

Putting Little Hearts In Good Hands



Western Canadian
Children's Heart
Network


BIENNIAL IMPACT REPORT
2022-23 & 2023-24

Collaborative Cardiac Care

Looking back on two years of impact and learning, and how our team and network of partners have continued to grow

What started as a regional referral system has now become a diverse community of patients, families, and care providers, all united by the goal of delivering the best care to the little hearts that rely on us.

This report shows how everything we do – from the services we offer, to the data we collect and the collaboration we foster – is designed to improve the health and well-being of children and their families. We are committed to building on this foundation, **putting little hearts in good hands.**



"Manitoba continues to be committed to the WCCHN function of ensuring access to and coordination of high quality, pediatric cardiac services through inter-provincial collaboration and information sharing."

Scott Sinclair
Deputy Minister of Health, Province of Manitoba

Better together, when it matters most

The Western Canadian Children's Heart Network (WCCHN) is a partnership amongst:



"The Saskatchewan Ministry of Health recognizes the amazing work of the Western Canadian Children's Heart Network in providing care to our pediatric population. The Ministry is very appreciative of all the work that WCCHN performs so that children can be assured equal and timely access to the highest standards of care available."

Dave Morhart
Executive Director, Saskatchewan Ministry of Health,
Acute and Emergency Services Branch

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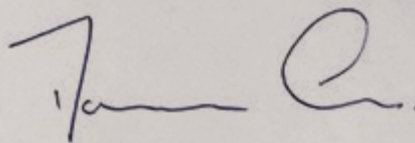
As we reflect on this past year, we are filled with gratitude for the support and commitment that has made WCCHN's mission thrive. The work and investment from government funding agencies have been instrumental in expanding our resources and partnerships, all aimed at ensuring a brighter future for children with heart disease in Western Canada. Without their vision and confidence in the network, we wouldn't have achieved the remarkable strides we've made in recent years.

This year, our surgical site at BC Children's Hospital completed a challenging data audit. They not only met the rigorous standards for international benchmarking, but received glowing reviews from external assessors. This accomplishment speaks to the exceptional commitment and expertise that shines throughout our network.

Despite immense service pressures, we've held strong in our cardiac catheterization numbers, increased electrophysiology procedures, and reached record-breaking surgical volumes. Over 1,000 children received surgical care this year across the network – a true testament to the dedication of our cardiology and surgical teams whose collective efforts continue to propel us forward.

However, WCCHN is more than just our clinical teams. Our researchers, coding specialists, administrative staff, advisory board members, volunteers, family advocates, parents and, most importantly, our patients are all part of this growing community. Together, they continue to ensure that good care today, will be excellent care tomorrow.

As Chair of the Integrated Advisory Board, I extend my deepest thanks to all who have contributed to our progress. Together, we look forward to building even greater achievements in the years to come.



Dr. Dominic Cave, MBBS FRCPC CHE
Clinical Department Head Anesthesia,
AHS Edmonton Zone
Pediatric Cardiac Anesthesiologist
Board Chair, WCCHN Integrated Advisory Board

Impact Highlights

Behind Every Number is a Story

Through the tireless efforts of our partner hospitals, here is what WCCHN's network has achieved in service delivery for Western Canada over the last two years:

Scope:



4M km²

Regional Referral Base



13.1M

Population Base



3

Referring Centres



2

Surgical Centres

Clinical Staff and Procedures:



350+

Nurses and other Healthcare Professionals

48

Pediatric Cardiologists

10

Pediatric Cardiac Anesthesiologists



5

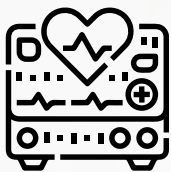
Pediatric Congenital Cardiac Surgeons

7

Pediatric Cardiac Intensivists

44,639

Outpatient Clinic Visits



1,864

Heart Surgeries

1,257

Cardiac Catheterizations

236

Electrophysiology Procedures

Unless otherwise indicated, reported metrics are for the reporting period of fiscal year 2022-23 and fiscal year 2023-24. Icons: Flaticon.com

Insights:



7

Clinical Quality
Registries



2172

Cases Discussed
at CV Conference



8 Months

Median Age of Children
Undergoing Surgery



6 Months

Median Age of a
Child's First Operation

Clinical and Community Outreach:



5,491

Outreach and
Partnership
Clinic Visits



\$20,000+

Contributed to
Traveling
Specialists
and Locums



\$30,500+

Invested in
Clinical Staff for
Conferences and
Education



\$83,000+

Awarded in
support of heart
projects across
Western Canada

Family Satisfaction:



53,487

Patients and
Families Served



97%

Feel their children are
receiving the best
medical care available
for their heart condition



92%

Feel they are a partner
when planning and making
decisions with the medical
team for their child's care

View and share our Impact Highlights online at wcchn.ca/our-organization/by-the-numbers/



About WCCHN

Uniting for Little Hearts

At the Western Canadian Children's Heart Network (WCCHN), our mission revolves around **putting little hearts in good hands**. For over 20 years, we have passionately dedicated ourselves to ensuring children and their families receive the best possible cardiac care. By uniting some of the brightest minds and leading facilities across provincial borders, we strive to deliver world-class treatment to children throughout Western Canada, especially when they need it the most.

The WCCHN unites five pediatric hospitals under one umbrella, pooling their unique strengths and expertise to deliver exceptional care. Our network thrives on cooperation and flexibility. Sometimes, this means facilitating patient referrals across provincial borders to access the best available care. Other times, it involves connecting experts from different hospitals to collaborate on complex cases. Always, it means a steadfast commitment to ensuring each child receives the personalized, high-quality care they deserve.

**Four provinces.
Five children's hospitals.
One heartbeat.**



Over the years, our network has evolved into a vibrant and diverse community. Patients, families, and care providers from all corners of Western Canada are joined by a common goal: delivering the highest standard of care to the littlest hearts that need us. This united dedication drives everything we do as we work together to support and nurture the health and well-being of children in our care.

To learn more about how half a country came together to do more for their littlest hearts, visit wcchn.ca/our-organization/our-history/

Strengthening Pediatric Cardiac Care

Congenital heart disease (CHD) is the most common major birth defect worldwide, affecting about 1% of live births¹. However, the outcomes for children with CHD can differ greatly between and within countries. In wealthier countries, most children with CHD have access to the specialized medical care they need to live into adulthood. Unfortunately, in countries with fewer resources, many children do not have this same access².

¹ van der Linde, D, et. al. (2011); Birth Prevalence of Congenital Heart Disease Worldwide: A Systematic Review and Meta-Analysis; Journal of the American College of Cardiology, 58(21), 2241-2247

² Saxena, A. (2009); Congenital cardiac surgery in the less privileged regions of the world; Expert Review of Cardiovascular Therapy; 7(12), 1621-1629

A child's early survival and quality of life with CHD depend on several factors related to the type and quality of care they receive. These include:


- Access to specialized healthcare for early diagnosis, intervention, and follow-up care. This care must continue into adulthood.
- Availability of technology, infrastructure, and expertise for the specialized operations needed to treat CHD.
- Experience and expertise of medical professionals, especially surgical staff. This is crucial for the success of surgeries and overall prognosis.

In areas where populations are spread out, a more centralized approach to specialized medical care has been shown to improve survival and quality of life for CHD patients. This is due to several factors:

- Better use of resources: Centralizing services makes resource use more efficient, reduces duplication, and allows for more targeted investments. Over time, this improves the cost efficiency of care and ensures better access for patients no matter where they live.
- Expertise of medical teams: When specialized services are concentrated in fewer centres, teams gain more experience in complex procedures. Studies show that hospitals with higher volumes of cardiac surgeries generally have better outcomes^{3,4}.
- Innovation and research: Centralized care often turns facilities into hubs for research and innovation. Continuous evaluation of surgeries and care practices leads to improvements in techniques and protocols.

Education and screening programs are also vital. They raise awareness of CHD and highlight the importance of early detection and intervention. These programs help us learn from current and past initiatives. Additionally, investment in research and information-sharing allows us to learn from different programs and share experiences among specialized teams.

We believe that every child deserves equal and timely access to world-class treatment, regardless of their location. Our values – cooperation, approachability, reliability, inclusivity, and productivity – guide everything we do. By connecting the best experts across four provinces and promoting communication and expertise sharing, WCCHN's collaborative approach strengthens service delivery. This, in turn, helps to ensure that children across Western Canada are receiving the best care available.



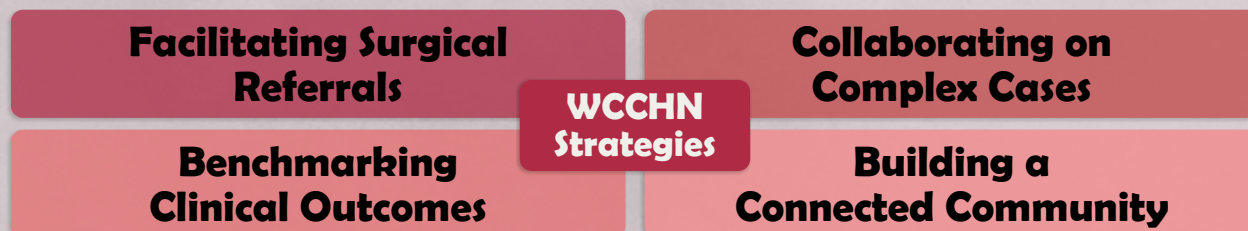
**Our mission is clear:
to create a collaborative
framework for delivering
exceptional cardiac
care to children in
Western Canada.**

³ Welke, KF, O'Brien, SM et al (2009); *The complex relationship between pediatric cardiac surgical case volumes and mortality rates in a national clinical database; The Journal of Thoracic and Cardiovascular Surgery*, 137 (5), 1133-1140

⁴ Welke, KF, Karamlou, T, O'Brien, SM et al (2023); *Contemporary Relationship Between Hospital Volume and Outcomes in Congenital Heart Surgery; Annals of Thoracic Surgery*, 116(6), 1233-1239

Collaborating for Optimal Outcomes

Our regional framework connects partner hospitals and specialists across the child cardiology community, creating a cohesive network dedicated to providing exceptional care. This collaboration ensures that every child we treat benefits from the collective expertise of the entire network. We do this by focusing on the following four strategies:



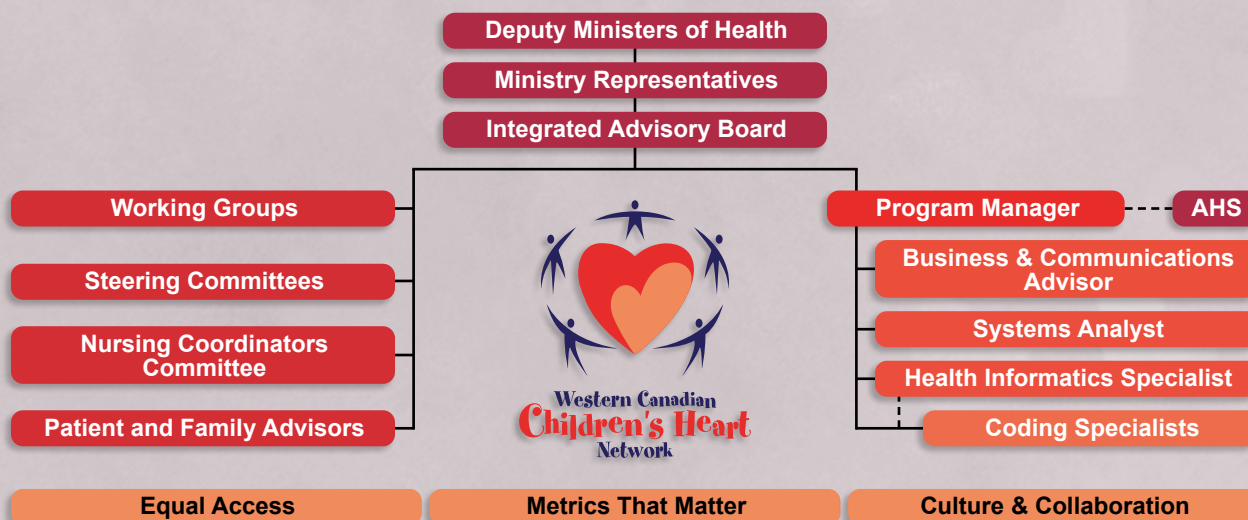
At WCCHN, every action we take is purposefully aligned to enhance the health and well-being of children and their families. Whether it's the specialized services we offer, the meticulous data we gather, or the collaborative efforts we facilitate among healthcare professionals, everything we do is focused on delivering the best to our young patients.

Continue reading about our organization, guiding principles, and program at wcchn.ca/our-organization/

Our Governance

To ensure comprehensive success, WCCHN operates under a unified Integrated Advisory Board. This board combines the expertise of top physicians, senior hospital administrators, Ministry of Health representatives, nurses, and patient and family advisors from across Western Canada. They provide strategic guidance, ensuring our initiatives continue to align with our mission and values.


With a three-pillar focus on equal access to services, impactful metrics, and a culture of collaboration, the Integrated Advisory Board steers WCCHN towards achieving the shared vision of providing unparalleled care to children with heart disease.



Our Team *(As of April 2024)*

Administration & Operations

Elina Williams *Program Manager*
Kevin Pahl *Business and Communications Advisor*
Alia Tayea *Health Informatics Specialist*
Mike Scott *Systems Analyst*

To see our smiling faces, visit
wcchn.ca/our-organization/meet-our-team/ 

Integrated Advisory Board

WCCHN (ex officio)
Dr. Dominic Cave *Board Chair*
Elina Williams *Program Manager*

British Columbia

Amie Mazza *Director, Child and Youth Health Services, Provincial Services Branch, Hospital and Provincial Health Services Division, BC Ministry of Health*
Dr. Shubhayan Sanatani *Division Head, Cardiology, BC Children's Hospital*
Dr. Mohammed Al Aklabi *Division Head, Cardiovascular and Thoracic Surgery, BC Children's Hospital*
Megan Bolton *Program Director, Pediatric Intensive Care Unit, Cardiac Services, and Acute Surgical Inpatient Unit, BC Children's Hospital*
Lea Legge *Nurse Coordinator, BC Children's Hospital*

Alberta – Edmonton

Dr. Lisa Hornberger *Divisional Director, Cardiology, Stollery Children's Hospital*
Shawn Hillhouse *Executive Director, Ambulatory and Inpatient Care, Stollery Children's Hospital*
Crystal Coroon *Discharge Coordinator, Cardiology and GI Services, Stollery Children's Hospital*

Alberta – Calgary

Dr. Deborah Fruitman *Section Chief, Division of Cardiology, Alberta Children's Hospital*
Lynnette Fritzsche *Executive Director, Ambulatory Care, Alberta Children's Hospital*
Kelly Webber *Nurse Clinician, Cardiology Clinic, Alberta Children's Hospital*

Coding Specialists

Tania Gilmore *BC Children's Hospital*
Kathleen McCarthy *Alberta Children's Hospital*
Nicole Harder *Stollery Children's Hospital*
Sharmaine Apuya *Stollery Children's Hospital & Jim Pattison Children's Hospital*
Andrea Wong *Children's Hospital – HSC Winnipeg & Stollery Children's Hospital*

Saskatchewan

Dave Morhart *Executive Director, Acute Care and Emergency Services Branch, Ministry of Health*
Dr. Charissa Pockett *Divisional Director, Cardiology, Jim Pattison Children's Hospital*
Lucia New *Director of Children's Acute and Sub-Specialty Programs, Royal University Hospital*
Angela Wiens *Nurse Clinician, Cardiology, Jim Pattison Children's Hospital*

Manitoba

Lydina Mulvena *Junior Policy Analyst, Policy and Standards Branch, Government of Manitoba*
Kate Whitton *Executive Director, Health Services, Child Health Program, Children's Hospital, HSC Winnipeg*
Dr. Reeni Soni *Divisional Director, Cardiology, Children's Hospital, HSC Winnipeg*
Pam Reimer *Nurse Clinician, Pediatric Cardiology, Children's Heart Centre, HSC Winnipeg*

Patient and Family Advisors

Crystal Maslin *Director of Planning and Projects, University of Saskatchewan, College of Medicine*
Kristina McGuire *Vice Chair, Heart Beats Children's Society of Calgary*
Donald Lepp *Manager, Corporate Projects, Canada Post*

Metrics That Matter

Clinic Resourcing, Volumes, and Outreach Metrics

Summary of Pediatric Cardiology Clinic Resourcing

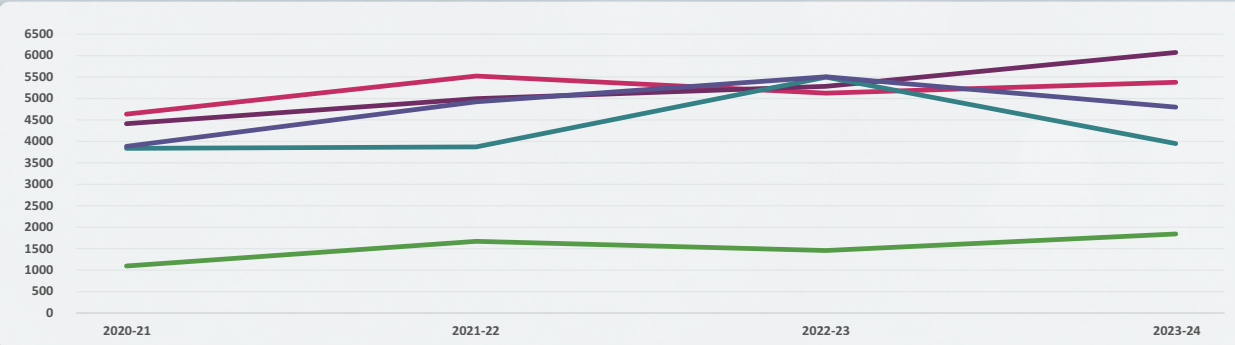
SOURCE: AS REPORTED BY WCCHN CENTRES FOR FY 2023-24

WCCHN Centre	New Referral Waitlist	Pediatric Cardiologist (HC / FTE)	Clinic Nursing (FTE)	Echo Sonographer (FTE)	Dietician (FTE)	Social Work (FTE)
BC Children's Hospital, Vancouver	3-6 Months	10 / 10	7.2	7.0-8.0	1	1
Stollery Children's Hospital, Edmonton	12-18 Months	17 / 16.1 [2 Locum]	10.8	12.9	1	1
Alberta Children's Hospital, Calgary	3-6 Months	10 / 7	3.3	4.4	1	0.8
Jim Pattison Children's Hospital, Saskatoon	>48 Months	5 / 4.5 (0.5 unfilled)	2.2	2.5	0.5	0.5
Children's Hospital HSC, Winnipeg	2-3 Months	4 / 4	2.7	3.5	0	1

NB: WAIT TIME FOR NEW REFERRAL WAITLIST IS AN APPROXIMATE AVERAGE FOR NON-URGENT NEW REFERRALS; HC = HEAD COUNT, FTE = FULL TIME EQUIVALENT; DIETICIAN IN BC IS AN UNFUNDED POSITION; SONOGRAPHER FTE IN MB ALSO COVERS CATH LAB; NURSING FTE IN EDMONTON IS BOTH RN AND LPN; SONOGRAPHER FTE IN EDMONTON IS SONOGRAPHER I AND II COMBINED.

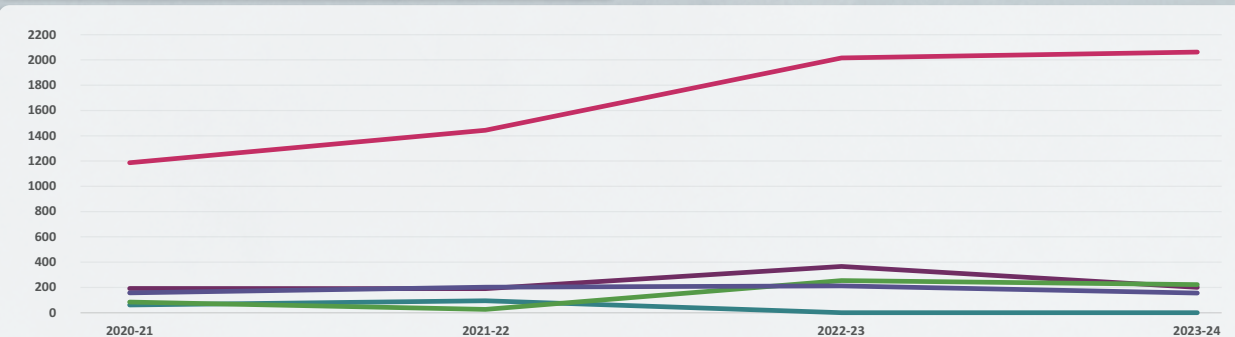
WCCHN Clinic Visits By Centre

SOURCE: REPORTED BY WCCHN CENTRES AS SOURCED FROM LOCAL ADMINISTRATIVE SYSTEMS EXCLUDES PARTNERSHIP/OUTREACH VISITS, ECHO ONLY, NURSING ONLY, AND RESIDENT CLINICS



WCCHN Partnership/Outreach Visits By Centre

SOURCE: AS REPORTED BY WCCHN CENTRES EXCLUDES CLINIC VISITS ON SITE AT A WCCHN CENTRE



BC Children's Hospital, Vancouver

Stollery Children's Hospital, Edmonton

Alberta Children's Hospital, Calgary

Jim Pattison Children's Hospital, Saskatoon

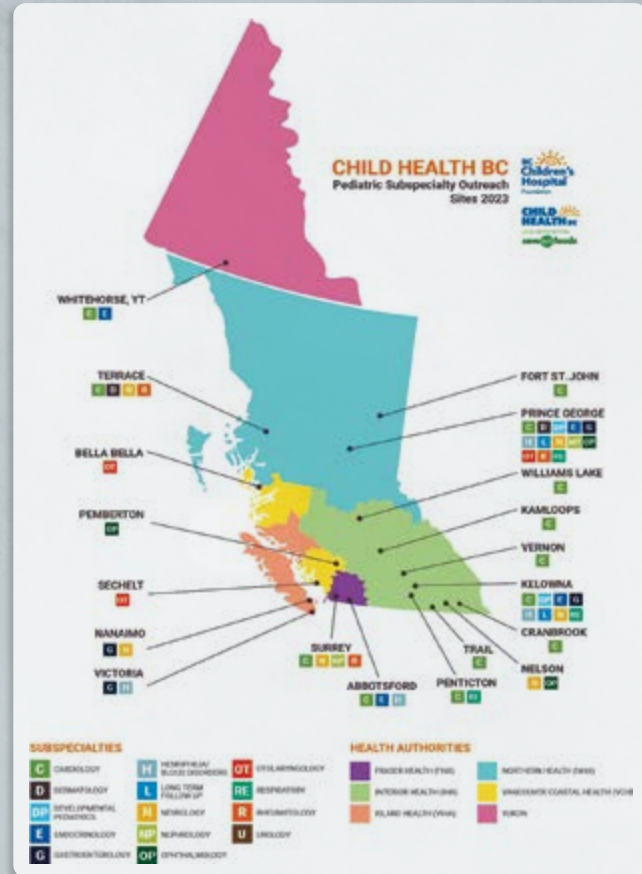
Children's Hospital HSC, Winnipeg

Reaching Rural Hearts: Specialized Care Across BC and the Yukon

By: **Jan Frew** RN, BCCH Provincial Outreach Coordinator, BC Children's Hospital

Cardiac care often starts in a hospital and continues at an outpatient clinic, both before and after heart surgery. At the Western Canadian Children's Heart Network (WCCHN), most patients are cared for until their late teens. Then, they are transferred to an adult cardiac center. Thanks to better treatments for children's heart disease, much of this care can now happen outside of the hospital.

At BC Children's Hospital (BCCH), outpatient clinics play an important role in keeping patients healthy. As more care has shifted to outpatient clinics, making sure everyone has fair access to this care has been a priority. In Canada, all provinces and territories face the challenge of delivering the right care to the right patient, no matter how far away they live. For example, British Columbia (BC) and the Yukon are together as large as France, Germany, and Spain combined. The size, time, and cost of travel to Vancouver often make it hard for patients in rural areas to get the care they need.



In 1995, Dr. Derek Human tackled these barriers by sending pediatric heart care teams to rural communities. Today, the Cardiac team visits 13 hospital sites, running 182 clinic days and seeing over 2,000 patients every year. The team works closely with local health care workers to assess patients, plan treatments, and provide education and support to families. These clinics also offer local health professionals and students the chance to learn more about pediatric heart care.

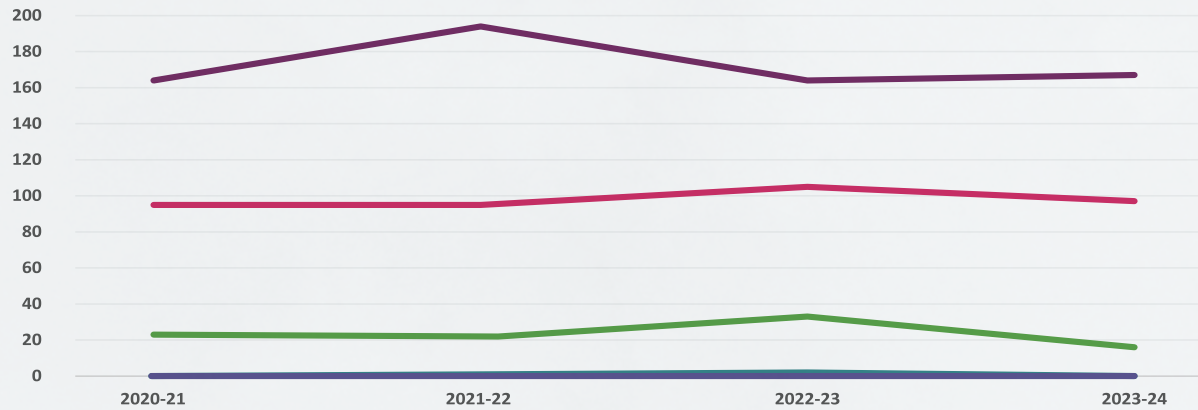
Over the past 30 years, the BCCH Cardiac Outreach Program has grown with the support of everyone involved. The program's success is based on three key factors: the team's passion for helping patients and families, the strong partnerships with local health care workers, and the support from leaders across BC and the Yukon.

Looking ahead, the Outreach Program aims to continue working with community doctors, rural liaisons, Indigenous leaders, and data analysts to make sure patients and families get the care they need, no matter where they live. The Outreach teams focus on keeping patients and families at the center of care, ensuring they receive high-quality, specialized pediatric care every step of the way.

Cardiac Catheterization and EP Metrics

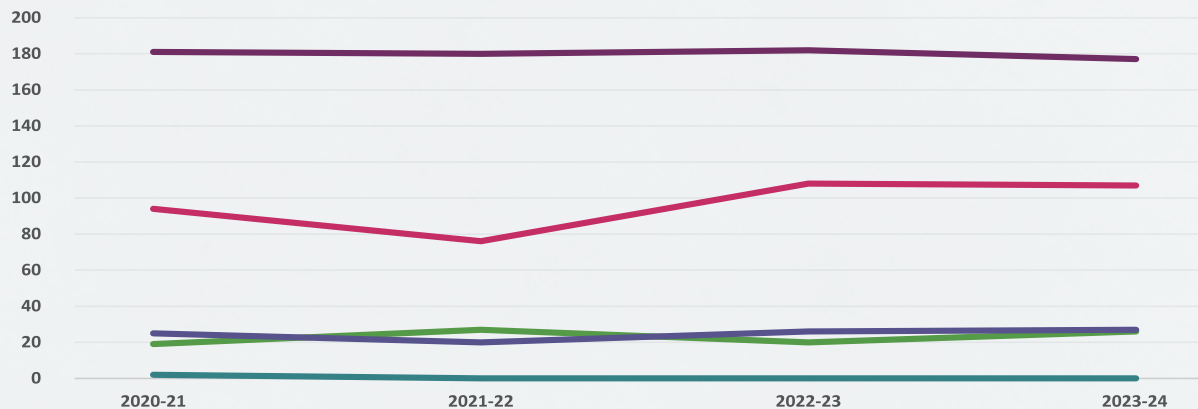
Interventional Cardiac Catheterizations

SOURCE: INTERPROVINCIAL REFERRAL PLATFORM
INCLUDES PEDIATRIC PATIENTS ≤ 17.99 YEARS AT TIME OF PROCEDURE



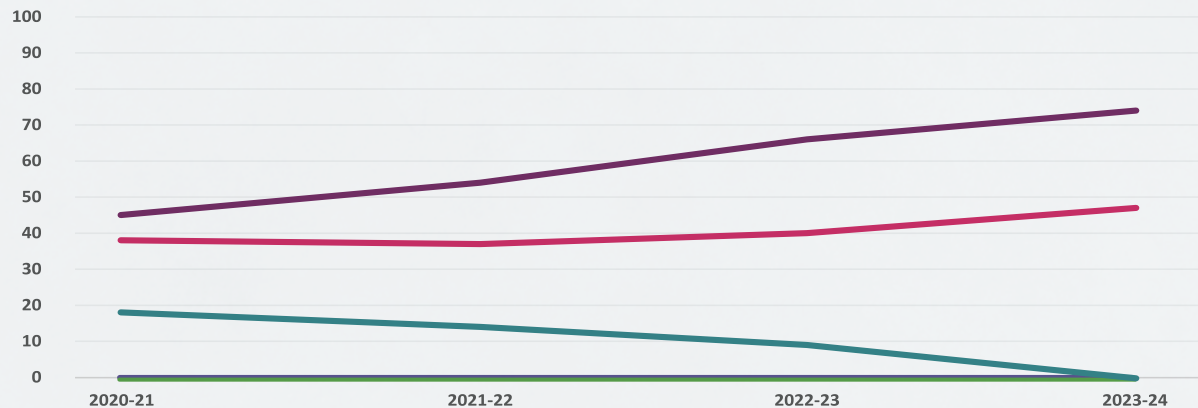
Diagnostic Cardiac Catheterizations

SOURCE: INTERPROVINCIAL REFERRAL PLATFORM
INCLUDES PEDIATRIC PATIENTS ≤ 17.99 YEARS AT TIME OF PROCEDURE



Electrophysiology Studies/Radio Frequency Ablation

SOURCE: INTERPROVINCIAL REFERRAL PLATFORM
INCLUDES PEDIATRIC PATIENTS ≤ 17.99 YEARS AT TIME OF PROCEDURE



BC Children's
Hospital, Vancouver

Stollery Children's
Hospital, Edmonton

Alberta Children's
Hospital, Calgary

Jim Pattison Children's
Hospital, Saskatoon

Children's Hospital
HSC, Winnipeg

Cardiac Surgeries and Clinical Benchmarking

For several decades, studies have suggested that outcomes of congenital heart surgeries are directly related to the surgical volume of the centre^{3,5}. Higher surgical volumes are linked to lower rates of death, especially for complex cases. From 2013 to 2024, the British Columbia Children's Hospital and Stollery Children's Hospital had yearly median surgical volumes of 283 and 677, putting them in the high surgical volume categories⁶.

Some surgeons in the WCCHN network also operate on adults with congenital heart conditions. This is important because children with these conditions will eventually move into the adult healthcare system. These patients need specialized follow-up care and treatment throughout their lives^{7,8}.

To make sure that the care we provide is as good as the best in the field, WCCHN takes part in a benchmarking program with the Society of Thoracic Surgeons (STS). We submit non-identifying data on specific surgical procedures from both of our surgical hospitals to the STS for analysis. The trends and outcomes for each hospital are then compared with other specialized institutions in the program across ten benchmark procedures. This helps us see where we excel and identifies areas that might need attention. The following sections show the number of surgeries performed at WCCHN surgical sites based on data submitted to the STS.

Congenital heart surgeries are grouped by complexity into **STAT Categories**. STAT Category 1 includes the least complex operations which have the lowest risk of mortality, while STAT Category 5 includes the most complex operations which have the highest risk. These categories were developed by the STS in partnership with the European Association for Cardiothoracic Surgery (EACTS).

Operative Survival refers to a patient's outcome after surgery. It is the inverse of operative mortality. Operative mortality is defined by the STS as either: 1) a death that occurs during the hospital stay in which the procedure was performed, regardless of how long the patient remained in hospital after the operation, 2) a death at another hospital because the patient was transferred but never discharged, or 3) a death within 30 days of the operation even if the patient had been discharged home. It is a key measure of the success of surgical procedures.

An important factor to note is that the number of surgeries at the two hospitals is smaller than the combined pool in the STS program. Because of this, the results for more complex and rare surgeries can be heavily influenced by just a few cases. However, the independent analysis from the STS benchmarking program shows that the quality of care provided by WCCHN and its partner hospitals is excellent. The care that children in the network receive is as good as the best in the field.

⁵ Jenkins, KJ, Newburger, JW, Lock, JE, Davis, RB, Coffman, GA, Iezzoni, LI (1995); In-hospital mortality for surgical repair of congenital heart defects: preliminary observations of variation by hospital caseload; *Pediatrics*, Mar 1995, 95(3), 323-30

⁶ Welke, KF, Diggs BS et al. (2008); *The Relationship Between Hospital Surgical Case Volumes and Mortality Rates in Pediatric Cardiac Surgery: A National Sample, 1988–2005*; *The Annals of Thoracic Surgery*, 86 (3), 889 – 896

⁷ Lucas, RA, Mao, T, Beauchesne, L et al (2024) ; *Adult Congenital Heart Disease Care in Canada: Has Quality of Care Improved in the Last Decade?*; *Canadian Journal of Cardiology*, 40(1), 138-147

⁸ Dray, EF and Marelli, AJ (2015); *Adult Congenital Heart Disease: Scope of the Problem*; *Cardiology Clinics*, 33(4), 503-512

Surgery at Stollery Children's Hospital

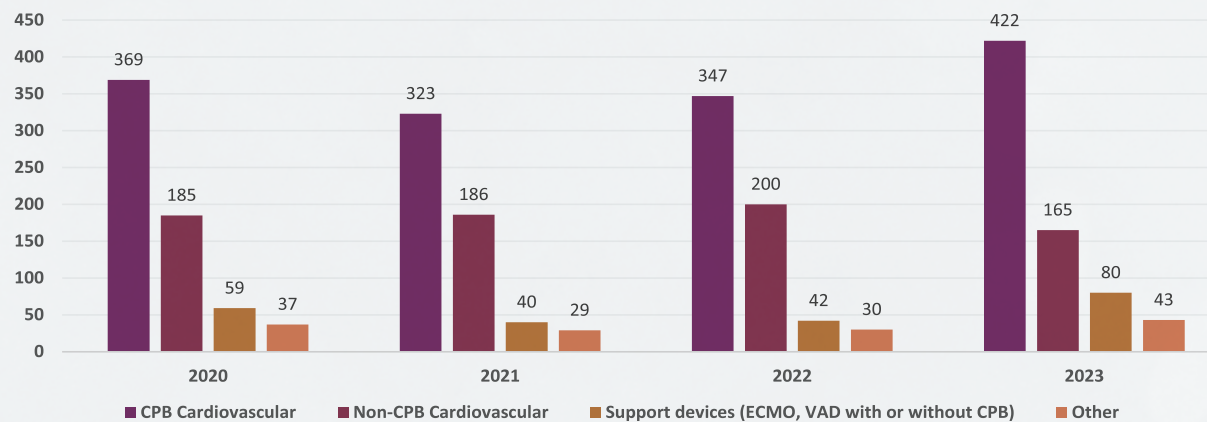
Benchmark Procedures: Stollery Children's Hospital

SOURCE: STS CHSD (CENTRIPETUS)

Benchmark Procedure	2020	2021	2022	2023
Off Bypass Coarctation Repair	19	16	18	16
Ventricular Septal Defect (VSD) Repair	31	32	43	41
Tetralogy of Fallot (TOF) Repair	21	28	35	27
AV Canal	12	12	16	11
Arterial Switch Operation (ASO)	10	6	9	7
ASO with VSD Repair	7	4	3	0
Glenn/Hemifontan Procedure	22	19	9	15
Fontan Procedure	24	17	17	21
Truncus Arteriosus Repair	2	0	1	3
Norwood Procedure	10	9	7	9

Total Surgical Volume at Stollery Children's Hospital

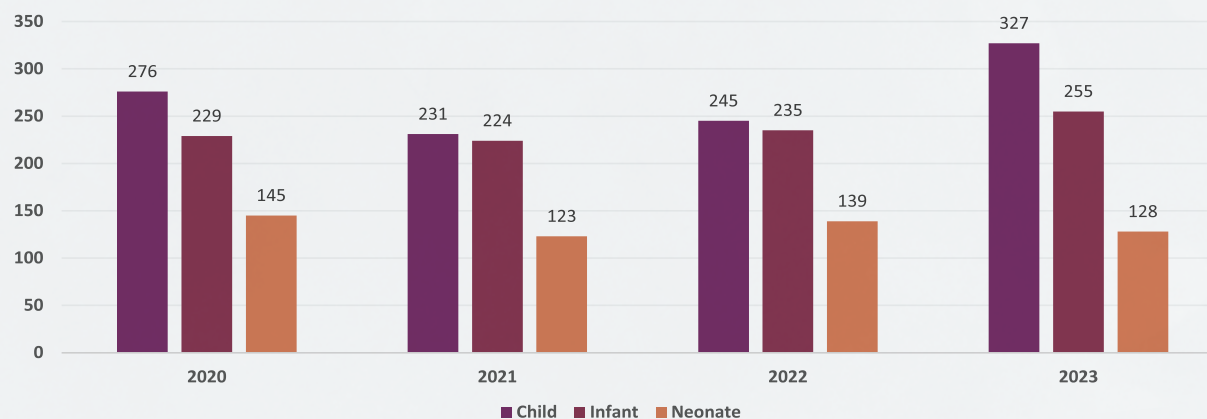
SOURCE: STS CHSD (CENTRIPETUS)



CPB — OPERATIONS (CARDIAC + VAD) WHERE CARDIOPULMONARY BYPASS WAS USED; NON-CPB — OPERATIONS (CARDIAC + VAD) WHERE CARDIOPULMONARY BYPASS WAS NOT USED; OTHER- INCLUDES ECMO, THORACIC, INTERVENTIONAL CARDIOLOGY, AND OTHER PROCEDURES THAT DO NOT FALL UNDER THE PREVIOUS CLASSIFICATIONS.

Age Breakdown of Surgeries at Stollery Children's Hospital

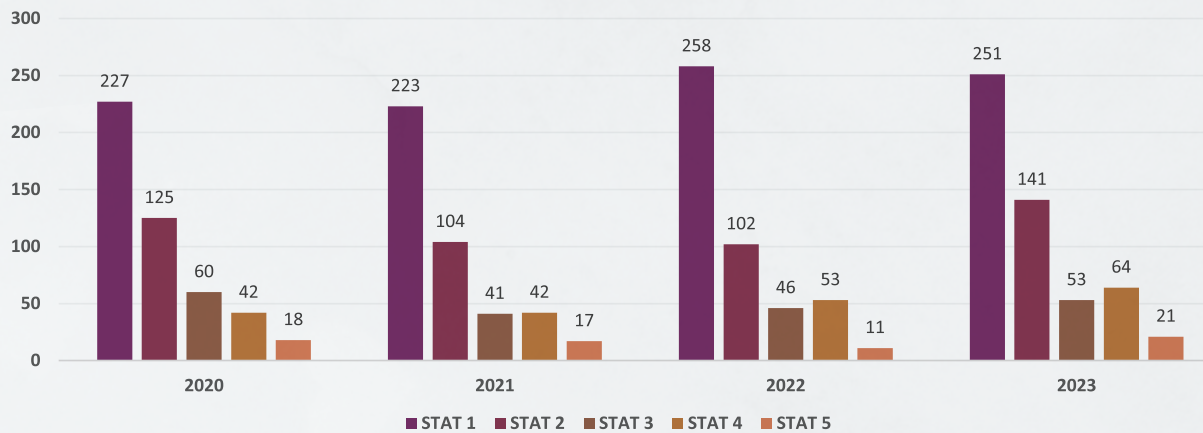
SOURCE: STS CHSD (CENTRIPETUS)



NEONATES ARE PATIENTS AGED 0 – 30 DAYS; INFANTS ARE PATIENTS FROM ONE MONTH TO 12 MONTHS OLD; CHILDREN ARE PATIENTS BETWEEN ONE AND 18 YEARS OLD.

Surgical Procedures at Stollery Children's Hospital Split by Complexity (STAT Category)

SOURCE: STS CHSD (CENTRIPETUS)



CONGENITAL HEART SURGERIES ARE GROUPED BY COMPLEXITY INTO STAT CATEGORIES. STAT CATEGORY 1 INCLUDES THE LEAST COMPLEX OPERATIONS WHICH HAVE THE LOWEST RISK OF MORTALITY, WHILE STAT CATEGORY 5 INCLUDES THE MOST COMPLEX OPERATIONS WHICH HAVE THE HIGHEST RISK. THESE CATEGORIES WERE DEVELOPED BY THE STS IN PARTNERSHIP WITH THE EUROPEAN ASSOCIATION FOR CARDIOTHORACIC SURGERY (EACTS).

Aggregate Survival Rates and Lengths of Stay by Benchmark Procedure (Four Years): Stollery Children's Hospital

Benchmark Procedure	Case Volume	Operative Survival Rate (%)	STS Benchmark (%)	Median LoS (Days)	STS Benchmark LoS (Days)
Off Bypass Coarctation Repair	68	97.1	99.1	8.5	13.4
Ventricular Septal Defect (VSD) Repair	175	98.9	99.6	5.0	10.9
Tetralogy of Fallot (TOF) Repair	100	99.0	99.1	8.0	12.7
AV Canal	52	94.2	98.2	9.5	18.3
Arterial Switch Operation (ASO)	32	96.9	98.1	15.5	18.0
ASO with VSD Repair	19	89.5	95.7	30.0	22.0
Glenn/Hemifontan Procedure	67	100	98.5	8.0	19.0
Fontan Procedure	80	95.0	98.8	11.0	12.8
Truncus Arteriosus Repair	5	80.0	92.3	51.0	37.5
Norwood Procedure	42	92.9	88.2	45.0	60.0

SOURCE: TABLE 18, THE SOCIETY OF THORACIC SURGEONS (STS) 2023 FALL HARVEST FOR JULY 2019 - JUNE 2023
OPERATIVE SURVIVAL REFERS TO A PATIENT'S OUTCOME AFTER SURGERY. IT IS THE INVERSE OF OPERATIVE MORTALITY. OPERATIVE MORTALITY IS DEFINED BY THE STS AS EITHER: 1) A DEATH THAT OCCURS DURING THE HOSPITAL STAY IN WHICH THE PROCEDURE WAS PERFORMED, REGARDLESS OF HOW LONG THE PATIENT REMAINED IN HOSPITAL AFTER THE OPERATION, 2) A DEATH AT ANOTHER HOSPITAL BECAUSE THE PATIENT WAS TRANSFERRED BUT NEVER DISCHARGED, OR 3) A DEATH WITHIN 30 DAYS OF THE OPERATION EVEN IF THE PATIENT HAD BEEN DISCHARGED HOME.

Aggregate Survival Rates by STAT Category (Four Years): Stollery Children's Hospital

SOURCE: TABLE 1, THE SOCIETY OF THORACIC SURGEONS (STS) 2023 FALL HARVEST FOR JULY 2019 - JUNE 2023

STAT Category	Total Volume	Discharge Mortalities	Operative Survival Rate (%)	STS Benchmark (%)
STAT 1	863	12	98.6	99.4
STAT 2	356	7	98.0	98.0
STAT 3	165	10	93.9	96.6
STAT 4	160	17	89.4	92.2
STAT 5	68	9	86.8	85.0

OPERATIVE SURVIVAL REFERS TO A PATIENT'S OUTCOME AFTER SURGERY. IT IS THE INVERSE OF OPERATIVE MORTALITY. OPERATIVE MORTALITY IS DEFINED BY THE STS AS EITHER: 1) A DEATH THAT OCCURS DURING THE HOSPITAL STAY IN WHICH THE PROCEDURE WAS PERFORMED, REGARDLESS OF HOW LONG THE PATIENT REMAINED IN HOSPITAL AFTER THE OPERATION, 2) A DEATH AT ANOTHER HOSPITAL BECAUSE THE PATIENT WAS TRANSFERRED BUT NEVER DISCHARGED, OR 3) A DEATH WITHIN 30 DAYS OF THE OPERATION EVEN IF THE PATIENT HAD BEEN DISCHARGED HOME.

Surgery at British Columbia Children's Hospital

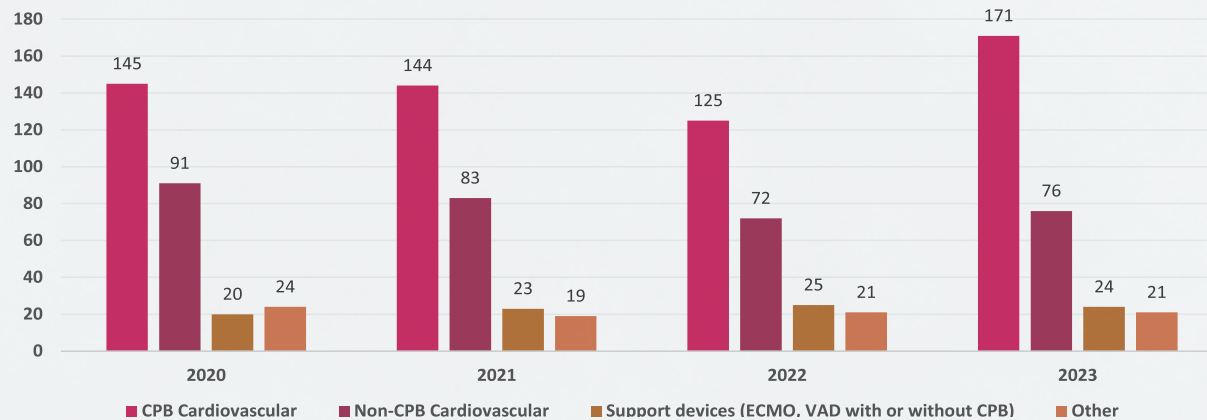
Benchmark Procedures: BC Children's Hospital

SOURCE: STS CHSD (CENTRIPETUS)

Benchmark Procedure	2020	2021	2022	2023
Off Bypass Coarctation Repair	13	14	13	11
Ventricular Septal Defect (VSD) Repair	10	13	20	24
Tetralogy of Fallot (TOF) Repair	13	13	11	7
AV Canal	7	12	6	10
Arterial Switch Operation (ASO)	9	7	3	9
ASO with VSD Repair	1	1	3	2
Glenn/Hemifontan Procedure	13	9	5	9
Fontan Procedure	4	5	4	13
Truncus Arteriosus Repair	0	0	0	1
Norwood Procedure	3	1	3	1

Total Surgical Volume at BC Children's Hospital

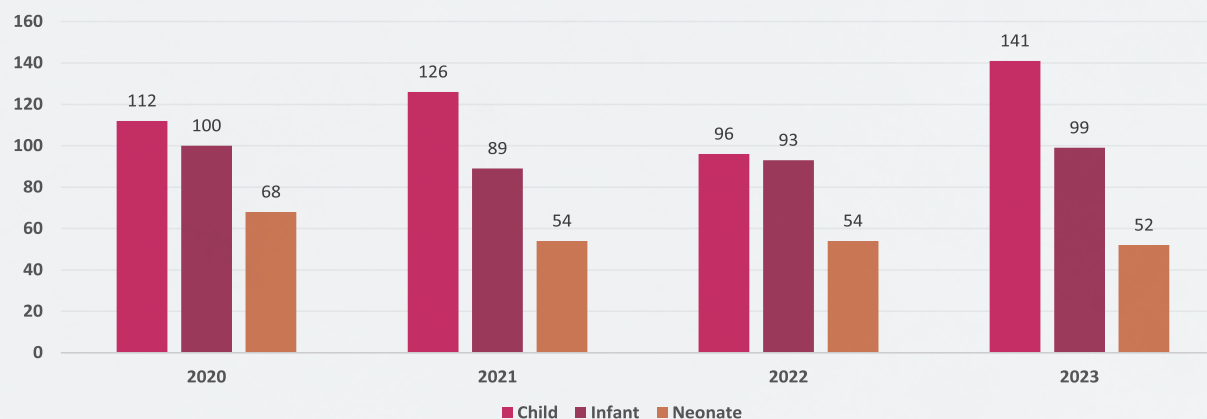
SOURCE: STS CHSD (CENTRIPETUS)



CPB — OPERATIONS (CARDIAC + VAD) WHERE CARDIOPULMONARY BYPASS WAS USED; NON-CPB — OPERATIONS (CARDIAC + VAD) WHERE CARDIOPULMONARY BYPASS WAS NOT USED; OTHER — INCLUDES ECMO, THORACIC, INTERVENTIONAL CARDIOLOGY, AND OTHER PROCEDURES THAT DO NOT FALL UNDER THE PREVIOUS CLASSIFICATIONS.

Age Breakdown of Surgeries at BC Children's Hospital

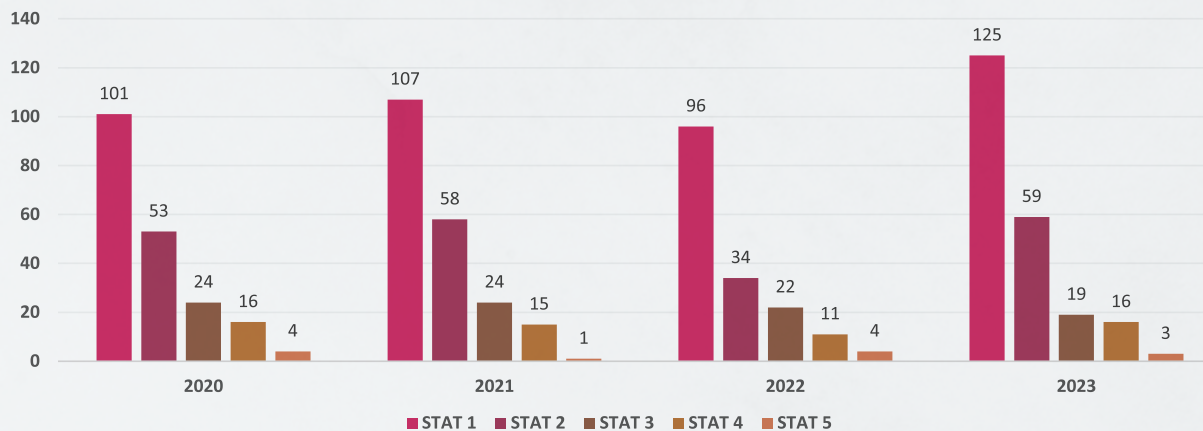
SOURCE: STS CHSD (CENTRIPETUS)



NEONATES ARE PATIENTS AGED 0 – 30 DAYS; INFANTS ARE PATIENTS FROM ONE MONTH TO 12 MONTHS OLD; CHILDREN ARE PATIENTS BETWEEN ONE AND 18 YEARS OLD.

Surgical Procedures at BC Children's Hospital Split by Complexity (STAT Category)

SOURCE: STS CHSD (CENTRIPETUS)



CONGENITAL HEART SURGERIES ARE GROUPED BY COMPLEXITY INTO STAT CATEGORIES. STAT CATEGORY 1 INCLUDES THE LEAST COMPLEX OPERATIONS WHICH HAVE THE LOWEST RISK OF MORTALITY, WHILE STAT CATEGORY 5 INCLUDES THE MOST COMPLEX OPERATIONS WHICH HAVE THE HIGHEST RISK. THESE CATEGORIES WERE DEVELOPED BY THE STS IN PARTNERSHIP WITH THE EUROPEAN ASSOCIATION FOR CARDIOTHORACIC SURGERY (EACTS).

Aggregate Survival Rates and Lengths of Stay by Benchmark Procedure (Four Years): BC Children's Hospital

Benchmark Procedure	Case Volume	Operative Survival Rate (%)	STS Benchmark (%)	Median LoS (Days)	STS Benchmark LoS (Days)
Off Bypass Coarctation Repair	54	100	99.1	3	13.4
Ventricular Septal Defect (VSD) Repair	70	100	99.6	3	10.9
Tetralogy of Fallot (TOF) Repair	45	100	99.1	5	12.7
AV Canal	31	96.8	98.2	6	18.3
Arterial Switch Operation (ASO)	27	100	98.1	6	18.0
ASO with VSD Repair	8	87.5	95.7	8.5	22.0
Glenn/Hemifontan Procedure	40	97.5	98.5	3	19.0
Fontan Procedure	28	100	98.8	7	12.8
Truncus Arteriosus Repair	1	100	92.3	24	37.5
Norwood Procedure	8	75.0	88.2	8	60.0

SOURCE: TABLE 18, THE SOCIETY OF THORACIC SURGEONS (STS) 2023 FALL HARVEST FOR JULY 2019 - JUNE 2023
OPERATIVE SURVIVAL REFERS TO A PATIENT'S OUTCOME AFTER SURGERY. IT IS THE INVERSE OF OPERATIVE MORTALITY. OPERATIVE MORTALITY IS DEFINED BY THE STS AS EITHER: 1) A DEATH THAT OCCURS DURING THE HOSPITAL STAY IN WHICH THE PROCEDURE WAS PERFORMED, REGARDLESS OF HOW LONG THE PATIENT REMAINED IN HOSPITAL AFTER THE OPERATION, 2) A DEATH AT ANOTHER HOSPITAL BECAUSE THE PATIENT WAS TRANSFERRED BUT NEVER DISCHARGED, OR 3) A DEATH WITHIN 30 DAYS OF THE OPERATION EVEN IF THE PATIENT HAD BEEN DISCHARGED HOME.

Aggregate Survival Rates by STAT Category (Four Years): BC Children's Hospital

SOURCE: TABLE 1, THE SOCIETY OF THORACIC SURGEONS (STS) 2023 FALL HARVEST FOR JULY 2019 - JUNE 2023

STAT Category	Total Volume	Discharge Mortalities	Operative Survival Rate (%)	STS Benchmark (%)
STAT 1	416	0	100	99.4
STAT 2	181	4	97.8	98.0
STAT 3	93	2	97.9	96.6
STAT 4	50	8	84.0	92.2
STAT 5	13	5	61.5	85.0

OPERATIVE SURVIVAL REFERS TO A PATIENT'S OUTCOME AFTER SURGERY. IT IS THE INVERSE OF OPERATIVE MORTALITY. OPERATIVE MORTALITY IS DEFINED BY THE STS AS EITHER: 1) A DEATH THAT OCCURS DURING THE HOSPITAL STAY IN WHICH THE PROCEDURE WAS PERFORMED, REGARDLESS OF HOW LONG THE PATIENT REMAINED IN HOSPITAL AFTER THE OPERATION, 2) A DEATH AT ANOTHER HOSPITAL BECAUSE THE PATIENT WAS TRANSFERRED BUT NEVER DISCHARGED, OR 3) A DEATH WITHIN 30 DAYS OF THE OPERATION EVEN IF THE PATIENT HAD BEEN DISCHARGED HOME.

WCCHN's Top-Tier Data Fuels Quality Care and Research

The WCCHN provides data support to both internal and external teams for analyzing operations, improving quality, and conducting research. The important information we collect about congenital heart disease comes from outpatient clinic activity and outreach efforts, heart surgeries and referrals, and hospitalizations across the five participating centres. We gather hundreds of pieces of non-identifying information for each child's care and have created several dashboards with near real-time data. Our data is of the highest quality because we participate in major quality registries which help us to compare our outcomes internationally. We are now in the process of helping our cardiology teams to set up two more quality registries: the Pediatric Acute Care Cardiology Collaborative (PAC3) and the Pediatric Cardiac Critical Care Consortium (PC4).

In a 2023 independent STS audit of WCCHN's data, the quality of the data (which is crucial for any analysis or evidence-based programming) was confirmed to be top-notch. WCCHN's data accuracy and completion scores ranged from 97.4% to 100%, ensuring that the information used for decisions and programming is of the highest standard.

WCCHN's Data Milestones and Impact Timeline

Through the collective efforts of many, WCCHN has built one of the largest and most comprehensive datasets for pediatric cardiology in Canada—a dataset that is, to our knowledge, unlike any other in the world.

Timeline	Operational Activity	Impact
Early 90s	Four sites operate independently, managing smaller teams and fewer surgeries; Limited coordination results in variability of patient outcomes and service levels.	Concerns about quality and consistency of care in Western Canada surface. The need for systemic change is recognized.
Late 90s	Emerging research shows higher surgical volumes significantly improve patient outcomes. A network-based approach is recommended.	A vision for collaborative, regionalized cardiac care for children in Western Canada begins to take shape.
Early 2000s	WCCHN is formalized; KPMG is contracted to standardize a cross-province referral system and data collection protocol; Western Management Consultants design the software architecture and data integration/conversion strategies.	The groundwork is established for a unified approach to managing referrals and tracking data across Western Canada. A commitment to actionable insight, consistency, and collaborative care becomes operational.
Mid 2000s	The WCCHN Database is rolled out across all five sites in Western Canada.	Region-wide collaboration on complex cases and centralized referral/data management starts improving coordination and care.
2010s	WCCHN begins benchmarking clinical outcomes after surgery and eventually expands to include outcomes after cardiac catheterization; Older Canadian medical coding is mapped to new internationally standardized code.	A focus on quality improvement through global standards drives better practice making WCCHN's data more usable. Data begins directly supporting research, decision-making, and operational improvements.
2020	Newcomp Analytics is contracted to develop WCCHN's first live-feed data dashboards to track and monitor referral patterns and wait times in real time.	Real-time insights enhance operational responsiveness, while new trends and patterns in the data are uncovered for the first time.
2022	There is no standardized clinical quality registry to track prenatal detection rates for CHD, so WCCHN builds one; WCCHN commits to a three-year international benchmarking initiative to analyze anesthesia data at both sites.	The stage is set to support broader outcome monitoring and more comprehensive care improvement for patients and families. The power of in-house analytics is realized.
2024	The first site launches an acute care quality registry (PAC3) piloting the collection and evaluation of clinical outcomes following inpatient hospital admission; Preparations begin for contracting PC4 to benchmark and analyze critical care outcomes.	Adding additional, large-scale clinical registries to WCCHN's existing data ecosystem would provide a platform to learn from the quality improvement initiatives of others across North America, and position WCCHN to emerge as a global leader by driving innovation and setting new standards in data-driven healthcare for pediatric cardiology.

Building Trust Through Quality: Celebrating Data Excellence at WCCHN

In today's healthcare landscape, strong data quality is essential for enhancing patient safety and clinical outcomes, driving evidence-based decision making, and building trust. For WCCHN, our Data Quality Framework is more than a guideline—it's a commitment to ensuring that the data we collect, analyze, and share is accurate, relevant, and actionable.

Following standards adapted from BORN Ontario, our Data Quality Framework addresses five dimensions of quality: **Timeliness, Accuracy/Validity, Reliability/Comparability, Usability, and Relevance**. These dimensions ensure data is current, precise, consistent, accessible, and aligned with user needs. The framework acknowledges that enhancing one dimension may sometimes affect others, requiring a careful balance to maintain overall data quality. WCCHN drives a collaborative approach to upholding data quality by which data providers and stakeholders are engaged at every step.

In addition, WCCHN also aligns with CIHI's principles, affirming that quality is multi-dimensional, relative to user needs, shared by all contributors, and a continuous priority across the information life cycle. This approach promotes accountability, encourages regular feedback, and fosters data stewardship among all involved.

WCCHN's rigorous quality assurance activities are categorized into **Prevent and Protect, Monitor and Control, and Evaluate and Improve**. Proactive measures include standardized coding guidelines, validation checks, regular audits, and feedback loops. Tools like the Data Quality Reports (DQR), dynamic queries, and automated error reporting further reinforce integrity by flagging issues for timely correction before submission or analysis.

This framework also promotes continuous quality improvement through a feedback-driven cycle, ensuring that outputs—like Harvest Reports and custom data extracts—meet stakeholders' evolving needs. This process builds trust, improves knowledge, and increases data use both inside the network and out.

By establishing this framework, WCCHN demonstrates its dedication to delivering trusted information that helps our team, partners, and stakeholders make a difference in the lives of those we serve. This framework is both a technical guide and a strategic tool to build and sustain a culture that values data quality as an essential component of effective healthcare management.

To learn more about WCCHN's philosophy on data quality, log into Headquarters at wcchn.ca/login/ or contact us at WCCHN@ahs.ca

"Wanted to take a moment to express my thanks to everyone [who supported the data audit] and to congratulate the team on their excellent work and the phenomenal outcome. I have immense gratitude for everyone's dedication."

Trish Page, MN, RN

Executive Director, Clinical Operations

Cardiac Critical Care, Procedures & Surgical Services, PainCare 360, and Specialized Pediatrics
BC Children's Hospital

Equal Access

Right-Sizing Children's Health Systems

"Canada's eight million children and youth are facing a healthcare crisis", according to Children's Healthcare Canada (CHC), the Canadian Paediatric Society, and the Canadian Association of Paediatric Nurses. These organizations are urging all levels of government to work together and provide new funding to ensure the healthcare system can meet the changing needs of this population. The idea of "right-sizing" focuses on five key aspects where CHC suggests that policy and investment recommendations will have the greatest impact:

1. Access to care in the community
2. Innovating hospital-based services and care models
3. Care pathways and transitions for populations with complex needs
4. Child, youth and family mental health
5. Equitable access to care for all populations across the country

Right-sizing aims to align healthcare resources and services with the actual needs of children and youth, ensuring they receive timely, effective, and fair care. This is especially important as the demand for pediatric services increases and health challenges among children and youth become more complex.

In the fall of 2023, Children's Healthcare Canada hosted a Right-Sizing Children's Health Systems consultation process through a series of virtual roundtables. These expert-led discussions brought together providers, government representatives, child health advocates, healthcare workers, researchers, educators, and families to share their insights and recommendations.



WCCHN participated in all five roundtables sharing our experience of and effort towards adjusting resources and capacity, improving access, enhancing quality, scaling efforts, and fostering wide-scale collaboration in the face of crisis. Sharing WCCHN's story lent a concrete Canadian example of how people can come together to create change, while showcasing the resilience and adaptability of our health system. It was also an opportunity for WCCHN to listen in and learn from the discussions and experiences of others, helping us to better understand the overall industry's needs and concerns as they exist today.

“Right-sizing” children’s healthcare systems is crucial for ensuring equal and timely access to world-class care for children with heart disease. WCCHN supports this important movement and encourages continued discussion as progress is made towards relevant, meaningful, and sustainable improvements for children’s healthcare in Canada.

The final report stemming from these consultations can be found on the Children’s Healthcare Canada website.



**BEYOND BANDAIDS:
Delivering Healthcare Fit for Kids**

childrenshealthcarecanada.ca/en/child-health-advocacy/_Right-Sizing__Children_s_Healthcare_Campaign.aspx



Innovative Diagnostic Tools Enhance Winnipeg’s Pediatric Heart Centre

By: **Dr. Reeni Soni** Divisional Director, Cardiology, Children’s Hospital, HSC

The Travis Price Children’s Heart Centre in Winnipeg recently introduced two new diagnostic technologies. The first is the Spacelabs wireless holter monitoring system, which replaces traditional holter monitors that require chest bandaging and long wires, often leading to incomplete testing in young children. The wireless system, with self-adhesive application, eliminates the need for dressings and enables in-house analysis in the Pediatric Cardiology department. This has improved report quality and cut the turnaround time from months to under two weeks.

Additionally, the center implemented the latest Phillips Intellispace digital echocardiography platform, allowing seamless flow of reports to the provincial electronic medical records and easier information sharing with other healthcare providers.

In 2023, the program moved from the Ambulatory Care umbrella of Shared Health MB to the Acute Care division of Child Health. This shift reflects the acute nature of their work and provides a more direct reporting line to Senior Management at Winnipeg Children’s Hospital.

Culture And Collaboration

Empowering Community Innovation

Making a Difference Through Project Endorsement and Strategic Funding


From patients and families to doctors and clinical scientists across four provinces, WCCHN has funded innovative projects of all kinds. In February 2022, an application for \$5,000 in funding came in. It was from one of our own heart kiddos and we just had to support. We're excited to share the amazing work that Siena started in Manitoba and has been growing ever since.

On Siena's first birthday, she traveled from Winnipeg to Vancouver for heart surgery at BC Children's Hospital. While there, she received a teddy bear that she named "Luna". Nine years later, Siena asked her mom if other kids got a teddy bear when going in for heart surgery. Turns out, the answer was no. Inspired by Luna, Siena decided to give back and started I♥bearhugs to give teddy bears to all children in Manitoba who travel out of province for heart surgery.

Since being awarded her start-up funding from WCCHN, Siena has collected almost 1,000 teddy bears. These bears have been given to the Travis Price Children's Heart Centre in Winnipeg, as well as CHAMPS Camp in Saskatoon. In 2024, fundraising and collection efforts have seen Siena speaking at schools, reading her book choice during I Love to Read Month, and a pick-a-player fundraiser at a local ringette tournament.



Siena's efforts have been featured in news articles, she represented the Children's Hospital Foundation at the Winnipeg Ice Teddy Bear Toss hockey game, and she was featured in a profile video produced by local high school students. She received recognition from the Manitoba Legislative Assembly, the honourable Heather Stefanson, Premier of Manitoba, Minister Jeff Wharton, MLA Red River North, and was honoured with the Queen's Platinum Jubilee award from MP Raquel Dancho for her philanthropy.

Siena is 13 years old now and lives with her proud parents and her biggest fan, "Tiego", her labradoodle. She hopes to expand the fundraiser nationwide so that "other kids get to have a teddy bear, just like I did." To learn more, donate a teddy bear, or give money to I♥bearhugs, visit ilovebearhugs.ca 


WCCHN Gives a Big Thumbs Up

WCCHN is excited to introduce our new “Thumbs Up” endorsement seal! This initiative aims to recognize and support others in our heart community who have worked to develop expert CHD resource materials to the benefit of our heart kids and their families. The “Thumbs Up” is a mark of WCCHN’s assurance in the resource for both quality and reliability. It helps to elevate awareness for resources that are valued and trusted by WCCHN, but not developed directly by WCCHN. This seal of endorsement helps us to ensure that heart families continue to get the best and most reliable information available.




Applying for WCCHN’s Thumbs Up is straightforward and free of charge. Our goal is to ensure that any individual or group, regardless of size or financial standing, can be recognized for making outstanding resources that improve the lives of those living with CHD through awareness and education. Through this initiative, we have already begun to highlight and promote the incredible work being done throughout our CHD community.



If you would like to apply for WCCHN’s Thumbs Up for your resource, simply get in contact with us at WCCHN@ahs.ca 



Great Ideas Deserve a Boost

Usually you hear about a ripple effect, but **this heart community is making waves!** WCCHN fuels innovation and accelerates change by investing in our passion-driven community. Over the past two years, WCCHN has awarded more than \$83,000 in support of projects across the West to the benefit of either heart patients and their families, or pediatric cardiology programs. To learn more about these projects and the teams behind them, visit the recap page on our website: wcchn.ca/parents-families/boostuevent/ 

Digital Storytelling Workshop: Stories of Young Adults with CHD

\$8,000 – Kristy Wolfe (Family)

2022-23

A digital story is a 2-4 minute movie made with images, video, voiceover, and music to help people share real stories that build resilience. It connects individuals with similar experiences and creates a resource for future patients and families. Kristy Wolfe and her team held a digital storytelling workshop for six young adults with congenital heart disease, each creating their own story. Three screening events were held, allowing friends, family, and healthcare professionals to support the storytellers. Audience engagement helped some participants realize, for the first time, that their story matters and can inspire others.

Modified Fat Breastmilk: A Family Centered Strategy for Chylothorax

\$9,972 – Alanna Ash (Nurse)
Phase 1 Funding

2022-23

Chylothorax is a condition where fat-rich fluid called chyle builds up in the chest, oftentimes after surgery. This can make hospital stays longer because it takes more time to drain the fluid and remove the chest tube. To treat chylothorax, patients first need to switch to a low-fat diet. Alanna Ash and her team of dietitians looked at how to lower the fat in breastmilk using a centrifuge so babies with chylothorax could still take their mother's milk. They used this information to create a standardized supplementation recipe, aiming to get the best results for infants with chylothorax in the next phase.

Virtual Heart Connection: Fontan Family Camp

\$10,000 – George Slim (Resident)

2022-23

The Virtual Heart Connection began during the pandemic as a virtual camp for children with a single ventricle and a Fontan operation. From 2020 to 2022, it connected kids with similar heart conditions, reducing their isolation. After the pandemic, Dr. George Slim and his team used this funding to create an in-person Fontan Family Camp, free for children with Fontan heart surgery and their families. Held in August 2023, the camp hosted 18 campers aged 7-14, along with their families, for a total of 71 attendees. They enjoyed physical activities, games, workshops, pool time, sing-alongs, and campfires. The camp's simple yet profound goal was to increase the number of children who could say, "I know someone else with a Fontan heart!"

Canada-Wide Pediatric Cardiology Trainee Simulation Curriculum

\$5,020 – Sabine Laguë (Resident)

2022-23

This project developed a 3-year pediatric cardiology simulation curriculum aligned with Canada's new Competence by Design program. Each activity meets Royal College standards and simulates clinical practice. The curriculum benefits trainees like fellows, residents, and medical students, as well as patients, families, and the healthcare community. Patients will receive care from trainees who have been trained and given feedback on key communication skills, such as perinatal counseling and serious illness discussions, improving Patient and Family-Centered Care.

Stollery Child Life Wish List Shopping Spree

\$500 – Caitlyn Frenette (Family)

2022-23

As a heart mom familiar with the Stollery Children's Hospital, the Child Life Services program was especially meaningful to Caitlyn. Working with WCCHN, Caitlyn chose items from the program's wish list to be bought and delivered. The program helps improve pediatric patients' emotional and physical well-being by providing toys and supplies that offer comfort, distraction, and opportunities for development and socialization.

PCICU MIND Program

\$10,000 – Veena Sivarajan (Nurse)

2023-24

Thanks to advances in technology and treatment strategies, about 85% of patients with CHD now survive into adulthood. However, this has also shown that many of these patients may be at risk of learning disabilities and developmental delays. Research suggests that developmental care should be part of the standard treatment in the Pediatric Cardiac Intensive Care Unit (PCICU). Veena's PCICU MIND Program, with its team of experts, will create a developmental care cart to use during care rounds. This will help support families and encourage them to take part in their child's care to promote better brain development.

Send a Kid to Camp: BoostUp Audience Pay-It-Forward Raffle

\$500 – Amanda Penner (Family)

2023-24

Amanda Penner used this surprise bonus money to help send kids to CHAMPS Camp in Saskatoon. While there is no cost for children to attend, the funds helped to cover the camp's overall expenses including accommodations and food. Funding for this initiative is crucial, especially for families from rural areas outside Saskatoon as travel and accommodation costs are the biggest obstacles. Of the 40 families who attended this year, half faced financial challenges. Thanks to funds like this, families can cover all accommodation costs and attend camp!

Keeping Your Cutting Edge

\$10,000 – Ben Sivarajan (Physician)

2023-24

Exceptional care comes from investing in faculty education on the latest developments. While most doctors have resources to travel and participate in professional medical conferences, front-line workers have less access and limited availability. Ben's project aims to change this by bringing industry experts to the WCCHN. Each expert will work closely with the clinical teams on site and will offer both didactic lectures and hands-on engagement. This approach will enhance interdisciplinary team-based care, positively impacting all areas and specialties of the WCCHN Centres over time.

Parent Education Workshops on Neurodevelopment in CHD

\$10,000 – Marsha Vasserman (Psychologist)

2023-24

Medical care for children with CHD is better than ever, leading to higher survival rates. However, because of this, there are also more children who now face neurodevelopmental issues as they grow and go through school. Marsha's project will help build community, resilience, and quality of life by offering seven educational workshops to parents across Western Canada. To extend the project's reach, knowledge sharing resources like handouts and media will also be made available through WCCHN to further improve education and understanding for heart parents.

Hands-On Sonographer Training: Alberta PILOT

\$10,000 – Amy Porter (Family)

2023-24

About half of all heart defects are not found before birth. This Tiny HeartsCan Foundation project will offer 5 free training sessions for sonographers, teaching them how to better detect heart defects in infants. Since detection rates are lower in rural areas, Amy will start with a focus on High Level, Fort McMurray, Red Deer, Lethbridge, and Medicine Hat. Discovering heart defects earlier will allow for earlier intervention, reduced complications, improved survival rates, and better quality of life.

Caregiver Corner

\$9,800 – Jen Siran (Family)

2023-24

When a caregiver's health suffers, so does the care of the child. Jen's program will create a multimedia package to give parents and caregivers quick tips and encouragement for navigating life with CHD. Learning about their child's health gives caregivers a sense of control and confidence, which leads to better outcomes in managing their child's care. The Caregiver Corner will offer a supportive online space for parents and caregivers to take a break and recharge before returning to care for their child.

Lowering the Flag

Dr. Duncan and Dr. Tyrrell were remarkable practitioners for their patients, role models for generations of medical students, and were deeply respected as colleagues and leaders inside our network. They will be greatly missed.

Dr. Neil F. Duncan (Dec. 7, 2021) *Adapted from University of Alberta blog and Edmonton Journal obituary*

Dr. Duncan was a trailblazer in Alberta and a pioneer in cardiology. After graduating from the University of Alberta medical school in 1949, Dr. Duncan pursued specialized pediatric cardiology training in Toronto and Chicago. He returned to Alberta in 1953 to practice at the Baker Clinic and quickly moved over to the University Hospital to help develop a cardiac catheterization lab in conjunction with then surgeon Dr. John Callahan.

As Alberta's first pediatric cardiologist, he cared immensely about children and their families. In 1973, as Divisional Director of Pediatric Cardiology, Dr. Duncan established the first pediatric cardiology outreach clinics in Red Deer and Yellowknife. He went on to spearhead the campaign for a children's hospital in Northern Alberta. These efforts led to what we know today as the Stollery Children's Hospital.

Dr. Duncan's colleagues, pediatric cardiologists Dr. Yashu Coe and Dr. Michal Kantoch, remember him fondly as a very generous person with many talents including wood carving. WCCHN remembers him as incredibly well respected. We are saddened by his passing and send our deepest condolences to his family.



Dr. Michael J. Tyrrell (Dec. 25, 2023) *Adapted from Pierson's Funeral Services obituary*

As a youngster, Michael Tyrrell was a dedicated and accomplished student who earned a State Scholarship to pursue medicine. He received his medical degree from St. Bartholomew's Hospital Medical College, University of London, in 1959 and completed his post-graduate training in cardiology at the same institution. In 1967, he decided to seek new opportunities in North America, moving first to the United States where he served as an instructor and completed a fellowship in pediatric cardiology at Harvard University in Boston.



In 1970, Dr. Tyrrell and his family moved to Saskatoon, Saskatchewan where he began practicing pediatric cardiology at the Royal University Hospital. For 42 years, he cared for young patients and their families with great dedication. Longtime friend of the WCCHN, he was active in helping to establish the WCCHN in its earliest years. He also served as a full professor at the University of Saskatchewan for many years, achieving professor emeritus status in 2002. Dr. Tyrrell's contributions to pediatric cardiology and his commitment to education left a lasting impact on our heart community.

Cheers to Their Years

Celebrating the retirement phase of our colleague and friend

Vera and Patty have been cherished friends to our network, each leaving their mark. We extend our heartfelt congratulations on long and successful careers and wish them each a wonderful, healthy, and well-deserved break from work.

Vera Horobec, Database Manager (Ret. Sep. 26, 2023)

Vera's career with AHS started over 35 years ago in Pathology Records at the University of Alberta Hospital (UAH). From there, she progressed through several specialty areas where she focused on developing and refining her expertise in Medical Quality Improvement, Medical Research, and Data Analytics. She joined the WCCHN team in 2008 and led implementation and operations for our clinical and quality information systems for over 15 years. Vera was instrumental in the development and evolution of WCCHN as it is today, particularly in regards to regional and international networking, expansion in clinical benchmarking, and the overall advancement of WCCHN's data ecosystem.



Patty Knox, Nurse Clinician (Ret. Dec. 15, 2023)

We think all will agree that working with Patty and building friendships with her through Alberta Children's Hospital and across the network has been an absolute pleasure. Patty was a voice of experience. She served as a key member of WCCHN's Nurses Coordinating Committee (NCC) since WCCHN's inception in 2001. She has journeyed with so many patients through their CHD experience and was a seasoned guide and trusted voice to our WCCHN families.

We want to recognize Patty's expertise and many contributions towards creating clinic and patient family materials, pre-op teaching standards, literature reviews, and our long-running family satisfaction survey. For everything you've done for patients, families, colleagues, physicians, and fellow nurses across the west, we thank you.



Welcome Aboard

Introducing the newest members of the WCCHN team

WCCHN is pleased to expand our team with a business administrator with a graphic design and marketing background, a wonderfully detailed epidemiologist who loves data, analytics and all things pure science, and a coding specialist who is a Connect Care super user.



Kevin Pahl, Business & Communications Advisor (2 Years)

What do you think makes your role so important?

WCCHN is a small but mighty team. This role is important because it supports both the strategic direction and communication efforts of the organization, helping grow and maintain our reputation. It's a blend of roles that keeps daily operations running smoothly, supports informed decision-making, mitigates risks, and capitalizes on opportunities.

What do you love about your work?

I enjoy wearing multiple hats. Having diverse responsibilities that allow me to be creative, problem solve, and innovate for an organization that does impactful work is amazing. I also love brand management, so being able to maintain and enhance the WCCHN's brand is incredibly satisfying.

Alia Tayea, Health Informatics Specialist (1 Year)

What do you think makes your role so important?

It is so important that medical decisions be based on the best available information. The information is only as good as the underlying data. This role is unique because it involves optimizing the information used in patient care from its very early stages (data entry) to the later outputs that healthcare teams use to support their work with the patients.



What do you love about your work?

I have the honour of working with amazing people and supporting the teams that are treating patients in a public healthcare system. This is extremely important to me. I get to apply bits of my interdisciplinary background every day and build on the great work that's already been done to date at WCCHN. Love it!



Nicole Harder, Coding Specialist (< 1 Year)

What do you think makes your role so important?

That the quality of our data we capture as a team is used for important information and research to provide the best care for the patient's ongoing health as well as data for future patients.

What do you love about your work?

I love how specialized the team is and how every team member contributes their different strengths and roles to the WCCHN team.

Financial Statements

Financial Operating Statement as at March 31, 2023

Ministry of Health Funding by Province	2022-23	2023-24
British Columbia	235,727	235,727
Alberta	314,303	314,303
Saskatchewan	78,576	78,576
Manitoba	157,152	157,152
Revenue Subtotal	785,758	785,758
Carry Forward	268,200	86,057
Total Revenue	1,053,958	871,815

Statement of Results as at March 31, 2023

Expenditure	2022-23	2023-24
Operating Costs	25,231	14,359
Travel and Meetings	33,656	17,023
Data Infrastructure	45,078	67,754
Salary and Benefits	687,827	744,324
Strategic Projects	176,111	65,318
Total Expenditure	967,903	908,778

Since its start in 2001, the WCCHN has significantly expanded both in number of patients served and breadth of services delivered. However, despite this growth, the annual budget remained largely unchanged over the entire past decade. Increasing WCCHN's funding to match its mandated function is critical for continuing to meet the needs of our heart community.

To help with this, in February 2023, the Western Ministries of Health approved a phased budget increase taking effect fiscal year 2024/25. We are deeply grateful for the provincial governments' recognition of our work as valuable, and their shared commitment to the growth and stability of our network.

With backing at the highest level, WCCHN will continue to support, lead, and expand pediatric heart care across Western Canada, **putting little hearts in good hands.**

Collaborative Cardiac Care

To learn more about the Western Canadian Children's Heart Network or to explore our CHD knowledge and resources library, visit the Parent & Families section of our website.

For any WCCHN opportunity mentioned in this report or elsewhere, reach out and contact us.

Western Canadian Children's Heart Network

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Email: WCCHN@ahs.ca
Web: wcchn.ca

Follow us on social media @TheWCCHN



A Partnership Amongst:



BC Children's Hospital
4480 Oak Street
Vancouver, BC V6H 3V4



Stollery Children's Hospital
8440 112th Street NW
Edmonton, AB T6G 2B7



Alberta Children's Hospital
28 Oki Drive NW
Calgary, Alberta T3B 6A8



Jim Pattison Children's Hospital
103 Hospital Drive
Saskatoon, SK S7N 0W8



Children's Hospital, HSC
JM 476 – 820 Sherbrook Street
Winnipeg, MB R3A 1R9