

Report of the

Paediatric Death Review Committee and

Deaths Under Five Committee

Office of the Chief Coroner Province of Ontario

June 2009

Table of Contents

Message from the Chair	1 - 2
The Inquiry into Pediatric Forensic Pathology in Ontario	3 - 5
Purposes of a Death Investigation	6 - 9
Classification of Death	10
PDRC Medical and CAS Case Reviews	11
Children's Deaths – Data Overview	12
Child Death Review Process	13 - 20
Deaths Under Five Committee	21 -24
Sudden Infant Death Syndrome (SIDS)	25
Sudden Unexpected Death in Infancy (SUDI)	25 - 26
Trends in Infant Deaths	26
Unsafe Sleeping and Bed - sharing vs. Co-sleeping	27 - 33
Research Research	
A Retrospective Study of Sudden Infant Death Syndrome (SIDS) in Ontario from 2001 - 2006	34 - 37
Accidental Residential Fire Deaths in Ontario – A Research Study	38 - 43
<u>Education</u>	
Public and Patient Safety Initiatives	44 - 48

Medical Reviews: Themes and Recommendations	49 - 55
Medical Reviews: Themes	56
PDRC Medical Case Review	57 - 60
The Inquiry into Pediatric Forensic Pathology in Ontario and the PDRC	61 - 62
CAS and the PDRC	
Joint Directive	63 - 65
2008 Deaths of Children with CAS Involvement	66 - 69
PDRC Reviews of Cases with CAS Involvement (Executive Summary: 9 Youth Suicide Deaths from Pikangikum First Nations, Pages 74 – 77)	70 - 85
Internal Child Death Reviews	86 - 87
Lessons Learned: Themes and Recommendations (The Inquest into the Deaths of Jared Osidacz and Andrew Osidacz, pages 99 – 102)	88 - 103
Overall Themes/Key Messages	103
Current Initiatives and Future Directions	104
Concluding Remarks	105
Committee Membership	106 - 107
Acknowledgements	108
References and Contact Information	109

Message from the Chair

It is my pleasure to provide to you the Annual Report of the Paediatric Death Review Committee and the Deaths under Five Committee of the Office of the Chief Coroner.

This was indeed an eventful year. The Inquiry into Pediatric Forensic Pathology or "Goudge Inquiry" was completed on April 1, 2008. The Honourable Stephen T. Goudge released his report on October 1, 2008. Our office would like to express our sincerest thanks to Commissioner Goudge and his team for undertaking such an enormous task, and we are currently working diligently towards the new vision he helped to create.

Of importance, he specifically spoke to the issues of the work of the Deaths Under Five Committee and the Paediatric Death Review Committee. During the inquiry, a number of alternative death review process recommendations were specifically made by the Provincial Advocate for Children and Youth and the Defence for Children International - Canada. These recommendations, if adopted, would in essence remove the *independence* of our Committees.

Justice Goudge responded with the following statement:

"I recommend that the work of the PDRC, the Deaths under Five Committee, and the Forensic Services Advisory Committee continue. They provide valuable mechanisms for enhancing quality and bringing a multidisciplinary perspective and insight to the OCCO's death investigation." 1

Needless to say, we are pleased with this outcome which we understand to be a firm endorsement of the work that we do, and a rejection of the proposition that the public in Ontario receive an alternative paediatric death review process.

This year, new members were added to our Committees. Dr. Dirk Huyer, a child maltreatment expert and coroner, who became the Regional Supervising Coroner for Central Region-Guelph Office, has joined both the PDRC and the DU5C. Det. Sgt. Chris Buck, after several years of contribution, retired and Det. Mary Vruna from Toronto Homicide has now joined us on both Committees. We were also pleased to welcome Mr. Brad Bain, a child welfare consultant from the Durham Region, to the PDRC. The DU5C was also grateful for the addition and support of two forensics pathologists, Dr. Chitra Rao, Head of the Regional Forensic Pathology Unit at Hamilton Health Sciences and Dr. Mike Shkrum, Director, Department of Pathology at London Health Sciences Centre.

Last year, the PDRC reviewed its Terms of Reference, Membership Agreement and Confidentiality Agreement. This year, the procedure was repeated for the DU5C. The collaboration of a forensic pathologist, a child welfare expert, senior homicide officers and coroners additionally resulted in a well-defined protocol for information to be gathered by police for review at the Committees. The protocol was shared with the Ontario Association of Chiefs of Police, and is now in use Province-wide.

This year's report represents the first complete year that our current team has worked together. It has been highly productive with a total of 82 case reports issued by the PDRC and a number of recommendations directed toward systemic issues. Two research projects around SIDS and deaths of children in fires were also completed, which greatly enhanced our understanding of these issues.

¹ Inquiry into Paediatric Forensic Pathology in Ontario: Vol. 3, pg. 356.

Message from the Chair

It is an organizational belief that the reports of our Committees may prevent the deaths of children in the future. To assist us in our comprehension of medical care and social service to children, we often meet with external agencies and organizations. This past year, we met with hospitals, the Ontario Hospital Association, the Office of the Fire Marshal, the Ministry of Children and Youth Services, the Provincial Advocate for Children and Youth, the Ontario Association of Children's Aid Societies, various police services and the Ontario Police College, leadership from the Nishnawbe Aski Nation, Aboriginal Legal Services of Toronto and Tikinagan Children's Aid Society. Multiple educational meetings were also provided to CAS's throughout the Province, notably in Sioux Lookout, Kenora, Timmins, Sudbury, Sault Ste. Marie and Thunder Bay.

I would like to thank all of the members of both the PDRC and the DU5C for their significant efforts and expertise in assisting our Office. I am indebted to Ms. Karen Bridgman-Acker, Ms. Doris Hildebrandt, Dr. Dirk Huyer and Ms. Julie McCreary for their support, guidance and dedication.

I close with an acknowledgement that the health, welfare and well-being of our children is a shared responsibility of all Ontario citizens. The execution of our duties will only be enhanced by our commitment to working together to seek solutions on their behalf. The OCCO would like to commend the child welfare workers who continuously dedicate themselves to the well-being of children while attempting to find the delicate balance between the Child and Family Services Act and least intrusive philosophies.

Dr. A. E. Lauwers

MAUNERS

Deputy Chief Coroner, Province of Ontario

Chair, Deaths Under Five Committee

Chair, Paediatric Death Review Committee

The Inquiry into Pediatric Forensic Pathology in Ontario

On October 1, 2008, Commissioner Stephen T. Goudge released the Report of the Inquiry into Pediatric Forensic Pathology in Ontario.

Background

The Inquiry into Pediatric Forensic Pathology in Ontario was established under the Public Inquiries Act by an Order in Council signed by the Lieutenant Governor of Ontario on April 25, 2007. The Honourable Stephen T. Goudge was appointed Commissioner with a mandate to conduct a systemic review and an assessment of the policies, procedures, practices, accountability and oversight mechanisms, quality control measures and institutional arrangements of pediatric forensic pathology in Ontario from 1981 to 2001 as they relate to its practice and use in investigations and criminal proceedings. The Commissioner was asked to make recommendations to address systemic failings and restore and enhance public confidence in pediatric forensic pathology in Ontario.

The inquiry was announced after Dr. Barry McLellan, then Chief Coroner of Ontario, released the results of a review of 45 criminally suspicious/homicide cases dating back to 1991 where Dr. Charles Smith had performed an autopsy or provided an opinion in consultation. This review was undertaken to determine whether the conclusions reached by Dr. Smith in his autopsy or consultation reports, or provided during his testimony where applicable, could be supported by the information from materials available for independent review.

The case material was reviewed by a panel of international experts in forensic pathology, chosen by the Office of the Chief Coroner. Their review indicated that in all but 1 of the 45 cases, the important examinations indicated were completed. In 9 of 45 cases the experts did not agree with significant facts that appeared in either a written report or was provided during expert court testimony. In 20 of the 45 cases, the experts identified some issue with the opinion that appeared in a written report, testimony in court, or both.

Process of the Inquiry

Information relevant to the mandate was collected, evaluated and collated over a number of months following announcement of the Inquiry. The electronic database comprised 135,000 pages of documents obtained from persons/parties thought to be in possession of relevant materials. 11 research papers were commissioned by the Inquiry to assist in fulfilling its mandate. Experts on forensic pathology and the legal system from Canada, Australia, the United Kingdom and the United States of America contributed.

47 witnesses testified before the Commissioner during 52 hearing days with live web cast available throughout. 13 parties were granted standing, i.e. these parties were entitled to participate in the proceeding by asking questions of witnesses and making submissions to the Commissioner. Following witness testimony, there were 18 roundtable meetings held over 11 days. The Commissioner attended each of these sessions which brought together people who were knowledgeable about the specific issues identified for discussion.

After the evidence was presented, written and oral submissions were provided to Justice Goudge by the parties with standing.

The Report

The report was provided to the Attorney General on September 30, 2008 and was released for public review the following day. The report consists of four volumes and can be accessed via the Inquiry website: www.goudgeinquiry.ca. Volume 1 is the executive summary. Volume 2 contains the systemic review and assessment of the practice and oversight of pediatric forensic pathology accompanied by the Commissioner's description of the systemic failings he believed to have occurred. Volume 3 contains 169 recommendations, with accompanying basis, provided by Justice Goudge and finally, Volume 4 describes the methodology of the Inquiry.

Key Findings of Inquiry

The Commissioner reported that the objective of his 169 recommendations was to correct issues identified during the Inquiry and to ensure, so far as possible, that history is not repeated.

Ontario Forensic Pathology Service

One of the primary areas addressed in the recommendations was the need for the creation of a professionalized Ontario Forensic Pathology Service. Four cornerstones articulated by Justice Goudge to achieve this goal were:

- Legislative change to provide both proper recognition of the vital role that forensic pathology plays in death investigation and the foundation for proper organization of a forensic pathology system.
- A commitment to providing forensic pathology education, training and certification in Canada and strengthening the relationship between service, teaching and research.
- A commitment to recruitment and retention of qualified forensic pathologists.
- Adequate sustainable funding to grow the profession of forensic pathology.

Institutional Oversight and Accountability

Justice Goudge recommended the creation of a new Governing Council for the Office of the Chief Coroner. This Council was envisioned to provide independent and objective oversight and accountability of the Chief Coroner and Chief Forensic Pathologist and those that they are responsible for the death investigation team.

Best Practices

The Commissioner made a series of recommendations about best practices to be utilized by coroners, forensic pathologists and other death investigation team members. Death investigation requires an independent and evidence based approach with an emphasis on the importance of thinking objectively.

Intersection of Medicine and the Legal System

A number of recommendations were directed toward improving the intersection between medicine and the legal system. It is vitally important that the criminal justice system fully understands the forensic pathology findings, the basis for, and the limitations of opinions provided. Recommendations to ensure that forensic evidence is clearly articulated, not misleading and within its legitimate scope were directed at legal participants including the judiciary, crown and defence counsel.

Review of Paediatric Head Injuries

Justice Goudge expressed his belief that changes in science and pathology regarding shaken baby syndrome and paediatric head injuries, over the twenty year period explored at the Inquiry, indicated that careful review of those cases where convictions occurred on the basis of forensic pediatric pathology should be undertaken. It was recommended that the review focus upon whether the forensic pathology findings described in past convictions would seem unreasonable when viewed with current scientific knowledge.

First Nations

The Report illustrated significant challenges to death investigation services to First Nations and other remote communities in the north. Advice for improvement was provided through recommendations including consideration for alternate models of death investigation.

Work to Date

Bill 115, an Act to Amend the Coroners Act was introduced in the Ontario Legislature on October 23, 2008. Standing Committee was completed in April 2009 with the third reading in the Legislature anticipated. The legislation provides a legal framework for the Ontario Forensic Pathology Service under the leadership of the Chief Forensic Pathologist who will be appointed by an Order in Council. There will be a Registry listing pathologists who will be performing post mortem examinations under the coroner's warrant. Within the legislation, the speciality of pathology is identified with provisions added to allow attendance at a death scene and independent initiation of ancillary testing or additional examination.

The Death Investigation Oversight Council, an independent governing body will oversee and advise the Chief Coroner and Chief Forensic Pathologist. In addition, a structured complaints process is proposed.

A project team has been assembled within the Office of the Chief Coroner to work with the leadership to address the applicable recommendations in an effective manner. The Office of the Chief Coroner has entered into a strategic planning process.

The Ministry of the Attorney General has initiated a review of pediatric head injuries and shaken baby syndrome cases as recommended. In addition the Attorney General appointed a team to provide advice in the area of compensation. Review of criminally suspicious/homicide cases where Dr. Smith was involved between 1981 and 1991 is underway.

Summary

The findings and recommendations resulting from the Inquiry into Pediatric Forensic Pathology in Ontario undertaken by Commissioner Stephen T. Goudge were released publicly on October 1, 2008. Justice Goudge felt the recommendations were necessary to restore and enhance public confidence in pediatric forensic pathology in Ontario and its future use in the criminal justice system. The current leadership in the Office of the Chief Coroner has taken significant steps in addressing the challenges identified. Legislation and the implementation of changes recommended by Justice Goudge will provide the best opportunity to ensure the proper administration of justice and prevent wrongful convictions resulting from flawed pediatric forensic pathology.

Purposes of a Death Investigation

The current Coroners Act provides little guidance as to the purposes of a death investigation. Although not explicitly stated, it is nonetheless implied by the current language of section 18.

In essence, the purposes are to determine whether or not an inquest is necessary and also to determine who the deceased was, how the deceased came to his or her death, when the deceased came to his or her death, where the deceased came to his or her death, and by what means the deceased came to his or her death. These are the five facts related to death.

Bill 115, an Act to Amend the Coroners Act, clearly proposes to set out the purposes of a coroner's investigation:

Subsection 15 (1) of the Act is repealed and the following substituted:

Coroner's investigation

- (1) Where a coroner is informed that there is in his or her jurisdiction the body of a person and that there is reason to believe that the person died in any of the circumstances mentioned in section 10, the coroner shall issue a warrant to take possession of the body and shall examine the body and make such investigation as, in the opinion of the coroner, is necessary in the public interest to enable the coroner,
 - (a) to determine the answers to the questions set out in subsection 31 (1);
 - (b) to determine whether or not an inquest is necessary; and
 - (c) to collect and analyze information about the death in order to prevent further deaths in similar circumstances.

There are some key points worth reiterating. The proposed purposes of a death investigation are to investigate the circumstances of the death, determine the five facts, determine whether or not an inquest is necessary, and collect and analyze information about the death to prevent further deaths in similar circumstances in the future. Clearly the death investigation has both an investigative function, and a preventative function. It is important to note that the coroner functions in the *public interest*.

When does a coroner accept a reported death for investigation?

Section 10 of the Act sets out when a coroner is notified about a death.

Duty to give information

- 10. (1) Every person who has reason to believe that a deceased person died,
- (a) as a result of,
 - (i) violence,
 - (ii) misadventure,
 - (iii) negligence,
 - (iv) misconduct, or
 - (v) malpractice;
- (b) by unfair means;

- (c) during pregnancy or following pregnancy in circumstances that might reasonably be attributable thereto;
- (d) suddenly and unexpectedly;
- (e) from disease or sickness for which he or she was not treated by a legally qualified medical practitioner;
- (f) from any cause other than disease; or
- (g) under such circumstances as may require investigation,

shall immediately notify a coroner or a police officer of the facts and circumstances relating to the death, and where a police officer is notified he or she shall in turn immediately notify the coroner of such facts and circumstances. R.S.O. 1990, c. C.37, s. 10 (1).

Deaths to be reported

- (2) Where a person dies while resident or an in-patient in,
- (a) a charitable institution as defined in the Charitable Institutions Act;
- (b) a children's residence under Part IX (Licensing) of the *Child and Family Services Act* or premises approved under subsection 9 (1) of Part I (Flexible Services) of that Act;
- (c) Repealed: 1994, c. 27, s. 136 (1).
- (d) a facility as defined in the Developmental Services Act;
- (e) a psychiatric facility designated under the Mental Health Act;
- (f) an institution under the Mental Hospitals Act;
- (g) Repealed: 1994, c. 27, s. 136 (1).
- (h) a public or private hospital to which the person was transferred from a facility, institution or home referred to in clauses (a) to (g).

the person in charge of the hospital, facility, institution, residence or home shall immediately give notice of the death to a coroner, and the coroner shall investigate the circumstances of the death and, if as a result of the investigation he or she is of the opinion that an inquest ought to be held, the coroner shall issue his or her warrant and hold an inquest upon the body. R.S.O. 1990, c. C.37, s. 10 (2); 1994, c. 27, s. 136 (1); 2001, c. 13, s. 10.

Once notified, the coroner determines whether or not to accept the death for investigation. The underlying principles are related to certain natural deaths, and "non-natural" deaths. Natural deaths with children usually occur in hospitals or specialized facilities, which care for medically fragile or significantly disabled children. These deaths are largely expected due to medical illness. These natural deaths may not necessarily be accepted for investigation. At times, allegations are promulgated regarding negligence and malpractice by health care providers, or under circumstances which may require investigation, and the coroner will then investigate. These natural deaths are accepted for investigation by the coroner. In addition, all deaths of children receiving service or who have had a file closed in the preceding 12 months by a Children's Aid Society are investigated, as a matter of policy.

"Non-natural deaths" are deaths due to accidents, suicides, and homicide or undetermined (see definitions on page 10). In the teenage years, accidents and suicides are manners of deaths which become more prevalent.

What are the purposes of an inquest?

Section 31 of the Coroners Act sets out the purposes of an inquest.

Purposes of inquest

- 31. (1) Where an inquest is held, it shall inquire into the circumstances of the death and determine,
- (a) who the deceased was;
- (b) how the deceased came to his or her death;
- (c) when the deceased came to his or her death;
- (d) where the deceased came to his or her death; and
- (e) by what means the deceased came to his or her death. R.S.O. 1990, c. C.37, s. 31 (1).

Idem

(2) The jury shall not make any finding of legal responsibility or express any conclusion of law on any matter referred to in subsection (1). R.S.O. 1990, c. C.37, s. 31 (2).

Authority of jury to make recommendations

(3) Subject to subsection (2), the jury may make recommendations directed to the avoidance of death in similar circumstances or respecting any other matter arising out of the inquest. R.S.O. 1990, c. C.37, s. 31 (3).

When is an inquest called?

Certain inquests are mandatory. These include deaths in custody, deaths resulting from an accident occurring in the course of a worker's employment in a construction project, mining plant or mine, and certain deaths of children:

Inquest mandatory

<u>22.1</u> A coroner shall hold an inquest under this Act into the death of a child upon learning that the child died in the circumstances described in clauses 72.2 (a), (b) and (c) of the *Child and Family Services Act*. 2006, c. 24, s. 2 (1).

This is referring to the death of a child at the hands of one of his or her parents while the parent has court ordered access to the child. The following is taken from the Child and Family Services Act:

Duty to report child's death

<u>72.2</u> A person or society that obtains information that a child has died shall report the information to a coroner if,

- (a) a court made an order under this Act denying access to the child by a parent of the child or making the access subject to supervision;
- (b) on the application of a society, a court varied the order to grant the access or to make it no longer subject to supervision; and
- (c) the child subsequently died as a result of a criminal act committed by a parent or family member who had custody or charge of the child at the time of the act. 2006, c. 24, s. 1.

Discretionary inquest

In his or her determination of whether or not to hold a discretionary inquest, section 20 of the Coroners Act states:

What coroner shall consider and have regard to

- <u>20.</u> When making a determination whether an inquest is necessary or unnecessary, the coroner shall have regard to whether the holding of an inquest would serve the public interest and, without restricting the generality of the foregoing, shall consider,
 - (a) whether the matters described in clauses 31 (1) (a) to (e) are known;
 - (b) the desirability of the public being fully informed of the circumstances of the death through an inquest; and
 - (c) the likelihood that the jury on an inquest might make useful recommendations directed to the avoidance of death in similar circumstances. R.S.O. 1990, c. C.37, s. 20.

These above criteria are carefully considered by the coroner in arriving at a determination about whether or not to hold an inquest. It is important to realize that it is the coroner who has the duty to consider whether an inquest is indeed, called.

Almost invariably, the circumstances of the death and the answers to the 5 questions are known at the time of the inquest. These have been determined by the death investigation. Where the coroner has determined, upon review of the death, that there may be public safety, policy, health or social justice issues arising from the death, and where these issues are systemic in nature and could benefit from a public review of the death, an inquest can be considered. A physician coroner presides over the inquest before a jury consisting of 5 members of the public.

In **People First of Ontario v. Porter,** the courts stated that, "...it must never be forgotten by the parties at every inquest that the central core of every inquest is an inquiry into how and by what means a member of the community came to her death. Notwithstanding the emerging public interest in the jury recommendations in the modern Ontario inquest, an inquest is not a trial; an inquest is not a royal commission; an inquest is not a public platform; an inquest is not a campaign or a lobby; an inquest is not a crusade".

This article has provided a summary of the purpose of a death investigation and the purpose of an inquest. It is our hope that the reader understands the considerations which factor into calling an inquest.

Classification of Death

1. **Natural:**

A death is natural if it is due to a natural disease or known complication thereof; or known complication of treatment for the disease.

2. Accident:

A death is accidental if it is due to an occurrence, incident or event that happens without foresight or expectation.

An accidental death is caused by an external factor, where death or harm was not foreseen or expected.

3. Suicide:

A death is a suicide if it results from an intentional act of a person knowing the probable consequence of what he/she is about to do—that is his/her own death.

There is to be a presumption against suicide at the outset. In order to rebut this presumption, there must be sufficiently clear, cogent and convincing evidence of a non-accidental action initiated by the deceased, that led to his/her own death.

Suicide is a finding of fact, not of law or morality. A finding of suicide does not imply agreement with, or understanding of the decision of the deceased.

4. Homicide:

A death is a homicide if it resulted from the "action of a human being killing another human being" (Oxford dictionary definition).

The action must be non-accidental and originate from a person other than the deceased. A finding of homicide in the coroners' system is a finding of fact and does not carry with it a determination of guilt. It is however, a serious finding and should be made only on clear and convincing evidence of a non-accidental action of a person that led to the death of another person.

5. Undetermined:

A death is classified as undetermined if: a full investigation has shown no evidence for any specific classification; or there is equal evidence or a significant contest among two or more classifications; or the death is a suicide that does not meet the Beckon test requiring a high degree of probability; or the death is an apparent suicide of a child under the age of 10.

A finding of "undetermined" is a positive and appropriate finding, after a full investigation and careful consideration of all the evidence. It should not be considered a failure to reach a conclusion.

In the Province of Ontario, death classification falls into one of five categories

PAEDIATRIC DEATH REVIEW COMMITTEE MEDICAL AND CAS CASE REVIEWS 2006-2008

The Paediatric Death Review Committee and the Deaths Under Five Committee review a large number of cases annually. The intake, preparation and review of these cases are labour intensive.

In 2004, the PDRC conducted 60 case reviews including 27 Medical and 33 CAS reviews.

In 2005, there were 49 cases reviewed including 21 Medical and 28 CAS reviews.

In 2006, the PDRC reviewed 86 cases including 23 Medical and 63 CAS cases. One case was referred for inquest.

In 2007, 91 cases were reviewed including 18 Medical and 73 CAS.

In 2008, 138 cases were reviewed; reports were issued on 82 cases including 40 Medical and 41 CAS plus one non-CAS). 56 of the CAS cases were reviewed and resolved by the Executive Committee of the PDRC (process explained on page 13).

There has been a clear increase in the number of CAS cases the PDRC has reviewed since the revised Joint Directive between the Office of the Chief Coroner and the Ministry of Children and Youth Services, effective March 31, 2006 allowing for a more timely and streamlined approach to reviewing CAS files. This agreement is discussed on pages 63-65 of this report.

	20	006	200	7		2008	
Manner of Death	Medical	CAS	Medical	CAS	Medical	CAS	Executive Review
Natural	16	18	17	10	30	2	27
Accident	1	13	0	23	1	1	11
Homicide	3	7	0	10	1	4	3
Suicide	0	9	1	8	0	14	1
Undetermined	3	9	0	15	8	21	3
Still Under Investigation	-	-	-	-	-	-	11
Total Case Reviews:	23	63	18	73	40	42	56

Children's Deaths in Ontario (0 to 19 yrs of age): 2003 to 2007

The table below summarizes the children's deaths investigated by the Office of the Chief Coroner on an annual basis. The statistics for 2007 remain preliminary at the time of printing. Clearly, the largest numbers fall into the *natural* and *accidental* categories.

The deaths reviewed by the PDRC represent a fraction of the total number of children who died in Ontario. The Office of the Chief Coroner investigates approximately 45% of the total number of deaths of children between 0 - 19 years of age. Children's Aid Societies have been involved with approximately 17% of those deaths investigated by a coroner.

Deaths of Children (0-19 yrs of age) investigated by the Office of the Chief Coroner (by Manner of Death)

MANNER	2003	2004	2005	2006	2007*
Natural	220	231	218	212	161
Accident	228	203	235	227	189
Suicide	73	61	65	47	64
Homicide	36	28	26	39	42
Undetermined	50	52	71	72	49
Total # Coroners Cases	607	575	615	597	505*
TOTAL # Deaths in Ontario **	1281	1310	1335	N/A	N/A

^{*} NB: Preliminary data for 2007

^{**}Most recent data available from: Statistics Canada CANSIM database

Overview of the Child Death Review Process in the Province of Ontario

There are approximately 320 coroners in the Province of Ontario. The province is divided into 4 regions with 9 Regional Supervising Coroners overseeing the investigations in each region.

The Paediatric Death Review Committee (PDRC) reviews medically complex deaths where the cause and/or manner of death may be in question, or where there are concerns regarding the medical care. The Committee may also review selected cases where concerns are raised by family members or caregivers.

The Deaths Under Five Committee (DU5C) reviews the deaths of children under five years of age in Ontario, assists in the classification of cause and manner of death, and may forward the case for further review to the PDRC as required.

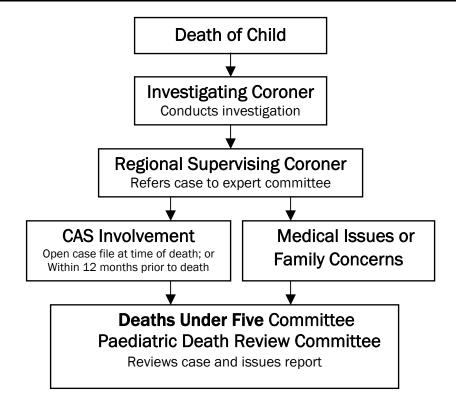
The Regional Supervising Coroner, having decided that the case requires a review, will refer the case to the PDRC. Items reviewed by the PDRC will include the Coroners Investigation Statement, autopsy report, toxicology report,

ancillary reports, police report, child welfare documents and medical files.

All cases where the deceased child had an open file with a Children's Aid Society (CAS) at the time of death, or within the preceding 12 months, are reviewed.

The contents of the file are distributed to the various experts on the Committee and a report is generated by a Committee member who is designated as the primary reviewer. At the monthly meeting, the entire Committee, with representation from all disciplines, discusses the report and a consensus report, including recommendations, is developed by all members. The final PDRC report is forwarded to the Regional Supervising Coroner, the CAS, if involved, and the Ministry of Children and Youth Services (MCYS). The Regional Supervising Coroner may decide to send the recommendations to other relevant agencies depending on the circumstances of the case.

Flow of Information in Ontario's Child Death Review Process



Comprehensive Child Death Investigation and Review Process in Ontario

- Police notified
- Investigating Coroner notified
- If child is under age 5, provincial Protocol for Investigating Deaths Under 5 is followed

Death of a Child

- CAS record checks completed
- Parallel Investigations (Police, Coroner, CAS if protection concerns exist or if siblings present)

Police

- Secure Scene, Scene photos taken
- Assist Coroner's Investigation
- · If criminally suspicious, police are the Lead Investigators
- Gather and Process Evidence Investigation
 - · Consult with Crown Attorney if required

Coroner's Investigation

- Lead Investigator unless criminally suspicious
- · Warrants issued for records, post mortem examination (autopsy completed by Pathologist)
- · Autopsy includes tests for toxicology, micro biology and x-rays and other tests as necessary
- Arrange Case Conference
- Referrals to Death Under 5 Committee and PDRC as required

Investigation Resources and Oversight CAS

- Worker, supervisor, senior managers, Board of Directors
- Ministry of Children and Youth Services
 Family Court as required
- Internal Child Death Review if required which includes an external reviewer

Investigation Resources Oversight Police

- Investigating officer, Identification officers, Senior officers
 Police Services Board, SIU (when required)
- · Crown Attorney, Criminal Court, as required

Investigation Resources and

Oversight Coroner

- Investigating Coroner, Regional Supervising Coroner
- Office of The Chief Coroner (Deputy Chief Coroner Investigations)
 Pathologist, Neuropathologist, Centre for Forensic Science
- Other Experts as required Inquest if relevant

Child Death Review Process CAS

- Immediately the Serious Occurrence is sent to the Ministry of Child and Youth Services (MCYS) and PDRC with regular updates
- Within 14 Days, a file review occurs and the Child Fatality Case Summary Report is sent to MCYS and PDRC

Child Death Review Process

PDRC

- Executive Committee reviews the Child Fatality Case Summary Report and within 7 days, a decision to request a Society Internal Death Review is made
- CAS given 90 days to complete Society Internal Death Review inclusive of an Internal Review
- Upon completion of the investigation, Deaths Under 5 Committee reviews case to finalize cause and manner of death

PDRC continued

- Within 12 months the case is reviewed by PDRC (child welfare, police, crown and medical members)
- Final Report with any additional recommendations is sent to CAS, MCYS (Regional Director and Assistant Deputy Minister), Regional Supervising Coroner
- · Response and feedback is received from CAS as necessary

The Comprehensive Child Death Review Process - CASE STUDY

"The need for integrated and inter-agency review of death investigations has already been recognized and, in part, underlies the establishment of the PDRC, DU5C, and the joint task forces and review committees established between OCCO and child welfare agencies".

"The merits of collaboration between child welfare officials and coroners in death investigations involving children under CAS protection have long been apparent. The establishment of the Paediatric Death Review Committee (PDRC) represented (and continues to represent) the most important forum for sharing expertise and perspective between coroners and Children's Aid Societies—in particular, this collaborative approach to oversight led to the "Joint Child Mortality Task Force" formed in 1996, which released a report in 1997. This report was, in turn, informed by and contributed to recommendations arising out of six systemic inquests into deaths involving children under CAS supervision between 1996 and 1998".

Accountability and Oversight for Death Investigations in Ontario Professor Lorne Sossin, University of Toronto, Faculty of Law Inquiry into Pediatric Forensic Pathology in Ontario

During the Goudge Inquiry the Office of the Chief Coroner recognized that the comprehensive and integrated nature of death investigation in Ontario may not be fully understood or appreciated by the public at large. There appears to be many remaining misconceptions about the process involved when a child dies in Ontario including the investigative procedures as well as how, and by whom, the various parties involved are integrated. This article will illustrate the process by taking the reader through the step-by-step analysis of a 2008 death that was investigated by the Office of the Chief Coroner and included reviews by both the Deaths Under Five Committee (DU5C) and the Paediatric Death Review Committee (PDRC).

Case History

This child died in her home at 3 years, one month of age.

She was born at home at 35 weeks gestation. Her mother reported that she had been unaware of the pregnancy. The child was transferred to hospital requiring a prolonged neonatal hospital stay including admission to the neonatal intensive care unit due to problems with her breathing (apnea). An evaluation included testing for a metabolic disorder, an echocardiogram and a cranial ultrasound. The apnea episodes resolved and she was discharged home. She was one of four children.

During her early childhood she underwent a developmental assessment at a children's centre. This assessment affirmed her to be free of motor delays, but she did exhibit moderate receptive and severe expressive language delays as well as delays with toileting.

The CAS had a long standing involvement with the family because of significant concerns about the state of the household environment, hygiene issues and an apparent pattern of neglect.

On the day of her death, she was put to bed at 1730 hours, in an upstairs bedroom. Her sleeping surface was a bare mattress that was torn and ripped. At approximately 0238 hours, her older brother raised concern that something was wrong with her. Her father found her without vital signs lying face down potentially wedged between the corner of the mattress and the wall. 911 was called. The police reported that the house was extremely unkempt with animal feces scattered upstairs and urine stained floors. Further investigation determined that the upstairs bedroom temperature was 33 C with the windows closed. The outside temperature was 25 C.

Investigation

The CAS (Children's Aid Society) filed a serious occurrence report and a Case Fatality Case Summary to the Ministry of Children and Youth Services, and the Office of the Chief Coroner.

The coroner and police attended the scene. The comprehensive Deaths Under Five Questionnaire was completed. Forensic Identification Services attended the scene and completed photographic documentation and processed the scene. An autopsy was performed by a forensic pathologist under a Coroner's Warrant for post mortem examination. Upon receiving the post mortem examination report, the investigating police service report and the Coroner's Investigation Statement, the Regional Supervising Coroner referred the case to the Deaths Under Five Committee for review.

Deaths Under Five Committee

The case was reviewed at the Deaths Under Five Committee. The Committee review process begins with the police investigation. The police homicide detective members of the Committee review the report of the investigating police service, which documents the death investigation. The review would routinely evaluate for the following:

- 1. History of parental substance abuse (drugs, alcohol)
- 2. Parental history with police (records, Canadian Police Information Centre (CPIC) check)
- 3. History with Children's Aid Society.
- 4. Parental relationships.
- 5. Social economic circumstances.
- 6. Medical and mental health history of the parents.
- 7. Location in which the deceased was found.
- 8. Who found the deceased?
- 9. How/position the deceased was found (scene photographs are required).
- 10. Reported circumstances of the death.
- 11. Scene description.
- 12. Routine regarding the deceased's normal sleep environment.
- 13. General health of the deceased child.
- 14. Development of the deceased child.
- 15. Age of the deceased child.
- 16. Recent illnesses.
- 17. Birthing history.
- 18. Picture of the child before the autopsy.
- 19. Police opinion: Was the case reported to the Crown Attorney's Office.
- 20. Police investigation-ongoing or completed (charges laid/charges pending/investigation completed).
- 21. Outstanding police concerns.

The review identified repeated documentation about the deplorable state of the home. Pictures were provided for the Committee members to view.

The Child Welfare Expert on the Committee also provided information about the CAS involvement with the family.

The Committee subsequently received the results of the review of the DU5C pathologist member, who had reviewed the forensic pathologist's post mortem report. This review is completed as a quality assurance measure. The examining forensic pathologist's report stated that there was "No trauma, no significant natural disease, and no toxicological cause of death". His opinion was that the cause of death was, "Heat related death due to Environmental exposure to high temperatures". This extensive and comprehensive autopsy included a skeletal survey (x-rays), toxicology, biochemistry, microbiology, virology, and neuropathology.

The reviewer expressed opinion that since the temperature of the child at the time of death was unknown, he could not support this opinion, and raised question as to whether the child's positioning, when

discovered, may have contributed to the death. As such, the official certification of the death by the Committee was:

Cause of death: Unascertained (No anatomic or toxicologic cause of death; cannot exclude wedging between the mattress and the wall)

Manner of death: Undetermined

The Committee decided that referral of the case to the Paediatric Death Review Committee for a medical review was indicated. This was in principle to allow for clinical review of the child's past medical history, to assist with clarification of the cause of death as either heat-related, or potentially, related to wedging.

The written findings of the DU5C pathology review and the Committee's official certification was forwarded to the Chief Forensic Pathologist who facilitated a peer review discussion between the pathologists. It is important to note that there is no requirement for the original pathologists' opinion to match the Deaths Under Five Committee's certification. The opinions are developed differently reflecting different information available, and may serve different purposes. The DU5C uses a consensus driven process, reflecting all information from the investigation and Committee review. It makes its findings on the coroner's criteria, "balance or probabilities".

Paediatric Death Review Committee

The case was brought to the PDRC. The CAS that provided service to the family conducted an internal review of the death. The internal review is a self-reflective exercise allowing the agency to review its own compliance with the Ministry of Children and Youth Services Standards and the Children and Family Services Act. As part of this process, a reviewer external to the agency conducted a review, and developed recommendations on behalf of the CAS. By engaging an external reviewer, the CAS's report is more robust as it is devoid of bias, and ensures a critical review at arm's length from the agency itself.

A child welfare expert PDRC member reviews the reports of the coroner and pathologist, the CAS Internal Review, the complete CAS file if indicated, and the police report to develop an opinion about the service provided by the CAS. The reviewer may make recommendations to help improve future service. In addition, in this case, a medical review was conducted. When both medical and child welfare reviews are completed, the Committee meeting is generally structured so that the child welfare report and the medical report are given consecutively, to allow for the integration and sharing of knowledge between the experts.

Medical Review

The medical report noted that at the time of death, the child was dirty and had head lice. The reviewer commented that the pathologist had raised the issue of heat-related death given the ambient room temperature of 33 C. The post mortem examination demonstrated evidence of dehydration with an elevated vitreous BUN (blood urea nitrogen) and elevated sodium level. Although the room temperature was warm, it was determined not to be excessive. The core body temperature was not obtained at the site at the time of death. Thus, it was difficult to ascribe this death as heat related.

The issue of the developmental status was questioned and concern was raised that she may have become wedged between the mattress and the wall suffocating from airway obstruction in that position. A review of past developmental assessments suggested minor, if any, gross motor concerns. This led the Committee members to conclude that she would have had adequate motor ability to remove herself from the position between the mattress and the wall. At this time, a cause and manner of death cannot be determined in this case. The PDRC provided:

Cause of death: No definitive anatomic or toxicologic cause of death.

Manner of death: Undetermined

Child Welfare Review

The report of the external reviewer, engaged by the Society to review the death concluded the following:

"This is a very difficult and challenging case. The Society provided extensive services to this family and intensive monitoring. Child development assessments were completed regarding the three eldest children and appropriate services were put in place to address their developmental needs. Despite the extensive involvement and the services of the Public Health Unit, the Children's Centre and homemaker services, an ongoing pattern of neglect was evident. A level of neglect that on several occasions fell below the acceptable standard in relation to the safety and well being of the children.

As the cause of death is not known, there is no way of knowing whether or not the parents' behaviour directly or indirectly played a part in the child's death. Irrespective, the Society documented over several months a pattern of parent behaviour that suggested significant parenting capacity issues. The parents were not able to maintain a satisfactory home environment for any sustainable period of time and only when the Society informed them that more intrusive intervention may be required was there any modicum of change in their behaviour. Slight improvements were short term and not sustained. The three eldest children were assessed to have significant developmental delays requiring extensive intervention and a level of parenting that appeared to far exceed the parents' capacity".

The PDRC reviewer provided comment on many issues, including the following:

"The family physician's concerns that the mother may have cognitive limitations and that she was not capable of caring for the children as she did not appear to understand the developmental delays of her children should have been more seriously considered in the overall assessment. Given these identified concerns along with the other case information, an assessment of her cognitive functioning and the impact on her parenting was warranted, particularly as she was parenting four very young high needs children".

The PDRC made several recommendations, including the following:

- 1. "The PDRC strongly adheres to the principle that the safety of children needs to be the paramount focus of Society interventions. This may not always be consistent with a collaborative, non-intrusive approach that was detailed by the CAS in their reply to the external review.
- 2. The Society, in reviewing this case and making changes to policies and procedures should incorporate the need for workers to view the entire home during each home visit in cases where there are concerns about the state of the home. The frequency of the home visits should be consistent with the risk and vulnerably of the children. Criteria/guidelines for assessing a home should be developed.
- 3. The PDRC would have serious concerns if the three remaining children were to be returned home to the parents. Given the serious concerns present in this case, a parenting capacity assessment should be undertaken, (if not already completed), if there is consideration of the children to be returned to the care of the parents.
- 4. If in the future the mother becomes pregnant, alerts should be sent to local hospitals regarding the need for the Society to be notified when she delivers so that intervention can occur".

Recommendations

If the recommendations are of a systemic nature, the ministry, organization, agency or individuals will be notified by the Chief Coroner. The referring Regional Supervising Coroner (RSC) is provided a copy of the PDRC medical report to facilitate distribution of recommendations if they are directed to local agencies or individuals. The RSC subsequently ensures that the Coroner's Investigation System is updated and requests a quality assurance (QA) review prior to the case being closed. The health care facilities, agencies and ministries of government are asked to report any plan for implementation of the recommendations to the Chief Coroner or the Regional Supervising Coroner.

In addition, the PDRC child welfare report and recommendations are provided to the involved CAS, the Ministry of Children and Youth Services and the Regional Supervising Coroner. It is the practice of CAS agencies to provide feedback to the PDRC with respect to recommendations and their implementation. In addition, the Ministry, through its regional offices, monitors the implementation of the recommendations.

In summary, this process of case evaluation was provided to illustrate the investigative services that are mobilized and utilized during the investigation of a child's death in Ontario. The reader is reminded that the Public Inquiry into Pediatric Forensic Pathology focused on problematic cases arising prior to 2001. The description outlined above sets out the current practices, including some, (but not all) of the quality assurance processes that are presently involved in the investigation of a child's death.

INVESTIGATION OF THE DEATH OF A CHILD WHO DIES WHILE RECEVING SERVICES FROM A CHILDREN'S AID SOCIETY

This documents the comprehensive investigation of a child who dies while receiving services from a Children's Aid Society (CAS) in Ontario. It includes:

- 1. A Serious Occurrence Report, provided by the CAS to the Office of the Chief Coroner (OCC), immediately.
- 2. A Child Fatality Case Summary, provided by the CAS to the Office of the Chief Coroner within 14 days.
- 3. At this point, and upon review of the circumstances of the death, the OCC will notify the CAS if a full Internal Review is necessary. This notification will occur within 21 days of the death. For example, a child that dies as a result of a motor vehicle collision may not require an Internal Review. However, if a child died under one year of age while in the family home where there is a history of substance abuse with the parents, an Internal Review would be considered mandatory.
- 3. The Internal Report must be completed by the CAS within 90 days of the death. All of these reports are shared with the PDRC.
- 4. A coroner's investigation. The police assist the coroner and provide such assistance as is necessary for the purposes of carrying out the coroner's duties.
- 5. If the death is a homicide or criminally suspicious, a parallel police investigation will be conducted for the criminal justice system.
- 6. An autopsy by a forensic and/or paediatric pathologist. In criminally suspicious cases, the forensic pathologist may attend the scene.
- 7. A toxicologist's report.
- 8. A radiologist's report.

- 9. A case conference is often convened. This meeting is generally chaired by the Regional Supervising Coroner, and involves police, the investigating coroner, the pathologist, the toxicologist, a neuropathologist when required, and a child welfare expert. This meeting will determine what, if any investigative issues may need to be addressed. It may also facilitate development of opinions as to cause and manner of death.
- 10. The investigating coroner will conclude the investigation, and send his Coroner's Investigation Statement to the Regional Supervising Coroner (RSC). The RSC will review the case for any errors or omissions, and may choose to send the case for further review to an expert committee. If the child was under the age 5 years, referral to the Deaths Under Five Committee is mandatory. The age and circumstances surrounding the death will determine a referral to the Paediatric Death Review Committee.
- 11. A review of the death by the Deaths Under Five Committee will be conducted. This multidisciplinary Committee consisting of coroners, pathologists, homicide detectives, a crown attorney, and child welfare experts has a quality assurance mandate. The officers assigned to the Committee will inquire of the original investigating police service about the nature of the investigation utilizing a summary framework. When providing their findings to the Committee they will provide death scene and selected autopsy photographs. These officers are senior homicide detectives. A pathologist will review the original pathologist's autopsy report, and provide a written report of the findings. If there are any concerns about the pathologist's original autopsy report identified, the Chief Forensic Pathologist is asked to review the case. This Committee will make findings of cause and manner of death. This report will then be forwarded to the RSC, who will review the report and make any necessary updates to the Coroner's Investigation System. The Committee will also make recommendations regarding quality-related issues in the death investigation. In addition, the Committee may refer the death to the PDRC for further review.
- 12. A review by the Paediatric Death Review Committee will be completed. The members include child welfare experts, coroners, homicide detectives, paediatricians, pathologists, and a crown attorney, who create the reports of the Committee. The report may focus on the child welfare aspects of the death, the medical/paediatric aspects of the death, or both. Recommendations will be developed and sent to the RSC, the CAS, and the Ministry of Children and Youth Services. The Committee is independent of both the Ministry and the CAS.
- 13. The CAS will implement the recommendations where practical and usually provide feedback to the PDRC about the Committee's findings. The Ministry of Children and Youth Services will independently report expectations arising from the death to the CAS.

Deaths Under Five Committee

In 1995, the Office of the Chief Coroner introduced a protocol to be used in investigating the death of any child under 2 years of age. Over the years, the protocol has been significantly refined, and in December 2006, it was felt appropriate to issue an up-to-date version of the protocol, to be used by the death investigation team (police, coroners, pathologists) to investigate sudden and unexpected deaths of all children **under 5 years** of age. As a result, the Deaths Under Two Committee was renamed the Deaths Under Five Committee to encompass the new age range.

Coroners and other members of the death investigation team were once again reminded of the importance of not reaching a conclusion that death was due to Sudden Infant Death Syndrome (SIDS) until the investigation is complete. This includes a full police investigation, a forensic autopsy at one of the designated paediatric units (including x-rays, histology and toxicology), and review by the Deaths Under Five Committee at the Office of the Chief Coroner. On occasion, families, CAS and police are advised that deaths are due to SIDS before the investigation is complete. In many cases, this means that police and the CAS close their investigations prematurely believing the case is a natural death and therefore, not preventable or warranting further investigation.

National Association of Medical Examiners (NAME) Guidelines for Classifying Deaths

The Office of the Chief Coroner uses the National Association of Medical Examiners (NAME) guidelines when classifying infant deaths. This allows for consistent classification in the Coroners system. The following NAME Guidelines have been used by the Paediatric Death Review Committee and Deaths Under Two Committee (now the Deaths Under Five Committee) since 2002:

Definitions:

COD: Cause of Death

BWM: By What Means (Manner of Death)

Group 1	COD:	A specific disease, injury, or other condition identified as cause of death (i.e. pneumonia, CHD, overlaying, head trauma, etc). Classified based on the circumstances
Group 2	COD:	"Classic" SIDS – no cause of death identified after complete autopsy, toxicology, other lab tests, scene investigation, review of medical history. Natural
Group 3	COD:	Consistent with SIDS – but evidence of a disease condition (such as focal bronchiolitis) is found but the role of the condition in causing or contributing to death is not known. Natural
Group 4	COD:	Sudden unexpected death in infancy – evidence of external condition or risk factor exists (bed sharing with adults, sleeping face down on a soft pillow or adult mattress). Again the role of the external condition/risk in causing or contributing to the death is not truly known or difficult to evaluate, prove, or disprove. Undetermined (also list the contributing external factors)
Group 5	COD: BWM:	Unexpected and undetermined cause Undetermined

Age 0 to 5 yrs Manner of Death	2003	2004	2005	2006	2007*
Natural	156	178	136	133	101
Accident	35	34	33	42	34
Homicide	11	5	10	11	6
Undetermined	38	41	53	59	42
Total	240	258	232	245	183

^{*} NB: Preliminary data for 2007

Deaths Under Five Committee - TERMS OF REFERENCE

Purpose:

This committee will provide a multidisciplinary quality review of all coroners' investigations of deaths of children under five years of age for the purpose of:

- (a) reviewing the cause and manner of death, and
- (b) identifying appropriate opportunities for further investigation that arise from the Committee's review of the death.

Objectives:

- 1. To provide consistent review of all deaths of children under five years of age to ensure that the conclusions with respect to cause and manner of death are accurate and based upon the best available information.
- 2. To ask individual constituents of the Committee to review their discipline specific role with regard to the death investigation to ensure that it has been comprehensive and that no reasonable opportunities for further investigation exist.
- 3. To track and report annually to the Chief Coroner on the trends, risk factors, and patterns identified.
- 4. If the Committee believes that there is a risk to public safety, its concerns will be conveyed to the Chief Coroner via the Chair.
- 5. To identify opportunities for improvements to the death investigation process.

Process:

- 1. All deaths of children under five years of age will be referred to the Executive Officers of the Deaths Under Five Committee by the Regional Supervising Coroner.
- 2. The Executive Team consisting of the Chair, Deputy Chair, Executive Officer and Child Welfare Specialist shall review all referrals to the Committee.
- 3. Following review, the Executive Team will select cases deemed appropriate for further evaluation by the full Committee.
- 4. In cases not forwarded for full Committee evaluation, the Executive Team will report their findings to the Regional Supervising Coroner.
- 5. Cases to be reviewed solely by the Executive Team include: homicides, expected natural deaths, and accidental deaths where review revealed all other aspects of the investigation to be non-contentious.
- 6. Cases to be reviewed by the full Committee include: all deaths with manner "undetermined", unexpected natural deaths including Sudden Infant Death Syndrome (SIDS), and accidental deaths as referred by the Executive Team.
- 7. Following Committee review, a report of the findings will be provided to the Regional Supervising Coroner.

8. Following review by the Committee or Executive Team, a report will be provided to the investigating Children's Aid Society.

Size and Structure:

- 1. A full-time member of the Office of the Chief Coroner shall hold the position of Chair.
- 2. In addition to a Deputy Chief Coroner or a Regional Supervising Coroner, the Chair of the Committee should give consideration to having members from the health care sector, criminal justice systems and Child Homicide Team as well as pathologists, coroners and child welfare specialists.
- 3. The appointment and tenure of Committee membership is at the sole discretion of the Chief Coroner, pursuant to Section 15(4) of the Coroners Act. On a regular basis, the Chief Coroner shall review the composition and balance of the Committee membership.
- 4. Committee members should anticipate membership lasting three years, subject to a review by the Chair. Continued membership after that time may be contingent on the Chair's evaluation of the members' past commitment and participation, and the current composition of the Committee.
- 5. Other individuals with specific expertise and/or case knowledge may be invited to Committee meetings on a case-by-case basis as the need arises at the discretion of the Chair, and with advice from members of the Committee. Every invited person must execute a confidentiality agreement.
- 6. The Chair may strike sub-committees from time to time, as he/she deems appropriate.

Limitation and Confidentiality Requirements:

- 1. Each member of the Committee shall enter into and be bound by the terms of the Membership and Confidentiality Agreements set out in Schedule I and II of the Terms of Reference.
- 2. The Committee is strictly advisory to the Chief Coroner and any recommendations regarding individual fatalities or reports including the annual report will be made through the Chief Coroner.
- 3. The information provided will usually consist of the Coroner's Investigation Statement, the Post Mortem Examination Report, the police file, hospital and medical records and child welfare agency reports where available. The collection of information for the Committee is limited by the normal authority of the coroner pursuant to Section 16 (Investigative Powers) of the Coroners Act. Information must only be collected within the bounds of this section and with the requisite approval of a coroner.
- 4. Any opinion or recommendation rendered by the Committee is limited by the information available to it and is subject to the limitations imposed on coroner's investigations and inquests by the Coroners Act. Members shall not render individual opinions or provide public comments on cases reviewed and shall not provide individual opinions or comments in the context of civil or criminal litigation or enquiries outside of the Coroner's system, nor will the Committee render any conclusion in law or make any finding of legal responsibility.
- 5. Members of the Committee shall declare any interest they may have with any individuals or organizations involved in the circumstances of the death under review, including any interest or financial involvement with any agencies to which recommendations are directed. It will be the function of the Chair to assess whether there is a conflict or appearance of conflict of interest sufficient to preclude a member's participation in the fatality review.

Expert Opinion:

- 1. Expert opinion presented at the Committee should be, and seen to be, the independent product of the expert reviewer, uninfluenced as to the form or content by any external exigencies.
- 2. Expert opinion should provide independent assistance to the Committee by way of objective, unbiased opinion in relation to matters within the expert's expertise. Expert opinion should never assume the role of an advocate.
- 3. Expert opinion should state the facts or assumptions on which their opinion was based. They should not omit to consider material facts that might detract from their concluded opinions.
- 4. Experts should make it clear when a particular question or issue fell outside of their expertise.
- 5. If an expert's opinion was not properly researched because it was considered that insufficient data was available, then that should be stated with an indication that the opinion was no more than a provisional one.
- 6. Wherever possible, expert opinion should be evidence-based.
- 7. Upon receipt of the expert's review, the Deaths Under Five Committee will produce a consensus position with regard to the issues canvassed during the review.

Function of the Chair:

- 1. Convene meetings on a regular basis to review deaths of children under 5 years of age.
- 2. Review all cases referred to the Committee by the Regional Supervising Coroners.
- 3. Prepare the agenda for each meeting of the Committee.
- 4. Minutes from prior meetings shall be kept, circulated and approved by the Committee for each meeting.
- 5. Provide in writing to the referring Regional Supervising Coroner the results and recommendations arising out of the case reviews.
- 6. Prepare an annual report based on the aggregate data collected from all deaths of children under five years of age.
- 7. The Chair of the Committee shall make the report to the Chief Coroner. The contents of the report shall be subject to the limitations imposed by the Coroners Act and the Freedom of Information and Protection of Privacy Act.
- 8. Perform such other duties as may be required in the review of fatalities of children under five years of age as requested by the Chief Coroner.

Amendments to the Terms of Reference:

- 1. The Chief Coroner may, under his/her authority, amend the Terms of Reference of the Committee.
- 2. Committee members may request and/or recommend changes to the Terms of Reference through the Chair of the Committee to the Chief Coroner.

SIDS: Sudden Infant Death Syndrome

Sudden Infant Death Syndrome (SIDS) is defined as the sudden death of an infant under one year of age, which remains unexplained after a thorough case investigation, which must include a complete autopsy, examination of the death scene, a police investigation and a review of the clinical history.

It is clear from this definition that the diagnosis of SIDS cannot be made by autopsy alone, but can only be made by the Coroner when the results of the full investigation (police, autopsy, x-rays, toxicology, clinical history) are known. **SIDS is a diagnosis of exclusion.**

Please refer to research study on pages 34-37 for further discussion on SIDS.

SIDS is a <u>diagnosis of exclusion</u>, providing all other aspects of the death investigation are negative.

SUDI: Sudden Unexpected Death in Infancy

A sudden unexpected death in infancy may be due to:

- 1. SIDS
- 2. Accidental injury
- 3. Non-accidental injury due to: (a) neglect; (b) abuse
- 4. A previously undiagnosed natural disease process

If <u>any</u> part of the death investigation in a child under one year of age is positive, then the death will not be classified as a SIDS. The following are some examples where this would apply:

- a) Negative autopsy, but evidence of an old healed fracture, which has not been adequately explained by the investigation.
- b) Negative autopsy, but a previous history of child abuse.
- c) Negative autopsy, but some positive toxicology, which although not considered to be a cause of death, cannot be explained.
- d) Negative autopsy, but evidence of an unsafe sleeping environment.

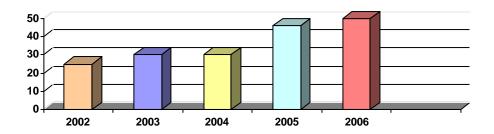
Where there is any significant concern regarding any part of the death investigation the cause of death should be classified as a "Sudden Unexpected Death in Infancy", and the manner of death will be recorded as "undetermined".

SUDI: Sudden Unexpected Death in Infancy

Contributing Factors Include:

- Bed-sharing
- Sleeping face down
- Unsuitable sleeping surface (i.e. adult bed, sofa, car seat)

Office of the Chief Coroner of Ontario SUDI deaths 2001-2006



Trends in Infant Deaths in Ontario

- Decrease in the number of SIDS
- Increase in the number of SUDI
- Unsafe sleeping, bed-sharing were contributing factors to the SUDI total

According to Statistics Canada:

- During the past 25 years, the infant mortality rate in Canada has declined by 52%.
- The infant mortality rates in Canada for 2005 have increased marginally to 5.4 compared to 2003 and 2004 at 5.3 deaths respectively, per 1,000 live births.
- Between 2004 and 2005, the infant mortality rate for babies under one year of age increased in 6 provinces and territories, including Ontario, where the rate was 5.6 per 1,000 live births.

In 1991, there were approximately 140 deaths classified as SIDS in the Province of Ontario. Clearly, since that time, the numbers have decreased to an average of 5 per year per year, the reasons being:

- 1) **Education:** Back to Sleep Program referring to placing a baby on their back (supine position) when putting them down to sleep.
- 2) **Stricter Definition of SIDS:** The Office of the Chief Coroner uses the National Association of Medical Examiners (NAME) guidelines when classifying infant deaths. This allows for a consistent classification in the Coroners system.
- 3) **Deaths Under Five Investigation Questionnaire:** Designed by the Coroner's Office, the questionnaire assists coroners and police officers to ensure that all aspects of a comprehensive scene investigation have been addressed.

Unsafe Sleeping and Bed-sharing vs. Co - sleeping

Unsafe Sleeping Environments and Bed-sharing vs. Co-sleeping

The terms SUD (Sudden Unexpected Death) or SUDI (Sudden Unexpected Death in Infancy) are now often used instead of Sudden Infant Death Syndrome (SIDS) in many jurisdictions, including Ontario, in some deaths previously considered to be SIDS. SIDS, being a diagnosis of exclusion, is reserved for deaths of infants where there are no positive findings after a complete investigation has been conducted (see definitions on page 25).

Increasingly, the findings of "unsafe sleeping environment" and "bed-sharing" are being recognized as positive findings in the death investigation leading to the manner of death being classified as 'undetermined'. This change is causing a diagnostic shift in the mortality data globally, and can cause confusion.

In Ontario, the Deaths Under 5 Committee considers the sleep environment in all deaths of children who die during sleep, particularly those under the age of one year. Unsafe sleeping environments include surfaces not designed for infant sleep, such as adult beds, couches, armchairs and infant swings. However any sleep surface that is cluttered with pillows, blankets, toys, duvets and other objects is deemed to be an unsafe sleeping environment.

The terms "co-sleeping" and "bed-sharing" are often used interchangeably by professionals and in the literature. The PDRC and the DU5C have committed to using "bed sharing" to mean an infant sharing the same sleep surface with someone else (usually an adult, but occasionally a sibling). The term "co-sleeping" is used to describe an infant sharing the same room with the caregiver(s). We support room-sharing, but not bed-sharing as the preferred arrangement for safe sleeping (see figure 1 below).

Room Sharing (figure 1)



(Graphics courtesy of the Canadian Foundation for the Study of Infant Deaths)

Data on Cases Reviewed in 2008 by Deaths Under 5 Committee

- A total of 96 cases were reviewed this past year
- 40 of 96 deaths were classified as Undetermined
- 33 (75%) of the Undetermined cases involved unsafe sleeping environments
- 19 (58%) of these unsafe sleeping related cases involved bed-sharing

Manner of Death for 96 Cases Reviewed

Natural	Accident	Undetermined
39	17	40

Year of Death for 96 Cases Reviewed

2005	2006	2007	2008
2	24	65	5

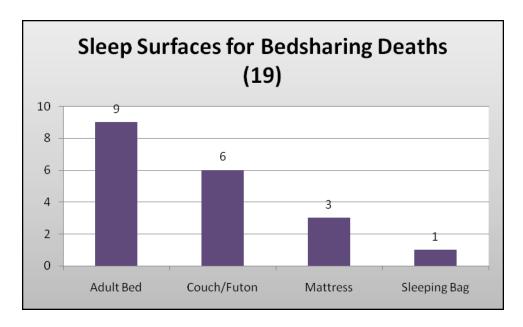
More information about the 33 unsafe sleeping related deaths reviewed by the Deaths Under 5 Committee in 2008 is presented below.

GENDER: 11 of the infants were female; 22 were male

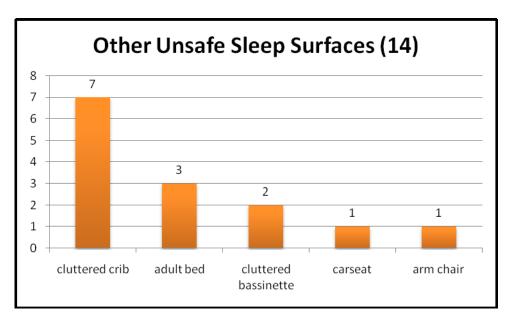
AGE: 31 of the infants were 7 months of age or younger and 2 were 10 months old, stressing the increased risk of sharing a sleep surface with very young babies.

In the 19 unsafe sleeping related deaths with bed-sharing, all involved one or two adults and in one case another child was also in the bed. A breakdown of who was sleeping with the infant and on what surface follows:

Mother only	10
Father only	3
Both parents	2
Mother, Father and Sibling	1
Baby sitter	2
Mother and a Sibling	1



The sleep surfaces in the 14 unsafe sleeping deaths that did not involve bed-sharing are shown in this chart:



The number of infant deaths reviewed by the committees where unsafe sleeping practices, including bedsharing, are factors, is a growing concern. While there is no way of knowing how many parents share a bed with their infants without incident, the frequency with which death results is a genuine public safety issue. Various Child Death Review teams share this view and several organizations have taken a strong stance and have issued position statements and warnings about the risks associated with bed-sharing (see Health Canada article on page 31 and box 1 and box 2 on page 33). Although a controversial issue, we believe it would be irresponsible not to report the number of such deaths reviewed in Ontario. This message is meant to raise the awareness of parents, alternate caregivers, and professionals who work with young children, as it is critical in the prevention of future deaths. Further research in this area is warranted and is ongoing.

Unsafe Sleeping and Bed-sharing Case Examples

1. Unsafe Sleep Environment

The parents discovered their 4 month-old infant, with his head wrapped in a blanket in his crib at 6:00 a.m. The parents immediately called 911 and the mother attempted to revive the baby without success. The baby was taken to the hospital by ambulance with VSA (vital signs absent). The attending physician noted that the baby had been dead for several hours. The father had last checked the baby at midnight. This case was reviewed at DU5C and the death was classified as:

Cause of Death: No definitive anatomic or toxicologic cause of death; sudden unexpected death in infancy (SUDI) in an unsafe sleeping environment (blanket wrapped around baby's head and face twice)

Contributing factors:

Lymphocytic bronchitis (no micro organism identified)

Manner of Death: Undetermined



2. With Bed-sharing:

A 6-week-old baby was breast fed by her mother in the adult bed at 11:30 p.m. The mother was on her left side feeding the infant, lost track of time and fell asleep. When she awoke in the morning, the baby was not breathing. The case was reviewed at the DU5C and the death was classified as:

Cause of Death: No definitive anatomic or toxicologic cause of death; sudden unexpected death in infancy (SUDI) in the presence of bed sharing in an unsafe sleeping environment (adult bed)

Manner of Death: Undetermined

Health Canada Advises the Canadian Public that the Safest Place for a Baby to Sleep is in a Crib

From http://www.hc-sc.gc.ca

Consumer Product Safety

Consumer Information - Safe Sleep Practices for Infants

January 2008

The safest place for an infant to sleep is alone in a crib. Infants and young children should never be placed to sleep on unsuitable surfaces, such as a standard bed, water bed, air mattress, sofa, futon or armchair.

Products, such as carriages, strollers, car seats, infant swings, bouncers, or playpens, are not intended for an infant to sleep in and should not be used for extended periods of time.

Sleep-related hazards include:

Bed sharing

Bed sharing is when an adult or another child sleeps on the same surface as an infant.

- Caregivers may believe that bed sharing will reduce the risk of Sudden Infant Death Syndrome (SIDS) however; there is no evidence of this. Research shows that the risk of SIDS is higher if the person sharing a bed with an infant is a smoker, very tired, or under the influence of drugs or alcohol¹.
- Infants can become entrapped between objects such as the sleeping surface, the body of the parent or caregiver, the wall and other objects.
- Infants sleeping on an elevated surface can fall and be seriously injured.
- Infants can suffocate in soft bedding materials, such as pillows or comforters.

Playpens:

Since playpens do not meet the same safety requirements and are not as durable as cribs, they are not designed to be used as a sleep surface.

- Do not leave an infant sleeping in a playpen for extended periods of time.
- If a change table or bassinet is provided as an attachment for the playpen, never place a baby in the playpen while the change table or bassinet attachment is still in place.
- Do not add blankets, pillows or an extra mattress to a playpen. The use of these items could lead to suffocation.
- Check that the mattress pad is firm. Mattress pads that are too soft or worn down in any area could create a suffocation hazard.

Cribs:

A crib that meets current Canadian safety regulations is the safest place for an infant to sleep. A crib can be used until there is a possibility that the child could climb out on their own or when they are taller than 90 cm (usually when the child is between the ages of 18-24 months). A cradle is a safe place for an infant to sleep until they can sit-up on their own (usually by the time the child reaches 6 months of age).

To ensure that a crib is safe for a sleeping infant:

- Do not use a crib made before September 1986 as it does not meet current safety regulations.
- Avoid the use of soft objects, such as pillows, plush toys, sleep positioners, comforters, bumper pads, lambskins and similar products as they can pose a suffocation risk.
- Check that the crib mattress is firm and tight-fitting. The space between the mattress and the sides of the crib should not be more than 3 cm. The mattress should not be more than 15 cm thick.
- Do not modify a crib in any way. Always follow manufacturer's instructions for assembling and using the crib.
- After placing the baby in the crib, ensure the sides are up and locked securely in position.
- Do not place cords, straps or similar items, in or near a crib, as they could become wrapped around a child's neck. Keep the crib away from windows or patio doors where a child can reach a blind or curtain cord as these items could also cause strangulation.

General Safe Sleep Tips:

- Infants should be placed on their backs to sleep.
- Never allow an infant to sleep on the same surface as an adult or another child.
- Do not allow an infant to sleep in a stroller, swing, bouncer or car seat for extended periods of time.
- When travelling, use a hard-sided portable crib instead of a playpen to place an infant to sleep.
- Never place a child younger than 2 years of age on a bed fitted with a portable bed rail.
- Children under the age of 6 should not sleep on the top bunk of bunk beds.

For more safety tips, please see our Consumer Bulletin on Safe Sleep Practices for Infants.

For more information on crib requirements in Canada, as well as the safe use of cribs, visit Health Canada's Crib Safety - Booklet.

For further information, consumers may contact the Health Canada Product Safety office by phone at 1-866-662-0666 toll-free, or by email at cps-spc@hc-sc.gc.ca (if contacting via e-mail, please indicate the province or territory from which you are corresponding).

(Box 1)

Safe Sleeping Position Statements and/or Warnings Issued:			
1999	U.S. Consumer Product Safety Commission		
1999	American Medical Association		
1992/2000/2005	American Academy of Pediatrics		
2004	U.K. Department of Health		
2004	Canadian Paediatric Society		
2004	Michigan Department of Community Health (Report of the Safe Sleep Work Group)		
2007- 2009	Ontario Office of the Chief Coroner – PDRC		
2007	Canadian Foundation for the Study of Infant Death		
	U.S. National SIDS and Infant Death Program Support Center		
2008	Health Canada Consumer Product Safety		

(Box 2)

Data from other Child Death Review Teams

British Columbia, Office of the Chief Coroner, Child Death Review Unit reported findings in 2007:

- The majority of sudden infant deaths occurred prior to 6 months of age.
- Modifiable risk factors were present in many of the infants' lives.
- Unsafe sleep surfaces were present in the majority of cases; the most common was an adult mattress.
- More than half of the infants were bed-sharing at their time of death.
- Less than half of the infants were placed to sleep on their back.

The Florida State Death Review Committee has identified sleeping related deaths as an ongoing problem over the past seven years. Key Findings:

38 children died as a result of suffocation due to an unsafe sleep environment, 19 (50%) of the cases had cribs in the home that were not being used, 26 were attributed to co-sleeping/overlay, 21 were co-sleeping in beds, 4 were co-sleeping on sofas/futon, 1 was co-sleeping on an air mattress and 12 were placed in other unsafe sleep environments

lowa Child Fatality Review Team determined 48 deaths to be of an undetermined manner. 37 cases were classified as "undetermined" by the team because the infants were bed sharing at the time of death, and patterns of lividity or other evidence did not clearly show if there was wedging or overlying involved.

Arizona Child Fatality Review Teams report that in 2006, 90 previously healthy infants died unexpectedly, and in 90% of these deaths, unsafe sleeping environment was identified as a contributing preventable factor.

Citing several research studies, **Michigan's Fetal Infant Mortality Review (FIMR) Network** takes the position that the potential benefits of bed-sharing do not mitigate against fatal risks.

Ohio's Child Death Review team reported that the 174 infant sleep-related deaths in 2005 accounted for 16% of the 1,117 total reviews for infant deaths, more than any single cause of death except prematurity.

Of the 359 reviews of infant deaths from 29 days to 1 year of age, 42% (152) were sleep-related.

- Only 26% (45) of sleep-related deaths occurred in cribs or bassinets.
- 53% (92) of sleep-related deaths occurred in locations considered unsafe: in other types of beds and on couches.
- Bed-sharing was the most frequently reported factor for sleep-related deaths.
- At least 58% (101) of sleep-related deaths occurred with infants who were sharing a sleep surface with an adult or sibling at the time of death.

A Retrospective Study of Sudden Infant Death Syndrome (SIDS) in Ontario from 2001 to 2006

Ping Ser, Fourth Year Forensic-Biology Specialist Program, University of Toronto **Karen Bridgman-Acker, Dr. J. N. Edwards**, **Dr. A. E. Lauwers**, **Dr. J. Tanguay**, Office of the Chief Coroner

Introduction

The first definition for SIDS was issued in 1969, after the Second International Conference on Causes of Sudden Death in Infants. The National Institute of Child Health and Human Development revised this definition in 1989. The current definition of SIDS is the "sudden death of an infant under one year of age, which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history' (Willinger 1991).

If any part of the death investigation in a child less than one year of age is positive, then the death will not be classified as SIDS. Where there is any significant concern regarding any part of the death investigation the cause of death would be classified as 'Sudden Unexpected Death in Infancy (SUDI)', and the manner of death would be recorded as 'undetermined'. On the other hand, where 'Sudden Infant Death Syndrome' is the cause of death, the manner of death is recorded as 'natural'.

Many publications have reported a decrease in the numbers of SIDS cases. Statistics Canada and the Office of the Chief Coroner (OCCO) have also reported figures that indicate a decreasing trend. This decline is attributed to advocating for safe sleeping such as the 'Back to Sleep' programs, which have raised parents' awareness to place their infants to sleep in the supine position; prone sleeping position has been identified as a major risk factor for SIDS. However, it must be noted that even though the definition for SIDS has not changed, the application of it was not as stringent as today. Therefore, there is a possibility that the observed decreasing trend is actually due to the difference in application of the definition.

This research does not seek to produce a novel hypothesis, but rather to review and isolate the true SIDS cases in Ontario from the years 2001 to 2006. The isolated cases will be used to show if there is indeed a significant decrease in SIDS cases and identify trends in SIDS.

Method

Case files where SIDS was given as the cause of death from the years 2001 to 2006 were obtained from the OCCO. Police reports (including witnesses' statements), autopsy and ancillary studies (toxicological screen, X-ray, microbial screen and metabolic screen), medical and Children's Aid Society (CAS) records were reviewed.

There were two stages to this study. The first was to review the case files to isolate the true SIDS cases. Cases that were excluded as SIDS include:

- 1) Cases in which the deceased was older than 365 days.
- 2) Cases that presented a positive autopsy, neuropathological, toxicological, X-ray, viral and microbial, or metabolic finding. The mere presence of a virus or microbe did not exclude a case as SIDS; the findings had to be reported as a significant finding such as a heavy growth of a particular microbe, to be considered a positive finding. This protocol applied to autopsies and ancillary studies.
- 3) Cases that presented evidence of bedsharing.
- Cases that presented evidence of an unsafe and unapproved sleeping environment i.e. couches, car seats, strollers, mattresses, or adult beds.
- 5) Cases that presented evidence of an unsafe sleeping environment, but required examination of the case context (i.e. the presence of adult pillows, blankets or toys in the infant's sleep environment did not necessary exclude the case as SIDS; only when the infant was found with his or her face in a pillow or toy, or the face was covered with blanket was the case excluded as SIDS). Similarly, the use of a playpen as a sleeping environment for an infant was not included, but when the deceased was found face down in the playpen, the case was excluded as SIDS.

The second review was conducted to collect data from the isolated cases. The main data collected were: sex, age, sleep position, medical history of the deceased, type of feeding, environmental factors, family and maternal history, and postmortem findings.

Results

A total of 84 case files were reviewed and 36.9% of them were determined to be true SIDS cases. Therefore, utilizing the stringently applied exclusion criteria, only 31 cases of "true" SIDS were identified.

- There was a significant difference between the number of SIDS cases before and after our review. The mean difference = 0.0665 per 1000 live births, 95% CI = 0.0279 - 0.1051 per 1000 live births, p-value = 0.007 (Table 1).
- The mean number of true SIDS cases per 1000 live births was 0.0393, 95% CI 0.0231 0.0555. Only the year 2002 had a rate of 0.0700, which was outside the range of the 95% CI (Table 1).
- 57% of the 53 cases that were excluded as SIDS had evidence of unsafe sleeping practices (Figure 1).

51.6% of the cases occurred in the western region of Ontario and the cases were equally distributed throughout the seasons. 32.3% of the

cases had CAS involvement. The main identified trends were: male infants, median age of 90.3 days, lack of breastfeeding, infants who were not the first child of their mothers, infants sleeping in a separate room than their parents, prone sleeping position, presence of smoking and/or animals in the infant's environment, and a medical history of congestion and/or infection (Table 2). 58.1% of the deceased were discovered to be unresponsive in the morning. A less obvious finding was overheating; 44.8% of the deceased had excessive clothing/coverings (2 cases reported as unknown) and 31.8% (9 cases reported as unknown) had evidence of high room temperatures.

2 cases had a history of SIDS/SUDI in the family of the deceased. 1 case reported the parents as first cousins and the mother had a history of spontaneous abortions, miscarriages and stillbirths.

The most common pathological findings were pulmonary congestion (83.9%) and intra-thoracic hemorrhages (83.9%). 24% (6 cases reported as unknown) detected microbes in postmortem blood samples and 62.5% (7 cases reported as unknown) detected microbes in postmortem lung tissue samples. Staphylococcus aureus was the microbe detected the most frequently.

Table 1 Number of SIDS cases from years 2001 to 2006, before and after the review of the case files.

Year	Number of	Number of	Number of	Number of SIDS	Number of SIDS cases
	live births	SIDS cases	SIDS cases	cases per 1000 live	per 1000 live births
		before review	after review	births before review	after review
2001	131,709	18	5	0.14	0.038
2002	128,528	18	9	0.14	0.070
2003	130,927	17	4	0.13	0.031
2004	132,551	12	4	0.091	0.030
2005	133,760	13	4	0.097	0.030
2006	135,595	5	5	0.037	0.037

^{*}The number of live births for each year was obtained from Statistic Canada.

Factors	% of cases
Mala and the	
Vulnerability	
2 - 4 months of age	83.9
Complete lack of breastfeeding	45.2
Infants who are not the first child to their mothers	85.0
Infants sleeping in a separate room than parents	56.7
Predisposed factor (genetic)	
Male infants	67.7
Trigger events	
Prone sleeping position	71.0
Exposure to tobacco smoke and/or animals	80.0
Medical history of congestion	35.5
Medical history of infection	29.0

Table 2 Main identified trends in the 31 true SIDS cases.

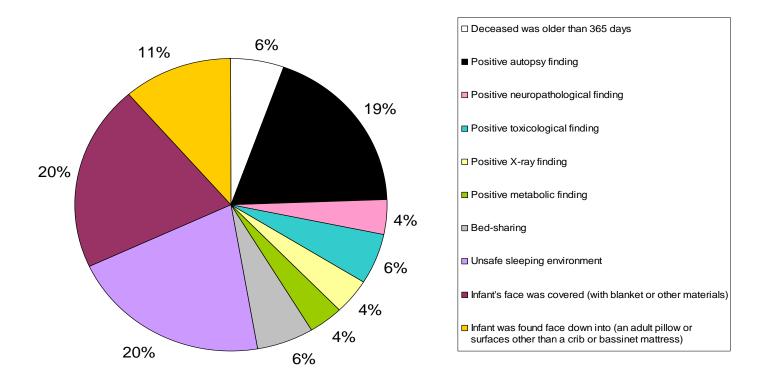


Figure 1 The 53 cases that were excluded as SIDS and the reasons for exclusion. Unsafe sleeping conditions and practices (bottom 4 categories of the legend) accounted for 57% of the 53 cases.

Conclusion

Unlike other jurisdictions, SIDS is not the leading cause of postnatal deaths in Ontario. Our study attempted to identify that true SIDS cases could be identified by stringent application of the SIDS definition. The difference in number of SIDS cases, before and after the review was significant and the decrease in number of true SIDS cases from year 2001 to 2006 was insignificant. A stringently applied definition of SIDS cases would prevent giving SIDS as a cause of death for all unexplained infant deaths and thus allow future studies to identify the important potentially causal remaining risk factors associated with true SIDS with greater accuracy.

Trends that were identified in this research are consistent with the findings from other studies and support the multi-variable hypothesis. Risk factors could be divided into vulnerability, predisposed factors and trigger events.

It is of paramount importance to point out that of the 53 cases previously identified as SIDS cases and excluded by this review, a striking 57% were considered to have unsafe sleeping environments. This suggests that an educational program directed toward parents by public health agencies, health care providers and both governmental and non-governmental agencies instructing parents about safe sleep environments for infants could play a role in further reducing infant deaths. We recommend that the 'Back to Sleep' programs continue and that the public should also be educated on the risk of high temperatures and excessive clothing for their infants, as well as the risk involved in exposure to smoking and animals. There may be a possibility that cribs or mattresses that are uncertified by the authorities are still being used for infants. Therefore, the public should be encouraged to utilize only approved and certified cribs and mattresses as sleep surfaces for infants. Also, with genetics being suggested as a possible direct or indirect contributor to SIDS (Opdal 2004), a more inclusive genetic screen should be conducted for SIDS cases so as to identify other mutations and polymorphisms that could be involved in infant deaths.

References

Willinger M, James LS, Catz C. Defining the sudden infant death syndrome (SIDS). Deliberations of an expert panel convened by the National Institute of Child Health and Human Development. Pediatr Pathol 1991;11:677-84.

Opdal SH, Rognum TO. The sudden infant death syndrome gene: Does it exist? Pediatrics 2004;114:506-12.

Paediatric Accidental Residential Fire Deaths in Ontario - A Research Study

Amy Yingming Chen, Class of 2011, Faculty of Medicine, University of Toronto Karen Bridgman-Acker, Dr. J. N. Edwards, Dr. A. E. Lauwers, Office of the Chief Coroner

Background:

Residential fire is the leading cause of unintentional death for young children at home and the fifth leading cause of unintentional injuryrelated death overall (1-3). In the US, approximately 2500 children die as a result of residential fires and burns each year and 10,000 suffer permanent disability (3). Factors that increase a child's risk for fire-related injury and death are broad and numerous, and have been shown to include environmental, behavioural and social conditions. Several large-scale studies in the US and UK have identified risk factors for paediatric fire deaths, which include maternal education, socioeconomic status, single-parent households, housing regulations, fire escape plans, the presence of working smoke detectors and adequate adult supervision (1, 2, 4-6). The identification of risk factors for fire deaths in children is key in the implementation of population-specific fire prevention programs. This study seeks to identify factors that predispose certain groups of children to fire-related deaths in Ontario. Conclusions drawn from the collected data will be used to evaluate current fire prevention strategies and make recommendations for future programs.

Methodology:

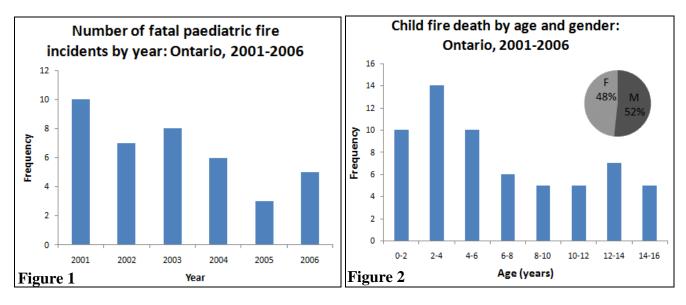
The study retrospectively reviewed all accidental residential fire deaths involving children under age 16 that occurred in Ontario between January 1st, 2001 and December 31st, 2006. Case numbers, along with basic demographic identifiers, of 60 cases satisfying the inclusion criteria were obtained from the Ontario Office of Chief Coroner database. Complete coroner's case files were pulled from the archive based on the case numbers. All documents within the Coroner's case files were carefully reviewed,

which included the Coroner's summary report, pathologist's autopsy report, toxicology report, Fire Marshal's report, police report, and CAS reports.

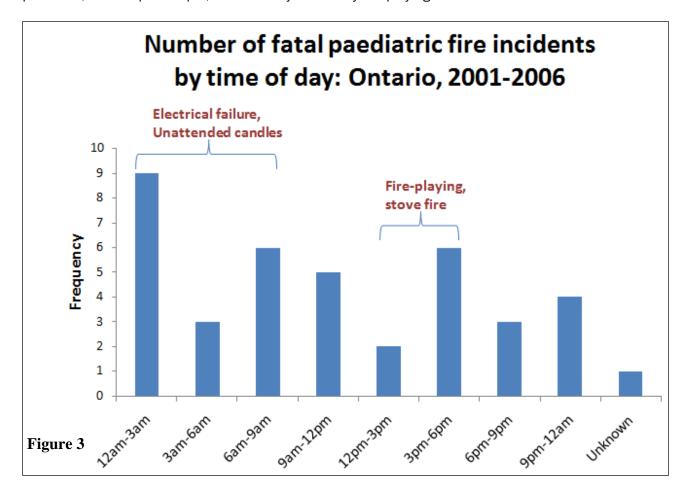
Pertinent information on a range of demographic, behavioural, social, and environmental factors were collected, including age, gender, date of death, region of death, location of death, time of death, cause of death, smoke alarm status, housing type, cause of fire, and CAS involvement. Collected data were input into a MS Excel table, which tabulated the number of fatality cases associated with any factor of interest. Statistical tests, including odds ratio, relative risk, and chisquared test were performed to determine correlations between two or more factors of interest.

Results and Discussions:

Demographics: 39 fire events resulting in 60 deaths occurred between 2001 and 2006 (average 6.5 fatal fire events per year, 10 deaths per year). There has been a general decline in fire incidents and deaths from 2001 to 2006 (Figure 1). Highest incidence of fire deaths occurred in the under 6 population, peaking in the 2-4 years old age group (Figure 2). Slightly more males than females (52 vs. 48%) died in house fires in the 6year period, consistent with US data. The US National Center for Child Death Review reports that males age 0-4 are at the greatest risk of firerelated injuries and deaths (7), their vulnerability likely due to fire-playing tendencies, unfamiliarity with home fire escape plan, and hiding in face of fires. All 3 cases with alcohol involvement were found in the adolescent age group (age 14-16).



<u>Timing of Fire:</u> More fires occurred during the night (12pm to 9am) than day (9am-12pm) (**Figure 3**). Night-time fires were exclusively due to electrical failure and unattended candles, whereas daytime fires, in particular, from 12pm to 6pm, were entirely caused by fire-playing and stove fires.



Fire Response: The majority of children (59%) were awake at the time of fire or were awakened by smoke, a ringing alarm, or a family member's voice. Despite being conscious at the time of fire, those children were not able to escape as a result of their inappropriate fire response. In our sample, some children hid inside the closet or the washroom after reporting fire (presumably out of fear of punishment). Others were too afraid to jump from an upstairs window, or lived in windowless bedrooms in the basement. In some circumstances, the spread of the fire was too rapid, leaving the children trapped in bedrooms unable to escape. This illustrates the importance of a practiced fire plan in a household.

<u>Smoke alarm status:</u> In terms of fire protection and prevention, the single most important factor in preventing residential fire deaths is the presence of a working smoke detector. Smoke detectors were found at the scene of 32 out of 39 (82%) fire events in our study population. However, despite this high number of overall smoke alarm presence, the functionality of smoke detectors was low. Smoke alarms were either absent or not working in 46% of fire incidents. Frequent battery replacement, proper wiring of alarm, and yearly testing by the owner or landlord would increase the functional status of the alarms and drastically reduce the risk of dying in a fire (5, 8, 9).

<u>Fire Location:</u> Comparing location of fire to location of death, it was found that although most fires started in the living room, most children died in the bedroom (**Figure 4**). Smoke from the fire travelled throughout the house, and by the time it reached the bedroom, the rest of the house was filled with smoke, thus preventing route of escape. Alternatively, children often retreat to their bedrooms upon discovery of fire because they are familiar places of safety and comfort. This emphasizes the importance of sleeping with the bedroom door open, as well as installing a smoke alarm inside the bedroom for early smoke detection.

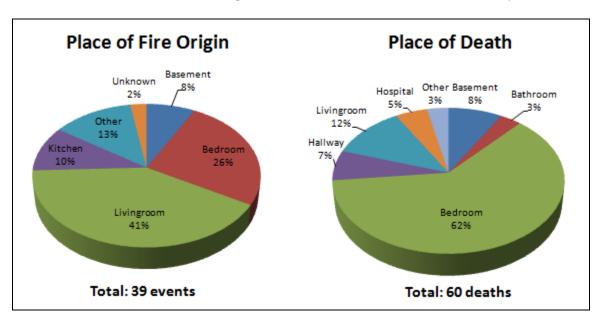


Figure 4

Cause of Fire: Fire-playing and electrical failure were the top two causes of fire in our sample population (Figure 5). Fire-playing, the majority involving lighters and matches, led to 10 fires and 12 deaths. All fires took place during waking hours (11am-11pm) and occurred in absence of adult supervision. The fire-playing group were associated with high CAS involvement (7 out of 12), personal or sibling history of fire-play (4 out of 12), and having smokers in the house (3 out of 12). 10 out of 12 children were in the preschool age group (under 6), consistent with literature data that demonstrated high frequency of fire-playing behaviour in very young children. The US National Fire Protection Association (NFPA) reported in 2006 that >50% of children who set fires are between the ages of 4 and 9 (10). In particular, preschool children have limited understanding of cause and consequence of fire-playing, not able to appreciate that a small candle flame can easily get out of control (11). Although elementary school children have more insight, they often overestimate their ability to control fires (11). Caregiver's attitudes and actions towards fires have been found to be crucial in shaping a child's understanding of fires (11). Caregivers who smoke often light their

cigarettes in front of the children, and carelessly place lighters and matches in easily accessible places (11). Educational intervention should be available to all children with a history of fire-playing behaviour as well as to their families.

Electrical failure was the cause of 8 fire incidents and 15 deaths, with cord overheating and heater malfunction being the most common causes. All incidents occurred during the night and/or when the victims were asleep. The US Fire Administration reports 485 deaths per year due to electrical failure, with the majority caused by misuse and poor maintenance of electrical appliances, old wiring, running cords under rugs, and overloaded circuits and extensions (12). The organization recommends routine check of electrical appliances and wiring, and replacement of worn or damaged cords immediately (12). Most importantly, residents should keep appliances away from combustible materials and avoid running cords under carpets and other flammable materials (12).

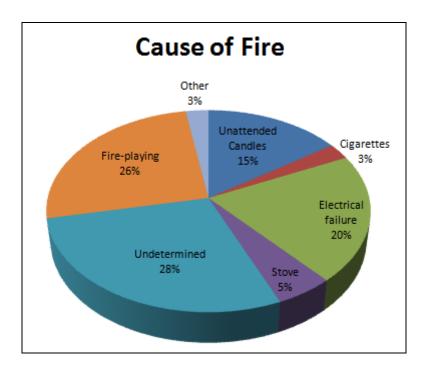


Figure 5

Children from unstable families are at much higher risk of fire deaths, and thus in need of better fire protection and prevention. Children under the protection of the CAS disproportionately come from low income families, and the association between poverty and fire deaths has been validated in many studies in the past. Children from poor neighbourhoods and low socioeconomic families have many risk factors for fire mortality. They are more likely to live in rooms with small or no windows and in houses with unsafe wiring and non-functional smoke alarms (6). They have less supervision, and are more likely to be exposed to smokers in the house and have fire-playing tendencies (5, 11). Caregivers in low income families are more likely to disable working alarms due to annoyance towards false alarms activated by cooking or cigarette smoke in cramped, overcrowded living spaces (15).

Recommendations:

- 1. Working smoke alarm should be installed on every floor of the house and in every room used for sleeping (16).
- 2. Smoke alarms should be tested every month and cleaned every 3 months, with batteries changed once per year (16).
- 3. CAS and other agency staff who make home visits to check up on vulnerable children should pay attention to the presence, location, and functionality of smoke detectors. Any non-compliance should be reported to the Fire Marshal's Office for further investigation and subsequent resolution.
- 4. School programs should continue to emphasize the importance of fire escape plans.
- 5. Level-appropriate education should be offered to all children with history of fire-playing behaviour. Concurrent education should be available to caregivers, who should not play with fire in front of children nor leave lighters/matches in places accessible by the children.

References:

- 1. Scholer SJ, Hickson GB, Mitchel EF, Jr, Ray WA. Predictors of mortality from fires in young children. *Pediatrics* 1998; 101:E12.
- 2. Shai D, Lupinacci P. Fire fatalities among children: An analysis across Philadelphia's census tracts. *Public Health Rep.* 2003; 118:115-126.
- 3. Crawley T. Childhood injury: Significance and prevention strategies. *J.Pediatr.Nurs.* 1996; 11:225-232.
- 4. Istre GR, McCoy M, Carlin DK, McClain J. Residential fire related deaths and injuries among children: Fireplay, smoke alarms, and prevention. *Inj.Prev.* 2002; 8:128-132.
- 5. Runyan CW, Johnson RM, Yang J, et al. Risk and protective factors for fires, burns, and carbon monoxide poisoning in U.S. households. *Am.J.Prev.Med.* 2005; 28:102-108.
- 6. Istre GR, McCoy MA, Osborn L, Barnard JJ, Bolton A. Deaths and injuries from house fires. *N.Engl.J.Med.* 2001; 344:1911-1916.
- 7. National Center for Child Death Review. "Fires". http://www.childdeathreview.org/causesF.htm
- 8. DiGuiseppi C, Roberts I, Li L. Smoke alarm ownership and house fire death rates in children. *J.Epidemiol.Community Health* 1998; 52:760-761.
- 9. Hall JR, Reyes HM, Meller JL, Stein RJ. Traumatic death in urban children, revisited. *Am.J.Dis.Child.* 1993; 147:102-107.
- 10. National Fire Protection Association. "Children and Fire". <u>http://www.nfpa.org/categoryList.asp?categoryID=281&URL=Safety%20Information/Safety%20tips%20&%20fact%20sheets/Children%20and%20fire</u>
- 11. Cole RE, Sharp D, Kourofsky CE. Counselling children who play with fire. http://www.fireproofchildren.com/CounselingChildrenWhoPlayWithFire.htm
- 12. US Fire Administration. "Electrical Fire Safety: A Factsheet on Home Electrical Fire Prevention". http://www.usfa.dhs.gov/citizens/all_citizens/home_fire_prev/electrical.shtm
- 13. Statistics Canada. Census families by number of children at home, by province and territory (2006 Census). http://www40.statcan.ca/l01/cst01/famil50g-eng.htm
- 14. Human Resources and Skills Development Canada. Child & Family Services Statistical Report 2000-2001 to 2003-2004.
 - http://www.hrsdc.gc.ca/eng/publications resources/social policy/cfssr e/2003 002004 e/page 08.shtml

- 15. Roberts H, Curtis K, Liabo K, Rowland D, DiGuiseppi C, Roberts I. Putting public health evidence into practice: increasing the prevalence of working smoke alarms in disadvantaged inner city housing. J Epidemiol Community Health 2004. 58(4):280-285.
- 16. Ontario Municipal Fire Prevention Officers Association. "Fire Safety". http://www.omfpoa.com/058~Fire Safety/

Sudden Unexpected Death in Infants (SUDI) Sudden Infant Death Syndrome (SIDS)

Sudden Unexpected Death in Infancy (SUDI) continues to be the most prevalent cause of death in children under the age of one year. Although the number of deaths attributed to Sudden Infant Death Syndrome (SIDS) has decreased over the last number of years, (see page 26 of this report), the issue of sudden unexpected death in children remains a common and serious issue in child death investigation.

The Office of the Chief Coroner (OCCO), through the comprehensive review process of the Deaths Under Five Committee, has identified trends over recent years (see pages 27-29 of this report), which feature bedsharing as a significant factor in Sudden Unexpected Death in Infants (SUDI).

The Canadian Paediatric Society (CPS) and the American Academy of Paediatrics (AAP) both share a position statement of: No bed-sharing.

The review process findings, relative to the position statement, were of great concern to the OCCO, and specifically, the Deaths Under Five Committee, Hence, in September of 2008, the Chair of the Committee, Dr. Bert Lauwers, undertook to assemble targeted representatives of children's health, who were tasked with the specific mandate to educate the public regarding safe sleeping practices. These individuals were asked to provide their perspectives on this significant issue and discuss how a unified, common message of "no bed-sharing" from each organization might be achieved.

The representative organizations in attendance included:

Office of the Chief Coroner for Ontario (OCCO) Toronto Police Service, Homicide Division (TPS) Toronto Public Health (TPH) Ontario Association of Children's Aid Societies (OACAS) Ministry of Health and Long Term Care (MHLTC) Public Health Agency of Canada (PHAC) Ontario College of Family Physicians (OCFP) Canadian Paediatric Society (CPS)

The subsequent discussion and perspectives of each representative body underscored many significant contentions and ideologies, which were not congruent with the position statement of "no bed-sharing" held by the Canadian Paediatric Society and the American Academy of Paediatrics. The main issues shared with the group were:

- Importance of distinguishing between consistent bed-sharing behaviour and accidental bed-sharing, i.e. mother falling asleep after breastfeeding baby.
- Challenges faced by new mothers such as post-partum depression and sleep deprivation.
- Parents receiving "mixed" messages from other family members, physicians, friends and published literature with respect to baby's sleep environment.
- Families who are economically unable to provide a crib for their infant are supplied with one, but they are not always used.
- When infants are visiting outside of their homes, cribs are not always available.
- Caregivers are not always parents.
- Retail industry for baby products promotes unsafe sleep environments and paraphernalia such as. fluffy baby quilts, stuffed toys, quilted (thick) bumper pads and monitoring devices.
- Evidence of bed-sharing and direct correlation to SUDI/SIDS is considered "limited" by some groups advocating "breastfeeding" and "bonding".
- Personal value systems can interfere with evidence presented.

Monitoring and enforcement issues.

The contributions by the representatives in attendance resulted in the following conclusions by the group as the foundations of a collaborative, unified approach to a "no bed-sharing" message:

- ❖ There is a great need to affect change at a "grassroots" level.
- ❖ There is a need for "consistent" messaging to <u>multiple</u> caregivers.
- ❖ There is a need for education of women at a very **early** stage in their pregnancy i.e. well before labour and delivery.
- The Consumers' Association of Canada should be contacted and informed of the issue.
- ❖ There is a need for an approach at the *community* level as a reflection of our multicultural society.
- ❖ There is a need to raise awareness amongst physicians.
- There should be emphasis on the importance of reaching *all caregivers*: midwives, prenatal nurses, labour and delivery as well as lactation consultants.

In conclusion, there was general consensus and agreement with the Office of the Chief Coroner's position that the risks of bed-sharing is a compelling issue that needs to be brought to the public's attention. A follow up meeting was scheduled for early 2009.

The following is a summary of a letter sent to the Canadian Paediatric Society by the Chair of the Deaths Under Five Committee requesting consideration of clear communication to parents.

Executive Director Canadian Paediatric Society

RE: Article: "CPS Recommendations for safe sleeping environments for infants & children"

On February 12, 2009, the Office of the Chief Coroner (OCC) held a meeting regarding Sudden Unexpected Death in Infants (SUDI) & Sudden Infant Death Syndrome (SIDS). During this meeting, the above noted article was discussed. This discussion was facilitated by the OCC for information sharing.

As a result of the discussion, suggestions were made on Page 6 of 11. The suggested changes are as follows:

- Sleeping with an infant is dangerous.
- The sharing of a bed with an infant by an adult or another child may lead to the accidental death of the infant due to airway obstruction.
- Letting the infant sleep alone on any type of couch, recliner or cushioned chair is dangerous.
- These situations place infants at substantial risk of accidental death due to airway obstruction.
- Any makeshift bed is dangerous.
- All infants should only be placed for sleep in appropriately approved surfaces such as cribs.

We bring this suggestion to your attention and the group respectfully requests that your organization consider the change to refine and provide clarity to the message, and hopefully prevent the unnecessary deaths of infants.

Sincerely,

A.E. Lauwers, M.D., CCFP, FCFP Deputy Chief Coroner – Investigations Chair, Deaths Under Five Committee

<u>Intravenous Fluid Resuscitation - Hyponatraemia</u>

The critical issue of hyponatraemia in post-surgical paediatric patients was first brought to the public's attention by the Office of the Chief Coroner in the Report of the Paediatric Death Review Committee and Deaths Under Five Committee, June 2007 edition, (Pages 19 & 20). Since that time, the PDRC has reviewed 2 more such tragic cases of hyponatraemia in post-surgical settings. There are now over 50 case reports in the published literature of death in children as a result of inappropriate IV fluid administration. This issue has been identified as a major patient safety issue by the National Patient Safety Agency in the United Kingdom. As a result, in June of 2008, the OCCO brought together a targeted group of professional stakeholders for the purpose of initiating an "awareness campaign" regarding intravenous fluid resuscitation. This initiative was launched by Dr. Desmond Bohn, Chief of Critical Care Medicine at the Hospital for Sick Children in Toronto, and the Chair of the Paediatric Death Review Committee, Dr. Bert Lauwers.

The professional stakeholder groups represented at the meeting included:

Office of the Chief Coroner for Ontario (OCCO)
Department of Critical Care Medicine, Hospital for Sick Children
Policy and Communications, College of Physicians and Surgeons of Ontario (CPSO)
Investigations and Resolutions, College of Physicians and Surgeons of Ontario (CPSO)
Population Health and Integration Safety Unit, Ministry of Health and
Long Term Care (MHLTC)
Emergency Nurses Association of Ontario (ENAO)
Risk Management, Canadian Medical Protective Association (CMPA)
Canadian Paediatric Society (CPS)

The ensuing discussion consisted of each participant proffering ways in which each organization might contribute to possible solutions to minimize the post-operative complication of hyponatraemia in children, and how they might provide public and professional awareness of this very important issue. Examples of some of the solutions presented to the meeting were:

- Oral presentations and education sessions for physicians by the CMPA and CPSO, and more specifically, for paediatricians by the CPS.
- Journal articles and information letters authored by the various represented organizational publications, which would feature the potential dangers of cerebral oedema as it relates to intravenous fluid resuscitation in children and the need for health care professionals to be aware of the guidelines.
- Distribution of a questionnaire and survey of its membership by the CPS to ascertain the knowledge base of this serious issue among practising paediatricians.
- Duplication of the "U.K. Alert" of the updated guidelines and standards for IV administration in children in the form of a "wall chart", which was developed and published by the U.K. Department of Health, Social Services and Public Safety. The laminated wall charts would be posted in the emergency and post-operative units of every hospital in Ontario.

It was agreed among the attendees that communication amongst the participants regarding the timing of the release of each representative initiative was imperative to achieve a multi-tiered effect and optimal results.

The OCCO is pleased to report that several aspects of these initiatives are currently underway.

Guideline for the Investigation of Sudden Cardiac Death

Sudden unexpected cardiac death of persons under the age of 40 is not uncommon with an estimated incidence of 3.5-5.5 per million population per year. These deaths represent a significant loss of years of potential life. Over the recent past, developments in molecular research have allowed identification of a number of heritable cardiac conditions through DNA testing. Given the potential benefit that testing may have for surviving relatives, a guideline for the investigation of sudden cardiac death was released in October 2008 to members of the Ontario Death Investigation team. Dr. Andrew McCallum, Chief Coroner for Ontario, was the Chair of the committee responsible for the development of the guideline.

These guidelines were developed to ensure:

- standardized autopsy practice for cases of sudden cardiac death in young individuals throughout the province
- appropriate ancillary testing to exclude other possible causes of death is completed
- adequate material is retained to facilitate future genetic analysis at the request of relatives

The guidelines provide a specific framework to ensure a thorough evaluation of the young person's death. Specific guidance is provided about which samples should be retained to perform future genetic testing for arrhythmogenic and other heritable cardiac disorders at the request of relatives. An approach to clinical follow up evaluation for the relatives is discussed.

The guideline has successfully resulted in the recognition of previously undiagnosed heritable cardiac conditions allowing clinical intervention in the surviving relatives.

Post Mortem Metabolic Testing

In the fall of 2008, the Office of the Chief Coroner launched a ground breaking trial Project Charter in the diagnostic field of biochemical genetics in its ongoing quest to further enhance, and continually evolve the death investigation process.

The mission of the newly launched project is to determine whether or not a metabolic disorder contributed to the death of a child. The scope of the project will be developed to provide the Ontario Forensic Pathology Service the results of newborn screening testing performed during *life*, **and** where appropriate, to conduct metabolic analysis as a component of post mortem examinations in children less than 2 years of age.

In the pilot phase, scheduled to begin on April 1, 2009, samples of bile and blood will be collected from all children under 2 years of age (including stillbirths) when post mortem examinations are completed under a Coroner's Warrant for Post Mortem. The post mortem samples will be forwarded to the Ontario Newborn Screening Program for metabolic testing. Samples will also be forwarded to another metabolic testing facility for reliability comparison testing.

The facilities involved in this project will include the Hospital for Sick Children, Ontario Paediatric Forensic Pathology Unit (OPFPU) and the Ontario Forensic Pathology Unit.

The results of the pilot project will be reviewed, including compliance of coroners and pathologists, in August of 2009. Assuming a favourable outcome of this review, province-wide post mortem metabolic testing of samples from children under age 2 undergoing post mortem examination under a Coroner's warrant could begin in October of 2009.

The Office of the Chief Coroner considers this initiative to be of significant value and importance to the following stakeholders:

- Office of the Chief Coroner for Ontario
- Ontario Forensic Pathology Service
- Surviving family members
- Ontario Newborn Screening Program
- Police Services throughout Ontario
- Children's Aid Societies
- Ontario Coroner's Association
- Ontario Association of Pathologists
- Ministry of Health and Long Term Care
- Primary care physicians

A responsive and collaborative Post Mortem Metabolic Testing process will:

- 1. Define the contributions of known metabolic disorders to cause and manner of death in children under 2 years of age.
- 2. Enhance the working relationship between Ontario coroners and pathologists.
- 3. Provide Public Health benefits to surviving family.
- 4. Provide a quality measure for newborn screening.
- 5. Add to the understanding and value of the public's health with respect to metabolic disorders in children.

The Office of the Chief Coroner for Ontario is currently unaware of any similar Post Mortem Metabolic Testing program or initiative administered by an investigative authority in Canada.

PDRC Medical Reviews: Themes and Recommendations

Process of Review

Despite the advancements in investigative science and technology, the deaths of infants remain very difficult death investigations in the 21st century.

A PDRC medical review of a child's death is initiated by a Regional Supervising Coroner after recognition that the death has complexities that cannot be fully understood and addressed even with the knowledge, experience, and expertise of the involved physician coroners.

The current medical members of the Committee include a neonatalogist, two intensivists, three community pediatricians who are actively involved in acute care pediatric medicine, a child maltreatment expert/coroner, and a pediatric pathologist. These individuals work in tertiary care centres, community hospitals, with some members in community practices.

Case assignment occurs by aligning the practice profile and expertise of the Committee member with the circumstances of the death. For example, pediatric deaths arising from a remote and rural community will be reviewed by one of the community pediatricians with experience providing care in the north. Similarly, the death of a neonate will be primarily reviewed by the neonatalogist.

The process of the review involves analysis of the existing record which routinely includes all of the pertinent medical records, the Coroner's Investigation Statement, the post mortem report, as well as other relevant documents as indicated. Often, the expert will review the diagnostic imaging or other investigations. On occasion, when specific issues are identified during the review, the Committee member may request that a highly specialized review be conducted by an expert consultant. For example, if an echocardiogram were reported as normal in a child who died with heart disease, a pediatric cardiologist may be asked to review the original study, and provide a report to the PDRC reviewer. This expert opinion will then be incorporated into the primary reviewer's report.

The primary reviewer presents the findings to the Committee for discussion. Opportunity is provided for clarification and probative questions as well as discussion about issues that may have been identified. Often, lively debate will ensue. The primary reviewer will compose a final report reflecting the consensus opinion of the Committee. This report and any recommendations will be provided to the referring Regional Supervising Coroner. If the recommendations are of a systemic nature, the ministry, organization, agency or individuals will be notified by the Chief Coroner. The Regional Supervising Coroner will distribute the recommendations, if they are directed to local agencies or individuals.

Purpose of the PDRC Medical Review

Medical reviews are undertaken to provide clarity to medical issues involved in the time preceding a child's death to ensure that the Regional Supervising Coroner has a complete understanding of the circumstances of the death. The cause and manner of death are provided, and recommendations may flow from the findings or the Committee review. Themes may emerge from each review, but also over time as similar issues are identified in other reviews.

Commonly, recommendations are directed to health care facilities and suggest that the organization:

 review the death through a Quality of Care Review Process, allowing the health care organization, which has a far better understanding of its human and fiscal resources, to develop internal processes and policies to avoid similar outcomes in the future. The health care organization will be asked to inform the Regional Supervising Coroner of the recommendations that arise from their internal review process.

- 2. review a health care provider's performance.
- 3. participate in a Regional Coroner's Review, or occasionally, an inquest.
- 4. conduct an educational meeting utilizing the circumstances of the death to illustrate historical facts and medical issues with health care providers.

PDRC Medical Reviews 2008

The past year has been productive with 40 medical reviews being completed; a number of cases involved both a medical and child welfare review.

The following chart provides the manners of death for the 40 medical reviews completed.

Manner of Death	Number
Natural	30
Undetermined	8
Accident	1
Homicide	1
Suicide	0

The next chart illustrates death categories (based upon the cause of death) of the 40 cases reviewed. It should be noted that deaths due to asthma, and deaths due to bed sharing in an unsafe sleep environment, are generally preventable.

Aggressive treatment of asthma with encouragement to achieve best practices with respect to the provision of medications, compliance with prescribed medications and monitoring should improve outcomes. In addition, bed sharing with infants less than one year of age places the child at risk of airway obstruction by overlaying and compression, and remains a significant preventable cause for loss of life in the province each year. Health care practitioners are reminded that when parents present with their newborn children, there is an opportunity for education about appropriate sleeping arrangements.

Causes of Death	Number	Types
Cardiac disease	10	Congenital heart disease(5),
		cardiomyopathy(3), dysrhythmia(2)
Neurological	9	Cerebral edema(3), stroke(2), Sudden
disease/injury		Unexplained Death in Epilepsy(2),
		hypoxic/ischemic encephalopathy(2)
Infectious causes	9	Meningitis(1), sepsis(8)
Respiratory disease	3	Asthma(3)
Sudden unexpected death	3	Bed sharing in an unsafe sleep
in infancy (SUDI)		environment (2 day-old, 6 week-old, 4
		month-old)
Adverse events	2	Pericardial tamponade complicating
		central line placement(1)
		Acute pulmonary hemorrhage complicating
		angioplasty of stenotic pulmonary
		arteries(1)
Unascertained	2	3 year-old child found deceased in
		unkempt home(1)
		7 year-old child with neurologic impairment
		found deceased entangled in sheets(1)
Metabolic	1	Citrullinemia
Blunt traumatic injuries	1	Struck by train

This year, 5 cases are presented. The cases were chosen to represent a cross section of the type of medical cases reviewed. Identifiers are removed in the interests of confidentiality. The 5 cases presented will highlight medical deaths associated with:

- 1. The diagnosis and management of meningitis.
- 2. Cardiogenic shock due to critical aortic stenosis that was not identified on antenatal ultrasounds.
- 3. Issues of timely and appropriate transport of children arising from the death of a child with dilated cardiomyopathy with heart failure.
- 4. Hypoxic-ischemic encephalopathy due to status asthmaticus.
- 5. Overwhelming sepsis due to omphalitis and necrotizing fasciitis.

Case #1

History

This 2 year-old child presented to hospital with history of an upper respiratory tract infection. This was his third presentation over a two week period. He was known to have a ventricular septal defect, which was followed by a cardiology clinic. On examination, he was lethargic, febrile, and had toxic changes on his blood smear. He was admitted with diagnosis of viral gastroenteritis and accompanying mild to moderate dehydration. The child was initially provided intravenous normal saline and then switched to 0.3 intravenous sodium chloride solution. His serum sodium decreased to 126 mmol/L from 137 mmol/L over a 48 hour period. A blood culture grew Pneumococcus within 24 hours of collection. This was thought to be a contaminant. He remained febrile over 2 days, with diminished levels of consciousness. A lumbar puncture grew Pneumococcus. He was provided Ceftriaxone and transferred to the critical care service. He continued to do poorly with pyrexia, falling oxygen saturations and rising PCO2. He developed cerebral posturing, left sided seizures, and eventually hypertension with Cheyne-Stokes respirations. Intubation was required as his respirations stopped. A CT scan revealed multiple infarctions of the brain. Eventually, care was withdrawn following discussion with the family and he succumbed to his illness.

Cause of death: Pneumococcal meningitis

Manner of death: Natural

Themes:

- 1. Late use of antibiotics in a child with persistent pyrexia, a congenital cardiac defect, and a blood culture demonstrating Pneumococcus.
- 2. The utilization of hypotonic solutions is recognized to cause hyponatremia, which may be complicated by cerebral edema.
- 3. Need for prevention of secondary brain injury in the presence of hypoxemia and hyperpyrexia, the treatment of which could be optimized with early intubation, paralysis, hyperventilation and cooling.

Recommendations:

- 1. A mortality review should be conducted by the hospital focusing upon;
 - early antibiotic treatment.
 - monitoring and treatment to prevent secondary brain injury.
 - review of the current paediatric literature with respect to the use of intravenous fluids, particularly in those with suspected brain injury/infection.
- 2. The hospital should conduct a Quality of Care Review.
- 3. The Chair of the PDRC and a reviewer should meet with the Chief of Staff.
- 4. Accreditation Canada, formerly the Canadian Council on Health Services Accreditation, should set as a standard for accreditation, a required organizational practice that health care facilities providing paediatric care should remove all 0.2 and 0.3 intravenous sodium chloride (NaCl) solutions from the paediatric wards. This could fall under the auspices of "Required Organizational Practices, Patient Safety".

Case #2

<u>History</u>

The mother of this infant had antenatal ultrasounds at 13, 25, 27, 36 and 37 weeks gestation. The 25 week ultrasound report noted that the cardiac outflow tracts could not be fully visualized, and a repeat ultrasound was recommended. Subsequent ultrasounds were reported as normal. The child was born by caesarian section with APGARs of 9 at 1 minute and 9 at 5 minutes. He was discharged 2 days after birth with a documented normal physical examination. At 6 days of age, his family doctor assessed him and found a heart murmur which was attributed to a flow murmur, and no further investigations were ordered. At 5 weeks of age, he was seen again with harsh breath sounds and was noted to be feeding well. At 8 weeks of age, he presented to a paediatrician with respiratory distress, tachycardia and impalpable femoral pulses. He was sent to an emergency room, where an immediate paediatric cardiology consult with an echocardiogram demonstrated critical aortic stenosis. He deteriorated quickly and succumbed to his illness despite many directed and appropriate resuscitative interventions.

Cause of death: Cardiogenic shock secondary to critical aortic stenosis

Manner of death: Natural

Themes:

- 1. Could the diagnosis of aortic stenosis have been made during the antenatal ultrasound(s)? Aortic stenosis accounts for 3-4% of all congenital heart disease, and can have a mortality rate as high as
- 2. Discordant measurements of the outflow tract were recorded by technologists, and the left ventricle appeared small on the ultrasounds done at 25 and 27 weeks gestation. If these had been noted by the radiologists, these abnormalities may have justified the performance of a fetal echocardiogram.
- 3. The presence of a loud heart murmur at one week of age would indicate the need for further investigation.

Recommendations:

- 1. The Chief of Staff of the community hospital should initiate a review of the reporting of antenatal ultrasounds with the diagnostic imaging department with attention directed toward communication between technologists and radiologists, and the establishment of a system of quality control of diagnostic interpretation.
- 2. The Chief of Paediatrics should lead joint rounds between paediatric and family medicine regarding the diagnostic work up of a child with a heart murmur at one week of age.
- 3. The College of Physicians and Surgeons of Ontario should establish a multidisciplinary committee for the purposes of developing criteria for quality control and accuracy on the interpretation of obstetrical ultrasounds with respect to fetal well being and potential fetal abnormalities.
- 4. Once established, these criteria should be adopted by both independent health facilities and hospitals performing obstetrical ultrasounds.
- 5. The Chair of the Paediatric Death Review Committee should review this report with the College's multidisciplinary committee once it has been established, solely for the purpose of providing the narrative history, which gave rise to these recommendations. All identifiers should be removed.
- 6. The Chair of the PDRC should share the list of the group of potential experts, which it has identified that might aid the College in developing quality control in the interpretation of obstetrical ultrasound reports with respect to fetal well being and potential fetal abnormalities.

Case #3

History

This child, a resident of a remote northern community was born by caesarian section at 41 weeks. Early in life he was transferred to a tertiary care hospital where he was found to have patent ductus arteriosus (PDA), associated with congestive heart failure, pulmonary interstitial glycogenosis, and left main stem

² Baram et al, American heart Journal, 2003, Vol. 145, issue 6, pgs. 1063-1070.

bronchus obstruction secondary to compression between the aorta and pulmonary arteries. His PDA was ligated, but cardiomegaly was persistent with an ejection fraction of 50%. He was discharged home on Captopril. Later, he was diagnosed with mild asthma and started on Ventolin and Pulmicort.

During the week prior to his death, at age 2 years and 10 months, he was seen on a number of occasions in a hospital emergency department with abdominal pain, which was diagnosed as constipation.

The family returned to their remote community. He presented again to the nursing station where a decision was made to transport him to a remote community hospital, in spite of his mother's request that he be transferred to a regional health centre. He was brought to the community hospital, where he deteriorated over approximately 10 hours. He was then transported to the regional health centre, where he succumbed to his illness within hours before arrangements could be made for transfer to a tertiary care centre.

Cause of death: Dilated cardiomyopathy with heart failure

Manner of death: Natural

Themes:

- 1. The decision with respect to the choice of the most appropriate accepting health care facility in children with complex medical histories who reside in remote and rural communities.
- 2. The involvement of paediatric experts when determining the appropriate receiving health care facility when the health condition of children with complex medical histories begins to deteriorate.

Recommendations

- The PDRC supports the protocol put in place by Medical Transport. (As of May 2008, 5 paediatric
 intensivists have been engaged to assist with the medical management in the transport of sick
 children) Medical Transport should consider the needs of children with complicated medical
 conditions and discussion should take place with the institutions most aware (from past
 involvement) of the child's medical condition.
- 2. The Local Health Integration Network (LIHN) should review the protocols and decision-making processes with respect to medical transfers from nursing stations.
- 3. The community hospital should conduct a Quality of Care Review pursuant to QCIPA, 2004 with respect to this death.
- 4. The Ministry of Health and Long Term Care should consider the creation of a provincial paediatric database that would allow the sharing of electronic medical records between hospitals when necessary.

Case #4

<u>History</u>

This 8 year-old child had a long-standing history of asthma. Prior to his death, he had 5 previous hospital admissions for asthma. Four years before his death, he was seen by a paediatric respirologist. He was started on Ventolin and Qvar, with allergy assessments and a scheduled appointment arranged. The family did not attend these appointments. Four days before his death, he was seen at a walk-in clinic with wheezing. No vital signs were recorded by the clinic staff and he was given a prescription for Ventolin. Instructions were reportedly provided for the family to arrange for re-referral to the paediatric respirologist. Two days after the clinic visit, the child became short of breath and collapsed at home. He had been using Ventolin every 30-45 minutes. He was transported to the emergency department where his pulse returned with resuscitation. He was transferred to the critical care unit where he succumbed to his illness 2 days later.

Cause of death: Hypoxic-ischemic encephalopathy due to status asthmaticus

Manner of death: Natural

Themes:

- 1. Asthma can be a fatal disease.
- 2. There is a need for consistent and coordinated medical care of this chronic disease.
- 3. There was inadequate treatment of this child's asthma with maintenance inhaled steroids.
- 4. Parental education may have improved control of his disease.
- 5. Clear and concise expectations in terms of asthma management, follow up, and the requirement for parental involvement may have been beneficial.

Recommendations

- 1. The regional tertiary care centre should develop an asthma education centre for children residing in the area to assist them in the appropriate management of chronic asthma.
- 2. This case should be published in Coroner's Corner in an attempt to alert and educate the medical community to the potential fatal course of asthma in children, whose condition is not treated in a consistent and coordinated manner.

Case#5

History

This infant was born at term. She was seen by her family doctor at 8 days of age with a wet umbilical stump. There was no redness or discharge observed. She presented to an emergency department at 22 days of age with a red, swollen umbilical stump and accompanying indurated mass measuring 4 by 6 cm. She was provided Cloxacillin and Gentamicin. At 24 days of age, while in hospital, the mass increased to 12 by 8 cm. with redness spreading laterally to her flanks. She was transported to a tertiary care centre where she was taken to the operating room for debridement of her infection. The diagnosis was necrotizing fasciitis. Multiple antibiotics were administered, and she was taken back to the operating room 3 times before succumbing to her illness from multiorgan failure at 26 days of age.

Cause of death: Overwhelming sepsis due to omphalitis and necrotizing fasciitis

Manner of death: Natural

Themes:

- 1. Children under 1 month of age are not considered immunocompetent and when they present with abscesses they require early definitive treatment.
- 2. The mortality rate for necrotizing fasciitis is 50-60% in neonates.

Recommendations

- 1. The community hospital should conduct a Quality of Care Review focusing upon;
 - timely differential diagnosis and intervention.
 - quality of documentation. Hospital charting was recorded inconsistently, combining both meridiem (a.m/p.m.) and 24-hour clock conventions. The 24-hour clock convention should be used when completing medical charts to avoid any "time measure" confusion.

Concluding Remarks

These five cases illustrate some of the difficult and compelling medical paediatric patients that health care providers are involved with every day in Ontario. It must be remembered by readers that an adverse event is an event that results in unintended harm to the patient, and is related to the care and/or service provided to the patient rather than the patient's underlying medical condition.³

³ Baker, Norton et al, The Canadian Adverse Events Study; the incidence of adverse events among hospital patients in Canada, CMAJ • May 25, 2004; 170 (11).

Adverse events can arise from;

- The inherent risks of investigations or treatments. These are generally independent of who is providing the care.
- System failures within health care, represented by the lack of, malfunction or failure of policies, operational processes or the supporting infrastructure for the provision of health care.
- A provider performance issue, represented by a gap in knowledge or skills, a departure from clearly written policy, poor clinical performance because of health, or rarely, malicious patient harm. (Canadian Medical Protective Association, 2008)

The PDRC has reviewed many cases in the past year in which the care provided was exemplary in extremely difficult situations, and in which, no recommendations were proffered following review. These cases were a testimonial to the dedication of those who provide care to children.

Medical Case Reviews: Themes

Since its inception in 1991, the Paediatric Death Review Committee has compiled a number of common themes that have recurred in the review of children's deaths. Our reviews echo the findings of an increasing volume of literature on errors in medicine, which suggests that tragedies rarely result from a single fatal error or flaw and are more likely to arise from a series of latent flaws in both systems and in performance. The occurrence of multiple imperfections is frequently synergistic.

In 2008, a total of 40 medical cases were reviewed by the PDRC and upon completion of the comprehensive review and analysis of each case, 26 of the 40 cases were determined to be associated with 6 major themes. These themes and a brief description of inclusive characteristics have been outlined as follows:

1. Treatment - Quality of Care

- -failure to record vital signs
- -failure to appreciate abnormal vital signs -errors in diagnosis and subsequent intervention
- -poor follow up and monitoring of compliance and attendance of patients at follow up appointments
- -lack of adherence to established protocols

2. <u>Differential Diagnosis</u>

Non-recognition or lack of appreciation of symptoms, laboratory test results, diagnostic imaging, vital signs or patient response to current treatment. This subsequently precluded the initiation of

further testing and/or a broader consideration of differential diagnosis.

3. Documentation

- -failure to document patient records in a timely and/or qualitative consistent manner
- -poor or illegible hand writing
- -failure to document and report sentinel events

4. Communication

- -lack of transfer and/or discussion of vital patient information between and among physicians and medical specialty departments
- -lack of attention and acknowledgement of expressed patient concerns
- -lack of comprehensive and failure to articulate discharge advice/instruction

5. Investigation

-failure by investigating coroner to order autopsies in certain paediatric deaths -assignment of autopsies to facilities with insufficient paediatric expertise. -ancillary testing not performed or requested by pathology where it may have been indicated

6. Medical Transport

- -delays in EMS or ORNGE transport of critically ill paediatric patients
 -communication issues with transferring and receiving health facilities
 -paediatric resource issues
 -transfer record issues
- Total no. of cases associated with themes: 26

THEMES	No. of CASES	% of TOTAL
1. Treatment - Quality of Care	10	38
2. Differential Diagnosis	9	25
3. Documentation	4	15
4. Communication	4	15
5. Investigation	4	15
6. Medical Transport	4	15
*TOTAL	35	

^{*} Some cases associated with more than one theme

Paediatric Death Review Committee: Medical Review

This case involved the birth of a male infant to a woman in her early twenties, who had received limited prenatal care. His gestational age at birth was estimated to be between 34 and 35 weeks. An ultrasound on the 29th of June indicated a gestation of 18 weeks, compatible with dates.

The infant's mother was being treated with Methadone, 230 mg per day, having previously been on Percocet for fibromyalgia.

It was a spontaneous vertex delivery. The apgar scores were 8 and 9 at 1 and 5 minutes, respectively. The birth weight was 2365 grams, the length 46 cm and the head circumference 32 cm, with all measurements being at the 50th percentile for 35 weeks gestation.

The infant spent five weeks in hospital. His neonatal course was complicated. His problems included an initial septic work-up and treatment for seven days with intravenous (IV) antibiotics. His blood cultures were negative. However, on day 11, he developed bloody stools and a suggestion of stage two necrotizing enterocolitis. He was treated for a further ten days of antibiotics and kept nil per os (NPO). He had a minor degree of jaundice requiring phototherapy for two days. The most significant issue however, was neonatal abstinence syndrome secondary to Methadone withdrawal. At two days of age, the infant developed signs of opioid withdrawal with Finnegan Scores of 6-9. He was started on IV Morphine. Drug screening on the infant was negative for Cocaine, Cannabis and Opiates. Both his urine and meconium were sent for screening.

Finnegan Scores reached a high of 13-15 and doses of Morphine reached a maximum of 20 mcg/kg/hr. He was weaned to oral Morphine, only to go back on to IV when he developed signs of his necrotizing enterocolitis. He was placed back onto oral Morphine and slowly weaned until his discharge, when he was on 80 mcg 4 times per day (q.i.d.) (total 320 mcg/day=0.11 mg/kg/day)

Early on, concerns were raised regarding the family's social situation and the parenting capabilities of the baby's mother. The nurses' notes described the mom as being "childlike" and "scattered". The initial plans had been to have the Children's Aid Society (CAS) apprehend the baby prior to his discharge, and placed in foster care on an interim basis while he was weaned from his oral Morphine. However, the CAS met with the baby's mother and maternal grandfather and it was agreed to discharge the baby home to his mother with the grandfather attending the home to help look after him. The baby's mother spent four days in the Care By Parent Unit prior to their discharge. The nurses noted that the baby's mom was quite fatigued and did not wake even when the baby was crying. On one occasion, they found her asleep with her baby in her arms and again, very difficult to rouse.

The discharge plans included a visit to their local paediatrician three days post-discharge with home visits by Public Health and the CAS on days one and two post discharge. The baby was discharged home on the 5th of December on oral Morphine 80 mcg q.i.d., his mother having been instructed as to the preparation and administration of the medication.

Terminal Events

The baby was described as being irritable, sniffling and congested at the time of his discharge and remained so during his time at home. On the evening of December 13th, he received a bottle and then his Morphine dose at 0145 hours. His father had settled him and then took him upstairs where he placed him in bed with his mother at about 0230 hours. The baby's mother had fallen asleep earlier. When she awoke at 0730 hours, the baby was found not breathing with vital signs absent. Resuscitation was attempted both at the scene and at the Emergency Department, and was unsuccessful.

Post Mortem Findings

Autopsy findings included pulmonary congestion with petechiae on the visceral pleura. There were some abnormalities of the cerebellum noted including cortical dysplasia of the nodulus of the vermis, and glial proliferation of the white matter, the significance of which was uncertain. Mild microglial infiltrate was noted in the hippocampal end plate. There was no evidence of trauma. The X-rays showed no evidence of fractures. The metabolic screening for MCAD deficiency was negative. The toxicology screen of the blood was negative for Morphine and Hydromorphone. The post mortem cultures from the lung grew a scant growth of E. Coli. The virus cultures were negative.

Cause of Death: Sudden Unexpected Death in Infancy (SUDI) in the presence of bed-sharing in

an unsafe sleeping environment.

Manner: Undetermined

Comments and Issues Raised

The baby was found dead in an unsafe sleeping environment. The manner of his death was undetermined. He was a "high risk infant" given the social situation and his neonatal abstinence secondary to maternal Methadone ingestion. A CAS review has been completed.

The management of neonatal abstinence syndrome is often difficult and prolonged with average lengths of stays often in excess of five to six weeks. The Committee was concerned and questioned the discharge of this infant home on oral Morphine. A review of a number of Level Two and Level Three neonatal centres in Ontario indicated a policy of discharge *only* when the infant has been weaned from Morphine for two to three days. It did not appear that the neonatal abstinence syndrome protocols had been reviewed at the Primary Care Hospital in this case for almost ten years.

Recommendations

- 1. The Primary Care Hospital should review and update their neonatal abstinence protocols.
- 2. The Quality of Care Committee of the Primary Care Hospital should conduct a Quality of Care Review of this death, pursuant to QCIPA, 2004.

References

- 1. Neonatal Abstinence Protocol (NAP) Orillia Soldiers' Memorial Hospital 2006.
- 2. Stade, B; and Barozzino, T. Neonatal Abstinence Scoring System, St. Michael's Hospital Policies and Procedures, 2003.
- 3. Chisamore, B. et al Management of Perinatal Substance Use and Abuse: Child Health Network Practice Guideline, 2002.
- 4. Osborne, DA; Cole, MJ; Jeffery, HE. Opiate Treatment for Opiate Withdrawal in Newborn Infants. Cochrane Database of Systemic Reviews, Volume 1, 2003.
- 5. Finnegan, LP; Neonatal Abstinence Syndrome. In Nelson, N; (Ed.) Current Therapy in Neonatal Perinatal Medicine. 1990. Philadelphia, BC Decker, page 314-20.

Neonatal Abstinence Protocol (NAP)

Treatment Protocol:

- 1. Admit all infants with suspected Neonatal Abstinence Syndrome to the level II NICU.
- 2. If the infant is withdrawing from Opioids, give morphine as indicated below.
- 3. If the infant is withdrawing from other substances (e.g. barbiturates, ethanol, sedatives, hypnotics), give Phenobarbital, as indicated below.
- 4. Score all infants born to drug dependant mothers, using the attached Neonatal Abstinence Scoring System, for the first five days of life, at 2 hour intervals for the first 48 hours, and then every 4 hours thereafter. Infants should not be awakened to obtain a score.
- 5. If the score is greater than 8, score every 2 hours regardless of age. When the score is less than 7 for 24 hours, scoring frequency can be decreased to every 4 hours.
- 6. If therapy is not required, score every 4 hours for 5 days, and then discontinue scoring. If therapy has been required, scoring can be discontinued when the score has been less than 4 for 5 consecutive days.
- 7. Therapy: If the score is greater than 8, start morphine based on the initial score, as outlined below:

Score	Initial Morphine Dose	
8 - 10	0.32 mg/kg/day divided qid	
11 - 13	0.48 mg/kg/day divided qid	
14 - 16	0.64 mg/kg/day divided qid	
17 or above	0.8 mg/kg/day divided qid	

- 8. If the score is greater than seven, increase the morphine by 0.04 mg per dose, until the score is less than 8.
- 9. No change in medication if the score is 5 to 7.
- 10. Reduce the morphine by 0.04 mg per dose every 24 hours, if the score is less than 5 for 24 hours.
- 11. Discharge home when the morphine has been discontinued, and the score has been less than 5 for 2 to 5 days.

Other Medications

- 1. If multiple drug ingestion is suspected, the infant has seizures, or the infant is withdrawing from sedatives, alcohol, or barbiturates, give Phenobarbital 10 mg/kg q 12 hours x 3 doses, and then begin maintenance Phenobarbital at 5 mg/kg/day divided bid.
- 2. If the child has been exposed to opioids in addition to other drugs, start morphine at 0.16 mg/kg/day divided qid, in addition to the Phenobarbital, and increase or wean as outlined above.

Non-Pharmacologic Interventions

- 1. Minimize environmental and physical stimulation
 - a. Provide dim lighting
 - b. Speak quietly around the baby
 - c. Consider bed placement to avoid high traffic areas
- 2. Cluster activities to allow for extensive rest periods
- 3. Provide pacifiers.
- 4. Swaddle tightly.
- 5. Provide cream ointment such as zinc oxide to prevent skin breakdown due to frequent stools.

References:

- 1. Byrne, JM; Camfield, PR; Clark-Touesnard, M; Hondas, BJ. Effects of Phenobarbital on early intellectual and behavioral development: a concordant twin case study. Journal of Clinical and Experimental Neuropsychology, 1987; 9(4): 393-8.
- 2. Chisamore B, et al. Management of Perinatal Substance Use and Abuse: Child Health Network Practice Guideline, 2002.
- 3. Coyle, MG; Ferguson, A; Lagasse, L; Oh, W; Lester, B. Diluted Tincture of opium (DTO) and Phenobarbital versus DTO alone for neonatal withdrawal in term infants. The Journal of Pediatrics, 2002; 140 (5): 561-4.
- 4. Finnegan, L.P. Neonatal abstinence syndrome. In Nelson, N. (Ed.) Current Therapy in Neonatal Perinatal Medicine: 1990. Philadelphia, BC Decker, 314-20.
- 5. Johnson, k; Gerada, C; Greenough, A. Treatment of Neonatal Abstinence Syndrome. Archives of Disease in Childhood. Fetal and Neonatal Edition 2003, v88 i1 pF2 (4).
- 6. Osborne, DA; Jeffery, HE; Cole, MJ. Sedatives for opiate withdrawal in newborn infants. The Cochrane Database of Systemic Reviews, Vol. 1, 2003.
- 7. Osborne, DA; Cole, MJ; Jeffery, HE. Opiate treatment for opiate withdrawal in newborn infants. The Cochrane Database of Systemic Reviews, Vol. 1, 2003.
- 8. Stade, B; Barozzino, T. Neonatal Abstinence Scoring System. St. Michael's Hospital Policies and Procedures, 2003.

The Inquiry into Pediatric Forensic Pathology in Ontario and the PDRC

As discussed earlier in this report, the Inquiry into Pediatric Forensic Pathology in Ontario was established by the Government of Ontario under the Public Inquiries Act on April 25, 2007. The Honourable Stephen T. Goudge was appointed Commissioner and was asked to make recommendations to address systemic failings and restore and enhance public confidence in pediatric forensic pathology in Ontario.

The following recommendations related to the PDRC, families, and Children's Aid Societies are excerpted (with page references in Volume 2,) from the Report of Justice Goudge:

1) Enhancing Oversight and Accountability

#55 The Paediatric Death Review Committee, the Forensic Services Advisory Committee and the Deaths Under Five Committee should continue. "They provide valuable mechanisms for enhancing quality and bringing a multidisciplinary perspective and insight to the OCCO's (Office of the Chief Coroner of Ontario) death investigations". (See page 357)

2) Paediatric Forensic Pathology and Families

"... to fully restore public confidence in pediatric forensic pathology, we need to look at how it can better serve child protection proceedings and the needs of the families affected by a suspicious pediatric death.

Most important is the issue of how pediatric forensic pathology can meet the requirements of both criminal justice and child protection proceedings." (see page 567)

#163 a) The Province of Ontario with the assistance of the Ontario Association of Children's Aid Societies and others should develop province-wide standards, supplementing those that already exist, on the sharing of information arising out of the investigations of suspicious child deaths by the police and children's aid societies.

b) The provincial standards should:

- Specifically address the expectations surrounding the sharing of information relating to joint or parallel investigations arising out of child deaths where other children may be at risk.
- Emphasize the importance of the timely and accurate communication of such information, and its updating as circumstances change, particularly by the police to child protection workers to ensure that decisions regarding surviving children are accurate.
- Remove any misconceptions that inhibit the appropriate sharing of information, and reinforce the
 point that, although it is important to protect the integrity of an ongoing criminal investigation, the
 need to withhold information from the child protection system in order to do so should not be over
 stated. The significance of decisions being made in the child protection forum, and how the sharing
 of information can promote better fact-finding in that forum, should also not be underestimated.
- Articulate the roles to be played by coroners, forensic pathologists, and Crown counsel in the sharing of information in investigations arising out of the suspicious death of a child.
- c) Local protocols should also be created across the province to permit local jurisdictions to implement the provincial standards in a manner that best suits their particular communities.
- d) The timely development of these local protocols should be facilitated through the creation of a template for such protocols to accompany the provincial standards.
- e) Local children's aid societies, police, coroners, forensic pathologists, and Crown counsel should receive joint training on the provincial standards and their local implementation to ensure that all parties have common understandings and interpretations of the standards and protocols and their application locally. [See page 576.]

#164 The Office of the Chief Coroner for Ontario (OCC) should develop a Family Liaison Service dedicated to communicating with families, particularly those that have suffered the loss of a child. The service should ensure that it communicates with the affected families in an effective, timely, caring, and compassionate manner. The Province of Ontario should provide additional funding to the OCCO to enable this service to be developed. [See page 579.]

#165 a) Disclosure of autopsy results to parents should be made verbally and in writing in a timely manner that is sensitive to the parents' loss and bereavement.

b) The Office of the Chief Coroner for Ontario should meet with the Ontario Association of Children's Aid Societies and leading police forces to develop a policy respecting the timely release of the post-mortem information where there is an ongoing criminal investigation. [See page 580.]

#166 The Office of the Chief Coroner for Ontario's current policy for organ and tissue retention and disposition should be continued. Coroners should be encouraged to communicate with families about the need for organ and tissue retention in a timely manner that is respectful of these families and their cultural or religious beliefs. [See page 581.]

#167 The Province of Ontario should provide funding to permit counseling for individuals from families affected by flawed pediatric forensic pathology in cases examined at this Inquiry for up to a further three years, for a total of five years from the time of commencement, if the individual and the counselor think it would be useful. [See page 582.]

#168 In the discharge of his or her mandate, the director of the Child Abuse Register in Ontario should be encouraged to grant the request of persons wrongly listed on the register as a result of faulty pediatric forensic pathology to have their names removed from the register if there is no longer credible evidence of abuse. [See page 583.]

#169 a) Legal Aid Ontario should work with the family law bar to ensure that family lawyers are funded for child protection proceedings in which pediatric forensic pathology plays an important role. The tariff for counsel who litigate these cases should be increased to create incentives for experienced and specially trained lawyers to take on legally aided cases and to reflect their added expertise. Legal Aid Ontario should fund an adequate number of hours to ensure that family counsel can properly fulfill their duties.

- b) In appropriate cases, Legal Aid Ontario should authorize funding for one or more forensic pathologists and, where necessary, out-of jurisdiction pathologists, including their travel expenses.
- c) Legal Aid Ontario should raise the hourly rate for forensic pathology experts to a level that is commensurate with funding of experts retained by the Crown. This is necessary to ensure that experts of comparable skill to that of experts retained by the Crown are prepared to assist the family lawyer. This increase should occur expeditiously in pediatric forensic pathology cases.
- d) Legal Aid Ontario should increase the number of hours of funding authorized for forensic pathologists. [See page 586.]

Implementation plans for these and other recommendations are currently underway by the relevant parties.

CAS and THE PAEDIATRIC DEATH REVIEW COMMITTEE

In Ontario, child welfare services are provided by 53 Children's Aid Societies (CASs), 5 of which are Aboriginal agencies. Each CAS is an independent, non-government agency governed by a board of directors and funded by the Ministry of Children and Youth Services.

Joint Directive for Reporting and Reviewing Child Deaths in the Province of Ontario

A Memorandum of Understanding between the Office of the Chief Coroner (PDRC) and the Ministry of Children and Youth Services

BACKGROUND: HISTORY OF CHILD DEATH REVIEWS

Child fatality review teams were first established during the late 1970s in the United States, as a result of concern on the part of parents and professionals over the increasing number of children who were dying from apparently preventable abuse, neglect or injury. The first multidisciplinary child death review team was established in California in 1978. Since then, child death review teams have been formed in all 50 states, in most Canadian provinces and in several other countries around the world.

The first child death review teams in Canada were created in the 1990's. Ontario was one of, if not first, province to have a paediatric death review committee. The basic objective of child death review teams is to review child fatalities in order to identify trends and risk factors to prevent similar deaths in the future. Recommendations are aimed at improvements and enhancements to service, practice and policies, which may improve the outcome for children at risk.

In the early 1990's Ontario's Office of the Chief Coroner (OCC) implemented the PDRC to review complex medical deaths of children in order to assist investigating coroners in completing child death investigations. In the mid-nineties, the OCC and the Ontario Association of Children's Aid Societies, with support from the children's ministry, undertook a study of the deaths of children receiving child welfare services, in part, due to increasing concern about a number of tragic and high-profile paediatric deaths in families who had involvement with child welfare agencies. This study, known as the Child Mortality Task Force, reviewed 100 child deaths in the 2-year period between January 1994 and December 1995. The outcome of the study, and resulting report, coincided with a series of inquests into the deaths of children who had been involved with children's aid societies.

While these inquiries had a large impact on child welfare reform in the province of Ontario in the late 1990's, they also led to an expanded mandate for the Paediatric Death Review Committee. In 1997, the PDRC began reviewing all cases of children who died while receiving child welfare services, or who had done so within the previous 12 months. The committee membership expanded to include child welfare experts, police and crown attorneys in the review of these deaths.

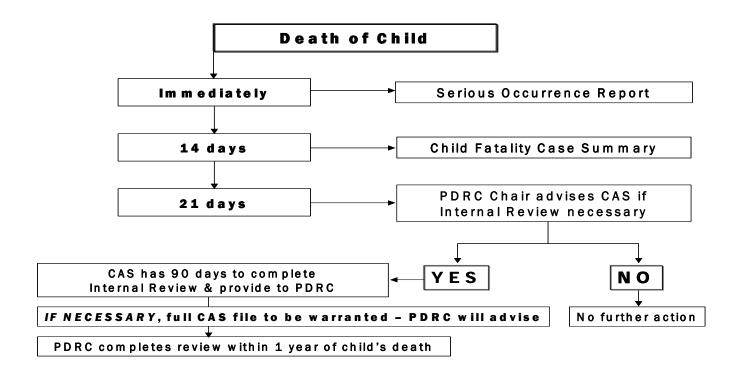
In 1999 a joint directive was developed between the Office of the Chief Coroner and the provincial children's ministry (Ministry of Community and Social Services and more recently, the Ministry of Children and Youth Services) to guide the process of child death reviews; this directive was revised in March 2006.

Timeline in the Development of CAS Child Death Reporting and Review in Ontario

- 1979 Initial Serious Occurrence Guidelines were developed to be reported to the Ministry
 - Death of a child included in original guidelines
 - "All deaths of children in care including death resulting from abuse, accident, suicide, medical or non accidental causes"
- Child deaths could be followed up with:
 - Agency Review
 - Ministry Investigative Unit
 - Ministry Investigation Committee
- 1995 Ministry issued separate Child Death Review Directive to CASs
- 1996 Child Mortality Task Force established by Chief Coroner and OACAS with support of the Ministry
 - Chief Coroner added Child Welfare Cases to Paediatric Death Review Committee
- 2000 New Child Death Reporting and Review Directive
 - Added section "if child has received service in past 12 months"
 - Required –Serious Occurrence Report and Child Fatality Case Summary Report to be completed
 - Internal Child Death Review to be completed if requested by the Ministry
 - All child deaths continued to be reviewed by Paediatric Death Review Committee who would forward recommendations
- 2006 New Joint Directive between Ministry and Office of the Chief Coroner
 - Internal Child Death Reviews to become the norm
 - Shift in focus from investigative to lessons learned
 - Focus is now on identification of service gaps and strengthening practice
 - Reviews are to include an external reviewer
 - Recommendations are to be relevant to the circumstances of each child's death and:
 - Measurable and capable of implementation
 - Directed at a particular party
 - Directed internally, Ministry, Coroner's Office or other Social Service Sector

Working in collaboration for the past three years under a Memorandum of Understanding, the PDRC, with funding support from the Child Welfare Secretariat (CWS) of the Ministry of Children and Youth Services (MCYS), has assumed the lead in the implementation of the Joint Directive which guides the process and established timelines for the reporting and reviewing of all children's deaths in Ontario where a children's aid society had involvement with the family in the preceding 12 months. The tracking and analysis of the relevant data, themes, trends and recommendations is expected to be centralized, streamlined and disseminated in an annual report. This is the third annual report arising out of this collaboration.

The MCYS, with assistance from its regional offices and the Client Services Branch (formerly the Quality Assurance and Accountability Branch) has responsibility for a public report card regarding the recommendations made by the PDRC in the child deaths reviewed. This response is meant to provide an update on the implementation of recommendations made to children's aid societies and the MCYS during the reporting year (please see pages 92-94 for this response). Reporting and Reviewing timelines are outlined in the table below:



2008 DEATHS OCCURRING AND REPORTED BY A CHILDREN'S AID SOCIETY

TOTAL	EXECUTIVE REVIEW ONLY 2008	PENDING DU5C 2009/2010	INTERNAL & PDRC REVIEW 2009/2010
105	55	5	45

^{*}Note: these categories are explained below in more detail

As per the Joint Directive for the reporting and reviewing of all child deaths known to a children's aid society within 12 months of the death, **105** child deaths were reported to the PDRC in 2008. In each case the CAS that provided service to the family submitted a serious occurrence report and within 14 days of the death submitted a Child Fatality Case Summary Report to the PDRC. The Executive Committee of the PDRC screens these reports and, within 7 days, a decision is made whether the CAS will be required to complete an Internal Review for the purposes of a future PDRC review. The decision to request an Internal Review is based on the criteria set out in the Joint Directive (see page 88).

The Executive Committee of the PDRC reviewed all **105** deaths and requested Society Internal Reviews be submitted in **45** of them. A decision on **5** other cases is pending the anticipated review by the Deaths Under 5 Committee where cause and manner of death will be determined. It was determined that **55** of the **105** cases would not necessitate further review given the nature of the child's death and/or the Society's involvement. 50% of these cases were medically fragile infants or children who died as a result of natural causes, most of whom were in hospital born prematurely or with complex medical and/or genetic conditions.

Most deaths are not reviewed in the year of death due to these timelines, the volume of cases, and the length of time required to complete a coroner's investigation, including various tests and reports. Additionally, cases before the criminal courts are generally not reviewed until any outstanding charges are resolved.

*Explanations:

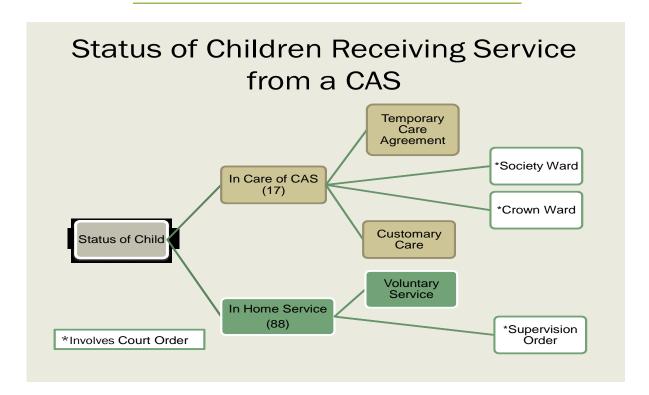
EXECUTIVE REVIEW ONLY: cases which, when reviewed by the Executive Committee of the PDRC (Chair and Coordinators), it is determined that no further review by the CAS or PDRC is required, as the death could not reasonably have been prevented or predicted by a CAS or medical intervention. For example, cases where the child's family had no CAS involvement until shortly before the death, or the child was known to CAS but the death was natural and not unexpected, or the child died as the result of an incident unrelated to the family's involvement with CAS (i.e. child died in a car accident and the case was open to assist the parents in managing the behaviour of a different child).

PENDING DU5C: On occasion the decision to request an Internal Child Death Review is postponed pending the results of the coroner's investigation and/or review by the Deaths Under 5 Committee.

INTERNAL & PDRC REVIEW: If the PDRC requests an Internal Child Death Review, agencies are given 90 days in which to submit their report, and the PDRC has up to 12 months to review the case and issue a report that may contain further recommendations. Expectations for such reviews are explained elsewhere in this report.

CAS STATUS OF CHILDREN WHO DIED IN 2008

TOTAL	In CAS Care	In Home Service
105	17	88



The Ontario Association of Children's Aid Societies reports the following:

- CASs provided substitute care to 27,816 children in the period of April 1, 2007 – March 31, 2008
- On average, there were 18,172 children in care between April 1, 2007 and March 31, 2008
- **6.7%** of the children were on temporary care or special needs agreements
- **18.8** % of the children were in care on temporary care and custody orders
- 2.2% of the children were in customary care

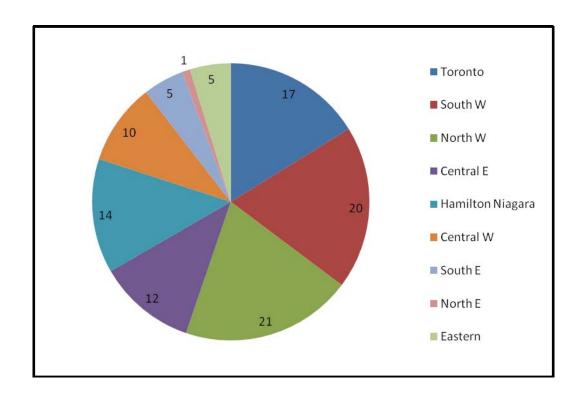
- 8.5% of the children were society wards
- 13.6% of the children were crown wards without access
- 37.5% of the children were crown wards with access
- 12.2% were youth on extended care and maintenance
- 0.6% of the children were on adoption consent

Glossary of Terms (adapted from Child and Family Statistical Report www.hrsdc.gc.ca)

Child:	A person under 18 years of age. <i>The Child and Family Services Act</i> stipulates that protection services are to be provided to a child under the age of 16. Care and maintenance may be extended for Crown wards to age 21.
Children in Care:	Children in need of protection under the <i>Child and Family Services Act</i> and in care under the following legal statuses: Temporary Care Agreement, Society Wardship Order (temporary ward), Crown Wardship Order (permanent ward), Extended Care and Maintenance, Temporary Order for Care and Custody, Parental Consent to Adopt.
Temporary Care Agreement:	The temporary transfer of custody of a child to a Children's Aid Society, for a maximum period of six months. The agreement may be extended for an additional six months.
Parental Consent to Adopt:	Allows the parents to voluntarily relinquish an infant to a CAS for adoption purposes.
Supervision Order:	A child remains in his community (in own home or other arrangements) under the supervision of a CAS. The order may last from three to twelve months. Indefinite extensions are allowed. The child is not considered to be in care.
Society Wardship Order:	Places a child in the care and custody of a CAS for up to 12 months. The parent gives up guardianship of the child for the duration of the order.
Crown Wardship Order:	Permanently transfers the care, custody and control of a child to a CAS.
Temporary Order for Care and Custody:	Court ruling concerning a child's care and custody during court adjournments.
Extended Care and Maintenance:	Care and maintenance services for former wards may be extended to age 21.
Customary care:	The care and supervision of an Indian or native child by a person who is not the child's parent, according to the custom of the child's band or native community. R.S.O. 1990, c. C.11, s. 208, Child and Family Services Act, Part X.

Deaths in 2008 by region (MCYS)

Deaths occurred across Ontario. The Ministry of Children and Youth Services (MCYS) is divided into 9 regional areas that oversee 53 Children's Aid Societies. This is a breakdown, by MCYS regions, of the 105 deaths reported to the PDRC by a CAS:



PDRC REVIEW OF CASES WITH CHILDREN'S AID SOCIETY INVOLVEMENT

While the PDRC does not assign blame, it does review cases from a view toward prevention. One of the roles of the PDRC is to make recommendations to avoid future deaths in similar circumstances. For example, these questions are considered: Could this child's death have been prevented? Could similar child deaths in the future be prevented? If so, how?

All child deaths are tragic and are usually the result of various factors; occasionally the actions or inactions by those in a care-giving role (parents and/or systems) have a part in the circumstances leading up to a fatality. The PDRC reviews these circumstances and makes recommendations for consideration by the health and child welfare systems and others with a goal to reduce the number of child fatalities.

Recognizing the committee has the benefit of hindsight (which includes access to information that may not have been available prior to the death) in conducting its assessment of agency practices, it is helpful to bear in mind the following questions posed by Dr. Peter Markesteyn (from the Turner Review and Investigation , Newfoundland, September 2006):

- What did they know at the time of the events?
- What could they have known, but did not when those events occurred?
- Based on what they then knew or could have known, were their decisions appropriate?

The Committee acknowledges the difficult work of Children's Aid Societies in protecting children from harm.

According to the Ontario Association of Children's Aid Societies, for 2007-2008, there were approximately 18,172 children in the care of a CAS; over 9000 are Crown Wards. Children's Aid Societies completed 77,089 investigations and there were, on average, 24,955 open protection cases (from www.oacas.org).

The number of child deaths during this time frame clearly represents a very small percentage of the volume of children and families involved in the child welfare system. It must always be remembered that families obtaining service from a Children's Aid Society may suffer from a variety of social ills such as addiction, poverty, unemployment, social isolation, substance abuse and mental illness. These children are "high risk" and CAS's must mitigate their responsibilities to protect a child under the Child and Family Services Act with the desire and rights of a family to raise a child, even when the child-rearing situation is less than optimal. Clearly, this is a very difficult task. The recognition of these challenges is not intended to minimize or rationalize the death of any child; we are all genuinely and seriously concerned whenever a child dies.

There are occasions during retrospective reviews, where concerns are identified with the decision-making, management of cases or the provision of health and/or child protection services to families and children.

At times, children's deaths are found to be preventable; it is particularly concerning when a child dies needlessly and contributing factors include the service they have or have not received by a child protection agency. Two specific cases are highlighted here where the Committee believed that different decisions might have resulted in different outcomes for a child. Each of the agencies involved completed internal child death reviews and recognized that changes in service, policy and training were warranted. Even within a differential response model, more intrusive action by a Society is called for in certain circumstances; the children in these cases may have benefited from such intervention.

PDRC REVIEW OF CASES WITH CAS INVOLVEMENT - Case Examples

Case Summary #1:

The child was one month old at the time of his death. His mother was feeding him while both were reclining on the living room sofa. The mother was lying on her left side cradling the child with her left arm. During the feeding, which took place at about midnight; the mother fell asleep with the infant on the sofa. The mother awoke at about 4:30 a.m. with the infant still in her arms and latched on to the breast. The infant was not breathing, and the mother called to other family members for assistance and called 911. With instructions from the 911 operator the mother began CPR. The ambulance arrived and took the infant to the hospital where he was pronounced dead. The mother was noted to have been taking Ibuprofen at the time. She was also noted to be a smoker. The house was reported to be in disarray. The case summary itemized more than twenty referrals to CAS over a 20 year period regarding the care of the nine (9) children or about the mother's behaviour towards them. These referrals came from community members, neighbours, professionals and the mother herself.

- ➤ Cause of Death: No definitive anatomic or toxicological cause of death; sudden unexpected death (SUD) in the presence of bed-sharing in an unsafe sleep environment (couch)
- Manner of Death: Undetermined

Upon review at the PDRC, the following observations were made:

There was insufficient focus placed on the chronicity of the problems in this family, the almost complete lack of positive change and the immediate needs of the children if they are to have any hope of being spared the fate of their older siblings. The case appears to suffer from an over identification with the mother who is described variously as likeable, well intentioned and cooperative. It appears that various service providers shared a belief about the 'goodness' of the mother and that this had a pervasive influence on case management and service intervention by the child protection staff.

The preoccupation with the mother's considerable needs distracted the workers from paying appropriate attention to the developmental needs of the children. This is evidenced by the fact that, reportedly, very few details regarding the children, their skills, strengths, interests, goals and aspirations are contained in the agency records. There is no information regarding their school achievement, overall health and development. There is also no indication that other adults have a significant role in the lives of the children.

It is not known if the issue of unsafe sleeping environments and bed-sharing was addressed with this family.

PDRC Recommendations:

1. If it has not already done so, the agency should consider the admission of the children who are under sixteen into care.

The prognosis for improvement in the mother's parenting capacity after 20 years of intervention is very bleak. The children are at considerable risk of repeating the pattern of behavioural and emotional problems exhibited by their older siblings. Although the availability of suitable homes for the children is likely to be a challenge, it appears that all other interventions have been tried and shown to be unsuccessful.

2. The Regional Supervising Coroner should conduct a Regional Coroner's review including all service providers in this case. The purpose of the review should include discussion regarding the roles, findings and issues raised by this case.

While the family has availed themselves of a vast range of community services, little progress has been noted and none has apparently been sustained. The overall opinion that the mother had good intentions appears to have clouded the service system's ability to focus on the needs and best interests of the children.

Case Summary #2:

This 2-year-old girl with a history of asthma was found face down on an adult mattress (see photo next page) where she normally slept, with no vital signs. The child went to nap at 11:00 a.m. and when she had not woken by 4:00 p.m. her mother went to check on her and finding her lifeless, sought emergency assistance. The mother reported that it was not unusual for her daughter to sleep for 3-4 hours at this time of day. There had been no one in the bedroom with her. Police reported that the home was "filthy" and there was drug paraphernalia present. The sleeping area was shared with three siblings, and two adults. The child was capable of walking only a few steps and mostly crawled, she was in the process of being assessed for a developmental delay. No obvious anatomic cause of death was found during the autopsy. The death was classified as:

Cause of Death: Undetermined (no anatomic or toxicologic cause of death)

Manner of Death: Undetermined

Upon PDRC review several issues were noted and recommendations made. The family, which included the parents and three siblings to this child (all under 5 years of age) had extensive CAS involvement over a five year period. Concerns centered on substance abuse, parenting capacity, neglect and domestic violence. The children, including this child, had been in foster care however, were discharged back to the parents eight months prior to the death.

Society staff did try to support the mother extensively prior to the child's death with assistance such as a parent aide, etc. The mother though, did not fully utilize the services that were provided to her in order to assist her in parenting her children and there was no increase in her parenting capacity. There appeared to have been more of a focus on the substance abuse issues in this case with the parenting capacity issues being overlooked or underestimated in the assessment of the family. The pattern and significance of neglect were not fully appreciated in case planning.

PDRC Recommendations:

- Given the need for a more engaged supervision by the Society in this case, including identification
 of risks and the clear need for more intrusive action, the Ministry of Children and Youth Services
 should perform its own review of this death. The PDRC respectfully requests that the results of
 this review be shared with the Committee.
- 2. The PDRC supports the recommendations by the Society's Internal Review of this case, with respect to better assessment of attachment, review of risk when circumstances change and training on recognition of failure to thrive.
- 3. In addition to training on failure to thrive, the PDRC recommends that all children's service and protection workers have adequate training in child development.
- 4. The agency should develop a policy that stipulates that in open ongoing service files, children receive regular medical attention appropriate to their needs. The agency worker should contact the physician to obtain results of any medical appointments. If children have been in care, medical information needs to be reviewed by the family service worker to ensure that there is follow-up on any outstanding medical issues.
- 5. The agency should have policies and procedures in place on servicing high-risk cases, which should include the frequency of worker contact with the family.
- 6. Given the concerns regarding the state of the home at the time of this child's death, the agency should have established procedures for assessing the safety of living conditions for children, including the sleeping arrangements.
- 7. The PDRC has significant concerns regarding the mother caring for any children. A parenting capacity assessment should be undertaken.



Scene photo: Adult Mattress

Preventable Deaths

The Arizona Child Death Review program developed a definition now in use by many child death review teams. It states "a child's death is preventable if the community or an individual could reasonably have done something that would have changed the circumstances that led to the death." We often think that injury events are random "accidents." However, most injuries to children are predictable, understandable and therefore preventable. (From: The National Center for Child Death Review - Michigan)

The vast majority of children's deaths reviewed by the PDRC were potentially preventable with increased or different intervention, practices, education, and supervision or monitoring. This means that by identifying patterns and themes, and making meaningful recommendations we should be able to prevent future deaths in similar circumstances.

Many of the 42 deaths reviewed this year might have been prevented. This is not meant to assign blame, particularly to parents, individual workers, or agencies, but to offer ideas about how to prevent the death of other children. This year's PDRC reviews illustrate that some deaths can be avoided by:

- Provision of safer sleep environments.
- Provision of coordinated mental health resources and facilities directed to youth identified as high risk for suicide.
- More appropriate or adequate supervision of the child.
- Intervening before a violent act was directed at the child by a caregiver.

Paediatric Death Review Committee Office of the Chief Coroner

Review and Report of CAS Internal Death Reviews

2008

Executive Summary

9 Youth Suicide Deaths from Pikangikum First Nations

This report is about the deaths by suicide of nine youth who lived in the Pikangikum First Nations community. The deaths occurred between May 21st, 2007 and March 18th, 2008.

All of the youth, and their families, except one, had a history of child welfare involvement within 12 months of their deaths. Included in the group were 2 pairs of siblings, a friend of one set of siblings and four others, whose relationship to each other, if any, is not known.

This summary is meant to provide an analysis of the aggregate as a group of youth living within the same small community who all died within the span of 10 months.

Community of Pikangikum First Nation

Pikangikum is a First Nation Reserve located north of Red Lake and east of the Manitoba/Ontario border. The Band Council provides governance and administration for the community. There are no year round roads and the community is accessible only by air service. Winter roads are used to transport consumer items and materials. The power is supplied through diesel generation, as the community is not on the grid. There is no communal water system or sewage system.

The population is just over 2000 people of which approximately 600 are children enrolled in the local school. The school burned down in 2006 and is being rebuilt. There is no recreation center however, in May of 2008 the Ontario government announced funding to assist Pikangikum to build a community center. This centre opened in the fall of 2008. Housing conditions are described as overcrowded and deplorable with a few recent initiatives (10 units).

The community has a local nursing station and some mental health services are provided. Hospital care and specialists are accessed in Sioux Lookout, Kenora and Red Lake.

Pikangikum's policing responsibilities fall under both the Ontario Provincial Police (OPP) and the First Nations Policing mandate. The main OPP detachment is situated in Red Lake. Frequently OPP officers from throughout the province are seconded to Pikangikum for two-week periods. The main form of communication for emergency personnel is via walkie-talkie radios due to the remote geographic location. The policing challenges facing the community are the same as any other extremely isolated and remote community.

Profile of the 9 Youth:

Gender: Female: 5 Male: 4

Age: 12 years: 3
13 years: 2
16 years: 3
17 years: 1

Means of Suicide: Hanging in or near family home

Education: Irregular attendance and or not enrolled in school

Substance abuse: Gas sniffing from an early age, some alcohol abuse. There were a numbers of

reports of the youth being jailed when intoxicated.

Vulnerability Factors:

Vulnerability Factor (8 youth known to CAS)	Known	Suspected	None	Unknown
a) Has the child experienced previous incidents of verified abuse	8			
or neglect?				
b) Has any other siblings ever been the victim of verified abuse or	8			
neglect?				
c) Did the child have physical disabilities?			8	
d) Did the child have mental or emotional difficulties?	3	4		1
e) Did the child have a history of substance abuse?	7		1	
f) Did the child have a history of running away from	3		5	
home/placement?				
g) Had the child made previous suicide attempts?	3		2	3
h) Had the child experienced the recent suicide of a	6		2	
friend/relative?				
i) Had the child previously spoken to someone about suicidal	2	1	1	4
thoughts?				
j) Had the child experienced a recent life crisis?	6			2

Commentary:

The history of abuse and neglect combined with gas sniffing and solvent abuse and an environment where suicide was prevalent all converged and resulted in multiple suicides for the individuals in this group of youth.

Profile of the Families

Parents:

All of the youth were born into two parent families. In two cases, the mother was deceased; one committed suicide and the other drowned in an alcohol related accident.

Siblings:

Each of the youth had siblings and close relatives who were substance abusers. In all of the families, except one, there was a sibling or relative who had committed suicide. In two families there were instances where a youth was burned due to cigarettes having been lit when sniffing gas.

Family Issues:

All the parents reportedly had histories of chronic alcohol abuse, inadequate supervision of the children, conflict and inability to parent and control their children. On occasion, they were able to ask for help for their children and themselves. The family either undermined or was not able to carry through with

supporting the gains that were made by the youth when out of the community for residential treatment. Attempts at family treatment were not successful except for one case.

During the time that the families were known to CAS the level of risk was most often rated as high or moderate. A CAS internal review was requested and submitted to the PDRC for 4 of the cases, at the time this report was completed.

Extended Family:

Grandparents were key figures for all of the youth. Often they were the "protective factor" for their grandchildren when the parents would not or could not care for the children. In two cases, the grandparents were the ongoing care providers. They too, had great difficulties managing the behaviour of the children. In some instances other extended family provided ongoing customary care.

Community Involvement:

None of the youth were attending school regularly. There was no mention of supports or activities for the youth in the reviews. The service most often used for counselling was the local mental health service provider.

PDRC Analysis of Society Actions and Decisions

The following observations are made:

- There were extensive connections made with other service providers, use of community safety plans and involvement of the Chief and Council.
- The Society was responsive to family requests for help and treatment.
- There appears to be little ability to have any long term or sustained impact with some families despite repeated goal setting and supports.
- There was reliance on extended family to care for and protect the children.
- The impact of gas sniffing by the youth and the effect on their physical and mental health was not, or could not be, assessed.
- The availability and expertise of residential placements with "hard to serve" youth is an issue that requires attention.
- The staff of the Society provided consistent support to each family at the time of the death by providing groceries and attending the funeral.
- Plans for the care of any younger children in the home were made.
- The length of time to respond to referrals resulted in many deviations and departures from the provincial standards.
- A number of files were observed to rely on notes and not to contain regular reports and service plans.
- It is unclear if the impact of Fetal Alcohol Syndrome Disorder (FASD) was ever assessed, despite the reported substance abuse histories of many of the parents.

PDRC Recommendations

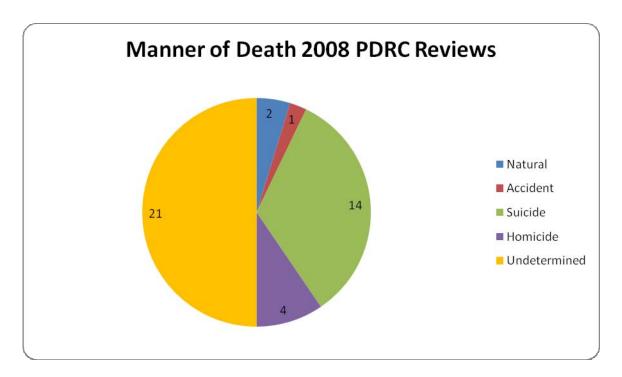
The performance of the Society is not the key to the issues observed in these nine deaths of youth due to suicide. Long-term alcohol abuse by the parents and solvent abuse by children and youth raise the likelihood that youth will have learning disabilities, poor problem solving skills and impulse control. The Society has repeatedly identified the profile of the desperate conditions in the community that surrounded these youth.

1. It is recommended that some form of community inquiry focusing on Pikangikum be called to examine:

- 1.1 The understanding and response of the Chief and Council to conditions in the community, which has lead to the high rate of youth suicide.
- 1.2 The role that education, health and other community services could play in preventing the hopelessness, desperation, and ultimately, suicide of these young children.

- 1.3 The contributions of community members and natural leaders to the development of strategies to prevent youth suicide.
- 1.4 The community wide suicide prevention strategies.
- 1.5 The developments or results since the Sakanee Inquest into aboriginal youth suicide in 1999.
- 2. Based on the quality issues that are evident in the work being done by the child protection agency, the Society is encouraged to continue to seek improvements to meet provincial standards where possible. The PDRC acknowledges the remarkable effort and stamina that the Society continues to exert on behalf of the children in this remote community.
- 3. Given the generational issues with alcohol abuse, it is likely that Fetal Alcohol Syndrome Disorder (FASD) further compromises the children born into these families. Programs and services that are currently offered or proposed in the future should consider this factor. Staff should be trained in recognizing and dealing with the impacts of FASD on children.

2008 PDRC REVIEWS OF CASES WITH CHILDREN'S AID SOCIETY INVOLVEMENT BY MANNER OF DEATH



The following sections contain real case examples from 2008 PDRC reviews which illustrate each of the five classifications of manner of death (see page 10 for full definitions). As in all case examples in this report, identifying details have been altered to protect the privacy of the children and others.

It should be noted that five infants whose deaths were reviewed this year, died while staying temporarily away from their own homes. This stresses the importance of parents being mindful of the same safety standards when children, particularly infants, are staying with friends, relatives, babysitters, or in shelters or hotels.

Death by what means: NATURAL

Some children are so medically fragile that their deaths are expected and occur under medical care. Due to the nature of a child's illness and/or death, which are often predictable and not directly preventable by a CAS or medical intervention, few of these deaths receive full reviews by the PDRC, which include a complete report with recommendations.

There are, however, some natural deaths of children known to a CAS that are reviewed by the PDRC.

On occasion, there are concerns raised about the child's care prior to death and the PDRC will review both the CAS and medical care provided to the child. In 2008 we reviewed 2 deaths from natural causes, which included a death from Septicemia, and a death from sudden cardiac arrest.

This 7-month-old female infant had problems from early infancy with recurrent respiratory illnesses and rashes. Her immunizations were up to date and she had suffered with chicken pox two months before. At the time of her death, she was being treated with antibiotics and puffers for reactive airways, with possible pneumonia. The child developed a fever, experienced respiratory arrest and could not be resuscitated. The committee reviewed the findings and agreed that Klebsiella pneumoniae growing in both lungs and blood was a significant finding and the probable cause of septicemia resulting in the very rapid clinical deterioration that subsequently occurred. Cause of death: Septicemia; Manner of death: Natural

Death by what means: ACCIDENT

1/42 cases reviewed by the PDRC in 2008 was classified as "Accident", meaning as a result of an incident that happened without foresight or expectation. Most "accidental" deaths are preventable. Adequate supervision of young children and increased awareness through education can help reduce or eliminate the majority of these deaths in the future.

Note: In 2008, 9 deaths reported by a CAS and investigated by a coroner were fire related deaths of children.

A woman awoke to find her neighbours' home engulfed in flames and called 911. The parent could be rescued from the home, but firefighters were unable to enter the building again to locate the child who was found lying in her bed. The child died of smoke inhalation. The parent had fallen asleep while smoking a cigarette after having consumed alcohol. There were no working smoke detectors in the house.

Cause of Death: Smoke inhalation

Manner of Death: Accident

FireSafety.gov for kids recommends the following fire safety and prevention information:

Control Kids' Access to Fire

- Keep all matches and lighters out of the hands of children. If possible, keep these sources of fire in locked drawers. Consider buying only "child-proof" lighters -- but be aware that no product is completely child-proof.
- Children as young as two years old can strike matches and start fires.
- Never leave children unattended near operating stoves or burning candles, even for a short time.
- Teach children not to pick up matches or lighters they may find. Instead, they should tell an adult immediately.

Fire Safety at Home

- Smoke alarms should be installed on every level of the home, especially near sleeping areas.
- Smoke alarms should be kept clean of dust by regularly vacuuming over and around them.
- Replace batteries in smoke alarms at least once a year. And replace the entire unit after ten years of service, or as the manufacturer recommends.
- Families should plan and practice two escape routes from each room of their home.
- Regularly inspect the home for fire hazards.
- If there are adults in the home who smoke, they should use heavy safety ashtrays and discard ashes and butts in metal, sealed containers or the toilet.
- If there is a fireplace in the home, the entire opening should be covered by a heavy safety screen. The chimney should be professionally inspected and cleaned annually.
- Children should cook only under the supervision of an adult or with their permission.
- Children should never play with electrical cords or electrical sockets. They should ask adults for help plugging in equipment.

- Children should stay away from radiators and heaters, and they should be taught that these devices are not toys. Young children in particular must be taught not to play with or drop anything into space heaters. Nothing should be placed or stored on top of a heater.
- Pots on stovetops should always have their handles turned toward the center of the stove, where children cannot reach up and pull or knock them off.
- Teach children to turn off lights, stereos, TVs, and other electrical equipment when they are finished using them. In the case of room heaters, children should ask an adult to turn it off when the room will be empty.
- Children should never touch matches, lighters, or candles. If they find matches or lighters within reach, they should ask an adult to move them.
- No one should stand too close to a fireplace or wood stove or other types of heaters, where clothes could easily catch fire.

Warning Signs

- Evidence of fire play, such as burnt matches, clothes, paper, toys, etc., or if you smell smoke in hair or clothes.
- Inappropriate interest in firefighters and/or fire trucks, such as frequent, improper calls to the fire department or 9-1-1.
- Child asks or tries to light cigarettes or candles for you or other adults.
- Matches or lighters in their pockets or rooms.

Control Curiosity

- Talk to your child or students in a calm, assured manner about fire safety.
- Consider visiting a fire station if children are very interested in firefighting and/or fire trucks or ask
 a firefighter to visit your classroom. Have the firefighter talk about his/her job and the dangers of
 fire.
- For parents: Create opportunities for learning about fire safety at home. For example, when you cook, let your child get the pot holder for you; when you use the fireplace, let your child bring you the wood or tools; if you use candles, let the child check to make sure the candle holder fits snugly; and when you change or test the batteries in your smoke alarms, ask the child to help you.

What to Do if You Suspect Your Student/Child Is Playing with Fire?

- Talk to the child about his or her actions. Explain again that fire is a tool for use only by adults, and that it is very dangerous for children.
- Many schools, fire departments and law enforcement agencies have programs for children who are inappropriately interested in fire or who have set fires.

Death by what means: SUICIDE

A classification of Suicide means the death is a result of an intentional act by a person knowing the probable consequence of what he or she is about to do – that is the commission of an act that results in his or her own death.

The suicide deaths of 14 youth between the ages of 12 and 18 were reviewed in 2008 by the PDRC. The cause of death in all but one death was asphyxia by hanging. 13 of the 14 youths were identified as First Nations. One of these youths was not involved with a CAS but was reviewed as part of a group of 9 First Nations youths living in the same community, which is profiled earlier in this report. It is important to note that 2 of the remaining 5 youths reviewed also lived in the same community but were reviewed earlier and separately in the year, given their deaths in earlier years.

For thirteen of these young people the deaths were classified as:

Cause of Death: Asphyxia from hanging

Manner of Death: Suicide

A 12-year-old girl was found hanging from a tree in the community in the early morning. Her family had been looking for her the evening before and believed that she had gone to a friend's for the night. She was a known solvent abuser and had made at least two previous attempts at suicide.

Three weeks after the death of his sister, a 16-year-old youth was found hanging by a shoelace from the trunk of a tree in the bush near the family home. A 12-year-old friend had committed suicide earlier the same day. He, too, had a history of solvent abuse as well as previous suicide attempts.

Suicide is the second leading cause of death among Canadian youth following motor vehicle collisions.

Canadian statistics

Each year, on average, 294 youth die by suicide. Suicide is the second leading cause of death for youth aged 10-24, following motor vehicle collisions. Although suicide rates for 10- to 19-year-olds have remained consistently below the overall suicide rates, suicides in this age group began to rise in the early 1960s and tripled by the late 1970s.

In recent years, the rate for 15 to 19 year-olds has begun to approach the general population's rate of 13 per 100,000. Suicide rates for 10 to 14 year-olds have also increased, but remain below 2.5 per 100,000. Studies show a significant percentage of adolescents contemplate, plan or attempt suicide without seeking or receiving help. Males are less likely than females to seek help from any source. Centre for Suicide Prevention, Calgary, Alberta.

Suicide is the triumph of pain, fear and loss over hope.

Suicide is most often the result of pain, hopelessness and despair. It is almost always preventable through caring, compassion, commitment and community.

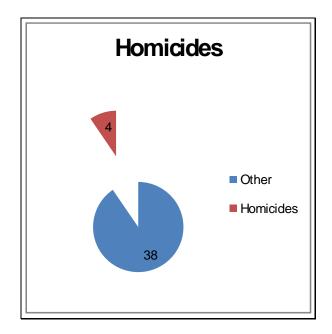
Canadian Association for Suicide Prevention / L'association canadienne pour la prévention du suicide.

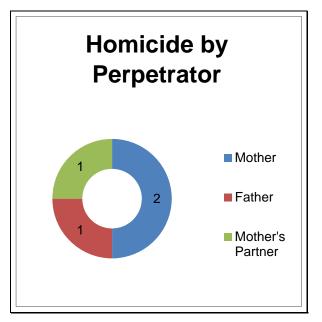
Death by what means: HOMICIDE

4 children's deaths reviewed in 2008 were the result of Homicide, meaning the action of one person against another leading to death. Caregivers were responsible for the deaths of all 4 children: 1 child was killed by his father; one child was killed by the mother's partner; two children were killed by their mothers; all perpetrators were criminally charged and convicted.

Cause	Ωf	death:	
Cause	111	ucaiii.	

	<i>"</i> ·
Unascertained	1
Blunt impact head trauma	2
Stabbing	1





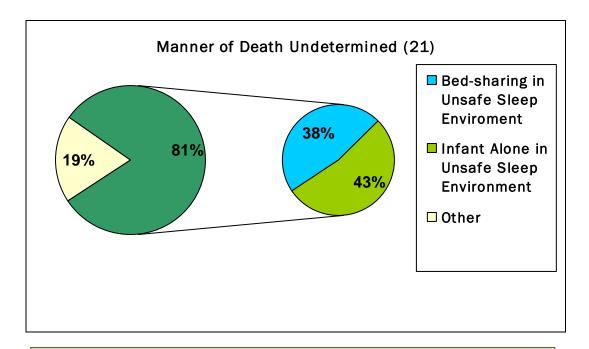
#:

A 9 month-old child arrived at the Emergency Department by ambulance. The doctor found the infant to be semi-responsive, his breathing erratic and he had suspicious bruises on his arms, chest and chin. The mother reported that she put the child to bed and he appeared normal except that he would not drink. Reportedly, when she checked him an hour later he appeared sluggish and his eyes were rolling back in his head. There were multiple brain and cerebral infarctions, with retinal haemorrhage compatible with non-accidental head trauma. The child died shortly thereafter; the mother was convicted of manslaughter and received a 2-year prison sentence to be followed by 3 years of probation.

Death by what means: UNDETERMINED

When a full investigation, including autopsy, does not produce evidence for, or result in, a specific finding regarding the manner of death, the death is classified as Undetermined. Many of the sudden, unexpected deaths of infants (SUDI), where no anatomic or toxicologic cause of death are found, are classified this way.

In 2008, 21/42 (50%) of deaths reviewed by the PDRC were classified as Undetermined. 17 of these 21 deaths involved infants less than 12 months of age who died in unsafe sleeping environments. 8 of the 17 unsafe sleeping related deaths also involved bed sharing with one or more adults.



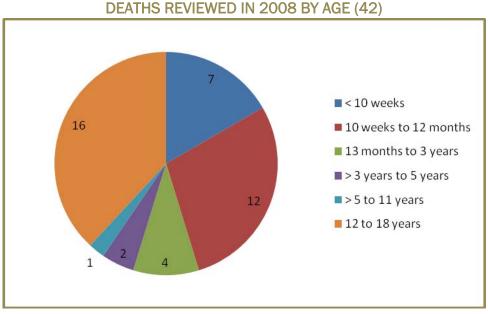
A mother reported that she fed her four-week-old 6 oz. of formula and placed her in the playpen to sleep (child's regular sleep environment). Later, the mother fed the baby 4 oz, burped her and attempted to return her to the playpen to sleep. The mother reported the baby was fussing and the mother then lay down on the couch with the baby on her chest. The mother reported she awoke at 10:00 a.m. and noticed something wrong and she could not wake the baby. She called 911 and was instructed to attempt CPR, which was unsuccessful. The ambulance arrived shortly afterwards and transported the baby to the hospital, where the baby was pronounced dead at 10:30 a.m. The case was reviewed at the Deaths Under 5 Committee and classified as:

- Cause of Death: No definitive anatomic or toxicologic cause of death; consistent with sudden unexpected death in the presence of co-sleeping in an unsafe sleep environment (face down on mother's chest while lying/sleeping on couch)
- Manner of Death: Undetermined

2008 PDRC Reviews of Cases with Children's Aid Involvement

In 2008, the PDRC conducted comprehensive reviews of 41 deaths of children whose families had involvement with a Children's Aid Society (CAS) within the 12 months preceding the death. One child's death by suicide was reviewed despite having no CAS involvement given her close relationship with two other youths who all died within a short period of time.

Of the 42 deaths, 21 of the children were female and 21 were male. The age of the children ranged from 2 days to 18 years. The majority (60%) of deaths involved children under 5 years of age (n = 25) and 19 of those 25 children were under 1 year of age (45% of the overall total). One child was 8 years old and the remaining 16 children were between the ages of 12 and 18 (38%).



Cases were reviewed from deaths occurring in the following years:

2008 - 3 cases

2007 - 24 cases

2006 - 9 cases

2005 - 5 cases

2004 - 1 case

CAS Involvement (n = 41):

- 32 cases were open to a CAS at the time of the death (28 Protection + 4 Crown Ward)
- Types of protection files: 3 Intake; 25 Ongoing Services
- 9 cases had been closed within the 12 months preceding the death
- 5 of the 41 children were in the care of a CAS 4 of these 5 children were Crown Wards
- 36 children were in the care of their families

Internal Child Death Reviews by Children's Aid Societies

Child Death Reviews in Ontario

(Adapted from Internal Child Death Review Guidelines for Children's Aid Societies,

January 2006, Ontario Association of Children's Aid Societies and the Child Death Review Task Force)

Multi-disciplinary child death reviews have been upheld by numerous jurisdictions in both Canada and the United States as the most advantageous form of child death review. There is significant agreement among jurisdictions on the core disciplines expected to be represented on a review team. These include representatives from the coroner's office, law enforcement, prosecutorial agencies, child protection services, and public and mental health agencies. In Ontario, the Paediatric Death Review Committee (PDRC) serves the purpose of an external, multidisciplinary review mechanism for child deaths.

Child death reviews must be completed by Children's Aid Societies and by the Office of the Chief Coroner of Ontario under the joint direction of the Ministry of Children and Youth Services (formerly the Ministry of Community and Social Services) and the Ministry of Community Safety and Correctional Services, whenever:

- 1) the death of a child occurs:
- 2) that child is the recipient of current or recent service from a CAS; and
- 3) when the death is a result of abuse or neglect or occurs under questionable circumstances.

Reviews are intended to explore the circumstances relating to the child's death, in order to ascertain what might be changed

systemically or in professional practice to reduce the risk of another similar child death in the future and to strengthen practice in general.

Society Internal Child Death Reviews

An internal child death review is conducted voluntarily by the involved Children's Aid Society in order to investigate thoroughly the death and the context within which the death occurred. The review seeks a contextual understanding of the details of intervention. decision-making and potential oversight which may have contributed to the death of a child and makes recommendations for the improvement of internal or external systems and structures to reduce the risk of future deaths of children served by the Society. The internal child death review seeks to understand the circumstances relating to the child's death and to convey this understanding to the relevant staff, managers and collaterals in a manner that provides clarification, support and the capacity to continue to provide services.

An internal review of a child death is undertaken by the agency for the purposes of learning. Internal reviews, when shared among Societies, have the potential to promote an enhanced quality of practice within the broad field of child welfare. One of the goals of the Annual Report of the PDRC is to share the lessons learned by individual case reviews (both PDRC and Society) with other agencies across the province in order to improve the quality of child protection services provincially.

Guiding Principles

An internal child death review, as conducted by a Children's Aid Society, should be governed by the following Principles:

- The fundamental purpose of the internal death review is to enhance understanding, through a fair and balanced review of agency intervention and its effects, and to provide suggestions for changes to reduce the risk of future deaths or injury to children.
- The internal review of every child death, including death by natural causes, is beneficial in ensuring a complete understanding of the nature and quality of agency intervention, in providing an understanding and acknowledgement of the context surrounding the child's death, and in providing direction in improving services to children and their families.
- The agency conducts an open, thorough and transparent review process to discover the circumstances that might have contributed to the death of a child. The internal child death review should be an opportunity to hear from every possible source of information, including all historical file information and conversations with any person who has had contact with the child's case.
- An internal child death review is an opportunity to learn. It should occur within a culture that encourages a critical review of outcomes.
- A review confirms elements within the system which are working well, including those which may have shown improvement over time and those which are in compliance with, or exceed, the given standards and policies, and/or which demonstrate good clinical practice.
- The internal review is not intended to be a vehicle for dealing with staff performance issues. Performance issues will be managed by way of the normal agency procedures and policies.
- The internal review shall not make any finding of legal responsibility or express any conclusion in law. Subject to these same provisos, the review may make recommendations as are deemed appropriate.

Disclosure of findings

The findings of the internal death review inform the Paediatric Death Review Committee (PDRC) analysis. Upon signing off by the Executive Director, the internal review should be forwarded to the PDRC. Findings of the internal review can also guide the agency's responses, as well as those of community service providers and child protection systems in general. The process of disclosing the findings of the review contributes to a stronger and more accountable death review practice, and at the same time, provides information, which may affirm or enhance services provided for the well-being of children. Nevertheless, beyond disclosure to the PDRC and relevant courts, the discretion rests with the agency as to whether, and to what degree, it will disclose the findings of its internal child death review.

Of the 42 children's deaths reviewed in 2008, Society Internal Child Death Reviews were completed in 33 cases. There were over 175 recommendations made by children's aid societies in those reviews.

The PDRC received the internal recommendations and added further recommendations as necessary. The table on page 89 provides a selection of recommendations made by the Societies' internal reviews in the 2008 cases (note: several deaths reviewed in 2008 occurred prior to the current Joint Directive requiring Society Internal Reviews to be submitted to the PDRC and one child's family did not have CAS involvement).

Enhancing Child Welfare Practice through Lessons Learned from Child Death Reviews

The 2006 Joint Directive includes the rationale, a template and guidelines for completing Society internal reviews when a child dies while receiving service from a children's aid society. Many agencies were already completing internal CAS reviews on child deaths prior to 2006; others do so now at the request of the Paediatric Death Review Committee. The goal of all reviews of children's deaths should be to learn from the analysis of the circumstances and services surrounding the death in order to prevent future deaths.

For some time, hospitals in Ontario have conducted internal quality of care reviews or peer reviews when serious incidents occur, even when the incident involves medical error.

"Quality assurance reviews are an indispensable and time-honoured means of examining medical errors with the goal of preventing further mishaps and improving health care services". (From: Quality Assurance Reviews - An Update: *Quality of Care Information Protection Act, 2004*, by Kristin L. Taylor)

These reviews are generally conducted by a quality of care committee with functions to "carry on activities for the purpose of studying, assessing or evaluating the provision of health care with a view to improving or maintaining the quality of the health care or the level of skill, knowledge, and competence of the persons who provide the health care". (www.oca.com)

The learning derived from these types of reviews can assist providers of service to critically analyse and make adjustments to practice and policies in order to reduce or prevent future deaths.

Over the past three years, the Paediatric Death Review Committee has attempted to clarify the original guidelines established for internal reviews. We continue to receive questions about the criteria used to request internal reviews by children's aid societies. The Joint Directive requires a full review of the case when a child "questionable" dies under circumstances. Questionable cases were defined as: all cases classified as undetermined, all cases where a child was in care, all cases where circumstances surrounding the death relate in any way to the reasons for service, and all cases where there are grounds to suspect the death was linked to an act of omission or commission on the part of the caregiver.

The Joint Directive requires that an external reviewer with appropriate clinical or child welfare expertise form part of the review team. The goal is for agencies to develop internal capacity to conduct reviews. Some agencies hire external consultants to complete or lead the review; however other organizations steer the process with an external participant on the review team.

The PDRC, upon reviewing the CAS Child Fatality Case Summary Report and the Coroner's Investigation Statement, considers the following criteria (not an exhaustive list) when requesting a Children's Aid Society to conduct and forward to the PDRC an internal review:

CAS involved within 12 months

Sudden, unexpected deaths, including most accidents, suicides, homicides and undetermined Some natural deaths (i.e. SIDS)

Potentially preventable with intervention possible CAS file open for related reasons

The next several pages provide examples of recommendations from the reviews of the 42 deaths in 2008. Agencies that complete Internal Child Death Reviews often arrive at findings and recommendations for improving internal practice and policy; the PDRC acknowledges these recommendations and may add its own. Please note that, while sample recommendations may promote best practices, they are made on individual cases and are not meant to imply any responsibility for a death.

Sample Society Internal Review Recommendations

TRAINING	POLICY	PRACTICE
The Society should provide its entire front-line and supervisory staff with inservice training on adolescent suicide detection, prevention and treatment. It is further recommended that this be done in partnership with other appropriate community service providers.	The agency should continue its work to develop clear policies and procedures regarding the use of parenting capacity assessments that ensure prompt decision making. This should include effective systems for tracking approvals and completion of such assessments. Smoke detectors should be	All cases that are identified as high risk and involve multiple service providers should have a schedule of face to face case conferences, including the family, where clarity of roles and documentation of the ongoing service plan is ensured.
The Society should further educate its staff regarding the health risks associated with premature birth and pre-term infants.	identified under the safety threat descriptors for conducting the Safety Assessment of the physical living conditions in the same manner as gas leaks or exposed electrical wiring.	It is recommended that the Society share its internal report with any of its current employees who were involved with this case for purposes of ongoing professional development.
Training for working with children/youth with mental health issues is required for staff, with updates as required. This training should provide an understanding of mental health diagnosis and how to work effectively with these children/youth.	The agency should review its current policy and procedures related to services for expectant mothers. The current policy and procedures are focused on services related to voluntary services and birth planning. Appropriate services to highrisk mothers need to be addressed and best practice guidelines developed.	The Society should continue efforts to educate parents on safe sleeping and the dangers of bed sharing with infants. The Society Health Specialists should continue to provide service to new parents regarding the physical and developmental well being of high risk infants and to provide information regarding safe sleeping for infants.
The Society should provide training and education to supervisors and staff regarding family engagement strategies to further enhance staff capacity to promote change in families.	The Society should implement an in-house audit of compliance with its policy regarding mandatory contact with children, and take action as appropriate.	The Society should remind staff of the risks inherent in expecting a possibly abused mother to protect her children from the abuser.
It is recommended that the agency sponsor a seminar on marijuana and other substance abuse, its effects on the chronic user and its impact on parenting. Such a seminar might be offered in conjunction with other service providers or across a number of CAS's in the region.	The Society should develop policy and procedures to guide services to infants living in high-risk environments. A policy should guide decisions and actions for supervisors and staff, and address internal coordination and community collaboration.	To support the supervisor in reviewing investigations, the Society should develop a procedure to compare the work completed with the investigation plan. Also the Society should implement a process for critical review of the findings and the assessment at the time of verification.
The Society should provide training for frontline workers and supervisors on alternative hypothesis generation and review.	The Society should review its policy regarding case transfer procedures to ensure that it meets the spirit of the revised 2007 protection standards.	It is recommended that the concept of continuous risk assessment be reinforced through regular supervisory review of cases.

Sample Society Internal Review Recommendations continued

Training for all departments on documentation requirements, including case notes, should be implemented.	The agency should develop policies and procedures that will ensure that fathers are included in the risk assessment process and are seen on a regular basis when they are in a parenting role.	The Society should consider implementing a best practice to have all child protection investigations involving a child's death on an ongoing service caseload co-investigated with a specialized worker to ensure a timely and comprehensive forensic investigation occurs.
It is recommended that the Society provide training for its front line and supervisory staff on assessing parent-child attachment and the relevance of attachment in assessing parenting capacity. Agency should provide training to their workers, supervisors and family service committees in the recognition and intervention of failure to thrive in infants and children.	There should be a Risk Management Committee consultation for any children returning to the care of their parents or caregivers following an admission to care. The agency should develop standards of preferred practice for intervention with families raising children under two years of age and provide training in those practices for all staff.	It is recommended that all files contain verification of services being provided by collateral sources, especially if these services are relied upon in the assessment and/or management of risk The Society should reinforce with supervisors and family services workers the importance of taking into account historical family involvement with the Society when making decisions about the level of intervention required in response to protection referrals.
The Society should collaborate with police and senior management in local hotels and shelters to facilitate information sessions for staff that focus on appropriate responses to concerns and complaints about residents or guests with infants and young children.	The agency should ensure that any intervention protocols have a clearly child-centered approach that place the safety and well being of children first.	It is recommended that the agency examine how it might better engage fathers in service delivery. This could be an opportunity to work collaboratively with other service providers to develop suitable programs for fathers.

Initiatives by Agencies in Response to Internal and PDRC Child Death Reviews

Many Children's Aid Societies have developed and implemented new initiatives in the spirit of enhancing practice, policy and service to families. Below are a few examples of some that were brought to the attention of the PDRC in 2008:

- Hastings CAS has implemented a large scale Safe Sleep Baby Campaign including media announcements, with support from the private sector, to enhance public awareness about the importance of safe sleep practices for infants.
- London CAS has developed comprehensive agency guidelines and materials on Best Practice for Infants in Child Protection.
- Toronto CAS and Toronto CCAS have forwarded copies of their internal Safe Sleeping Environment for Infants policies and guidelines.
- Hamilton CAS has served as the impetus for the agency to get involved with the Ontario Fire
 Marshal's office to raise awareness of the need for working fire detectors. The CAS has been
 involved with producing large refrigerator magnets to highlight fire hazards.
- Native Child and Family Services of Toronto has developed and implemented a Protocol for Best Practice for Infants in High Risk Environments.
- The 4 Toronto children's aid societies participated in a Regional Supervising Coroners Review, with several other service delivery providers, to begin to develop provincial guidelines and tools for information sharing on children in care who require emergency medical treatment.
- Windsor CAS and Windsor Police Service attended a Regional Supervising Coroners case conference to discuss ways to improve on the existing protocol and joint training to educate staff from both services on working together in parallel and joint investigations.
- CAS of the City of Kingston and County of Frontenac, in partnership with Queen's University medical students, developed and distributed to families a pamphlet entitled "Establishing a Safe Sleeping Environment".
- Algoma CAS initiated a program review of their Summer Day Program and developed best practice guidelines for water based activities.

Enhancing Child Welfare Practice through Lessons Learned from Child Death Reviews - Recommendations

PDRC Recommendations to the Ministry of Children and Youth Services in 2008 with the Ministry Response

The Client Services Branch and the Child Welfare Secretariat worked together to provide this response to the six (6) recommendations directed to the Ministry of Children and Youth Services during 2008 and to themes in this report.

#	Recommendation	Rationale	Ministry Response
1	The Ministry of Children and Youth Services should include working smoke detectors in the safety threat descriptors in the physical living conditions of the Safety Assessment Tool and direct children's aid societies to consider reporting noncompliance to the appropriate authorities.	As child protection workers are frequently in family homes to assess safety and risk factors, they are in a position to observe and address hazards such as non-existent or non-functioning smoke detectors, which pose a significant risk to vulnerable children. This child died two months after file closure from smoke inhalation in a fire caused by careless smoking after her mother fell asleep with a cigarette after consuming four beers. There were no working smoke detectors in the home.	The ministry recognizes the importance of fire safety, and will work with the Coroner's Office in the future to examine this issue further and make all appropriate changes to tools and practices.
2	As a best practice initiative, the Ministry of Children and Youth Services should ensure that each child welfare agency has conflict of interest policies specific to the direct provision of child protection services to staff, volunteers, Board Members and directly licensed and/or approved caregivers.	Discussion at the PDRC, in reviewing the circumstances of this case, revealed that is unclear if children's aid societies consistently have such policies.	The ministry has responsibility for children's aid societies (CASs) in Ontario. The ministry's role in child protection is to fund, legislate and monitor the system for the protection and well-being of children. Child protection services are provided by local CASs, which have exclusive responsibility for the provision of the services under the <i>Child and Family Services Act (CFSA)</i> . Each society is an independent, non-profit organization with a local board of directors. Human resource policies for CASs are not prescribed in legislation or specified by the ministry. Each CAS sets its own human resource policies.
3	The Regional Office of the Ministry of Children and Youth Services should review the Society's child protection file of this family.	The significant issues identified in the Society's receipt and response to serious child protection issues coupled with the inadequate level of intervention and documentation, are compelling reasons why a comprehensive file review by the Ministry is warranted. The Regional Office of the Ministry of Children and Youth Services is requested to submit its written analysis of the file to the PDRC of the Office of the Chief Coroner.	Following receipt of the PDRC report in January 2009, Ministry Regional Office staff met with the Children's Aid Society to review the recommendations, and to discuss the society's work plan to respond to these recommendations.

4	The Ministry of Children and Youth Services should facilitate a multi-disciplinary review incorporating key informants to develop system level strategies designed to enhance cross sectoral planning and collaboration in order to achieve more successful outcomes for complex care children and youth.	The significant challenges experienced by the Children's Aid Society in effectively managing this hard-to-serve youth are not unique and are in fact reflective of the existing gaps and inherent difficulties provincially in coordinating service delivery across various sectors.	The ministry recognizes the need for collaborative partnerships especially when working with complex care children and youth. The Child Protection Standards in Ontario (2007) place emphasis on the development of community partnerships as a means to address risk factors through collaboratively enhanced service planning and delivery.
			Under the Child Protection Standards and the Differential Response model, independent corroboration of client progress and functioning will be achieved by involving collaterals in both family conferencing and service planning activities.
5	The Ministry of Children and Youth Services should perform its own review of this death. The PDRC respectfully requests that the results of this review be shared with the committee.	Given the need for a more engaged supervision by the Society in this case, including identification of risks and the clear need for more intrusive action.	Ministry Regional Office staff completed the file review in conjunction with the Society's critical analysis report (PDRC recommendation). The Ministry Regional Office anticipates sharing the results of their review with PDRC in June 2009.
6	It is recommended that the Society and the Ministry perform a "roll-up" of the recommendations from all of the reviews and identify those that are common for review, further study and response.	It has been observed that there have been a number of reviews from this CAS in the recent past. Additional Comments: Further, the external reviewer provided an opinion about whether the child's death was preventable in terms of involvement of the CAS. This has been included in similar reviews. The PDR Committee finds that this approach goes beyond the expectations of an internal review and can be seen as self serving (on behalf of the agency) and is not supportable. Rather, a focus on what can be learned from the review to contribute to improved service outcomes is likely to be more beneficial. In this particular review, the opinion provided reinforces the response of the Society to not become more involved based on supposition and is not supported by the facts of the case.	The Children's Aid Society has completed a Summary of Child Deaths from their agency in the period from 2005 to 2008 and submitted it to the Ministry Regional Office for review. The implementation of the recommendations from the Internal Child Death Review and Pediatric Child Death Review Committee led to the society enhancing their service delivery and decision-making processes. For example, the society implemented best practices in working with high risk children and youth.

Ministry Monitoring of PDRC Recommendations

Following the CASs' receipt of individual PDRC reports, societies consider the PDRC report, implement the recommendations as appropriate, and incorporate the recommendations addressed to them into their written progress reports submitted to the ministry regional offices. Ministry regional offices are responsible for following-up with individual CASs on a quarterly basis regarding the actions they have taken to respond to the specific PDRC report recommendations.

The ministry's Client Services Branch monitors the implementation status of the PDRC report recommendations and the actions taken by CASs to respond to specific recommendations. Responses to the recommendations are prepared and submitted to the Assistant Deputy Minister on a quarterly basis.

Recommendations directed to the Ministry of Children and Youth Services are reviewed and responded to by program and policy divisions.

Themes in the 2009 Report:

1. Unsafe Sleeping Arrangements

MCYS Response:

- The Ontario Association of Children's Aid Societies (OACAS) Ontario Child Protection Training Program (OCPTP) training module, Working with Infants at Risk and their Families includes training on the dangers of bed-sharing and the necessity of appropriate sleeping environments for infants. This training is available for all workers and supervisors and has been enhanced by OACAS to include a pre and post test process. Participants will be contacted six months after completing the course to comment on how the course has changed their practice with families and infants.
- The Ontario Safety Assessment in the Ontario Child Protection Tools Manual (2007) requires consideration of a child's sleeping arrangements (Safety Indicator #8, e.g. adult sharing a bed with an infant or an unsafe crib) when protection staff assess the family's physical living conditions.

2. Children's Mental Health Issues/Aboriginal Suicides in the North MCYS Response:

- The Child Protection Standards in Ontario place renewed emphasis on the development of community partnerships as a means to address risk factors through collaboratively enhanced service planning and delivery.
- The OACAS Ontario Child Protection Training Program (OCPTP) course on Working with Adolescents and their Families includes a focus on adolescent mental health and suicide.
- MCYS has met with OACAS and ANCFSAO and northern CASs to assess any barriers to implementation of Child Welfare Transformation in the remote north.

2008 PDRC Recommendations to Others

While the majority of PDRC recommendations are directed toward children's aid societies, occasionally other organizations receive recommendations. The Regional Supervising Coroner is to follow up with these services to ensure their awareness and anticipated response. Below are some examples related to protocols, training, and service provision:

Recommendations on Protocols	Rationale
The police service and investigating coroner	The CAS is not always notified of the death of a child in a
should review their responsibility to contact	timely manner. Minimally, the investigating coroner
Children's Aid Societies in a timely manner	and/or police should be conducting background checks
where concerns exist related to child deaths.	when a child under 18 dies unexpectedly.
The Society and the police service should	All children's aid societies and police services are
review and amend as needed existing protocols	required to have protocols in place for the investigation
for investigating child maltreatment and deaths	of child maltreatment. Some jurisdictions include child
in the community.	death investigations in these protocols and others do
	not.
The Police Service should review their	All parts of the investigation team are meant to follow
management of this death with respect to	the Office of the Chief Coroner's Protocol for the
policy and practice with the protocol for	Investigation of Deaths of Children Under 5. In this case,
investigating deaths in children under the age	the protocol was not followed.
of five.	
The CAS and the local hospital should examine	This case involved a very young first time mother who
this case in light of the outcome to review its	was discharged home from hospital within 24 hours of
practices and protocols with high-risk mothers	the baby's birth; the baby died shortly thereafter of an
and infants.	undetermined cause. There was little evidence of service
	coordination prior to discharge.
Recommendations on Training	Rationale
OACAS should continue to promote the high-risk	The updated High Risk Infant curriculum includes
infant training program.	updated information on Sudden Unexpected Deaths and
	unsafe sleeping environments. This is important and
	relevant information that would be significant training to
	support staff in their work and may have assisted the
The Design of Control	staff in several cases.
The Regional Supervising Coroner should	While there was a range of community services involved
conduct a Regional Coroner's review including	in this case, little progress was noted and/or sustained.
all service providers in this case. The purpose of the review should include discussion	The overall opinion that the parent had good intentions
	appears to have clouded the service system's ability to focus on the needs and best interests of the children
regarding the roles, findings and issues raised by this case.	over the needs of the parent.
by this case.	over the needs of the parent.
Recommendations on Service Provision	Rationale
It is recommended that a PDRC report be sent	Occasionally, a death occurs in a family that received
to another CAS as the findings and	service from more than one agency within a 12 month
recommendations are relevant to both agencies	period and the resulting recommendations are relevant
involved in the management and transfer of	for both agencies.
this case.	

Enhancing Child Welfare Practice through Lessons Learned from Child Death Reviews RECOMMENDATIONS

RECOMMENDATIONS TO CHILDREN'S AID SOCIETIES

Unfortunately, many of the themes indentified by the PDRC each year do not change. The two most vulnerable and high-risk age groups for Paediatric Deaths continue to be infants under 1 year of age and youths between 12 and 18. Therefore the case reviews and recommendations most often focus on these two sets of children. Below are some sample recommendations meant to enhance service and care for infants and adolescents, with a goal to reduce the number of preventable deaths for these two populations.

Service to Infants

	Recommendations:	Rationale:
2	The Society should consider policy or best practice guidelines for cases with high risk infants which could include the provision of a higher level of worker contact and unannounced visits to ensure that young and vulnerable children are receiving appropriate care and are not living in an environment that is neglectful. The Society should review the importance of best practices in how to work with young mothers with	In this case there were concerns of past neglectful allegations and confirmed evidence that the condition in which the deceased infant was found was a very neglectful state i.e. "bad diaper rash, a diaper soiled with faeces and was saturated in urine" suggesting the baby was not changed as often as he should have been. This case involved the death of an infant in a car seat in an unsafe sleep environment which
	infants. Given the vulnerability of infants, the Society should ensure that the OACAS High Risk Infant training, which includes a review of safe sleeping, is mandatory for staff working with this population.	included smoking and possible substance use.
3	The agency should develop a policy to address the level of required contact with children who are at increased risk due to age, children who are being integrated home, and children who are subject to a court order.	This young infant died suddenly in a neglectful situation after being returned from foster care to her mother under a supervision order.
4	The Society should provide staff training on alcohol and drug addiction and Fetal Alcohol Syndrome Disorder.	Staff response to the serious substance abuse issues within this family suggests an absence of knowledge about the deleterious effects alcohol and/or drug abuse has on parenting capacity and children's development.
5	It is recommended that the agency review preferred practice models for intervention with high-risk infants and adjusts its service response to address any deficiencies. The Society should consider the development of a High Risk Infant Protocol.	Concerns were raised in this case as to whether the father was assessed regarding his ability to parent. In addition, great reliance was placed on the mother to report on the developmental progress of the baby. There is nothing noted regarding direct observation of the infant or collateral contacts.
6	In addition to the internal review recommendation reinforcing the importance of regularly supervisory review of cases, the Society should ensure that higher risk and complex cases with younger more vulnerable children are reviewed more frequently in supervision.	In this homicide case, there was a lack of documentation about supervisory consultations.

Enhancing Child Welfare Practice through Lessons Learned from Child Death Reviews

Case Example Service to Infants

A 911 call was received about a baby in distress. A 2-month-old baby boy was found with vital signs absent. X-rays taken revealed multiple fractures to his left arm and leg and fractures to the rib cage on both the right and left side. These injuries were in a stage of healing. The post mortem examination identified a skull fracture and recent subdural haematoma. The father was subsequently charged with Second Degree Murder and Aggravated Assault in the death of his son. He pleaded guilty to, and was convicted of, manslaughter. He was sentenced to 8 years imprisonment, consecutive to the sentence he was serving, with a 10-year weapons prohibition.

Cause of Death: Blunt Impact Head Trauma

Manner of Death: Homicide

Issues: There was an inadequate assessment and engagement of the father despite him providing consistent parenting of the children throughout the time of Society involvement. There were concerns noted about his emotional stability, which were not addressed and the father was not included in the most recent risk assessments. The assessment of family functioning was based almost entirely on observations made of the mother and children.

Recommendation from the External Reviewer: It is recommended that the agency examine how it might better engage fathers in service delivery. This could be an opportunity to work collaboratively with other service providers to develop suitable programs for fathers. The agency should also develop policies and procedures that will ensure that fathers are included in the risk assessment process and seen on a regular basis when they are in a parenting role.

Service to Youth

	Recommendations:	Rationale:
1	The agency should establish a meeting with the education system to discuss how best to "educate" youth about suicidal ideation and on actions that "friends, relatives, teachers" can take in a more timely manner when youth state that they "plan to hurt themselves". Consider what other systems (e.g. community hospital staff, disciplines e.g. psychology, psychiatry) could be involved in such a meeting or teleconference.	This case involved a youth who, in hindsight, gave out warning signals about his thoughts of suicide.
2	That, prior to case closure, the Society works with families to develop a plan for accessing voluntary services in the community to meet family or child/youth needs. At case closure, families must be able to identify a service need and know who to contact to access the needed non-child protection services.	The family service file was closed several times despite the acknowledgement that the youth continued to abuse solvents. A comprehensive assessment of the family indicated that the youth was abusing solvents The mother terminated the agreement when he turned 16. As all of the children were over 16, the file was closed.

۱	4	n
	ч	×

3	The Society should ensure that it has policies and procedures for the administration of psychotropic medication for children in care. The policy should include procedures to follow should a child/youth cease taking psychotropic medication and the need for regular medical monitoring.	This youth in care, who ultimately committed suicide after stopping his medication, was prescribed an anti-depressant and there was limited medical monitoring of the effects of the medication and the impact of ceasing to take the medication.
4	The Society should update its policies and procedures to include a policy specific to procedures that need to be followed when a child in care makes self-harm statements or makes a suicide attempt. The policy should include a requirement that there is follow up by a Society worker in any such situation.	There were several incidents where this youth in care either threatened or attempted to harm himself with limited follow up by the Society.

Case Example Service to Youth

A 17-year-old female, who had just transitioned onto Extended Care and Maintenance, had secured accommodations at shelter for homeless women in her community that provided accommodations at selected local hotels. Her body was found the following morning when motel personnel entered her room to check on her well being. Police seized a significant amount of prescription medication. Toxicology results indicated that prior to death she had ingested a number of prescribed medication and street drugs.

- Cause of Death: Drug toxicity
- Manner of Death: Undetermined (it is unknown whether the death was the result of suicide or accident)

Background: Suicidal ideation was identified when this child was 10 years of age and evolved to overt threats of self harm and the eventual and repeated ingestion of prescribed, street and over the counter drugs, often taken with alcohol. The youth's repeated abuse of substance often resulted in medical intervention and/or hospitalization.

Findings of PDRC:

- The Society was diligent in accessing clinical assessments and treatment on behalf of the youth, however differing diagnosis were regularly made which complicated both service planning and delivery.
- An exceptional level of direct client contact occurred complimented by minimal turnover in assigned case managers, which cumulatively enhanced the quality of care provided to this very challenging youth.
- The Society was extremely proactive in attempting to manage the youth's access to prescription drugs by requiring a staff member to be present when the pharmacy of record dispensed medication to the youth.

Recommendations:

- The Society should explore the viability of Secure Treatment Orders on behalf of youth who have a psychiatric diagnosis coupled with behaviour, which places themselves or others at risk of harm.
- Rationale: While a host of placement and treatment options were utilized to meet the needs of this very
 disturbed youth, there was no evidence in the Society's submitted documentation that Secure Treatment
 as both a placement and treatment option was considered.
- The Society should explore the viability of contracting for service with an independent medical professional that can analyze and comment on the types of medication administered to a child or youth in care.
- Rationale: Independent consultation will provide a forum for the Society to seek timely professional
 opinion of any risks associated with the type, dosage and contraindications related to medication
 prescribed for a child or youth in care.

Enhancing Child Welfare Practice through Lessons Learned from Inquests

The Inquest into the Deaths of Jared Osidacz and Andrew Osidacz

Name of the Deceased: Jared Osidacz and Andrew Osidacz

Dates of Inquest: March 2 – April 9, 2009 Location of Inquest: John Sopinka Courthouse

45 Main Street East Hamilton. Ontario

This excerpt is taken from a larger document prepared by the presiding coroner, Dr. J. Edwards, who stresses that it was prepared solely for the purpose of assisting interested parties in understanding the jury verdict. It is worth repeating that it is not the verdict.

Likewise, many of the comments regarding the evidence are his personal recollections of the same and are not put forth as actual evidence. Due to space limitations, the recommendations presented here are those that are directly related to enhancing child welfare practice. Many of the total recommendations would be useful to those working in the area of domestic violence, child protection and/or custody and access.

Summary of the Circumstances of the Death:

Jared Osidacz was eight years of age at the time of his death. He died on March 18, 2006 during a confrontation with Andrew Osidacz, his forty one year old father. Andrew Osidacz then went to the nearby residence of his former spouse, Julie Craven. He entered the home and held Ms. Craven by knifepoint until officers of the Brantford Police Service arrived. The officers then fatally shot Mr. Osidacz.

Andrew had been convicted in 2003 of assaulting Julie Craven the previous year. He was placed on probation, with the condition that he participate in treatment to address issues of anger management and marital discord. The local Children's Aid Society became involved with the Osidacz and Craven families in 2002 and again in 2003. There was also involvement of the Office of the Children's Lawyer in 2003 and 2004. At the time of the deaths, Ms. Craven had custody of Jared, and Andrew Osidacz had unsupervised access to Jared and was subject to a court order requiring him to stay away from Julie Craven. A number of issues in the family court litigation were still pending at the time of the deaths.

The jury heard seventeen days of evidence followed by summations, and then deliberated for five days before returning with its verdict. In total, twenty-nine witnesses testified and 112 exhibits were introduced as evidence. Testimony was provided regarding the events on the day of the deaths and the findings on postmortem examination. There was also evidence about the stresses experienced by Andrew Osidacz prior to the deaths and the course on anger management and marital discord which he was required to take as a condition of his probation; the Use of Force Model used by officers across the province; the involvement of the Children's Aid Society in regard to Jared and his parents; the steps taken by Andrew's probation officer; the programs and policies of the Ministry of the Attorney General in Ontario relating to domestic violence; and the procedures followed by Children's Aid Societies in cases involving domestic violence.

Verdict of Coroner's Jury:

The jury determined the following:

Jared Osidacz

1. Name of Deceased: Jared Osidacz

2. Date and Time of Death: March 18, 2006 at 8:33 p.m.

3. Place of Death: Hamilton Health Sciences, McMaster University

Medical Centre, Hamilton, Ontario

4. Cause of Death: Blood loss due to stab wounds of left neck and

left chest

5. By what means: Homicide

Andrew Osidacz

1. Name of Deceased: Andrew Osidacz

2. Date and Time of Death: March 18, 2006 at 8:46 p.m.

3. Place of Death: Brantford General Hospital, Brantford, Ontario

4. Cause of Death: Gunshot wounds to chest

5. By what means: Homicide

Jury Recommendations:

The jury made 35 recommendations. The following represent those recommendations directed toward the Ontario Association of Children's Aid Societies (OACAS), the Ministry of Children and Youth Services (MCYS) and/or Children's Aid Societies. The presiding coroner's explanations are (*in italics*) after each recommendation.

Legend to Acronyms:

MAG - Ministry of the Attorney General

OVSS - Ontario Victim Services Secretariat

MCSS - Ministry of Community and Social Services

MCYS - Ministry of Children and Youth Services

MCSCS - Ministry of Community Safety and Correctional Services

OACAS - Ontario Association of Children's Aid Societies

#8. (MAG - OVSS) Persons who have been identified as being at risk for lethality should be re-evaluated on an on-going basis, including but not limited to termination from, or completion of, an intervention program. Further, that copies of such evaluations be provided to other justice partners including probation and parole, and the CAS, where there are children involved or children in the home of the primary/joint or access parent.

Coroner's Comments: The jury heard evidence that Andrew Osidacz failed to complete his intervention program. The jury also heard evidence that failure to complete an intervention program may be indicative of increased risk of lethality.

#14. (MCYS, MAG, MCSCS) It is recommended that these ministries partner together for the purpose of assessing how to most effectively support intervention programs (such as Caring Dads) which aim to: hold parents/caregivers accountable for exposing their children to domestic violence; and to contribute to the safety of their children and (former) partners. As part of this assessment, consideration should be given to conducting an independent evaluation of the Caring Dads program.

Coroner's Comments: The jury heard evidence that the investigator from the Office of the Children's Lawyer recommended that Andrew Osidacz undertake a course of counseling that included education on the effect of exposing children to domestic violence, such as Caring Dads. There was also evidence that he didn't participate in such a program.

#15. (MCYS, MAG, MCSCS) It is recommended that, upon successful evaluation of the Caring Dads or similar intervention program, consideration be given to including reference to such program in a Crown Practice Memorandum so that Crown counsel, in appropriate cases where a term of probation is included for an offence involving domestic violence perpetrated by a parent/caregiver who is engaged in a child custody and/or assess dispute, may seek a requirement that the offender attend such a program.

Coroner's Comments: The jury heard evidence that programs such as Caring Dads deal with issues relating to the parent-child relationship that aren't included in the PAR programs which many domestic violence offenders are required to attend as a condition of probation.

#18. (MCSCS) All probation offices in the Province of Ontario should form 'high risk' teams, together with other partners in the community such as police, the Crown's office, women's shelters and the CAS to case manage high risk domestic violence cases, particularly those where the offender has been identified as being at high risk for 'lethality'. That such high risk teams partner with mental health professionals in appropriate cases.

Coroner's Comments: The jury heard evidence that probation officers in Brant County didn't have access to such high risk teams when Andrew Osidacz was on probation for assaulting Julie Craven. There was also evidence that the use of high risk teams, and the use of case conferences to coordinate efforts by agencies which manage high risk domestic violence cases, isn't consistent across the province at the present time.

#24. The OACAS Education Services Program should review and assess the extent to which the current training curriculum (as provided in the Foundations of Child Welfare Practice and Advanced Child Welfare Practice) for child protection workers pertains to working with families where there is a history of domestic violence. Particular components of training and expected actions should reference the potential risks for children who are in the custody of or having access to perpetrators of domestic violence.

Coroner's Comments: The jury heard evidence that, while Children's Aid Societies across the province have been working to enhance their response to domestic violence, more work should be done to ensure that workers understand how to specifically assess risk associated with domestic violence.

#25. (OACAS, MCYS) The OACAS should investigate options for protecting children from harm at the hands of access parents/caregivers who have a history of perpetrating domestic violence against the children's custodial parent/caregiver. Potential options for consideration might include: consultation or case conferencing with the perpetrator's probation officer (if any) to plan for risk management and reduction; referring the perpetrator to a program for parents with a history of abuse or of exposing their children to abuse; referring the non-offending custodial parent/caregiver to appropriate services.

Coroner's Comments: The jury heard evidence about measures to protect children from being harmed by individuals who have a history of perpetrating domestic violence.

#26. (OACAS, MCYS) should fundamentally alter its strategy for assessing risk in cases involving domestic violence so that the weight of decision making rests on risk of harm posed by the perpetrator as well as the capacity of the non-offending parent to take protective action.

Coroner's Comments: The jury heard evidence that risk assessment in cases involving domestic violence currently rests upon the ability of the non-offending parent to protect children from harm or upon evidence of psychological harm to the child, but that the non-offending parent may not always be in a position to protect children from being harmed by the parent who has committed domestic violence. Julie Craven would not have been in a position to protect Jared during his unsupervised visits with Andrew Osidacz.

#27. (OACAS, MCYS) The OACAS and MCYS should develop and implement mandatory screening tool or risk assessment procedures to assist case workers and supervisors in determining the risk of lethality of persons who are involved in a CAS investigation, especially where they have been previously convicted of a domestic violence offence.

Coroner's Comments: The jury heard evidence that tools currently used by Children's Aid Societies aren't specifically directed toward assessing the risk of a child being killed.

#28. (MCYS) The Ministry of Children and Youth Services (MCYS) should consider options to amend the Child and Family Services Act, and the regulations thereunder, to include within the definition of a child in need of protection, children who are or may be at serious risk to harm due to a caregiver or access parent's high risk for lethality. Such children may not be directly the victims of physical or emotional harm, but may still be at serious risk for harm.

Coroner's Comments: The jury heard evidence that the Child and Family Services Act doesn't include the risk of harm from a caregiver or access parent with a high risk for lethality within the definition of a child in need of protection. The jury also heard evidence that children who have not been directly harmed by a caregiver or access parent may still be at significant risk of harm, particularly at the hands of individuals with a history of domestic violence.

#29. (MCYS) It is recommended that Family Service Ontario and the Ministry of Children and Youth Services work together with local family services agencies in developing and delivering counseling services for persons who are experiencing stress, including following a separation or divorce, or associated with ongoing family or criminal court litigation. Such services should be, as much as practicable, designed for at-risk persons including those with a prior history of violent acting-out in an intimate partner context.

Coroner's Comments: The jury heard evidence that Andrew Osidacz experienced stress prior to the deaths on March 18, 2006 and was isolated from potential sources of support, and that counseling services may reduce the risk posed by individuals with a history of domestic violence. There was also evidence that individuals in circumstances similar to Andrew Osidacz often experience significant stress due to factors such as ongoing family or criminal court litigation, financial pressure or difficulties with subsequent relationships.

#30. (MCYS) It is recommended that when assessing risk with respect to Child and Family Services Act and Eligibility Spectrum a child that is on the premises where the assault occurs should be considered the same as a child witnessing the assault.

Coroner's Comments: The jury heard evidence that Jared Osidacz was in the residence when Andrew Osidacz assaulted his spouse in 2002, but that he didn't witness the assault perpetrated by Andrew Osidacz upon Julie Craven because he was sleeping in another room.

OVERALL THEMES IN SERVICE DELIVERY

One of the objectives of the PDRC review process is to track themes that continue to emerge over time. In reviewing the 41 deaths with CAS involvement this year, the following patterns were noted to repeat themselves in the delivery of child protection services:

- Deaths involving infants and youths comprise a very vulnerable subset of children needing protection services.
- Prevention initiatives directed at reducing unsafe sleeping and suicide are required more than ever.
- Issues facing families such as domestic violence, substance abuse and mental health concerns are prevalent in the cases reviewed.
- The majority of cases reviewed by the PDRC showed evidence of chronic neglect, partly related to poverty, but also to parenting capacity problems.
- The challenges faced by many of the children whose deaths were reviewed frequently include possible fetal alcohol syndrome, physical and emotional abuse and neglect, learning and cognitive limitations, inadequate supervision and exposure to domestic violence.
- The PDRC often recommends that CAS staff receive specialized training in order to help them work with the children and families they serve.
- It is apparent in many of the cases reviewed that agencies continue to struggle with staffing and
 workload issues that may impact on the level of supervision and supports provided to staff and to
 overall compliance with provincial standards.
- Finding a balance between providing support to parents who face barriers in their role as caregivers, while also protecting the safety of, and reducing risk to, vulnerable children is difficult.
- The PDRC noted in several reports that workers should receive additional training, support and guidance in motivating and empowering people to engage in services. However, CAS's are urged to utilize legal recourses when necessary to protect children.

KEY MESSAGES

- Natural causes are the most common reason that children die.
- Many child deaths are preventable; child death reviews are about understanding and learning from the past to prevent similar events in the future.
- By identifying themes and making recommendations for best practice, it is hoped that change, without blame, can occur.
- The safest sleeping environment for an infant is on its back in an approved crib with a firm mattress.
- Involvement with a CAS is not a factor in the vast majority of child deaths in Ontario; for those children who died while receiving CAS services, most deaths could not have been foreseen or prevented by a CAS.
- The most vulnerable ages for paediatric deaths are under 12 months, and between the ages of 12 and 18 years.
- As the majority of children die while in the care of their families, prevention strategies and educational messages need to be aimed at the general public and parents, in particular.

Current Initiatives and Future Directions

Since the last report of the PDRC in 2008 the following initiatives which were identified for consideration, are underway:

- Children's Aid Societies in the following regions have participated in the training: A Team Approach to Child Death Investigations: Northern, Southwest, Southeast, Hamilton- Niagara, Toronto, and Central. Plans are underway to offer the training in the remaining areas.
- The Office of the Chief Coroner (OCC) staff continues to liaise with staff at the Ministry of Children and Youth Services and the Child Welfare Secretariat to ensure ongoing support of the Child Death Review Process. This includes continued sharing of information on child deaths and PDRC recommendations throughout the year in real time, as they are produced.
- The propagation of a "blame free" culture to encourage an environment, which seeks to openly identify and reduce errors and omission. This is a fundamental principle and is the foundation of the manner in which, the OCCO interacts with CAS's and other collateral service providers to children.
- The enhancement of public and professional awareness of the risks to infants of bed-sharing and unsafe sleeping environments continues.
- Liaising with other provincial and international Child Death Review Committees to share resources and ideas continues.
- Presentations of the findings of the PDRC and DU5C committee reviews to various conferences and forums, for example: San Diego International Conference on Child Maltreatment, Canadian Centre for the Study of Infant Deaths Conference and the Ontario Association of Children's Aid Societies' Annual Conference is ongoing.
- Meetings with Public Health Agency of Canada, Canadian Foundation for the Study of Infant Deaths and others regarding the provision of a consistent message on safe sleeping for infants were completed.
- Participation on a Roundtable session on Back to Sleep with a goal to revise existing literature for public education and awareness was completed.
- Meetings with the Ontario Fire Marshal's Office to discuss joint initiatives and sharing of information on the prevention of children's deaths in residential fires are ongoing.
- The continued provision of an expert, objective, unbiased and non-partisan transparent process to review deaths of children in Ontario. The goal is to enhance learning, recommend systemic changes as needed, and to reduce and prevent future child fatalities.
- The analysis of "Lessons Learned" from individual society internal child death reviews and sharing these lessons with the broader child welfare community continues.
- We have identified systemic issues in child safety and care and plan to review them with inquests, where appropriate. There are currently 3 paediatric inquests in the planning stages.
- The PDRC will continue to conduct further research into such areas as: teen suicides in Northwestern Ontario, bed-sharing and risks to children, with consideration of publication of our results.
- We will participate in the implementation of relevant recommendations stemming from the Inquiry into Forensic Pediatric Pathology and the Osidacz Inquest.

Concluding Remarks

The many problems that permeated paediatric death investigation in Ontario from 1981-2001 had previously been recognized and addressed prior to the Goudge Inquiry. The OCCO participated in the Inquiry, mindfully reflected upon and accepted the lessons, and we are very actively engaged in implementing Justice Goudge's recommendations.

There are two items worth mentioning and bringing to the attention of the reader. They are specifically, the pursuit and development of a culture of quality, and peer review.

Peer review of pathologists' autopsy findings and coroners' death investigations are the cornerstone upon which the culture of quality should be based. "Medical Case Reviews: Themes", on page 56, discusses opportunities to improve death investigations by both coroners and pathologists. These issues have been addressed in the past year by the Chief Forensic Pathologist, Dr. Michael Pollanen, who has directed that paediatric autopsies should only be conducted by pathologists approved by his Office at Regional Forensic Pathology Units. The Chief Coroner has, in addition, stipulated that all paediatric deaths should be reviewed by Regional Supervising Coroners to ensure that appropriate post mortem studies are conducted.

This is demonstrative of our desire to not only critically review the medical and child welfare services provided by others, but also, reflects our ongoing dedication to improve our own processes. A guiding principle of a total quality system is growth by process review, continuous improvement and learning. We are committed to this.

Finally, all of the citizens of Ontario share a mutual responsibility to create a safe and healthy environment for our children. Opportunities for improvement will continue to be enhanced by the cooperative and appropriate sharing of information and collaboration between all parties that have a direct interest in child health, welfare and safety; all of us working together, in the interests of our children.

A.E. Lauwers
Deputy Chief Coroner - Investigations
Chair, Deaths Under Five Committee
Chair, Paediatric Death Review Committee

106

Committee Membership

PAEDIATRIC DEATH REVIEW COMMITTEE (PDRC)

Dr. A. E. Lauwers-CHAIR

Deputy Chief Coroner - Investigations Office of the Chief Coroner

Ms. Karen Bridgman-Acker—Coordinator (CAS)

Child Welfare Specialist Office of the Chief Coroner

Ms. Doris Hildebrandt—Coordinator (MEDICAL)

Executive Officer - Investigations Office of the Chief Coroner

Mr. John Ayre*

Crown Attorney

Office of the Chief Coroner

Ms. Susan Abell

Mr. Brad Bain

Ms. Zel Fellegi

Ms. Sandy Moshenko

Ms. Donna Zan

Child Welfare Consultants

Ms. Jeanette Lewis

Executive Director

Ontario Association of Children's Aid Societies

Det. Sgt. Chris Buck *

Homicide Squad, Toronto Police Service

Det. Sgt. Gary Giroux

Homicide Squad, Toronto Police Service

Det. Sgt. James Stewart-Haass

Homicide Unit, Durham Regional Police

Det. Sgt. Kevin Torrie

Homicide Squad, York Regional Police

Det. Mary Vruna

Homicide Squad, Toronto Police Service

Det. James Wingate

Coroners Investigator

Dr. Desmond Bohn

Chief, Department of Critical Care Medicine Hospital for Sick Children, Toronto

Dr. Alan Hudak

Paediatrician, Orillia

Dr. Dirk Huyer

Regional Supervising Coroner

Dr. Ivor Margolis

Chief of Paediatrics

William Osler Health Centre, Brampton

Dr. Ram Singh

Director, Paediatric Critical Care Unit London Health Sciences Centre

Dr. Glenn Taylor

Head, Division of Pathology Hospital for Sick Children, Toronto

Dr. John Watts

Associate Chair, Department of Paediatrics McMaster University Medical Centre, Hamilton

Dr. Ian Wilson

Paediatrican, Kitchener

Deaths Under Five Review Committee (DU5C)

Dr. A. E. Lauwers—CHAIR

Deputy Chief Coroner - Investigations
Office of the Chief Coroner

Ms. Doris Hildebrandt—Coordinator

Executive Officer - Investigations
Office of the Chief Coroner

Ms. Karen Bridgman-Acker

Child Welfare Specialist
Office of the Chief Coroner

Det. Sgt. JJ Allan

Homicide Unit, Durham Regional Police

Mr. John Ayre*

Crown Attorney

Office of the Chief Coroner

Det. Sgt. Chris Buck *

Homicide Squad, Toronto Police Service

Dr. David Chiasson

Director, Paediatric Forensic Pathology Unit Hospital for Sick Children, Toronto

Det. Sgt. Gary Giroux

Homicide Squad, Toronto Police Service

Inspector Philip George

OPP, Investigation Bureau

Dr. Dirk Huyer

Regional Supervising Coroner

Dr. Michael Pollanen

Chief Forensic Pathologist for Ontario

Dr. Gino Somers

Paediatric Forensic Pathologist Hospital for Sick Children, Toronto

Dr. Glenn Taylor*

Head, Division of Pathology Hospital for Sick Children, Toronto Dr. Chitra Rao

Head, Regional Forensic Pathology Unit Hamilton Health Sciences

Dr. Mike Shkrum

Pathologist, Department of Pathology London Health Sciences Centre

Det. Sgt. Kevin Torrie

Homicide Squad, York Regional Police

Det. Mary Vruna

Homicide Squad, Toronto Police Service

Det. James Wingate

Coroners Investigator

* Retired from the Committee(s) in 2008

Acknowledgements

Thank you to the following individuals who assisted in the production of this report:

Paediatric Death Review Committee & Deaths Under Five Committee

To past and current members for their ongoing commitment and support in child death reviews

Dr. James Edwards

Regional Supervising Coroner, Central Region— Toronto East The Inquest into the Deaths of Jared Osidacz and Andrew Osidacz

Dr. Dirk Huyer

Regional Supervising Coroner, Central Region— Guelph Office

Julie McCreary

Administrative Assistant, Office of the Chief Coroner

Ping Ser

Fourth Year Forensic-Biology Specialist Program University of Toronto, Mississauga campus A Retrospective Study of Sudden Infant Death Syndrome (SIDS) in Ontario from 2001 to 2006

Dr. Jeff Tanguay

Forensic Pathology Fellow, Office of the Chief Coroner

A Retrospective Study of Sudden Infant Death Syndrome (SIDS) in Ontario from 2001 to 2006

Amy Chen

M.D. Candidate Class of 2011 University of Toronto Medical School Paediatric Accidental Residential Fire deaths in Ontario – A Research Study

Staff at the Ministry of Children and Youth Services

Child Welfare Secretariat and Client Services Branch Ministry Response to 2008 Themes and Recommendations

Mr. Larry Marshall

Director, Child and Family Services Department, CAS of London and Middlesex

Reference Materials

Office of the Chief Coroner

www.mpss.jus.gov.on.ca/english/pub_safety/offi ce_coroner/about_coroner.html

AAP (American Academy of Pediatrics)

www.aap.org

OACAS (Ontario Association of Children's Aid Societies)

www.oacas.org

Canadian Foundation for the Study of Infant Deaths

www.sidscanada.org

Canadian Association for Suicide Prevention / L'association canadienne pour la prévention du suicide.

http://www.casp-acps.ca

Canadian Paediatric Society

www.cps.ca

Centre for Suicide Prevention, Calgary, Alberta www.suicideinfo.ca

Child Death Review Unit Office of the Chief Coroner BC

2007 ANNUAL REPORT

Child Fatality Review:

An Interdisciplinary Guide and Photographic Reference (2007)

Alexander, Randall, G.W. Medical Publishing Inc.

Child and Family Statistical Report

www.hrsdc.gc.ca

National Association of Medical Examiners

www.thename.org

FireSafety.gov for kids

Health Canada: Consumer Product Safety

www.hc-sc.gc.ca

Michigan Department of Community Health www.michigan.gov/mdch

U.S. Consumer Product Safety Commission www.cpsc.gov

Consumer Reports

www.Consumerreports.org

United Kingdom Department of Health

www.dh.gov.uk/cotdeath/

Statistics Canada

www.statscan.ca

National Center for Child Death Review

www.childdeathreview.org

National SIDS and Infant Death Program Support

Center

www.sidsalliance.org



Office of the Chief Coroner Province of Ontario

> 26 Grenville Street Toronto, Ontario M7A 2G9

> > Contacts:

Dr. A. E. Lauwers

Deputy Chief Coroner - Investigations

Phone: 416-326-4805

Ms. Karen Bridgman-Acker Child Welfare Specialist

Paediatric Death Review Coordinator—CAS

Phone: 416-314-4011

Ms. Doris M. Hildebrandt Executive Officer - Investigations

Paediatric Death Review Coordinator—Medical

Phone: 416-314-4021

Any person seeking to reproduce data or information from this report is asked to contact Ms. Karen Bridgman-Acker to ensure accuracy.