

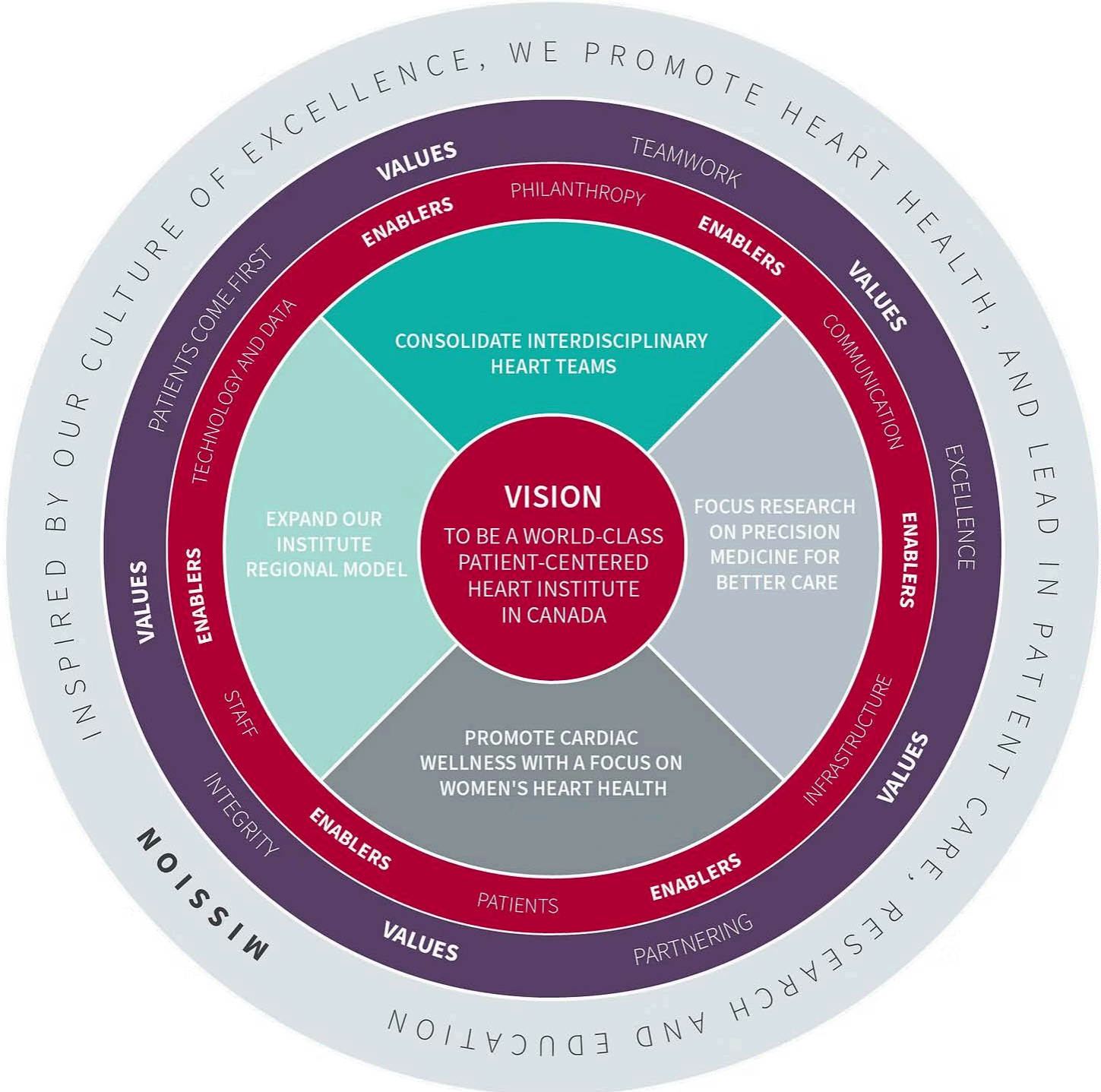
ANNUAL REPORT 2021-22



**Looking forward
and moving
further together**

The University of Ottawa Heart Institute's values, strategic directions and enablers of success are all interconnected to support our mission and vision for the future.

In this annual report, we detail our progress in **2021-2022** toward realizing that vision.



A message from the chairman of the board



It was Martin Luther King Jr. who said, “The true measure of a man is not how he behaves in moments of comfort and convenience but how he stands at times of controversy and challenges.”

This statement is true for any human being and, if they are properly constituted, for any organization of people. The pandemic demonstrated far more tenacity and longevity than was anticipated, but it showed us how the right people in the right place at the right time can make all the difference. The pandemic has been a gruelling experience for our healthcare sector. The staff of the University of Ottawa Heart Institute, be they doctors, nurses, medical technicians, support workers, administrative staff or executives, rose to the challenge and continued to provide our community with exemplary care.

These outstanding people continued to adapt to new technologies, provide quality care and maintain a volume of procedures that exceeded any comparable institution in the province, avoiding excessive delays in treatment and growing waitlists. This reality was made possible by the generous support of our community, the Government of Ontario (which acted to recognize the challenges), the Heart Institute Foundation, The Ottawa Hospital (which also faced major challenges of its own), the University of Ottawa, and Ontario Health East. It was a collaborative effort of which participants can be proud and for which the community can be grateful.

The University of Ottawa Heart Institute is both a clinical and a research organization. Throughout this pandemic, researchers continued their efforts to innovate and develop technologies and processes to improve care, from the research

bench to the bedside. The pandemic has forced changes on the healthcare system. However, through science, these dedicated individuals have found new technologies to minimize the risks associated with the pandemic. I commend them for their amazing work.

There is no guarantee that we will not experience similar or greater challenges in the future. Despite this, I am confident the character of this institution, reflecting the determination and commitment of its founder Dr. Wilbert Keon, will continue to stand us in good stead. Along with its partners, the University of Ottawa Heart Institute will maintain its commitment to this community. We do it for you and we can't do it without you!

Thank you for your continued support of the University of Ottawa Heart Institute. We reaffirm our commitment to our mission and our communities.



Paul LaBarge

Chairman of the Board

A message from our president and CEO



This annual report provides us with an opportunity to stop and reflect on the year that has gone by. The first few words that come to my mind are: challenges, people, and resilience.

First, challenges.

To say the past few years have been challenging would be an understatement. The pandemic taught us to expect the unexpected. Every wave brought about new challenges. The sixth wave was demanding for our staff contingent. Many were affected by illness.

However, these challenges pushed us to think differently, to adapt, to innovate and pivot quickly. The Heart Institute continued to perform. In fact, in some areas, we outperformed, exceeding even our own expectations.

Next, our people.

It is because of our people that our patients continue to receive outstanding care, that we continue to attract and train the best clinicians, and we continue to conduct world-class research.

Our strategic plan has served us well. It remains the underpinning of our actions. We are expanding our virtual care services to reach more patients. We continue to invest in data management to feed our research and clinical programs. We are growing our hub and spoke model beyond our walls and harnessing the power of our heart teams.

Finally, a word about resilience.

In the wake of the pandemic, we faced great adversity. Despite this, the Heart Institute celebrated its 45th anniversary. We continue to weather many storms and we are proving that resilience is part of our DNA.

There is no other institution quite like the Heart Institute. The talent and resilience of our people will continue to be key to our success.



Dr. Thierry Mesana
President and CEO

Our strategic directions

The University of Ottawa Heart Institute's 2015-2019 strategic plan was designed to make us [stronger](#). Our [current plan](#) (2020-2024) builds on that success and takes us [further](#).

"Further Together" is our promise to transform the unprecedented challenges of our time into opportunities for collaboration, innovation, and discovery – a path we're forging toward better, faster, and more accessible health care for all.

We are proud to present highlights of our progress in **2021-2022**.



Direction 1

Consolidate interdisciplinary heart teams

Heart teams play a pivotal role in shaping the future of cardiac care locally, regionally, and beyond. At the University of Ottawa Heart Institute, these interdisciplinary teams are comprised of clinical experts from various cardiac subspecialties, including members from medicine, nursing, allied health, and research, all driven by our desire for collaboration and innovation.

Heart teams for patient-centred care, research and education

Our goal with heart teams is to improve patient care. Here is how heart teams are delivering on that promise.



Cardiac Imaging

By leveraging artificial intelligence, our cardiac imaging team is



Complex Arrhythmias

The complex arrhythmias team designed and launched an automated follow-up



advancing diagnosis and treatment of cardiovascular disease and positioning the Heart Institute as a world leader in this evolving space.



program to improve care by measuring quality of life before and after an atrial fibrillation ablation procedure. The program allows patients to clarify instructions about their post-discharge care, and clinicians to monitor and respond to patients in need of emergency services.



Complex Coronary Revascularization

To facilitate research and improve the quality of cardiovascular care, the complex coronary revascularization team is building a module to collect data on patients undergoing cardiac catheterization and coronary interventions.



Critical Care

The critical care team has launched a cardiac-focused critical care training program for nursing staff. The program provides specialized training not taught in the undergraduate Honours Bachelor's degree program that is much more specific to our patient population and can be done completely on premises whenever required.



Heart Failure

The heart failure team has established a registry of COVID-19 patients who developed myocarditis, an important initiative to support and facilitate research into how the coronavirus affects the heart.



Valvular Heart Disease

The valvular heart disease team contributed to the growth of our [Centre for Valvular Heart Disease](#), both in attracting medical doctors and enrolling new patients, an important step toward improving diagnosis, treatment and evaluation of patients with this condition.



Virtual Care

The virtual care team continues to expand our [virtual care programs](#), improving access to care and



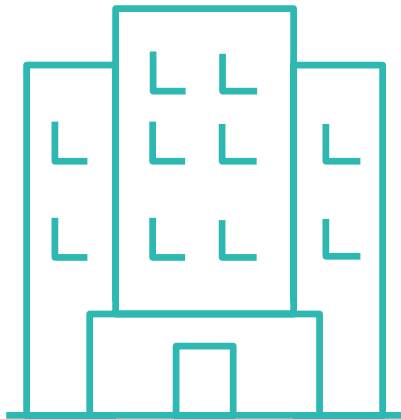
Women's Heart Health

The women's heart health team is building a registry to collect, store, analyze, and

motivating patients to manage and improve their health.

disseminate high-quality information essential to improving risk assessment, awareness, prevention, detection, and management of cardiovascular disease among women.

Direction 2



Expand our regional institute model

As an early adopter of telehealth technologies, the University of Ottawa Heart Institute has been reshaping the delivery of health care for more than two decades. We now offer a full range of patient-centric care services designed to work within the current environment in which we live. The result is a better, faster, and more accessible approach to health care than ever before.

Here's how we've expanded [our model](#) to bring the Heart Institute to you.

Heart failure programs and services

Ours is a long history of enhancing regional heart failure care through comprehensive programming that spans across the continuum of care.

Our programming is accessible regionally through an extensive hub and spoke model.





Preventative care and peer support

- Heart Failure Cardiac Rehabilitation
- Heart Failure and Pulmonary Hypertension Peer Support
- Patient Education



Remote monitoring

- Telehome Monitoring
- Automated Follow-up/ Interactive Voice Response (IVR)
- Patient Education



Acute care

- Guidelines Applied in Practice (GAP)
- Transitional Care
- Patient Education

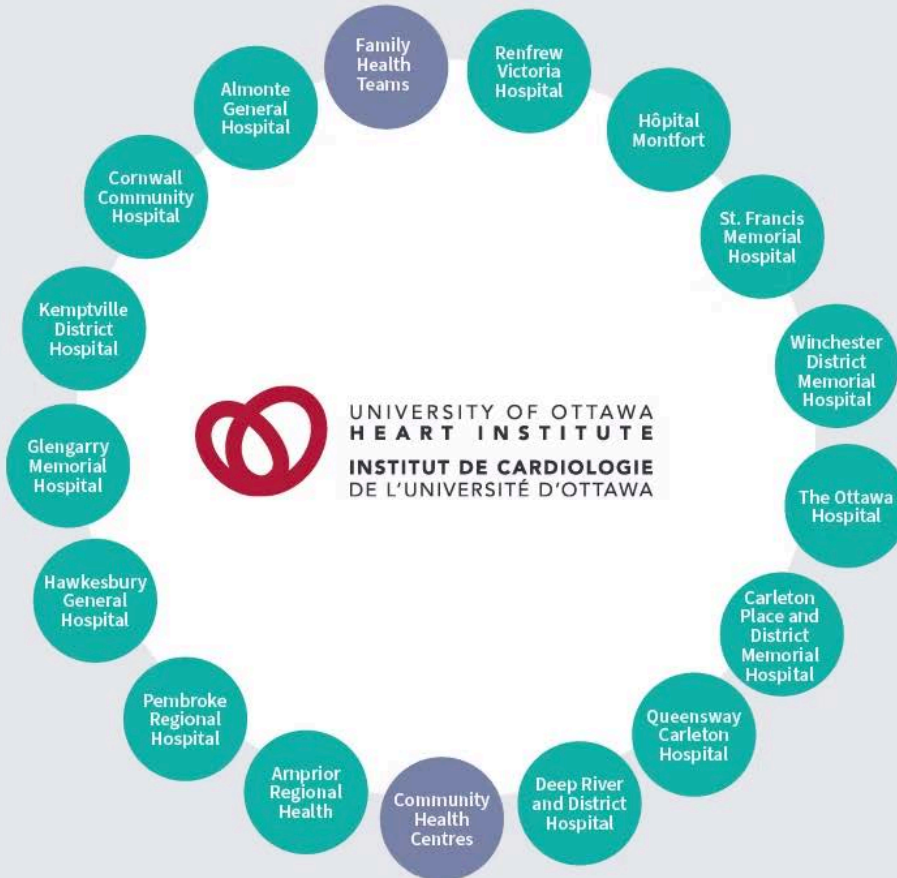


UNIVERSITY OF OTTAWA
HEART INSTITUTE
INSTITUT DE CARDIOLOGIE
DE L'UNIVERSITÉ D'OTTAWA



Ambulatory care

- Advanced Heart Failure Clinic
- Regional Heart Failure Clinic Network
- Specialized Clinics (Transplant, Ventricular Assist Device (VAD), Pulmonary Hypertension, etc.)
- Rapid Intervention Clinic
- Supportive and Palliative Care
- Patient Education



Automated follow-up and telemonitoring programming

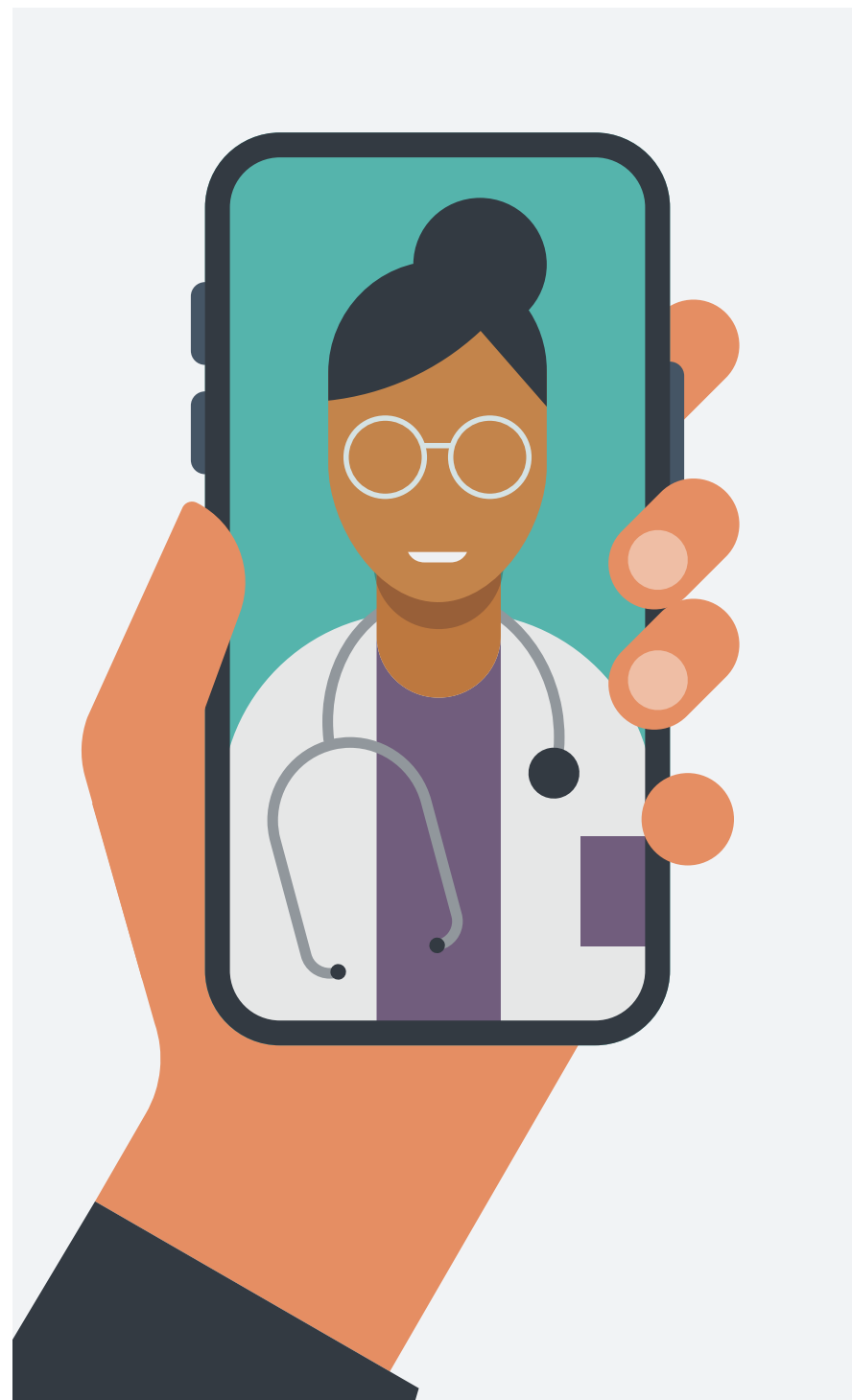
The increasing complexity and comorbidity of patients undergoing cardiac surgery, coupled with the current COVID-19 pandemic, have necessitated an innovative technological approach to our cardiac surgery healthcare delivery model. We have successfully implemented two innovative virtual programs: The Cardiac Surgery Prehab Automated Follow-Up (AFU) Program, and the Post-Operative Telemonitoring Program.

Together, these two surgical pre- and post-operative remote monitoring programs reduce the risk of adverse health outcomes in cardiac surgery patients by identifying and optimizing risk factors, reducing healthcare costs, and increasing patient quality of care.

Read about these contemporary programs in [Canadian Healthcare Technology](#) (page 8).

Virtual clinics deliver cardiac care closer to home

Apart from advanced tests and procedures, patients may now access care at regional cardiology clinics without having to travel to Ottawa. Clinics operate regularly in Deep River, Pembroke, and Barry's Bay in Ontario, and each offers a half-day clinic every month. We will continue our important work to enroll additional partners and expand existing clinics in the years ahead.



Direction 3



Focus research on precision medicine for better care

Clinical research, big data, women’s heart health, cardiac imaging, and genetics. These are some of the most significant focus areas for researchers at the University of Ottawa Heart Institute today.

A year in research: The [Research Beat Year In Review](#) showcases and celebrates cardiovascular research excellence in Ottawa. It features success stories from researchers at the University of Ottawa Heart Institute, as well as from researchers engaged in cardiovascular research across the region.



Research by the numbers 2021-22

65

\$19M

409

343

14

Research faculty,
including 28 scientists
and clinical scientists

awarded in peer-
reviewed grants

published
research articles

active clinical
research studies

endowed
fellowships
awarded



Direction 4

Promote cardiac wellness with a focus on women's heart health

The University of Ottawa Heart Institute offers programs, education and services for the prevention and management of cardiovascular disease risk factors to patients, families, health care practitioners, and the public.

Women are under studied, under diagnosed, under treated, and under aware when it comes to cardiovascular disease. That's why, in 2014, we established the [Canadian Women's Heart Health Centre](#). Every day since, we have worked to narrow the gaps in care delivery and ensure women are as well-informed and well-cared for as men.

State-of-the-art clinical approaches to smoking cessation

The Ottawa Model for Smoking Cessation's annual conference promotes the latest in clinical tobacco treatment, program development and smoking cessation research as presented by national and international experts on these topics. [The 14th Annual Ottawa Conference: State-of-the-Art Clinical Approaches to Smoking Cessation](#) was presented digitally in 2022.



Wear Red Canada programming expands in 2022

The Canadian Women's Heart Health Centre, with the support of its [National Alliance](#), ran its [fourth Wear Red Canada Day campaign](#) in communities across the country, raising awareness for women's heart health. New to the campaign, the Heart of the Matter pilot project launched in over 25 schools, and campaign messages were translated in 10 languages. Highlights are presented in this campaign [report card](#).

Educational webinars continue to reach patients and providers

[HeartWise webinars](#) cover an array of health topics related to cardiac wellness. New presentations are uploaded regularly, and past webinars are available to watch on demand. Since 2020, we have produced over 70 webinars, attracting more than 4,500 participants.



Enablers of success

Technology and data, philanthropy, communication, infrastructure, staff and patients enable our success.

Technology and data



Sustained investment in cybersecurity

We continue investing in infrastructure and applications that safeguard and monitor critical data and systems. We rolled out a mandatory Cybersecurity Training Program to all staff.



Electronic Medical Record Adoption Model (EMRAM) certification

The Atlas Alliance (a grouping of six health care organizations, including the Heart Institute) received EMRAM Level 6 accreditation. The authentication validates how effectively and efficiently we use technology to improve patient care. The Heart Institute ranks in the top 2% of hospitals in the country.



Telesitting improves access to care

We've transitioned from an in-person patient sitting and observation program to a virtual sitting program. A new set of 18 patient rooms equipped with remote monitoring capabilities allow us to better provide care to our patients.

Philanthropy



Jump In™ for women's heart health

In September 2021, the Heart Institute Foundation's 30-day virtual fitness event went coast-to-coast-coast. With over two million hours of physical activity shared on social media, participants raised awareness about women's heart health and important funds for the Heart Institute.



February is Heart Month

Heart Month is an annual opportunity for individuals, groups, and businesses to raise funds and awareness for the Heart Institute while promoting the benefits of cardiovascular health. In 2022, the city glowed with support as businesses participated in the Light the Town Red initiative to raise awareness.



Investing in precision medicine

Donors to the Foundation continue to give generously to support excellence in precision medicine. In 2021-22, donations to the research campaign increased by 19%, a clear indicator that the importance of research resonates with our community.



Heart Institute Foundation community report for 2021-22

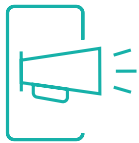
Consult the [University of Ottawa Heart Institute Foundation's community report](#) for more information about the contributions from the community and funds allocation.

Communication

Website statistics*

Sessions

1,817,721
(+22%)



The Beat page views

285,846
(+8%)

Total page views

2,593,131
(+18%)



Sessions from outside Canada

1,222,649
(+29%)

Social media growth*

10,474
followers
(+3%)



4,172
followers
(+36%)

7,446
followers
(+8%)



2,428
followers
(+14%)

5,791
followers
(+20%)

*Growth represented as percentage over previous fiscal year.

The best of *The Beat*

These are our top five articles from **2021** as determined by page views.



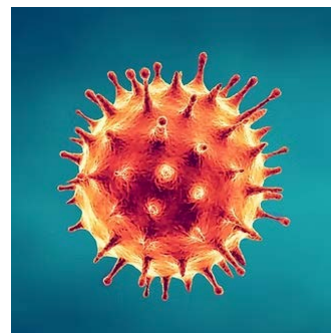
Communication+

The University of Ottawa Heart Institute's communication team works closely with other units, departments and divisions across the organization. Here we highlight how collaboration within the organization has helped us deliver on these projects.



+Foundation, Research and Clinical: Digital events coordinator

As the event landscape changes, digital events are becoming a key part of our communication strategy. We have enlisted an expert in this space to guide our approach to events in an increasingly digital world.



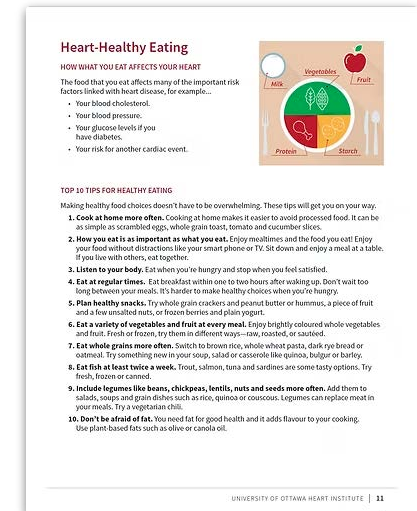
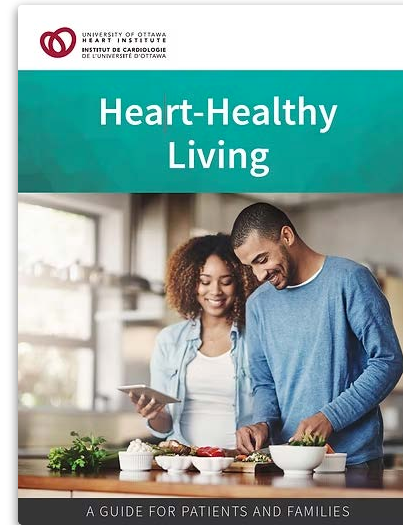
+Clinical: Communicating in a pandemic

Clear, correct, concise, and consistent communication is paramount in a pandemic. We ensure our external website, social media feeds, intranet resources and internal mailouts are reliable sources of information. [Here's one example.](#)

+Clinical: Educational publications for patients

Between April 2019 and March 2022, we produced [32 educational publications](#) for patients and families.

Two guides, five booklets, 12 brochures, and 13 stoplight tools.



Infrastructure

Finding new spaces in old places

The main building of the Heart Institute was inaugurated in 1976. In the decades since, finding space to house everyone under the same roof has proven challenging at times. An internal space review revealed opportunities to repatriate teams in our main building such as the Heart Institute Foundation, our research services, and smoking cessation program.

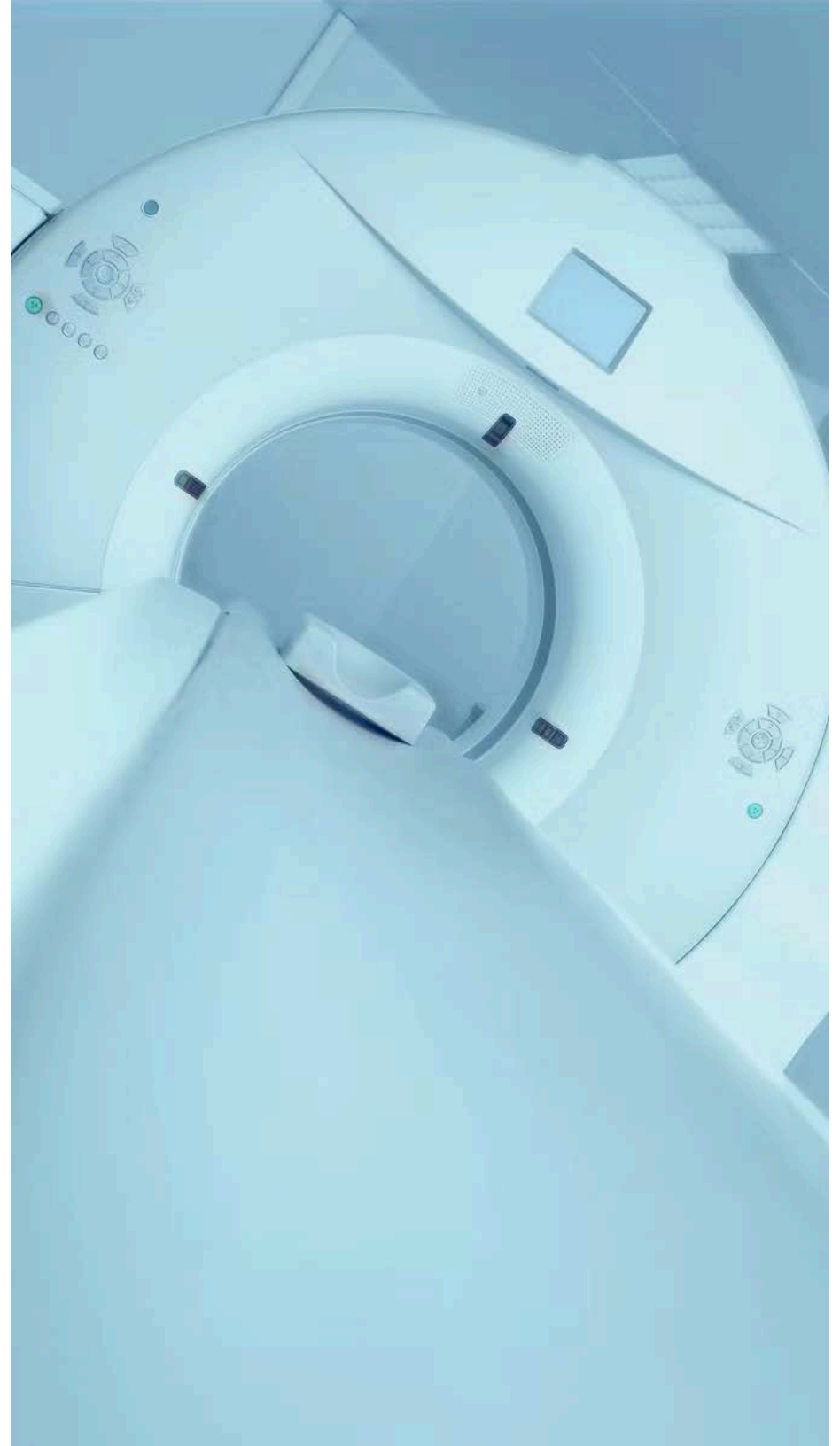
A bed bay formerly used for electrophysiology and catheterization is now Day Unit A, and the space that was Day Unit A is now Day Unit B. With two day units, we can effectively treat twice as many patients receiving these routine procedures, which usually do not require a prolonged stay in the hospital.

New imaging equipment for enhanced diagnostics

The Cardiac Diagnostic Imaging Centre has acquired contemporary positron emission tomography and CT scan machines to improve diagnostic imaging services for patients.

Virica Biotech expands operations with grand opening at the Heart Institute

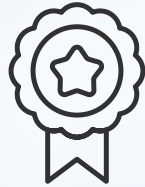
Virica Biotech, a viral medicine manufacturing, production and development company, opened its head office and state-of-the-art laboratory and process innovation facility at the Heart Institute. Hear from community leaders and supporters of Virica Biotech, and get a sneak a peek of the facility in this [launch video](#).



Patients*



Patient visits
211,133 (+13%)



Patient satisfaction
83%



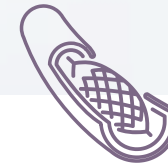
Diagnostic tests
63,612 (+17%)



**Pacemaker and defibrillator
implantations**
1,548 (+11%)



**Open-heart and catheter-
based procedures**
1,936 (+4%)



**Non-surgical
interventions**
12,724 (+4%)

Open-heart and catheter-based procedures	2021-22
Coronary artery bypass grafts (CABG) and other	879
Valve/CABG (combined)	204
Valve surgery	404
Transplants	13
Ventricular assist devices	11
TAVIs (percutaneous valve replacement)	338
Mitraclip	87
Total	1,936

Non-surgical interventions	2021-22
Catheterizations	6,904
PCI (angioplasty)	2,562
Electrophysiology studies	846
Ablations	814
Pacemakers	1,030
Defibrillators	518
Left atrial appendage closures	50
Total	12,724

*Growth represented as percentage over previous fiscal year.

Patient partners improve care and research

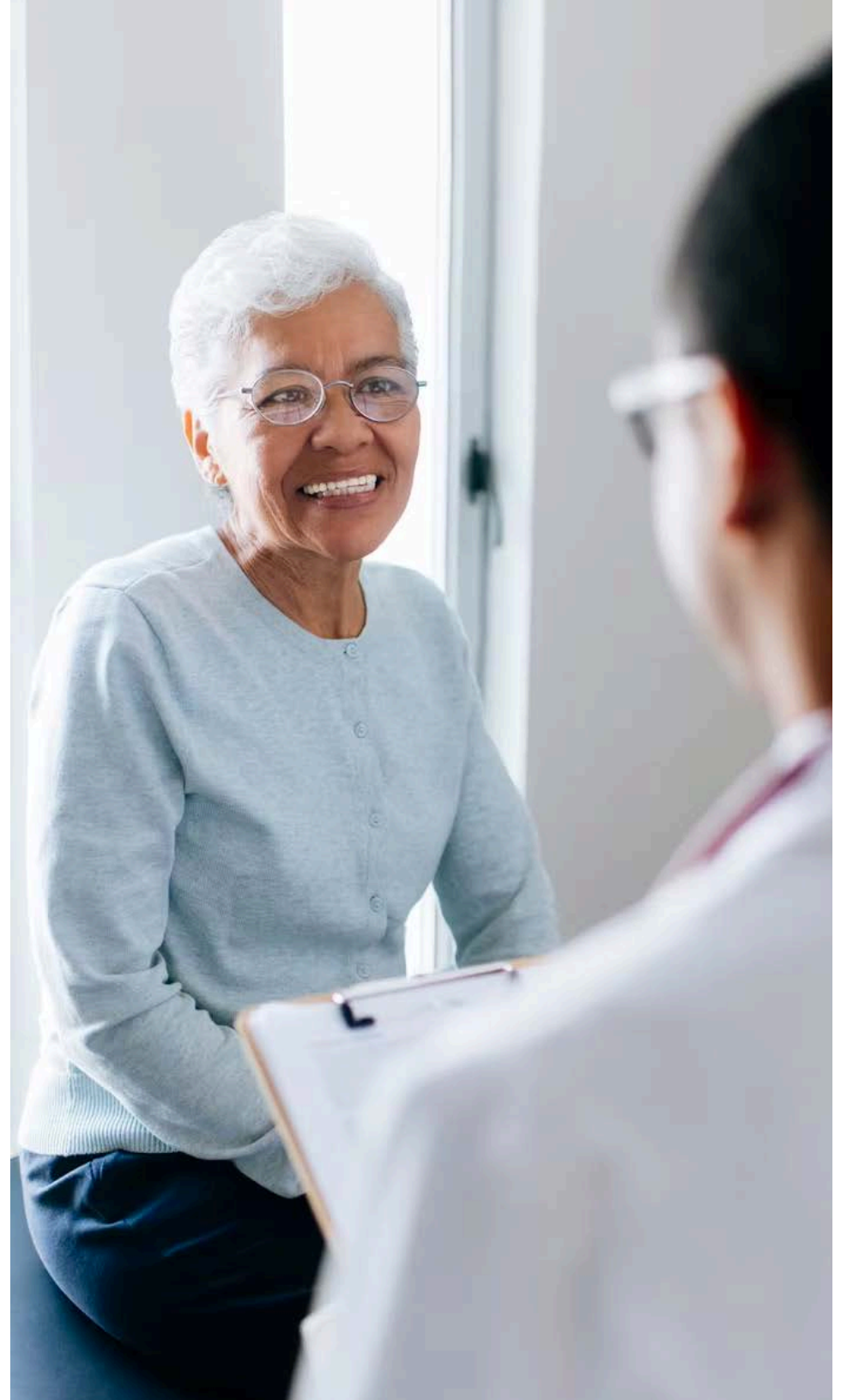
Patients and their families play an active role in shaping care delivery and facilitating research, which makes them essential to our continued success.

Last year, we registered more than 20 projects through the [Patient Engagement Program](#). In these projects, teams of clinical experts and more than 35 patient partners collaborate to improve everything from products to processes. Among our noteworthy projects:

- A focus group to improve patient education offered in the pre-admission unit.
- A review of the patient brochure for aortic disease.
- A redevelopment project to improve the UOHI's patient engagement framework.
- The development and design of a smoking cessation education module.

Patient partners joined several committees throughout the organization, including the cardiac rehabilitation quality of care committee, the [obesity guidelines committee](#), the patient educational materials task force, and accreditation working groups.

Finally, our [Patient Alumni Association](#) works to connect and support Heart Institute patients, their families, friends, and caregivers. The association actively seeks opportunities to enhance understanding of heart conditions and treatments, to assist patients and caregivers in building support networks, and to integrate their perspectives into research and care.





Quality service in English and French

As a public service agency [designated by the Ministry of Health under the French Language Services Act](#), the Heart Institute must guarantee access to quality services in French for designated services on a permanent basis.

Over the years, we have developed several ways to fulfill this important mission.

- **Translation services:** We processed 563 requests in 2021-22 – over 350,000 words – to ensure materials accessible to patients are available in both of Canada's official languages.
- **"Je parle français" campaign:** We distributed more than 350 buttons in the fall of 2021 to help patients, visitors and staff find French-speaking support when they need it.
- **French Language Learning Program:** Last year, 22 learners completed a French-language training course to improve their reading, writing and speaking skills.

Staff

Hundreds of dedicated individuals

The collective strength of the University of Ottawa Heart Institute resides in the quality, skills, and dedication of hundreds of individuals, including those who serve on boards and volunteers. In April 2021, our team consisted of 1,590 administrative, clinical, and research personnel.

Senior management moves

- Bernard McDonald, MD, PhD, [is appointed](#) head of the Division of Cardiac Anesthesiology.
- David Birnie, MD, [is appointed](#) head of the Division of Cardiology.
- Diana Burns [is appointed](#) vice president of finance and chief financial officer.

Joining our clinical and research teams

We are proud to have welcomed several clinicians and researchers to the Heart Institute family.



Simon Hansom, MD
Cardiologist



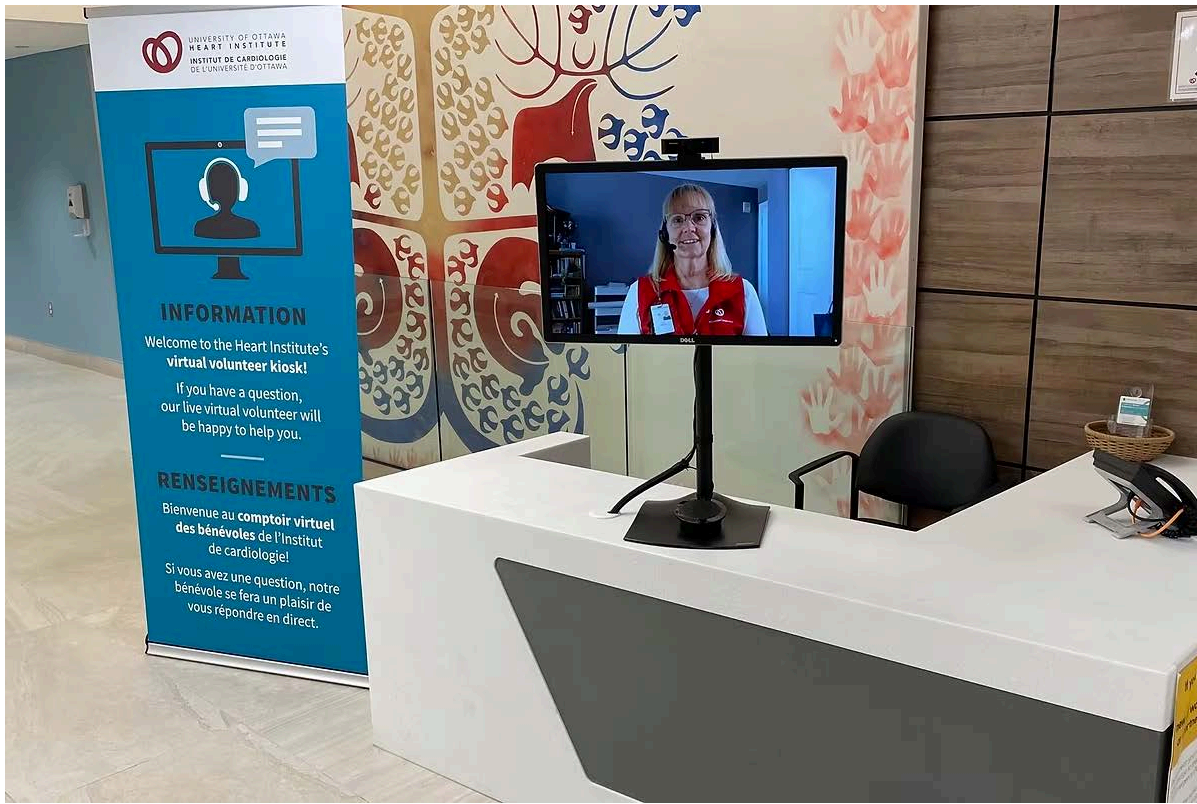
Hassan Alfraidi, MD
Cardiologist



Andrew Mulloy, MD
Cardiologist



Kelly Cobey, PhD
Scientist



Remote volunteering

Our volunteers play an important role in assisting our patients, families and visitors. During the COVID-19 pandemic, our volunteers continued this important mission remotely.

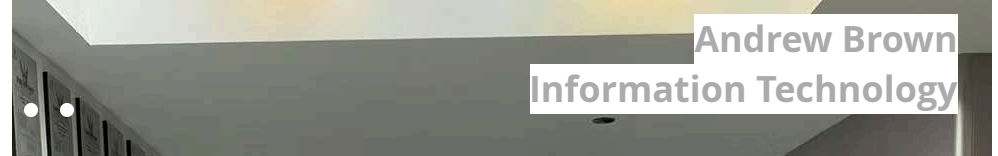
Using cameras, volunteers connected to a [kiosk](#) at the Heart Institute and safely assisted visitors in real-time.

EVERYDAY HEART HERO AWARD

The Everyday Heart Hero Award is a peer-to-peer accolade bestowed quarterly to outstanding team members who are integral to making the Heart Institute an extraordinary place to work and receive care.



[See the post](#)



Values

The work we do at the University of Ottawa Heart Institute is guided by five core values. You can learn more about [Who We Are](#) on our website.

Patients come first

By relentlessly demonstrating a strong commitment to world-class care and health promotion, our team creates a unique environment for our patients and their families, exceeding their expectations, and offering the best care through integrated clinical practice, education, and research in a bilingual setting. Continuing to improve care is essential to putting patients and their families first.

Excellence

What began in 1976 as a single department in The Ottawa Hospital has flourished into Canada's largest and foremost cardiovascular care centre.

Celebrating 45: The Heart Institute celebrated its 45th anniversary on May 11, 2021. Some of the most remarkable milestones and memories of our history are highlighted in this [anniversary issue of The Beat](#).

Teamwork

The degree to which care, research, and education are increasingly integrated is a defining aspect of the University of Ottawa Heart Institute. Not only is teamwork and collaboration important to us – it's essential to who we are.

Integrity

Our success is ensured by a well-structured and efficient leadership team and board of directors who continuously seek out novel strategies for steering us toward a bigger and brighter future.

Learn more about

- [Our management team](#)
- [Our board](#)
- [Our affiliates](#)

Partnering

We partner with other health care facilities, research institutions, universities, regional stakeholders, industry, and government in Canada and abroad. Thank you to all our partners.

- [French Language Health Services Network of Eastern Ontario](#)
- [Government of Ontario](#)
- [Heart Institute Auxiliary](#)
- [Ministry of Health](#)
- [Ontario Health East](#)

- [The Ottawa Hospital](#)
 - [University of Ottawa](#)
 - [University of Ottawa Heart Institute Patient Alumni Association](#)
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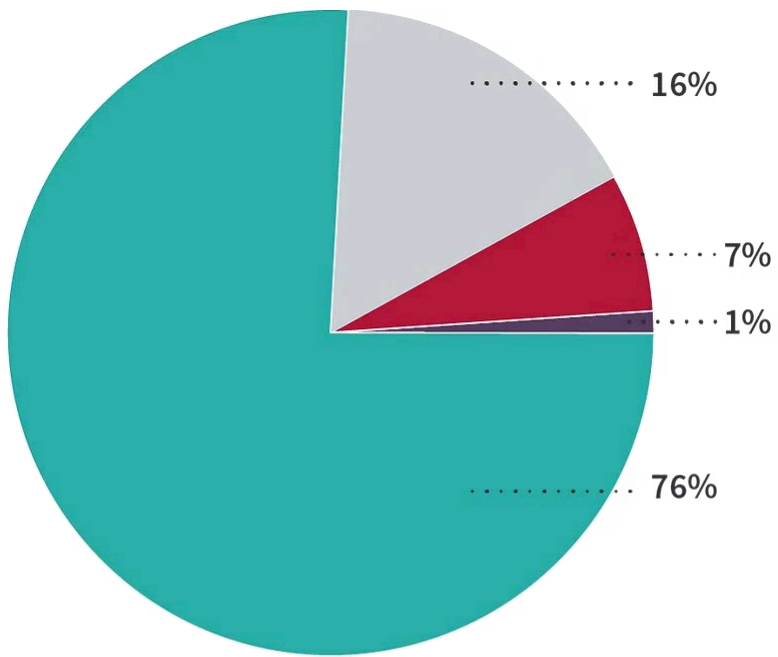
Financial statements

Guiding principles

The University of Ottawa Heart Institute is held accountable for the use of public funds. KPMG audits our financial statements yearly. We are transparent to all stakeholders, including all Canadians. We give taxpayers value for money by managing responsibly.

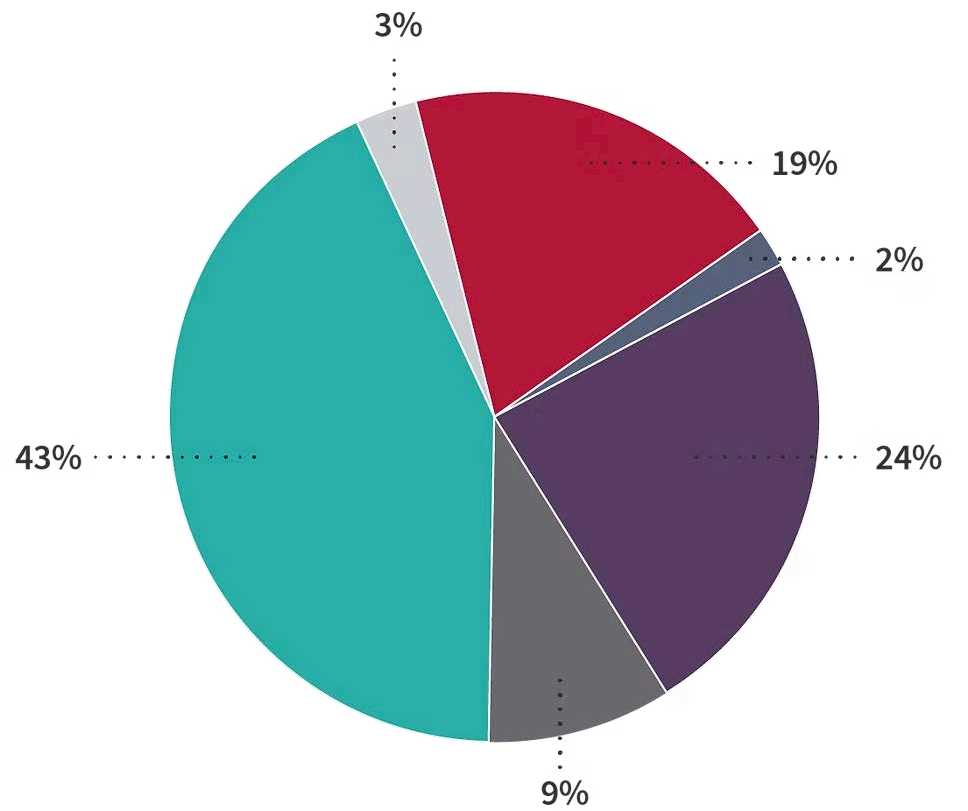
Revenue

Expenses



- Ministry of Health
- Patients
- Amortization
- Other

TOTAL REVENUE \$241.7 MILLION



- Salaries
- Medical staff
- Medical supplies
- Drugs
- Other
- Amortization