The Report of the Manitoba Pediatric Cardiac Surgery Inquest:

An inquiry into twelve deaths at the Winnipeg Health Sciences Centre in 1994

Associate Chief Judge Murray Sinclair

Provincial Court of Manitoba

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Executive Summary

During 1994, 12 children died while undergoing, or shortly after having undergone, cardiac surgery at the Winnipeg Health Sciences Centre.

In February 1995, following an external review of its Pediatric Cardiac Surgery Program, the HSC announced that it was suspending the program, initially for six months. Following this announcement, many parents of the children who had died demanded a public inquiry into the events surrounding the deaths of their children. On March 5, 1995, the Chief Medical Examiner for the Province of Manitoba ordered an Inquest into the deaths of the 12 children.

The Inquest commenced hearings in December 1995. The final hearings were held in the fall of 1998. In total, more than 80 witnesses testified during more than 285 days of hearings over a period of almost three years. Close to 50,000 pages of transcript evidence were produced, and hundreds of documents exceeding 10,000 pages of material were filed as exhibits in these proceedings.

Such lengthy, complex and controversial hearings do not give rise to easily summarized conclusions. The findings and recommendations in the report flow out of the events that are detailed in the following report.

This summary points to four central themes that became apparent during the course of this Inquest and are elaborated upon in the findings and recommendations.

The children and their parents

The evidence suggests that the Pediatric Cardiac Surgery Program at the Health Sciences Centre did not provide the standard of health care that it was mandated to provide and that parents believed—and had a right to expect—that their children would receive in 1994.

Gary Caribou, born August 22, 1993, underwent a heart operation on March 14, 1994, and died on March 15, 1994. He was six months twenty days old. The evidence suggests that this death was possibly preventable.

Jessica Ulimaumi, born August 18, 1993, underwent cardiac surgery on March 24, 1994. She died on March 27, 1994. She was seven months nine days old. The evidence suggests that this was a preventable death.

Vinay Goyal, born March 2, 1990, had two operations in 1994, the first on March 17, and the second on April 18. He died during the second operation. He was four years one month sixteen days old. The evidence suggests that this was a preventable death.

Daniel Markus Terziski, born March 18, 1994, underwent cardiac surgery on April 20, 1994. He died the same day. He was 33 days old. The evidence suggests that the chances of preventing this death would have been increased if Daniel had been referred out of province.

Alyssa Still, born November 14, 1993, had heart surgery on May 5, 1994. She died May 6, 1994. She was five months twenty-two days old. The evidence suggests that this death might have been preventable.

Shalynn Piller, born July 20, 1994, had surgery on August 1, 1994. She died August 3, 1994. She was 14 days old. It is not possible to determine on the basis of the evidence if this was a preventable death.

Aric Baumann, born December 7, 1993, underwent cardiac surgery on June 30, 1994. He died on August 21, 1994, due to a pre-existing, undetected, congenital fatal condition. He was eight months fourteen days old when he died. The evidence suggests that this was not a preventable death.

Marietess Tena Capili, born December 15, 1991, underwent surgery on September 13, 1994. She died September 14, 1994. Marietess was two years nine months old. The evidence suggests that this was a preventable death.

Erica Nicole Bichel, born September 29, 1994. Erica underwent a heart operation on October 4, 1994. She died while still in the operating room. She was five days old. While the evidence suggests that Erica would have stood a better chance of survival in the hands of a more experienced surgeon and surgical team, the evidence also suggests that it is not likely that this death was preventable.

Ashton John Feakes, born April 15, 1993, underwent heart surgery on November 1, 1994. He died November 11, 1994. He was one year three months twenty-seven days of age. The evidence suggests that this was a preventable death if Ashton had been referred to a larger medical centre.

Jesse William Maguire, born November 25, 1994, underwent heart surgery on November 27, 1994. He died while still in the operating room. He was two days old. The evidence suggests that this was a preventable death.

Erin Petkau, born December 17, 1994, underwent heart surgery on December 20, 1994. She died on December 21, 1994. She was three days old. The evidence suggests that this death was possibly preventable.

Parents took their children to the HSC's pediatric cardiac program at the recommendation of family physicians. They were assured that the team had the skills and experience necessary to treat their children's complex lesions. This was not always the case. The evidence suggests that at least five of the deaths in 1994 were preventable and several more were possibly preventable. Furthermore, the evidence suggests that in most of the cases parents were not provided with sufficient information to allow them to provide fully informed consent to surgery.

These findings give rise to numerous recommendations relating to any future pediatric cardiac surgery program in Winnipeg and policies regarding consent and funding for the families.

The 1994 restart of the program

In 1994 the pediatric cardiac program at the HSC recommenced the provision of surgical services. The program at the time had a new surgeon and a new director of pediatric cardiology. Furthermore, three cardiologists had left the program and had not been replaced. These facts should have led to a phased and well-supervised approach to case selection, to ensure that the surgical team did not attempt cases that were beyond its capabilities.

The evidence suggests that the restart of the program suffered from flaws in:

- the recruitment process
- preparation prior to the restart of surgery
- lines of authority
- staffing
- case selection.

The lack of supervision and of a phased start-up plan meant that the Pediatric Cardiac Surgery Program was marked by poor case selection throughout 1994. The evidence suggests that the program continually undertook cases that were beyond the skill and experience of the surgeon and the team. These findings give rise to a series of recommendations for changes in recruiting, staffing and lines of authority.

Quality assurance

The evidence presented to this Inquest suggested that there was a failure of quality assurance and monitoring of the Health Sciences Centre Pediatric Cardiac Surgery Program. This failure involved mechanisms that were internal to the HSC and those that were external to it. The Inquest Report makes two types of recommendations in regard to these issues. It recommends changes to existing internal and external review and monitoring practices and agencies. In addition, the Report recommends that the Health Sciences Centre develop ongoing policies of team building, risk management and quality assurance. This approach is detailed in the body of the Report.

Treatment of nurses

Throughout 1994, the experiences and observations of the nursing staff involved in this program led them to voice serious and legitimate concerns. The nurses, however, were never treated as full and equal members of the surgical team. This treatment mirrored the way in which nurses believed recent changes in hospital organization had reduced the status of their profession. The Inquest makes recommendations intended to bring nurses into the monitoring process and change the structure of the HSC.

The future of pediatric cardiac surgery in Manitoba

The available information suggests that the limited number of cases that can be undertaken in a province like Manitoba, with a population of just over one million, represents an increased risk of morbidity and mortality, particularly in the case of high-risk surgery. Even if the catchment area were expanded, the base population would still not be large enough to support a full service program. The Inquest recommends pediatric cardiac surgery be re-initiated in Manitoba only as a part of a regional program in Western Canada.

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Introduction

This document is the final report of the Pediatric Cardiac Surgery Inquest. Readers are advised that there are three sections to this report.

Section One of this report outlines the legal, medical, and organizational issues that the Inquest addressed and contains four chapters. Chapter One deals with legal issues. Chapter Two outlines the pediatric cardiac anomalies that are discussed in this report. Chapter Three provides an introduction to the various medical professions involved in treating these anomalies and the steps through which a pediatric cardiac patient would have progressed in Manitoba in 1994. Chapter Four outlines the structure and staff of the Winnipeg Health Sciences Centre in 1994.

Section Two is a narrative account of events in the Pediatric Cardiac Surgery Program. Chapter Five outlines the program's history up until January 1994. Chapters Six, Seven and Eight recount the program's history in 1994, providing detailed accounts of the events surrounding the deaths of the twelve children whose cases are under examination in this report. Specific findings are made at the end of the discussion of each case. Chapter Nine recounts the events of 1995 up until the calling of this Inquest.

Section Three contains only one chapter, Chapter Ten. This chapter contains further findings, which provide an understanding of why these deaths occurred, as well as recommendations for the prevention of future deaths.

Throughout the report there are numerous diagrams illustrating specific heart anomalies, procedures, and areas in the Winnipeg Children's Hospital. In addition, there are pre-operative and post-operative representations of the hearts of the twelve children who died in 1994. Readers should be aware that these illustrations are generic diagrams, meant to assist in understanding the text. These diagrams are not intended to be anatomically accurate nor are they intended to represent detailed drawings of each specific child's heart. Doctors Glenn Taylor and Jan Davies provided extensive advice in the preparation of these drawings. They are, however, the product of the Inquest.

A note on sources

This report is based on the evidence that was presented to the Inquest. The evidence and transcripts will be available through the Provincial Archives of Manitoba. However, *in camera* testimony will not be made available to the public. The report does not identify certain children who successfully underwent cardiac operations in the Children's Hospital in 1994. Although the transcripts and evidence do identify the names of those children, readers are reminded that information about their cases was deemed to have been given *in camera* and therefore restrictions on public dissemination of their identities and cases apply.

Quotations from the oral testimony presented to this Inquest are cited by referring to the page or pages of transcript of the evidence. The evidence of the first witness to appear before this Inquest, Dr. Cameron Ward, makes use of a different numbering system than the rest of the transcripts. As a result quotations from his transcript are cited as being from the Evidence of Dr. Cameron Ward. Documentary evidence is identified by the exhibit and document numbers that were assigned to them by the court.

Acknowledgements

Putting together a report of this magnitude and managing the process that led up to it, is an impossible task for one person. Many people contributed to this report and to that process.

Christina Kopynsky, Q.C., and Don Slough fulfilled their role as Crown counsel and the Inquest proceedings admirably. They reviewed all documents, interviewed and organized the calling of all the witnesses, prepared 'will-says' for counsel for the various parties summarizing anticipated witness testimony, and prepared excerpts from the exhibits and transcripts for hearings. Additionally, they each participated in the management of Inquest staff. They fulfilled their public responsibilities in a highly professional manner.

Donna Jorgerson and Debby Tack undertook the duties of court clerk for the Inquest hearings. They managed the thousands of pages of exhibits that were filed and operated the courtroom computer and projector. They also contributed to the smooth operations of the proceedings.

Thomas Fone and Paul Cech-Manek, Sheriff Officers, provided courtroom security.

Lanyse Guay was seconded from the Chief Medical Examiner's office for a short while as a Medical Investigator. She was replaced by Betty Owen-Nordrum, RN, who organized the medical charts so that they made sense to non-medical people. She also prepared case summaries from the charts of each of the twelve children, participated in interviewing witnesses, assisted counsel for all the parties with locating medical and other information when asked, and found material needed for the final report. She coordinated the preparation of the diagrams and medical drawings used in the report, as well as helped in proof-reading it. Her contribution was immeasurable.

Kathy Bhola kept the office organized, running the Inquest's administrative operations, maintaining records, and performing numerous other tasks. She would be an asset in any organization. Tera Cooper, Krista Sommer, and Agatha Kostefko were the Inquest's administrative assistants.

Dr. Jan Davies taught us all about human error and human factors analysis. Much of the information and material in this report on those subjects is a result of her work. She also assisted in proof-reading the final draft of the report.

Dr. Glenn Taylor provided invaluable assistance in the diagrams and drawings used in the report, especially with those drawings intended to represent the hearts and anomalies of each of the twelve children.

Cindy Chuckree created the illustrations that appear in this report.

Law students Kelly Moar and Rachel Charette read and summarized thousands of pages of documents and transcripts, and researched numerous legal issues. Jock Bates did the copy-editing, and the staff of Manitoba Culture, Heritage and Tourism – Information Resources Division supervised the printing and web-site development.

The firm of Finlayson Reid Reporting Services provided transcripts for the Inquest on a daily basis.

The professional expertise and patience of Steven Rosenberg, Debbie Crump and the staff of Doowah Design, who undertook the design and layout of the Report, is also gratefully acknowledged.

Finally, Doug Smith performed two important roles for the Inquest – those of researcher and writer. Armed with a remarkable ability to flesh out a series of ideas, thoughts and concepts into a highly polished written state, he put in countless hours reading transcripts and documents to become familiar with the material and to check sources, facts and quotations. His ability to digest and understand huge amounts of detail and information is impressive, but more importantly, his dedication to completion of a task, even one as enormous as this, was inspiring. I was very fortunate to have been able to convince him to work with me on this.

While all of the people mentioned played a role in the development of this report, its contents including any errors are my responsibility.

Associate Chief Judge Murray Sinclair