Section 2

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Chapter 5

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PEDIATRIC CARDIAC SURGERY IN WINNIPEG 1950-1993

Introduction

Pediatric cardiac surgery is a relatively recent area of specialty, and pediatric cardiac surgery in Winnipeg generally mirrors its development in other parts of Canada.

THE START OF PEDIATRIC CARDIAC SURGERY AT THE CHILDREN'S HOSPITAL—THE FERGUSON-CUMMING Era: 1950S-1981

Dr. Colin Ferguson, the first pediatric cardiac surgeon to operate in Winnipeg, began operating on children with heart problems in Winnipeg in the 1950s. This was at the time when the field of pediatric cardiac surgery was beginning to be recognized as a specialty separate and apart from adult cardiac surgery.

Coincident with Ferguson's career in Winnipeg, Dr. Gordon Cumming, a pediatric cardiologist, practised at the Children's Hospital. Together, Ferguson and Cumming provided Manitoba's first pediatric cardiac service. Before his retirement in 1978, Ferguson began to reduce the number of operations he was performing. After Ferguson's retirement, Dr. Jary Barwinsky, an adult cardiac surgeon at St. Boniface General Hospital, performed minor heart operations on children. Barwinsky generally restricted his operations to older, larger children and did not perform surgery on neonates. For that reason, Cumming, who was the only pediatric cardiologist in the city, referred such patients to pediatric cardiac surgery programs in other provinces.

Pediatric cardiac surgery was re-instituted at the Children's Hospital when Dr. Alberto de la Rocha was appointed to a position in the Department of Surgery at the HSC in 1978. By the fall of 1979, however, it was apparent that de la Rocha's success rate at pediatric cardiac surgery was mixed at best. Cumming lost confidence in both de la Rocha and the program, concluding that there were not enough cases in Manitoba

to allow the surgeon to maintain an appropriate level of skill. As a result, Cumming stopped referring any of his patients to de la Rocha for surgery.

From 1979 onward, Cumming sent those patients who needed surgery to cardiac surgery programs in other provinces. De la Rocha continued to operate on children referred to him by other medical practitioners, but his caseload of pediatric cases never rose above a few dozen in any given year, with fewer than twenty open-heart procedures being part of this caseload.

The Ferguson-Cumming era ended in 1981, when Cumming retired from full-time staff at the Children's Hospital. By that time, very little pediatric cardiac surgery was being done in Winnipeg. The Health Sciences Centre chose to recruit a new cardiologist who had a vision of a much more expanded program.

THE COLLINS ERA: 1982-1993

In 1982 Dr. George Collins became the section head of pediatric cardiology at the HSC. Collins was also given the mandate to develop what came to be known as the Variety Children's Heart Centre (VCHC) and served as the VCHC's first medical director.

COLLINS'S BACKGROUND AND VISION

Collins had undergone his medical training in Scotland, attending medical school at Edinburgh University from 1951 to 1957, and then doing his residency there in both pediatrics and cardiology. He completed his postgraduate training at the Toronto Hospital for Sick Children in 1964.

From 1966 to 1968, Collins practised pediatric cardiology at the Toronto Hospital for Sick Children as a staff member. He joined the staff at McGill University Medical School in 1968. However, he spent much of the following 13 years in Kenya, as part of a Canadian International Development Agency program to establish a medical school in that country. During that period, he spent two years in the pediatrics department in Nairobi.

In 1981 he became the director of the heart catheterization laboratory at McGill University's Children's Hospital. He continued to practise pediatric cardiology and served as an associate professor of pediatrics. He directed the residency-training program, chaired the McGill Undergraduate Education Committee and was also quite involved in research activities.

The Winnipeg Health Sciences Centre recruited Collins in 1981. For the first six months of 1982 he worked part-time in Montreal and part-time in Winnipeg, taking on full-time duties in Winnipeg in the summer of 1982. Collins accepted the position because, in Manitoba, he saw an opportunity to put into action some of his thoughts and views on the delivery of pediatric cardiac services.

Before Collins agreed to take the position in Winnipeg, he and representatives of the hospital, as well as Winnipeg's medical community, discussed in detail whether or not a major commitment would be made to a complete pediatric cardiac surgical program. From the outset, Collins indicated that he was interested in coming to Winnipeg only if such a commitment existed. He felt that such a program would require a considerable amount of financial and moral support. He came to Winnipeg because he felt that such support was present, particularly after meeting with the President of the Health Sciences Centre, Peter Swerhone.

Collins's experience at both McGill Children's Hospital and the Toronto Hospital for Sick Children had convinced him that children who were referred from other programs or communities for cardiac surgery did not get the same care and attention as regular patients who received ongoing treatment from a local program. He felt that parents who arrived the night before surgery without any family support rarely received the briefing, education and attention that family members of local patients received.

He was also concerned about a distant program's inability to provide appropriate patient follow-up. He recalled that, in the early days of his involvement with Toronto's and McGill's pediatric cardiac services, a considerable amount of palliative surgery was undertaken, and many out-of-town patients never returned for a definitive repair, as would have been the case with a local patient.

Collins believed that a full-service program was needed to attract the best intensive-care and operating-room nurses, the best cardiologists and the best surgeons. He believed a surgeon was an essential part of any pediatric cardiac program. Without the presence of a pediatric cardiac surgeon, for example, pediatric cardiologists are unable to undertake any invasive cardiology—a growing and necessary field of treatment.

Collins felt the answer lay in the development of smaller pediatric cardiac surgery programs. The major programs in Canada at the time were in Toronto and Montreal, but Halifax, Edmonton and Vancouver were developing smaller programs. Collins came to Winnipeg because he believed that the evolution of pediatric cardiac services in Canada called for the development of such a service in this province.

Collins's ambitions for the program were high. His view was that Winnipeg could and should have a complete pediatric cardiac surgical program, capable of looking after the needs of children not only from Manitoba, but also from nearby provinces. He also had ambitions to provide cardiac services for children from Third World countries.

RELATIONS BETWEEN HSC AND ST. BONIFACE

Collins's timing could not have been better. He assumed the position at a time when efforts were being made to rationalize cardiac services in Winnipeg. To that point, the two major hospitals in the city, St. Boniface General Hospital (SBGH) and the Health Sciences Centre (HSC), had each been vying to be the main centre for cardiac services in the province, particularly in the field of adult cardiac surgery.

By 1981 most adult cardiac surgery was being carried out at SBGH. The small amount of pediatric cardiac surgery that was being done was performed at both SBGH and the Children's Hospital. The competition between the two hospitals had been seen for some time as unhealthy, in that it contributed to professional antagonism, to a duplication of services and costs, and confusion among members of the medical profession and the public. A number of studies and reviews had, in fact, recommended that cardiac services be centred at one or the other of the two major hospitals. While much of the discussion concerned adult cardiac services, the field of pediatric cardiac surgery called for the same considerations in Collins's eyes.

Before he actually started working in Winnipeg, Collins spoke with Dr. Morley Cohen, the director of the adult cardiac surgery unit at SBGH, and gained his support for his plan to establish a pediatric cardiac surgery unit at the Children's Hospital. After his discussions with Cohen, Collins believed that SBGH was going to be the centre for adult cardiac surgery in the province, while the HSC would be the centre for pediatric cardiac surgery.

By the time Collins started, however, the HSC had hired Dr. Jim Parrott, who became the acting head of the cardiovascular and thoracic section at the HSC and also performed adult cardiac surgery. In Collins's view this development flew in the face of what he had understood was going to occur. The hiring of Parrott continued the ongoing tension between medical staff of the two hospitals, a point that was mentioned frequently throughout the Inquest hearings.

THE PROVINCIAL ADVISORY COMMITTEE ON CARDIAC SERVICES IN MANITOBA

On February 15, 1982, the Minister of Health for Manitoba, Larry Desjardins, appointed an Advisory Committee under the chairmanship of T. A. J. Cunnings of the Manitoba Health Services Commission (MHSC) to advise the Department on the establishment of a provincial cardiac service program. Departmental officials had long been aware that the delivery of cardiac services was driven by competition between the HSC and SBGH. The Cunnings Committee had representation from the HSC and SBGH, as well as from the Department of Health. A part of the Committee mandate was a requirement to advise the Minister on how cardiac services in Manitoba should best be developed, including how best to use the resources of the HSC and SBGH.

In July 1982, Collins submitted a proposal to the MHSC for the establishment of a centre for pediatric cardiology services at the HSC. This centre was eventually to become the Variety Children's Heart Centre. The report was the result of Collins's close work with the heads of other medical departments and of his briefings and training sessions with nursing staff. The proposal only addressed the development of a specialized pediatric cardiology service, and was silent on the question of pediatric cardiac surgical services. Collins apparently took the position that the delivery of surgical services was the responsibility of the HSC's Department of Surgery.

In its report of August 1982, the Provincial Advisory Committee recommended an integrated approach with respect to both adult and pediatric cardiac surgery. It recommended that St. Boniface General Hospital be the primary adult surgical centre, while pediatric cardiac services were to be centred at the Health Sciences Centre.

In the spring of 1983, the provincial cabinet approved a modified plan whereby SBGH and the HSC would share the adult cardiac surgery workload, while pediatric cardiac services would be established exclusively at the HSC's Children's Hospital. It was specifically recognized that the number of pediatric cardiac cases would not justify having pediatric cardiac surgery at more than one centre, while the adult caseload seemed to be of sufficient numbers to justify splitting them between the two hospitals.

The decision to locate all of the pediatric cases at the Children's Hospital was welcomed by that hospital's Department of Pediatrics and Child Health as support for its view that the Children's Hospital should become the major centre for child health in the province. It also reinforced Collins's overall plan for the development of the program he had been hired to establish. The fact that the HSC was able to acquire a share of the adult caseload was also seen as a major development, especially since the bulk of adult cardiac cases had been performed at St. Boniface previously.

The province's decision to establish the HSC as the centre for the Pediatric Cardiac Surgery Program was accompanied by a significant financial commitment and an assurance that the province would not condone competition for pediatric cardiac cases. This latter assurance was, however, almost unnecessary since the number of pediatric cases was so small and so financially unrewarding as to be almost unattractive to other hospitals.

THE ESTABLISHMENT OF THE VARIETY CHILDREN'S HEART CENTRE

The Variety Children's Heart Centre was the vehicle by which the HSC intended to deliver its pediatric cardiac services to the children of Manitoba. The funding for the centre came from both the public and private sector, with the Variety Club making an initial contribution of \$150,000 towards the renovations necessary to establish the centre and a ten-year commitment of \$100,000 annually. All staff who worked within the centre were employees or staff of the HSC (and not the VCHC). Medical staff assigned to the VCHC were considered staff of the hospital in the same way as other hospital medical staff were. The Variety Children's Heart Centre name appears, therefore, to have been largely a public relations and administrative vehicle by which the HSC promoted its pediatric cardiac program. The VCHC was not a stand-alone agency.

Collins, for example, had little control over the centre's budget, which was administered by the Department of Pediatrics. In the end, according to Collins, "there was no such thing as a budget." (Evidence page 33,055)

Collins did, however, play a considerable role in creating the centre's culture. He saw nurses as having a key role in the operation of the centre, particularly in terms of relations with parents. While Collins was the centre's director and the pediatric cardiac surgeon was the deputy director, when the two of them were absent, a nurse, Lois Hawkins, served as the administrator.

Collins also attempted to ensure that the centre operated collaboratively. While the decision to operate always rested with the surgeon, he ensured that at least two cardiologists, as well as the surgeon, reviewed cases before they went to surgery.

COLLINS AND DE LA ROCHA

Collins had to determine whether or not he would continue to refer patients to de la Rocha, who was still operating at the HSC at the time of his arrival. Collins was aware of concerns with the poor surgical results in the operations in which de la Rocha had been involved and that Cumming was no longer referring patients to de la Rocha for surgery. After meeting with de la Rocha, Collins decided to refer patients to him. However, he restricted his referrals to de la Rocha to older children, sending his neonatal patients to Toronto's Hospital for Sick Children. Collins also urged de la Rocha to refrain from taking on difficult cases.

Collins felt from the outset that one of the reasons for Cumming's lack of confidence in de la Rocha and for the poor results was that de la Rocha did not exercise sufficient judgment in case selection. Rather, he allowed himself to be prevailed upon to try to perform miracles in hopeless cases. As a result, Collins felt that the reputation of the entire program of pediatric cardiac surgery at the Children's Hospital was suffering.

Collins had also felt that he and de la Rocha had developed an understanding as to which cases de la Rocha was to accept and how he was to handle patients referred to him by other doctors. However, de la Rocha was a member of the Department of Surgery at the HSC and was not accountable to Collins for the work he took on. In the fall of 1983 Collins came to the conclusion that de la Rocha was continuing to perform cardiac surgery on children who were not appropriate for such operations, and that he was also not enjoying particularly good results with those cases. The issue came to a head when Collins was called to the operating room after the start of an operation on one of his patients. This is how Collins described the scene.

... the whole team was disorganized. The pump wasn't working, there was too much blood in the heart, they couldn't see things, he was trying to repair a valve. And it was just a very disorganized event. (Evidence, page 32,955)

The next day Collins met with Dr. J. Haworth, the head of pediatrics (who was also head of the Children's Hospital), and Dr. Allan Downs, head of surgery, to discuss his concerns. Later that day he met with de la Rocha and told him that the next patient was going to be sent to Toronto. He then told de la Rocha that he was not going to refer any more patients to him and that he did not want de la Rocha operating on any more children with heart disease at the Children's Hospital.

This effectively ended de la Rocha's career as a pediatric cardiac surgeon in Winnipeg. Although he continued to perform adult cardiac surgery for several months in Winnipeg, he left the city the next year.

The program's poor results were reported in the media at the time. The program's future was at risk, particularly since Cumming had told the media that he did not believe that Manitoba had the population to support a full-scale Pediatric Cardiac Surgery Program (Exhibit 216).

Following his decision to stop referring patients to de la Rocha, Collins spoke with Barwinsky, who by that time was the chairman of the newly established provincial pediatric cardiac services program. He and Barwinsky developed a plan to reinstate pediatric cardiac surgery at the Children's Hospital, using Barwinsky's surgical services. Barwinsky had continued to perform simpler cardiac procedures at SBGH on older children, even after de la Rocha's arrival. As head of the Pediatric Cardiac Services Program, Barwinsky was aware of the plan to develop the program at the Children's Hospital as a full-service program.

After several months of planning and preparation, Barwinsky started performing pediatric cardiac surgery at the HSC in the spring of 1984. Collins and Barwinsky made a point of slowly restarting the program. This involved having preparatory meetings with the staff involved in the operations, including the nurses, and identifying their concerns. Collins also worked on establishing procedures governing how patients would be referred for surgery. Eventually a protocol was put into place that any medical referral for pediatric cardiac surgery from anywhere in Manitoba was to be made to the Variety Children's Heart Centre.

Barwinsky performed approximately thirty pediatric cardiac operations each year for a three-year period. However, Collins felt that it was essential to seek a surgeon who had been specially trained in pediatric cardiac surgery for the program.

RECRUITMENT OF DR. KIM DUNCAN

While Collins had always envisioned surgery as a major component in the pediatric cardiac program at the HSC, he had not anticipated the problems experienced with de la Rocha. However, with Barwinsky's support, he developed a plan for submission to the MHSC. In a document dated March 20, 1984, Collins set out his plan for the reintroduction of pediatric cardiac surgery in Winnipeg (Exhibit 17, Document 4). The plan, of necessity, included the hiring of a new surgeon.

While Barwinsky provided surgical services for the pediatric cardiac program during the initial period of the program's reintroduction, it was never intended that he would be the surgeon on a permanent basis. As the head of cardiovascular and thoracic surgery for the University of Manitoba Faculty of Medicine, Barwinsky took on the formal responsibility for hiring the new surgeon. According to Collins, it took the HSC eighteen months to find a suitable surgical candidate who was willing to come to Winnipeg. The choice was Dr. Kim Duncan, a young Canadian doctor (and the son of a doctor well known to Collins), who was still in training.

In the fall of 1985, Barwinsky met with Duncan in London, England, where Duncan was studying. Collins was intimately involved in the recruiting process; he was consulted on each applicant and held an informal veto over the appointment. The decision to appoint Duncan to the position of pediatric cardiac surgeon at the HSC was made in the fall of 1985. Duncan took up his duties in the summer of 1986.

Duncan had undertaken his medical training at the University of Alberta, where he graduated with his medical degree in 1976. He interned in Ottawa and did his residency in general surgery at the University of Alberta from 1977 to 1982. From 1983 to 1985 he did a residency in cardiovascular and thoracic surgery at the University of Alberta Hospital and at the Royal Alexandra Hospital (both in Edmonton). He was the Chief Resident at the latter hospital for six months. He was the senior registrar at the Great Ormond Street Hospital for Sick Children in London, England for one year during that time as well. (A senior registrar at an English hospital is equivalent in Canada to a Fellow—a doctor who is past the residency stage of training but does not yet have a staff appointment and is undergoing more training.) From July 1985 to July 1986, he was a clinical assistant professor of cardiovascular surgery at the Toronto Hospital for Sick Children.

When Duncan came to Winnipeg, he was appointed the director of surgery at the VCHC. Collins testified that, by appointing his staff as directors of one sort or another, he was able to pay them more.

Collins's plan for the Variety Children's Heart Centre called for the appointment of three cardiologists. By 1986, Dr. Robert Vincent, Dr. Andrew Pelech and Dr. Niels Giddins had been appointed to the cardiology staff of the centre. Vincent subsequently left to practise in Toronto and was replaced by Dr. Brian McCrindle.

THE MATRIX CONCEPT

The VCHC was what was referred to informally at the HSC as a matrix. Within the administration of the hospital, a matrix was a program that brought together a number of disciplines and services—in this case, cardiology, surgery and nursing. However, what was not very clear when it came to a matrix was how the

lines of authority and responsibility worked, and the degree to which necessary alterations to the usual lines needed to be made to accommodate the matrix.

During the course of evidence, differing explanations were given as to the lines of responsibility at the VCHC. At times, witnesses, who should have been clear as to the lines of responsibility and authority, said they found the lines to be confusing.

For example, when asked who his 'boss' was, Duncan identified Collins in day-to-day matters, but said that in official terms it was Barwinsky and Dr. Robert Blanchard, the chief of surgery. Duncan then added that one might also consider the chief of the pediatric surgery division, then Dr. Mervin Letts, as his "immediate boss." (Evidence, page 23,412)

Collins told the Inquest:

Kim Duncan was the director of the surgical program. He reported to Bob Blanchard, or when there was a division head of cardiac surgery like Jary Barwinsky, or later on Helmut Unruh, he reported through him to Blanchard. (Evidence, page 32,993)

Dr. Helmut Unruh who was the acting chief of CVT surgery from 1991 until January 1995, said:

I did not have any direct responsibility for the day to day activities of Dr. Duncan or any other cardiac surgeon at the Children's Hospital. (Evidence, page 34,958)

When asked what, if any responsibility he had had for the pediatric cardiac surgery program, Unruh said:

- A. I had none.
- Q. You had none?
- *A.* No.
- Q. Okay. When Dr. Duncan was here, who did have responsibility for the pediatric surgery program and/or Dr. Duncan's clinical activity in that program?
- A. The director of the pediatric cardiac program, Dr. George Collins. (Evidence, page 34,959)

Unruh suggested the situation was similar to the HSC having placed Duncan in another hospital on a secondment. In such a situation, he pointed out, it would be up to that institution to monitor the surgeon's medical practice.

During the Collins era, however, such confusion over lines of authority did not create any significant problems, since Collins himself played a significant role in monitoring the program's performance and surgical results. However, this issue was a recurring matter during 1994.

THE RELATIONSHIP BETWEEN COLLINS AND DUNCAN

The controversy that had been generated by de la Rocha's experiences shaped the relationship between Collins and Duncan on the latter's arrival in Winnipeg. Duncan testified that after he arrived in Winnipeg, he was often told that there must not be a duplication of the de la Rocha experience. When asked what he understood the de la Rocha experience to be, he testified:

They had what people felt was unacceptable mortality, unacceptable conduct, unacceptable patient management. They emphasized the mortality, but the mortality by itself wasn't what I think really

upset people the most. It was the lack of, the lack of ability of the individuals involved to communicate and to work together. (Evidence, pages 23,478–23,479)

Collins and Barwinsky worked together to ease Duncan into surgery in Manitoba. The two men arranged the surgical schedule to ensure that Duncan's first Winnipeg operations were on older children. Barwinsky made a point of assisting at Duncan's first operations. This attitude is reinforced by a letter from Collins to Dr. Agnes Bishop, the head of pediatrics and child health at the HSC, on March 6, 1986, in which he wrote:

However, this year Kim Duncan arrives in early July. While the start will be very gradual, there would be a real advantage to having him get used to the team by doing one operation a week working with Jary Barwinsky on simple cases, much like we are doing at present. (Exhibit 17, Document 44)

Although he had arrived in the summer, it was not until December 1986 that Duncan actually operated on an infant in Winnipeg. The operation was not a planned procedure. It took place because a plane en route from Sault Ste. Marie to Toronto, and carrying a child in need of an emergency operation, was diverted by a storm to Winnipeg. The operation went well.

Collins made it clear that he did not want the surgical program to take on more than it could handle. Duncan said:

He told me that he wanted to be able to do virtually everything in Winnipeg, every kind of case. And he said that he needed me to tell him when I was ready, or when I felt our team was ready, and when I felt that we needed to go slow or not do a case. And he also said that if he saw things happening that he would intervene and say, we should think about something else. (Evidence, page 23,347)

Collins was also concerned that Duncan not undertake surgery when he was in less than optimal condition. He once dissuaded Duncan from performing surgery one morning when Duncan had been up all night attending to a child in the intensive care unit. While Collins was concerned about the program's reputation, it is clear that his overriding concern was the patients' safety and well-being.

COLLINS'S ROLE IN MONITORING PERFORMANCE

Concepts of quality assurance and continuous improvement were relatively new to the Canadian healthcare system in the mid-1980s. Much of the VCHC's records were kept on cards, as opposed to computers, making it very difficult to develop the type of database that a quality assurance program requires.

While Collins worked to establish a more sophisticated statistical database, he also worked at informal methods of quality assurance. Collins testified:

quite honestly talking to Kim Duncan over a cup of coffee is quality assurance too. In other words, it is happening every day when we are together. (Evidence, page 33,095)

Collins also made sure that the team dealt with negative outcomes as a team. As he described it, following what he called "bad patches", "We drank more coffee, we stayed later, we talked as a team." (Evidence, pages 33,135–33,136)

In addition to this, Collins made sure that the centre conducted annual reviews of its work.

THE VCHC'S CASELOAD

With the arrival of Duncan, the number of children who were being referred out of province began to decline dramatically. By 1987 the VCHC's patient volume was double what it had been in 1984. This increase levelled off by 1988, which was seen by Collins as an indication that the centre was treating all Manitoba children with heart conditions. By 1988, the Manitoba government required that no child could be sent out of province for heart surgery unless Collins had stated the operation could not be done in Manitoba.

There were times, however, when the pediatric cardiac surgical program did slow down. After experiencing poor results with a number of Norwood operations, the approach was to encourage parents to consider comfort care as opposed to having their children undergo the high-risk Norwood.

In addition, Collins had always hoped to see the program expand its outreach to patients from Northwestern Ontario, North Dakota and even the Third World. After the program had been in place for a decade, 12 per cent of its patient caseload came from out of province.

By 1993 the VCHC had, besides Collins, three academic pediatric cardiology positions, four cardiovascular technologist positions, three nurse-clinician positions, three secretarial positions and one database manager/computer consultant. However, from 1990 onwards, the program was hit with ongoing funding cuts that affected all of the HSC. It proved to be difficult to keep all these positions filled.

ISSUES FOR THE VARIETY HEART CENTRE

There were a number of ongoing issues that Collins attempted to have addressed, during his tenure as director of the Variety Children's Heart Centre.

Operating rooms

The operating room that was used for pediatric cardiac surgery had space, ventilation and temperature-control problems. While improvements were made, the state of the operating room was never deemed to be satisfactory. Despite the improvements, Theatre 2 was judged to be small by witnesses who appeared before this Inquest. The theatre was cramped because of all the specialized operating room equipment required, such as the perfusion pumps, and the greater number of team members necessary. In addition, problems with temperature control frequently led to fluctuating operating room temperatures. This made it more difficult to control a patient's temperature, always a critical issue in pediatric anaesthesia.

The VCHC offices

Pediatric cardiology had originally been housed in the basement of the Children's Hospital, and much of its equipment dated back to the early 1960s. The VCHC was eventually housed on the main floor of the HSC's Community Services Building, which is across William Avenue from the Children's Hospital building. By the time Collins left, he testified, the VCHC was the best-equipped centre in the country.

However, the state of medical technology was always evolving, particularly in the field of cardiac services. In order to maintain its status as a state-of-the-art facility, it was important for the centre to be able to make regular equipment and technological purchases. This was a constant challenge for the centre.

The medical fee schedule

Medical fees paid to physicians in Manitoba are paid in accordance with a fee schedule negotiated from time to time by the Manitoba Medical Association (MMA) and the Province of Manitoba.

The MMA fee schedule in place during Duncan's and Collins's tenure did not, in their opinion, reflect the development of the specialty of pediatric cardiac surgery. When the fee schedule had originally been set, pediatric cardiac surgery was a limited field, particularly when compared with adult cardiac surgery. As a result, fees paid to surgeons for pediatric cardiac procedures were generally lower than were those for adult procedures.

Additionally, even where the fees for each procedure were comparable, because the number of pediatric cases in Manitoba was considerably lower than the number of adult cases an adult surgeon could perform, the potential income for a pediatric cardiac surgical specialist was far lower than that for an adult surgical specialist. Duncan made far less money performing a pediatric cardiac operation of considerable complexity than he did for assisting at a simpler adult procedure for which he had no post-operative responsibility. The lack of resolution of this issue eventually contributed to Duncan's decision to leave Manitoba in 1993.

Relations with adult surgery and the hospital administration

Because he was the only pediatric cardiac surgeon in the city (other than Barwinsky, who still did not perform any cases of complexity nor cases involving neonates), Duncan not only did all of the cardiac procedures, but also all of the follow-up care required of a surgeon.

The evidence also established that Duncan not only provided the post-surgical care that was normally expected of a surgeon, but also took special interest in his cardiac patients. He often spent the night in the intensive care unit at the bedside of his patients, after he had spent the previous day in the operating room performing surgery on them. This was the case even when a child spent several days recovering.

Collins believed that, because the adult cardiac surgery program was much larger than the Pediatric Cardiac Surgery Program, the concerns of the pediatric program tended to be ignored. For example, Duncan provided coverage services for adult cardiac surgery, while adult cardiac surgery did not provide a similar service for pediatric cases. When Parrott left the hospital in 1991, Duncan was called upon to carry an adult caseload, as well as his regular pediatric cases. As a result Duncan found himself on call—for literally 24 hours a day, seven days a week—for two different programs.

Duncan, in particular, believed that the pediatric cardiac program was largely ignored by both the university and the hospital administration.

This issue was part of a broader conflict between the HSC's adult and pediatric services. One of the steps taken to address this was the creation of the position of head of pediatric surgery. Dr. Mervin Letts initially held this position during this period and was replaced by Dr. Nathan Wiseman. As head of pediatric sur-

gery, Letts served as head of a committee of pediatric surgeons. The purpose of the creation of this committee was to provide a voice to allow pediatric surgeons more input into the institution.

Assistance for Duncan

Duncan, as noted above, was under considerable pressure. His status as the sole pediatric cardiac surgeon in Winnipeg and the lack of a local pediatric cardiac training program often left him in the position of not having the same surgeon assist him from case to case.

The importance of the surgical assistant was made clear to the Inquest by Dr. Garry Cornel¹, a consulting witness to this Inquest. He said:

I think familiarity is perhaps the most important requirement, so getting used to somebody and working together is tremendously valuable. At times in the past, in Newfoundland, I had to work with different assistants very often, and I found that very unsatisfactory, and was able to recruit a full time assistant.

In Ottawa now we have a residency training program, so there is a senior cardiac surgery resident present for all cases, and often there are two staff people for each case as well. If it is an unusual case that I especially want Dr. Weerasena to familiarize himself with, one or other of us will be first assistant, depending on who is actually doing the surgery, and the resident will be there as the second assistant. At other times I will have the resident assist Dr. Weerasena, and I may stand and look over his shoulder, and vice versa. (Evidence, pages 44,631–44,632)

Cornel added that being a trained cardiac surgeon was a significant factor in an assistant:

In a complex case, and especially if things have gone wrong, somebody with experience may provide an idea of another way to try, or another way to do things, and that can be of great help.

The assistant that I have had for the past ten years in Newfoundland is still there, we still work together, and it is a wonderfully satisfactory arrangement. He is just a marvellous assistant, he knows what I am going to do before I even think about it, and so that's equally satisfactory. But we—you know, for a new very complex case, I would prefer to have Dr. Weerasena to help me. (Evidence, page 44,633)

The HSC was seeking an adult cardiac surgeon who could also assist in pediatric cardiac surgery. However, it was not able to recruit such a surgeon during Duncan's tenure. For Duncan, this became a source of some frustration. A partial solution was formulated when Dr. B. J. Hancock, who had been one of Duncan's most consistent assistants, decided to seek specialty training as a pediatric general surgeon and

¹ Dr. Garry Cornel is an associate professor of surgery at the University of Ottawa and director of the division of cardiovascular surgery at Children's Hospital of Eastern Ontario in Ottawa.

Born in England, Cornel graduated from the University of London and was certified in cardiovascular and thoracic surgery in 1974.

He trained in the Department of Cardiology at the London Hospital in 1963 and in pediatric surgery at Birmingham Children's Hospital in 1964. From 1969 to 1971, he was an associate resident and then chief resident in general surgery at Buffalo General Hospital and from 1973 to 1974 was the chief resident in CVT surgery at the University of Alberta. He was licensed to practice cardiovascular surgery by the College of Physicians and Surgeons of Ontario, as well as the Newfoundland Medical Board.

In 1991, he was appointed chief of the division of cardiovascular surgery at Children's Hospital of Eastern Ontario, as well as associate professor of surgery at the University of Ottawa. As well, in 1991, he was appointed as a consulting staff member of the Janeway Child Health Centre in St. John's, Newfoundland with full privileges in cardiovascular surgery.

Cornel was acknowledged as having special expertise in pediatric cardiac surgery and was permitted to give opinion evidence with respect to pediatric cardiac surgical issues.

intensivist. She left for her training with the thought in mind that she would eventually return to Winnipeg, in part to be a pediatric cardiac surgical assistant, in addition to becoming a pediatric general surgeon.

Lack of cases

Duncan's frustrations were expressed in a letter of July 28, 1989, to Bishop (Exhibit 17, Doc 92). In this letter Duncan complained that he was not performing enough pediatric cardiac operations to maintain and further develop his skills. After Parrott left in 1991, Duncan began performing adult operations, but there were difficulties in scheduling these operations.

The number of anaesthetists

According to Collins, the HSC had an embarrassment of riches when it came to pediatric anaesthetists, since there were six to seven qualified pediatric anaesthetists. The problem was that he felt there were not enough pediatric cardiac operations to allow them to maintain their skills. He testified:

The problem in it all is when you come to open heart surgery and running pumps, it requires practice. And I don't know what pumps a year are, but maybe it is six pumps a month, and if you have got six anaesthetists, that's one pump each a month, and you are beginning to get into a situation where maintenance of skills can be questioned. (Evidence, page 33,079)

Duncan believed that there should be a limit on the number of anaesthetists who were involved in pediatric cardiac surgery. This was meant to ensure a high level of skills and teamwork. Duncan wrote of this "I cannot have a trusting relationship with individuals who I see only eight or ten times a year in the OR." (Evidence, page 23,601) This issue was never resolved before his departure.

Intensive care

Collins would have preferred to have all open-heart cases, no matter what their age, go to the PICU. Because there were more NICU nurses and neonatologists than there were PICU nurses and intensivists, he worried that the NICU staff did not have sufficient exposure to pediatric cardiac surgery cases. However, the neonatologists opposed this proposal. It also was not physically possible to send all the open-heart cases to the PICU in the early years of the program, since the PICU was smaller than the NICU and had older equipment. However, by 1993, the PICU had been upgraded substantially, having expanded into a larger space with newer equipment, to become a state-of-the-art facility. This issue of two intensive care units was also not resolved before Duncan's departure.

DEPARTURES

From 1990 onwards, a number of other hospitals had tried unsuccessfully to recruit Duncan. For his part, Collins had hoped that Duncan would take over from him as director of the program. However, by 1993 it was apparent that the program was in for major personnel changes.

By the summer of 1992 Dr. Brian McCrindle had left the Heart Centre. Due to a hiring freeze at the HSC, he was not replaced. When McCrindle had been hired, the other cardiologists at the Variety Children's Heart Centre had agreed to forgo income that would otherwise have been available to them, in order to pay his salary. With McCrindle's departure, the centre was left with three cardiologists to do the work that four had previously performed. The money that they had forgone in order to hire McCrindle was lost to them with the freeze. Matters, moreover, were to get worse.

In the spring of 1993, Dr. Andrew Pelech announced his intention to leave the Heart Centre and accept a medical position in Milwaukee. His resignation took effect in the fall of 1993.

In April 1993, Collins gave notice to pediatrics head Dr. Agnes Bishop of his intention to leave at the end of six months (Exhibit 291). Collins intended to leave Canada for a position as head of pediatrics at the King Fahad National Guard Hospital in Riyadh, Saudi Arabia. He testified that he had always planned to leave Winnipeg for other opportunities after ten years, and 1993 marked his tenth year in Winnipeg.

However, Collins's letter explaining his resignation (Exhibit 292) also spoke of his frustrations as medical director of the VCHC and with the manner in which the hospital and the Government of Manitoba were addressing issues related to pediatric cardiac surgery in the province.

In his letter of resignation, Collins questioned the commitment of both the HSC and the Government to provide the program with sufficient support for it to achieve its objectives. He also questioned the HSC's commitment to developing the program into the full level of service that he had always wanted. Collins's last day at the VCHC was October 31, 1993.

He was not alone in his frustration. By the end of April of 1993, Duncan had also decided to leave. He had discussed his decision privately with Collins on more than one occasion, and had also discussed his inclination to leave with some of his colleagues, including Unruh. He had turned down approaches from hospitals in London and Ottawa, but by April was being recruited by a hospital in Omaha, Nebraska.

Duncan and others testified that when he was being considered for the position that he ultimately accepted in Omaha, those who were recruiting him came to Winnipeg in order to watch and videotape him while he was actually performing a surgical procedure. The videotape was made to help the staff who were going to work with him observe and learn about him and his surgical technique.

The chief of surgery from Omaha also came to Winnipeg to observe Duncan performing surgery. According to Duncan, the chief surgeon later told him that, among other things, he wanted to observe Duncan's relationship with others in the operating room.

On May 10, 1993, Duncan gave Collins written notice of his intention to depart. He said that he would not accept any new patients after June 1993, and would stay until the end of July to finish those cases in which he was involved. That June, Duncan performed the final procedures for which he was responsible, and shortly thereafter departed for his new position in Omaha.

By November 1993, therefore, McCrindle, Pelech, Duncan and Collins were all gone. This meant that there was no surgeon and that Giddins was the only pediatric cardiologist on staff. On Collins's recommendation, Giddins was appointed the acting medical director of the Variety Children's Heart Centre. The cardiac surgery program that Collins had worked so hard to build had been virtually decimated by the end of 1993.

REPLACING DUNCAN

Dr. Helmut Unruh, as the acting head of cardiovascular and thoracic surgery at the HSC, played a central role in recruiting a replacement for Duncan.

Unruh had graduated in medicine from the University of Manitoba in 1977. He completed his residency in general surgery in Manitoba in June 1980 and trained in thoracic surgery for a year in England. From July 1984 to December 1984, he was a clinical fellow in cardiovascular and thoracic surgery at Montreal General Hospital, which was affiliated with McGill University. While at McGill, Unruh had worked with Dr. David Mulder, the chairman of that department, Dr. Tony Dobell, the department's program director, and Dr. Ray Chiu, the department's director of research.

Unruh's specialty was in thoracic surgery, as opposed to cardiac surgery. A thoracic surgeon's field of practice is limited to doing everything in the thoracic (or chest) cavity except cardiac surgery. While at one time thoracic surgeons had combined the specialties of cardiac and thoracic surgery, each field had evolved over time into separate specialties.

After finishing his training at McGill, Unruh returned to Manitoba in January 1985, and was appointed an associate staff member of the Department of Surgery at the HSC. He was concurrently appointed assistant professor in the Faculty of Medicine at the University of Manitoba. He became an active staff member of the Health Sciences Centre's Department of Surgery in 1988 and was the service chief of thoracic surgery from 1988 to 1995. In 1993, he also became a staff member of St. Boniface General Hospital, in its Department of Surgery.

In 1988, Unruh was appointed the acting section head of cardiovascular and thoracic surgery in the Faculty of Medicine. Following Parrott's departure, Unruh was appointed to a concurrent position as the acting section head of cardiovascular and thoracic surgery at the Health Sciences Centre. In the latter capacity, Unruh was responsible for the day-to-day management of the cardiovascular and thoracic section of the Department of Surgery at the HSC.

The search committee

Dr. Robert Blanchard, the head of surgery, believed that it would be difficult to attract a capable candidate for pediatric cardiac surgery to Winnipeg and it would be even more difficult to retain such a candidate. In a letter to Manitoba's Health Minister, Don Orchard, dated March 30, 1993, (Exhibit 25, Document 93/3), Blanchard wrote that Unruh was initiating contacts to see who might be available to be recruited as a replacement.

A meeting was held on April 19, 1993, between Collins, Blanchard, Unruh and Bishop, to discuss Duncan's replacement. According to the minutes (Exhibit 18, Document 233), the discussion focused on the savings that the province would realize by not having to send children out of province for treatment and by the general benefits that a pediatric cardiac surgeon provided to the HSC. If the HSC was to continue to evolve into a full-service tertiary-care hospital, it was thought that pediatric cardiac surgery should be offered to the public. For those reasons the group decided that Duncan should be replaced and the program should be maintained.

The minutes of that meeting stated that "Dr. Unruh was encouraged to continue his efforts to recruiting a pediatric heart surgeon." (Exhibit 18, Document 233) Since a pediatric cardiac surgeon would be appointed to the Department of Surgery, and to that department's cardiovascular and thoracic section, Blanchard and Unruh played the lead roles in identifying candidates.

The evidence provides differing interpretations of that recruiting process. Unruh said that there was a three-person committee, consisting of himself, Blanchard and Collins involved in the appointment of the new surgeon. He also said that Collins's role in the committee was pivotal, since he spent more time with the candidates than either Unruh or Blanchard.

Collins, on the other hand, testified that he was not part of the search committee, although he said that he was consulted about all the candidates and met with most of them. Unruh, Blanchard and Collins all agreed that no candidate would have been accepted without Collins's approval. Although Blanchard and Unruh communicated with each other by letter on the recruitment process, they generally did not provide Collins with copies of their correspondence. It would seem, therefore, that the process involved Unruh finding a suitable person, vetting the name with Blanchard, and seeking Collins's final approval. It would be less than accurate to say that a formal search committee was in place.

The recruiting followed both a formal and an informal process. Advertisements were taken out in various medical publications and Unruh began working his network of contacts in the world of cardiac surgery. By May 1993, he had come up with a list of potential candidates. According to Blanchard, Unruh was expected to do the initial interviews by himself and pass on those candidates who he believed should be considered.

During this period, Unruh had heard rumours that Collins was going to leave the HSC, but he did not believe them. Therefore, Unruh never told any of the people applying for the position of the significant changes that were taking place at the VCHC.

In late April or early May, Dr. Ray Chiu, one of Unruh's former colleagues at McGill, introduced him to a former student of his, who was looking for a position as a pediatric cardiac surgeon. The meeting took place in Chicago at a cardiovascular and thoracic surgical conference. The doctor Chiu was recommending was Dr. Jonah Odim.

Dr. Jonah Odim

Odim was a U.S.-trained doctor who had undergone a portion of his training in Canada. After graduating from Yale Medical School in 1981, he interned at the University of Chicago. From 1982 to 1987 he was a resident in general surgery at the University of Chicago. As a part of his training there, he participated in pediatric cardiac surgery. During his stay at Chicago he rose from the position of junior resident to senior resident, eventually becoming the chief resident in 1985. During the two years that he held this position, he was not extensively involved in cardiac surgery.

Following the completion of this residency, Odim could have gone into practice as a general surgeon. However, he had been attracted to cardio-thoracic surgery and sought additional training.

For this training he went to McGill University in Montreal, where he was a resident in cardiovascular and thoracic surgery from July 1987 to June 1989. His training at McGill followed a series of six-month rota-

tions. From July 1987 to January 1988 he was in general thoracic surgery at Montreal General Hospital. In this position he often acted as the primary surgeon.

From January 1988 to July 1988 he was involved in pediatric cardiac surgery, also at the Montreal General. At that time Dr. Christo Tchervenkov was the dominant pediatric cardiac surgeon there, working under the tutelage of Dr. Tony Dobell, who was then on the verge of retirement. Dobell was training Tchervenkov to take over his position within the hospital.

During this period, Odim assisted at Tchervenkov's operations, usually as a first assistant. In simple cases, Tchervenkov allowed Odim to perform the operations with his assistance. As an assistant to Tchervenkov, Odim told the Inquest that he was responsible for getting patients into the operating room, putting in all of the lines, inserting the Foley catheter, prepping the patient, draping the patient, making the incision and starting to open the chest. He would assist with cannulation, although in some cases he completed the entire cannulation process. Odim estimated that at McGill there were approximately one hundred bypass cases a year. He also said that in his experience there were only two anaesthetists who worked on these cases.

From July 1988 to January 1989, Odim was Chief Executive Resident at Montreal General Hospital. For the following six months he was at Montreal's Royal Victoria Hospital where he did adult cardiac surgery. He stated that by the end of the rotation he was doing most of the cases with the assistance of the staff surgeon. However, because he was still in training, he was required to be under the supervision of a senior surgeon when performing surgery. Following this training he undertook the appropriate examinations of the Royal College of Physicians and Surgeons of Canada and qualified as a cardiac and thoracic surgeon in 1991.

At this point, Odim chose not to go into practice. Instead, he was encouraged by Chiu, who was also at McGill, to complete a three-year research project leading to a Ph.D. This research involved using skeletal muscle, as opposed to cardiac muscle, to rebuild and power failing hearts. This was intended to provide a treatment for people who were in the end stage of heart failure and had been turned down for heart transplants.

Odim explained that the decision to go into research was not unusual for someone who, as he did, intended to work in a teaching hospital setting. While the work with Chiu largely revolved around animal research, there were six patients whose treatment, as a part of the research project, required cardiac surgery. Odim was the first assistant in these operations. When asked if he worried about any erosion of his surgical skills during this three-year period, he said:

I was doing a lot of bypass work in the animals, using the same techniques that I would be doing in the human operating room. So I wasn't, I was attending all of the conferences, I was making rounds. (Evidence, page 23,887)

In addition, he said, he assisted Chiu in a number of emergency operations.

Following the completion of this period of research in 1992, Odim decided to take further training in pediatric cardiac surgery. He was accepted as one of five residents at one of the world's leading centres for such surgery, Boston Children's Hospital, which is affiliated with Harvard University.

The residency at Boston Children's is broken down into two six-month periods: the first six months being clinical in nature, the second six months consisting of clinical research. The six months of clinical work is devoted almost exclusively to work in the operating room and intensive care. Working on a series of week-long rotations, one resident would work in the intensive care unit, while the other four worked as

either first or second assistants in the operating room. At Boston Children's there were two operating rooms devoted to pediatric cardiac surgery, and a total of four operations would be performed every day. Two residents were assigned to each operating room. Each resident would serve as first assistant on one operation and second assistant on the other operation.

Odim gave the following description of the responsibilities of a first assistant:

In general the responsibility was to get the patient in the operating room to start at 7:30 sharp. You put in the lines, cut down for an arterial line, you assisted the nurses with scrubbing the patients. And you began to open the chest and isolate the great vessels, prepare for cannulation. And usually around that juncture, depending on how efficient you were, the staff man would be entering the room, and once he was scrubbed up, he would come to his side of the table and you would switch and the case would proceed. (Evidence, pages 23,895–23,896)

He said the assistant would normally have accomplished the following steps by the time the surgeon arrived in the operating room.

You would have opened the chest, opened the major skin incision, opened the sternum. You would have removed the thymus, which is a gland that cloaks the inlet of the chest cavity. You would have opened the pericardium, and you would have dissected out the great vessels. You might have put your purse strings in and you may have even begun to cannulate. (Evidence, page 23,896)

According to Odim, he had quite a bit of experience during this time with cannulation. He gave the following description of the work of the first assistant during the course of the operation.

You have to guide the surgeon. You have to know the steps and be ahead of him so that you are prepared, which means spreading tissue, applying counter traction, so that the path way is open for him to see, tying sutures, cutting sutures, removing clamps, decannulating, all of those types of things are done by the first assistant. (Evidence, page 23,898)

In this passage, 'guiding' means anticipating the surgeon, not providing the surgeon with direction. Following the operation, the first assistant might carry out decannulation. Odim said that, for the most part, none of this was new to the residents. Instead they were "learning some of the nuances from some of the leaders in the field." (Evidence, page 23,901)

In certain situations, Odim performed a number of operations as the primary surgeon. These included what he called simple cases, such as repairing atrial septal defects. The attending surgeon would act as the assistant in these operations, but would always be in a position to take over from the resident if anything problematic occurred.

Odim described Boston Children's Hospital as being unique in terms of its manpower and resources. Most of the operations that were performed there were complex re-operations. There were only two to three anaesthetists who, as far as Odim could discern, did almost exclusively pediatric cardiac work. There was also a separate pediatric cardiac intensive care unit.

Recruitment

Odim was half way through this clinical rotation when Chiu introduced him to Unruh at the Chicago conference. The two men spoke about the Winnipeg program for over an hour. According to Unruh, for Odim the conversation would have felt like an interview. Unruh was impressed with Odim.

He had an excellent deportment, presented himself very well, had a very impressive background, general surgery at the University of Chicago, cardiac surgery at McGill University, potential Ph.D. from that institution. And now he was at one of the foremost Children's Hospitals in the world, at Harvard. I was very impressed with him in terms of his preparation for the job and also in the way that he conducted himself during the interview. (Evidence, page 35,016)

Odim was at that point starting to look for a position as a pediatric cardiac surgeon and had job prospects in both Chicago and Buffalo, New York.

Blanchard believed that the HSC could recruit one of three types of surgeons for the pediatric cardiac post available at the Children's Hospital. One would be a surgeon who was looking to wind down his or her career, the second type would be a surgeon at the peak of his or her career and the third would be a new surgeon looking to start his or her career. He said that the first option would not be preferable for a teaching hospital, since a surgeon at this point in his or her career would not be sufficiently up to date. It was thought to be unreasonable to expect to recruit a surgeon at the peak of his or her career to a program in which the surgeon would operate on his or her own. It was believed that the best results would come from recruiting someone at the start of his or her career. Given the fact that the HSC was a teaching hospital, a new surgeon with a research background would be the first choice. Such a person, Blanchard said, would keep the HSC on the cutting edge.

Of the candidates that the HSC was interested in, one took a position with the University of British Columbia, while another candidate did not have the research background that Blanchard was looking for. As a result, the search began to focus on Odim.

Unruh said that he conceived his role in the recruiting process as that of a facilitator.

Well, a lot of this was being spearheaded by Dr. Blanchard, the chairman of the department. My process was really to assist him, and he delegated certain activities to me. (Evidence, page 35,033)

As a part of the recruiting process, Odim was brought to Winnipeg in August 1993. The visit was to allow Odim to meet with the people involved in the VCHC program and allow them to assess him. During that first visit, Odim was introduced to many of the people involved in the treatment of children with heart disease, including operating-room nurses, intensive-care staff and anaesthetists. He also met with both Collins and Giddins.

Blanchard and Unruh both told the Inquest that they expected Collins to assess Odim's clinical skills. Unruh also expected that Giddins would play a role in assessing Odim's surgical skills, although Unruh also said he did not know how Collins and Giddins had gone about assessing Odim's surgical skills. Blanchard described his conception of his role in the recruiting process in the following terms:

So that generally my role would be relating to the academic realm as the academic head because there are a lots of other people in the clinical realm that will be dealing with that, that would have closer touch with that.

Consequently my concerns about research, teaching; and then my other role is to outline carefully and clearly and completely to the individual, you know, how the organization runs and what their role is in it and what the fiscal arrangements could be. I mean that's how it works and that's what this is. (Evidence, page 36,372)

Odim's name had come up in a conversation between Collins and Dobell before the recruiting process had started. However, Collins never contacted Dobell for an assessment of Odim's skills. Collins was familiar with Dobell, having worked with him at McGill.

So I had good reason to believe that anyone who survived Tony Dobell's training program had been through a rigorous training. (Evidence, page 33,205)

Collins said he spent several hours with Odim during that first visit, and the two men had a meal at a Winnipeg restaurant. During their conversation, Collins never informed Odim that both he and Pelech would shortly be leaving the VCHC. (Pelech's replacement, Dr. Cameron Ward, was not expected to arrive until the summer of 1994.) Collins also spent a considerable amount of time with Odim when he returned for a visit in the fall.

Letters of reference

Unruh said that under the HSC's protocols, the process of obtaining and checking on references was Blanchard's responsibility, not his. As a result, he did not call Boston Children's Hospital to ask any questions about Odim's performance. Nor did Unruh ever see any of the letters of reference dealing with Odim.

Unruh said that, if he were hiring someone who would be directly responsible to him, he would contact the program director and ask how the person had performed in the residency. He thought this would be much more important than letters of reference. Unruh said he believed that Odim's clinical work in Boston was satisfactory because if it had not been, "his time there would have been cut short." (Evidence, page 37,643)

When Odim applied for the position with the HSC, he gave three references. They were from people who had been involved with Odim during his research at McGill. Blanchard and Unruh both said that they did not put as much value on letters of reference as on informal contacts with the authors of the letters. In some cases they believed a letter writer might be either overly cautious in describing a candidate's skills or overly generous. This, they felt, was less likely to happen in personal conversation.

Chiu sent Blanchard a strong reference for Odim on August 30, 1993.

He is a competent and skillful clinical surgeon, and with additional training at Boston's Children's Hospital, I suspect that he has become a capable pediatric as well as adult cardiac surgeon. Thus, I believe that potentially he could be a strong addition to your excellent team. (Exhibit 45, Document HSC 11)

Chiu continued to express support for Odim in a follow-up phone call and a second letter. In the follow-up letter he did state:

I cannot make a specific judgment regarding his clinical abilities as a pediatric cardiac surgeon, but as I stated in our telephone conversation, he has gone to Boston Children's Hospital for a clinical fellowship, and I have no doubt that he has benefited from further exposure to complex pediatric cardiac surgical cases available there. (Exhibit 45, Document HSC 23)

Mulder, the chairman of the Department of Surgery at McGill and Montreal General, sent Blanchard a letter on September 2, 1993. In it he wrote:

I would rank Jonah as a good clinical cardiovascular thoracic surgeon who wishes to carry out a combined adult and pediatric practice in an academic centre. He has the ability to carry out independent research. (Exhibit 45, Document HSC 14)

He went on to say:

He has good leadership skills and I think has all the potential to become an outstanding academic cardiovascular thoracic surgeon. (Exhibit 45, Document HSC 14)

In a second letter on November 11, 1993 (written after an offer of employment had been made to Odim), Mulder wrote:

Technically he was not as mature as some of the other residents have been but he improved on a gradual basis and at the completion of the program we all felt that he was a competent cardiothoracic surgeon. (Exhibit 45, Document HSC 28)

Mulder suggested that Blanchard contact Dr. Aldo Castaneda, Odim's supervisor in Boston. Blanchard tried, but Castaneda was out of the country. As a result, he never spoke with Castaneda or anyone else at Boston Children's.

A letter dated November 24, 1993, from Tchervenkov to Blanchard, contained the following comment.

As far as training goes, he has certainly had more than enough. As far as whether he can really be successful at today's pediatric cardiac surgery approach, that is always the question for anyone until they actually prove themselves. I have seen, what were considered excellent surgeons with excellent training in pediatric cardiac surgery bomb out. (Exhibit 245)

He concluded the letter by noting that, as a single surgeon in Winnipeg, Odim would have a rough start.

Blanchard said that he never received any indication from Chiu, Mulder, or Tchervenkov that Odim was in any need of remedial training. A review of Odim's training and experiences prior to Winnipeg led Blanchard to a simple conclusion:

Here we have a brilliant person. (Evidence, page 36,424)

Odim returned to Winnipeg in the fall for a second round of meetings with HSC staff. It was at this point that Collins informed him of his intended departure from the VCHC on October 31. It was also at this point that Odim learned that Pelech was leaving. Blanchard and Unruh had been recruiting a surgeon for a fully operational program, led by a veteran medical director and staffed with three cardiologists. In fact, the surgeon they were hiring would be coming to work at a centre that had only an acting medical director, who was also its only cardiologist.

Surprisingly, it was Odim who informed Blanchard that Collins was leaving. It was not clear when, or if, Blanchard was ever informed of Pelech's departure. Blanchard said that it was not until February 1994 that he discovered that there was only one cardiologist at the VCHC.

In September 1993, Odim and Blanchard entered into serious negotiations. Arrangements were being made to give Odim a cross-appointment to the University of Manitoba's Department of Physiology to allow him to continue with the muscle research he had started under Chiu.

Besides arranging Odim's research, Blanchard and Unruh had to devise a method that would pay Odim a competitive income of approximately \$250,000 a year. They managed to do this through a special agreement with the Dean of the Faculty of Medicine, the President of the University of Manitoba, and the HSC administration. Unruh said he believed that Odim had been in a strong bargaining position and had bargained effectively.

As these discussions were taking place, Blanchard made an effort to recruit Tchervenkov to Winnipeg. He offered Tchervenkov the position of head of cardiovascular and thoracic surgery, the position that Unruh held on an acting basis. Had the hiring gone ahead, it would have placed the need to hire Odim in doubt. It

also, interestingly, amounted to a change in the strategy of hiring a recent graduate, to one of hiring a surgeon in the prime of his career. Tchervenkov, however, declined the offer.

A formal offer was made to Odim on November 9, 1993 (Exhibit 45, Document HSC 25). One week later his appointment was confirmed. It was signed by Blanchard, Sutherland and the Dean of Medicine, Dr. N. Anthonisen.

The Boston references

Dr. John Mayer, Jr., was one of the surgeons at Boston Children's Hospital under whom Odim received his training. Mayer estimated that he would have been the attending surgeon for about a quarter of the operations that Odim was involved in while at Boston. In his testimony to this Inquest, Mayer stressed that the assessment of an individual trainee's skills is not absolute, because at that stage in their career people have a capacity to continue to grow and develop. That said, Mayer offered the following assessment of Odim's performance at Boston.

I would say in the spectrum of people that we have seen, you know, at ten residents a year, or at that time—it is almost ten years, having seen 100 cardiothoracic surgical trainees go through, I would have to say I would not have put him near the top of the group of the people that we had seen. (Evidence, pages 46,044–46,045)

Mayer said he was not entirely convinced that Odim had fully grasped some of the concepts that were being employed. From a technical standpoint, he said:

I was never that comfortable helping him do anything more than relatively simple and straight forward cases, simply because I was not comfortable with his level of technical skills. (Evidence, pages 46,045-46,046)

In the case of Norwoods, he said all he would have allowed Odim to do was open and close the chest, and it was unlikely that he would have allowed him to perform the complete cannulation process on his own.

The actual resident evaluations at Boston Children's Hospital were informal and were done by Castaneda, the program head. Mayer said he never spoke with Odim about his progress at Boston Children's Hospital, nor about the sort of institution he should consider going to after graduation.

Odim's training at Boston Children's Hospital was one of his main qualifications to justify his assumption of the job as the sole pediatric cardiac surgeon at the Variety Children's Heart Centre. Castaneda's name appears on his list of references. However, no one ever successfully contacted Castaneda or any other of the doctors under whom Odim trained in Boston.

Mayer said that if he had been contacted, he would have said that Odim "was not among the stronger candidates that we have ever seen come through our program." (Evidence, page 46,055) He said he would have rated his clinical knowledge as being from fair to good.

² Dr. John Mayer graduated from Yale University School of Medicine in New Haven, Connecticut, in 1972, interned at the Department of Surgery at the University of Minnesota in 1973, was a medical fellow in the Department of Surgery at the University of Minnesota from 1973 to 1979, and from 1979 to 1981 was a fellow of the division of thoracic and cardiovascular surgery at the University of Minnesota. He received academic appointments at the University of Minnesota, as well as the universities of South Alabama and Harvard Medical School.

At the time of his testimony, Mayer was a professor of surgery at Harvard Medical School. In that capacity, he had directly monitored and supervised the training of Dr. Jonah Odim.

In his testimony, Mayer described the pediatric cardiac surgery program at Boston Children's Hospital. The centre's four surgeons perform an average of between 900 and 1,000 operations a year. There is a pediatric cardiac intensive care unit. The nurses work only on pediatric cardiac surgery, the perfusionists provide services only for pediatric cardiac patients and the anaesthetists work only on pediatric congenital heart cases. A tremendous amount of expertise and skill is focused on this one area.

Mayer was of the view that it would be very difficult for a young surgeon to move from this atmosphere to a much smaller centre, where he or she would be the senior surgeon responsible for restarting a program.

And I think to go someplace and start it up from scratch is an extraordinarily challenging undertaking.

I have been to some places where I have been asked to go and review programs in certain centres in the United States, where I think this is not an uncommon theme that, you know, people will have had some experience perhaps in one facet of the management of congenital heart disease, a cardiologist or surgeon, or one group, and think therefore they can recreate what they had in their original training centre very simply and easily. In fact, it's a fairly sizable undertaking to assemble the organization and the group of people who play on this team, who have to provide the services. And I think that this notion of the group functioning as a team is an absolutely critical aspect of optimum management of children with congenital heart disease, particularly babies. (Evidence, pages 46,061–46,062)

Before a young surgeon were to take on this responsibility, which Mayer described as "jumping off into the most complicated end of the spectrum," he said there should be a critical assessment of the centre's capabilities and the surgeon's capabilities, both as a surgeon and as a team leader.

I can tell you that having been a few places where people bit off big chunks and then had quite a bit of difficulty, that that is a common theme, that there was not an appreciation of what it really takes from the whole team perspective to be able to carry off the kinds of complicated things that have to be done. (Evidence, page 46,063)

HSC reference questionnaires

The HSC sends reference questionnaires to those persons whom a job applicant has listed as references. In the case of Odim, the questionnaires were sent to Chiu, Mulder and Tchervenkov. All three men gave Odim a positive assessment, ranking him as being very good in almost every category. Two of the three, however, rated him as being good (as opposed to very good) in his clinical competence. While it is not clear when the questionnaires were sent to the referees, they were not completed and returned until late February 1994, long after Odim had received his appointment with the HSC. The one person on the list of references provided by Odim who was not contacted was Castaneda.

It would be safe to say that Odim's recruitment and hiring was marked by flawed procedures.

No one spoke with the people who had been most recently involved in Odim's training at Boston. Considering Mayer's very lukewarm assessment of Odim's surgical skills, it is conceivable that Odim might not have been hired had that type of information been in the hands of those making the hiring decisions in Winnipeg in 1994. The failure to watch and observe Odim actually performing surgery, or to speak with anyone who had recently performed surgery with him, provided only an incomplete impression of Odim's surgical abilities and his ability to get along with other personnel in the operating room. That proved to be an extremely important issue as 1994 passed.

WHO WAS IN CHARGE?

Before moving on to the events of 1994, it is worthwhile to review two points: the approach that was taken to restarting the program and the degree of confusion that existed as to who had responsibility for Odim's surgical performance.

It is worth comparing the 1994 restart with the manner in which Barwinsky and Collins handled Duncan's arrival. In that case, a senior surgeon with considerable experience in pediatric cardiac surgery and a senior cardiologist believed that it was crucial to move the program forward at what could best be described as a very deliberate pace. They were determined to make sure that the problems associated with de la Rocha's tenure did not recur.

While it appears that many senior figures at the HSC in 1994 believed that such a pace was appropriate, they also believed that someone else was responsible for ensuring that the pace was followed.

This relates as much to the confusion over the lines of authority as it does to anything else. Odim said:

I knew I had been recruited to replace Dr. Kim Duncan in the established program. I knew that I was under the aegis of the Department of Surgery and the Department of Cardiothoracic Surgery, therefore, I reported to Dr. Blanchard and Dr. Unruh. I knew that I was also a physician in the Variety Heart Centre and reported to the chief of that centre, which was Dr. Giddins.

Q. You said, okay, Dr. Giddins, right?

A. So it was sort of a three-pronged or three-headed relationship through cardiac surgery, the Department of Surgery and the Variety Heart Centre. And I guess you could add a fourth head, Dr. Wiseman, as the surgeon in chief of the Children's Hospital. And I was one of the—so these were my bosses, at least my perception of who my bosses were. (Evidence, page 23,937)

On the need to phase a new surgeon into the program, Unruh said that he was not disturbed by the fact that, aside from the first six months of 1993, Odim had largely been away from surgery for four years when he came to Winnipeg. He said he expected that Odim would have the insight to recognize that he had been away from the operating room for a while and would act on this insight. As a result, he never passed these views on to Odim. While he believed that it was important for someone in Odim's position to phase himself into surgery slowly, he did not think it was necessary to communicate this view to Odim. Nor did he speak with Giddins about the start-up of the program.

The unit had functioned so well up until that point in time that I really didn't have an understanding of the relationship between the cardiologist and the surgeon. I assumed that Dr. Giddins would take the leadership role that had been given to him and would phase in the program. But I never specifically gave any directives to him as to how to phase it in. (Evidence, page 35,038)

Unruh's job description makes no differentiation between adult and pediatric services. However, Unruh said:

I didn't have any direct responsibility. That historically and de facto went to the program, so I didn't have any direct responsibility, but I ultimately did have some responsibility for the surgical aspects of that program. (Evidence, page 37,735)

Unruh said he believed that Giddins would be responsible for Odim. However, he never confirmed that understanding with Giddins. In his testimony, Giddins said he believed that Unruh was responsible for the surgical program. He believed his responsibility was for medical care, not surgical. He said:

I think my responsibility is to ensure that that process by which that the patient gets to the operating room is appropriate, and to the best of my knowledge, that that operating room that the patients are headed to is capable. (Evidence, pages 36,405–36,406)

Unruh further testified:

I saw my responsibilities as ensuring there was an acceptable peer review process in place. That peer review process was somewhat unique in this situation because we were bringing a surgeon in to a multi-disciplinary program. The responsibility which I exercised over other cardiac and thoracic surgeons was not exercised to the same extent over Dr. Odim, because I had delegated de facto that responsibility to the Director of the Variety Heart Centre. That is how I saw my responsibility. (Evidence, pages 37,858–37,859)

This was not a view that Giddins shared.

Blanchard told the Inquest that, when Odim arrived, he encouraged him to focus his work on completing his Ph.D. and not become overwhelmed by clinical matters. However, Blanchard also never met with Odim and Giddins to discuss their plans for restarting the program.

It would be fair to say that at the institutional level, the Pediatric Cardiac Surgery Program had a number of problems relating to both planning and communication. When the rough start that Tchervenkov had worried about materialized, other planning and communication problems impeded an efficient resolution of the ensuing issues.