2012 ANNUAL REPORT

BOULDER COUNTY CORONER’S OFFICE

Emma R. Hall
Boulder County Coroner

1777 6th St
Boulder, CO 80306
Phone: 303-441-3535 / Fax: 303-441-4535

www.bouldercounty.org/dept/coroner
To the Citizens of Boulder County,

I continue to be honored to serve our community over the last two years. I am proud of the vast improvements we are making in the office. In 2012 the office benefitted from many improvements made in 2011 and through a lot of long hours and hard work the office was able to organize and file much of the backlog the office had generated in years past. The personnel saw many positive changes with the addition of a Chief Deputy Coroner and an additional investigator. Pathology assisting services that were previously contracted out were brought in house with the addition of a pathology technician. The office started the first ever Boulder County Coroner’s Office Internship Program for college students looking to get into the field of forensic pathology or continue education toward medical school. The staff participated in many trainings in 2012 to include continuing education on: property and evidence, winter death investigation, forensic photography, coroner standards, and mass fatalities.

With the additional personnel the office was able to reduce overtime spending and create a better work life balance for the staff by adjusting the schedule and increasing the number of hours the office is staffed each week as opposed to being covered by on-call. Equipment and materials was another area of the office that needed huge improvements. With approved funding the office was able to outfit the investigators with uniforms and badges and add a new investigator response vehicle and equipment to outfit the existing two vehicles. With the improvements to fleet the investigators were able to reduce response times and safely respond during inclement weather and were capable of transporting up to five bodies as opposed to two.

The office continued to make strides in upgrading the long outdated technology of the office. A communication system was put in place to improve the communication and safety of each investigator in the office. Major effort was put into working with the county IT team to plan for a case management system; the project will take several phases to complete. This year much of the outdated and unsupported computer hardware and software for the office was replaced to bring the office up to speed with the standards of the county IT department. The office worked closely with the county architect team on the planning for a new state-of-the-art facility. Part of the planning process included taking the commissioners, the architects and several other departments on a tour of the office’s current rented facilities at BCH and a tour of the Adams County Coroner’s Office which was a new facility in 2005. A request to build the new facility was presented to the commissioners and approved for 2013.

The information in this report has been gathered from records held at the Boulder County Coroner’s Office for the calendar year of 2012. 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.


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.
The 2012 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.

**Chief Deputy Coroner:**  Dustin Bueno. Mr. Bueno is responsible for the day to day administration of the office and the management of the investigations staff. Mr. Bueno has several years of experience working in the field of medico-legal death investigation and private investigations. Mr. Bueno was previously a Deputy Coroner at Adams County Coroner’s Office; as a supervisor and field training officer he created a death investigation training program, and wrote numerous office procedures. Mr. Bueno is experienced in assisting at autopsy procedures and has extensive training in toxicology, radiography, latent fingerprint collection and identification, and photography. Mr. Bueno has produced numerous educational presentations for law enforcement and the community, and he has taught on numerous career related topics.

**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

**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 running 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: 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.

**Deputy Coroner: Angel Leuhring.** Ms. Leuhring Angel is an army veteran who worked for the U.S. Army as a certified Medical Laboratory Technician and is currently finishing her Bachelor's Degree in Health Administration with an emphasis in Bio-med. Angel handles a portion of the caseload, as well as handling various day-to-day operations of the office.

**Deputy Coroner: Kayla Wallace.** Ms. Wallace recently received her Master's Degree in Forensic Psychology, prior to coming to Boulder County. During her studies, she interned with the Denver Office of the Medical Examiner for two years and was the Volunteer Coordinator for the Colorado Human Extraction and Recovery Team. Ms. Wallace handles a portion of the caseload, as well as handling various day-to-day operation of the 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 operation 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 most recently, in 2012, she completed her 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.

**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.

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

The 2012 expenditures for the Boulder County Coroner’s Office was $872,584.78. This is 0.27% of the total adopted 2012 Boulder County budget of $321,707,822.
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 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.
YEARLY TRENDS

PERCENTAGES OF BOULDER COUNTY DEATHS REPORTED TO THE CORONER

Per the US Census the 2012 estimated population of Boulder County was 305,318. 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.
In approximately eleven percent of the deaths that were investigated by the Boulder County Coroner’s Office in 2012, 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.

*The Boulder County Coroner’s Office performed 179 autopsies in 2012, this included one hundred seventy-eight 2012 cases and one 2011 case. There were 6 additional 2012 cases which required autopsies that were completed in 2013.
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.

Note: * There were 184 cases in 2012 that required autopsies, 178 of the autopsies were completed in 2012 and the other 6 were completed in 2013.
The total number of cases reported includes 78 cases that were transferred to other coroners/physicians. See **Transfer of Jurisdiction** of this report for explanation.
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
coroners will handle 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.

**Note:** *The total number of “Coroner Signed, Autopsy” includes six cases in which the death occurred in 2012
and the autopsy was performed in 2013, these six were not counted in the 2012 total BCCO Autopsies by Year 2003-2012.

**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 2012, the jurisdictions of seventy eight cases were transferred to other coroners in surrounding counties. Sixty-two cases were natural deaths, two were traffic accidents, ten were non-traffic accidents, one was a suicide, one was undetermined, and two were homicides. Forty-one of the cases were transferred to Adams County,
twenty-four were transferred to Weld County, nine were transferred to Jefferson County, one was transferred to Larimer County, two were transferred to Denver County, and one was transferred to Washington County.

Thirteen of the transferred cases were deaths that occurred in the emergency departments at Exempla Good Samaritan Medical Center and Longmont United Hospital.

In fifteen (19%) 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.
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 2012, 302 scene responses were made which was 19% of all of the deaths reported to the Boulder County Coroner’s Office.
Coroner Responses by Location of Death

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

BCCO Responses by Location of Death 2012: 302

<table>
<thead>
<tr>
<th>Location</th>
<th>Number</th>
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</thead>
<tbody>
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<tr>
<td>Building</td>
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<tr>
<td>CU Dorm</td>
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</tr>
<tr>
<td>Homeless Shelter</td>
<td>4</td>
</tr>
<tr>
<td>Residence</td>
<td>188</td>
</tr>
<tr>
<td>Hotel/Motel</td>
<td>27</td>
</tr>
<tr>
<td>Assisted/Senior Living</td>
<td>28</td>
</tr>
<tr>
<td>Hospital ED</td>
<td>16</td>
</tr>
<tr>
<td>Open Area</td>
<td>16</td>
</tr>
<tr>
<td>Roadway</td>
<td>20</td>
</tr>
<tr>
<td>Hospital</td>
<td></td>
</tr>
</tbody>
</table>
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 33 cases that were transferred to other coroners. See Transfer of Jurisdiction of this report for further explanation.
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 1053 hospice cases reported to the Boulder County Coroner's Office 1009 (95.8%) were natural deaths, 43 (4.1%) were accidental deaths, and one (0.1%) was a suicide.

*Note: This total excludes the 13 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 1328 cases, or 82.4% in 2012. Included within these natural deaths were 1060 hospice cases.

*Natural 1328 (86.63%)
*Suicide 59 (3.85%)
*Traffic 27 (1.76%)
*Other Accidents 107 (6.98%)
*Homicide 0 (0%)
*Undetermined 10 (0.65%)
*N/A (Fetal Demise) 2 (0.13%)

*Note: The seventy-eight 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 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.
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:** Although not all 184 autopsies were performed in 2012, all cases in which an autopsy was required are listed in this chart.

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

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.

![BCCO NATURAL DEATHS BY MONTH](image)

TOTAL 2012 NATURAL DEATHS: 1328

NATURAL DEATHS BY AGE AND GENDER

![BCCO NATURAL DEATHS -2012 BY AGE AND GENDER](image)
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. In 2012 in Boulder County, the most common method used was a firearm, followed by hanging and then by prescription drugs.

Note: There were a total of 60 suicides reported to the Boulder County Coroner’s Office in 2012. The Boulder County Coroner’s Office investigated 59 of those cases and transferred jurisdiction of one case to another coroner.
### SUICIDES BY AGE AND GENDER

**BCCO SUICIDES BY AGE AND GENDER**

**TOTAL 2012 SUICIDES: 59**

- **Male**: 42
- **Female**: 17

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<th>AGE IN YEARS</th>
<th>NUMBER OF DEATHS</th>
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<tr>
<td>&lt;17</td>
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<tr>
<td>75-84</td>
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<tr>
<td>85+</td>
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</table>

### SUICIDES BY METHOD

**BCCO SUICIDES BY METHOD**

**TOTAL 2012 SUICIDES: 59**

- **Firearm**: 23
- **Carbon Monoxide**: 0
- **Prescription Medication**: 13
- **Prescription & Over-the-Counter Medications**: 0
- **Over-the-Counter Medications**: 0
- **Hit by Vehicle**: 0
- **Asphyxia/Suffocation**: 3
- **Asphyxia/Hang**: 3
- **Jumped from Height**: 2
- **Stab Wound**: 1
- **Cut Wound**: 0
- **Poisoning**: 2
BCCO SUICIDES BY GENDER AND METHOD - 2012
TOTAL 2012 SUICIDES: 59

NUMBER OF DEATHS

<table>
<thead>
<tr>
<th>Method</th>
<th>Male 42</th>
<th>Female 17</th>
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<tbody>
<tr>
<td>Firearm</td>
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</tr>
<tr>
<td>Carbon Monoxide</td>
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<tr>
<td>Prescription Medication</td>
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<td>Over-the-Counter Meds</td>
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<td>Prescription &amp; OTC Meds</td>
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<td>Asphyxia/Suffocation</td>
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<tr>
<td>Jumped from Height</td>
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<td>Stab Wound</td>
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<tr>
<td>Cut Wound</td>
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<tr>
<td>Poisoning</td>
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</tbody>
</table>

Male 42

Female 17

TOTAL 2012 SUICIDES: 59
Note: In 2012, a total of 146 accidental deaths were reported to the Boulder County Coroner, but twelve of those cases were transferred to other coroners.
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 twenty-seven deaths resulting from traffic incidents in 2012. All of these incidents occurred in Boulder County. Of the twenty-seven deaths, seventeen of the victims were male and ten were female. Their ages ranged from fourteen to ninety-two years of age. Sixteen people died in motor vehicle accidents (including automobiles, pickup trucks, SUVs and vans), seven in a motorcycle accident, one in a bicycle accident and three were pedestrians struck by an automobile. Among the twenty-seven vehicle fatalities that occurred in Boulder County, seven were drivers and eight were passengers. Four drivers and three passengers were wearing seatbelts. Four of the motorcyclists were wearing a helmet. The one bicyclist was not wearing a helmet.

Notes: There were a total of 29 traffic incident deaths reported to the Boulder County Coroner’s Office in 2012. The Boulder County Coroner’s Office investigated 27 of these cases, the other cases were transferred to another coroner’s jurisdiction. There was a traffic incident that was ruled undetermined in which a male age 16 died following a hit and run incident.
NUMBER OF BCCO TRAFFIC DEATHS BY MONTH
TOTAL 2012 TRAFFIC INCIDENTS: 27
In Colorado in 2012, 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 117 non-traffic accidents reported to the Boulder County Coroner's Office in 2012. The Boulder County Coroner's Office investigated 107 of those cases and transferred jurisdiction of 10 cases to other coroner.
BCCO ACCIDENTS (NON-TRAFFIC) BY TYPE OF EVENT
2012 - TOTAL: 107

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 - Unknown
BCCO HOMICIDES BY YEAR 2003-2012

NUMBER OF DEATHS
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

![Bar chart showing the number of undetermined manner deaths by year from 2003 to 2012.](chart.png)
DRUG DEATHS

DRUG DEATHS BY MANNER

BCCO Drugs of Abuse Deaths
2012 Total: 38

- Undetermined (3%)
- Suicide (34%)
- Accident (63%)

DRUGS OF ABUSE BY CATEGORY

BCCO Drugs of Abuse by Category 2012

- Multi Drug
- Morphine
- Oxycodeone
- Hydrocodeone
- Olanzapine
- Methadone
- Cocaine
- Fentanyl
- Heroin
- Ethanol
- Cocaine/Heroin
- OTC
- Other

- Undetermined
- Suicide
- Accident
DROWNING S

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 2012 there was one drowning case. The decedent was male and age 48, the case was classified as an accidental death.

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 fourteen child deaths (<18 years of age) were reported to the Coroner’s Office in 2012. Four 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**

**BCCO CHILD DEATHS BY MANNER**  
**TOTAL 2012 CHILD DEATHS: 14**

- **Accident:** Two of the accidental deaths were from vehicle collisions (age 17 and 14), the third accidental death was from a pedestrian hit by a vehicle (age 16).
- **Undetermined:** The undetermined death was a result of injuries sustained after a hit and run incident (age 16).

**CHILD DEATHS BY CAUSE OF NATURAL DEATHS**

**BCCO NATURAL CHILD DEATHS BY CAUSE - 2012**  
**TOTAL NATURAL CHILD DEATHS: 10**
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

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**BCCO SIDS DEATHS BY YEAR 2002-2011**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
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<tr>
<td>2004</td>
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<td>3</td>
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<tr>
<td>2010</td>
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</tr>
<tr>
<td>2011</td>
<td>0</td>
</tr>
<tr>
<td>2012</td>
<td>0</td>
</tr>
</tbody>
</table>
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).

**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

BCCO INVESTIGATIONS WITH BOULDER PD- 2012
TOTAL INVESTIGATIONS: 70

BCCO INVESTIGATIONS WITH BCSO- 2012
TOTAL INVESTIGATIONS: 78
LAFAYETTE POLICE DEPARTMENT

BCCO INVESTIGATIONS WITH LAFAYETTE PD - 2012
TOTAL INVESTIGATIONS: 21

NUMBER OF DEATHS

Natural: 11
Suicide: 5
Traffic Accidents: 1
Other Accidents: 3
Homicide: 1
Undetermined: 1

LONGMONT POLICE DEPARTMENT

BCCO INVESTIGATIONS WITH LONGMONT PD - 2012
TOTAL INVESTIGATIONS: 79

NUMBER OF DEATHS

Natural: 49
Suicide: 17
Traffic Accidents: 1
Other Accidents: 9
Homicide: 2
Undetermined: 1
N/A: 1
BCCO INVESTIGATIONS WITH LOUISVILLE PD - 2012
TOTAL INVESTIGATIONS: 16

- Natural: 7
- Suicide: 2
- Traffic Accidents: 3
- Other Accidents: 4
- Homicide: 0
- Undetermined: 0

BCCO INVESTIGATIONS WITH NEDERLAND MARSHAL - 2012
TOTAL INVESTIGATIONS: 1

- Natural: 1
- Other Accidents: 0
- Homicide: 0
- Undetermined: 0
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.

REMAINS EXHUMED

The remains of this John Doe were exhumed from the burial plot located at Sacred Heart of Mary Cemetery for re-examination and aid in identification purposes. A CT of the skull was taken and sent to the National Center for Missing and Exploited Children in order for a 3D reconstruction to be completed. The 3D reconstruction sketches were pending completion at the end of 2012.

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.


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