

# BC Coroners Service 2009 Annual Report

Ministry of Public Safety  
and Solicitor General



Posted: February 25, 2011


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# Message from the Deputy Chief Coroner

On behalf of the British Columbia Coroners Service, I have the honour of presenting the 2009 Annual Report. This report represents the Service's commitment to provide the public with information relevant to all aspects of our operation, along with comprehensive statistical information. It is also a reflection of the dedication and hard work of all Coroners in British Columbia, whose efforts improve community safety and quality of life for all British Columbians.

This report will be posted to the BCCS website so that it will be available to the public. We invite everyone to visit our website at [www.pssg.gov.bc.ca/coroners/](http://www.pssg.gov.bc.ca/coroners/) and to provide us with their suggestions and comments in order to assist us in continuing to further improve our services to the public.



**Norm Leibel**

Deputy Chief Coroner

## **Vision**

**Our communities and homes are safe places.**

## **Mission Statement**

**Providing exceptional public service through independent, factual death investigation to improve community safety and quality of life.**

## **Values**

**Integrity, Respect, Inclusiveness,  
Accountability, Quality Service,  
Healthy Work Environment**

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# 1: Organization

## History

The Office of the Coroner is one of the oldest common law institutions, with references dating as far back as the time of Saxon King Alfred in 925 A.D. The first detailed statute concerning coroners was the Statute of Westminster of 1275. Formerly, the coroner was a protector of Crown revenue, responsible for bringing suspects to trial. The coroner was known as a "Keeper of the pleas of the Crown," or in Latin, "custos placitorum coronas," from which the word "coroner" is derived.

Coroners have been investigating deaths in British Columbia for more than 100 years. B.C. inherited the English Coroners Act (of 1848) when it became a province in 1871. Coroners conducted their work independently through their own municipalities, as there was no provincial organization.

In 1932, the City of Vancouver built the first "Coroner's Court" building. The building contained a court room, where coroner's inquests were held, a morgue and autopsy facilities. The building was also shared with the City Analyst's Laboratory. The analysts performed toxicological analysis for the Coroners Department of Vancouver.

Coroners worked independently until the appointment of a Supervisory Coroner, Glen McDonald, who served in this capacity from 1969 to 1979.

The first BC Coroners Act was enacted into law in 1979. At this time, the Vancouver Coroners Department/Office came under the authority of the province and was declared a provincial service. The first Chief Coroner, Dr. William McArthur, was appointed in 1979.



Glen McDonald  
(1969-1979)



Dr. William McArthur  
(1979-1981)



Robert Galbraith  
(1981-1988)



Vincent Cain  
(1988-1996)



Larry Campbell  
(1996-2001)



Terry Smith  
(2001-2009)

Figure 1. The Chief Coroners of British Columbia.



## Organizational Structure

The BC Coroners Service (BCCS) is an agency within the Ministry of Public Safety and Solicitor General (PSSG), which works to maintain and enhance public safety across the province.

Branches and divisions within PSSG include Corrections, Policing & Community Safety, Emergency Management BC, and the Office of the Superintendent of Motor Vehicles. Emergency Management BC is a branch of PSSG that was established to oversee the integrated planning, mitigation, response and recovery activities for the threat and occurrence of natural and other disasters. The BCCS, as well as the Provincial Emergency Program and the Office of the Fire Commissioner, is part of Emergency Management BC.

The Chief Coroner, whose office is located in Burnaby, is the head of the BCCS. There are also regional offices, one in each of five BCCS regions within the province. While these regions approximate the BC Health Authority Regions (Fraser, Interior, Vancouver Island, Northern, and Vancouver Coastal), there are some differences in the regional delineations.

The regional offices are located in Victoria, Burnaby, Surrey, Kelowna and Prince George, and each is managed by a Regional Coroner. Regular operations are run out of the regional offices, while administration, research and planning are conducted out of the Office of the Chief Coroner.

**Fraser Region:** Burnaby to the Coquihalla Highway summit, east to Manning Park and north to Jackass Mountain bordering Merritt. Delta was assigned to the Fraser Region on July 1, 2009

**Interior Region:** Includes the region north to 100 Mile House and Blue River, east to the Alberta border, south to the USA border and west to the Manning Park gate, including Ashcroft, Lytton and Lillooet.

**Island Region:** Includes all of Vancouver Island, the Gulf Islands and Powell River.

**Northern Region:** Includes the region north, east and west from 100 Mile House to all Provincial borders, and the Queen Charlotte Islands/Haida Gwaii.

**Vancouver Metro Region:** Includes Sunshine Coast, Sea to Sky Corridor, North Shore, Vancouver, UBC and Richmond. Delta was included in the Metro Region until July 1, 2009, when it was reassigned to the Fraser Region.



Figure 2. The BCCS Provincial Regions

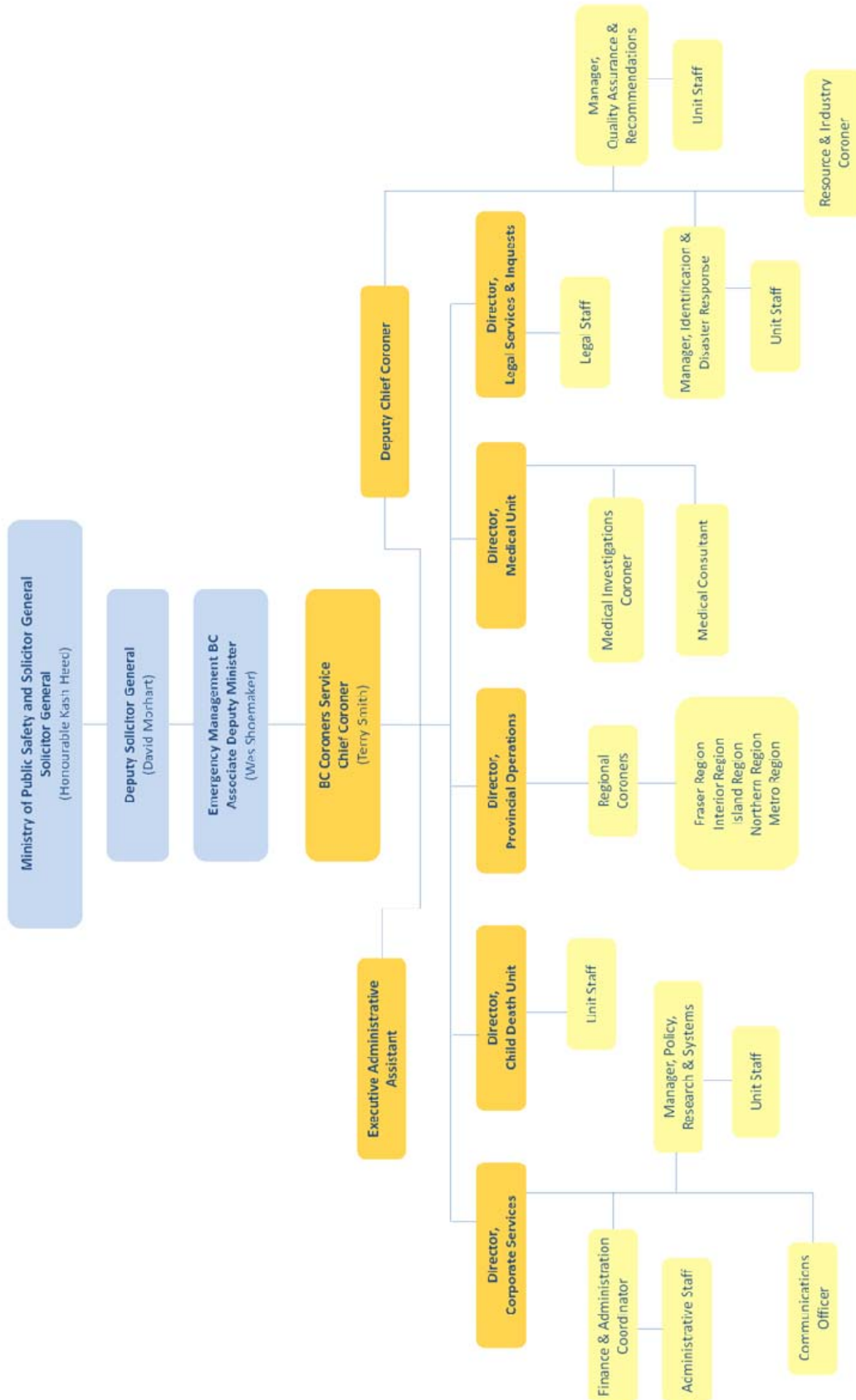


Figure 3. The Structural Organization of the BCCS in 2009

## Function of the BCCS

There are both Coroner and Medical Examiner systems in Canada. British Columbia, along with Ontario, Saskatchewan, Quebec, New Brunswick, Prince Edward Island, Nunavut, the Northwest Territories and Yukon, operates under a Coroner system. Medical Examiner systems operate in Alberta, Manitoba, Nova Scotia and Newfoundland.

Coroners are not necessarily medical specialists, although many have some medical training. Coroners in British Columbia have varied backgrounds including medical, investigative, legal, and social science. Conversely, all medical examiners in Canada are physicians.

The responsibilities and functions of the BCCS include:

- ascertaining and clarifying the facts of all sudden and unexpected deaths in B.C. to determine the identity of the deceased, and how, when, where and by what means the death occurred;
- reviewing all deaths of children under the age of 19 in the province;
- ensuring that no death is overlooked, concealed or ignored;
- producing a judicial document<sup>1</sup>, either a Coroner's Report or a Verdict at Coroner's Inquest, that reports on the findings of the coroner's investigation;
- making recommendations, where appropriate and feasible, to both public and private agencies so that a similar death is less likely to occur in the future;
- conducting inquests (quasi-judicial court proceedings) when mandated by the Coroners Act or when there is a strong public interest in the circumstances of the death or potential for prevention of death in similar future circumstances;
- establishing Death Review Panels, to allow for aggregate review of deaths with similar circumstances to identify opportunities for intervention to prevent future deaths; and
- collecting death information and conducting statistical analyses.

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<sup>1</sup> *The Coroner's Report or Verdict at Coroner's Inquest, which is the official record of the identity of the deceased, and how, when, where and by what means he or she died. The medical cause of death and classification are noted. See Appendix I for definitions of classification of death.*

## Death Notification Requirements

The *Coroners Act* (SBC 2007) sets out the legislated requirements for reporting a death to the BCCS in Sections 2 through 4. These sections of the *Act* require that a person must notify a Coroner or a peace officer of the facts and circumstances relating to a death when a person has died under circumstances where an investigation may be required. The Act specifically requires the reporting of violent, unexplained or sudden/unexpected deaths; deaths in custody; and deaths of persons to whom the Mental Health Act applies.

Deaths that must be reported by anyone:

*2(1) A person must immediately report to a coroner or peace officer the facts and circumstances relating to the death of an adult or child who the person has reason to believe has died*

- a) as a result of violence, accident, negligence, misconduct or malpractice,*
- b) as a result of a self-inflicted illness or injury,*
- c) suddenly and unexpectedly, when the person was apparently in good health and not under the care of a medical practitioner,*
- d) from disease, sickness or unknown cause, for which the person was not treated by a medical practitioner,*
- e) during pregnancy, or following pregnancy in circumstances that might reasonably be attributable to pregnancy,*
- f) if the chief coroner reasonably believes it is in the public interest that a class of deaths be reported and issues a notice in accordance with the regulations, in the circumstances set out in the notice, or*
- g) in any prescribed circumstances.*

*2(2) If a child died in circumstances other than those described in subsection (1), a person who, by regulation, must report child deaths, must immediately report to the chief coroner, in the form required by the chief coroner,*

- a) the facts and circumstances relating to the child's death, and*
- b) any other information required by the chief coroner.*

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Deaths that must be reported by peace officers:

*3(1) If a peace officer receives a report of a death under section 2 [deaths that must be reported by anyone], the peace officer must immediately report to a coroner the facts and circumstances relating to the death.*

*3(2) A peace officer must immediately report to a coroner the facts and circumstances relating to the death of a person who dies*

- a) while detained by or in the custody, or in a custodial facility, of a peace officer, or*
- b) as a result, directly or indirectly, of an act of a peace officer performed in the course of his or her duty.*

Deaths that must be reported by institutional administrators:

*4 The person in charge of an institution referred to in this section must immediately report to a coroner the facts and circumstances relating to the death of a person who dies*

- a) while a patient of a designated facility or private mental hospital within the meaning of the Mental Health Act, whether or not on the premises or in actual detention,*
- b) while the person is committed to a correctional centre, youth custody centre or penitentiary or a police prison or lockup, whether or not on the premises or in custody, or*
- c) while a patient of a hospital within the meaning of the Hospital Act, if the patient was transferred to the hospital from a place referred to in paragraph (a) or (b).*

The Coroners Act can be viewed online at [http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/00\\_07015\\_01](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_07015_01)

## Budget

The BCCS operating cost for 2009/2010 was \$15.7 million (April 1, 9 to March 31, 2010). This was spent in three areas: salaries and benefits, direct costs and support costs. Salary and benefits comprised slightly less than half of the total expenditure. In 2009, the BCCS employed 64 community coroners, 13 full-time coroners, 4 scene investigators, and 44 other staff members (number of support staff variable over the year). \*

Direct costs comprised just over one third of the expenditures, and included expenses such as inquests (e.g., juries, court reporters and related inquest fees), forensic services (e.g., autopsies, toxicological analysis) and body handling (e.g., recovery, storage and transport costs). Support costs include expenses such as external contracts, systems, communications and facilities.

\* Note that there was a change to the counting method for the 2009/10 coroner/staff statistics from previous years.

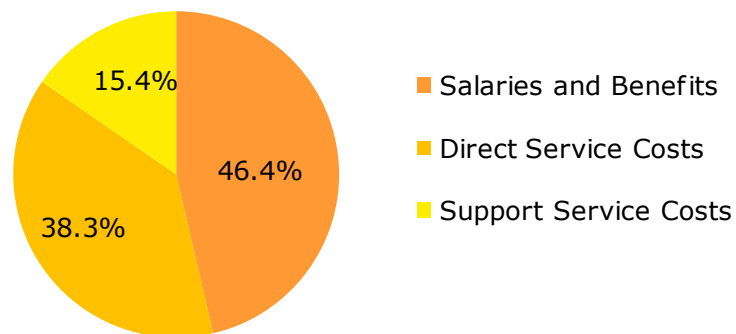


Figure 3. BCCS Total Expenditure for the 2009/2010 Fiscal Year

## Organizational Achievements

Achievements from 2009 include:

- ★ Investigated 7725 deaths across BC.
- ★ Held 11 inquests.
- ★ Issued recommendations on 50 deaths, with a total of 317 recommendations distributed by inquest juries and coroners.
- ★ Held two Death Review Panels, on avalanche-related fatalities in snowmobile operators and workplace incidents involving tree fallers, to examine aggregate death circumstances and identify opportunities for intervention to prevent similar deaths in the future.
- ★ Issued a Public Safety Bulletin on the topic of faulty computer equipment to further injury and death prevention efforts.
- ★ Released *Safe and Sound – A five year Retrospective*, a 5-year retrospective review examining the lives and deaths of 113 infants who died suddenly and unexpectedly, available on our website at: [www.pssg.gov.bc.ca/coroners/child-death-review/docs/sudden-infant-death-cdru-report.pdf](http://www.pssg.gov.bc.ca/coroners/child-death-review/docs/sudden-infant-death-cdru-report.pdf)
- ★ Participated in consequence management planning with Integrated Public Safety in preparation for the Vancouver 2010 Winter Olympic and Paralympic games, to ensure a well-coordinated and effective response to both daily operational and emergency events during the Games period.



## 2: Investigation

### Coroner's Investigations

The Coroner investigates sudden and unexpected deaths of adults and all deaths of children in B.C. to ensure no death is overlooked, concealed or ignored, and to learn if anything can be done to prevent future deaths. The Coroner is a quasi-judicial investigator, independent from law enforcement agencies and health authorities. Coroners come from a range of backgrounds, including medical, legal and social sciences.

The Coroner does not assign fault or blame, but conducts a fact-finding investigation into deaths that are unnatural, unexpected, unexplained or unattended. The investigation requires a careful examination of the circumstances surrounding a death to determine identity and understand how, when, where and by what means an individual died. Pathologists, toxicologists and specialized investigators may be consulted to provide assistance in an investigation. Identification of risk factors to help prevent future deaths forms a critical part of the overall mandate of the BCCS.

When a death is reported to the BCCS, the Coroner has the authority to collect information, conduct interviews, inspect and seize documents such as medical records, and secure the scene. The facts surrounding the death, as determined by the Coroner, are released in a written Coroner's report, which may also include recommendations to prevent future deaths.

#### Pathology Services (Autopsy)

An autopsy is a complete internal and external examination of the body after death. An autopsy is ordered when the cause of death cannot otherwise be determined, or if mandated by policy. For cases in which autopsy is not mandatory, if a reasonable and probable cause can be deduced on the basis of the deceased's medical history, the circumstances surrounding a death and a careful examination of the body, an autopsy may not be necessary. The BCCS retains the services of pathologists who conduct autopsies on a fee-for-service basis.

In 2009, the BCCS ordered autopsies for 1,913 cases: 869 were Natural deaths, 662 were Accidental, 160 were Undetermined, 123 were Homicides, and 99 were Suicides

### Toxicology

Toxicology is the study of the nature, effects and detection of poisons and the treatment of poisoning. The pathologist may collect specimens for toxicological analysis if the cause of death is not obvious at autopsy, if poisoning or drug or alcohol use is suspected, or if mandated by policy, such as for operators of motor vehicles. Toxicological testing may also be conducted in cases where no autopsy is required, but use of alcohol or drugs is suspected to have contributed to the death.

Toxicology testing is most often provided on a fee-for-service basis at the Provincial Toxicology Centre, an accredited laboratory. For deaths in which there is also a criminal investigation in progress, the RCMP Forensic Laboratory conducts toxicology testing. The BCCS may also make use of toxicological tests performed at regional hospitals.

In 2009, the Coroners Service ordered toxicological tests for 1,678 cases.

## Units/Divisions

The BCCS has specialized investigation units, due to the complexity of many death investigations. These include the Medical Unit, Child Death Unit, Identification and Disaster Response Unit, and the Resource Industry Unit. The Research and Policy Unit, Training and Development Unit, and Legal Services and Inquests Unit are additional, non-investigative units that serve important functions for the BCCS.

### Medical Investigation Unit

The Medical Investigation Unit provides coroners with guidance and assistance in investigating medical issues and in obtaining relevant medical information. Cases with complex medical issues are transferred to the Medical Investigation Unit for investigation and completion. The unit serves as a liaison with the medical community and health authorities. It functions to provide consistency in the management of investigation of deaths with complex medical issues. The unit also works to identify common factors contributing to death, which may require subject-specific review to inform prevention strategies.

In addition, the unit represents the BCCS on the Perinatal Mortality Review Committee and the BC Patient Safety Quality Council. The unit also participates in meetings of the Vancouver section of the Canadian Community Epidemiology Network on Drug Use.

During 2009, the Medical Unit investigated a variety of deaths, including deaths following recent discharges from emergency departments, deaths of patients diagnosed with psychiatric conditions, deaths involving chronic opioid prescription use, and complex child deaths.

### Child Death Unit

When a child dies in B.C., the BC Coroners Service receives the report, investigates the circumstances and further conducts a comprehensive review into the life and death of the child. Under the Coroners Act, the Child Death Review Unit has a legislated mandate to review, on an individual or aggregate basis, the facts and circumstances related to the deaths of all children 18 years and under. The mission of the CDRU is to better understand how and why children die, and to translate those findings into action to prevent future deaths and to improve the health, safety and well-being of all children in BC. Being placed within the BC Coroners Service, the CDRU is also well positioned to

## Investigation

complete real-time monitoring of child deaths and facilitation of continued quality improvement on child death investigations.

The Child Death Review Unit consists of a Director, program assistant and case reviewers with backgrounds in paediatric medicine, forensics, investigation, child welfare and injury prevention. Case reviewers have the authority to exercise powers of investigation including the ability to obtain additional information when required to complete a case review.

The methodology used by the CDRU is based on best practices for child death review from across North America and was developed with guidance from the National Center for Child Death Review in the United States. The review process consists of three main components: case reviews; recommendation development, implementation and monitoring; and reporting out.

In August 2009, the Unit released the 2008 Annual Report providing a summary of the work completed in 2008. The report can be viewed online at: [www.pssg.gov.bc.ca/coroners/child-death-review/docs/CDRU-2008annualreport.pdf](http://www.pssg.gov.bc.ca/coroners/child-death-review/docs/CDRU-2008annualreport.pdf).

The death review panel report titled DC et al. was also released. This report reflected the panels' examination of the alcohol related deaths of six Aboriginal youth as well as the recommendations that were made.

In November 2009, "Safe and Sound – A five year Retrospective" was released. This special report examined the lives and deaths of 113 infants who died suddenly and unexpectedly between January 1, 2003 and December 31, 2007. The Safe and Sound project required the development and application of a specialised protocol. Each case was presented to and examined by a multi-disciplinary team to ensure all aspects of the infant's life and death were considered. Consistent with findings from other studies, the majority of sudden infant deaths demonstrated practices consistent with unsafe sleep, in combination with intrinsic risk factors such as premature birth, male sex and Aboriginal ancestry. The report closed with recommendations for action that governments, health and social systems, industries and community organisations can take to support risk reduction.

## Identification and Disaster Response Unit

The Unit is dedicated to providing province-wide support and expertise in identification, disaster response, and business continuity planning while also actively investigating all historical unidentified human remains cases dating as far back as the 1960's.

Large inventories of unidentified human remains and missing persons exist worldwide. An innovative multi-disciplinary model, the Identification Information Management Model, has been under development for the past three years. While historically, associations

between missing persons and unidentified human remains were compared on a one-to-one basis, this unique model incorporates numerous tools that allow analysts to conduct one-to-many comparisons; the benefit of this is that all historical cases are now compared as frequently as more recent cases.

Two components of the model, namely the Geographic Information System (GIS) and DNA database, were fully operational in 2009. The interoperability of these components ensured that the “found Foot” discovered in 2009 was immediately associated to a case within the IDRU missing persons inventory. In this instance both databases identified the association, but had one failed, the other would have succeeded, providing a built-in redundancy, or “safety net”.

The model’s impact has been repeatedly demonstrated throughout 2009, and the IDRU was awarded the Regional Premier’s Award for Innovation and went on to receive a Provincial Finalist Award. The application of the model by the IDRU in investigating complex cases, such as the “Found Feet”, was featured in a major documentary which was aired on the National Geographic Channel and CBC’s *The Passionate Eye*. Features of the model were also shown on the Discovery Channel.

The IDRU forensic analyst developed a relationship with members of the Behavioural Sciences Section (BSG) of RCMP “E” Division, to improve the efficacy of law enforcement search tools used to extract missing persons cases suitable for comparison against unidentified human remains. A case involving unidentified human remains recovered from the Thompson River in 2009 showcases this relationship. After initial frontline efforts had failed to identify these remains, the IDRU, in consultation with the BSG’s Rapid ID analyst, developed unconventional search criteria to quickly identify the decedent from police records from Ontario.

All reported missing persons and human remains cases were spatialized in the BCCS Geographic Information System (GIS) by the end of 2009. This technology provides a suitable platform for linkage analysis based on spatial data collected by coroners in the field. The GIS is not just a map but an information management system; critical data necessary for comparison efforts can be consolidated into the GIS. Such additional data may include skeletal inventory reports, descriptors, and reference to availability of DNA and dental profiles. Cross-reference to the Provincial Archaeology Branch’s GIS has allowed IDRU to assist frontline staff to remain in compliance with the Heritage Conservation Act by alerting them to known archaeological remains sites prior to grave disruption, and also avoiding unwarranted investigative costs.

By the end of 2009, over 40,000 death investigations spanning forty years had been reviewed with a view to find associations between concluded investigations involving incomplete human remains and existing unidentified human remains cases.

Recognizing that opportunities to identify human remains start at the scene, IDRU support was extended to include deployment to those death scenes where identification

was compromised. IDRU was deployed more frequently to plane crashes, house and vehicle fires where highly fragmented or commingled remains required IDRU expertise in their extraction and forensic analysis. As a result, these efforts not only expedite the repatriation of human remains in a dignified manner, but present IDRU responders with learning opportunities in preparation for large scale mass fatality incidents where similar challenges are expected.

In 2009, the combination of forensic anthropology, forensic odontology, isotopic analysis, and DNA analysis culminated in the successful identification of human remains which had been discovered in 1968. This case exemplifies the need for IDRU to coordinate and integrate a wide range of experts more intimately into the investigative process.

The Disaster Response Coordinator (DRC) became a key member of Integrated Public Safety and acted as an important liaison with the Integrated Security Unit in preparation for the Vancouver 2010 Winter Olympic Games. All fatality management planning for the Games was undertaken by the Disaster Response Coordinator. Integrated Public Safety (IPS) was created in 2008 when Provincial Emergency Preparedness recognized that the planning component of the provincial emergency management framework required significant enhancement in order to prepare for the Vancouver 2010 Winter Olympic and Paralympic Games (V2010). The DRC represented the BCCS in IPS on a full-time basis from January 2009 when Olympic planning began to occur.

Some of the initiatives in which the DRC was involved in include the IPS Planning Team, Health Emergency Preparedness, the Vancouver Organizing Committee for the 2010 Olympic and Paralympic Games (VANOC) medical team, the Regional Emergency Planning Committee, the Critical Infrastructure Assurance initiative, the Integrated Security Unit, and the BCCS Search and Rescue Liaison initiative. In addition, the DRC was responsible for revising the BCCS Disaster Response Plan, planning for daily BCCS operations V2010, and providing orientation to investigative coroners.

Government mandated business continuity planning expectations were not only met but exceeded by interfacing large event planning (e.g., V2010 Games) with routine business, thereby creating a more resilient agency.

While the primary focus of the DRC was V2010 Games planning, the Disaster Victim Identification (DVI)-BC Task Force initiative maintained momentum. Researching mass fatality management resulted in direct correspondence with the DVI commanders of international incidents. This insight into fatality management has allowed the DRC to develop a suitable platform from which to enhance the BCCS Mass Fatality Response Plan and Operational Guidelines scheduled for completion in 2010 and 2011.

IDRU assistance to frontline responders is not limited to identification-related expertise only. Chemical, Biological, Radiological, Nuclear, and Explosive (CBRNE) incidents pose significant challenges as was demonstrated in an investigation involving a body

contaminated with potassium-cyanide. To ensure safe scene processing and body handling protocols, IDRU was able to contact, activate and coordinate the required expertise at local, provincial and federal levels.

### Resource Industry Unit

The Resource Industry Unit is focused on the investigation of deaths in the forestry sector and other industries. In addition to examining the circumstances related to a specific death, the unit considers forestry fatalities within the historical and provincial context.

The unit also serves as a resource to coroners across the province, providing assistance in investigations of complex industrial cases in the areas of transportation, construction, mining and the oil and gas industry. Additionally, the unit examines non-workplace deaths involving tree falling and similar activities undertaken by homeowners on private land, and select recreational activities on public land.

In July 2009 BCCS convened a Death Review Panel in order to examine the circumstances surrounding the deaths of tree fallers who died in coastal logging operations in the early part of 2008. Chaired by the Resource Industry Coroner, the panel consisted of fifteen members representing a wide cross-section of the forestry sector including the industry, labour, government, regulatory establishment and forest safety advocacy. Working fallers and falling contractors were also prominently represented on the panel. Following its examination of the circumstances related to the fatal incidents, and a scrutiny of the existing safety management systems, the panel made 15 recommendations that were subsequently forwarded by the Chief Coroner to federal and provincial government agencies, WorkSafeBC, the BC Forest Safety Council, and to the Association of BC Forest Professionals. The submissions were predominantly well received, resulting in responses that indicated intended positive action respecting the majority of recommendations.

### **Training and Development Unit**

The Training and Development Unit assesses emerging trends and developments affecting the training needs of BCCS staff, and develops and provides comprehensive educational programs in response. These programs are geared to ensuring that coroners are prepared to fulfil their responsibilities. Outreach and training is also provided to stakeholders and community groups. Regular training is provided to police groups, particularly the new police recruits assigned to the lower mainland municipalities. The unit also oversees the BCCS Occupational Health and Safety program and provides personal protective equipment, policy directives and best practices for coroners in the field.

In 2009 the unit managed several programs including the Coroners Basic Training Course and the Student Practicum Program. The Coroners Basic Training Course is an annual intensive training program that provides new coroners' agents with an understanding of their role and authority under the Coroners Act. The Student Practicum Program placed a number of criminology and forensic science students in various units of the organization. Participating institutions included Simon Fraser University, Douglas College and King's College in London, U.K. In addition to these programs, the unit held monthly training sessions for all staff featuring external speakers from our stakeholder agencies. Solid working relationships with external agencies and cross-training opportunities are a critical component of our on-going training needs as part of our continuous drive to deliver optimal public service to the citizens and families we serve.

### **Legal Services and Inquests Unit**

The Legal Services and Inquests Unit operates under the direction of the Director of Legal Services (Chief Counsel), assisted by the Legal Assistant/Inquest Co-ordinator. The main responsibility of this unit is conducting inquests. In addition, the unit provides direction, training and assistance to Presiding Coroners. There are 15 trained and experienced Presiding Coroners.

The unit is responsible for the provision of legal advice on day-to-day issues related to the interpretation of the Coroners Act and the legal mandate of the BCCS. The unit researches and prepares legal opinions, policies and procedures regarding issues that may arise within the British Columbia Coroners Service. The unit also researches and



assesses legal trends and emerging issues in provincial, federal and international jurisdictions and provides legal advice on their potential impact on the BCCS.

In co-operation with the provincial Legal Services Branch, the unit provides legal advice, representation and guidance to the Chief Coroner on a broad range of corporate and operational issues including proposed legislative amendments, policy developments and administrative procedures.

The Inquest Committee, chaired by the Chief Counsel, reviews all potential inquest and death review panel matters to provide advice to the Chief Coroner. The committee works with the Regional Coroners to ensure that all potential inquest matters that require the attention of the Chief Coroner are brought forward. The committee provides recommendations and background information on inquest and death review panels related issues to the Chief Coroner.

The Coroners Act can be viewed online at [http://www.bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/00\\_07015\\_01](http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/00_07015_01) .

# 3: Statistics

## General Statistics

There were a total of 31,227<sup>2</sup> deaths in BC in 2009, of which 7,725 were reportable to the BCCS. Therefore, the BCCS investigated approximately 25% of all deaths in the province in 2009.

Table 1. Number<sup>3</sup> and Classification<sup>4</sup> of Deaths Reported to the BCCS (2009)

Classification	Deaths
Accidental	1,423
Homicide	127
Natural	5,473
Suicide	510
Undetermined	192
<b>Total</b>	<b>7,725</b>

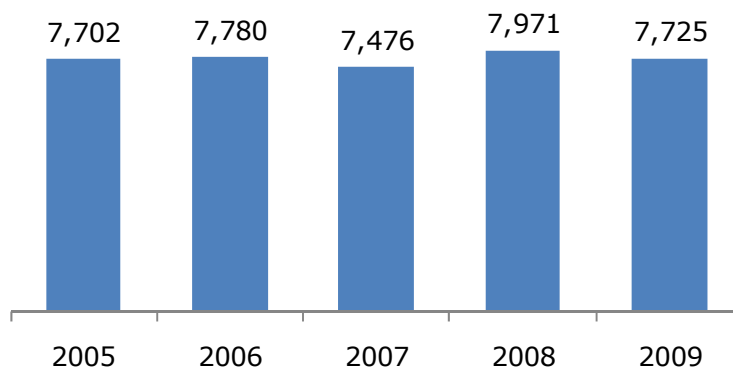


Figure 5. Number of Deaths Reported to the BCCS (2005-2009)

<sup>2</sup> Total deaths in B.C. in 2009 from Vital Statistics Agency Annual Report 2009, available online at: [www.vs.gov.bc.ca/stats/annual/2009/pdf/ann09.pdf](http://www.vs.gov.bc.ca/stats/annual/2009/pdf/ann09.pdf)

<sup>3</sup> The statistics in this section are preliminary and are subject to change until all investigations are complete.

<sup>4</sup> Please refer to the glossary provided in Appendix I for definitions of the death classifications. Undetermined deaths may become otherwise classified as investigations progress.

Table 2. Rate of Deaths Reported to the BCCS by Region<sup>5</sup> (2009)

Region	# of Deaths	Population <sup>6</sup>	Deaths per 10,000 Pop. <sup>7</sup>
Fraser	1,850	1,572,623	11.8
Interior	1,907	733,285	26.0
Island	1,812	749,369	24.2
Metro	1,487	1,114,437	13.4
Northern	669	285,493	23.4
Total	7,725	4,455,207	17.3

Table 3. Classification of Deaths by Region of Death (2009)

Region	Accidental	Homicide	Natural	Suicide	Undetermined	Total
Fraser	314	45	1,302	129	60	1,850
Interior	388	16	1,362	94	47	1,907
Island	313	11	1,351	106	31	1,812
Metro	250	38	1,044	124	31	1,487
Northern	158	17	414	57	23	669
Total	1,423	127	5,473	510	192	7,725

<sup>5</sup> Deaths reported to the Chief Coroner's Office (142 cases) have been assigned the region corresponding to the township of death for the purpose of this report.

<sup>6</sup> Population estimates were obtained from BC Stats, [www.bcstats.gov.bc.ca](http://www.bcstats.gov.bc.ca). These estimates are provided by Health Authority area; the B.C. Health Authority areas approximate the BCCS regions.

<sup>7</sup> Number of deaths for each 10,000 persons in B.C..

## Accidental Deaths

The most common causes of accidental death were:

- 28.5% due to falls,
- 27.1% due to motor vehicle incidents (MVIs), and
- 23.5% due to alcohol, drug or other poisoning.

Additionally, 8.3% of accidental deaths were due to injuries incurred while participating in recreational activities, and 2.7% were due to injuries that occurred while at work.

Table 4. Top Ten Means of Accidental Death (2009)

Means of Death	Deaths	%
Fall	404	28.4
MVI	385	27.1
Alcohol/Drug/Other Poisoning	334	23.5
Drowning <sup>8</sup>	50	3.5
Fire	47	3.3
Airway Obstruction	25	1.8
ATV/Dirtbike	20	1.4
Exposure: Cold	17	1.2
Avalanche	14	1.0
Airplane	11	0.8

<sup>8</sup> Does not include deaths with a means of death of Fall or MVI.

**Table 5. Accidental Recreational Deaths by Activity (2009)**

Activity	Deaths	
Air <sup>9</sup>	Airplane	8
	Hang Glider	1
	Helicopter	1
	Air Subtotal	10
Land	Hiking/Climbing	6
	Horseback Riding	2
	Dirtbike/ATV/Offroad	20
	Scooter	1
	Skateboarding	2
	Bicycling (No MVI)	5
	Land Subtotal	36
Snow	Ice Skating	1
	Snowboarding	2
	Snowmobiling	16
	Skiing	7
	Snowshoeing	1
Snow Subtotal	27	
Water	Canoe	2
	Dinghy (Boating)	1
	Diving	4
	Fishing	7
	Innertube	1
	Kayak	2
	Personal Water Craft	2
	Power Boating	8
	Scuba Diving	3
	Swimming	11
	Water Skiing	1
	White-Water Rafting	2
	Water Subtotal	44
Other	Hot Tub	1
	Tai Chi	1
	Other Subtotal	2
<b>Total</b>	<b>119</b>	

<sup>9</sup> Does not include occupational deaths, i.e. pilots or worker transport cases.

Table 6. Accidental Occupational Deaths by Activity (2009)

Activity	Deaths
Commercial Driver	7
Construction	6
Industrial	6
Forestry	5
Farm Worksite	2
Air Pilot	2
Property Maintenance	1
Mining	1
Commercial Fishing or Other Vessel	-
Other	17
<b>Total</b>	<b>47</b>

## Accidental Drowning Deaths

Table 7. Accidental Drowning Deaths by Region (2000-2009)

Region	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Fraser	18	21	8	17	15	7	11	12	13	6
Interior	15	11	14	16	8	13	17	14	11	9
Island	25	21	19	15	23	15	22	16	20	18
Metro	22	15	28	25	18	17	28	17	30	23
Northern	17	17	14	23	11	12	9	8	11	3
Total	97	85	83	96	75	64	87	67	85	59

There were 59 deaths in B.C. due to accidental drowning in 2009<sup>10</sup>, including deaths while participating in recreational activities.

This is a 31% decrease from 2008, and is 28% lower than the average of the preceding nine years (2000 to 2008) of 82.1 deaths per year.

Table 8. Accidental Drowning Deaths by Age Group (2009)

Age Group	Deaths
< 13	2
13-19	4
20-29	10
30-39	5
40-49	10
50-59	20
60-69	5
70-79	3
80 +	-
Total	59

<sup>10</sup> This number may increase as remaining open investigations are completed.

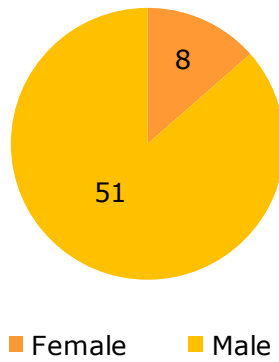


Figure 6. Accidental Drowning Deaths by Gender (2009)

Accidental drowning deaths were 86.4% male and 13.6% female.  
Most deaths occurred in July and August.

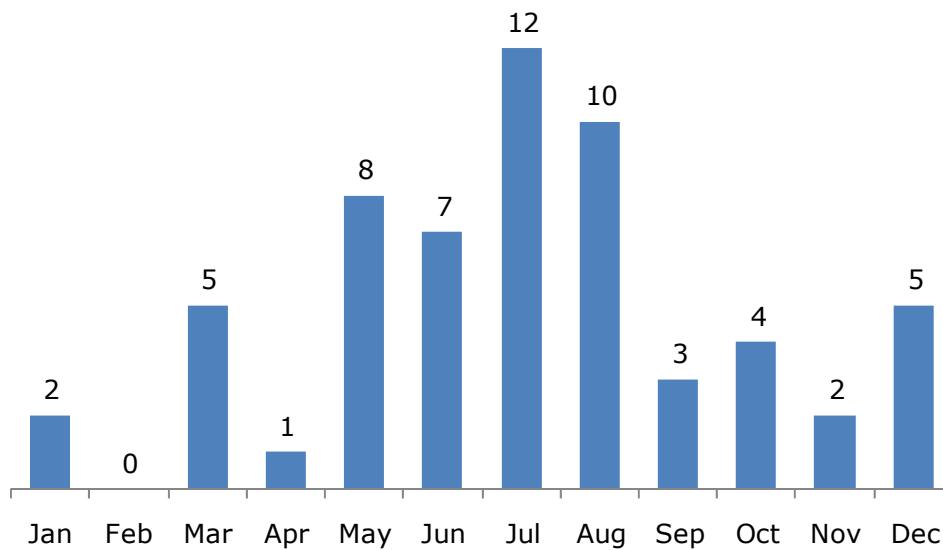


Figure 7. Accidental Drowning Deaths by Month (2009)



**Table 9. Accidental Drowning Deaths by Activity (2009)**

Activity		Deaths
Recreational	Swimming	9
	Fishing	7
	Power Boating	5
	Canoe	2
	Diving	2
	Kayak	2
	SCUBA Diving	2
	Dinghy	1
	Innertube	1
	Personal Water Craft	1
	Water Skiing	1
	White-Water Rafting	1
	Recreational Subtotal	
Occupational		-
Other	Fall into Water	12
	MVI <sup>11</sup>	8
	Bathtub	1
	Hot Tub	1
	Near Drowning	1
	Other	2
	Other Subtotal	
Total		59

The most common circumstances resulting in accidental drowning were recreational activities, which accounted for 34 deaths in 2009.

<sup>11</sup> In seven cases of MVI drowning, the decedent was in a vehicle that entered a body of water. In the other case, the decedent was in a vehicle that overturned into a ditch filled with water.

## Accidental Motor Vehicle Incident Deaths

Of the 1,423 accidental deaths in B.C. during 2009, 27.1% were the result of motor vehicle incidents (MVIs).

Although there was a slight (1.9%) increase in the number of MVI deaths from 2008 to 2009, the total number of deaths is congruent with the general downward trend in MVI fatalities over the past eight years.

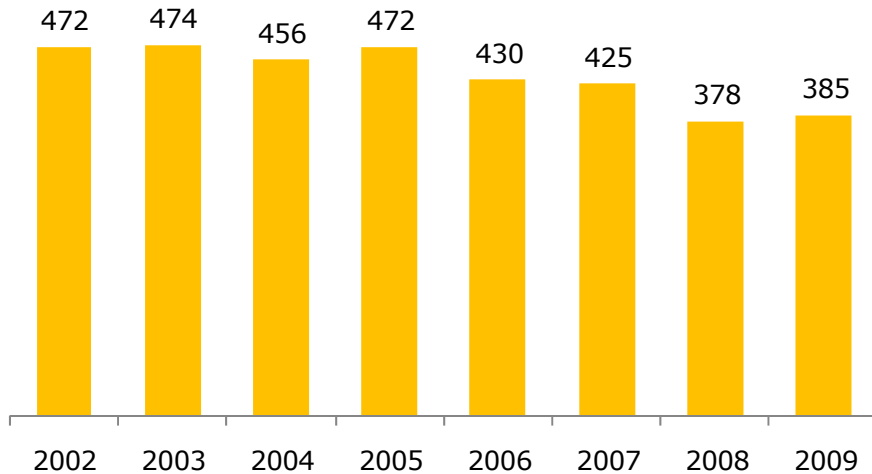


Figure 8. Number of MVI deaths in B.C. (2002-2009)

Table 10. Motor Vehicle Incident Death Rate by Region (2009)

Region	Deaths	Rate per 100,000 Pop.
Fraser	89	5.7
Interior	143	19.5
Island	61	8.1
Metro	42	3.8
Northern	50	17.5
Total	385	8.6

Both the highest number of fatalities and the highest death rate (per 100,000 population) occurred in the Interior region. The death rate for the Northern region was also high.

Rural areas in many jurisdictions have higher MVI fatality rates than urban areas. Suggested causal factors include:

- greater proportion of highway travel,
- longer emergency response times, and
- greater distance to medical facilities.

Table 11. Motor Vehicle Incident Deaths by Region (2009)

MVI Type	Fraser	Interior	Island	Metro	Northern	Total
Driver	36	69	29	12	31	177
Passenger	18	24	10	4	14	70
Pedestrian	15	19	9	16	1	60
Motorcycle, Moped	10	21	7	7	2	47
Bicyclist	3	3	3	1	-	10
Commercial Driver	3	3	-	-	1	7
Motorized Wheelchair	2	2	1	1	-	6
Bus	-	1	-	-	-	1
Other	2	1	2	1	1	7
<b>Total</b>	<b>89</b>	<b>143</b>	<b>61</b>	<b>42</b>	<b>50</b>	<b>385</b>

MVI fatalities were 70.4% male and 29.6% female, which is a similar gender ratio to previous years.

The gender difference is much smaller for non-fatal injury rates. For example, in 2007 non-fatal injuries were almost equal between genders: 52.2% male and 47.8% female<sup>12</sup>.

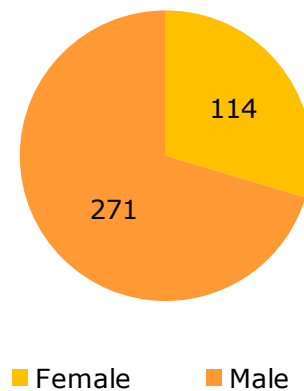


Figure 9. MVI deaths by Gender (2009)

<sup>12</sup>Traffic Collision Statistics: Police-Attended Injury and Fatal Collisions 2007, ICBC. Available online at: [www.icbc.com/road-safety/safety-research/collision-statistics](http://www.icbc.com/road-safety/safety-research/collision-statistics).

The 46-55 age group had the largest proportion of deaths, accounting for 19.7% of the total. The 76-85 and 86+ age groups had the highest death rates, at 17.3 and 23.9 deaths per 100,000 population respectively. The overall MVI death rate across the province was 8.6 per 100,000 population.

This is consistent with trends observed for the preceding five year: the death rate in the two oldest age groups, although variable due to small population sizes, is consistently higher than the provincial average. No increasing trend has been observed in MVI fatalities among older adults.

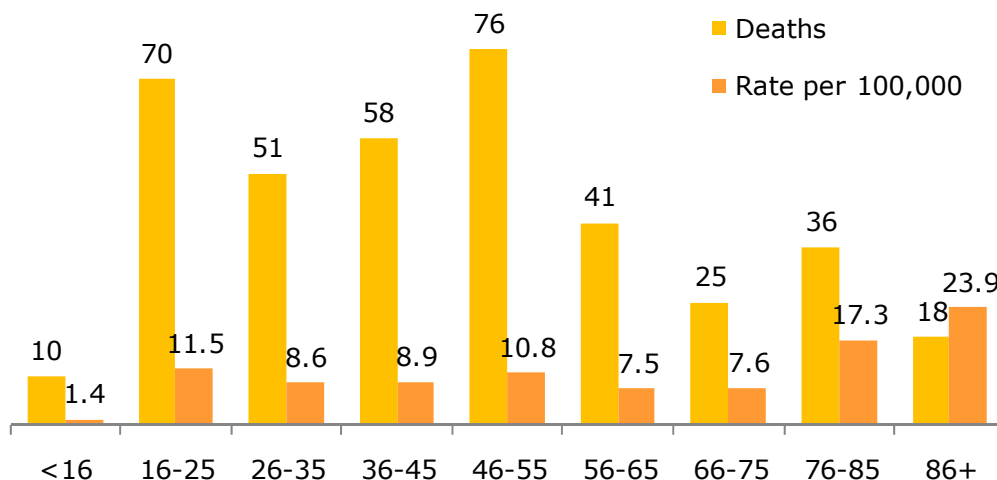


Figure 10. MVI Deaths and Death Rate per 100,000 Population by Age Group (2009)

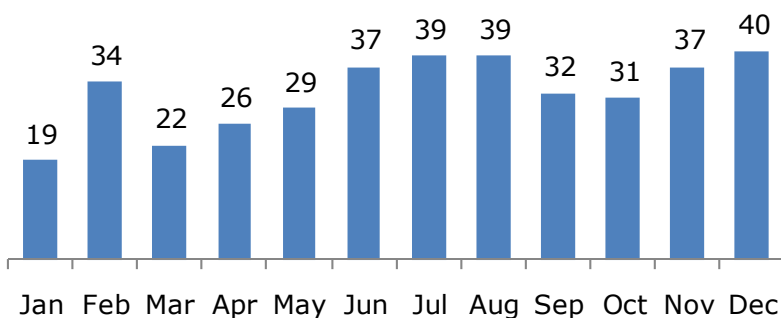


Figure 11. MVI Deaths by Month (2009)

In 2009, the month of March had the lowest incidence of MVI deaths, while December had the highest.

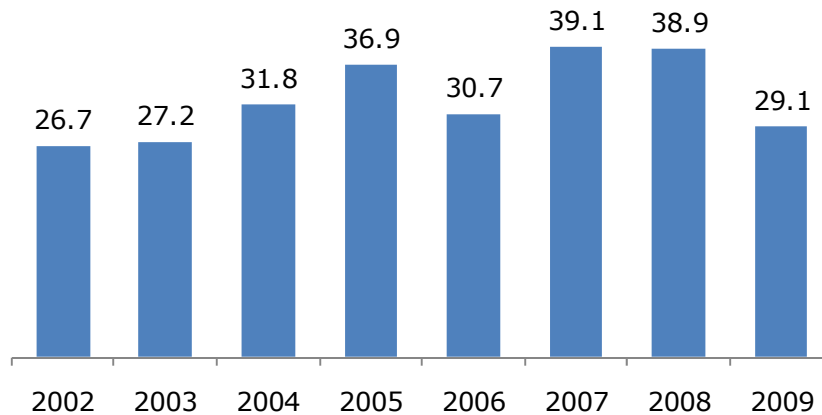


Figure 12. Percent of MVI Deaths with Alcohol and/or Drugs Contributing (2002-2009)

In 2009, alcohol contributed to 17.9% of deaths, drugs<sup>13</sup> to 6.0% of deaths, and drugs and alcohol combined to 5.2% of MVI deaths.

In their most recent statistical report on MVIs<sup>14</sup>, ICBC reported that alcohol was the second-most common human factor, after excessive speed, in fatal collisions.

Table 12. MVI Deaths with Alcohol and/or Drugs Contributing (2002-2009)

Contributing Factor	2002	2003	2004	2005	2006	2007	2008	2009 <sup>15</sup>
Alcohol	108	98	106	127	86	96	83	69
Drugs	12	10	21	21	19	31	21	23
Alcohol & Drugs	6	21	18	26	27	39	43	20
Total	126	129	145	174	132	166	147	112

<sup>13</sup> Drugs may include over-the-counter and prescription medications as well as illicit drugs.

<sup>14</sup> Traffic Collision Statistics: Police-Attended Injury and Fatal Collisions 2007, ICBC. Available online at: [www.icbc.com/road-safety/safety-research/collision-statistics](http://www.icbc.com/road-safety/safety-research/collision-statistics).

<sup>15</sup> At the time of writing, 67 of the 2009 MVI cases were still under investigation, thus the number deaths with drugs and/or alcohol contributing may increase.

## Motorcycle Deaths

In 2009 there were 47 deaths resulting from motorcycle crashes, a 17.5% increase from 2008. Active motorcycle licenses were held by 8.0% of drivers<sup>16</sup>; however motorcycle deaths represented 12.2% of all MVI deaths. This count does not include off-road motorcycles such as dirtbikes, unless these were being operated on a roadway at the time of the incident.

While the number of motorcycle deaths has increased 62.1% since 2002, the number of insured motorcycles has also increased. The rate of fatalities has remained relatively stable over this period.

Table 13. Motorcycle Deaths and Death Rate (2000-2009)

Year	Deaths	# Insured Motorcycles	Rate per 10,000 Licenses
2000	29	44,700	6.5
2001	22	49,200	4.5
2002	31	51,100	6.1
2003	33	55,100	6.0
2004	45	60,100	7.5
2005	48	65,500	7.3
2006	39	73,800	5.3
2007	48	79,800	6.0
2008	40	89,800	4.5
2009	47	93,700	5.0

<sup>16</sup> Data on the number of active motorcycle licenses and the number of insured motorcycles for 2000-2009 provided by ICBC. Counts rounded to the nearest hundred.

Table 14. Motorcycle Deaths by Region (2002-2009)

Region	2002	2003	2004	2005	2006	2007	2008	2009
Fraser	8	14	16	14	8	13	9	10
Interior	9	6	11	18	14	16	13	21
Island	4	7	11	9	6	10	9	7
Metro	3	5	4	4	7	6	6	7
Northern	7	1	3	3	4	3	3	2
Total	31	33	45	48	39	48	40	47

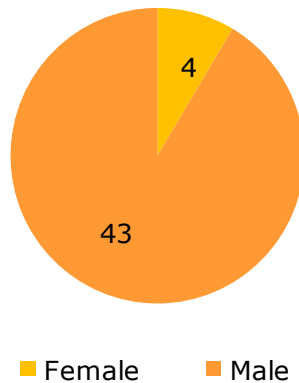


Figure 13. Motorcycle Deaths by Gender (2009)

Motorcycle fatalities were 91.5% male and 8.5% female.



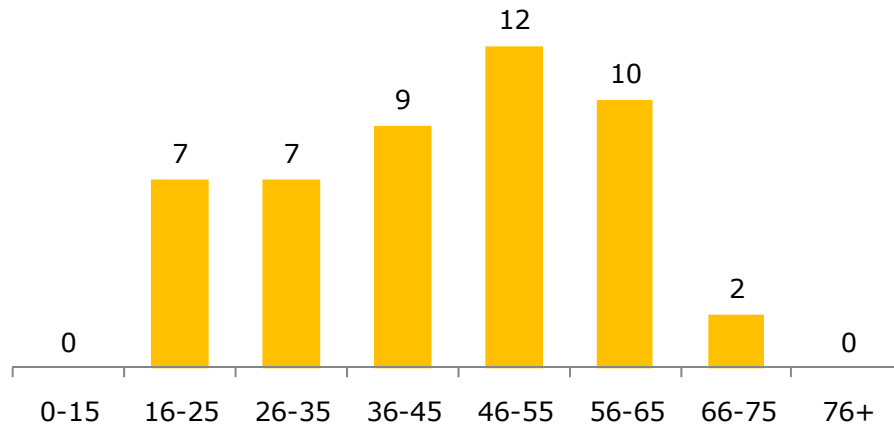


Figure 14. Motorcycle Deaths by Age Group (2009)

The 46-55 age group had the largest proportion of deaths, accounting for 25.5% of the total.

In 2009, the month of December had the lowest incidence of motorcycle deaths, while June had the highest.

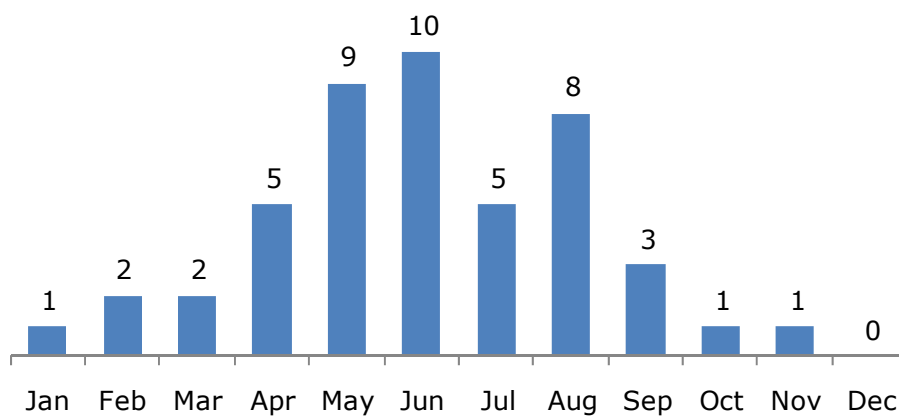


Figure 15. Motorcycle Deaths by Month of Death (2009)

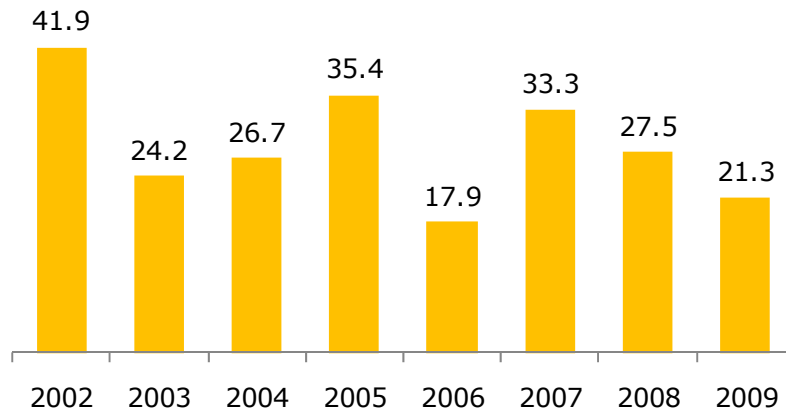


Figure 16. Percent of Motorcycle Deaths with Alcohol and/or Drugs Contributing (2002-2009)

Table 15. Motorcycle Deaths with Alcohol and/or Drugs Contributing (2002-2009)

Contributing Factor	2002	2003	2004	2005	2006	2007	2008	2009
Alcohol	11	4	7	10	4	9	8	6
Drugs	1	-	2	6	2	2	-	2
Alcohol & Drugs	1	4	3	1	1	5	3	2
Total	13	8	12	17	7	16	11	10

## Child Deaths

The BCCS investigates the deaths of all children in B.C., including natural and expected deaths, to better understand how and why children die. A child is defined as anyone under the age of 19.

In September of 2007, a revision to the Coroners Act specified that all child deaths must be reported to the BCCS. As a result of this legislative change, a greater number of child deaths are investigated each year, beginning in 2008, than in previous years. This increase is primarily in natural deaths.

Table 16. Child Deaths by Classification of Death (2005-2009)

Classification	2005	2006	2007	2008	2009
Accidental	65	72	71	84	54
Homicide	5	15	5	12	8
Natural	72	89	81	215	188
Suicide	13	15	11	14	11
Undetermined	31	27	39	35	29
<b>Total</b>	<b>186</b>	<b>218</b>	<b>207</b>	<b>360</b>	<b>290</b>

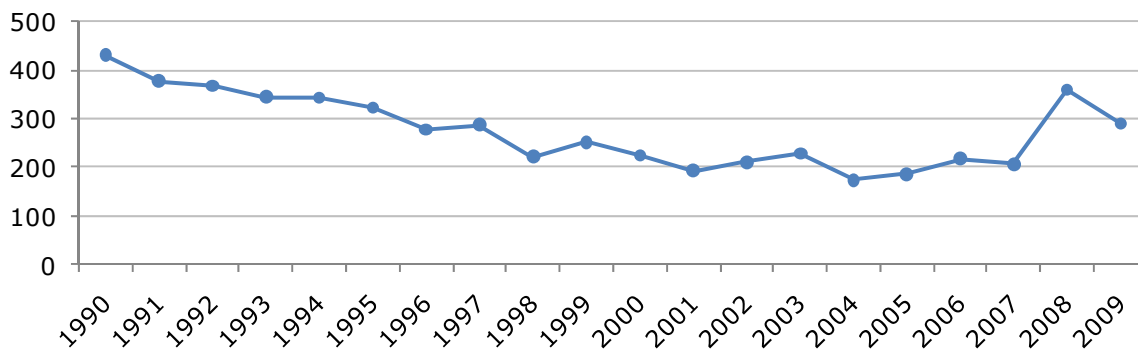


Figure 17. Total Number of Child Deaths Reported to the BCCS (1990-2009)

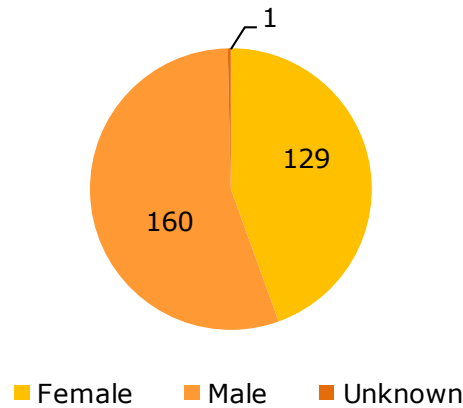


Figure 18. Child Deaths by Gender (2009)

In 2009, there were 290 deaths of children in B.C. Of these, 55.2% were male and 44.5% were female. Gender was unknown for one child, or 0.3%.

Although a child is anyone from birth through age 18, 54.8% of child deaths were infants under the age of 1 year.

Table 17. Child Deaths by Age Group (2009)

Age Group	Deaths
< 1	159
1-4	26
5-9	19
10-14	20
15-18	66
<b>Total</b>	<b>290</b>

Table 18. Child Deaths by Region (2009)

Region	Deaths
Fraser	46
Interior	31
Island	45
Metro	123
Northern	45
<b>Total</b>	<b>290</b>

Table 19. Accidental Child Deaths by Means of Death (2005-2009)

Means Of Death	2005	2006	2007	2008	2009
Motor Vehicle Incident	36	44	44	45	30
Alcohol and/or Drug Poisoning	4	6	7	8	3
Drowning	8	4	1	6	4
Fall	2	1	6	3	2
Fire	1	3	-	2	7
Airway Obstruction	1	2	4	4	1
ATV/Dirtbike	1	2	-	1	1
Medical Treatment	1	2	2	-	-
Crushing	-	1	-	2	1
Fire Arms	-	1	1	2	-
Machinery/Forklift	2	-	1	1	-
Exposure: Cold	1	-	1	1	-
Poisoning: Other	1	1	-	1	-
Railway	1	1	1	-	-
Snowmobile	2	1	-	-	-
Aircraft Incident	-	1	-	-	1
Bicycling <sup>17</sup>	1	1	-	-	-
Recreation/Sport	2	-	-	-	-
Struck by Falling Tree	-	-	-	1	1
Tractor	-	-	-	1	1
Other	-	1	2	4	-
Under Investigation	1	-	1	2	2
<b>Total</b>	<b>65</b>	<b>72</b>	<b>71</b>	<b>84</b>	<b>54</b>

<sup>17</sup> Road or mountain biking; no motor vehicle involvement. Cycling accidents with a motor vehicle involved (i.e. cyclist struck by vehicle) are counted in the Motor Vehicle Incident category.

Deaths due to MVIs are the leading cause of accidental death in children, accounting for 55.6% of accidental deaths in 2009.

Table 20. Child MVI Deaths by Position in Vehicle or Vehicle Type (2005-2009)

Position/Vehicle Type	2005	2006	2007	2008	2009
Driver	13	10	11	13	11
Passenger	18	19	21	23	11
Motorcycle, Moped	3	1	2	3	-
Pedestrian	1	7	9	4	6
Bicyclist	-	4	1	1	2
Other	1	3	-	1	-
Total	36	44	44	45	30

## Suicide

Table 21. Suicides in B.C. (1990-2009)

Year	Deaths	Rate per
1990	426	12.9
1991	489	14.5
1992	514	14.8
1993	492	13.8
1994	513	14.0
1995	534	14.1
1996	557	14.4
1997	583	14.8
1998	509	12.8
1999	498	12.4
2000	484	12.0
2001	471	11.6
2002	537	13.1
2003	478	11.6
2004	526	12.7
2005	487	11.6
2006	461	10.9
2007	476	11.0
2008	480	10.9
2009	510	11.4

There were 510 suicide deaths in 2009. The number of suicide deaths in B.C. has remained steady over the past 20 years.

However, because the population of B.C. has been increasing during this period, this translates into a decline in the provincial suicide rate (number of deaths per 100,000 people).

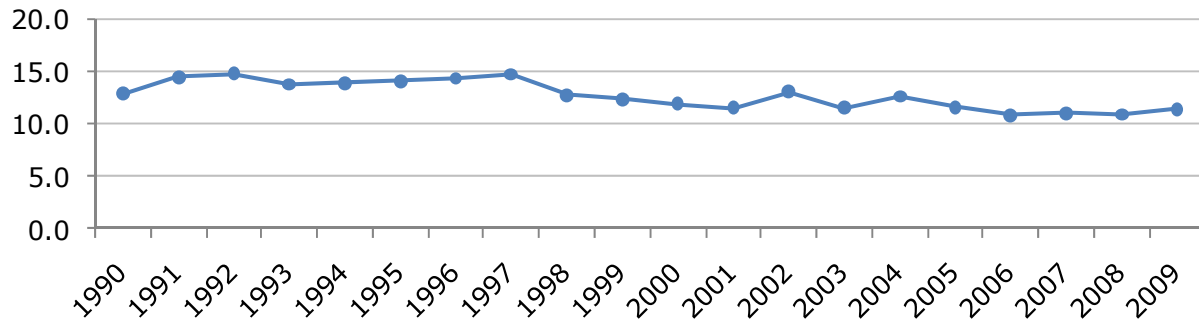


Figure 19. Suicide Rate in B.C. per 100,000 Population (1990-2009)

Table 22. Suicide Rate by Region (2009)

Region	Deaths	Rate per 100,000 Pop.
Fraser	129	8.2
Interior	94	12.8
Island	106	14.1
Metro	124	11.1
Northern	57	20.0
<b>Total</b>	<b>510</b>	<b>11.4</b>

There were 11.4 suicides for every 100,000 people in B.C. In 2009, down from a high of 14.8 in 1992/1997.

The lowest regional suicide rate was for Fraser, which had 8.2 suicide deaths per 100,000 people in 2009. The highest region rate was for Northern, which had 20.0 suicide deaths per 100,000 people.



Table 23. Suicide Means of Death (2009)

Means of Death	Deaths
Hanging	202
Poisoning: Alcohol/Drugs/Other	96
Fire Arms	70
Fall	40
Poisoning: CO <sup>18</sup>	27
Cutting/Incised Injury	19
Suffocation/Smothering	16
Drowning <sup>19</sup>	8
MVI	7
Fire	5
Railway/SkyTrain	4
Electrical	2
Other	10
Under Investigation	4
<b>Total</b>	<b>510</b>

Hanging accounted for 39.6% of all suicide deaths in B.C. in 2009. Intentional self-poisoning was the second-most common means of death, accounting for 18.8% of cases.

Males were three times more likely to die by suicide, accounting for 77.3% of deaths. This gender disparity in suicide is observed world wide, although there is some cultural variation<sup>20</sup>.

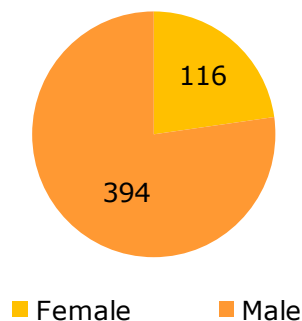


Figure 20. Gender of Suicide Deaths (2009)

<sup>18</sup> Does not include deaths with a means of death of Fire or MVI .

<sup>19</sup> Does not include deaths with a means of death of Fall or MVI.

<sup>20</sup> World Health Organization. More detail can be found on the WHO webpage on suicide at: [www.who.int/topics/suicide/en/](http://www.who.int/topics/suicide/en/).

Table 24. Suicide Deaths by Age Group and Gender (2009)

Age Group	Female	Male	Total
≤ 9	-	-	-
10 - 19	4	15	19
20 - 29	17	48	65
30 - 39	19	69	88
40 - 49	29	84	113
50 - 59	25	83	108
60 - 69	11	51	62
70 - 79	6	28	34
80 +	5	16	21
Total	116	394	510

Average age of death by suicide in 2009 was 47.9 years.

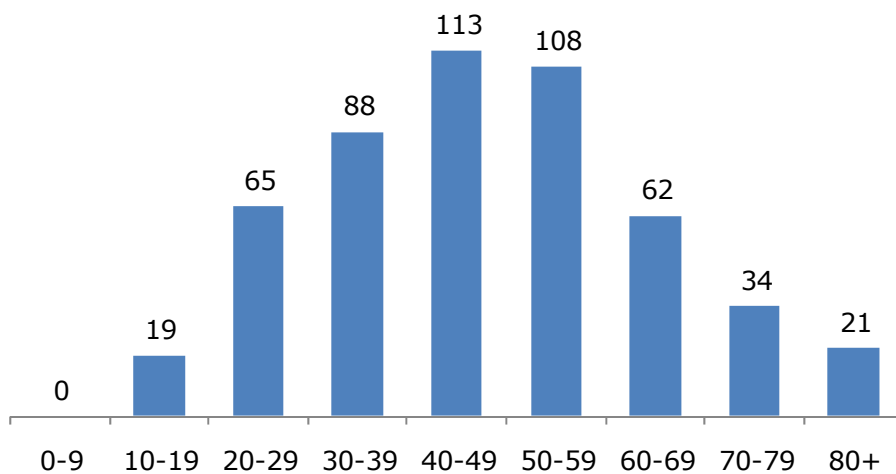


Figure 21. Suicide Deaths by Age Group (2009)

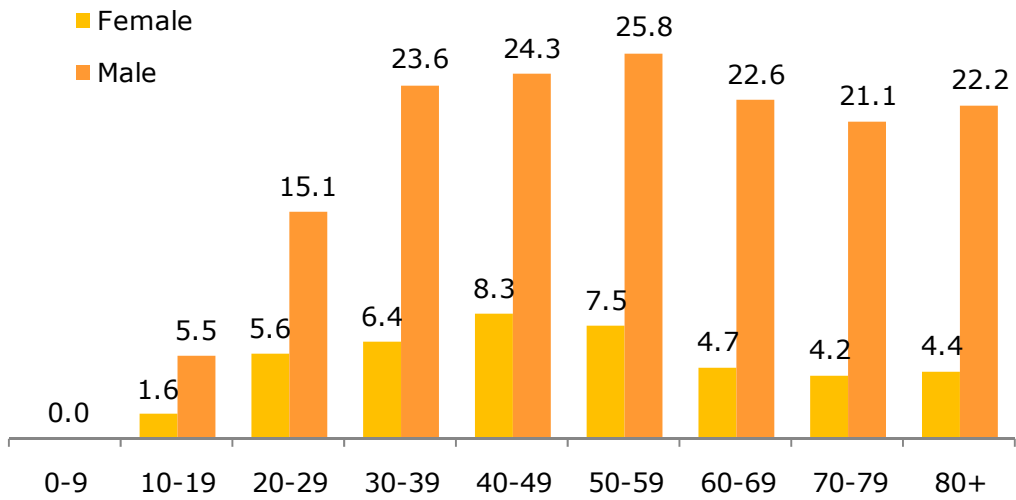


Figure 22. Suicide Rate per 100,000 Population, by Age Group and Gender (2009)

## Illicit Drug Deaths

There were 204 illicit drug deaths in B.C. in 2009. There has been a downward trend in illicit drug deaths in B.C. since 1998, when deaths peaked at 417.

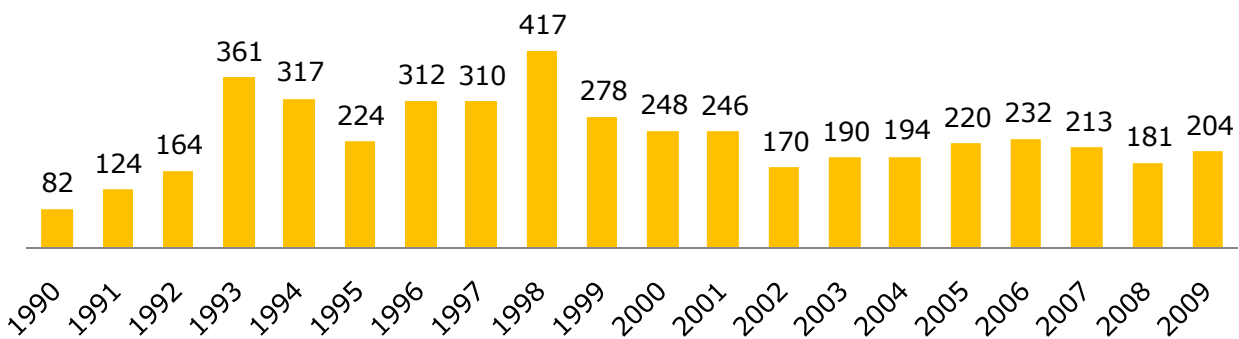


Figure 23. Illicit Drug Deaths in B.C. (1990-2009)

Table 25. Illicit Drug Deaths and Death Rate by Region (2009)

Region	Deaths	Rate per 100,000 Pop.
Fraser	55	3.5
Interior	32	4.4
Island	32	4.3
Metro	78	7.0
Northern	7	2.5
<b>Total</b>	<b>204</b>	<b>4.6</b>

The Metro region had the highest rate of illicit drug deaths, with 7 per 100,000 people. The Northern region had the lowest rate, with 2.5 deaths per 100,000 people.

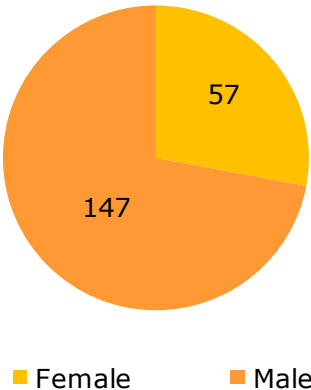


Figure 24. Illicit Drug Deaths by Gender (2009)

Decedents were almost three times more likely to be male, 72.1%, than female, 27.9%.

A majority of illicit drug deaths in 2009, 92.2%, were accidental overdose events.

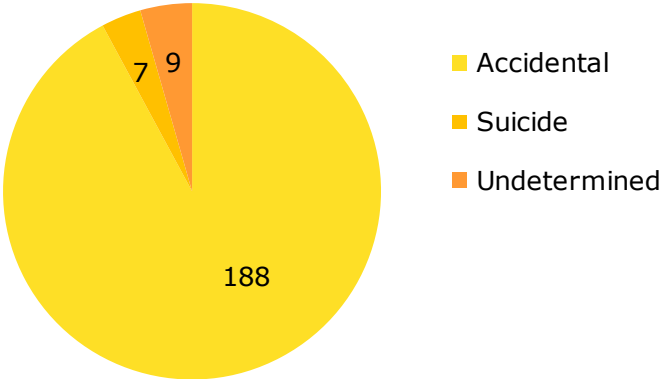


Figure 25. Illicit Drug Deaths by Classification of Death (2009)

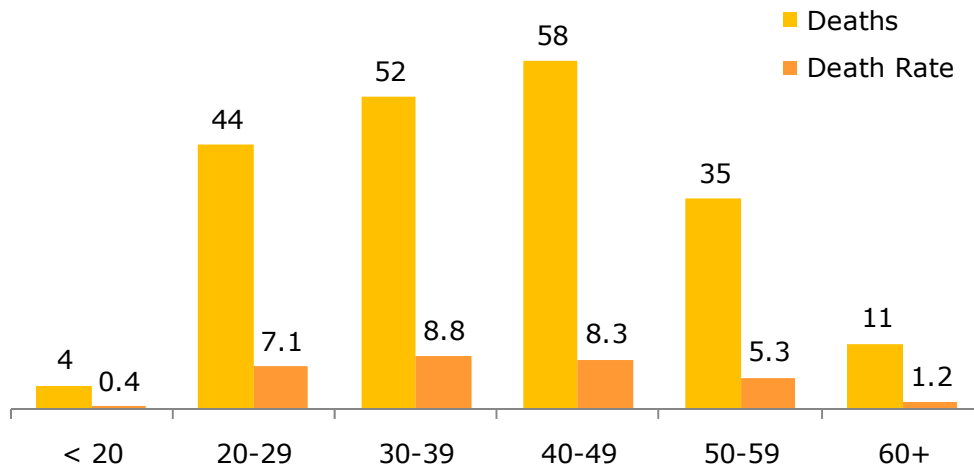


Figure 26. Illicit Drug Deaths and Rate per 100,000 Population, by Age Group (2009)

Table 26. Illicit Drug Deaths by Age Group (2009)

Age Group	Deaths
< 20	4
20-29	44
30-39	52
40-49	58
50-59	35
60 +	11
<b>Total</b>	<b>204</b>

## 4: Prevention

### Recommendations

In addition to investigation, prevention of death also forms part of the mandate of the BCCS. The principal means of prevention is the issuing of recommendations following an investigation, so that a similar death is less likely to occur in the future.

Recommendations focus on improving systems and standards, and may be issued to both public and private agencies. In addition to the recommendations that a jury may make following inquest proceedings, a coroner can also make recommendations, where appropriate and feasible. Prior to September 2008, a jury or coroner could make one of two types of recommendations:

*Action:* a change is recommended to the agency and a response to this recommendation is requested by the BCCS. Recommendations may be directed to one or more agencies/ individuals.

*Information:* no changes are recommended, but the findings of the investigation are brought to the agency or individual's attention for informational purposes only. A response to the information is not requested.

As of September 2008, the BCCS no longer issues recommendations for information purposes.

A response to action recommendations is requested within 90 days of distributing the recommendation.

The Chief Coroner is responsible for bringing the findings and recommendations from coroner's investigations and inquest juries to the attention of appropriate individuals, agencies, the public and ministries of government. Although the BCCS has no statutory authority to order change or otherwise ensure that recommendations are carried out, it is expected that recommendations will be given serious consideration by the agencies to which they are directed.

The BCCS has been successful in having recommendations considered and implemented in the past, as indicated by the reported recommendation response rate. As a direct result of coroner and jury recommendations, policies and procedures have been changed with the goal of preventing similar deaths in the future.

## Recommendation Statistics

The BC Coroners Service distributed recommendations on 50 deaths in 2009, issued by juries at inquest or through coroner's investigations. There were a total of 317 distributions; one recommendation may be distributed to multiple recipients. Each distribution is counted in the following statistics, thus if a recommendation is issued to three separate agencies, it is counted as three recommendations.

The 50 deaths resulting in recommendations occurred in 43 separate incidents: 39 were coroner cases and 11 were inquest cases. The majority of these were accidental deaths. Of the 317 recommendations distributed in 2009, 85 were made by Coroners and 232 were made by Inquest juries.

**Table 27. Number of Recommendations Distributed by Type and Year<sup>21</sup> (2005-2009)**

Year	Deaths	Incidents	Type	#	Total
2005	73	64	Action	228	274
			Information	46	
2006	68	67	Action	149	187
			Information	38	
2007	129	120	Action	615	684
			Information	69	
2008	89	86	Action	451	506
			Information <sup>22</sup>	55	
2009	50	43	Action	317	317

<sup>21</sup> The increases in the number of recommendations issued in 2007 and 2008 are due in part to an increased number of inquests and/or the number of recommendations per inquest.

<sup>22</sup> As of September 2008, the BCCS no longer issues recommendations for information purposes.



The Coroners Service had an 87.1% response rate to recommendations in 2009, with 88.0% of responses being positive<sup>23</sup>. This response rate is expected to increase, as the response due dates for many recommendations issued in 2009 have yet to arrive.

Table 28. Number of Recommendations Distributed by Classification of Death and Source (2009)

Classification	Coroners Recs.	Jury Recs.	Total
Accidental	64	56	120
Homicide	-	20	20
Natural	12	-	12
Suicide	4	142	146
Undetermined	5	14	19
Total	85	232	317

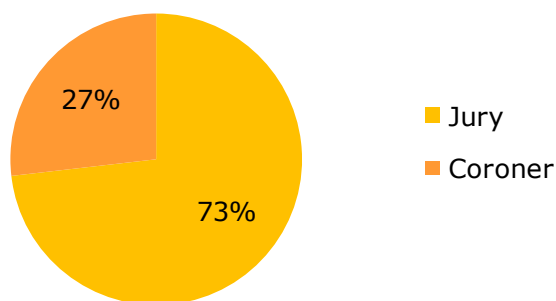


Figure 27. Percentage of Recommendations Distributed by Source (2009)

<sup>23</sup> Positive responses include those where agencies acknowledge the recommendation(s), have already taken action or are going to be taking further action to implement the recommendation(s), or are taking the recommendation into consideration and evaluating further. A negative response includes those where agencies are unable to implement the recommendation. A negative response may sometimes be warranted; for example, an agency may not be able to implement recommended changes due to legislative reasons or financial constraints.

Table 29. Recommendations by Topic and Source (2009)

Topic	Coroner	Jury	Total
Medical	30	153	183
Drug/Alcohol Treatment	-	39	39
Police/Corrections	3	23	26
Air Transport	20	-	20
Industry	3	17	20
Social Services	8	-	8
Road Safety	7	-	7
Recreation	5	-	5
Animal Care	3	-	3
Motorized Wheelchair	3	-	3
Mental Health Services	2	-	2
Firearms	1	-	1
<b>Total</b>	<b>85</b>	<b>232</b>	<b>317</b>

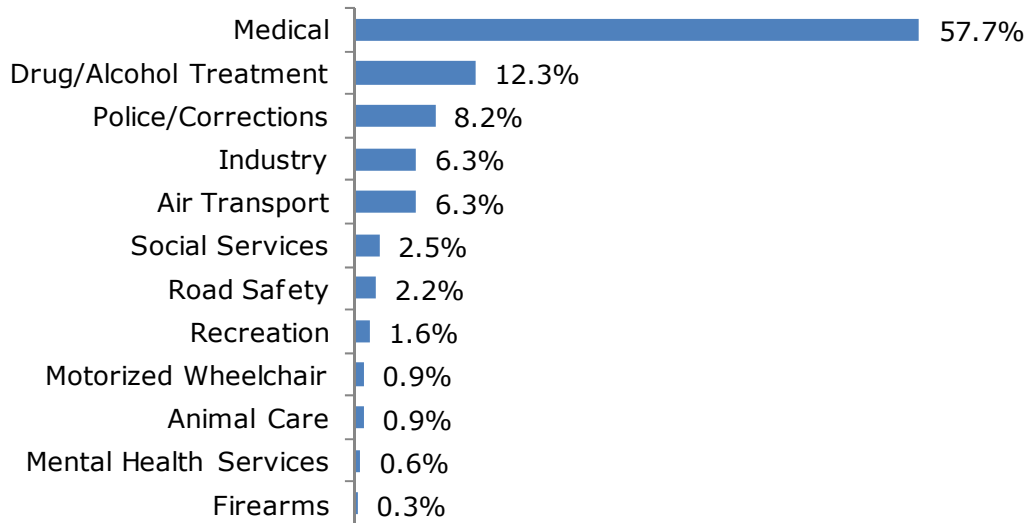


Figure 28. Topic of Recommendations (2009)

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Table 30. Agencies Receiving Ten or More Recommendations (2009)

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Recipient	#
Ministry of Health	45
Fraser Health Authority	43
RCMP "E" Division	31
WorkSafe BC	19
Transport Canada	19

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## Coroner's Recommendation Cases

The following case summaries represent all investigations by coroners where public safety concerns were identified and recommendations were made to prevent future injuries and deaths occurring in similar circumstances. In each of these cases, the recommendations were issued in 2009.

### Medical

**Medical Case 1:** In January 2006, emergency personnel were called to a care facility after a 76 year old woman choked while being fed by a care aide. Resuscitative efforts were undertaken but she could not be resuscitated. The death was classified as Accidental. A recommendation was forwarded to the care facility to review their policy on internal procedures and first aid and assessment techniques.

**Medical Case 2:** In June 2006, a 27 year old man was discovered deceased in his residence. He was a Type I diabetic and used an insulin pump for insulin delivery. Investigation subsequently determined that the pump malfunctioned causing the administration of an excess amount of insulin leading to death by asphyxia due to a hypoglycaemic seizure. The death was classified as Accidental. Recommendations were forwarded to the manufacturer of the pump to develop a technology that would alert the user of damage or over-delivery of insulin, and to Health Canada to improve laboratory resources sufficiently to allow for more in-depth testing of devices.

**Medical Case 3:** In February 2007, a 25 year old man entered a commercial building, took the elevator to the 9th floor, and proceeded to walk out onto a balcony and jump to his death. The man had been an involuntary patient in the psychiatric unit of a hospital who had been reported missing earlier that day by staff. The death was classified as Suicide. Recommendations were forwarded to the hospital and Health Authority Quality Improvement and Patient Safety to review the case to determine if current policy was reasonably followed.

**Medical Case 4:** In January 2008, a 37 year old man was discovered deceased in a stairwell of a residential apartment building. The man was known to abuse alcohol and illicit drugs and had been prescribed methadone for a chronic pain condition. He was allowed to pick up a week's supply of methadone at a time from the pharmacy. Investigation revealed that he did not pick up his supply of methadone regularly and recently had a gap of approximately 7 weeks between collections of his prescription. Toxicological testing determined the death was due to an elevated blood level of methadone. The death was classified as Accidental. A recommendation was sent to the

College of Pharmacists of B.C. and the College of Physicians and Surgeons of B.C. to review their processes for monitoring the dispensation of methadone to chronic pain patients.

**Medical Case 5:** In March 2008, a 90 year old man with extensive medical history which required a variety of prescription medications suffered a fall down stairs at his residence. He was transferred by ambulance to hospital where he was diagnosed with a soft tissue injury and provided with Tylenol. X-ray of the right hip area was negative for fracture. His condition deteriorated and it was determined that he had suffered an extensive intracranial haemorrhage and he died later the same day. The death was classified as Accidental. Recommendations to the Health Authority and the College of Physicians and Surgeons of B.C. suggested a review of initial hours of medical care provided to this patient.

**Medical Case 6:** In September 2008, a 53 year old woman was discovered deceased in a residential treatment facility. She had significant medical history which included HIV, Hepatitis C, COPD, sleep apnea, depression and polysubstance abuse and was on a number of prescribed medications, including methadone, which were all administered by staff. The postmortem examination did not identify a definitive cause for death. The pathologist referenced two recently published papers which suggested that users of atypical antipsychotic drugs may be at risk of sudden cardiac death. The death was classified as Undetermined. A recommendation was forwarded to the College of Physicians and Surgeons of B.C. to review and consider this recently published material.

**Medical Case 7:** In October 2008, a 72 year old man died in hospital following a successful day surgery related to his kidney disease. He was resting in the recovery room when he suffered a cardiac arrest. It was subsequently determined that he had been given a medication that he was allergic to. Investigation revealed that his allergy was recorded on his renal chart but not on his main medical chart. The death was classified as Accidental. A recommendation was sent to the Health Authority to ensure that a patient's medical chart adequately reflects the health status of each individual.

**Medical Case 8:** In July 2009, a 92 year old woman died in hospital following transfer from her care facility earlier that day due to uncontrolled fever. Her room at the care centre had been extremely hot. The province was experiencing a heat wave at the time, and hot weather warnings had been issued by Environment Canada, the Ministry of Environment and the B.C. Centre for Disease Control. Medical investigation determined she had died of dehydration and hyperthermia. The death was classified as Natural. A recommendation was forwarded to the Health Authority that all extended care facilities have written plans and procedures, as well as resources available for patient care during periods of hot weather.

**Medical Case 9:** In September 2009, a 69 year old man died in hospital following a fall in his home the day before. He was alert on arrival at the hospital, but was found to have reduced consciousness when next assessed approximately 4 hours later. He was

transferred the following morning for neurosurgical assessment, but died shortly after arriving. The death was classified as Accidental. Recommendations were forwarded to the Health Authority and the hospital to review the triage in reference to meeting national CTAS guidelines.

## Transportation

**Transportation Case 1:** In April 2005, an 84 year old man was discovered unresponsive in a church rear parking lot next to a retaining wall. His motorized scooter (personal mobility device) was nearby. He died later in hospital from head injuries. Investigation revealed that the man had significant vision problems and had recently purchased a new motorized scooter which was slightly faster than his old one. The death was classified as Accidental. A recommendation was put forward to the property owner to incorporate a barricade along the length of the retaining wall for safety purposes.

**Transportation Case 2:** In January 2007, a 74 year old man in a motorized scooter was struck by a passing dump truck when his scooter caught a snow ridge on the sidewalk and tipped onto the roadway. Investigation determined that there was no maximum speed limit for personal mobility devices in B.C. and that they are currently classified as a Class 1 medical device that do not require licensing, testing or evaluation of the competency of the user. The death was classified as Accidental. Recommendations were forwarded to the Superintendent of Motor Vehicles, the municipality where the incident occurred, the Union of B.C. Municipalities, and the Minister of Transportation and Infrastructure, to consider amending current municipal bylaws to reduce the speed that scooters may operate on sidewalks. Recommendations were also forwarded to Health Canada to consider the requirement for a speedometer and amending the classification of the personal mobility device or scooter from a Class 1 medical device to a Class II or III medical device to reflect the significant change in use, performance specifications and safety, and to ensure the ongoing regulation of design and performance through licensing.

**Transportation Case 3:** In March 2007, a 49 year old man was discovered pinned between a large dumpster and the commercial garbage truck he had been operating. The man had exited the vehicle to unlock the lid of the dumpster and the vehicle rolled forward when he was in front of it. The vehicle was manufactured in France. The man suffered fatal crush injuries as a result. The death was classified as Accidental. A recommendation was forwarded to the Minister of Transport, Infrastructure and Communities to standardize air operated parking brake systems on all vehicles imported into Canada to consist of a single operation pull on/push off system as is currently found in commercial vehicles manufactured in North America.

**Transportation Case 4:** In August 2007, a 54 year old man was driving his car westbound on Highway 4 when he was struck by an oncoming vehicle. Mechanical failure and weather, road and visibility conditions were ruled out as factors in the collision. Investigation revealed previous incidents of head-on crashes in this stretch of the highway. The death was classified as Accidental. A recommendation to the Ministry of Transportation and Infrastructure suggested that centreline strips be installed in this area of the highway.

**Transportation Case 5:** In September 2007, a 75 year old man was killed when an oncoming vehicle crossed the centre line and struck his vehicle in a head on collision on Highway 4. Road, weather conditions, speed and alcohol use were all ruled out as contributory factors. This stretch of highway had a history of serious and fatal crashes. No centre line rumble strips were present at the time of this incident. The death was classified as Accidental. A recommendation was put forward to the Ministry of Transportation and Infrastructure to consider installing rumble strips on this particular section of highway.

**Transportation Case 6:** In November 2007, a vehicle travelled onto the shoulder of the road and collided with a vehicle stopped on the shoulder, forcing it into a ditch. The second vehicle, which sustained extensive damage in the collision, was presumed to have been abandoned on the side of the road. When it was recovered to the roadway approximately 60 minutes later, the tow truck driver discovered the body of a 50 year old woman in the front seat. The death was classified as Accidental. Recommendations to the RCMP and the towing company were forwarded regarding vehicle checks prior to recovery and removal from an accident scene.

**Transportation Case 7:** In September 2008, a 42 year old male driver and his passenger were recovered from a single vehicle rollover incident down a steep embankment on a well travelled residential road. The driver subsequently died from his injuries. The incident had occurred on a curved portion of roadway. The death was classified as Accidental. Recommendations were forwarded to the Ministry of Transportation to post a yellow warning sign advising motorists of the upcoming sharp curve and to consider install a series of delineators along the curve side of the highway.

**Transportation Case 8:** In June 2009, a 46 year old man died when his vehicle left the roadway after entering a curve and rolled down a steep embankment on Highway 6. There was no signage present indicating an advisory speed limit for the curve, and no barrier was in place at the location. Investigation determined a similar fatal incident had occurred at the same location 2 years earlier. The death was classified as Accidental. Recommendations to the Ministry of Transportation and Infrastructure were related to a review of the present signage and consideration of extension of the concrete no-post barrier to prevent vehicles from rolling down the bank on the north side of the highway.

## Aviation

**Aviation Case 1:** In February 2005, a floatplane with a pilot and four passengers was reported overdue when they did not arrive at their logging camp destination. The body of one of the passengers, a 40 year old man, was recovered from the ocean near their destination three days later. The wreckage of the plane was found approximately 5 months later. The bodies of the pilot and the other passengers have not been recovered. Investigation revealed that the plane was flying under full throttle at the time of impact and there was no evidence of contributory pre-impact conditions. Life vests were stowed in the cockpit. The death was classified as Accidental. A number of recommendations were put forward to Transport Canada, the Transportation Safety Board, the B.C. Forest Safety Council, and the Workers' Compensation Board with respect to enhanced safety equipment and training for air taxi pilots while transferring workers in B.C.

**Aviation Case 2:** In August 2007, a commercial hot air balloon caught fire shortly after launching. The fire caused the tethering strap to fail and the balloon continued to climb until the burning wreckage fell to the ground. Two women, aged 21 and 49 years, died from thermal and blunt force injuries as a result of this incident. The ignition source was subsequently determined to be a disconnected/unsecured fuel line from one of the propane cylinders on board. The deaths were classified as Accidental. A number of recommendations were put forward to Transport Canada with respect to safety inspections of commercial hot air balloons and standards surrounding the carriage of fare-paying passengers.

## Recreation

**Recreation Case 1:** In April 2007, a 24 year old woman and 27 year old man died after being caught in an avalanche while on a guided wilderness heli-ski tour. Investigation determined that although the guide had completed assessments of snowpack stability, these had failed to reveal the weakness that resulted in the avalanche due to variability in snow conditions at different sites on the mountain. The guide was the only individual in the group of skiers equipped with an avalanche floatation device. The deaths were classified as Accidental. Recommendations were directed to WorkSafe B.C. and HeliCat Canada related to a multi-agency evaluation of the efficacy of avalanche floatation devices use in helicopter and snowcat ski guide operations.

**Recreation Case 2:** In December 2007, a 24 year old man and a 26 year old man were trapped in an avalanche while "high marking" on an approximately 40-45 degree slope with their snowmobiles. The risk for avalanche had been rated as "considerable" in the area indicating natural avalanches are possible and human triggered avalanches are probable. The men were not carrying beacons, probes or shovels with them on this day. The deaths were classified as Accidental. Recommendations were forwarded to the



International Snowmobile Manufacturers Association to enhance avalanche awareness and education by providing information in promotional sales materials and on their website.

## Child Death

**Child Death Case 1:** In July 2006, a 16 year old girl jumped from a public viewpoint, landing on rocks approximately 75 metres below. She was experiencing a number of personal issues and had made previous suicide attempts. She had been involved in numerous programs and with various mental health professionals. The death was classified as Suicide. The coroner recommended that the case be forwarded to the Office of the Representative for Children and Youth for further review.

**Child Death Case 2:** In January 2007, a one month old boy was found unresponsive in his crib. He had been taken to hospital by his foster parent the day before, and was sent home believed to be suffering from a virus. He and his mother had resided briefly at a hospital unit before he was taken into foster care. Investigation revealed his mother had been treated for an infection during her pregnancy, and while the child had tested negative at birth he was to be tested again at three months of age. There was no record of this available when he was brought to hospital the day before he died, and thus the physicians assessing him were unaware of the possible risk of infection. Several issues regarding inter-agency communication between the Ministry of Child and Family Development and the hospital unit were identified that may have contributed to the insufficiency in medical charting. The death was classified as Natural. Recommendations were forwarded to the hospital, the College of Registered Nurses of B.C., the Health Authority and the Ministry of Child and Family Development related to educational workshops and improved inter-agency documentation and communication, including checklists and follow up contact with patients.

**Child Death Case 3:** In March 2007, an infant boy was delivered by Caesarean section at 29 weeks gestation; he lived for 24 minutes. Postmortem examination concluded that death was from craniocerebral trauma due to laceration by surgical scalpel during the delivery. The death was classified as Accidental. A recommendation was forwarded to University of British Columbia General Surgery Residency Program and Obstetrics and Gynecology Residency Program to include complications of Caesarean section in the educational curriculum for all trainees.

**Child Death Case 4:** In April 2007, family members discovered a four month old boy unresponsive in his crib. The child had been living with extended family members after his birth. Investigation identified that while all Ministry of Children and Family Development policy and service standards were met, a focus on planning and assessment for the child was lacking, likely due to the movement of the family from one jurisdiction to another. The death was determined to be a Sudden Unexpected Death in

Infancy and was classified as Undetermined. A recommendation was put forward to the Ministry of Attorney General and the Ministry of Children and Family Development to meet and determine the best way to improve information sharing between the Ministry and Family Relations Act courts.

**Child Death Case 5:** In April 2007, a six day old boy was discovered unresponsive when his mother fell asleep while breastfeeding him in her hospital bed. The death was determined to be a Sudden Unexpected Death in Infancy with bedsharing noted as a risk factor. The death was classified as Undetermined. A recommendation forwarded to the Health Authority suggested that new parents be advised of the Canadian Paediatric Society's position on Safe Sleep for Babies as it relates to safe sleeping and safe breastfeeding practices and that it be started immediately after delivery.

**Child Death Case 6:** In November 2007, a two year old girl with a history of cystic fibrosis suffered a witnessed collapse at her home. She was transferred to hospital but could not be resuscitated. The child required daily physiotherapy to assist in her breathing and to clear her airway. At the time of her death, arrangements were being made by the Ministry of Housing and Social Development for an in-home oxygen saturation monitor and emergency oxygen supply. The death was classified as Natural. A recommendation to the Minister of Housing and Social Development suggested that the Ministry develop a service standard for applications for immediate need from existing clients that ensures a response time of 24-48 hours as currently provided to new applicants with similar requests.

**Child Death Case 7:** In June 2008, a three year old boy died after falling into a residential swimming pool. Investigation determined the pool conformed to existing municipal bylaws, and that strengthening pool regulations was unlikely to improve pool safety. It was acknowledged that there is a lack of public awareness around this issue. The death was classified as Accidental. Recommendations were issued to the Ministry of Housing and Social Development and the Union of B.C. Municipalities, related to development of a multi-agency, non-partisan working committee to consider strategies to reduce future risk of child drowning and to consider a year-round public service announcement regarding the threat of drowning that back yard pool pose, regardless of season.

**Child Death Case 8:** In July 2008, a two day old girl was found unresponsive after she and her mother fell asleep in the mother's hospital bed. The death was determined to be a Sudden Unexpected Death in Infancy with bedsharing noted as a risk factor. The death was classified as Undetermined. A recommendation was forwarded to the Health Authority to consider developing and implementing a safe sleeping policy for newborns in hospitals based on guidelines set out by the Canadian Paediatric Society.

## Other

**Other Case 1:** In May 2007, emergency personnel responded to a 911 call at a residence when a 32 year old woman was mauled while standing next to an enclosed tiger cage. The woman died from exsanguination as a result of her injuries. The death was classified as Accidental. Recommendations were forwarded to the Minister of Environment to ensure that the newly amended sections of the Wildlife Act related to possession, breeding, release, trafficking and shipping of 'controlled alien species' be implemented effectively and enforced as necessary to protect the public.

**Other Case 2:** In September 2007, a 52 year old man died in hospital, three days after shooting himself with one of his own rifles at his residence. The man had a history of depression and had been the subject of a criminal investigation which resulted in his firearms being seized by the RCMP. He subsequently attempted suicide by prescription overdose a number of times. His verbal threats to harm himself and others led to an RCMP request for a firearms prohibition from Crown Counsel. The criminal charges were stayed and the man requested and received his firearms back before the Crown Counsel request could be processed. The death was classified as Suicide. A recommendation was sent to the Ministry of Attorney General to improve communication between Crown Counsel and police when a firearms prohibition is a term of a judicial interim release order.

**Other Case 3:** In December 2008, first responders attended to a fire in a shopping cart in an urban area. The body of a 46 year old woman who was known to be homeless was subsequently recovered. It was later determined that the probable cause of the fire was the use of a candle in a confined space near combustible materials. The death was classified as Accidental. Recommendations to the municipality where the incident occurred and the Minister of Housing and Social Development suggested establishing programs for street entrenched people to secure their buggies/carts during winter months and that the location of these programs be made available to social service providers well in advance of opening.

## Public Safety Bulletins

The BCCS issues public safety bulletins in response to single incidents, environmental conditions, and recent trends in preventable deaths. These bulletins are released to media province wide and can be found on the BCCS website at [www.pssg.gov.bc.ca/coroners/public-safety/index.htm](http://www.pssg.gov.bc.ca/coroners/public-safety/index.htm). There was one public safety bulletin issued in 2009.

### **August 26, 2009: Faulty Computer Equipment Can Be Deadly**

Following an investigation into the circumstances surrounding a fatal fire that occurred in February 2009, the BCCS cautioned British Columbians about leaving laptop computers running on soft surfaces such as couches. The investigation found that, since 2004, four other laptops that either overheated or short-circuited when left plugged in have caused fires. In addition, there have been 15 fires caused by other electronic equipment short-circuiting or overheating, such as personal computers, DVD players, and cellphone chargers.

The BC Office of the Fire Commissioner and the BCCS and jointly advised people to always operate laptops on a hard surface that allows ventilation, shut down laptops when not in use, inspect and clean the air vents, and replace any equipment or parts that do not work according to manufacturer specifications and standards. Additionally, visit the Health Canada recall listings website at: [www.hc-sc.gc.ca/cps-spc/index-eng.php](http://www.hc-sc.gc.ca/cps-spc/index-eng.php), or call 1-866-662-0666, to see if a laptop has been recalled.

## Research

The BCCS is active in research, both within the organization and in collaboration with outside agencies. The purpose of this research is to inform and advance injury and death prevention efforts. A database system implemented by the BCCS in 2006 greatly expanded the capacity for data collection and analysis. Examples of research activities in 2009 include:

Provided motor vehicle incident (MVI) statistics to Northern Health for inclusion their CrossRoads report, which is published bi-annually as part of the Northern Health Authority's injury prevention program. Northern BC covers 63% of BC, with 156,000 km of roadway – and has the highest MVI fatality rate in the province. The data provided included information on the victims of fatal MVI incidents, the circumstances of the incident (such as the types of vehicle involved), and contributing factors such as drug and alcohol use. The 2009 CrossRoads reports can be viewed online at: [www.northernhealth.ca/YourHealth/InjuryPrevention/AtPlayandOntheMove/SafetyontheRoad.aspx](http://www.northernhealth.ca/YourHealth/InjuryPrevention/AtPlayandOntheMove/SafetyontheRoad.aspx).

Shared data on drownings with the Canadian Red Cross, in support of their efforts to compile and publish information on Canadian water-related injury and death. In 2009, the Red Cross completed their 10-year Drowning Trend Summary series with the publication of three drowning trend reports: Module 3: Boating and Powerboats, Module 4: Unpowered Boating, and Module 5: Fishing. The reports can be viewed online at: [www.redcross.ca/article.asp?id=360&tid=019](http://www.redcross.ca/article.asp?id=360&tid=019).

Shared monthly illicit drug death statistics were shared with the Canadian Community Epidemiology Network on Drug use (CCENDU). CCENDU is a collaborative project involving federal, provincial and community agencies with interests in drug use, health and legal consequences of use, treatment and law enforcement. These reports allow real-time tracking of illicit drug deaths. The goals of CCENDU are to: facilitate the collection and dissemination of information on drug use at the local, provincial and national levels; to serve as an early warning system concerning emerging trends; and ultimately to support and encourage sound policy and program development related to drug use. Their webpage can be viewed at: [www.ccsa.ca/Eng/Priorities/Research/CCENDU/Pages/default.aspx](http://www.ccsa.ca/Eng/Priorities/Research/CCENDU/Pages/default.aspx).

Continued to provide the Traffic Injury Research Foundation of Canada (TIRF) with motor vehicle incident fatality data. TIRF has used data from the BCCS to research alcohol-related motor vehicle fatalities since 1974. A fatality database is maintained for all provinces across Canada, providing a comprehensive source of information on alcohol use among persons fatally injured in motor vehicle accidents. This database provides a means of monitoring changes and trends and is a valuable tool for research on alcohol-impaired driving. More information can be found on their website at: [www.tirf.ca](http://www.tirf.ca).

## 5: Death Review Panels

### The Death Review Panel Process

The purpose of a Death Review Panel is to review the facts and circumstances of deaths, in order to provide advice to the Chief Coroner with respect to matters that may impact public health and safety and the prevention of deaths. Typically, a Death Review Panel is established following a series of deaths with similar circumstances, and for which there may be an opportunity for intervention to prevent further such deaths.

The *Coroners Act* outlines when a panel may be established in *Coroners Act* Section 49(1):

*49(1) The chief coroner may, and at the direction of the minister must, establish panels to review the facts and circumstances of deaths, including child deaths, in British Columbia for the purposes of providing advice to the chief coroner respecting*

*(a) medical, legal, social welfare and other matters that may impact public health and safety, and*

*(b) the prevention of deaths.*

Once the Chief Coroner has decided to establish a panel, a chairperson and members are appointed. A panel typically consists of experts and advocates drawn from a variety of disciplines, including health, education, policing, judicial services, public health, social services, and professional bodies.

The panel meets for a period of two to three days to discuss the circumstances and preventability of the deaths, and to confirm trends, patterns or themes. A primary goal of the review panel process is to identify gaps in services, system failures or shortcomings, and other opportunities for intervention that may prevent similar deaths in the future. Following the review, the panel may make recommendations pertaining to prevention of death and improvement of public safety. Members of the death review panel must not make any finding of legal responsibility or express any conclusion of law.

Following the review by the panel, the chair will report to the Chief Coroner any findings respecting the circumstances surrounding the deaths, and any recommendations respecting the prevention of similar deaths. Recommendations are then distributed by the Chief Coroner.

## 2009 Death Review Panels

There were two Deaths Review Panels held in 2009. The reports produced by the panels are public documents and can be viewed on our website.

On July 29 and July 30, 2009, a Death Review Panel was convened in Nanaimo to examine the circumstances surrounding the deaths of three tree fallers who died in coastal logging operations in the early part of 2008. The report detailing the findings and recommendations of the panel is available at: [www.pssg.gov.bc.ca/coroners/publications/docs/death-review-panel-treefallers.pdf](http://www.pssg.gov.bc.ca/coroners/publications/docs/death-review-panel-treefallers.pdf).

On November 9 and 10, 2009, a Death Review Panel was convened in Kamloops to examine the circumstances surrounding the deaths of 19 recreational snowmobile operators who died as a result of being buried in avalanches. The report detailing the findings and recommendations of the panel is available at: [www.pssg.gov.bc.ca/coroners/publications/docs/death-review-panel-avalanche-snowmobile.pdf](http://www.pssg.gov.bc.ca/coroners/publications/docs/death-review-panel-avalanche-snowmobile.pdf).

## 6: Inquests

### The Inquest Process

An inquest is a quasi-judicial hearing normally held in a public forum where witnesses are subpoenaed to testify under oath before a jury. There are several reasons to hold an inquest, which are outlined in the *Coroners Act* Sections 18(2), 18(3) and 19(1):

*18(2) The chief coroner must direct a coroner to hold an inquest if the deceased person died in any of the circumstances described in section 3(2)(a) [deaths while in the custody of peace officers].*

*18(3) The chief coroner may direct a coroner to hold an inquest if the chief coroner has reason to believe that*

*(a) the public has an interest in being informed of the circumstances surrounding the death, or*

*(b) the death resulted from a dangerous practice or circumstance, and similar deaths could be prevented if recommendations were made to the public or an authority.*

*19(1) The minister may order a coroner to hold an inquest if*

*(a) the coroner has not held an inquest but the minister is satisfied that it is necessary or desirable in the public interest that an inquest be held, or*

*(b) an inquest has been held already in respect of a death but the minister is satisfied that a second inquest is necessary or desirable in the public interest.*

The Chief Coroner has established a committee consisting of the Chief Medical Advisor, the Deputy Chief Coroner and the Chief Counsel to review deaths and to provide advice regarding the exercise of the Chief Coroner's authority under Section 18(3).

Once it has been determined that an inquest will be held, the Presiding Coroner begins preparing for the inquest. Inquests are scheduled well in advance to ensure that witnesses, the venue and counsel are available. Other investigating agencies (e.g., WorkSafeBC, police) and interested persons are advised that an inquest is planned. After dates are confirmed, next of kin, counsel and other involved agencies are officially notified of the inquest.

The Coroners Act authorizes the Presiding Coroner to issue a summons to any person who, in the opinion of the Presiding Coroner, might be able to give material evidence on the matters to be inquired into at the inquest. The Coroners Act also allows those whose



interests may be directly and substantially affected by the findings of the jury to participate in the inquest. These individuals may be granted participant status and may appear personally or by counsel, cross-examine and re-examine witnesses and, with permission, lead evidence and examine witnesses. Anyone wishing to participate in an inquest should apply to the Presiding Coroner in writing.

Prior to the inquest, copies of relevant materials as determined by the Presiding Coroner are made available to participants or their counsel. This material remains the property of the Coroners Service and must be returned at the conclusion of the inquest.

The sheriff summons the jury. If the inquest is being held into the death of a worker for whom Part I of the Workers Compensation Act applies, reasonable effort must be made to ensure all or part of the jury is composed of persons familiar with the type of work for which the deceased was employed. In addition to jurors, sheriffs, court reporters, witnesses, family of the deceased and members of the general public are also present at the inquest.

Inquest proceedings begin with the Presiding Coroner explaining the purpose of the inquest to the jury and the jury's responsibilities under the Coroners Act. The Presiding Coroner reviews applicable sections of the Coroners Act for the information of the jury, and Coroners Counsel gives a short summary of facts relating to the death. Witnesses are then called and examined by Coroners Counsel, participants and/or their counsel, the Presiding Coroner and members of the jury. Once all the evidence has been given, a summary is given to the jury by the Presiding Coroner. The jury prepares a verdict, which may be unanimous or by majority, and classifies the death. The verdict and findings must not make any finding of legal responsibility or express any conclusion of law.

A jury may also make recommendations, although the Coroners Act provides no legal authority to order implementation of recommendations. The Presiding Coroner submits the jury's recommendations to the Chief Coroner for dissemination to appropriate people, agencies and government ministries. The jury's recommendations must be lawful, relevant and reasonable, with no finding of fault.

The jury's findings and any recommendations are included in a public document entitled Verdict at Coroner's Inquest. The Presiding Coroner prepares this document after the inquest is closed. It includes the Presiding Coroner's comments, a brief overview of the circumstances of the death and the evidence presented that supports the jury's recommendations. Jury members are not permitted, at any time after the closing of the inquest, to discuss or reveal to anyone their deliberations, or the manner in which they reached their verdict.

## 2009 Coroners Inquests

There were 11 inquests held into 17 deaths in 2009. A complete copy of the jury's Verdict for each inquest is available online at: [www.pssg.gov.bc.ca/coroners/schedule/2009/index.htm](http://www.pssg.gov.bc.ca/coroners/schedule/2009/index.htm). A schedule for upcoming inquests is available online at: [www.pssg.gov.bc.ca/coroners/schedule/index.htm](http://www.pssg.gov.bc.ca/coroners/schedule/index.htm).

Statistics on inquest deaths reflect the year of inquest and not the year of death.

**Table 31. Type of Death and Totals for Inquest Deaths (2009)**

Type of Death	Deaths
Police Custody	7
Multiple Homicide/Suicide	5
Transport of Farm Workers	3
Suicide	2
<b>Total Number of Deaths</b>	<b>17</b>
<b>Total Number of Inquests</b>	<b>11</b>
<b>Total Number of Recommendations Distributed</b>	<b>232</b>

**Table 32. Number of Inquests and Deaths at Inquest, by Inquest Year (2002-2009)<sup>24</sup>**

Year	2002	2003	2004	2005	2006	2007	2008	2009
# Inquests	11	11	13	15	23	26	17	11
# Deaths	11	11	19	15	24	29	17	17

<sup>22</sup> In 2004, 2006, 2007 and 2009 inquests were held for multiple fatalities.

Table 33. Number of Deaths at Inquest by Classification of Death (2002-2009)

Classification	2002	2003	2004	2005	2006	2007	2008	2009
Accident	5	6	11	7	11	19	12	8
Homicide	-	-	6	3	7	6	5	4
Suicide	1	5	-	2	6	-	-	4
Natural	5	-	1	3	-	1	-	-
Undetermined	-	-	1	-	-	3	-	1
Total	11	11	19	15	24	29	17	17

Table 34. Number of Deaths at Inquest by Gender (2002-2009)

Gender	2002	2003	2004	2005	2006	2007	2008	2009
Male	11	10	14	14	19	24	16	9
Female	-	1	5	1	5	5	1	8
Total	11	11	19	15	24	29	17	17

## Inquests

Cause of death is reported as determined by the Inquest jury. There is currently no widely accepted medical definition or known medical cause of excited delirium.

**Table 35. Cause of Death for Inquest Deaths as Determined by Jury's Verdict (2002-2009)**

Cause of Death	2002	2003	2004	2005	2006	2007	2008	2009
Poisoning: Alcohol and/or Drug	2	3	-	3	2	7	6	3
Gunshot	-	4	6	5	4	3	4	-
Restraint/Excited Delirium	2	2	4	1	8	3	1	2
Head Injuries	2	-	2	2	1	5	3	1
Multiple Blunt Injuries	1	-	-	1	4	1	2	2
Hanging	-	3	-	-	3	-	1	2
Natural Disease	3	-	1	3	-	1	-	-
Drowning	1	-	5	-	-	1	-	-
Stabbing	-	-	-	-	1	-	-	5
Suffocation/Smothering	-	-	-	-	-	5	-	-
Other	-	1	1	-	1	1	-	1
Undetermined	-	-	-	-	-	2	-	1
<b>Total</b>	<b>11</b>	<b>13</b>	<b>19</b>	<b>15</b>	<b>24</b>	<b>29</b>	<b>17</b>	<b>17</b>

Data are subject to change, and are not directly comparable to published counts from previous years.

## Appendix I: Glossary

*Autopsy:* An examination of the body of a deceased person to determine the cause and manner of death and to evaluate any disease or injury that may be present.

*Cause of Death:* The immediate medical cause of death, e.g., head injury resulting from a motor vehicle accident, asphyxiation due to avalanche.

*Classification of Death:* All deaths are classified as one of the following:

Accidental: Death due to unintentional or unexpected injury. It includes death resulting from complications reasonably attributed to the accident.

Homicide: Death due to injury intentionally inflicted by the action of another person. Homicide is a neutral term that does not imply fault or blame.

Natural: Death primarily resulting from a disease of the body and not resulting secondarily from injuries or abnormal environmental factors.

Suicide: Death resulting from self-inflicted injury, with intent to cause death.

Undetermined: Death which, because of insufficient evidence or inability to otherwise determine, cannot reasonably be classified as Natural, Accidental, Suicide or Homicide.

*Coroner's Report:* The coroner's official record of the identity of the deceased and how, when, where and by what means the deceased died. It is a public document that forms the official provincial record of the death. It may include recommendations to agencies to aid in prevention of future deaths.

*Means of Death:* The event responsible for the Cause of Death, e.g., motor vehicle incident resulting in a head injury, avalanche causing asphyxiation.

*Natural-Expected Death:* A death reported to the BCCS from the BC Vital Statistics Agency of someone who died of Natural and expected causes while under medical care. The family physician verifies the cause of death and completes the medical certificate of death.

*Toxicology:* The study of the adverse effects of chemicals on living organisms, particularly the symptoms, mechanisms, treatments and detection of the poisoning of people.

*Verdict at Inquest:* A summary of the jury's findings regarding how, when, where and by what means the deceased died. Recommendations made by the jury are also included in the Verdict at Inquest. The evidence presented at the inquest is summarized by the presiding coroner and is also included in the Verdict at Inquest. It is a public document that forms the official provincial record of the death.

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