



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



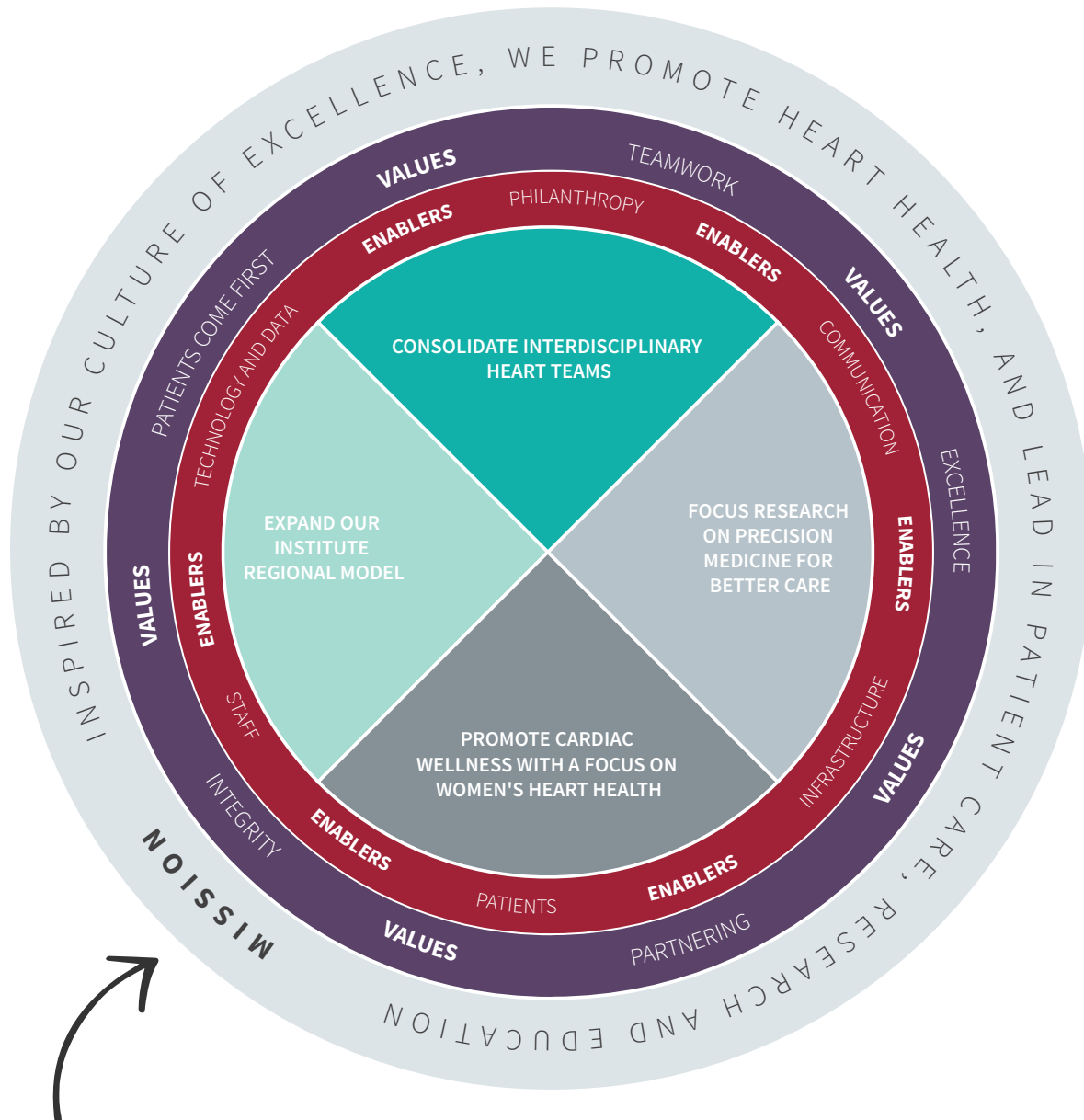
# ANNUAL REPORT

## 2019-21

# 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 **2019-20/2020-21** toward realizing that vision.



## NAVIGATING THIS REPORT

Each ring of the wheel above links to a corresponding section of our annual report. Similarly, the navigation bar below connects you to this content. [Red hyperlinks](#) throughout this report direct you to supporting documents and information. Enjoy!



# A message from the chairman of the board



COVID-19 has impacted everybody to one degree or another. That impact, like life, has not been uniform or equitable. That said, our health care workers have been extraordinary in their service and commitment to our community. For that, we are extremely grateful. Our goal at the University of Ottawa Heart Institute has always been to do extraordinary things extraordinarily well, and they have.

As we reflect on the past year, we can see the commitment, dedication and ambition of all the members of the Heart Institute. Henry Ford said, “Coming together is a beginning; keeping together is progress; and working together is success.” The Heart Institute has been very successful on this front. The team at the Heart Institute adapted quickly and did so with a focus on their patients and our community. Some diverted their efforts to decontaminating PPE with creative new solutions. Others adapted technologies to provide enhanced virtual care for our patients.

The Heart Institute demonstrated extraordinary collaboration and commitment under difficult circumstances. Using digital technologies and adapting procedures, the leadership enhanced levels of coordination and collaboration amongst the researchers, clinicians, technicians and administration to normalize care requirements and service delivery in a challenging, restricted environment. When I look at the behaviour of these dedicated individuals, I am reminded of the comments of Helen Keller, a blind and deaf American author and disability rights advocate who said, “Alone, we can do so little; together we can do so much!” Our team did just that.

Despite the pandemic, our team at the Heart Institute focused on maintaining high levels of care for our patients. We collaborated with our longstanding partner at The Ottawa Hospital to support the broader community and provide emergency facilities and equip-

ment as needed. In teaming up with the University of Ottawa, another longstanding partner, and with scientific authorities around the globe, our researchers helped the world understand COVID-19 and its impact on the heart. The Heart Institute achieved all this while implementing its strategic plan, which required adapting several initiatives as needed, and while continuing to implement innovative programs for research, education, clinical care and enhanced patient care.

The real measure of the calibre of any organization is how it behaves and performs in adverse circumstances. As a community, we can all be enormously proud of the team at the Heart Institute for their performance in these unprecedented times. Their dedication and commitment to the health and well-being of our community has been extraordinary.

Einstein said, “Stay away from negative people, they have a problem for every solution.” Perhaps it is their training as health care professionals that prepares them to overcome difficulties every day, their mindset as researchers to constantly be curious, and their dedication as members of a caring profession that creates in them a determination to persevere. Whatever the root cause, we are all the beneficiaries of the resulting attitude.

I am sure you share my feeling that with this team the Heart Institute will continue to be a beacon of hope and care for our community. On behalf of all of us on the board and the community, thank you.

A handwritten signature in black ink, appearing to read 'P. LaBarge'. The signature is fluid and cursive, with a long horizontal stroke at the end.

**Paul LaBarge**  
Chairman of the Board

# A message from our president and CEO



More than a year ago, the World Health Organization declared the coronavirus a global pandemic. We had just tabled our new strategic plan, *Further Together*, and it had received board approval.

What now? Looking through the lens of a global pandemic, we re-examined our plan to determine if we needed to modify our course of action. It was obvious, COVID-19 would have a major impact on the Canadian healthcare system, and the University of Ottawa Heart Institute. Before long, we realized, we would be facing two threats: COVID-19 and cardiovascular disease.

After careful consideration, the good news was that we agreed our strategic directions would serve us perfectly well in our fight against COVID-19 while supporting our vision: To be a world-class patient-centered heart institute in Canada.

While the pandemic forced teamwork in many workplaces, our heart teams were already well-oiled machines poised to take on this new challenge. We took this opportunity to create a new heart team specializing in virtual care.

We also launched an advocacy campaign to ensure our frontline health care workers not only received their first dose of the COVID-19 vaccine, but also their second dose to provide them with optimal protection in a timely manner. Our efforts were not in vain as second dose vaccination started soon after in Ontario.

Our research enterprise thrived despite barriers imposed by the pandemic. Of course, this was no surprise. After all research is and will always be a part of the Heart Institute's DNA. Our researchers took advantage of the crisis to study the impact of COVID-19 on cardiovascular care.

Amid all the chaos, and thanks to one of our largest

donations on record, we launched the foundation of what will soon become a new centre of excellence in precision medicine. The centre will draw upon the key artificial intelligence and data science initiatives that are underway to simulate the cardiovascular care of tomorrow.

Finally, we pivoted many of our educational activities and flagship conferences so they could be delivered virtually and become more accessible to new audiences.

These are only a few of the accomplishments under our new plan.

This year, the Heart Institute turned 45, a key milestone in our history. We are eternally grateful to our founders Dr. Keon and Dr. Beanlands for their leadership and foresight. The Heart Institute will stand the test of time.

There is no doubt, our strength will always remain the outstanding care we provide to our patients, but what makes us strong will always be our staff's extraordinary dedication and commitment, no matter where they sit in the organization, to providing this care.

And, our strength also stems from our patients and their families, from our community, and from our volunteers.

In the end, it is safe to say that it's all about the people!

Sincerely,

**Dr. Thierry Mesana**  
President and CEO

# Our strategic directions

Our 2015 strategic plan was designed to make us *stronger*. Our current plan builds on that success and promises to take us *further*. Discover how by watching this [short animated video](#).

*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 to date.

## 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, whom are all driven by the Heart Institute’s desire for collaboration and innovation.

#### Heart teams in 2020



**Complex Arrhythmias**  
(est. 2015)



**Complex Coronary Revascularization**  
(est. 2015)



**Women’s Heart Health**  
(est. 2015)



**Complex Critical Care**  
(est. 2016)



**Cardiac Imaging**  
(est. 2018)

#### Newly established heart teams caring for you



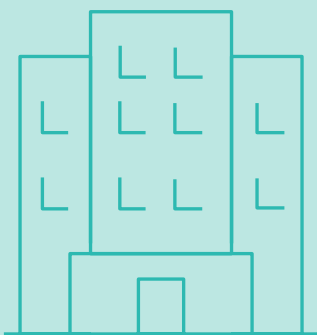
**Valvular heart disease:** Formed in early 2020, the Valvular Heart Disease Heart Team identifies initiatives with the goal of improving care and outcomes for patients with valvular heart disease through collaboration and innovation.



**Heart failure:** Launched in 2020, the Heart Failure Heart Team identifies initiatives with the goal of improving care and outcomes for heart failure patients through strengthening our regional hub and spoke model of care.



**Virtual care:** Virtual care/telehealth is integral to delivering patient-centered care. To better deliver on our mission and vision for the future, we established a Virtual Care Heart Team comprised of interdisciplinary experts and champions in January 2021.



### DIRECTION 2

## Expand our institute regional 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're [expanding our model](#) to bring the Heart Institute to you.

### Virtual care programs at the Heart Institute

Learn more about our complete suite of virtual care programs.

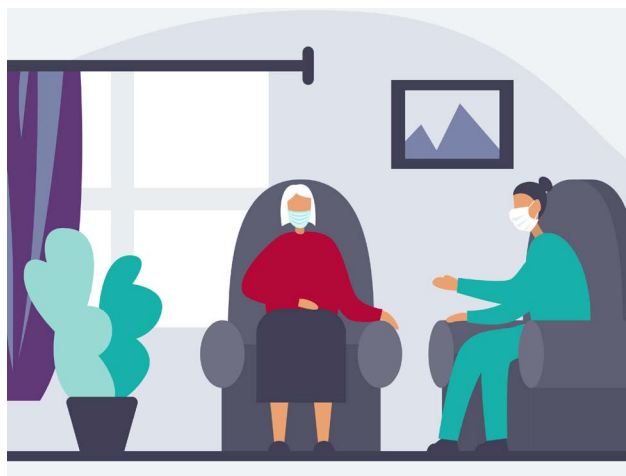
- [Virtual Care Program](#)
- [Telehome Monitoring Program](#)
- [Cardiac Virtual Care Program](#)

### Palliative and supportive care

In 2020, we developed and launched a holistic program that provides non-malignant palliative care to patients with end-stage heart disease. Dr. Caroline McGuinty is the medical director of the [Cardiac Supportive and Palliative Care Program](#).

**Read:** [‘The Beat Interviews: Dr. Caroline McGuinty,’](#) *The Beat*, December 2020.

**Read:** [‘How an Ottawa cardiologist is transforming care for patients with incurable heart disease,’](#) *The Beat*, December 2020.



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.

**Research annual report for 2020:** Our annual ‘[Research Beat - A Year in Review](#)’ showcases and celebrates cardiovascular research excellence in Ottawa and features the success stories of researchers at the Heart Institute.

RESEARCH BY THE NUMBERS  
**2019-20**



**65** research faculty, including **28** scientists and clinician scientists



**\$6.9M**  
awarded in peer-reviewed grants



**336**  
published research articles



**342**  
active clinical research studies



**10**  
endowed fellowships awarded

RESEARCH BY THE NUMBERS  
**2020-21**



**66** research faculty, including **29** scientists and clinician scientists



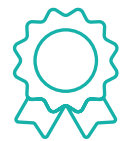
**\$18M**  
awarded in peer-reviewed grants



**412**  
published research articles



**346**  
active clinical research studies



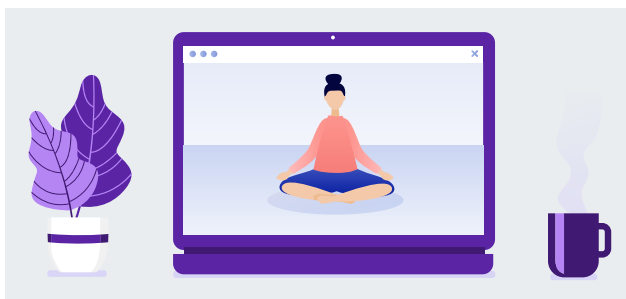
**18**  
endowed fellowships awarded



### 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.



### Online learning for patients and providers

HeartWise webinars support the education of patients and providers alike and cover an array of health topics related to cardiac wellness. New [presentations](#) are uploaded regularly. [Past webinars](#) are available to watch on demand.

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*We established the [Canadian Women's Heart Health Centre](#) in 2014. 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.*

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### 2021 Canadian Women's Heart Health Summit

Building on the success of the 2016 and 2018 summits, the Canadian Women's Heart Health Centre hosted an all-virtual conference in 2021, drawing the interest and participation of national and international experts and stakeholders to further advance women's heart, brain and vascular health initiatives. Learn more about the [Canadian Women's Heart Health Summit](#).

### 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 13<sup>th</sup> Annual Ottawa Conference: State-of-the-Art Clinical Approaches to Smoking Cessation was presented virtually in 2021. The 12<sup>th</sup> edition was presented in person in 2020.

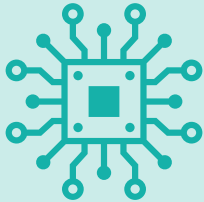




# Enablers of success

The University of Ottawa Heart Institute's success between 2019 and 2021 has been made possible by leveraging technology and data, philanthropy, communication, infrastructure, staff, and patients. Included in this report are but a few shining examples to illustrate how each enabler contributed to our recent accomplishments.

## Technology and data



### The High-Performance Computing Centre

We've established a new centre to develop, support, and execute artificial intelligence initiatives to improve clinical care, research and education.



### A significant information system upgrade

Microsoft Outlook, Teams, and Office 365 have improved collaboration and have made patient care, education and support more efficient.



### Investment in cybersecurity

As part of our efforts to maintain data security and defend against external threats, we have invested in infrastructure and applications that safeguard and monitor critical data and systems.

## Philanthropy



### “Jump In!” for women's heart health

In September 2020, the University of Ottawa Heart Institute Foundation ran [a month-long physical activity challenge](#) on social media to raise 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. **Watch:** In 2021, [Mayor Jim Watson proclaimed February Heart Month in Ottawa](#).



### One of our largest donations on record

A \$5M donation was directed to fund our future centre of excellence in precision medicine. The centre will draw upon the key artificial intelligence and data science initiatives that are underway to simulate the cardiovascular care of tomorrow.



### Heart Institute Foundation Community Report 2020-21

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

# ENABLERS

## Communication

### WEBSITE STATISTICS 2020-21 over 2018-19



#### Page visits

1,491,126  
**3% increase**



#### Page views

2,197,757  
**2% decrease**



#### Page views (The Beat)

264,851  
**17% increase**



#### Sessions from outside Canada

946,218  
**13% increase**

### SOCIAL MEDIA GROWTH 2020-21 over 2019-20



10,145 followers  
**18% increase**



6,871 followers  
**11% increase**



4,842 followers  
**29% increase**



2,135 followers  
**33% increase**

### The best of The Beat

These were our best articles – as determined by page views – in 2019 and 2020.



[Cannabis: It can be a heartbreaker](#)



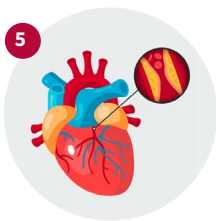
[La relation intrinsèque entre le cerveau, le cœur et l'esprit](#)



[“Jump In” for women’s heart health this September](#)



[The intrinsic relationship of brain, heart and mind](#)



[Seven minutes to change the world for underserved and remote populations](#)



[Online heart health calculators: Know your risk. Change your habits.](#)

# ENABLERS

## Communication+

### +PREVENTION AND RESEARCH



#### The Beat Audio

[The Beat Audio](#) is the best place to find and listen to podcasts created by the University of Ottawa Heart Institute.

### +RESEARCH



#### Today's research is tomorrow's care video

We believe the best patient care is rooted in research and education.

**Watch:** Help us translate discoveries into advanced care. ([YouTube](#)).

### +CLINICAL



#### Internal communications during the pandemic

We kept staff informed through daily mailouts and by creating and maintaining a resource bank and FAQ page on the staff intranet.

### +PREVENTION

#### Wear red for women's heart health

Our Canadian Women's Heart Health Centre, with the support of its national Alliance, implemented the second and third [Wear Red Canada Day](#) campaigns in 2020 and 2021 to raise awareness about women's heart health.



In 2020, the Heart Institute's top brass helped spread the word by sharing photos of themselves dressed in "Wear Red" socks and other promotional items on social media.



In **less than five years**, Wear Red Canada Day has secured official proclamation status in **six provinces and 17 cities in Canada**.



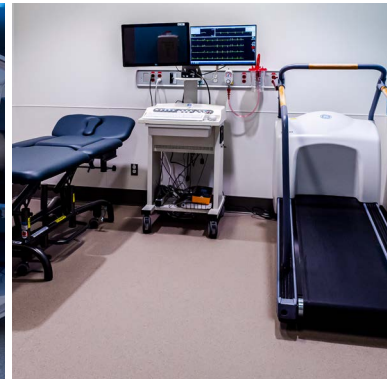
In 2021, [Prime Minister Justin Trudeau tweeted his support](#) of Wear Red Canada Day.

**Watch:** Ontario Premier Doug Ford engaged Ontarians to participate in an online social media campaign to spread awareness about women's heart health in 2021. ([Twitter](#)).

**Watch:** In 2021, Ottawa Mayor Jim Watson proclaimed February 13 Wear Red Canada Day in Ottawa. ([Twitter](#)).

Catherine McKenna, Canada's minister of infrastructure and communities, [took to Instagram](#) to raise awareness for women's heart health. Caroline Mulroney, Ontario minister of transportation and Francophone affairs, echoed her call, [sharing an image on Instagram](#).

## Infrastructure



### A new home for your heart

In early 2020, the University of Ottawa Heart Institute celebrated the completion of our Life Support Capital Project by hosting a public event in our freshly renovated main lobby. Ottawa dignitaries delivered speeches and toured our brand-new, multi-modal imaging facility – the Cardiac Imaging Centre – for the first time.

Today, the centre provides a convenient, consolidated, and streamlined service for patients, while improving workflow and collaboration for hospital staff.



### Five more critical care beds

We added five additional beds for our cardiac surgery intensive care unit. These five additional beds translate to shorter wait times for patients who require life-saving surgery, meaning more people can get the care they need sooner.

## ENABLERS

### Patients

The University of Ottawa Heart Institute provides outstanding care to patients and families. Here's a look at our patient volumes over the past two years.



#### Patient visits

2019-20	2020-21
141,006	186,667*



#### Patient satisfaction

2019-20	2020-21
81%	83%



#### Diagnostic tests

2019-20	2020-21
47,727	54,325



#### Open-heart and catheter-based procedures

2019-20	2020-21
1,949	1,853



#### Non-surgical interventions

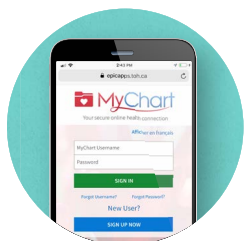
2019-20	2020-21
12,252	12,191



#### Pacemaker and defibrillator implantations

2019-20	2020-21
1,274	1,391

\* In 2019-20, virtual visits accounted for **less than 5%** of total patient visits. In 2020-21, this number **increased to approximately 75%**.



#### An “epic” change for more efficient health care

In June of 2019, along with five hospitals in the region, we switched to a fully integrated, patient-centered, electronic medical records management system called Epic. Patients can now conveniently access their personal medical files through the [MyChart patient portal](#) and review test results, medical reports, upcoming appointments and much more.

OPEN-HEART AND CATHETER-BASED PROCEDURES	2019-20	2020-21
Coronary artery bypass grafts (CABG) and other	1,001	865
Valve/CABG (combined)	203	201
Valve surgery	363	416
Transplants	28	17
Ventricular assist devices	12	17
TAVIs (percutaneous valve replacement)	271	260
Mitraclip	71	77
<b>Total</b>	<b>1,949</b>	<b>1,853</b>

NON SURGICAL INTERVENTIONS	2019-20	2020-21
Catheterizations	6,823	6,420
PCI (angioplasty)	2,494	2,375
Electrophysiology studies	797	1,019
Ablations	825	953
Pacemakers	841	939
Defibrillators	433	452
Left atrial appendage closures	39	33
<b>Total</b>	<b>12,252</b>	<b>12,191</b>

## ENABLERS

### Staff

The collective strength of the University of Ottawa Heart Institute resides in the quality, skills, and dedication of hundreds of individuals (1,479 as of June 2021) across many levels, including those who serve on boards, administrative staff, clinical staff, research personnel and volunteers.

#### Senior management moves

- [Bonnie Bowes](#) was appointed vice-president of quality, privacy, and health information, and [Erika MacPhee](#) was appointed vice-president of clinical operations.
- [We welcomed Lianne Laing](#) as executive director of the University of Ottawa Heart Institute Foundation, and vice-president of philanthropy and chief advancement officer.
- [Timothy Zakutney](#), chief medical technology officer and vice-president of medical equipment and cardiac technology, was promoted to chief information and technology officer and senior vice-president of digital health and cardiac technology.

#### Joining our clinical team

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



**[Dr. Rebecca Mathew](#)**

Cardiologist and intensivist



**[Dr. Caroline McGuinty](#)**

Cardiologist



**[Dr. Hassan Mir](#)**

Cardiologist



**[Dr. F. Daniel Ramirez](#)**

Cardiac electrophysiologist



**[Dr. Juan Russo](#)**

Interventional cardiologist



**[Dr. Chidam Yegappan](#)**

Cardiac anesthesiologist  
and intensivist

# Values

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

## 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. Over the past two years, we have made significant progress.



### Expanding with virtual care

We offer a full range of patient-centric virtual care services designed to work within the current environment in which we live. We're constantly expanding our model to bring the Heart Institute to you.



### A new home for precision medicine

Medicine that is precision-tailored to a patient's individual characteristics is called precision medicine. A new centre of excellence in precision medicine is currently in the works at the Heart Institute using funding secured from the University of Ottawa Heart Institute Foundation.



### Improving care with heart teams

Heart teams are interdisciplinary teams composed of qualified health care professionals who come together to determine the best treatment plan for each patient. With the addition of three new heart teams in the last two years (valvular heart disease, heart failure, and virtual care), we now have mobilized eight dedicated heart teams to care for our patients.



### Introducing MyChart

MyChart (powered by Epic) is an online patient portal that gives patients immediate access to important medical and personal health information in one centralized place. Patients at the Heart Institute may access their after-visit summaries, upcoming appointments, test results, progress and discharge notes, medical imaging reports and more.

## Excellence



### 45 years of excellence

What began as a single department in The Ottawa Hospital has flourished into Canada's largest and foremost cardiovascular care centre. Some of the most remarkable milestones in our history are captured in this [timeline of excellence](#).

### Our anniversary commemorated in *The Beat*

By contrast to the boisterous street gathering held in 2016 in celebration of [our 40<sup>th</sup> anniversary](#), we commemorated our 45<sup>th</sup> online with a look at some of [the most notable achievements](#) in our history and a call out on social media for the community to share their favourite memories.

### 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. Never in our 45-year history has teamwork been so vital to our success than during the COVID-19 pandemic.



#### Frontline champions

Our frontline workers went above and beyond the call of duty during the pandemic, many working long hours day after day while continuing to support each other and provide compassionate care for our patients.



#### Patient care rooted in research

To assist our clinical teams in understanding how COVID-19 spreads, how it affects the heart, and how to protect against infections, our research enterprise devised innovative ways to support their efforts.



#### Bringing the Heart Institute to you

During the pandemic, we provided a wide variety of virtual services to ensure patients received the care they needed. From less than 5% of total visits in 2019 to approximately 75% in 2020, we observed a dramatic increase in virtual appointments over the course of one year.



#### Everyday heart heroes

The Staff Engagement and Wellness Committee was established in 2020 and broadly tasked with identifying opportunities to improve the experiences of staff and boost their morale. One of the committee’s first major initiatives was the formation of a peer-to-peer award program that recognized Heart Institute employees who best reflect the core values of the organization. The Everyday Heart Hero Award is now bestowed quarterly.

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### 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](#)

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### 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.

- [The Ottawa Hospital](#)
- [The University of Ottawa](#)
- [The University of Ottawa Heart Institute Patient Alumni Association](#)
- [The Government of Ontario](#)
- [French Language Health Services Network of Eastern Ontario](#)
- [Champlain Local Health Integration Network](#)
- [The Heart Institute Auxiliary](#)



# Financial statements

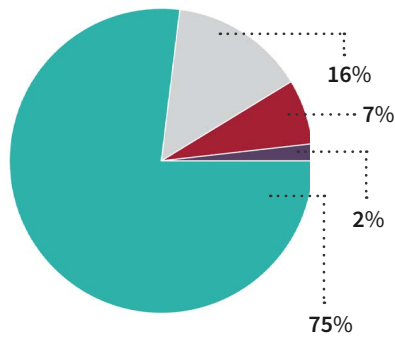
## Guiding principles

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.

## University of Ottawa Heart Institute

**2019-20**

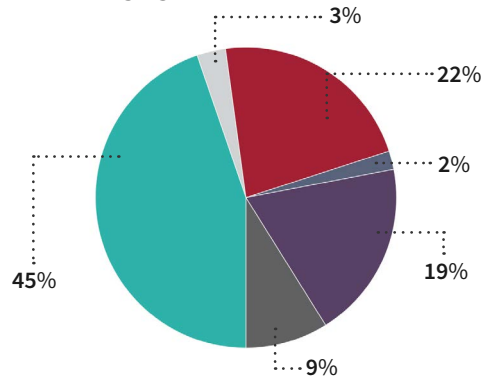
### REVENUE



- Ministry of Health
- Amortization
- Patients
- Other

TOTAL REVENUE \$214.2 MILLION

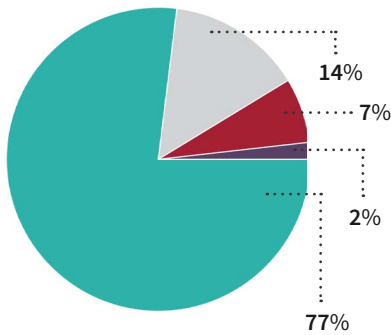
### EXPENSES



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

**2020-21**

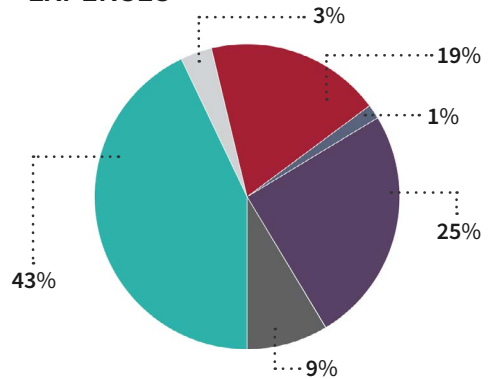
### REVENUE



- Ministry of Health
- Amortization
- Patients
- Other

TOTAL REVENUE \$226.4 MILLION

### EXPENSES



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