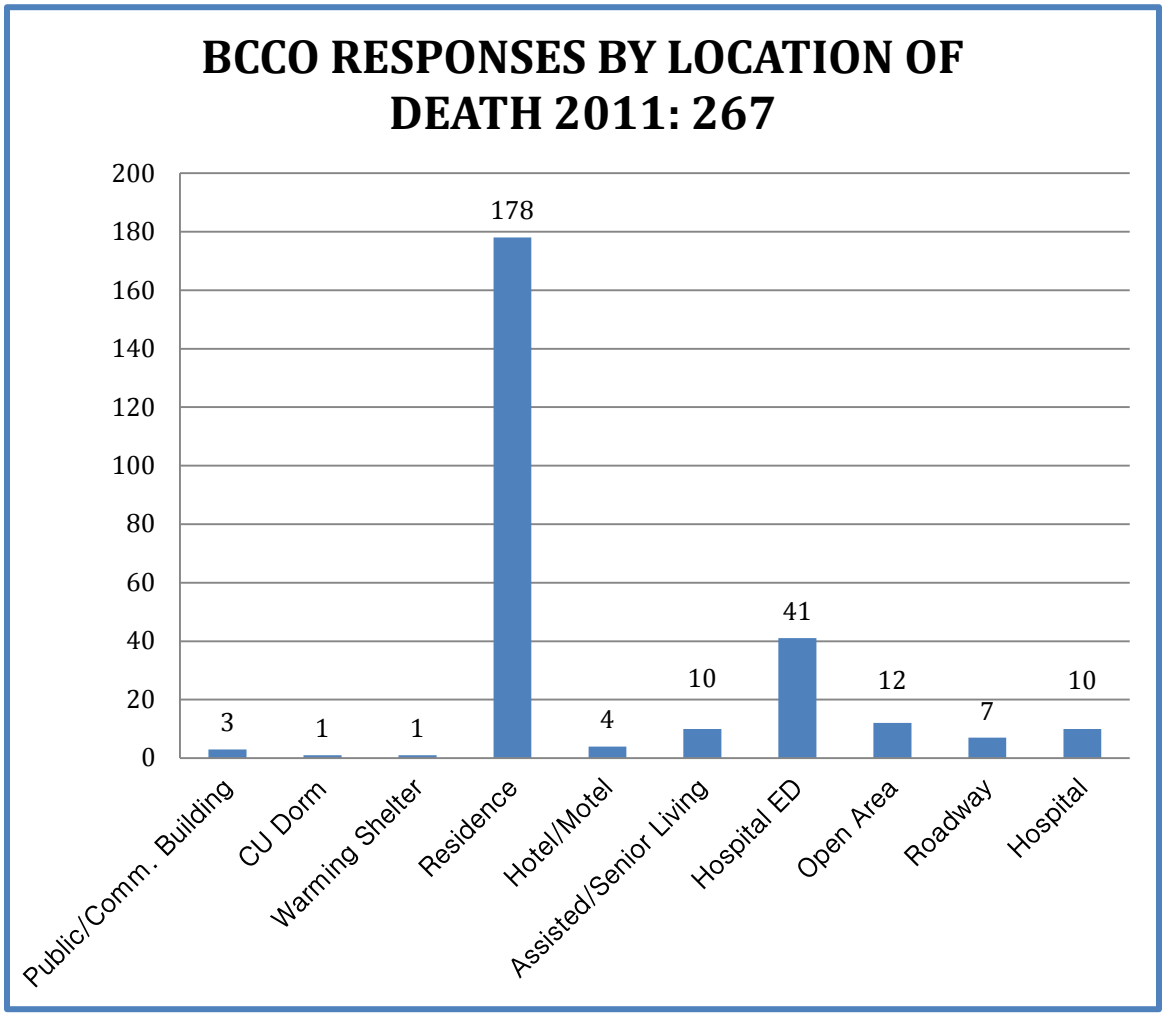
The Boulder County Coroner's Office is called to action by either receiving a phone report of a death or by receiving a notification and response request from law enforcement. When a death is reported to the office by phone it is typically being reported by a hospice agency, a care center or a hospital. 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 has 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.

In 2011, 267 scene responses were made which was 18% of all of the deaths reported to the Boulder County Coroner's Office.

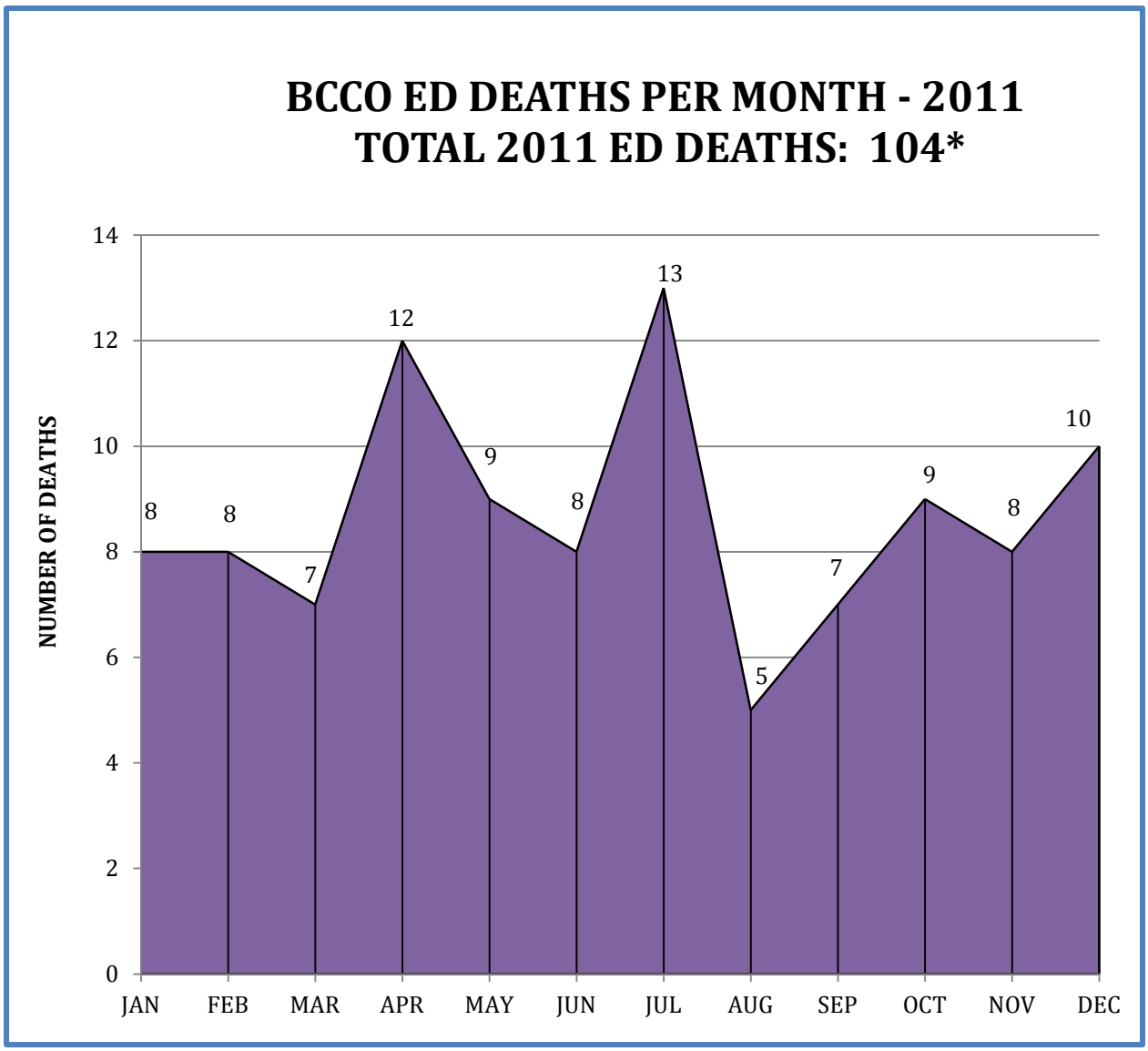


BCCO all-terrain response vehicle, equipped for mountain responses.



EMERGENCY DEPARTMENT CALLS BY MONTH

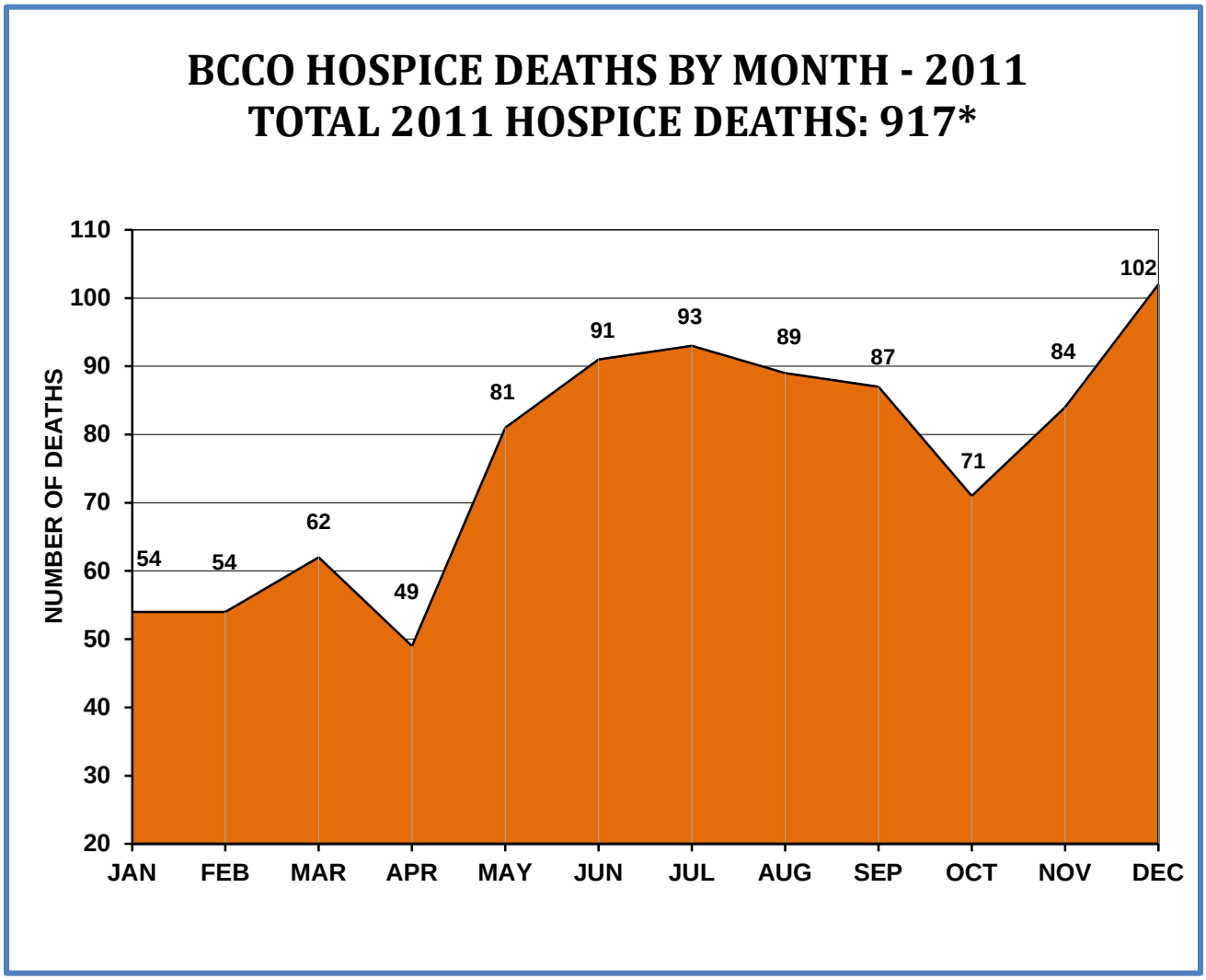
Deaths that occur in an emergency department are required to be reported to the coroner's office. Hospitals in Boulder County include Boulder Community Hospital, Boulder Community Hospital Foothills, Longmont United Hospital, Exempla Good Samaritan Medical Center, and Avista Adventist Hospital.



*The total number of cases reported includes 27 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. In 2011 the Metro Area Coroners and Medical Examiners agreed upon and adopted uniform reporting requirements for all hospice agencies to report deaths. Of the 917 hospice cases reported to the Boulder County Coroner's Office 873 (95.2%) were natural deaths, 43 (4.7%) were accidental deaths, and one (0.1%) was a suicide.



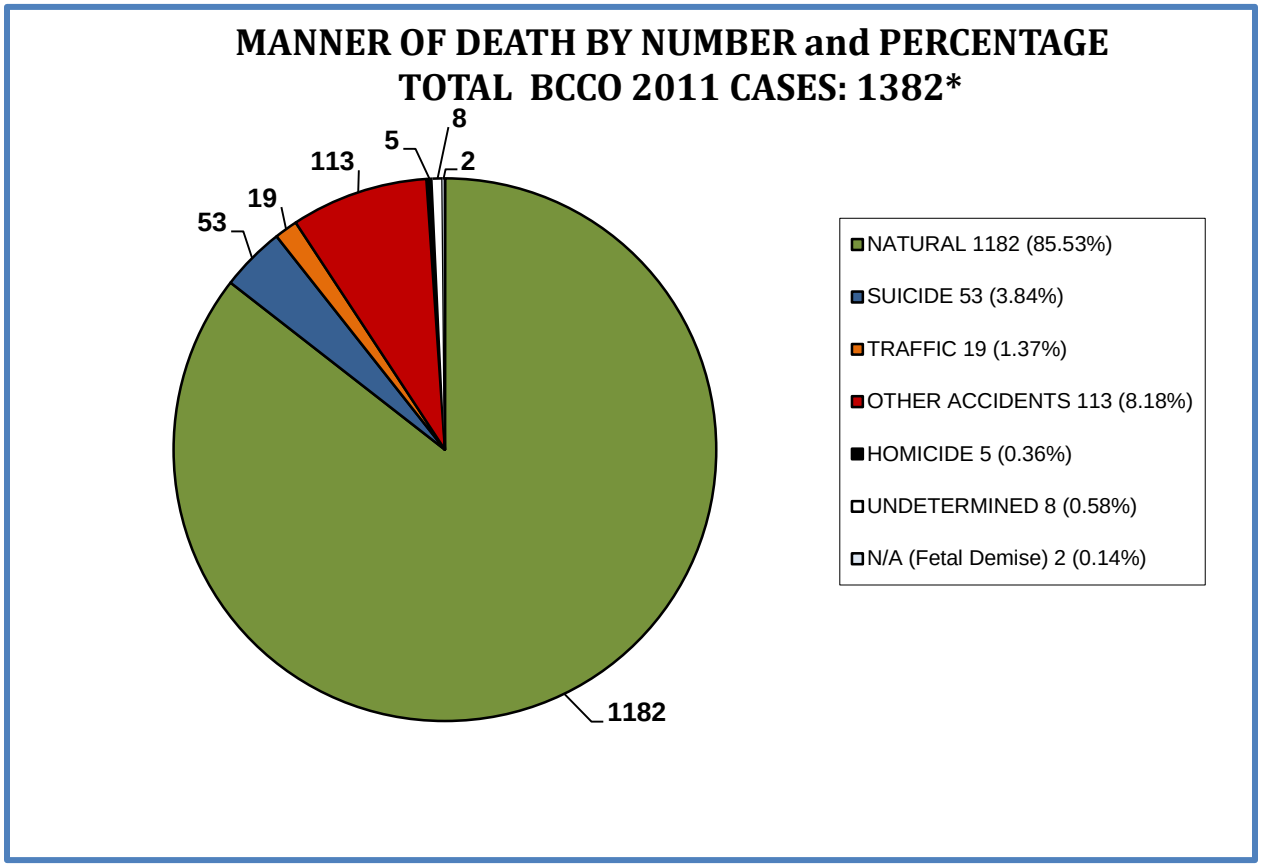
***Note:** This total excludes the 18 hospice cases that were transferred to other coroners.

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 medical-legal 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

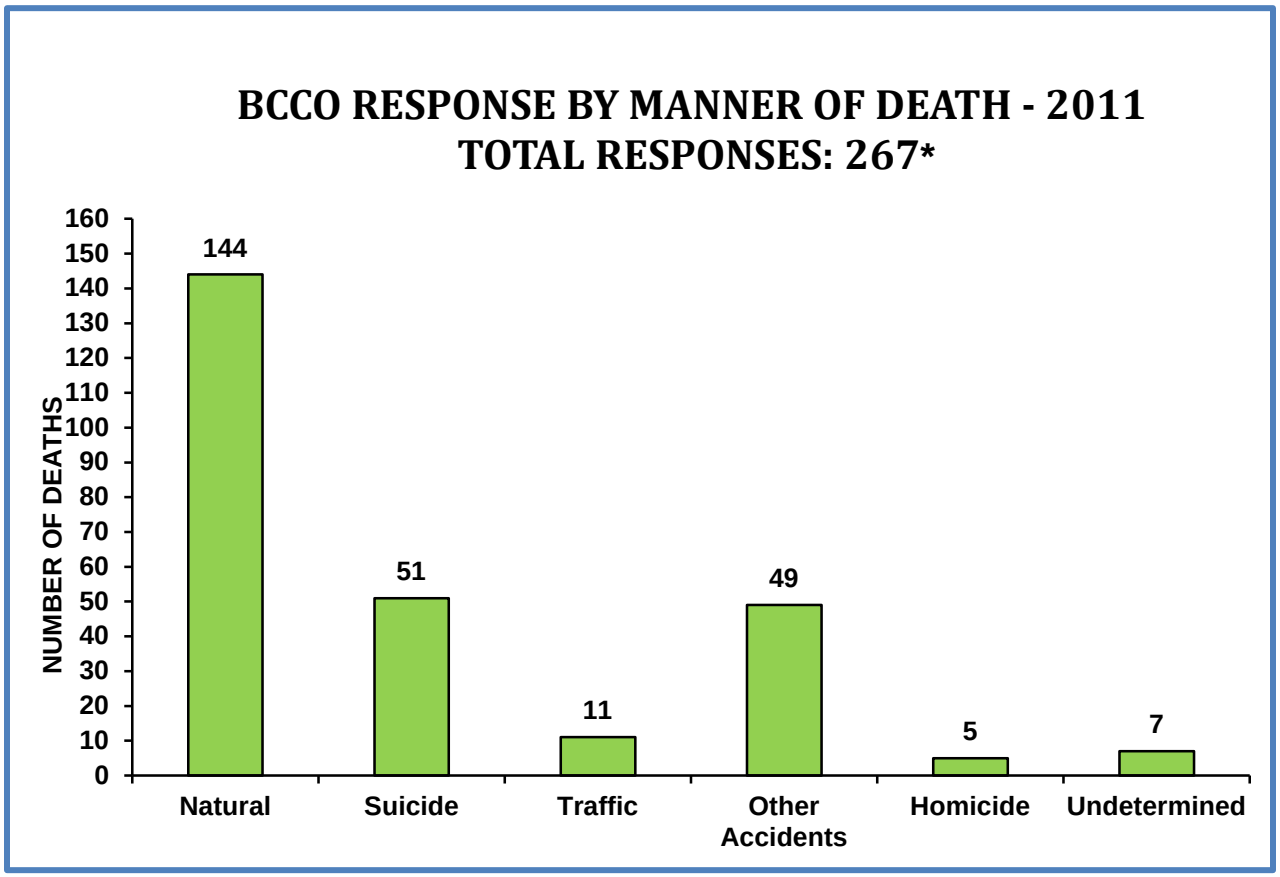
A large majority of the cases investigated by any medical examiner or coroner's office are natural deaths. In Boulder County that figure was 1182 cases, or 85.5% in 2011. Included within these natural deaths were 873 hospice cases.



***Note:** The seventy-seven 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.

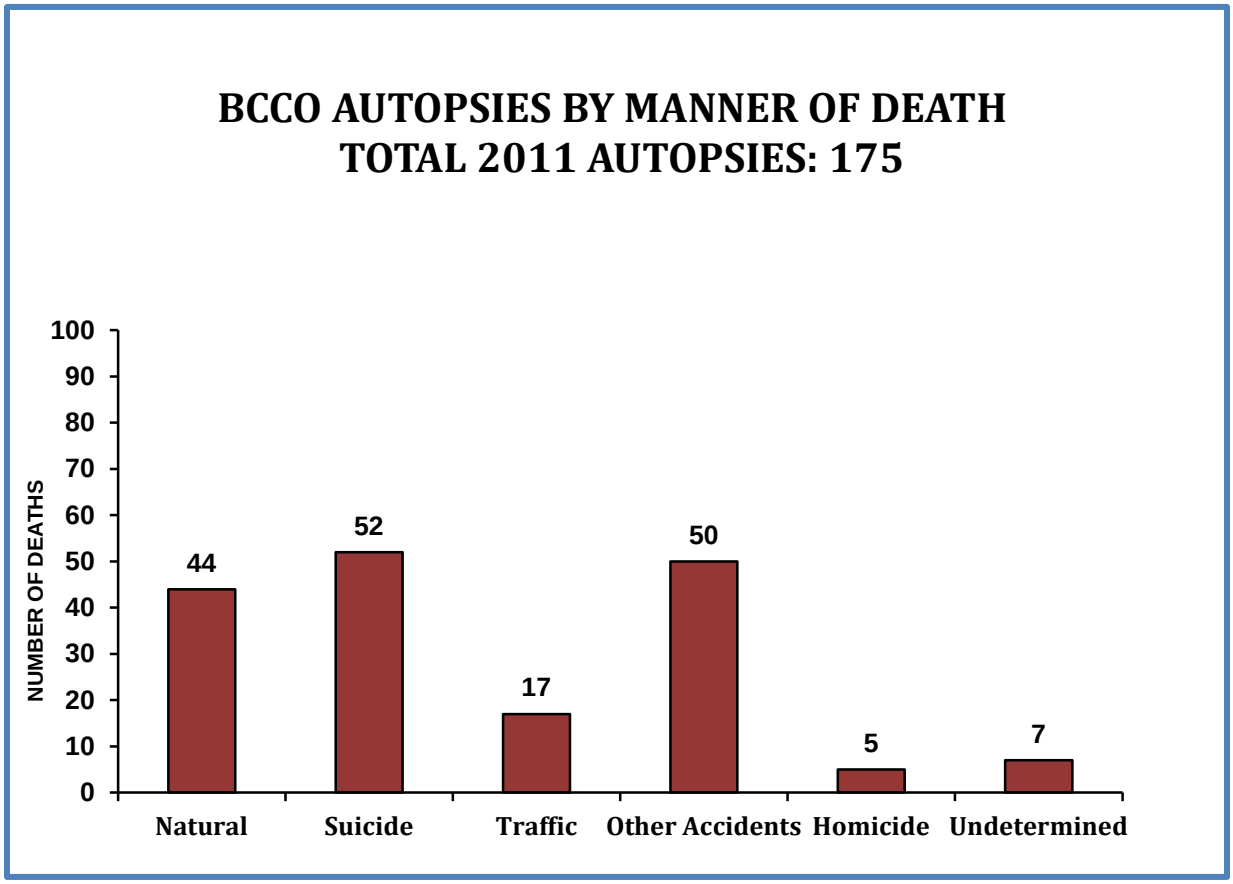
Note: The total number of Undetermined includes one case in which the court declared a 2003 missing person deceased in April 2011.



Note: The apparent absence of a scene investigation in some suicides, motor vehicle, and other accident cases may be due to 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. One of the undetermined cases in 2011 was a missing person where there was a court order for the coroner to sign a death certificate in April of 2011; therefore no scene investigation was completed.

AUTOPSIES BY MANNER OF DEATH

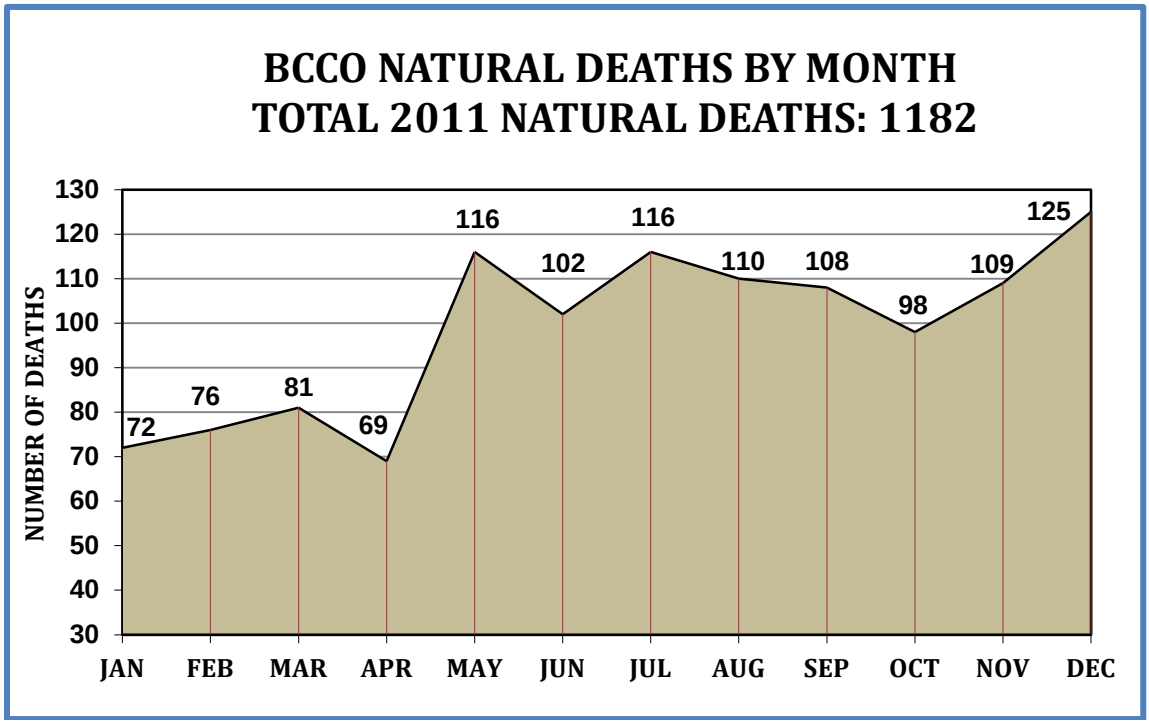
The Coroner weighs many factors in order to determine whether an autopsy should be performed. Autopsies are performed in all homicides, most infant deaths, most deaths of individuals without an established medical history, deaths involving possible criminal action, most motor vehicle accident deaths, and most suicides.



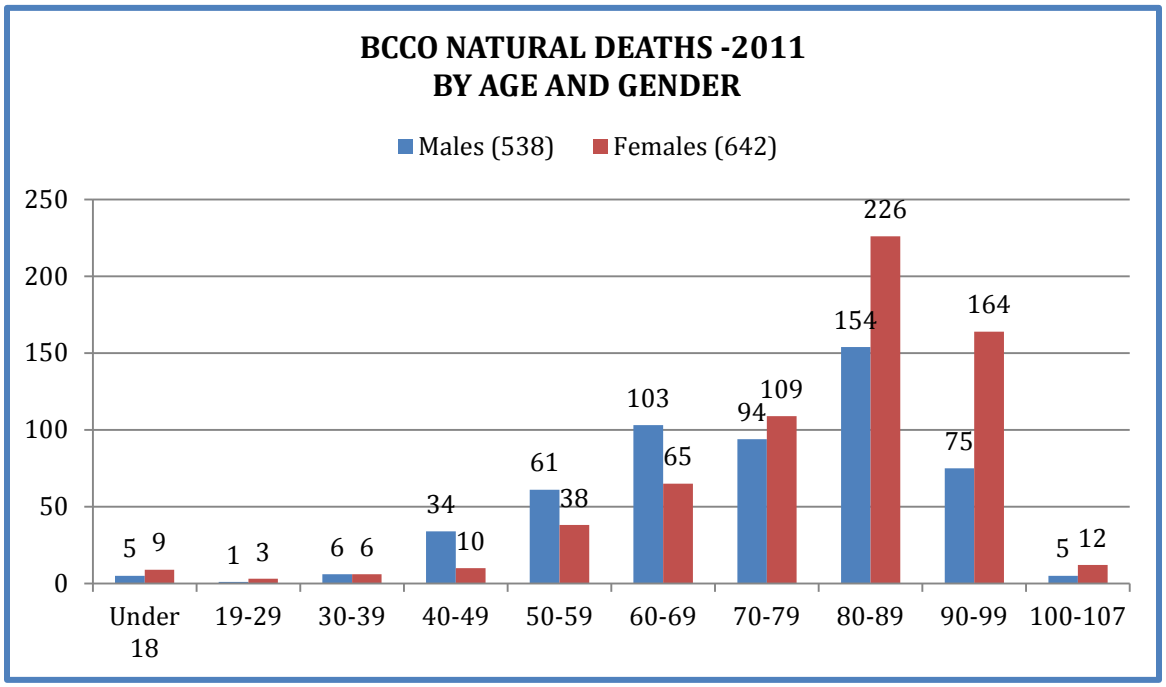
Note: For statistical purposes accidental deaths due to traffic accidents will be separated from accidental deaths due to other causes.

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.



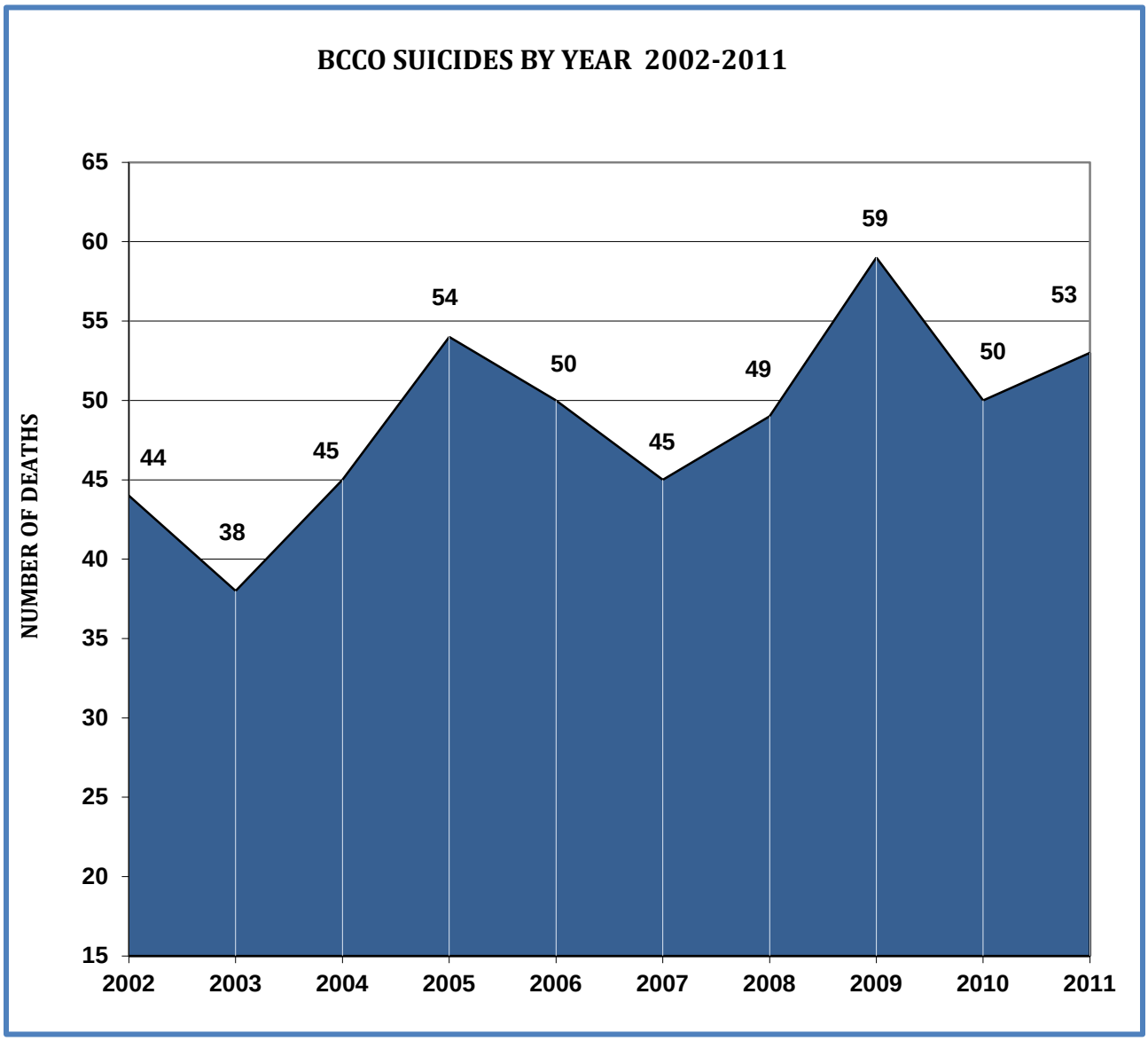
NATURAL DEATHS BY AGE AND GENDER



SUICIDES

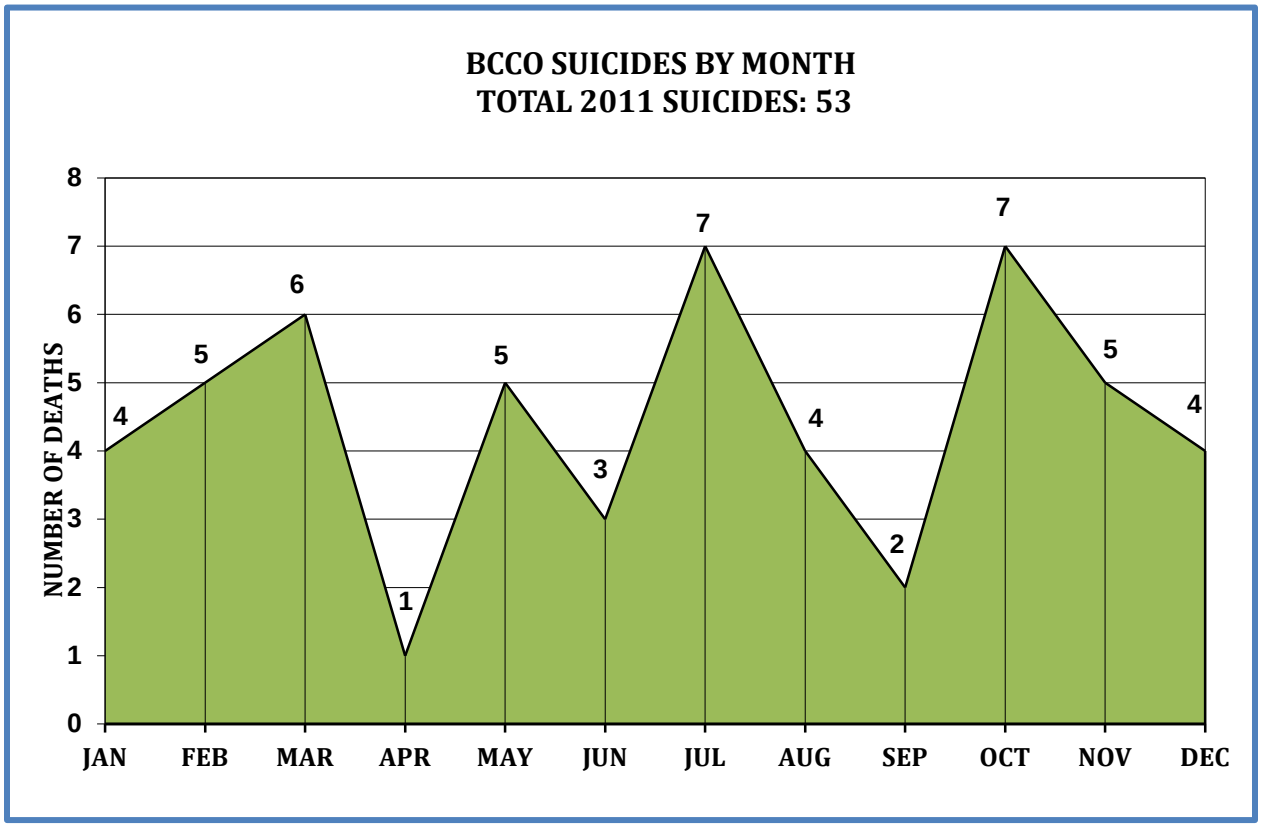
Suicide is defined as the intentional act of killing oneself. Nationally, men are three to five times more likely to commit suicide than women, but women attempt suicide more frequently than men. The most common method of committing suicide is with firearms, followed by hanging, suffocation, and ingestion of poisons.[2] In 2011 in Boulder County, the most common method used was a firearm, followed by hanging and then by prescription drugs.

SUICIDES BY YEAR

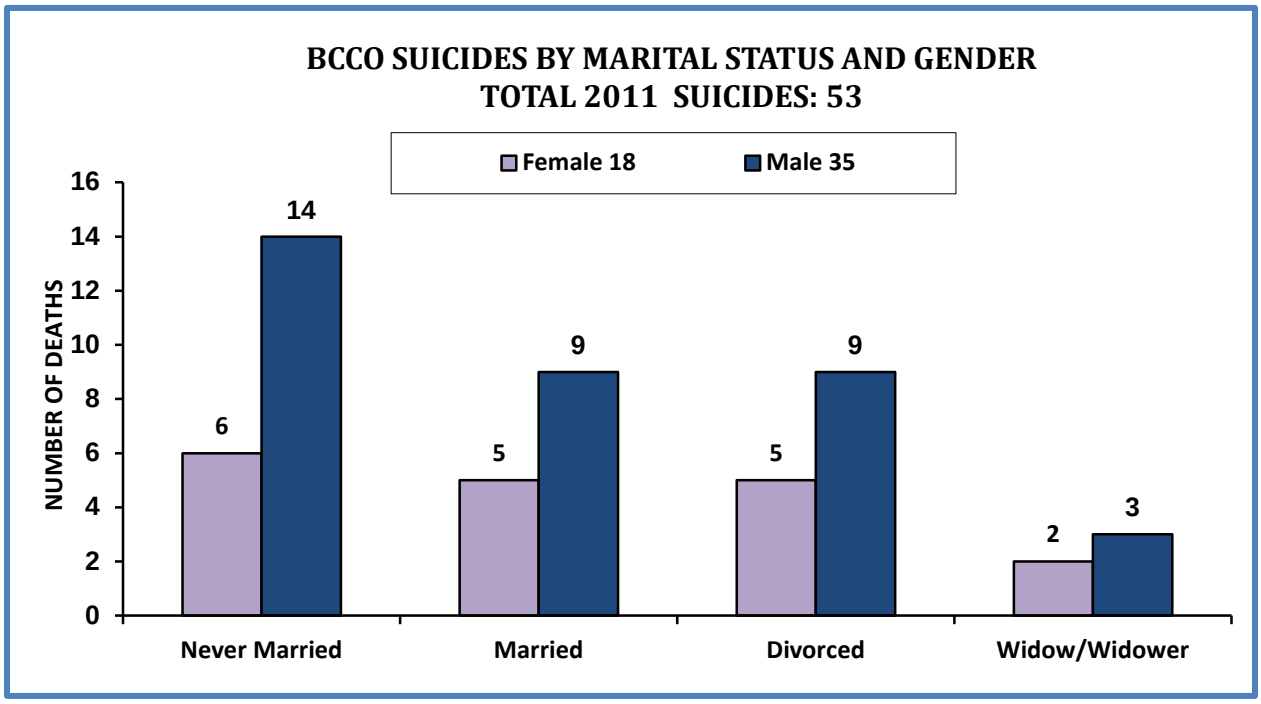


Note: There were a total of 56 suicides reported to the Boulder County Coroner's Office in 2011. The Boulder County Coroner's Office investigated 53 of those cases and transferred jurisdiction of three cases to another Coroner.

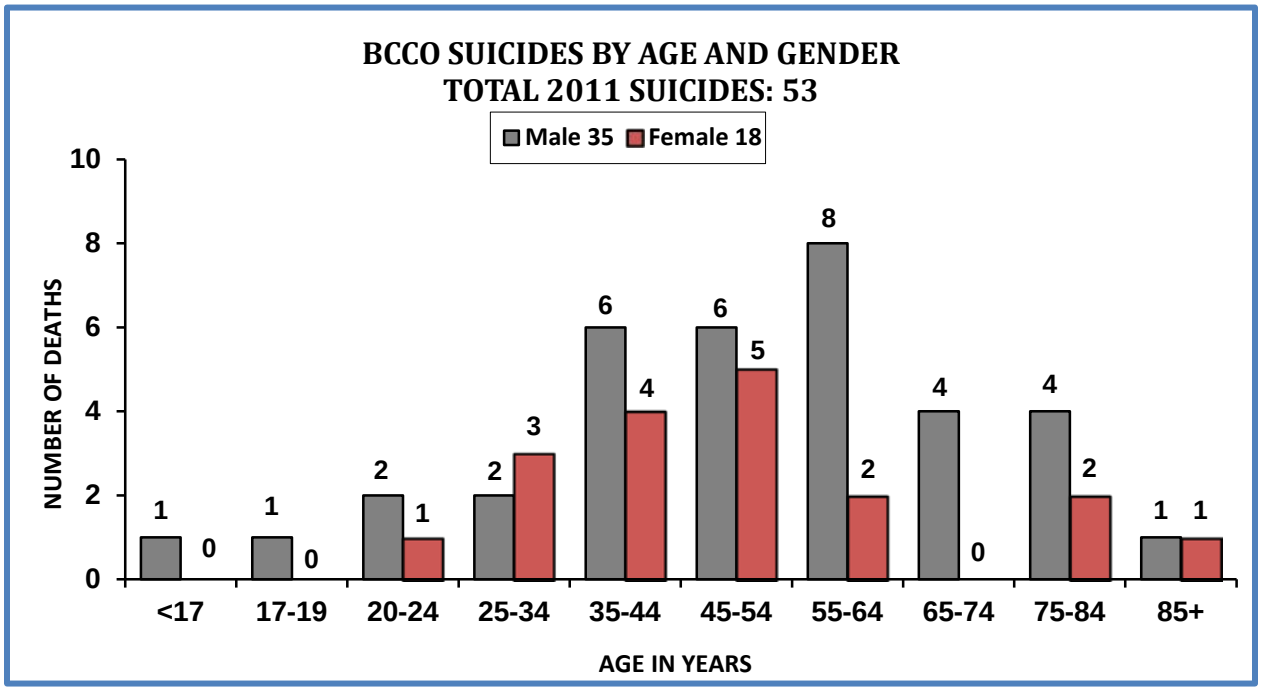
SUICIDES BY MONTH



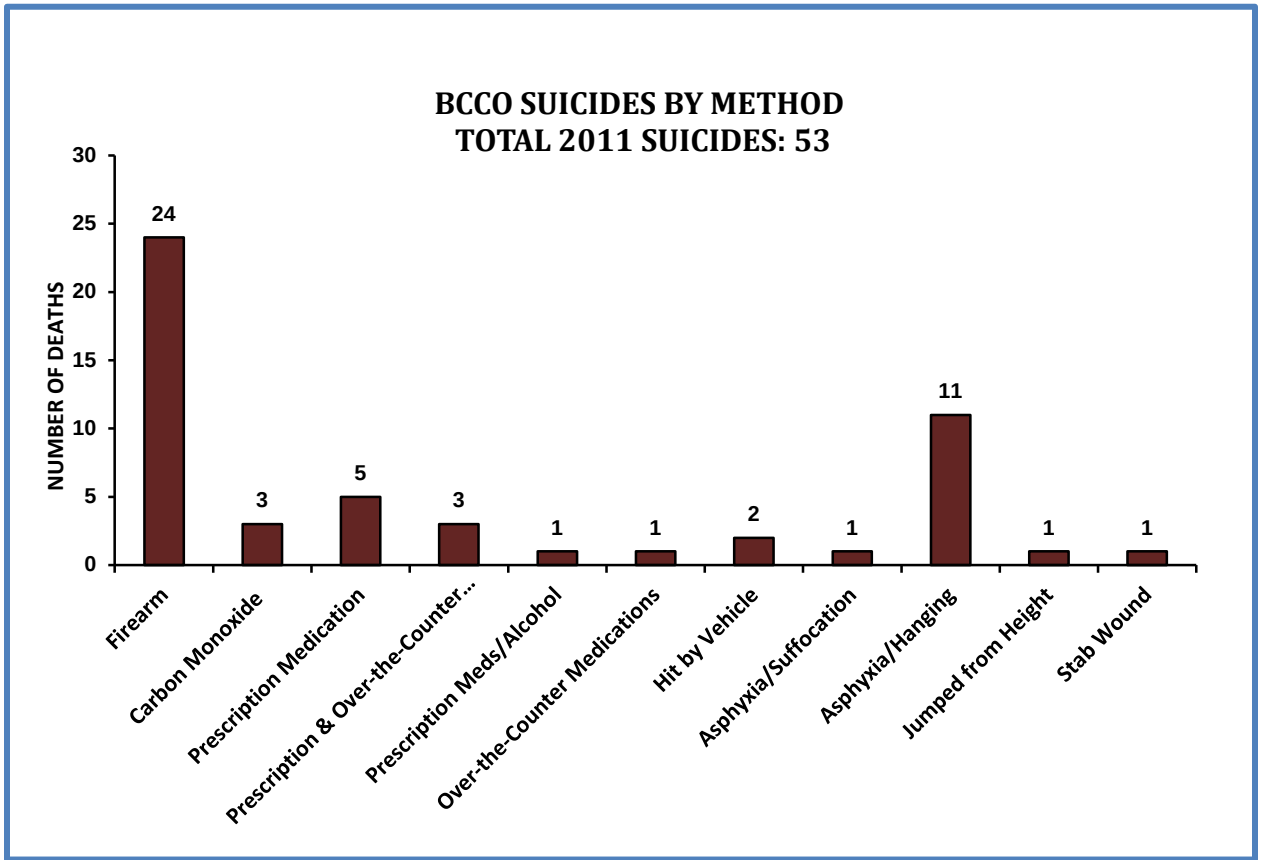
SUICIDES BY MARITAL STATUS AND GENDER

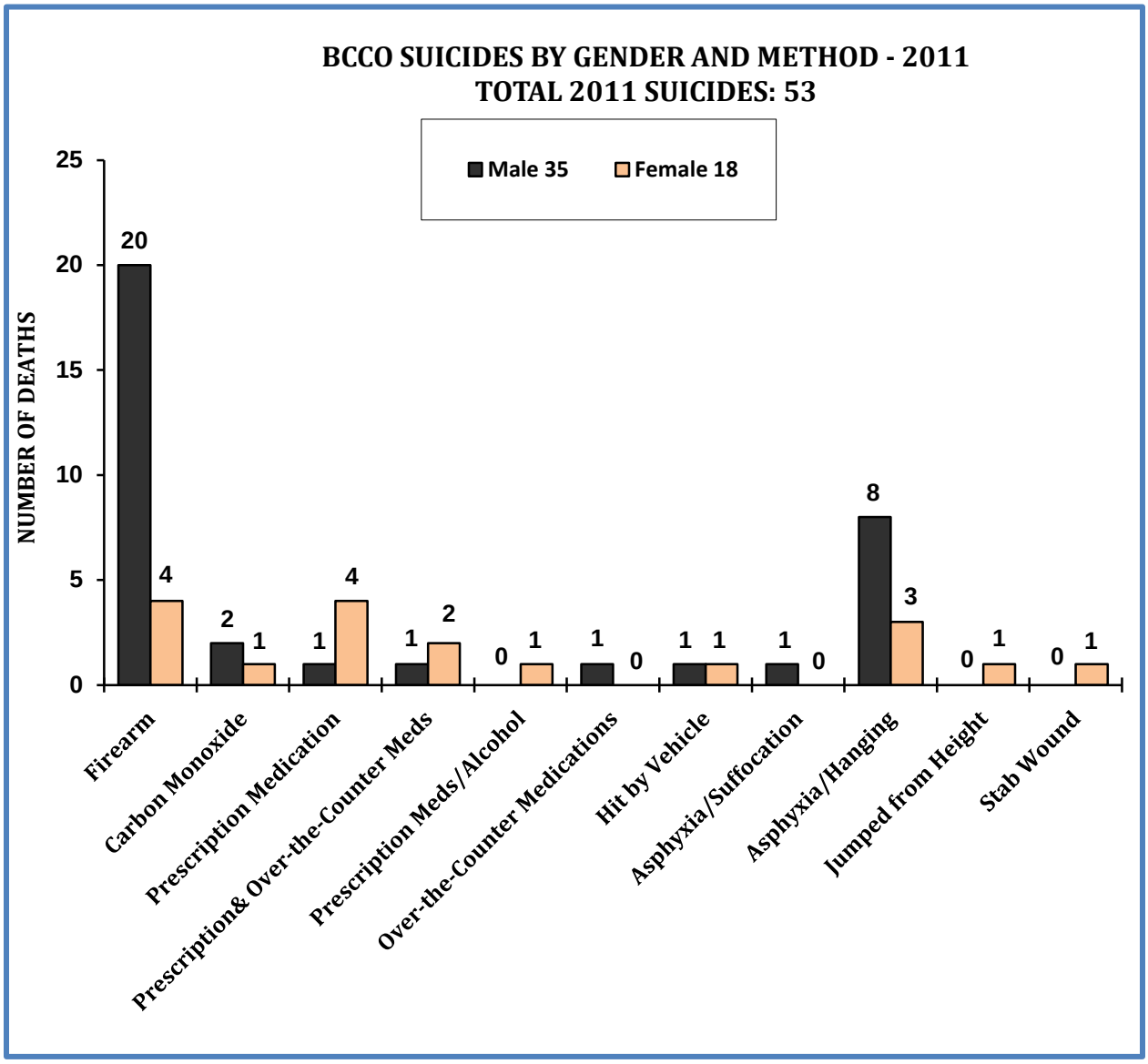


SUICIDES BY AGE AND GENDER

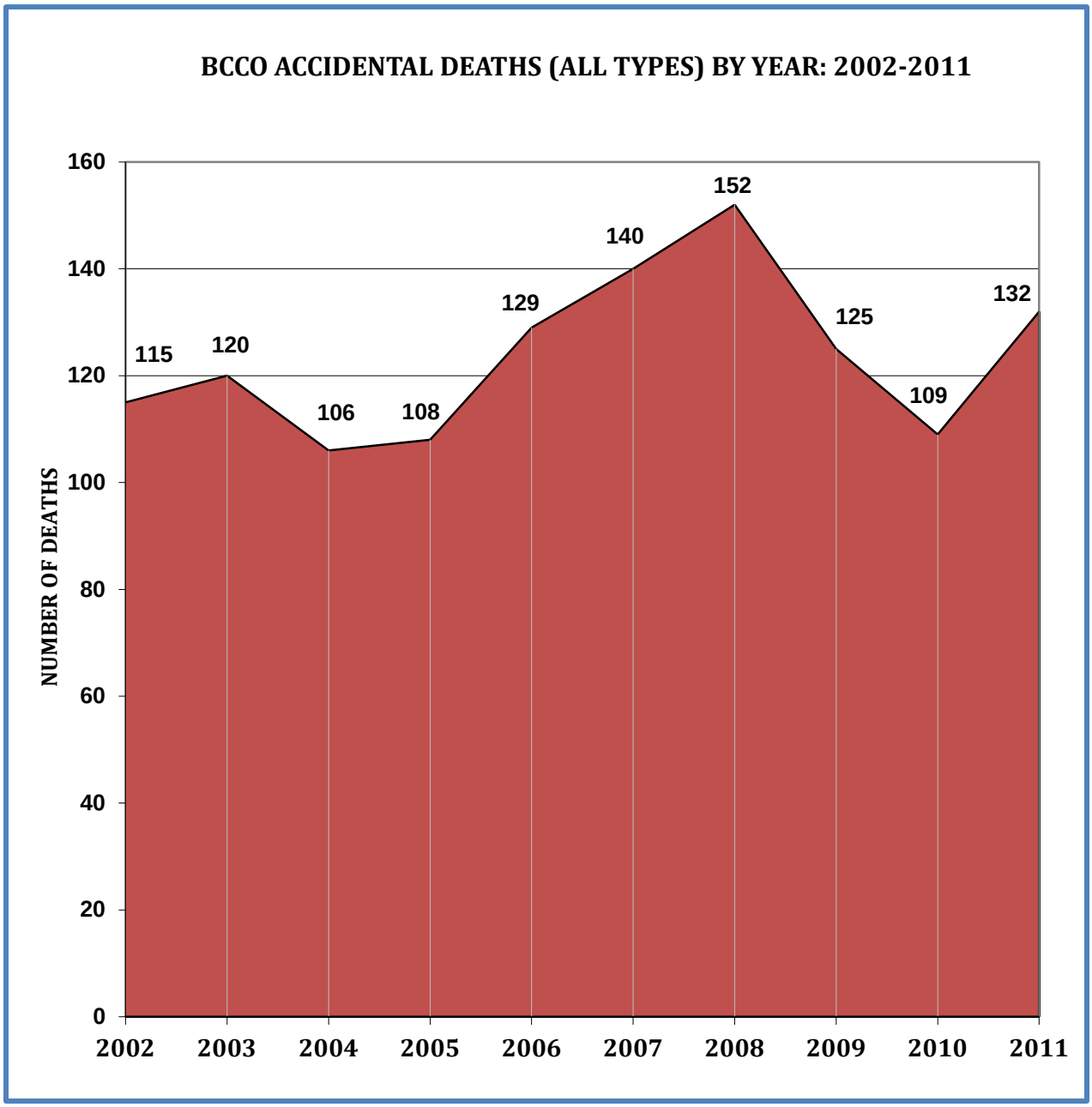


SUICIDES BY METHOD




BCCO SUICIDES BY GENDER AND METHOD - 2011
TOTAL 2011 SUICIDES: 53
Male 35
Female 18
NUMBER OF DEATHS
25
20
15
10
5
0
20
4
2
1
1
4
1
2
0
1
1
0
1
1
1
0
8
3
0
1
0
1
Firearm
Carbon Monoxide
Prescription Medication
Prescription& Over-the-Counter Meds
Prescription Meds/Alcohol
Over-the-Counter Medications
Hit by Vehicle
Asphyxia/Suffocation
Asphyxia/Hanging
Jumped from Height
Stab Wound

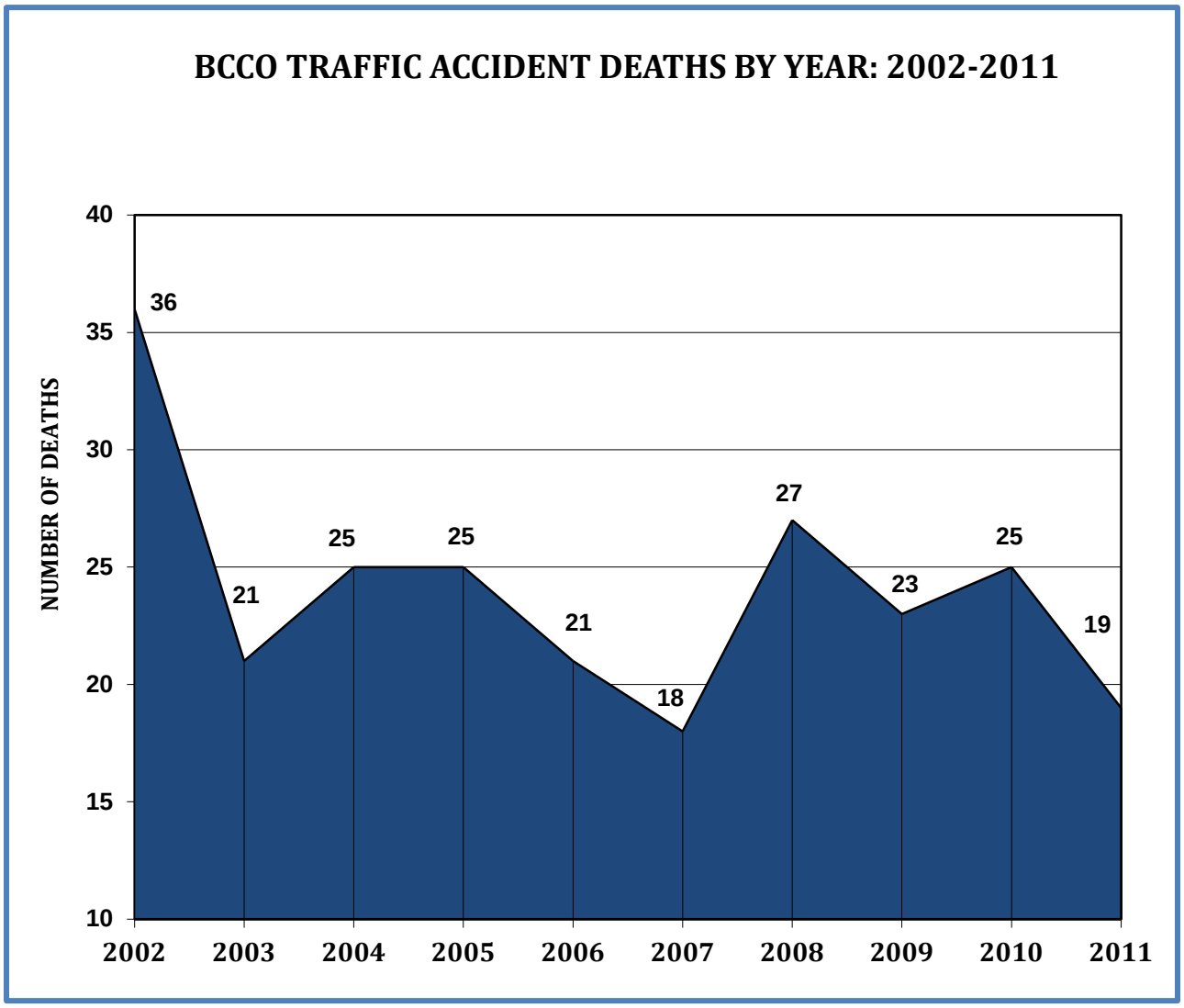
ACCIDENTAL DEATHS BY YEAR, ALL TYPES



Note: In 2011, a total of 161 accidental deaths were reported to the Boulder County Coroner, but twenty-nine of those cases were transferred to other coroners.

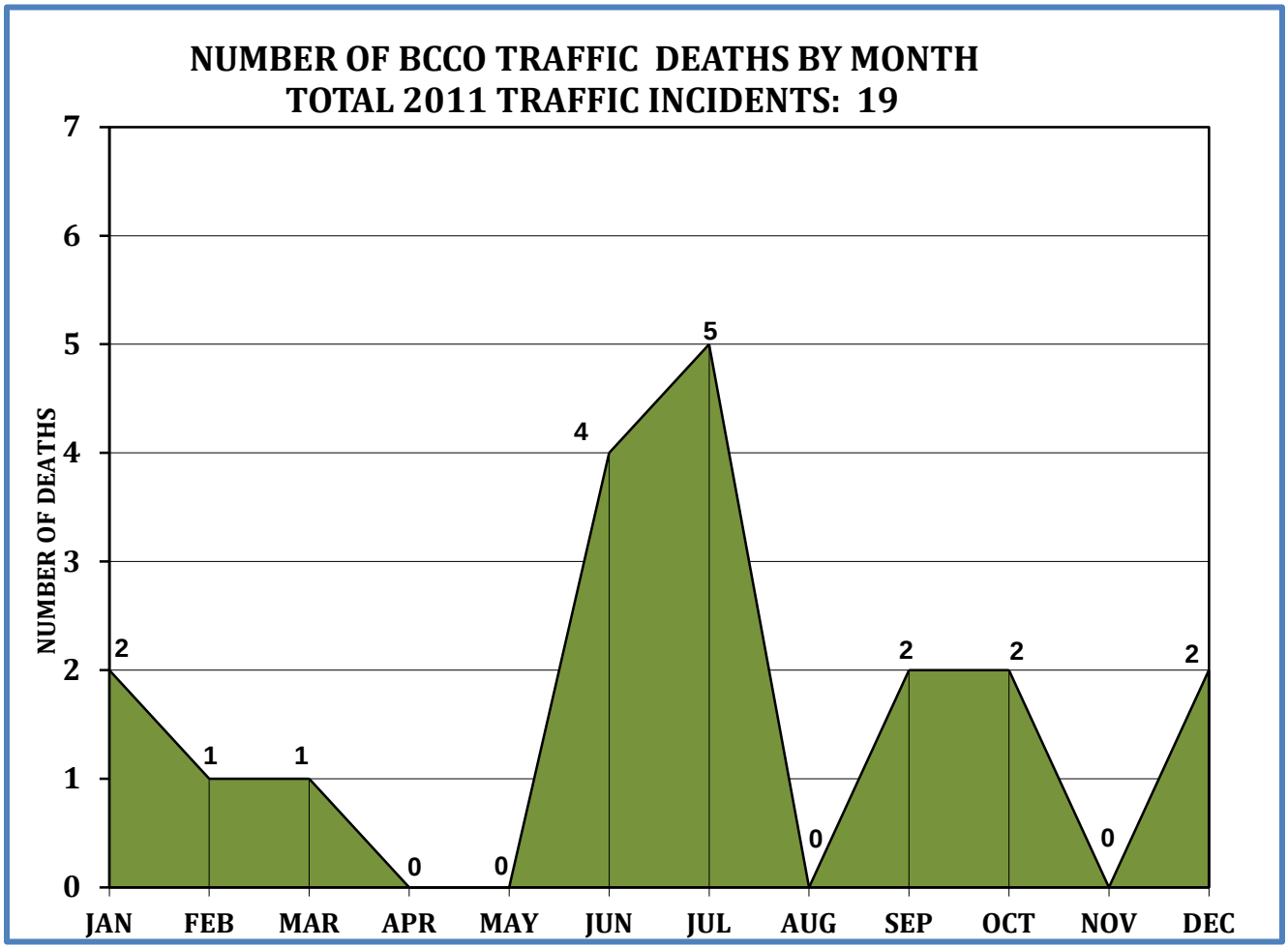
TRAFFIC INCIDENT DEATHS BY YEAR

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

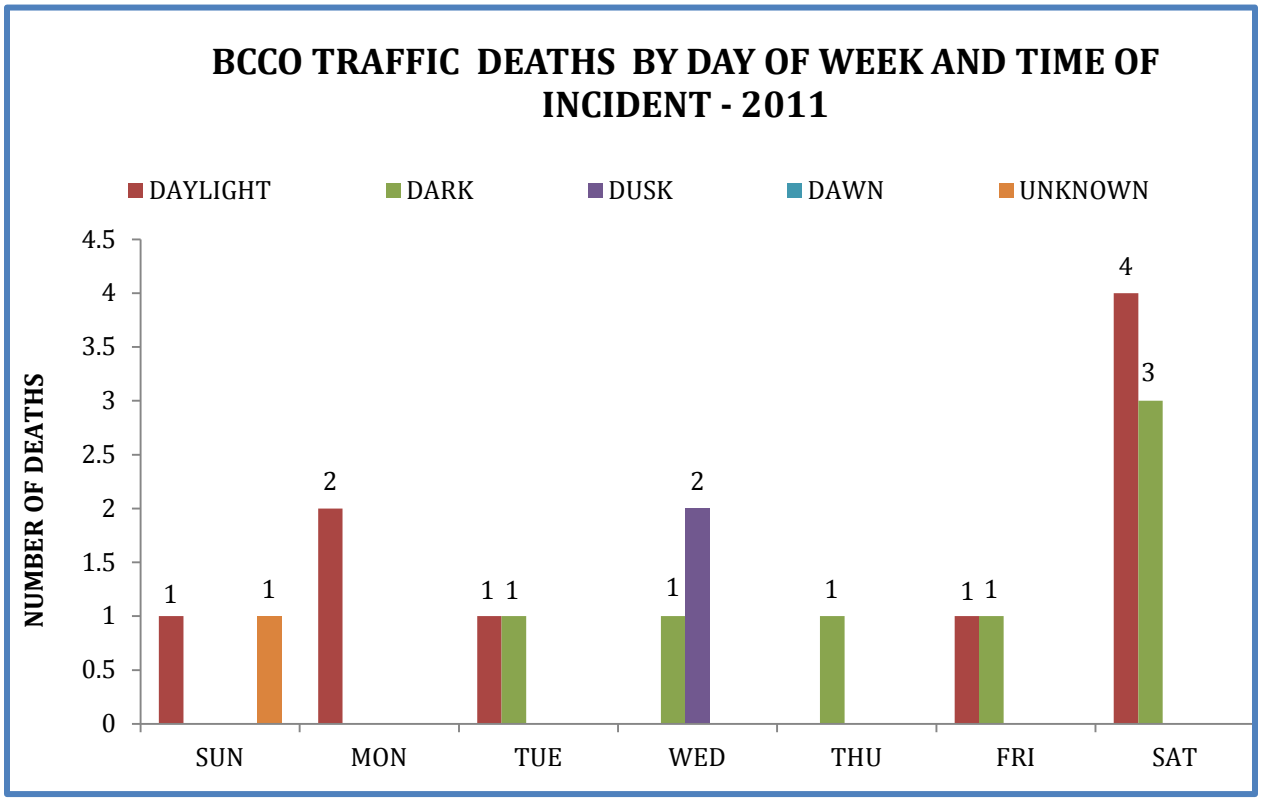


The Boulder County Coroner's Office investigated nineteen deaths resulting from traffic incidents in 2011. All of these incidents occurred in Boulder County. Of the nineteen deaths, fifteen of the victims were male and four were female. Their ages ranged from twenty-one to ninety-two years of age. Twelve people died in motor vehicle accidents (including automobiles, pickup trucks, SUVs and vans), one in a motorcycle accident, two in bicycle accidents and four were pedestrians struck by an automobile. Among the twelve vehicle fatalities that occurred in Boulder County, eight were drivers and four were passengers. Four drivers and two passengers were wearing seatbelts. Three of the drivers were not wearing a seatbelt and one driver the seatbelt status in unknown. One vehicle occupant was ejected. The one motorcyclist was wearing a helmet.

Note: There were a total of 24 traffic incident deaths reported to the Boulder County Coroner's Office in 2011. The Boulder County Coroner's Office investigated nineteen of these cases, the other cases were transferred to another coroner's jurisdiction.

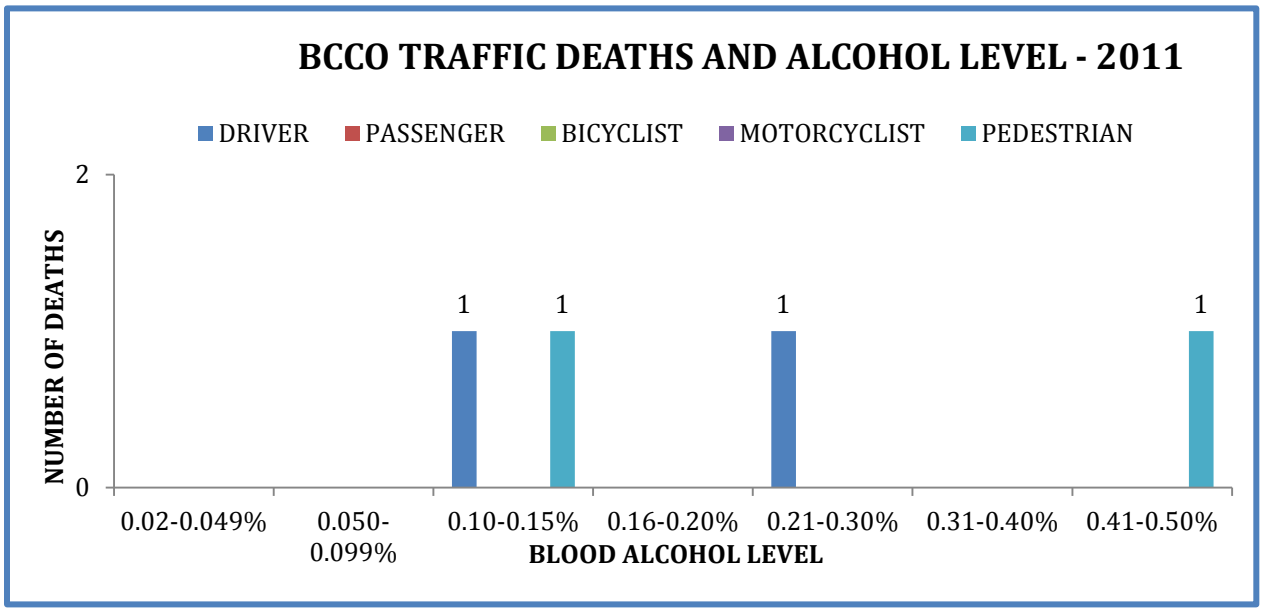

NUMBER OF BCCO TRAFFIC DEATHS BY MONTH
TOTAL 2011 TRAFFIC INCIDENTS: 19
NUMBER OF DEATHS
0
1
2
3
4
5
6
7
2
1
1
0
0
4
5
0
2
2
0
2
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC

TRAFFIC DEATHS BY DAY OF WEEK AND TIME OF INCIDENT

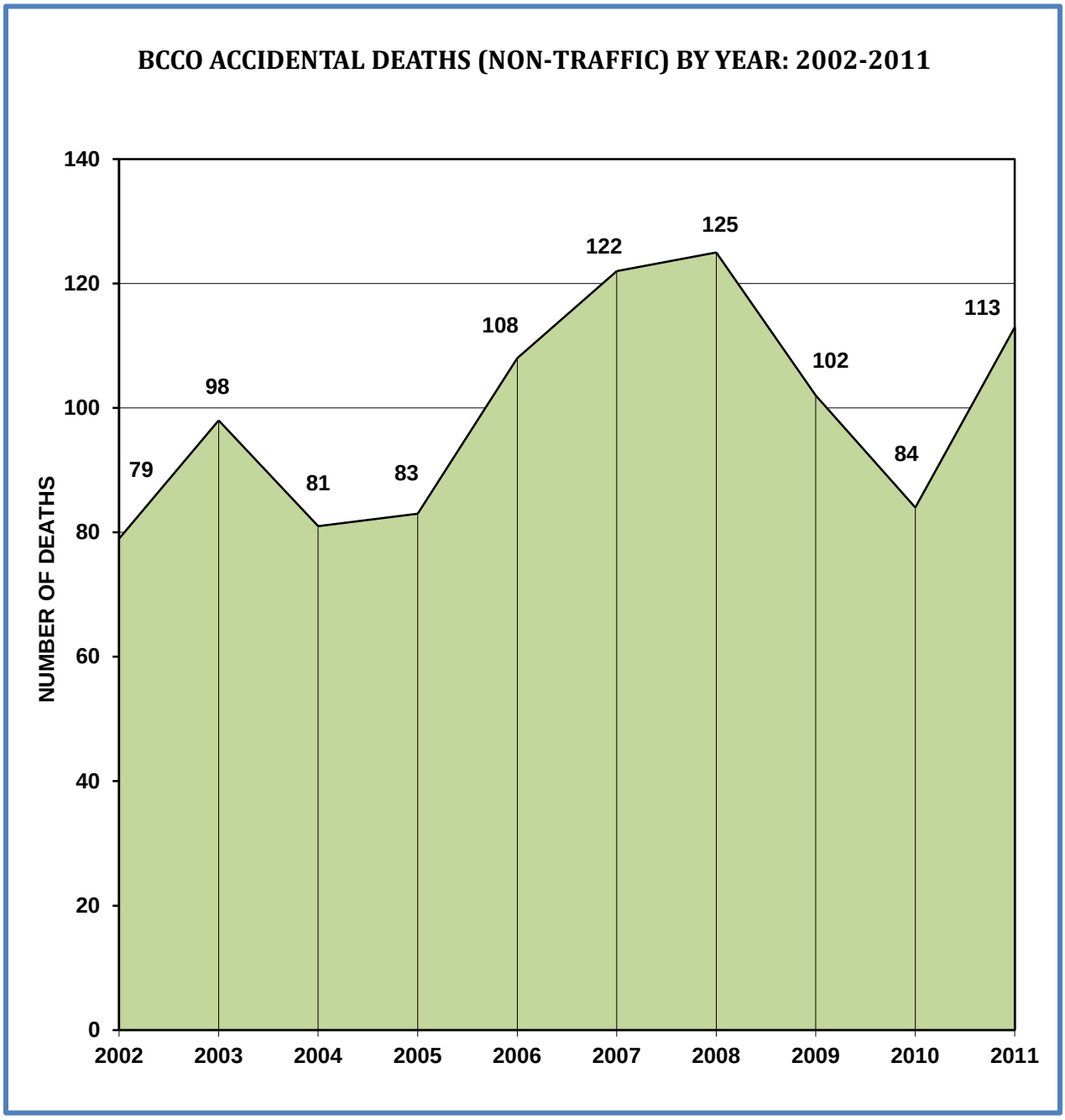


Note: Time of incident, not death

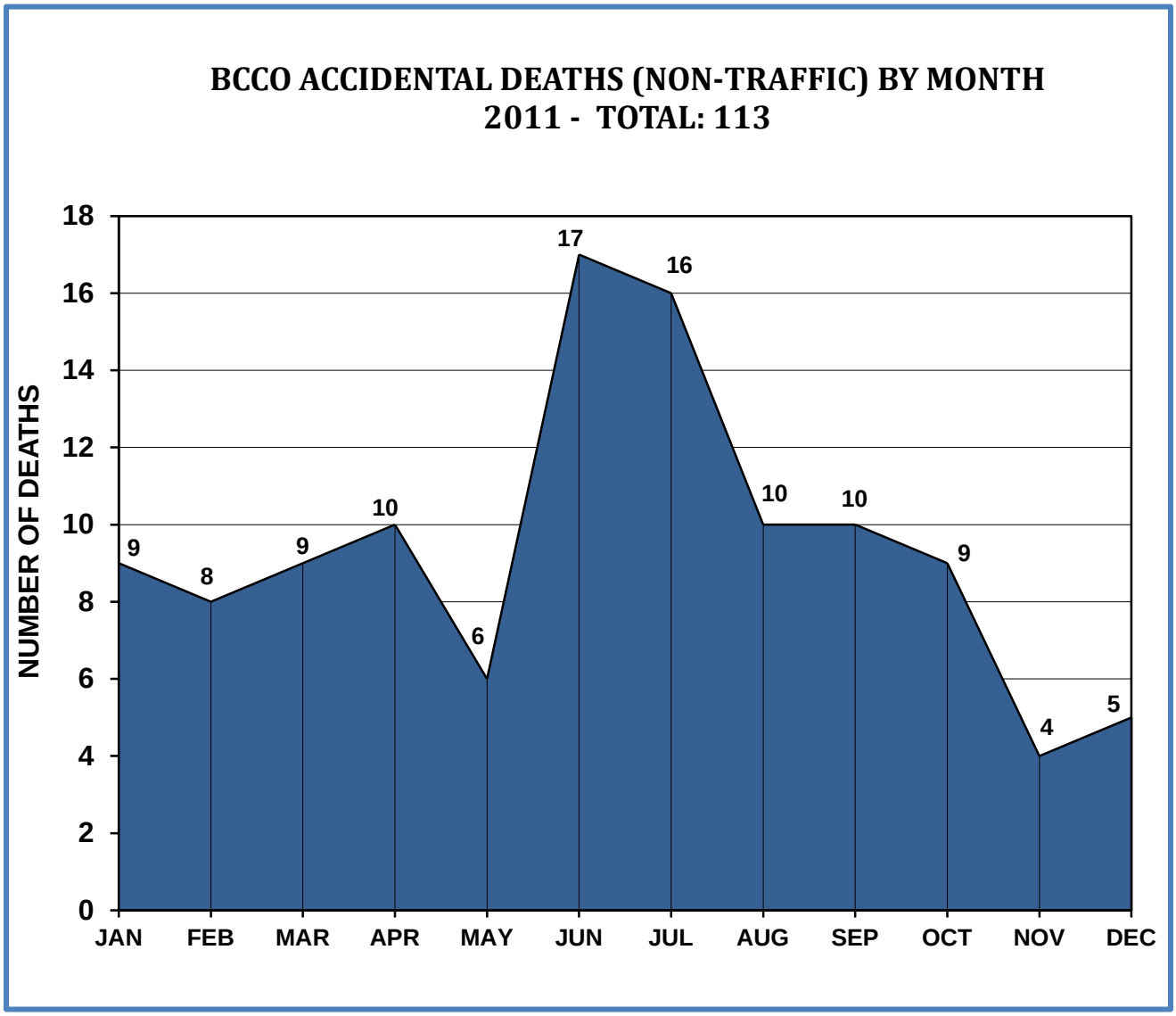
ALCOHOL AND TRAFFIC DEATHS

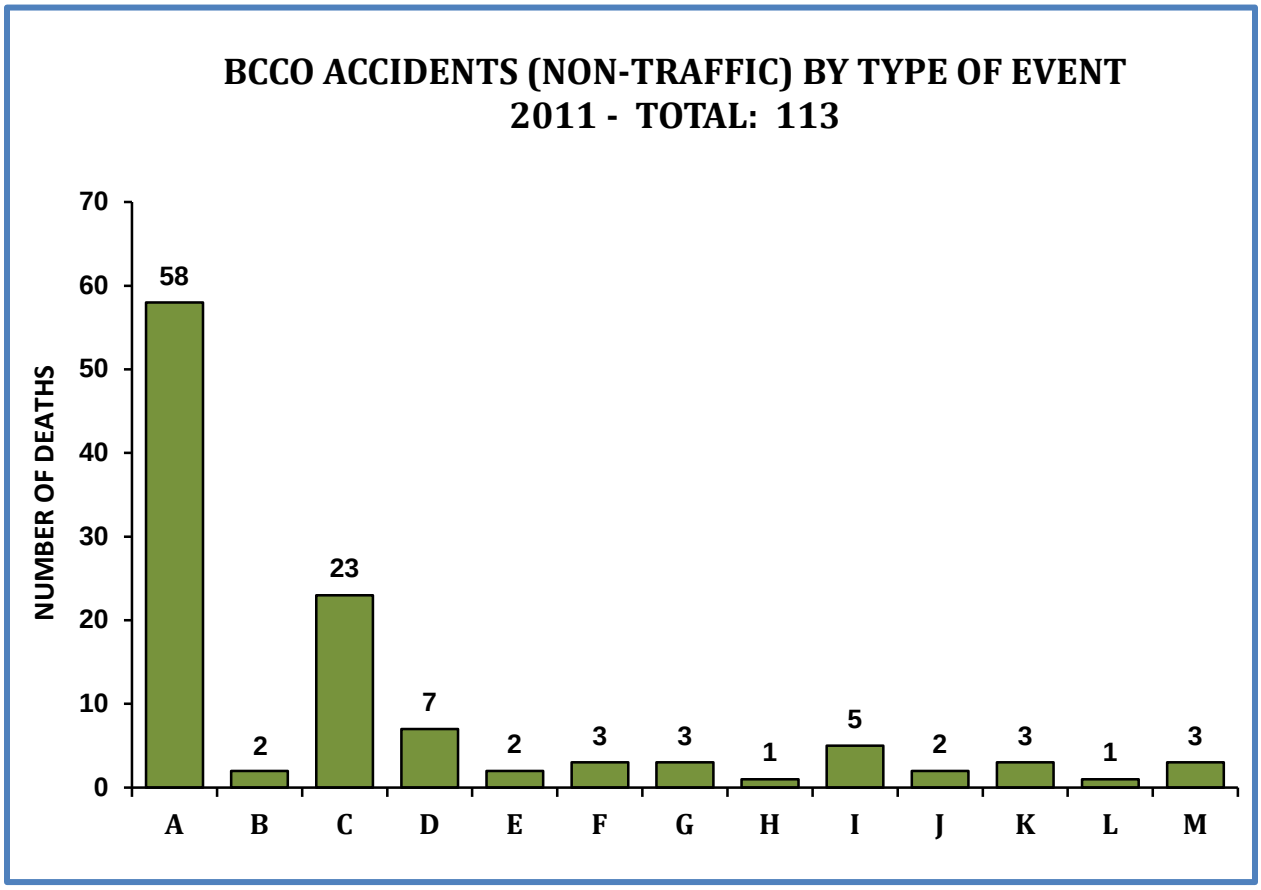


In Colorado in 2011, a driver is presumed to be Driving While Ability Impaired (DWAI) when a blood alcohol or breath concentration (BAC) is between .050% and .079&. Prior to July 1, 2004 the blood alcohol concentration threshold was .10% to be considered Driving Under the Influence (DUI). As of July 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.



Note: There were a total of 137 non-traffic accidents reported to the Boulder County Coroner's Office in 2011. The Boulder County Coroner's Office investigated 113 of those cases and transferred jurisdiction of twenty-four cases to other coroners.

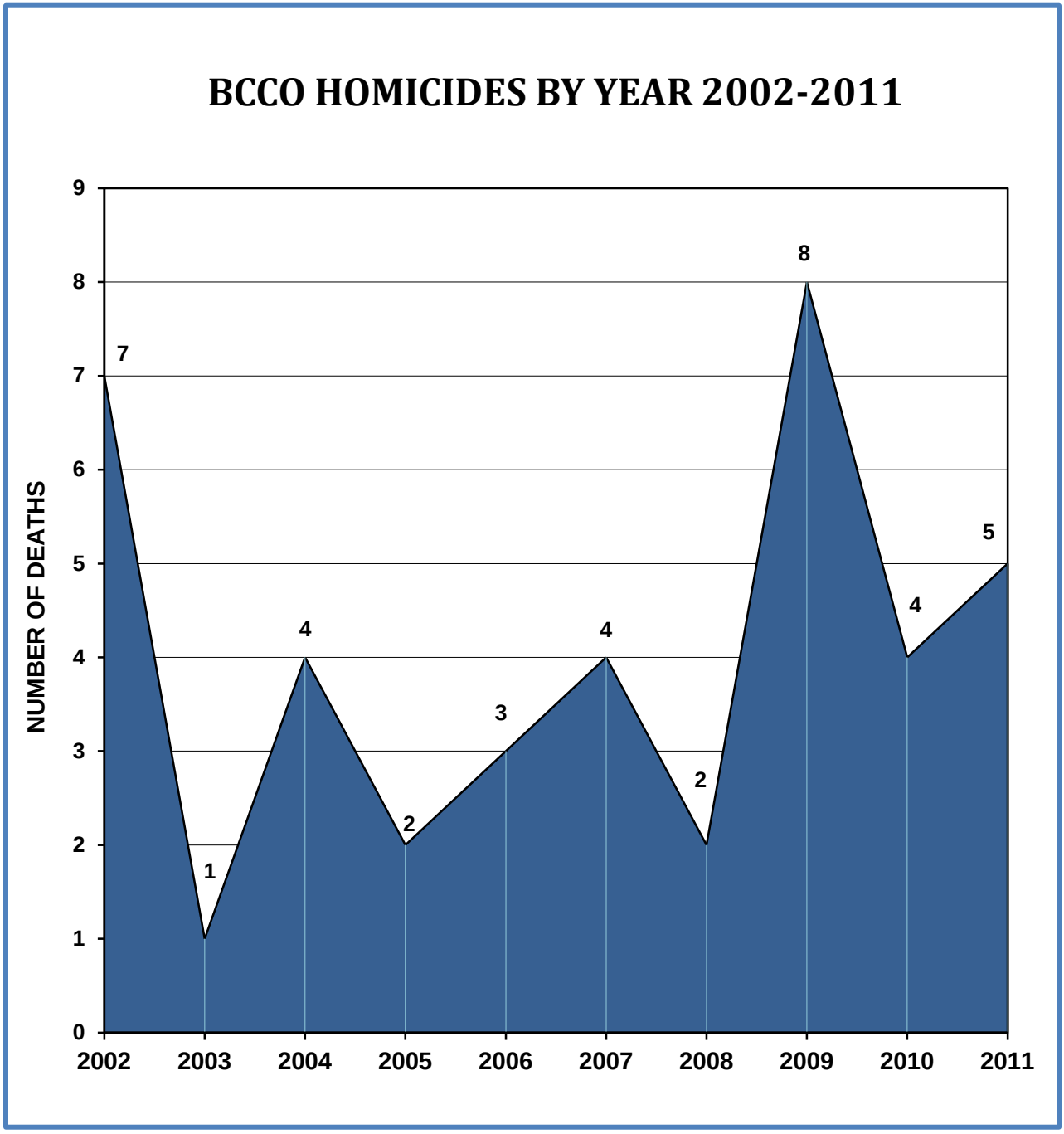

BCCO ACCIDENTAL DEATHS (NON-TRAFFIC) BY MONTH
2011 - TOTAL: 113
NUMBER OF DEATHS
0
2
4
6
8
10
12
14
16
18
9
8
9
10
6
17
16
10
10
9
4
5
JAN
FEB
MAR
APR
MAY
JUN
JUL
AUG
SEP
OCT
NOV
DEC

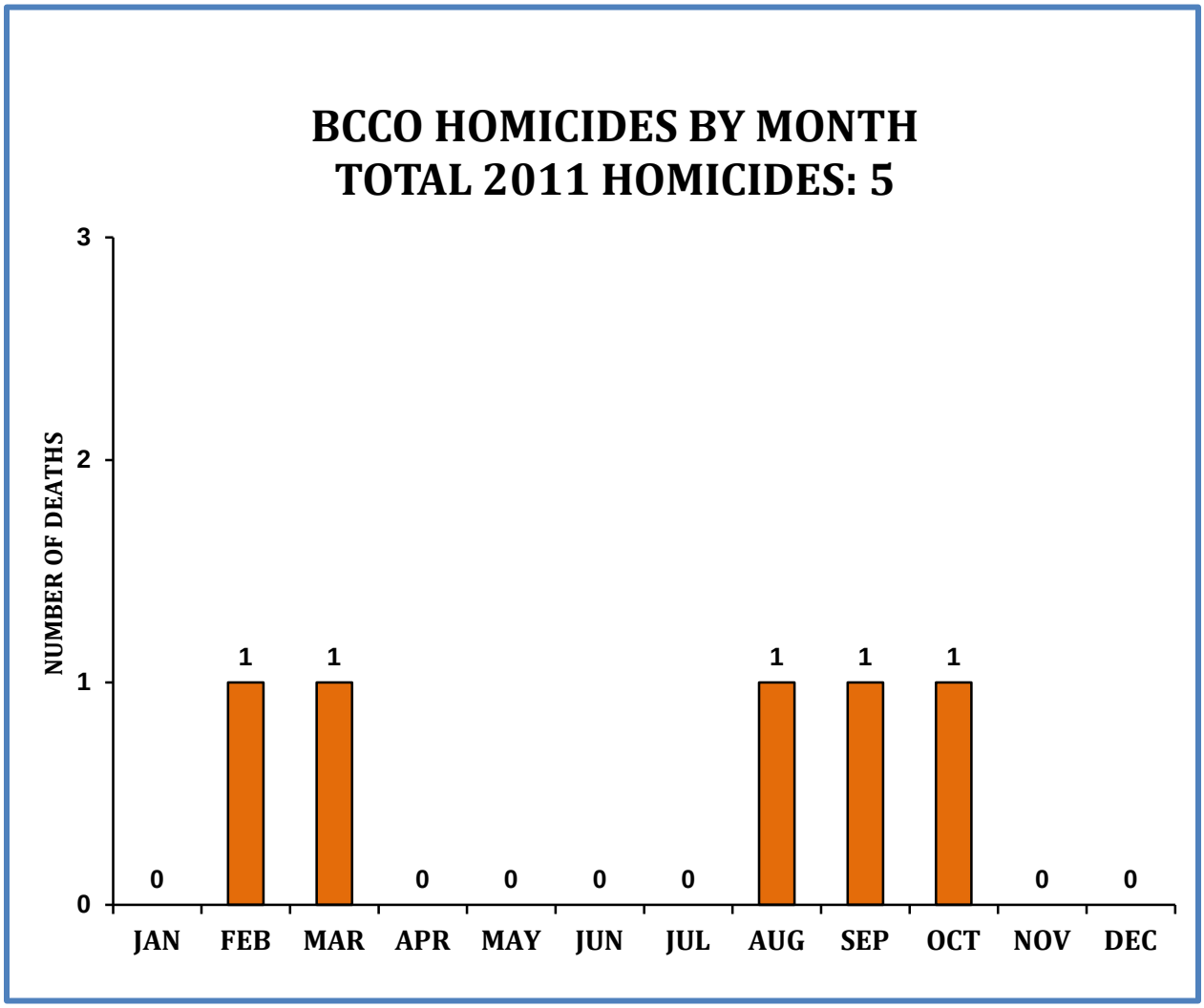


LEGEND:

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 - Unknown

HOMICIDES BY YEAR



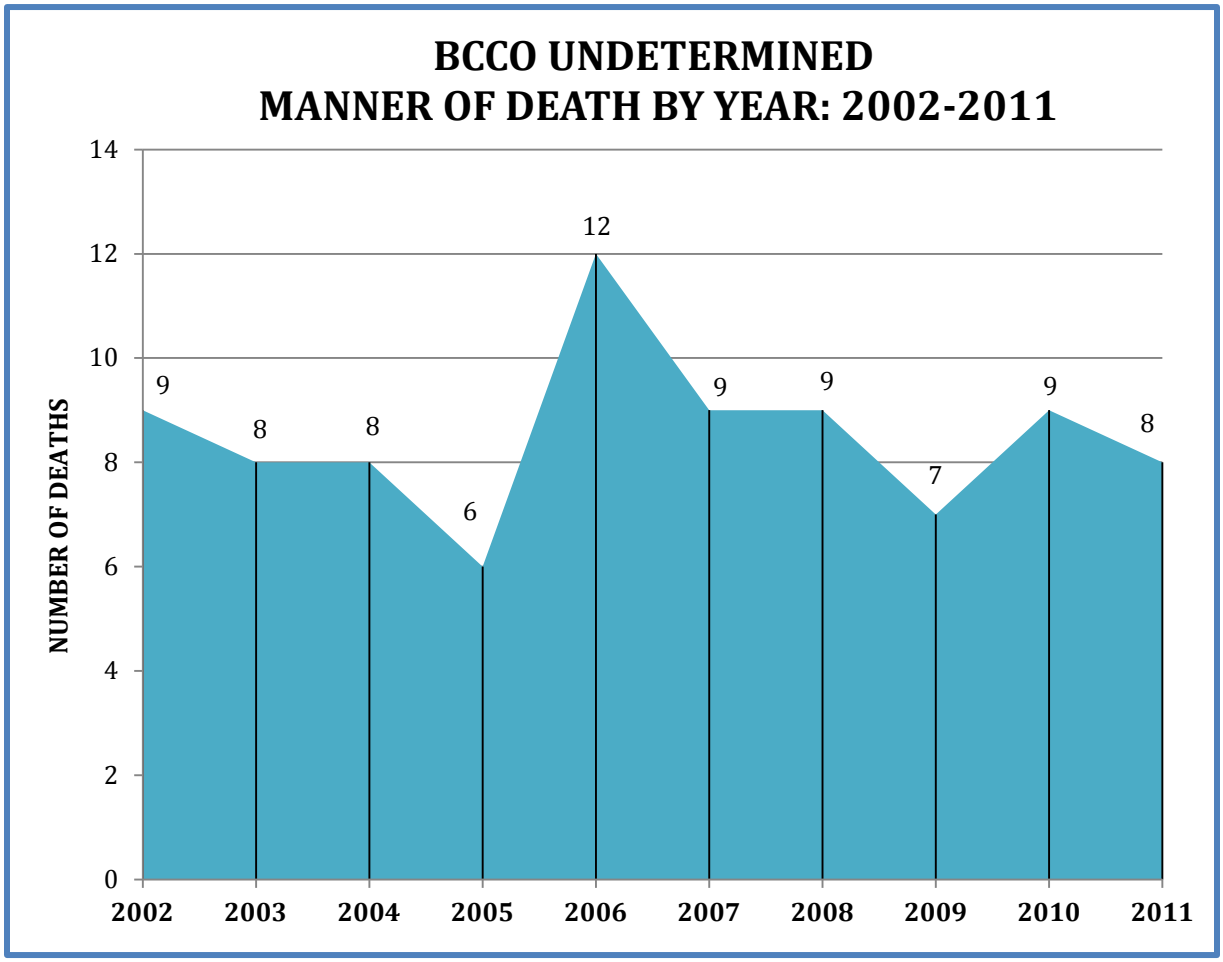


In 2011, two of the victims of homicide were male. Two homicide victims died of gunshot wounds, two died of blunt force injuries and one died of a stab wound.

DEATHS OF UNDETERMINED MANNER

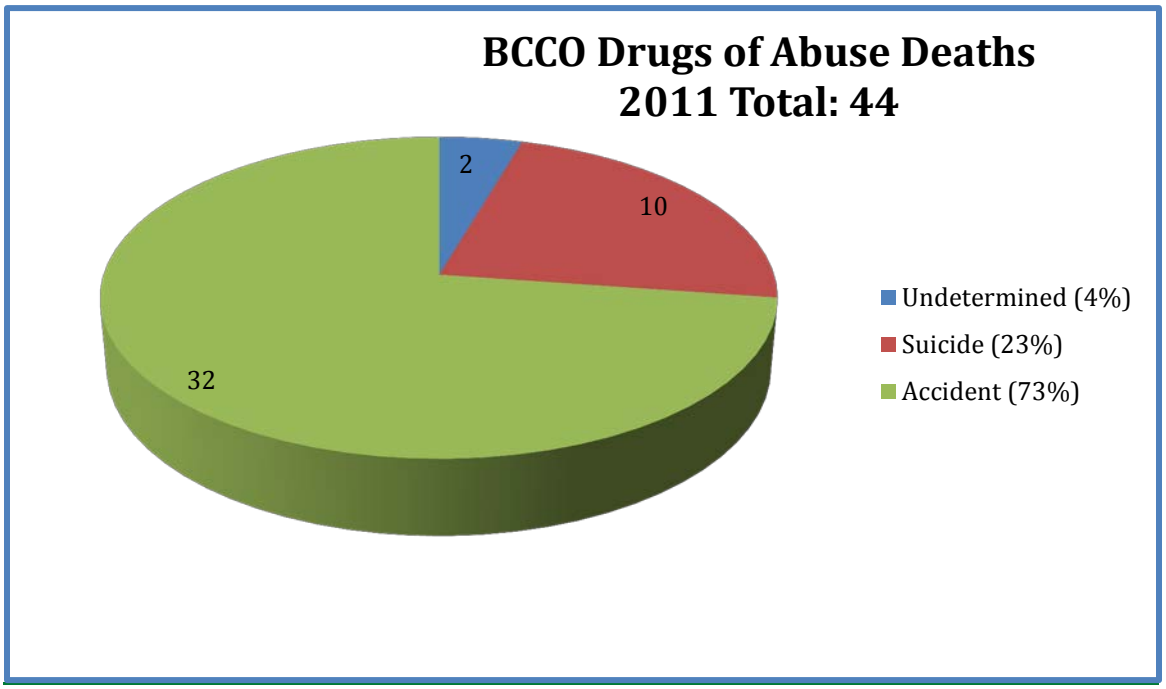
Occasionally, medical examiners and coroners encounter cases that, despite a complete autopsy, comprehensive toxicology tests, and a thorough scene investigation, no cause of death can be determined. Medical examiners and coroners also encounter cases where the cause of death is quite apparent; but the 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

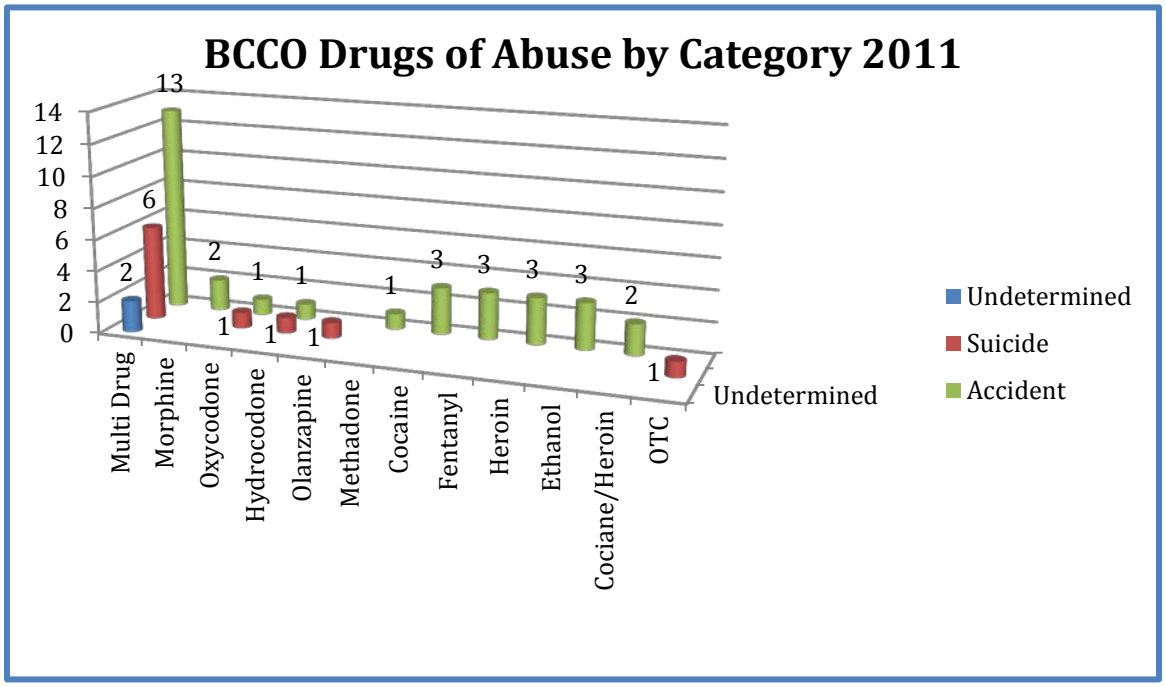


Note: One of the undetermined cases in 2011 was a missing person where there was a court order for the coroner to sign a death certificate in April of 2011.

DRUG DEATHS BY MANNER



DRUGS OF ABUSE BY CATEGORY



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 2011 there were 3 drowning cases. All three decedents were male, the ages were 3, 54 and 58. All three cases were classified as accidental deaths.

CHILD DEATHS

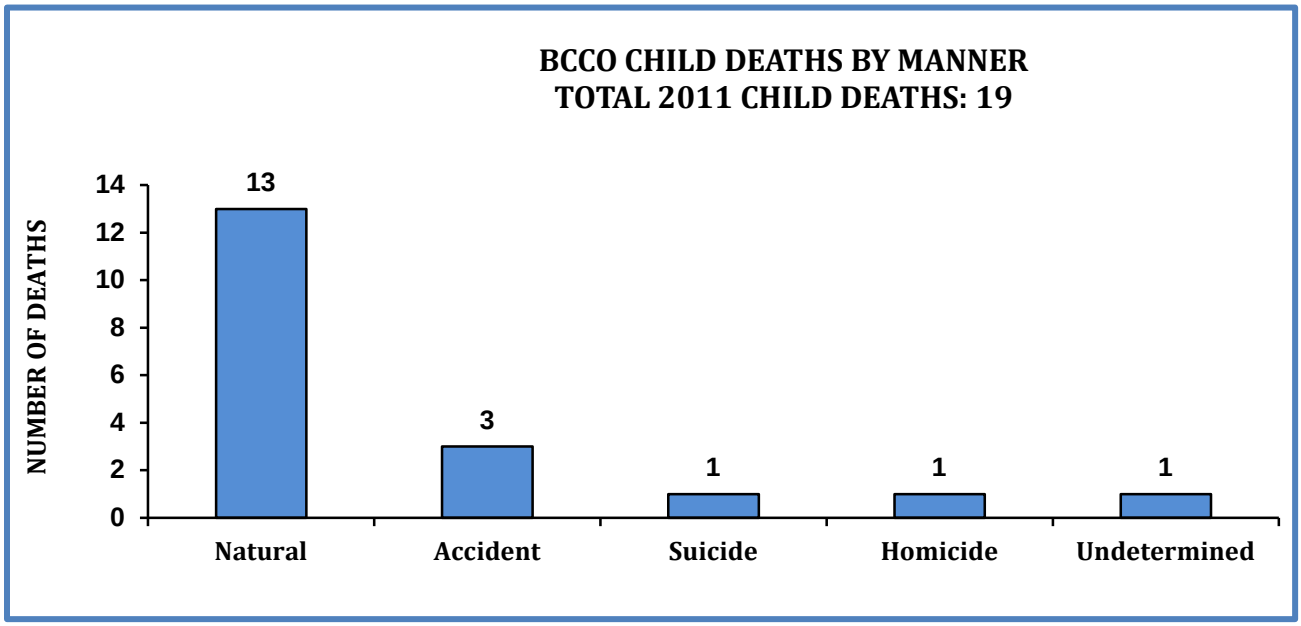
The Boulder County Coroner's Office participates in the Colorado Child Fatality Review Committee. This committee reviews deaths of children under 18 years of age. The goals of the committee are:

- *To describe trends and patterns of child deaths in Colorado.*
- *To identify and investigate the prevalence of risk factors for child death.*
- *To characterize high risk groups in terms that is compatible with the development of public policy.*
- *To evaluate the service and system responses to children and families who are at high risk and to offer recommendations for improvement in those responses.*
- *To improve the quality and scope of data necessary for child death investigation and review.* [3]

In Boulder County a total of nineteen child deaths (<18 years of age) were **reported** to the Coroner's Office in 2011. Two additional child death cases were transferred to other Coroners.

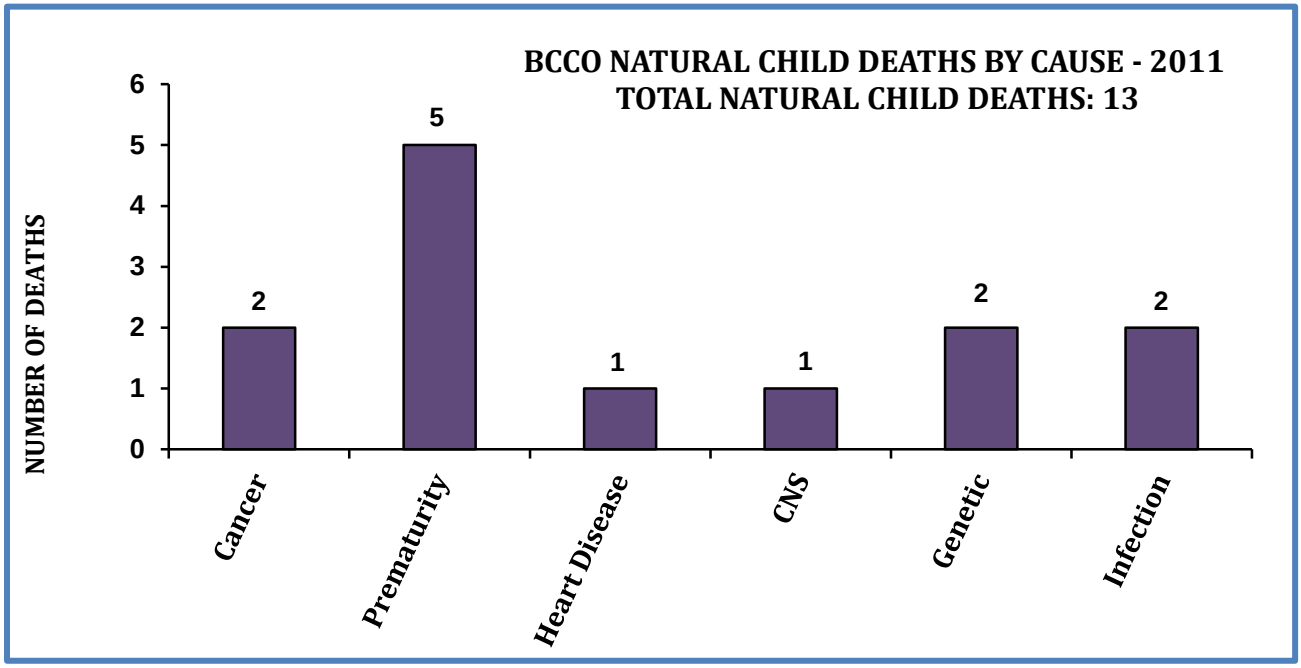
Note: Statistical information may not coincide with information available from the Colorado Health Department. The State Health Department tracks death statistics by the county of residence, not by the county in which the injury or death occurred.

CHILD DEATHS BY MANNER OF DEATH



- **Accident:** The first accidental death was a premature birth due to maternal cocaine intoxication, the second accidental death was due to drowning (age 3) and the third accidental death was due to positional asphyxia (7 months).
- **Suicide:** The suicide method was firearm (age 13).
- **Homicide:** The homicide method was firearm (age 3).
- **Undetermined:** The cause of death was also undetermined (age 13 days).

CHILD DEATHS BY CAUSE OF NATURAL DEATHS

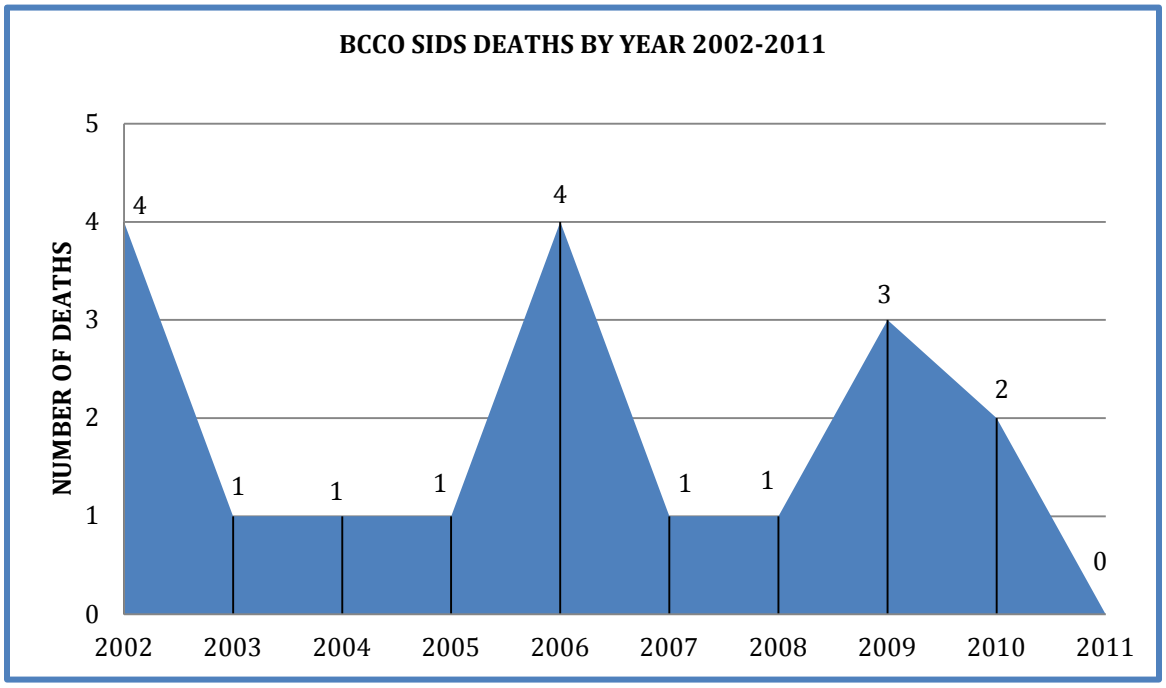


SUDDEN UNEXPLAINED INFANT DEATH (SUID) AND SUDDEN INFANT DEATH SYNDROME (SIDS)

The Center for Disease and Prevention defines 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 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.

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.

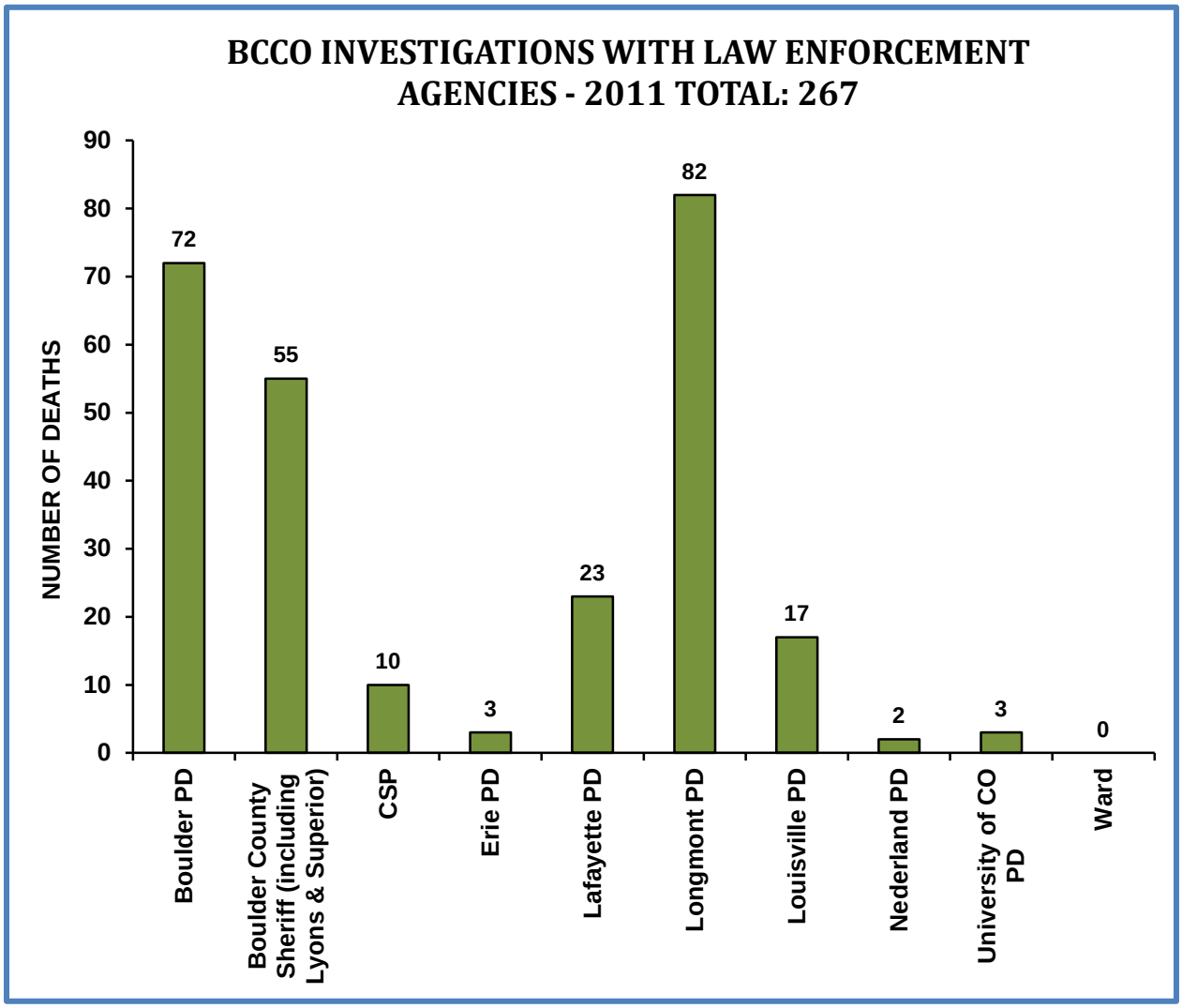
The American Academy of Pediatrics (AAP) started its "Back to Sleep" campaign in 1992 informing the public of its recommendation that infants be placed for sleep in a non-prone position on their back, in an effort to prevent SIDS deaths. The CDC makes ongoing efforts to prevent SUID and SIDS death and 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.[4]



LAW ENFORCEMENT

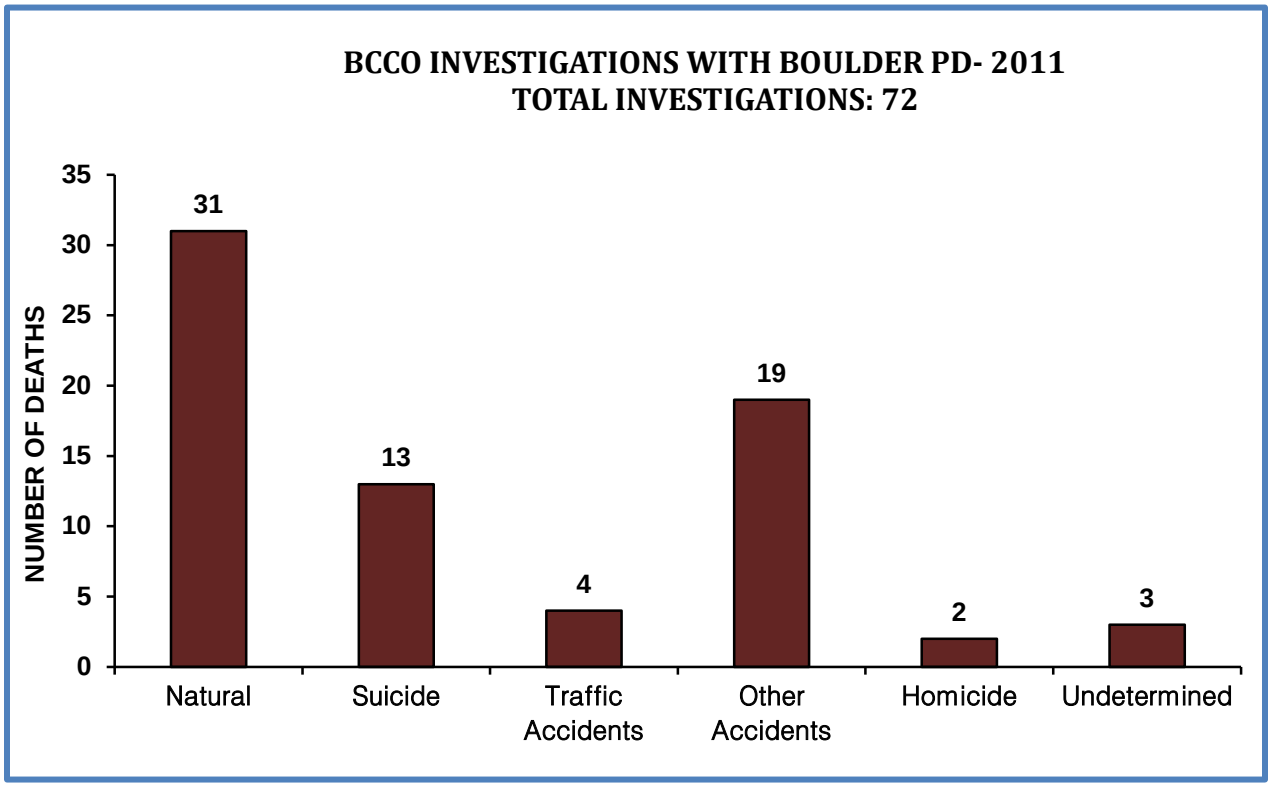
The Boulder County Coroner's Office works with the law enforcement agencies that cover jurisdiction in Boulder County. The charts in this section show the number of cases investigated with these agencies. Please note that the number of investigations listed may differ from those in the "Coroner Response" 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

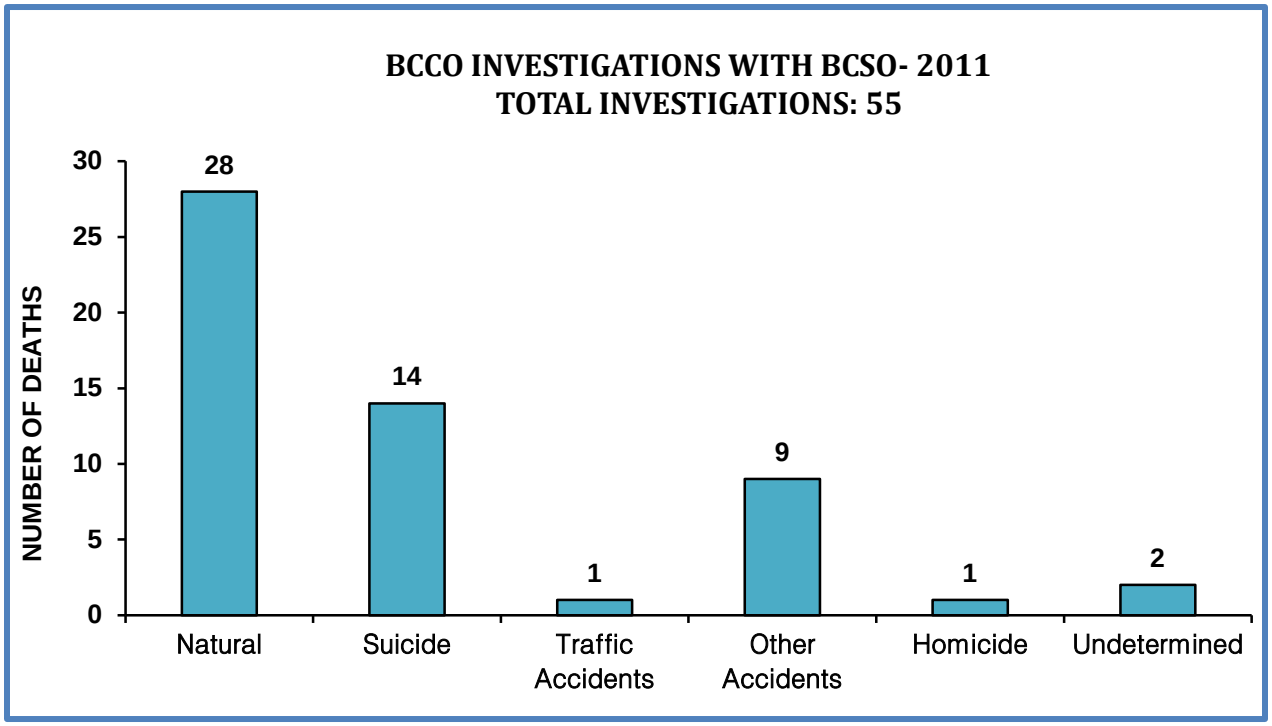


Note: The jurisdiction of the Boulder County Sheriff's Department includes unincorporated areas of Boulder County and the towns of Superior and Lyons.

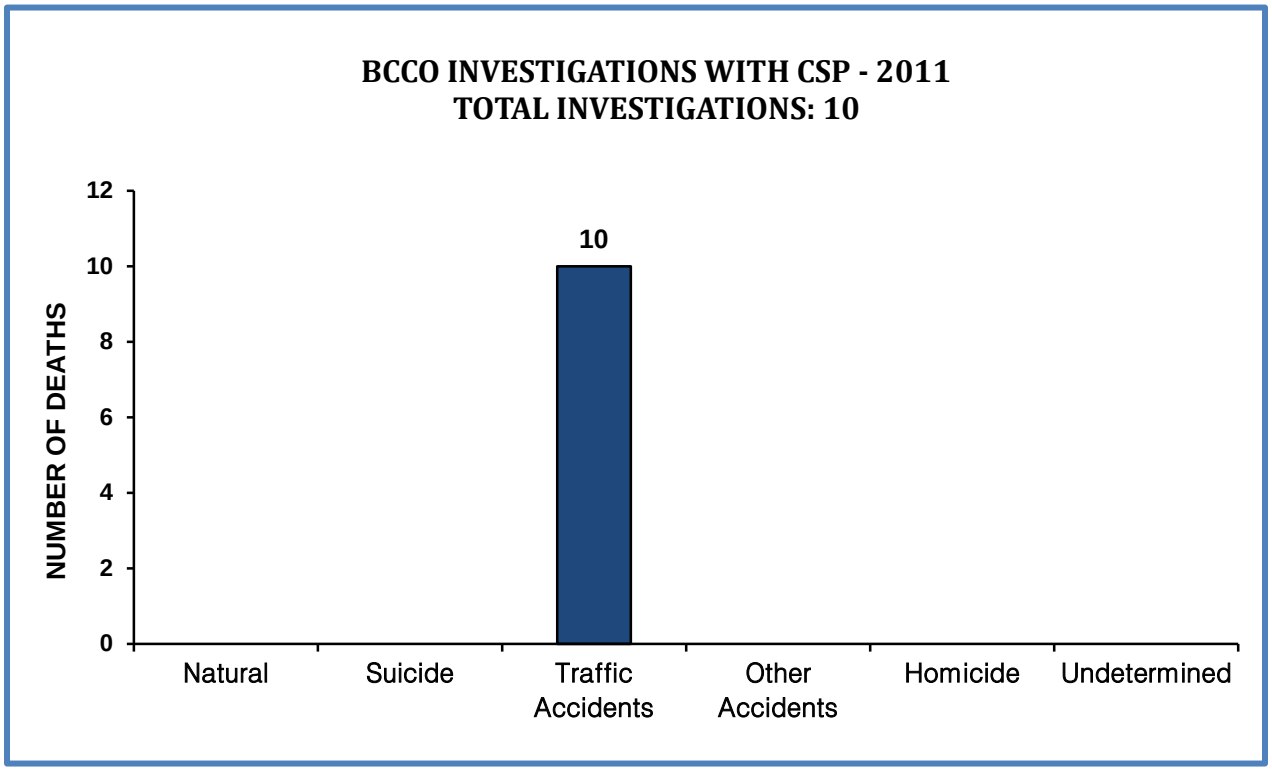
BOULDER POLICE DEPARTMENT



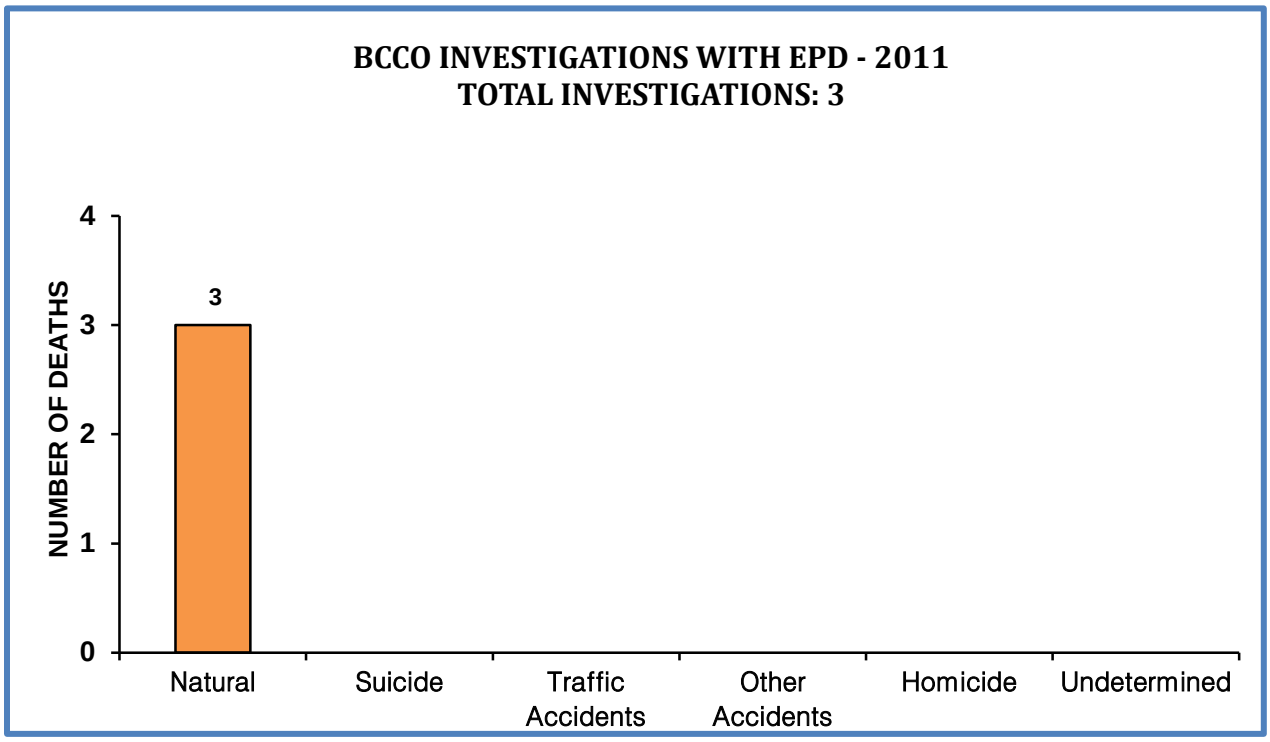
BOULDER COUNTY SHERIFF'S OFFICE



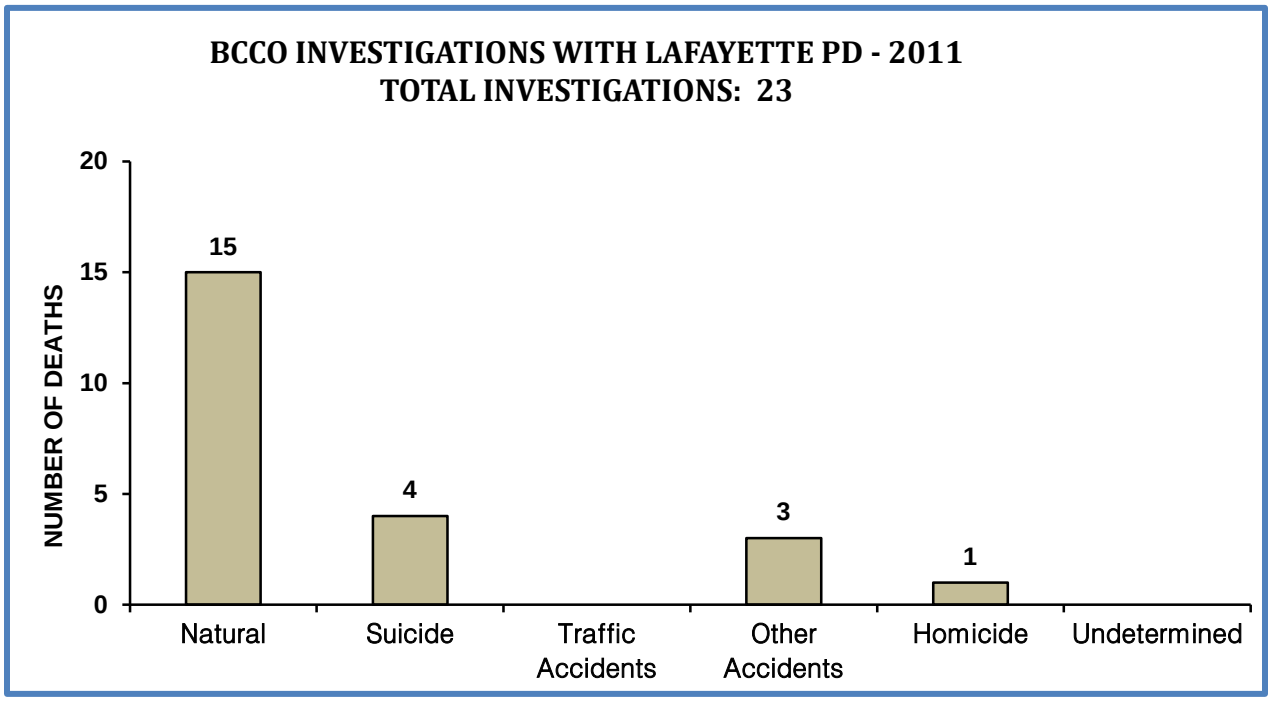
COLORADO STATE PATROL



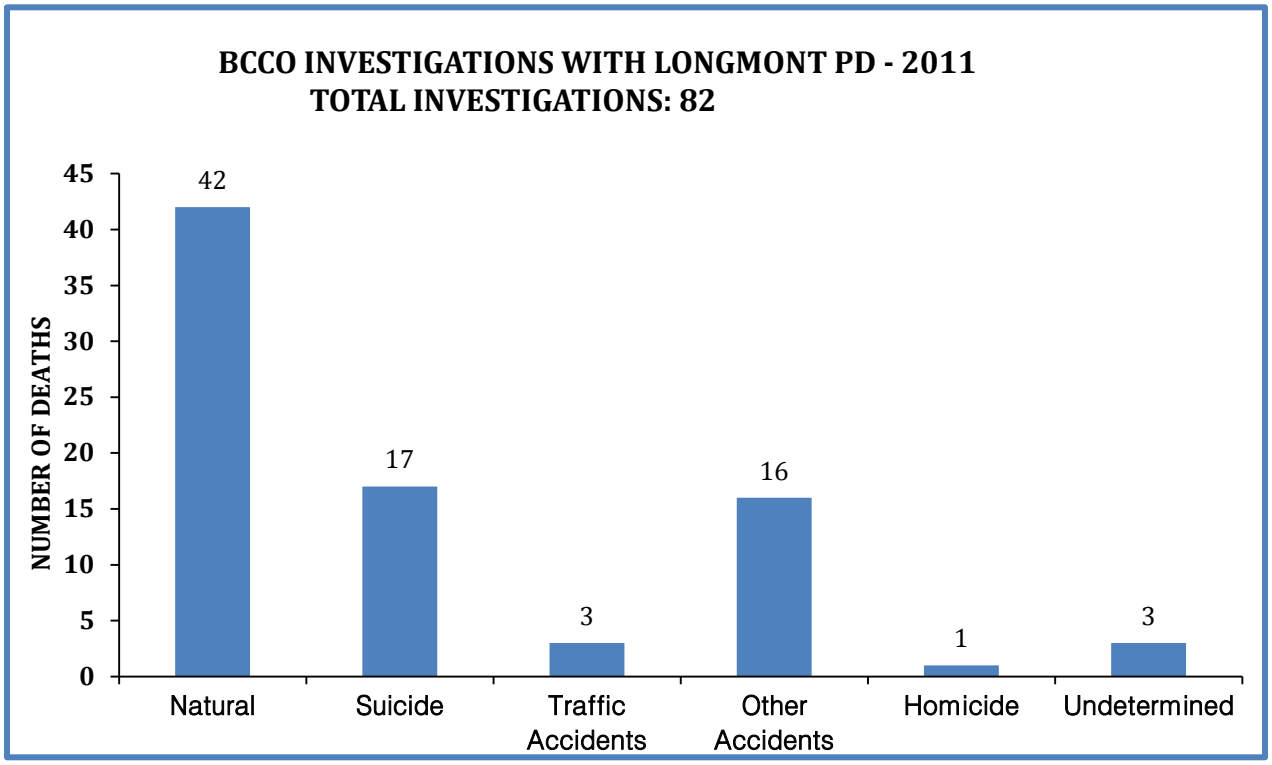
ERIE POLICE DEPARTMENT



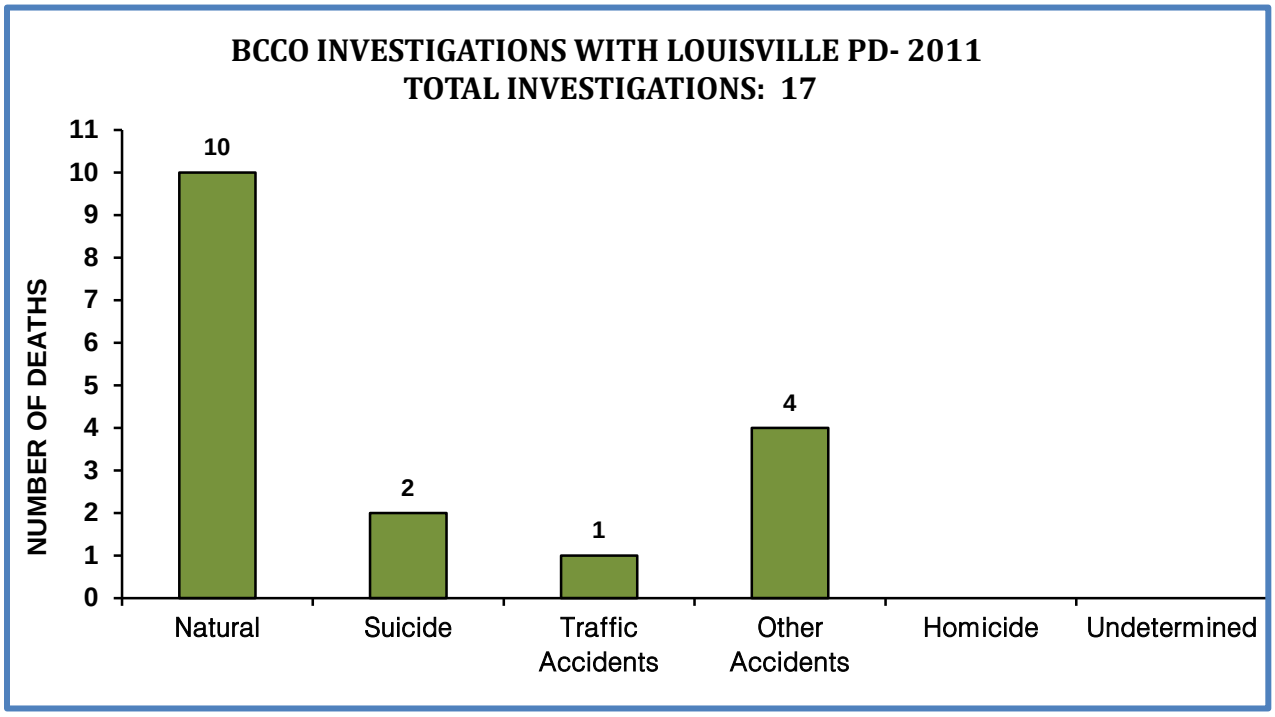
LAFAYETTE POLICE DEPARTMENT



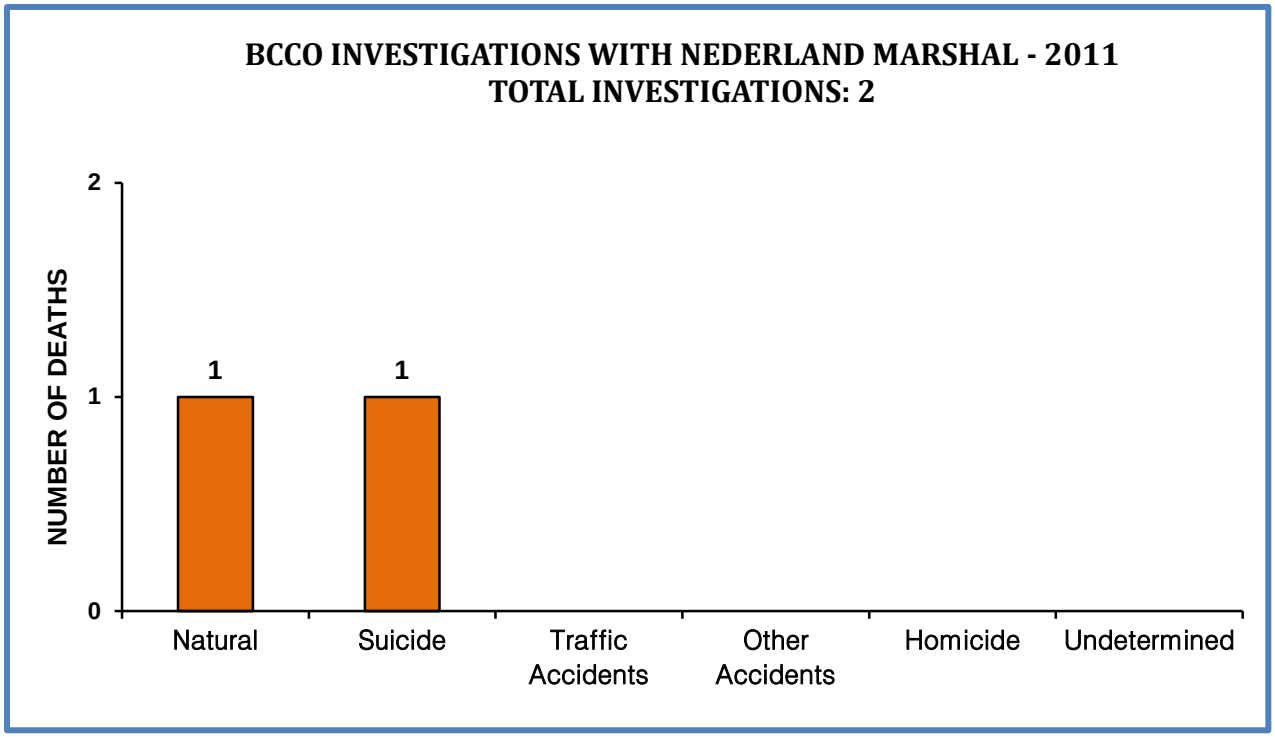
LONGMONT POLICE DEPARTMENT



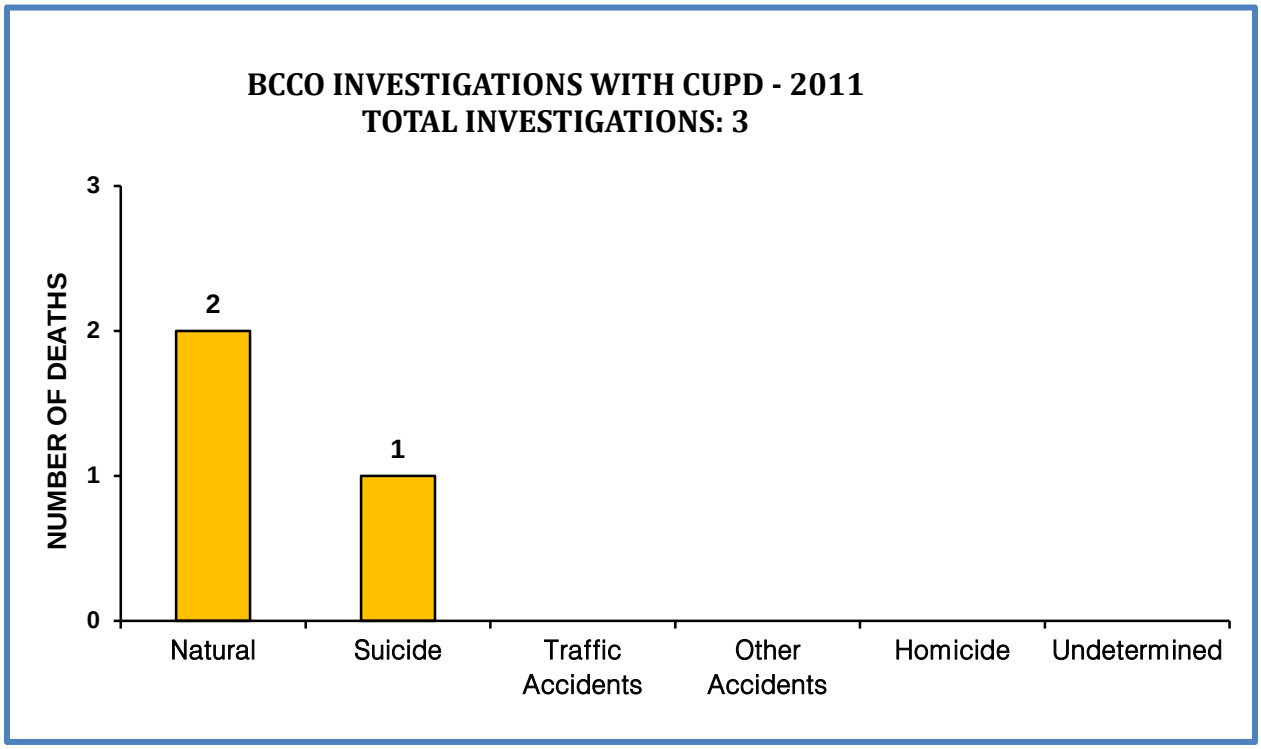
LOUISVILLE POLICE DEPARTMENT



NEDERLAND MARSHAL



UNIVERSITY OF COLORADO PD



WARD MARSHALL

There were no investigations conducted with the Ward Marshall in 2011.

UNIDENTIFIED REMAINS

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

UNIDENTIFIED CAUCASIAN MALE WITH SOME HISPANIC ADMIXTURE

Skeletal Remains Discovered: 8/30/2002

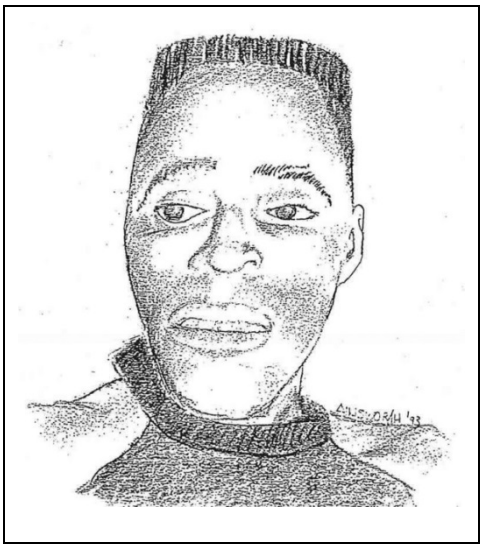
Approximate Age Range: 15-23 years
Estimated Height: 5'6"
Weight: Unknown
Eye Color: Unknown
Hair: Dark Brown/black with blonde tips, varying lengths
Scars/Tattoos: Unknown
Clothing: Unknown
Dental: Teeth in good repair with 3 amalgam fillings and a supernumerary tooth behind the anterior mandibular teeth.

The remains of a skeletonized Caucasian/Hispanic male were found just west of Boulder, approximately .25 miles south of 90 Arapahoe Ave. in a transient camping area. An examination of the remains by an anthropologist did not reveal a cause or manner of death.

UNIDENTIFIED BLACK MALE

Date of Death: October 10, 1993

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 Black male 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

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.

REFERENCES

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 Colorado Department of Public Health & Environment, Colorado Department of Human Services Child Fatalities in Colorado, 1990-1994, June 1998, pp. 2-3

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