The Start of a New Era

1998
2001
2003
2011
2014
2018

HÉMA-QUÉBEC

Blood products

Stable products

Stem cells

Human tissues

Mother's milk

2018
ANNUAL REPORT
2019

20 YEARS OF THE GIFT OF LIFE!

Since the creation of Héma-Québec in 1998, more than one million donors have contributed to the cause of the gift of life. This is in addition to the contribution of thousands of dedicated volunteers and partners, as well as committed employees and diligent administrators, who have joined the gift-of-life cause over the years. Thanks to all these people, Héma-Québec has been able to fulfill its mission and to distribute safe, high-quality products that save millions of lives.

PARTNERS

VOLUNTEERS

EMPLOYEES

HÉMA-QUÉBEC

Beyond blood!

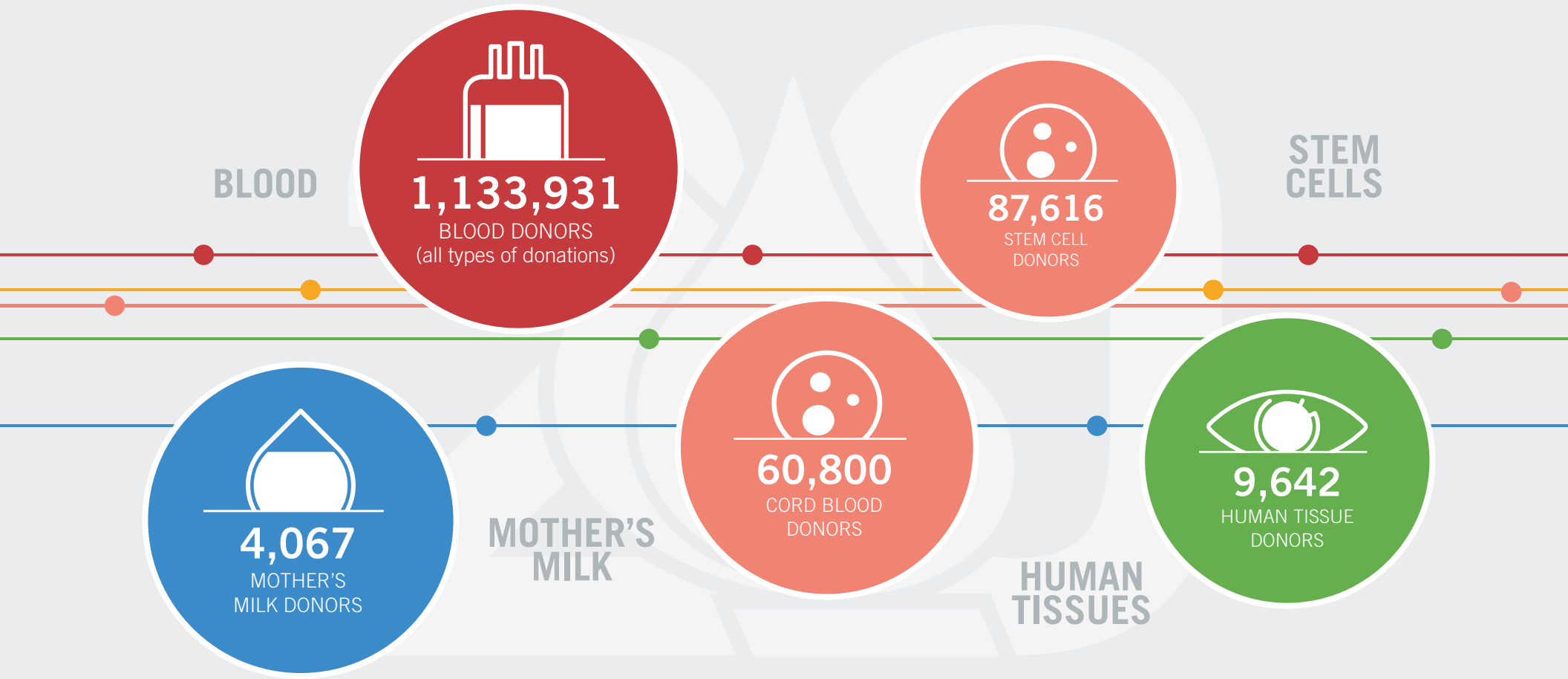
DONORS

RECIPIENTS

THANK YOU!

TOGETHER, ONE GIFT AT A TIME

In 20 years, more than 1,296,056 people have come together and donated blood, stem cells, human tissues or mother's milk. Together, one donation at a time, donors contribute to improving and saving lives.



Thank you for giving the gift of life!

Blood, stem cell, cord blood and mother's milk donors represent all those who have registered over the years. Human tissue donors are those whose tissues were collected.

FROM SUPPLIER OF BLOOD TO EXPERT IN BIOLOGICAL PRODUCTS OF HUMAN ORIGIN

1992

Contaminated blood scandal

1996

Release of the *Rapport du comité québécois sur l'approvisionnement, la gestion et la distribution du sang* (Gélineau Committee Report)

1997

Final report of the Commission of Inquiry on the Blood system in Canada (Krever Report) tabled

The Red Cross announces its withdrawal from the Canadian blood program as of September 1998

1998

Adoption of the *Act respecting Héma-Québec*

Start of Héma-Québec operations

2001

Creation of the Human Tissue Bank

Opening of the first GLOBULE Blood Donor Centre

2003

Creation of the Public Cord Blood Bank

2005

Operational start-up of the first GLOBULE Mobile Blood Donation Unit

2011

Creation of the Compensation plan for victims of a Héma-Québec product

2013

Revision of the *Act respecting Héma-Québec*: mandate expanded to biological products of human origin

Opening of the Mobile Blood Drive Regional Centre

Opening of the first PLASMAVIE Plasma Donor Lounge

Héma-Québec assumes full management of the Stem Cell Donor Registry in Québec

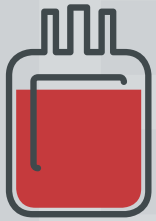
2014

Creation of the Québec Public Mothers' Milk Bank

2018

Héma-Québec mandated by the MSSS to develop an information system on the traceability of blood products (SIIATH)

ACTIVITY SECTORS



BLOOD PRODUCTS

Blood is the fluid that flows through the body's veins and arteries.

It is made up of plasma, in which three types of cells are suspended: red blood cells, white blood cells and platelets.

Every 80 seconds, someone in Québec needs blood. It may be following an accident, during surgery or to treat an illness.

STABLE PRODUCTS

Stable products are medications that are manufactured primarily from plasma, the liquid part of blood that transports blood cells and nutrients in the body.

Thousands of Quebecers need plasma to treat various illnesses, including neurological disorders, immune deficiencies and other diseases, such as hemophilia.

STEM CELLS

Stem cells are the "parent" cells from which all other blood cells develop.

They are found in bone marrow, the peripheral (circulating) blood and umbilical cord blood.

For some diseases, stem cell transplants are the only chance of survival. Some diseases cause the destruction or abnormal functioning of the bone marrow. The treatment of last resort consists of replacing the patient's stem cells with those of a healthy person.

HUMAN TISSUES

Human tissues – e.g., ocular tissues, heart valves, skin tissues, arterial tissues and musculoskeletal tissues – can be collected for transplantation purposes.

One tissue donation can help up to 20 people, whether to restore sight with a corneal transplant or to treat a serious burn victim with skin grafts.

MOTHER'S MILK

Human milk from a bank is particularly beneficial for infants born extremely preterm who cannot be breastfed by their mother.

It reduces the risk of developing a serious intestinal disease.

225,901

blood, stem cell, human tissue and mother's milk

DONORS

801,674

PRODUCTS DISTRIBUTED

(all types of products)

1,358

EMPLOYEES

$427M

ANNUAL REVENUES

THE YEAR AT A GLANCE

SELF-SUFFICIENCY ACHIEVED

for the Public Mothers' Milk Bank

Distribution increased by

40%

IMPROVED SELF-SUFFICIENCY

in corneas

91% of distributed corneas were collected and prepared by Héma-Québec

15.7%

INCREASE IN PLASMA COLLECTIONS

(10,443 additional donations)

STABILIZATION OF DEMAND

for labile blood products after years of decline

OPENING OF A NEW GLOBULE

Blood Donor Centre in Québec City

MISSION

To efficiently meet the needs of the Québec population for quality blood and other biological products of human origin.

VISION

To become a strategic partner for the Québec health system.

TABLE OF CONTENTS

Héma-Québec's 2018–2019 annual report covers the fiscal year from April 1, 2018, to March 31, 2019.

LEADERS' MESSAGE

The start of a new era

Twenty is the age of making choices, an era of excitement and changes. The very reason for our creation requires that we remain vigilant and never forget the past. What we gained and learned in the early years now puts us more than ever in a position to affirm our vision of becoming a strategic partner serving Québec's healthcare system.

Opportunities for productive partnerships abound. One unique partnership between the CHUM and Héma-Québec, initiated in May 2018, is a prime example. The CHUM and Héma-Québec revised their processes for identifying and recommending potential human tissue donors. All steps of the process are now handled by the institution's office responsible for managing deaths, whose staff has undergone specific training. This initiative, which is unique in Québec, has resulted in an annual increase of 182% in the number of recommendations of potential donors in the Montréal hospital.

The reality of the changes and innovations around us require that we adjust our business model. To do this, the board of directors worked closely on the deployment of an organizational structure, contributing its expertise to ensuring the greatest harmonization possible between Héma-Québec's vision, the organizational structure and the resulting transformation.

Major elements of the new organizational structure have already been deployed. Of note is the creation of the Client Experience and Business Intelligence Division. This is a concerted response to the needs of various client groups: donors, volunteers, hospitals and partners. The addition of business intelligence, in turn, helps better communicate with donors and reach out to various types of clients.

The creation of a brand new Supply Chain Division, will enable us to achieve efficiency gains by better integrating the organization's logistics activities.

The solid performance of our plasma donation activities is also worthy of mention. By focusing primarily on its network of PLASMAVIE Donor Lounges specializing in plasma donation, Héma-Québec increased its supply of plasma. The two GLOBULE Blood Donor Centres in Québec City also contributed to this success story, reaching their overall annual collection target. This year, the number of registered donors rose by 16.1%, while the number of donations increased by 15.7%.

Furthermore, a major milestone in the brief history of the milk bank was reached in July 2018, with the achievement of self-sufficiency. Héma-Québec is able to meet all requests from hospitals for infants born preterm at 32 weeks' gestation or earlier, that is 100% of the needs of clients for whom the Public Mothers' Milk Bank was created.

LEADERS' MESSAGE

Preserving the gains made

Much has happened since that day in March 1998 when the creation of Héma-Québec, a new Québec blood distribution agency, was announced. Stem cells from donors and from mothers who have donated umbilical cord blood have been added to the organization's original mandate of providing safe blood, as have been human tissues and mother's milk. In two decades, Héma-Québec has earned its stripes.

Our organization was born in the midst of the contaminated blood scandal, the worst public health catastrophe in the history of Canada. In the 1980s, 30,000 people contracted the human immunodeficiency virus (HIV) or hepatitis C virus (HCV) after receiving blood or blood products. Thousands died.

Thankfully, these events are behind us. No case of HIV or HCV contamination has been recorded since Héma-Québec's creation. The favorable opinion of the blood system in Québec has risen from a low of 38% in 1998 to 94% in 2019*. We achieved this by making safety a cornerstone of our activities.

We owe this remarkable turnaround primarily to the thousands of men and women who worked to restore the mission of the gift of life in the hearts and minds of the population. This includes all those who worked at the organization during these years, but also each and every volunteer and donor who made this possible.

Héma-Québec is blessed with a solid team, which ensures its success. We are privileged to be able to count on passionate people who work to make certain that the organization is successful in fulfilling its mission. The diversity of expertise and complementary nature of talents are inherent characteristics of our organization. This fact makes us all the more appreciative of the contribution of each and every member of the Héma-Québec team.

We also wish to express our appreciation to the directors and to the members of our advisory committees, who have contributed their respective expertise to the gift-of-life cause. We would especially like to thank our colleagues and directors, Cindy Dumas-Lavergne and Wilson Sanon, who have left the board of directors, and underscore their contribution.

The public trust gained over the years must be preserved. We will do this through daily actions that show our organization's resolve to be a model of quality and innovation in providing a safe supply of biological products of human origin.

This is the choice we have made and one we recommit to.

Martine Carré
Chair of the Board of Directors

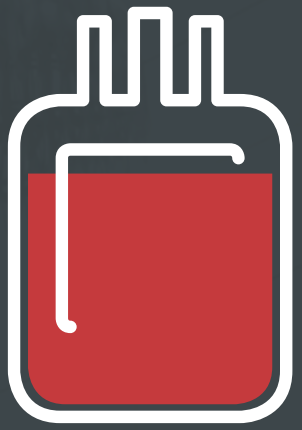
Nathalie Fagnan
President and Chief Executive Officer

* Source: SOM Annual Survey

ACCOMPLISHMENTS

BY ACTIVITY SECTOR

MOTHER'S MILK



BLOOD PRODUCTS

STEM CELLS

STABLE PRODUCTS

HUMAN TISSUES

Jordan, during his very first donation at a blood drive.

BLOOD PRODUCTS

As the exclusive supplier of blood products in Québec, Héma-Québec is responsible for recruiting donors and for collecting, testing, processing and delivering products to hospitals.

BLOOD PRODUCTS

IN NUMBERS

358,529
TOTAL VISITS
to collection sites
(all types of donations)

172,065
REGISTERED DONORS
(all types of donations)

2,258
BLOOD DRIVES
(including blood drives in mobile units)

1.6
TOTAL BLOOD DONATIONS
on average per donor

310,936
BLOOD PRODUCTS
delivered to hospitals

FROM DONATION TO DISTRIBUTION

DONATION

The blood collection lasts about ten minutes. In addition to the blood bag, sample tubes are collected for testing.

TRANSPORTATION

The blood bags and samples are sent to one of Héma-Québec's laboratories.

ANALYSES

The samples are sent to a qualification lab to determine the donor's blood group and to screen for the presence of infections.

SEPARATION OF BLOOD

The blood is separated into its different components (red blood cells, platelets, plasma).

STORAGE

Compliant products are labelled and stored, ready to be sent to hospitals.

DELIVERY

The products are delivered to hospitals. The components used vary depending on patients' needs.

BLOOD PRODUCTS

Labile blood product supply strategy

Héma-Québec's labile blood product supply strategy aims to improve the efficiency of operations while maintaining a safe and sufficient high-quality supply.

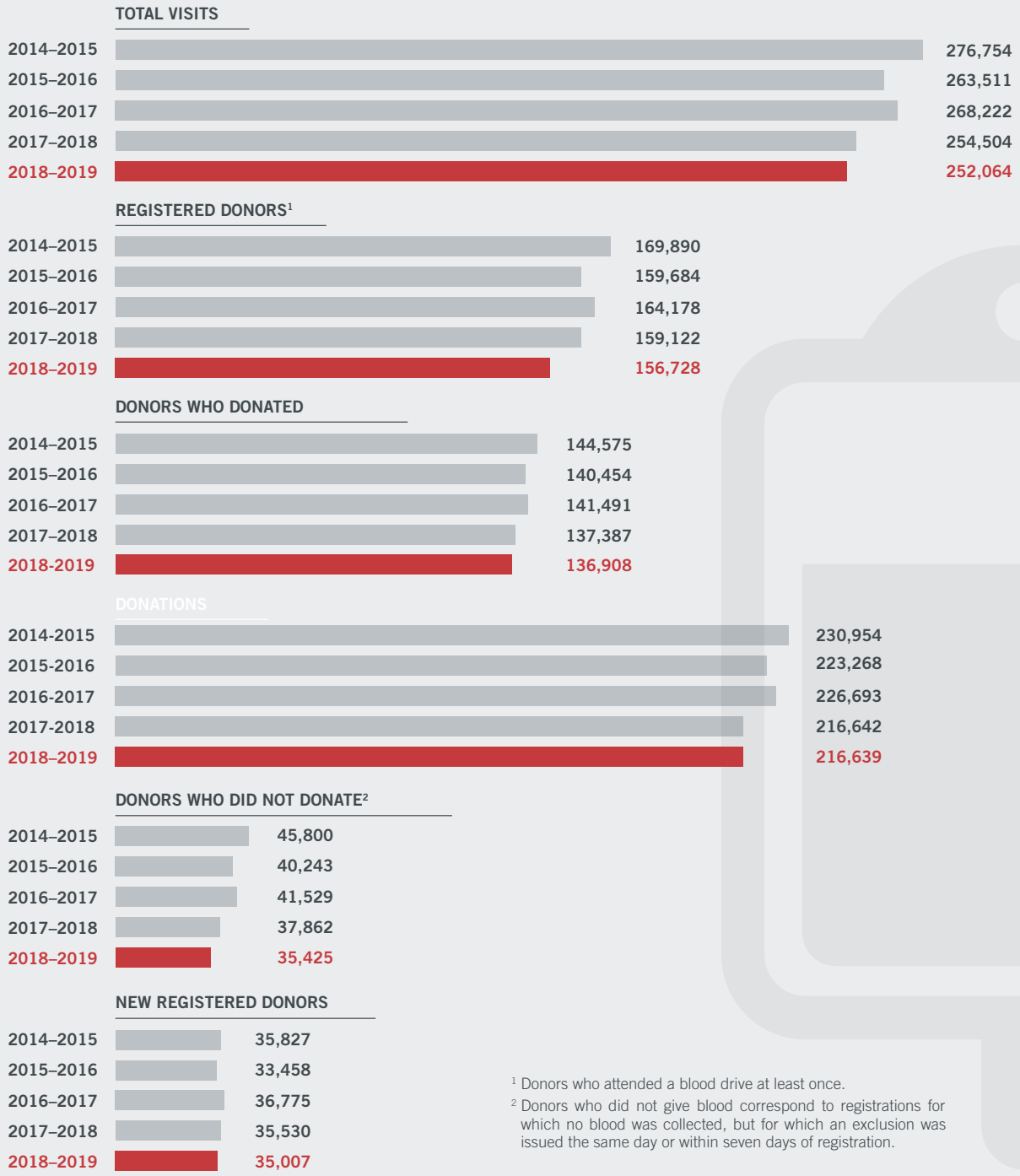
The strategy is structured around the following strategic choices:

- increasing the number of collections in donor centres;
- developing a culture focused on continuous improvement, problem-solving and accountability;
- being attentive to the needs of its hospital partners and clients.

Results for whole blood donation

Increased demand for blood products is having an impact on the number of donors and donations needed. See page 18.

In 2018–2019, 156,728 donors made 252,064 visits to blood drives or donor centres. In total, 136,908 donors made 216,639 donations. A blood donor gives 1.6 times a year on average.



[1] Donors who attended a blood drive at least once.

[2] Donors who did not give blood correspond to registrations for which no blood was collected, but for which an exclusion was issued the same day or within seven days of registration.

BLOOD PRODUCTS

Diversification of the blood reserve

Sickle-cell anemia (also known as drepanocytosis) is a chronic, incurable hereditary blood disorder associated with, among other things, periodic episodes of severe pain. The life expectancy of red blood cells in persons with sickle-cell anemia is six times shorter than normal. Instead of being flexible and round, these cells become rigid and assume a sickle shape. The change in shape prevents cells from entering smaller blood vessels, thereby depriving body tissues and certain organs of oxygen. This can result in lesions on the arms, legs or organs.

Blood transfusions help greatly diminish the effects of the disorder. Disorders that require treatment with repeated transfusions, such as sickle-cell anemia, pose challenges from a transfusion standpoint. Each recipient has a combination of specific blood groups on his or her red blood cells. The probability of finding a donor with a high degree of compatibility is greater when the donor has a similar genetic makeup. If the compatibility is not optimal, the patient runs the risk of developing antibodies to the transfused blood and destroying the red blood cells received.

The disorder is more prevalent in persons from Black communities from Africa and the Caribbean, but also from the Mediterranean region, the Middle East and certain regions of India and South America. One in 10 Black persons has the gene for the sickle-cell anemia.

Jessica, accompanied by her children Mathias and Mattéo, both living with sickle-cell anemia.

BLOOD PRODUCTS

Approximately 1,350 individuals live with sickle-cell anemia in Québec, and 110 people receive exchange transfusions on a frequent basis, every six to eight weeks on average. One treatment requires an average of 8 to 14 red blood cell units from an equal number of donors. Since almost all patients who receive exchange transfusions come from Black communities, more donors are needed from these communities.

In spring 2019, Héma-Québec launched a campaign targeted at Black communities, with the goal of recruiting 300 new donors. This initiative stands out by its highly personal approach. It was designed with the help of key members and spokespersons from these communities.

This campaign joins the ranks of other initiatives deployed by Héma-Québec to mobilize more donors from Black communities, in particular the program to replace iron lost following the donation process in Black women.

Replacement of iron lost following the donation process in Black women

Over the course of the past year, activities held in the GLOBULE Blood Donor Centres in metropolitan Montréal and Québec City and in more than 500 targeted blood drives resulted in the recruitment of 1,003 donors. Since the launch of the program, 1,718 women from Black communities have taken part. More than 500 of them donated more than once, helping reach the initial goal.

Black women have a hemoglobin level that is physiologically lower than that of other women. This fact temporarily excludes approximately one third of those who register at blood drives.

The program allows for:

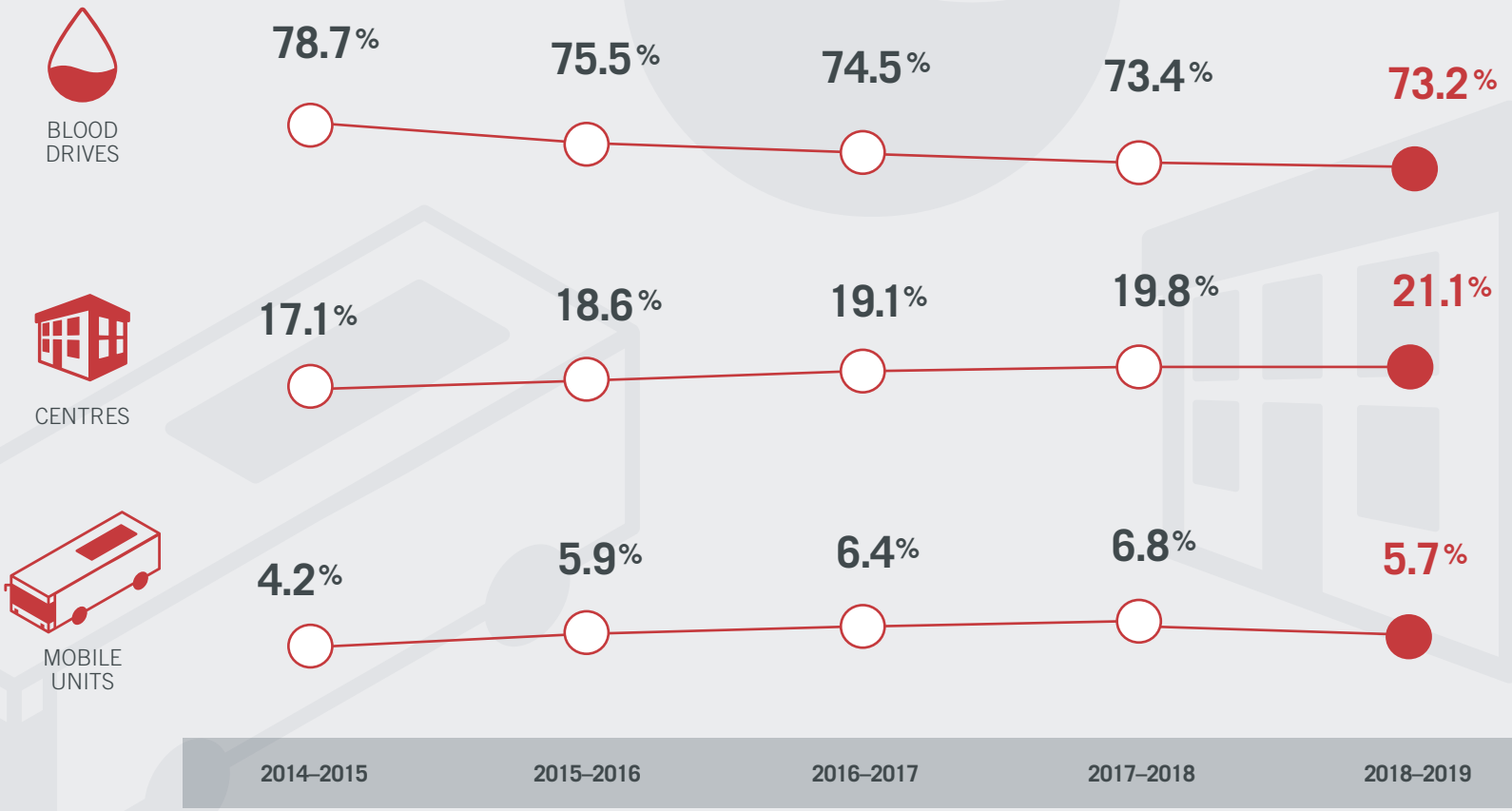
- a qualification criterion adapted to the physiological reality of blood donors from Black communities;
- the assessment of iron reserves; and
- iron supplements issued to qualified blood donors from Black communities.

Naderge, Advisor–Cultural Community Development.

BLOOD PRODUCTS

Distribution of whole blood collections

Efforts to increase the number of whole blood donations in donor centres are ongoing. One incentive is the financial variable: the cost per unit collected in a donor centre is 32.6% less than if it is collected at a blood drive. For the first time, more than 20% of collections were done in centres.



BLOOD PRODUCTS

Collections in GLOBULE centres

Thanks to apheresis donations, GLOBULE Blood Donor Centres are able to collect targeted products based on needs. This strategy offers advantages in a situation of fluctuating demand.

During an apherisis donation, the blood is separated during collection by a machine that collects only the required blood components (plasma, platelets, red blood cells) and returns the others to the donor.

This year, a new GLOBULE centre opened in the Lebourgneuf neighbourhood of Québec City, contributing to an increase in collected products, including plasma destined for the manufacture of medications. In addition, the centre located at Laurier Québec in Sainte-Foy moved to the Complexe Jules-Dallaire, a few hundred metres away.

PRODUCTS COLLECTED IN GLOBULE BLOOD DONOR CENTRES

	2014–2015	2015–2016	2016–2017	2017–2018	2018–2019
Whole blood	39,303	41,578	43,319	43,045	45,581
Platelets by apheresis	35,299	36,980	37,950	36,521	38,463
Plasma by apheresis 500 ml	12,201	8,676	–[1]	–	–
Plasma by apheresis 750 ml	–	4,550[2]	12,619	14,164	20,127
Red blood cells (packed) by apheresis	6,847	4,594	3,911	3,871	3,637
Plasma by apheresis 250 ml (including MC[3])	18,748[4]	22,044	23,210	21,834	21,085
Granulocytes[5]	33	38	37	150	45
Total products collected	**112,431**	**118,460**	**121,046**	**119,585**	**128,938**

[1] Plasma collections at the Québec City GLOBULE centre are now 750 ml and destined for fractionation.
[2] Corresponds to the fiscal year during which plasma collections destined for fractionation began.
[3] MC: donations made by multiple collections.
[4] The possibility of collecting plasma concurrently with each platelet donation (every 14 days rather than 56 days) explains in part the increase in plasma collections of 250 ml.
[5] Héma-Québec is the sole distributor of these blood products Canada-wide. This explains the difference between the number of units distributed to Québec hospitals and the number of products collected.

GLOBULE in Lebourgneuf

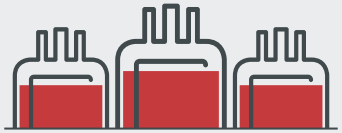
BLOOD PRODUCTS

Trends in demand

Demand appears to have stabilized in 2018–2019, while there was a slight increase of 2% in the total distribution of labile blood products. Deliveries of red blood cells to hospitals increased by 1% and those of platelets by 5%. Demand for plasma used in transfusions remained stable. Héma-Québec continued to fully meet the needs of hospitals.

For several years, there has been a noticeable decrease in demand for labile blood products consistent with that observed elsewhere in North America and in Europe. Demand has decreased by 16% since 2012–2013.

In 2018–2019



2%

INCREASE IN THE DISTRIBUTION
of labile blood products

BLOOD PRODUCTS DELIVERED TO HOSPITALS

	2014–2015	2015–2016	2016–2017	2017–2018	2018–2019
Whole red blood cells (packed)	**224,203**	**219,315**	**212,705**	**205,888**	**207,235**
Platelet pools[1]	4,891	5,632	3,853	3,797	3,277
Platelets collected by apheresis	32,652	33,853	35,161	34,198	36,569
Total platelets[2]	**37,543**	**39,485**	**39,014**	**37,995**	**39,846**
Plasma from whole blood 250 ml	13,319	15,207	29,280	25,287	27,715
Plasma collected by apheresis 250 ml	16,945	14,323	7,940	7,488	5,073
Plasma collected by apheresis 500 ml	6,086	2,834	45	–[4]	–[4]
Equivalent plasma (apheresis 500 ml X 2)[3]	12,172	5,668	90	–[4]	–[4]
Total plasma[5]	**42,436**	**35,198**	**37,310**	**32,775**	**32,788**
Granulocytes	**33**	**30**	**13**	**60**	**31**
Cryoprecipitates	**22,758**	**23,335**	**25,542**	**25,494**	**27,255**
Cryoprecipitate supernatants	**7,703**	**2,733**	**1,914**	**2,708**	**3,781**
Grand total	**334,676**	**320,096**	**316,498**	**304,920**	**310,936**

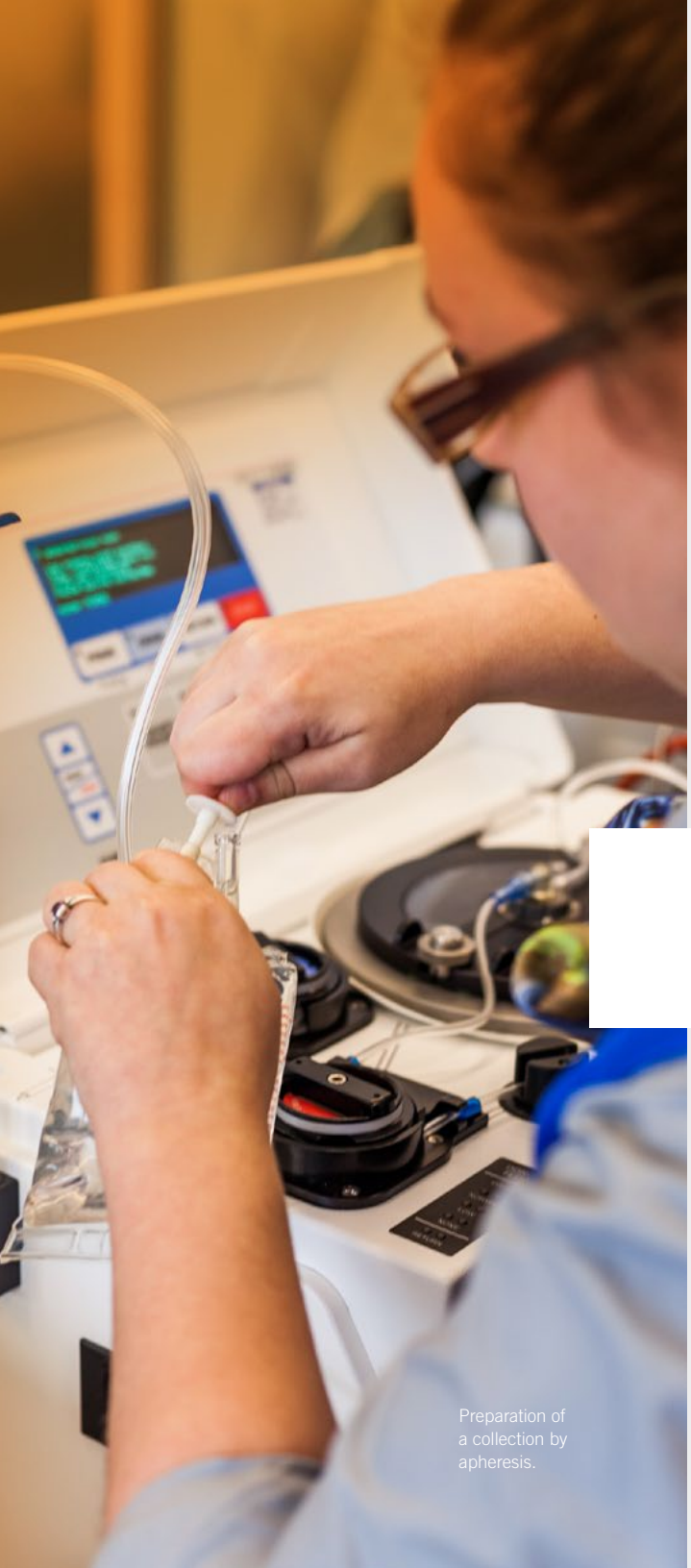
[1] Platelets from five whole blood donations pooled together (one pool is equal to five buffy coats to which one plasma is added).

[2] "Total platelets" is the sum of "platelet pools" and "platelets collected by apheresis."

[3] "Equivalent plasma" corresponds to "plasma collected by apheresis 500 ml" multiplied by 2. This makes it possible to have representation of the equivalent demand with the other plasma products delivered that have a volume of 250 ml.

[4] Plasma collections at the GLOBULE centre in Québec City are destined for fractionation.

[5] "Total plasma" is the sum of "plasma from whole blood 250 ml", "plasma collected by apheresis 250 ml" and "equivalent plasma" (apheresis 500 ml x 2)."



Preparation of a collection by apheresis.

STABLE PRODUCTS

Héma-Québec is the exclusive distributor of stable products for Québec. It is responsible for the purchase of medications manufactured primarily from plasma (stable products), the management of the reserve and the supply to hospitals. It also looks after recruiting donors, collecting and testing plasma, and sending a part of the plasma it collects for fractionation.

STABLE PRODUCTS

IN NUMBERS

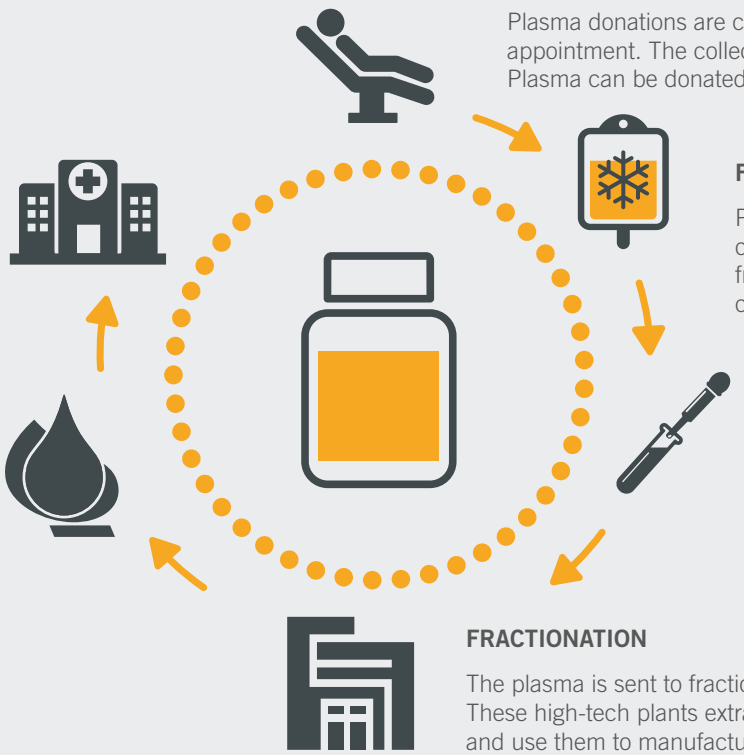
14,058
registered
PLASMA DONORS

113,149
LITRES OF PLASMA
destined for the manufacture of medications

21.3%
immunoglobulin
SELF-SUFFICIENCY RATE

469,586
STABLE PRODUCTS
delivered

FROM DONATION TO DISTRIBUTION



DONATION

Plasma donations are collected in donor centres, by appointment. The collection lasts approximately 45 minutes. Plasma can be donated every six days, up to 50 times a year.

FREEZING

Plasma is quickly frozen after collection. The faster you freeze it, the more proteins can be extracted from it.

ANALYSES

Collections are sent to the qualification laboratory. All donations are tested.

FRACTIONATION

The plasma is sent to fractionation plants. These high-tech plants extract the proteins and use them to manufacture medications.

RETURN OF PRODUCTS TO HÉMA-QUÉBEC AND STORAGE

The finished products are then returned to Héma-Québec and stored, ready for shipment to hospitals.

DELIVERY

The products are delivered to hospitals.

STABLE PRODUCTS

Plasma collection

Héma-Québec has increased its supply of plasma by focusing mainly on its network of PLASMAVIE Plasma Donor Lounges that specialize in plasma donation. The two GLOBULE Blood Donor Centres in Québec City also contribute to plasma donations and reached their overall annual collection target.

This year, the number of registered donors increased by 16.1%, while the number of donations increased by 15.7%.

Donor recruitment is a key element of the plasma self-sufficiency strategy. Various programs have been deployed to create a habit of donating or increase the frequency of donations.

The *Association des bénévoles du don de sang* (ABDS) contributes significantly to recruiting donors by deploying teams of volunteers to all regions where a PLASMAVIE Lounge is in operation.

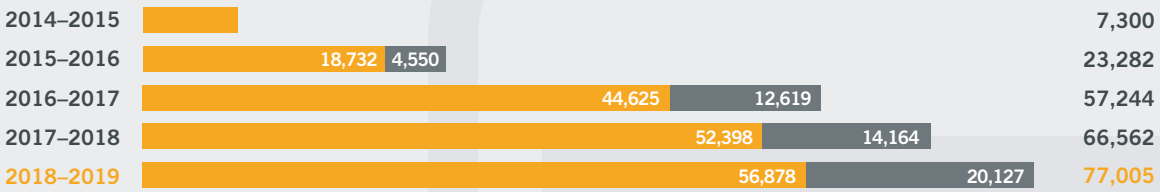
Expanded accessibility to plasma donation

The volume of plasma collected by apheresis depends on the weight, height and sex of the donor. This amount must correspond to an established ratio of the donor's estimated blood volume. Restrictions are applied to ensure the safety of the donor while maximizing the amount of plasma collected. Individuals with a lower blood volume (primarily women) were prohibited from giving plasma because of the minimum volume required for first donations.

Since June 2018, this required minimum collection volume has been revised to qualify a greater number of potential donors. This change enabled more than 600 additional plasma donors to be received during the year.

PLASMA DONATIONS DESTINED FOR THE MANUFACTURE OF MEDICATIONS

Number of donations by type of donor centre



13,009 DONORS WHO DONATED MADE 77,005 DONATIONS

5.9 DONATIONS ON AVERAGE PER YEAR PER DONOR

Louise, volunteer and Mathieu, blood donor.

STABLE PRODUCTS

Improving the self-sufficiency of plasma destined for the manufacture of medications

Proteins from plasma are widely used in the manufacture of certain medications called stable products. Thousands of Quebecers need these products to treat immune deficiencies or other disorders, such as hemophilia. Collecting plasma destined for the manufacture of these products is a vital issue.

Immunoglobulins constitute the most used plasma-derived products in Québec. In 2018–2019, the volume of plasma sent for fractionation made it possible to meet 21.3% of immunoglobulin needs in Québec, the remaining portion came from abroad. Héma-Québec is seeking to increase the portion of immunoglobulins derived from plasma collected in Québec (rate of self-sufficiency). The amount of plasma sent for fractionation in 2018–2019 was 113,149 litres, compared with 105,160 litres in 2017–2018, an increase of 7.6%. Due to increased demand for immunoglobulins, the rate of self-sufficiency has remained stable.

The organization's goal is also to reduce the collection cost per litre of plasma destined for fractionation. This year, that cost was $266.58, compared with $286.50 in 2017–2018, a 7% decrease.

QUANTITY OF PLASMA SENT FOR FRACTIONATION

Litres

2014–2015	61,824
2015–2016	71,684
2016–2017	95,881
2017–2018	105,160
2018–2019	113,149

IMMUNOGLOBULINS SELF-SUFFICIENCY RATE*

2014–2015	16.1%
2015–2016	17.7%
2016–2017	21.0%
2017–2018	21.5%
2018–2019	21.3%

*Based on the amount of plasma sent for fractionation vs. the distribution of immunoglobulins during the year.

Monique, nurse and William, plasma donor.

STABLE PRODUCTS

Distribution of stable products to hospitals

Héma-Québec distributes some 50 different stable products, including four that are manufactured from plasma collected in Québec. This activity represents a major portion of Héma-Québec's budget, i.e. 63% of total expenditures.

Intravenous (IVIg) and subcutaneous (SCIg) polyvalent immunoglobulins

Immunoglobulins are the most sought-after stable products. The aim of the organization is to increase their sufficiency. Immunoglobulins contain antibodies that act on the immune system to help the body fight off bacteria and viruses. They can also be used to treat several health conditions.

In the case of immunodeficient patients, the body produces little or no immunoglobulins. The immune system of these patients is weakened or non-existent. Immunoglobulin treatments help remedy this deficiency. Administered on a regular basis, they play a vital role in protecting against infections that are common in a healthy person but that can have very serious consequences in these patients.

Immunoglobulins are also used to treat certain health conditions that involve a disruption of the immune system (e.g., some neurological conditions such as Guillain-Barré Syndrome). They are also used to affect and restore the immune system.

The organization's goal is also to reduce the collection cost per litre of plasma destined for fractionation. This year, that cost was $266.58, compared with $286.50 in 2017–2018, a 6.9% decrease.

Grams

Recombinant factor VIII

Recombinant factor VIII, destined for hemophiliacs, is the second stable product most in demand. Its distribution saw an increase of 9% in 2018–2019 and a growth of 33% since 2014–2015.

International units

The last step in the call for tenders regarding recombinant factor VIII was completed in 2018–2019. Héma-Québec worked in close collaboration with Québec's hemophilia treatment centres to make the transition to new products.

In 2017–2018, a public call for tenders was issued during the year for recombinant factor VIII. The public call for tenders' process ensures accessibility to products while enabling the Québec healthcare system to obtain the best possible price. A selection committee was formed, including specialized physicians from Québec's hemophilia treatment centres and representatives from the *Société canadienne de l'hémophilie*.

The participation of various stakeholders throughout the process helped encourage greater support during the introduction of new products.

8.1%
INCREASE
in the distribution of immunoglobulins in 2018–2019

9%
INCREASE
in the distribution of recombinant factor VIII in 2018–2019

Charles, stem cell recipient.

STEM CELLS

Héma-Québec is responsible for donor recruitment, qualification and management of the Stem Cell Donor Registry for Québec, a computerized bank of 47,000 individuals who could eventually be called upon to donate their stem cells for a patient. The registry is linked to the international donor bank of the World Marrow Donor Association (WMDA), which provides access to more than 33 million potential stem cell donors.

The Public Cord Blood Bank provides access to a complementary source of stem cells, beyond those from bone marrow or peripheral blood, and is an integral part of Héma-Québec's Stem Cell Donor Registry. Umbilical cord blood is very rich in stem cells.

Héma-Québec is responsible for donor recruitment and the processing and banking of cord blood units. It is the first operational public cord blood bank in Canada.

STEM CELL DONOR REGISTRY

IN NUMBERS

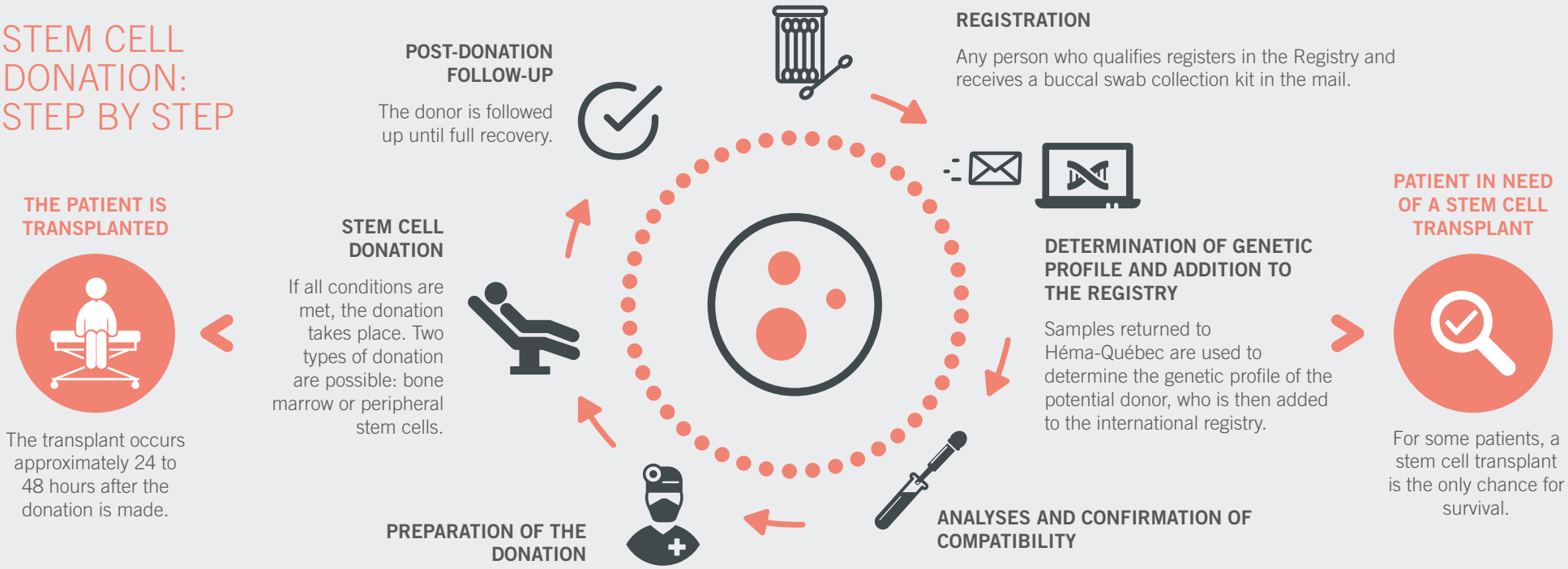
2,871
REGISTRATIONS RECEIVED

46,990
REGISTERED DONORS

114
QUEBECERS
received an unrelated transplant
(including 17 from cord blood)

8
QUEBECERS
donated stem cells
(one of these donations was destined for a patient in a Québec hospital)

STEM CELL DONATION: STEP BY STEP



REGISTRATION

Any person who qualifies registers in the Registry and receives a buccal swab collection kit in the mail.

DETERMINATION OF GENETIC PROFILE AND ADDITION TO THE REGISTRY

Samples returned to Héma-Québec are used to determine the genetic profile of the potential donor, who is then added to the international registry.

PATIENT IN NEED OF A STEM CELL TRANSPLANT

For some patients, a stem cell transplant is the only chance for survival.

ANALYSES AND CONFIRMATION OF COMPATIBILITY

If a person is potentially compatible with a patient, Héma-Québec conducts advanced tests to confirm the patient's genetic compatibility.

PREPARATION OF THE DONATION

The potential donor undergoes a general physical examination to confirm they are healthy enough to make the donation.

STEM CELL DONATION

If all conditions are met, the donation takes place. Two types of donation are possible: bone marrow or peripheral stem cells.

THE PATIENT IS TRANSPLANTED

The transplant occurs approximately 24 to 48 hours after the donation is made.

POST-DONATION FOLLOW-UP

The donor is followed up until full recovery.

STEM CELLS

Stem cell donor registry

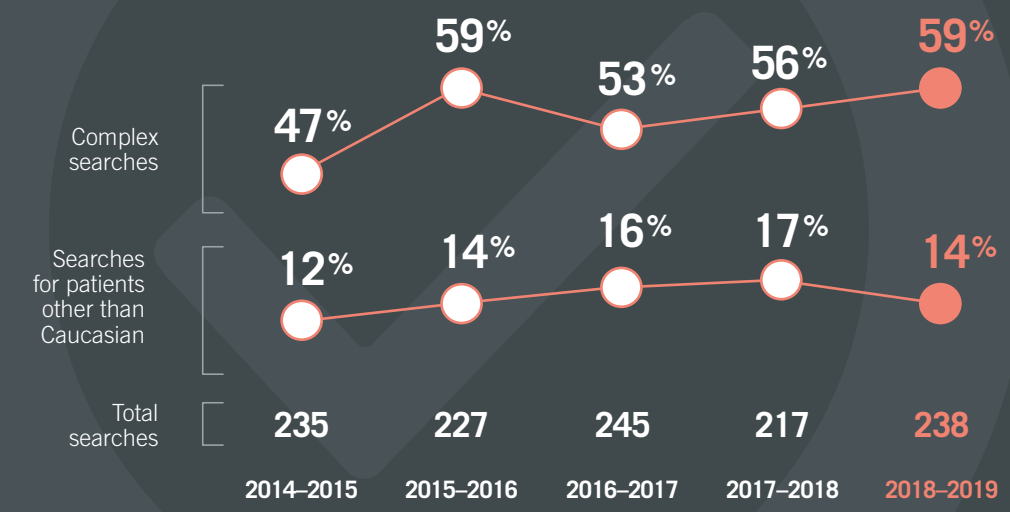
Search for compatible donors

Héma-Québec becomes involved when no family member is found to be compatible and a patients physician requests that a search be conducted for an unrelated donor.

In addition, the number of donor searches for patients other than Caucasian increases from year to year, reflecting the growing diversity of Québec's population. The increase in complex searches shows the importance of having a registry that represents greater diversity.

A search is considered to be complex when it is impossible to find a perfectly compatible donor or when only one perfectly compatible donor is found.

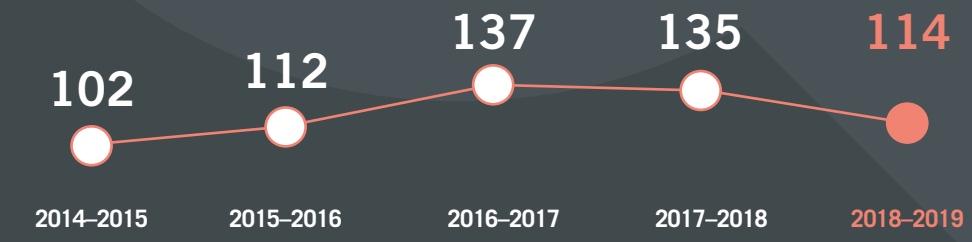
PROGRESSION OF COMPATIBLE DONOR SEARCHES



Pre-transplant coordination service

During 2018–2019, the registry team facilitated the distribution of 114 products destined for Québec patients. It also collaborates with hospital transplant teams by facilitating communication with international registries.

PRE-TRANSPLANT COORDINATION



PUBLIC CORD BLOOD BANK

IN NUMBERS

3,860
MOTHERS REGISTERED
in the Public Cord Blood Bank

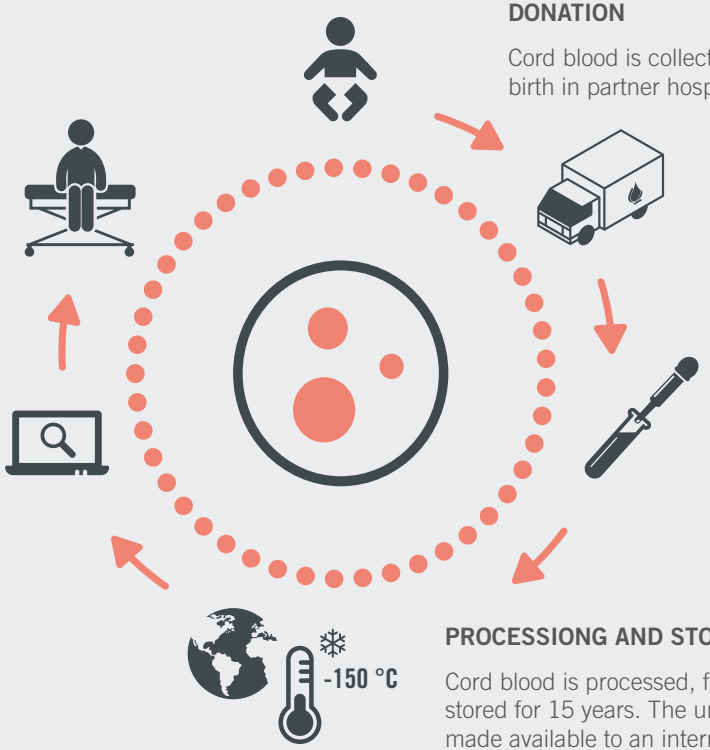
11,058
UNITS BANKED
at March 31, 2019

9
UNITS DISTRIBUTED
worldwide in 2018-2019

137
UNITS DISTRIBUTED
worldwide since 2008

9
PARTNER HOSPITALS

FROM DONATION TO TRANSPLANTATION



DONATION

Cord blood is collected at birth in partner hospitals.

TRANSPORTATION

Cord blood is transported to Héma-Québec.

QUALIFICATION

Cord blood is qualified based on strict criteria.

PROCESSIONG AND STORAGE

Cord blood is processed, frozen at –150 °C and stored for 15 years. The units of cord blood are made available to an international registry.

CALL AND SEARCH

When the Registry receives a call, Héma-Québec conducts a search for a unit that is compatible with the patient awaiting a stem cell transplant.

TRANSPLANT

The patient is transplanted.

STEM CELLS

Public cord blood bank

Banking

In 2018–2019, 352 new units were banked compared with 584 in 2017–2018, a significant decrease of 40%. The number of banked cord blood units depends mainly on the number of mothers enrolled who give birth in partner hospitals as well as the qualification rate of the cord blood units collected.

In addition to mitigation measures put in place due to the risk associated with the Zika virus since 2015–2016, a new medical practice has reduced the number of cord blood units that can qualify. A longer delay before cutting the umbilical cord reduces the remaining number of units.

In order to be banked, a cord blood unit must meet strict qualification criteria (sufficient amount collected and number of stem cells present in the product). These criteria have been put in place to ensure the optimal quality of the products offered and to maximize the success of the transplant in patients whose health is precarious.

Héma-Québec works in collaboration with hospitals to deal with these issues and to optimize recruitment and the qualification performance.

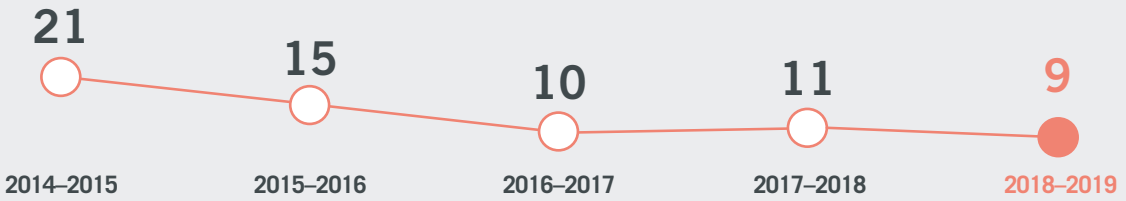
Nathalie, cord blood donor.

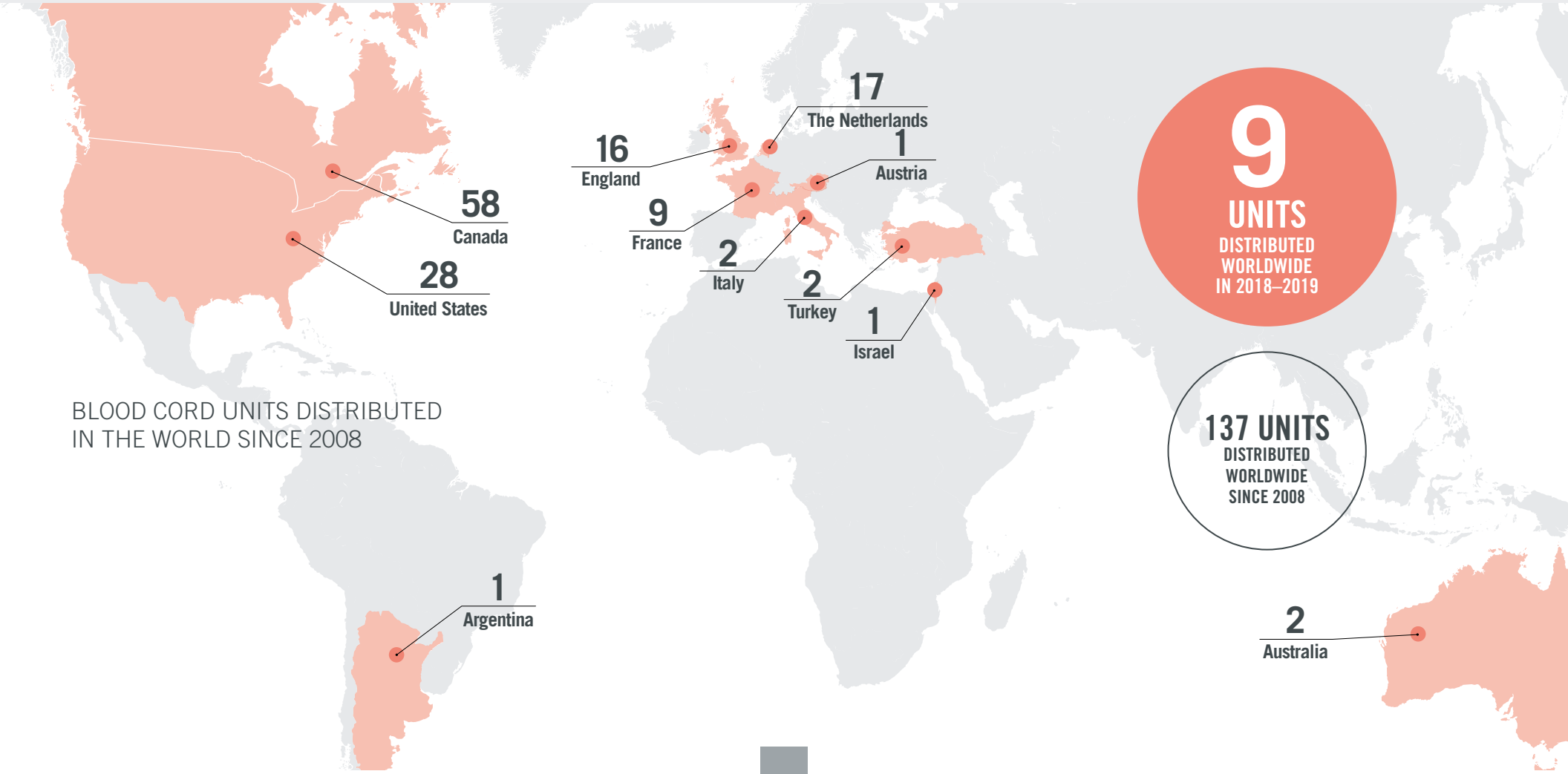
STEM CELLS

Distribution of cord blood units

The decrease in registered distributions in recent years is a phenomenon that has been observed worldwide and is attributable to the arrival of new therapies. This year, Héma-Québec distributed two units of cord blood in Québec, five in England, one in France and one in the United States.

UNITS OF CORD BLOOD DISTRIBUTED





BLOOD CORD UNITS DISTRIBUTED IN THE WORLD SINCE 2008

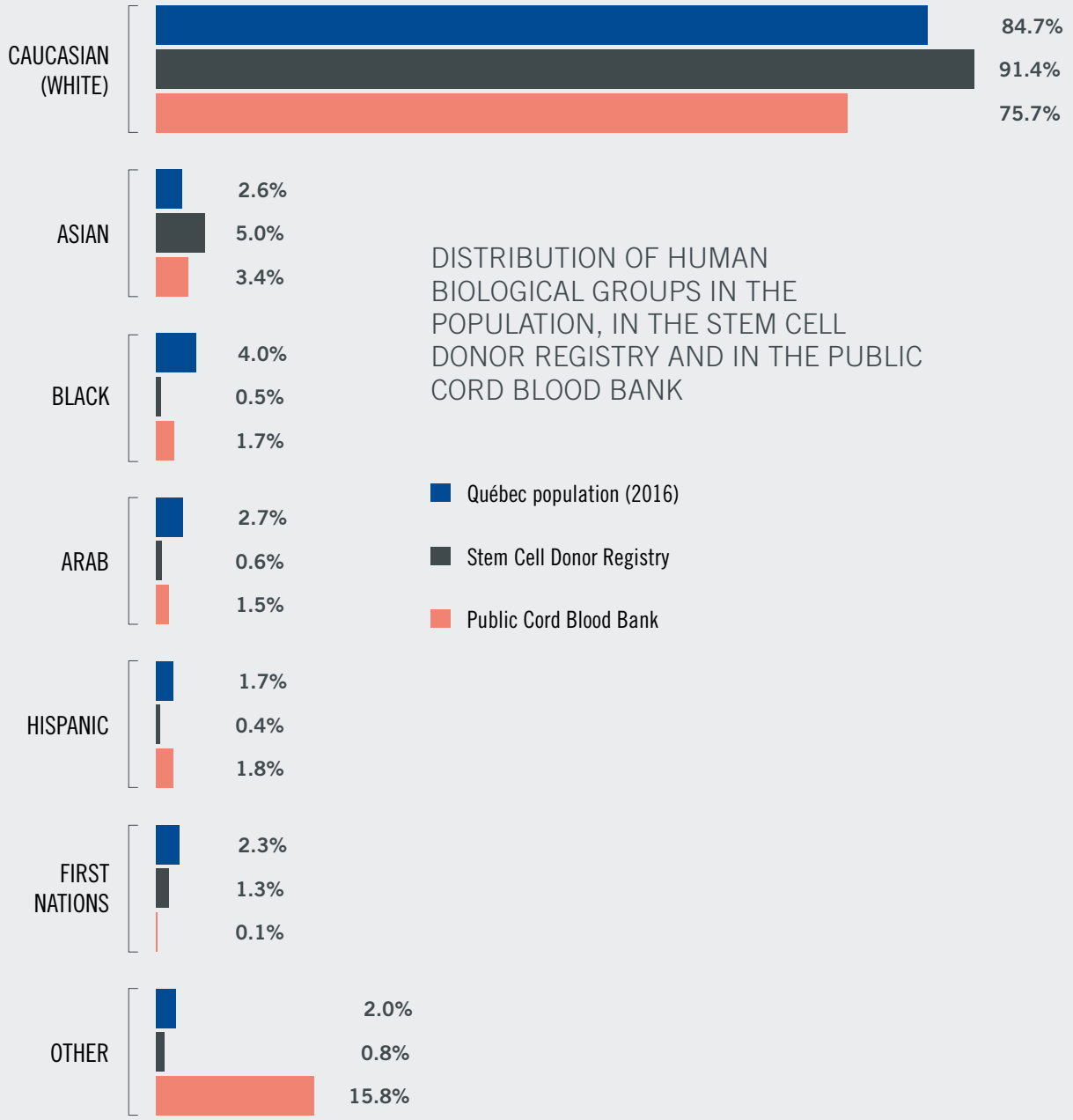
The challenge of diversity

Héma-Québec's Stem Cell Donor Registry is made up primarily of Caucasian individuals, as is the case with international registries. The situation is similar with the Public Cord Blood Bank. This is a major issue since a diversified registry (representing the makeup of Québec's population) better meets potential needs. Because the characteristics of transplanted stem cells must match those of the patient as closely as possible, a search is done for a donor whose genetic makeup corresponds to that of the patient.

In real terms, HLA (human leukocyte antigen) markers determine the compatibility of stem cells. This particular system requires searches to be very specific since there are more than 22,548 markers, and this number is growing every year. Finding a compatible donor or cord blood unit for a patient awaiting a stem cell transplant is a real challenge.

This is why it is important that donors from all ethnic backgrounds enrol in the Stem Cell Donor Registry and the Public Cord Blood Bank—to improve the representation of all communities and foster the chances of finding these invaluable donors who save lives.

Héma-Québec's efforts consist in recruiting a diversity of stem cell and cord blood donors by maintaining links to partner hospitals that have a greater representation of mothers from other communities and where cord blood units are collected.



STEM CELLS

Swab the world Foundation: a partnership to meet the challenge of diversity

Since fall 2018, a partnership between Héma-Québec and the Swab the World Foundation has been addressing the issue of diversity within registries. The foundation, initiated by a stem cell recipient, provides a recruitment platform that makes tools available to patients around the world to give them a voice and information in plain language to raise awareness among potential donors about the right registry in the world to enrol.

Héma-Québec has enthusiastically partnered with this citizen initiative and supports it by supplying collection kits to facilitate recruitment during activities organized by the foundation.

Better representation of First Nations in the Stem Cell Donor Registry

First Nations are poorly represented in Canadian registries and absent from international registries because of a genetic profile that is unique in the world. Little existing data on HLA typing makes searches even more complex, since it is difficult to evaluate the various compatible combinations.

A research project within First Nations communities, which began three years ago and is funded in part by the *Fondation Héma-Québec*, aims to correct this situation. In particular, the project aims to:

- analyze the HLA combinations in the various communities and show the differences between them;
- encourage individuals aged 18 to 35 from First Nations to enrol in the Stem Cell Donor Registry;
- facilitate the search for stem cell donors for patients from First Nations.

This year, promotion of the Registry included issuing an invitation to First Nations members from the Huron-Wendat Nation of Wendake, the Mohawks of Kahnawake and the Innu of Unamenshipit (La Romaine) to take part in the population study. To date, these efforts have resulted in recruiting 251 participants in the study. As well, 40% of participants who were eligible to enrol in the Registry did so.

Efforts to reach out to other communities continue. The aim is for all of Québec to be represented in the Registry and for the HLA characteristics of First Nations to be better known to facilitate searches for unrelated stem cell donors.

Rosalie, cord blood transplant recipient, has First Nations ancestors.

Eugène and Bibiane, parents of Rachelle and Émilie, human tissue donors.

HUMAN TISSUES

Héma-Québec manages the only public human tissue bank in Québec. It is responsible for raising awareness among health professionals of the importance of referring potential donors, the collection process and the processing and distribution of human tissues to hospitals.

HUMAN TISSUES

IN NUMBERS

6,614
DONOR REFERRALS
received

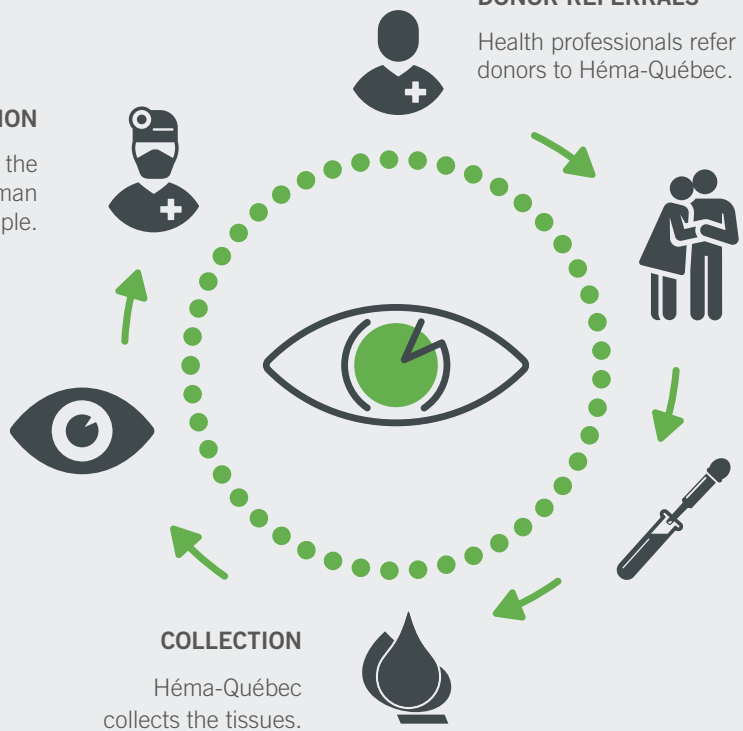
945
TISSUE DONORS

5,015
TISSUES DISTRIBUTED
to hospitals

Improved self-sufficiency of the supply of corneas

91%
CORNEAS DISTRIBUTED
are local corneas

FROM DONOR REFERRALS TO TRANSPLANTATION



DONOR REFERRALS

Health professionals refer donors to Héma-Québec.

CONSENT

Consent registries are checked. Whether the consent is entered in the registry or not, it is important to share the donor's decision to consent to donating tissue with family members, since they are the ones who speak on behalf of the donor after death.

QUALIFICATION

Héma-Québec conducts a thorough evaluation to verify the donor's eligibility.

COLLECTION

Héma-Québec collects the tissues.

PROCESSING AND STORAGE

The tissues are processed and stored until they are transplanted. Most tissues can be preserved for up to five years, with the exception of corneas, which cannot be preserved beyond 14 days.

TRANSPLANTATION

The surgeon transplants the tissues. One donation of human tissues can help up to 20 people.

HUMAN TISSUES

Referrals of human tissue donors

As part of its human tissue activities, Héma-Québec must raise awareness among health professionals of the importance of referring potential donors. These referrals are vital to ensuring greater self-sufficiency.

In 2018–2019, Héma-Québec received 6,614 potential donor referrals, which represents an increase of 21% over the previous year.

Ongoing collaboration with partners

Héma-Québec's monthly communications to raise awareness among partners in hospitals remind health professionals of the importance of referring donors for Québec's human tissue reserve and guides them on dealing with the various issues that arise in this setting. These activities are in addition to collaborations with *Urgences-santé*, the *Bureau du coroner* and the *Unité de coordination clinique des services préhospitaliers d'urgence* (UCCSPU) of *Hôtel-Dieu de Lévis*.

Unique project to systematize referrals at the CHUM

A project to systematize referrals of tissue donors was initiated this year, in collaboration with the *Centre hospitalier universitaire de Montréal* (CHUM). Since spring 2018, the identification and referral of donors is done at admissions, rather than by the health care givers in the care units. This centralization of the refferal process, a first in Québec, has led to a greater number of referrals. The results are promising. In 2018–2019, the CHUM referred 381 donors to Héma-Québec, compared with 21 the previous year.

Héma-Québec collects the following human tissues:

Ocular tissues (corneas and eyeballs)

Heart valves

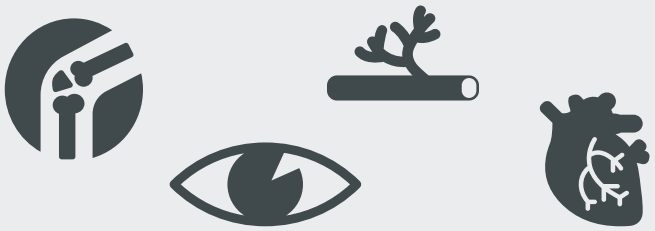
Cutaneous tissues (skin)

Arterial tissues (abdominal aortas, femoral arteries...)

Musculoskeletal tissues (tendons and bone)

HUMAN TISSUES

Human tissue distribution



93%
OF TISSUES DISTRIBUTED
were collected and prepared by Héma-Québec

Anne, hospital nurse.

HUMAN TISSUE DISTRIBUTION

	2014–2015	2015–2016	2016–2017	2017–2018	2018–2019
Valve and vascular products	61	39	59[1]	54	66
Cutaneous products	1,090	1,489	1,036	1,060	655
Musculoskeletal products (tendons and bone)	1,371	1,768	2,214	2,678	2,648
Corneas	448	606	689	783	819
Sclera	416	460	468	511	457
IMPORTS					
Imported human tissues	28	73	32	53	66
Imported corneas	337	205	176	139	78
Imported amniotic membranes	92[2]	94	108	173	226
Total	**4,080**	**4,734**	**4,782**	**5,451**	**5,015**

[1] Distribution of arterial tissues collected and manufactured by Héma-Québec began in 2016–2017.
[2] Year in which the distribution began.

Improved self-sufficiency of the cornea supply

Ensuring a steady supply of corneas represents a constant challenge. Unlike most human tissues, which have a storage time of several years, corneas must be transplanted within 14 days of collection.

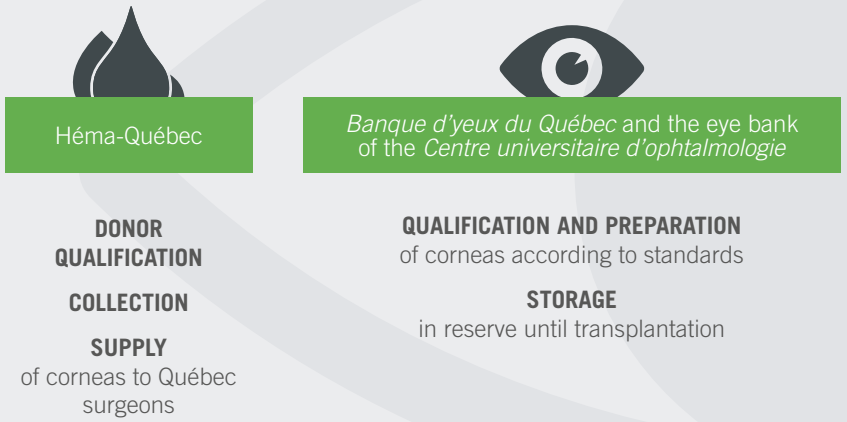
Close collaboration between Héma-Québec and eye banks and the sharing of expertise enable Québec patients to benefit from quality grafts in sufficient quantity and within the shortest possible time.

Progression of the distribution of corneas

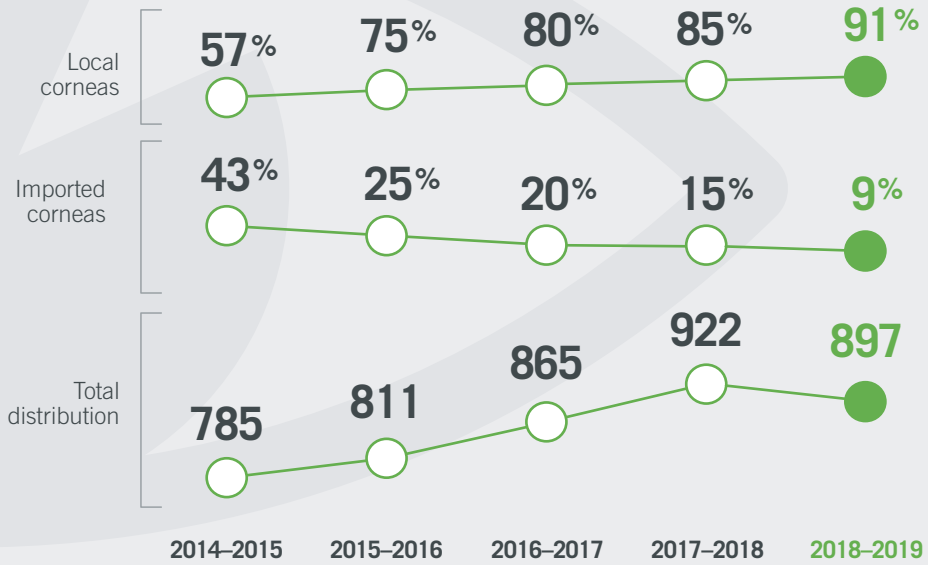
The demand for corneas has grown by 14% since 2014–2015. In 2018-2019, while the distribution of local corneas increased by 5%, imports of corneas were down by 44%, accounting for just 9% of all corneas.

A new supply process has significantly contributed to improving self-sufficiency in corneas. Details can be found on page 51.

DIVISION OF RESPONSIBILITIES BETWEEN HÉMA-QUÉBEC AND EYE BANKS



PROGRESS IN THE DISTRIBUTION OF CORNEAS



New preparation of corneas at the eye bank of the *Centre universitaire d'ophtalmologie*

New preparations of corneas have been introduced over the years at the *Banque d'yeux du Québec* and the eye bank of the *Centre universitaire d'ophtalmologie* to more specifically meet the needs of Québec cornea transplant surgeons. Since December 2018, the eye bank of the *Centre universitaire d'ophtalmologie* in Québec City has been able to prepare a new type of pre-cut cornea for posterior lamellar grafts. Previously, these had to be prepared in the *Banque d'yeux du Québec's* labs in Montréal or imported.

William, who received mother's milk at birth, with his mother Sounithtra.

MOTHER'S MILK

Héma-Québec operates Québec's only Public Mothers' Milk Bank. Its mandate is to provide pasteurized human milk to infants born preterm at 32 weeks' gestation or earlier who require medical care and whose mother cannot breastfeed. The organization is responsible for donor recruitment and qualification, the processing and analysis of milk as well as its distribution to hospitals.

MOTHER'S MILK

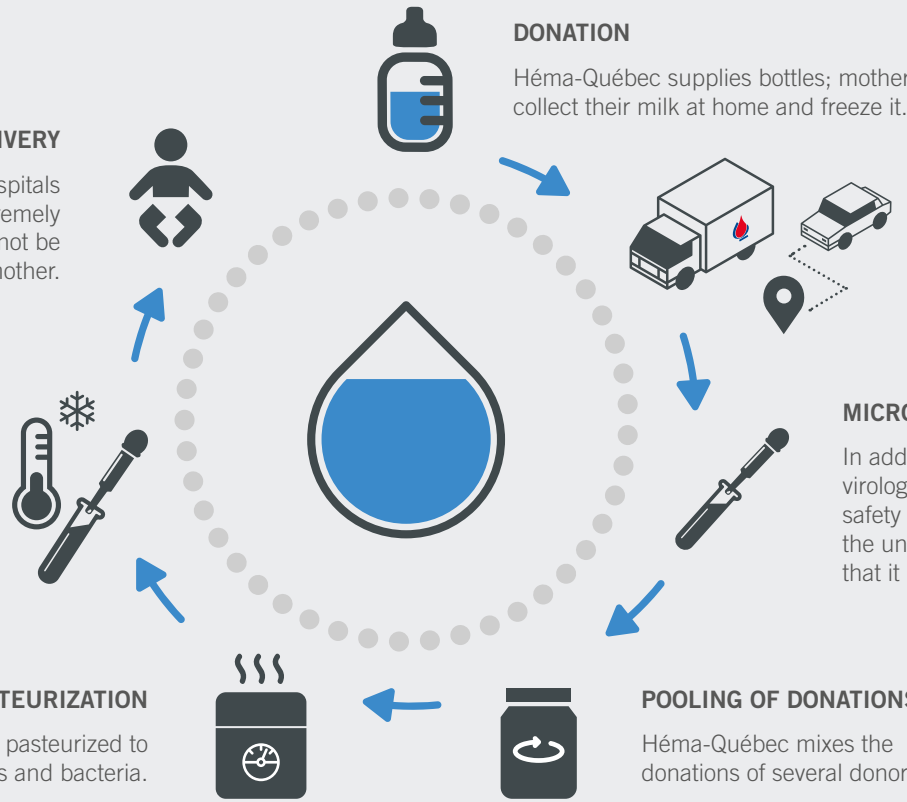
IN NUMBERS

2,041
registered
DONORS

1,142
ACTIVE DONORS
during the year

16,471
BOTTLES
distributed

FROM DONATION TO DISTRIBUTION



DONATION

Héma-Québec supplies bottles; mothers collect their milk at home and freeze it.

PICK-UP OR DROP-OFF POINT

Depending on the region, Héma-Québec collects the bottles at the donor's home or the donor brings the bottles to a drop-off point.

MICROBIOLOGICAL ANALYSES

In addition to screening for virological markers in the mothers, safety measures include testing the unpasteurized milk to ensure that it meets quality standards.

POOLING OF DONATIONS

Héma-Québec mixes the donations of several donors by lot.

PASTEURIZATION

The milk is pasteurized to eliminate viruses and bacteria.

MICROBIOLOGICAL ANALYSES AND STORAGE

Héma-Québec tests the milk to ensure that it is safe for recipients. If the results are compliant, the milk is frozen and stored for one year.

DELIVERY

The milk is distributed to hospitals and destined for extremely preterm babies that cannot be breastfed by their mother.

MOTHER'S MILK

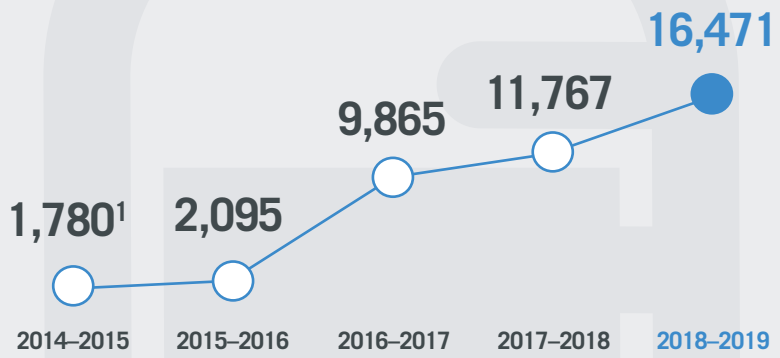
Meeting the demand of infants born preterm at 32 weeks' gestation or earlier: self-sufficiency achieved

A major milestone in the brief history of the milk bank was reached in July 2018, with the achievement of self-sufficiency. Héma-Québec is able to meet all requests from hospitals for infants born preterm at 32 weeks' gestation or earlier. The Public Mothers' Milk Bank meets 100% of the needs of clients for whom the bank was created.

During 2018–2019, 1,142 registered mothers, out of a pool of 2,041, sent milk to Héma-Québec. This made it possible to send 16,471 bottles to hospitals, which represents a 40% increase compared with 2017–2018.

DISTRIBUTION OF MOTHER'S MILK

Bottles



[1] The delivery of the first bottles of mother's milk took place in April 2014.

Several elements contributed to the Public Mothers' Milk Bank being able to meet all the needs of preterm infants receiving medical care.

Recruitment of mothers and awareness-raising

Following the success of the pilot project launched in the Sherbrooke PLASMAVIE Lounge in 2017–2018, all PLASMAVIE Plasma Donor Lounges became drop-off points during the year. Mothers in the regions of Gatineau, Saguenay, Trois-Rivières and Sherbrooke who are registered and qualified can bring their bottles of mother's milk there. The registration of these mothers represents 25% of all registrations received during the year.

To optimize recruitment and awareness-raising, Héma-Québec approached perinatal health professionals and met with mothers-to-be through participation at events specially planned for them in each region where the organization was present. The donor registration process, as well as awareness-raising and follow-up activities, were reviewed to optimize the quantity of milk that qualified for banking.

Optimization of operations: increased production capacity and decreased rejection rate

In 2018–2019, thanks to the project undertaken in collaboration with Toyota's continuous improvement team last year, the Public Mothers' Milk Bank reaped the benefits of optimizations. The improvements quintupled production capacity, reduced production losses by 57% and resulted in a 55% quicker process. An awareness-building campaign aimed at increasing donor registration in the milk bank also came out of this partnership. In fall 2018, the project garnered an award, showcasing Héma-Québec at the *Salon sur les meilleures pratiques d'affaires* organized by the *Mouvement québécois de la qualité*.

Other improvements to the processes have also made it possible to increase the quantity of qualified milk available to meet the needs. For example, the rejection rate was significantly reduced: 8% in 2018–2019, compared with 25% in 2017–2018.

SPECIALIZED LABORATORY SERVICES

In addition to meeting the needs of the Québec population as a supplier of biological products of human origin, Héma-Québec provides specialized laboratory services to its Québec health system partners.

SPECIALIZED LABORATORY SERVICES

Testing services for hospitals

Héma-Québec is recognized as a referral centre for the provision of medical biology services to Québec's health institutions. In 2018–2019, Héma-Québec's laboratories received 5,230 requests from hospitals for specialized testing, including for case studies in erythrocytic and leukoplatelet immunology, erythrocytic genotyping and HLA typing. The organization also responds to requests for screening tests (HIV, hepatitis B and C, syphilis, etc.) for blood, stem cells or organs donated in hospitals.

Genotyping of blood donors ensures better compatibility for patients who have specific transfusion needs. This is part of today's reality, in which medicine is becoming increasingly personalized and needs are moving in the same direction.

Testing of cord blood units to determine HLA typing, of donors enrolled in the Stem Cell Donor Registry and of patients awaiting a transplant is also done in Héma-Québec's laboratories. A new sequencing technology was implemented in summer 2018. This technology helps determine HLA characteristics with greater precision and increases the number of samples tested, while reducing the overall testing time.

SPECIALIZED TESTING

	2014–2015	2015–2016	2016–2017	2017–2018	2018–2019
Erythrocytic immunology (patient cases)	1,550	1,591	1,558	1,470	1,368
Platelet immunology (patient cases)	461	476	472	482	470
Erythrocytic genotyping (patient cases)	548	575	862[1]	1,090	1,010
Erythrocytic genotyping (donors)	–	–	1,128[2]	2,693	4,837
HLA-A, B, C, DR, DQ typing	14,804[3]	11,176[3]	5,333	4,483	5,490
Screening for virological markers by serology and nucleic acid test (donors in hospitals)	1,776	1,641	1,741	1,715	1,735

[1] Increase explained mainly by the addition of a new test to confirm low RhD results.

[2] Year during which donor genotyping began.

[3] Increase caused by the record increase in enrolments in the Stem Cell Donor Registry in 2014–2015 resulting from several media campaigns initiated by the families of patients awaiting a transplant.

Demand for phenotyped packed red blood cells used for, among other things, the transfusion needs of patients with sickle-cell anemia increased by 6% in 2018–2019. See pages 14 et 15 for more details about the impact that this issue poses for the management of the blood reserve.

PHENOTYPED PACKED RED BLOOD CELLS DELIVERED TO QUÉBEC HOSPITALS

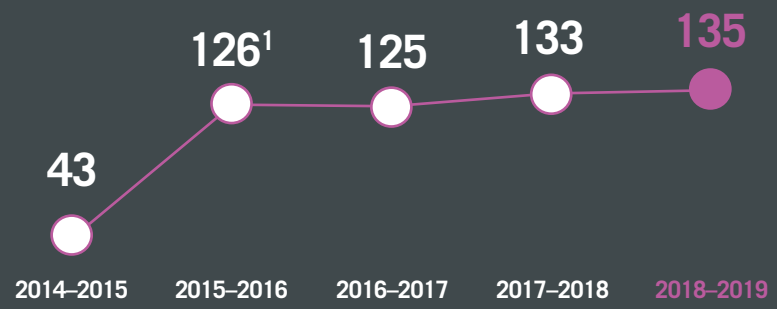
SPECIALIZED LABORATORY SERVICES

Testing service for *Transplant Québec*

Héma-Québec's specialized laboratories support *Transplant Québec* by conducting qualification tests to determine whether a potential organ donor is a carrier of a blood-borne infection. These tests must be done quickly, before the organs are collected for transplantation. The tests are done using specialized equipment and reagents that are not found in hospitals.

Héma-Québec commits to providing results within eight hours of receipt, thanks to an on-call service to handle requests received from a lab outside of normal business hours.

SAMPLES TESTED FOR *TRANSPLANT QUÉBEC*



[1] The partnership agreement with *Transplant Québec* was signed in June 2015.

135
SAMPLES TESTED
in 2018–2019

96%
OF RESULTS TRANSMITTED
within 8 hours

83%
OF TESTS DONE
outside of regular business hours

Héma-Québec's laboratories perform thousands of tests.

RISK MANAGEMENT

The safety and quality of distributed products and services provided are paramount. Héma-Québec manages the risks in an integrated manner at all levels of the organization, based on best practices.

RISK MANAGEMENT

Deployment of the integrated risk management program

The new integrated risk management policy, adopted in February 2018 by the board of directors, defines the organizational governance framework that enables Héma-Québec to identify, assess, analyze, address, monitor, and report risks. It covers all aspects of the organization, including external, medical, operational and financial risks, as well as those linked to projects.

The policy also establishes the roles and responsibilities of board members, senior management, the risk management committee, the risk management department and department heads. Scheduled follow-ups were done with senior management, the board and the Audit Committee.

During 2018–2019, Héma-Québec coordinated existing control measures and deployed a new integrated risk management program aimed at:

- addressing and monitoring risks proactively to react as quickly as possible when risks occur;
- maintaining surveillance measures; and
- standardizing risk management at all levels of the organization.

A computerized risk tracking log was also developed internally to identify links between the risks various sectors face at different levels, standardize practices and ensure optimal follow-up. This should be implemented next year.

Inspections and audits

Periodic inspections and audits of Héma-Québec's operational processes by regulatory agencies reflect the organization's degree of quality control over its operations.

Health Canada is updating its inspection strategy of licensed blood establishments. This strategy will now be based on the risk related to activities, with a reduced frequency of inspections of highly compliant establishments. This approach favours establishments, such as Héma-Québec, that are highly compliant, while providing for greater monitoring of establishments that have shortcomings. The strategy was previously based on the type of establishment and regulated activities conducted, and the frequency of inspections was fixed.

Héma-Québec's facilities located in Montréal and Québec City will now be inspected every two years instead of every year, while its GLOBULE Centres and PLASMAVIE Lounges will be inspected every three years instead of every two years. The inspection of the Montréal facility scheduled for November 2018 was postponed to 2019 as Health Canada transitions to the new inspection strategy.

RISK MANAGEMENT

INSPECTIONS AND AUDITS

Activity sector	Agency	Scope	Date	Conclusion
 **Blood products**	Health Canada	Québec City facility	May 2018	Establishment licences renewed in accordance with the *Blood Regulations*
		PLASMAVIE in Trois-Rivières	May 2018	
		PLASMAVIE in Saguenay	June 2018	
	CNSC (Canadian Nuclear Safety Commission)	Irradiation of labile blood products at the Québec City facility	May 2018	CNSC permit renewed in accordance with the *Nuclear Safety and Control Act* and related regulations
 **Stem cells**	ASHI (American Society for Histocompatibility and Immunogenetics)	HLA reference laboratory	May 2018	Certification renewed in accordance with ASHI standards
	Health Canada	Public Cord Blood Bank	June 2018	Registration renewed in accordance with the *Safety of Human Cells, Tissues and Organs for Transplantation Regulations*
 **Human tissues**	Health Canada	Human tissue processes (excluding heart valves)	October 2018	Registrations renewed in accordance with the *Safety of Human Cells, Tissues and Organs for Transplantation Regulations*
		Banque d'yeux du Québec of the *Centre universitaire d'ophtalmologie* in Québec City for which Héma-Québec acts as the central facility	November 2018	
		Hôpital Maisonneuve-Rosemont's eye bank for which Héma-Québec acts as the central facility	November 2018	

RISK MANAGEMENT

Hemovigilance of donors

Héma-Québec documents all reactions following a blood donation, regardless of their degree of severity. Adverse reactions occur rarely and, for the most part, are benign. Analyzing the data obtained makes it possible to adopt preventive measures to minimize reactions that may arise and foster a positive blood donation experience.

In 2018–2019, a 1.8% decrease in reactions was observed from the previous year. Adverse reactions occurred during 6.3% of donations (20,238 reactions out of 318,801 donations), and these were benign in 95.2% of cases. Preventive measures that have been deployed, such as drinking water and eating a salty snack before donating, have proven to be effective.

The most frequent reactions are vasovagal in nature, representing approximately two out of three cases. A vasovagal reaction is caracterized by symptoms such as:

- sudden sensation of intense heat or cold;
- weakness, dizziness or discomfort;
- nausea.

REDUCTION OF ADVERSE REACTIONS

1.8%

DECREASE IN REACTIONS

compared with the previous year

REACTIONS OBSERVED DURING

6.3%

OF DONATIONS

95.2%

OF THESE WERE BENIGN

Rate and type of complication possible per 100 donations

4.3	1.3	0.7
VASOVAGAL REACTIONS	**REACTIONS DURING DONATION BY APHERESIS***	**ARM REACTIONS**
4.0 of which were mild	(e.g., citrate reaction)	(e.g., hematoma, bruising, allergy)

*These reactions occur only during an apheresis donation.

RISK MANAGEMENT

Reduction in the exclusion period for MSM

In December 2018, a request to reduce the exclusion period from 12 to 3 months for men who have sex with men (MSM) was submitted to Health Canada. This request was filed jointly by Héma-Québec and Canadian Blood Services.

EVOLUTION OF THE EXCLUSION PERIOD FOR DONATING BLOOD

PERMANENT	5 YEARS	12 MONTHS
up to 2013	2013 to 2016	since 2016

Continuation of research projects

When the criterion change was announced in 2016, Health Canada had asked suppliers of blood products in Canada to evaluate whether the criterion affecting MSM could be revised beyond belonging to a high risk group, based on conclusive data. However, very few studies had been conducted on this subject. In January 2017, Canadian Blood Services and Héma-Québec therefore organized an international conference that brought together scientists, Health Canada representatives, recipient groups and other groups representing the lesbian, gay, bisexual, transgender and queer (LGBTQ) community. This gathering was the impetus behind the calls for proposals to conduct relevant research into this question.

As part of this program, Héma-Québec participated in two projects that continued during 2018–2019:

- a cross-Canada study to determine the feasibility of selecting donors based on risk behaviours;
- a study to assess the acceptability and feasibility of implementing a program that would allow MSM from the Montréal community to donate plasma destined for fractionation.

Donations confirmed positive by communicable disease marker

Héma-Québec tests all donations that it collects to detect blood-borne diseases. If a positive result is obtained, the donation is destroyed and the donor is notified. As the following table shows, the number of infections found in donors has not varied significantly in recent years.

CONFIRMED POSITIVE DONATIONS BY MARKER

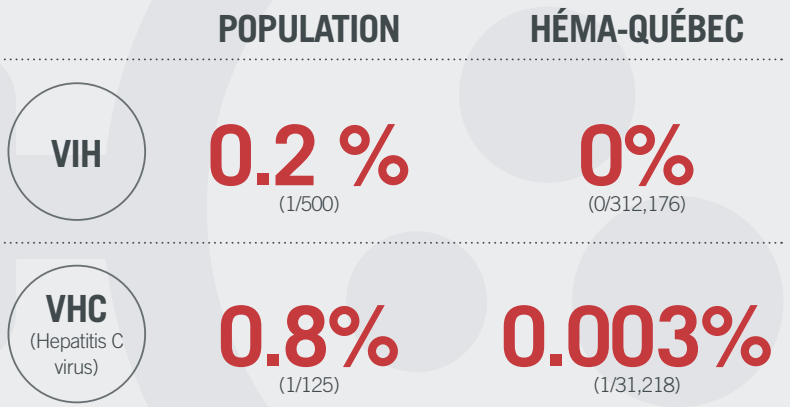
	2014–2015	2015–2016	2016–2017	2017–2018	2018–2019
Human immunodeficiency virus (HIV)	1	0	0	0	0
Hepatitis C virus (HCV)	12	12	13	14	10
Hepatitis B virus (HBV)*	14	5	10	20	12
Human T-lymphotropic virus (HTLV)	1	2	1	2	1
Syphilis	17	8	17	11	14
Total donations	**276,473**	**276,956**	**305,201**	**301,900**	**312,176**

*Results related to a recent donor vaccination are excluded as they are false positives.

Prevalence of HIV and HCV in Héma-Québec donors versus the general population

The number of infections found in blood donors remains far lower than that observed in the general population. These results show the efficacy of the blood donor qualification questionnaire used as a safety measure.

PREVALENCE OF HIV AND HCV IN HÉMA-QUÉBEC DONORS VERSUS THE GENERAL POPULATION



Testing of human tissues

Various qualification tests must be done to determine whether a human tissue donor is a carrier of a virus or blood-borne infection. These tests use reagents and equipment approved by Health Canada for cadaver samples. When the Human Tissue Bank was established at Héma-Québec, such reagents were not available. Blood samples collected from human tissue donors had to be sent to a laboratory in the United States for testing.

The reagents required for certain tests are now authorized in Canada and Héma-Québec has been conducting a portion of the tests in its laboratories since November 2018. The implementation of this procedure has required organizational adjustments to take full advantage of the laboratories and the skills of the human tissue staff. Operations have also been adjusted with Québec's eye banks. The result has been a substantial reduction in the costs associated with the testing and transportation of blood samples.

INNOVATION AND CONTINUOUS IMPROVEMENT

Héma-Québec is contributing to several initiatives that foster innovation to benefit Québec's healthcare system. Whether by improving operations at various levels or by creating partnerships, the organization promotes innovation and continuous improvement through its various activities.

INNOVATION AND CONTINUOUS IMPROVEMENT

Optimization of the time required to donate

Standardizing the platelet count

Health Canada approved a request to standardize the norm used for the platelet count from whole blood donations. Since June 2018, the required platelet count is the same regardless of the type of donation, and this does not affect the quality or safety of the product.

For donations of platelets by apheresis, which represent approximately 90% of the source of platelet products distributed by Héma-Québec, this makes it possible to:

- reduce the length of collection time;
- offer greater flexibility to the donor in making an appointment; and
- increase the number of donors eligible to make a double platelet donation.

A double platelet donation allows twice the number of platelets to be collected for essentially the same cost. In 2018–2019, the proportion of double donations compared with single donations rose from 56% to 67%.

Platelets can be obtained by separating the various components collected during a whole blood donation or by apheresis donation, which collects only the desired product(s).

To guarantee an optimal yield from one dose of platelets distributed by Héma-Québec, a significantly high number of platelets must be present. This is called the platelet count. Previously, the minimum platelet count required for donations of platelets by apheresis was slightly higher than for whole blood donations, with no difference in yield for patients.

Standardizing practices in PLASMAVIE Lounges

Steps taken to optimize the time required to donate plasma in the network of PLASMAVIE Lounges were succesful. This continuous improvement initiative optimizes the sequence of work from the moment the plasma donor is welcomed to the start of the collection process. Not only has this resulted in a reduction of nearly 22% in the time required to qualify the donor and begin collecting the plasma, but it has also mitigated the risk of error or oversight. The project, undertaken with the active collaboration of the staff at all PLASMAVIE Lounges, shows that every act counts.

Bag of platelets by apheresis.

INNOVATION AND CONTINUOUS IMPROVEMENT

Renewed process for supplying corneas

While the demand for corneas has increased on average by 3% annually, it remains highly variable within a given year. Since corneas can be stored for a maximum of 14 days, maintaining a sufficient supply while minimizing expired product poses major logistical challenges. In 2018–2019, Héma-Québec, surgeons and eye banks reviewed the process for supplying corneas in an effort to better anticipate needs.

The collection and qualification process now begins only when Héma-Québec receives a request from a surgeon. This improved management, which is unique in the field, shows great promise. It bases the collection of corneas on real demand, which is random and difficult to predict. More corneas collected by Héma-Québec can now be distributed, corneas are removed from 70 fewer donors and recourse to imported grafts is minimized.

More details about the distribution of corneas can be found on page 36.

Improved testing of cord blood units

The Public Cord Blood Bank complies with NetCord-FACT standards. These qualification standards are a cornerstone of the field of cord blood banking and cell therapy.

According to the standards, a functional activity test must be performed on all cord blood units that are selected by transplant centres for transplantation. This test verifies the ability of the stem cells to reproduce and reconstitute a complete blood system after a transplant.

The protocol used to perform this test had some limitations, and a project was undertaken to review and simplify the protocol. The results helped improve the thawing process. The test can now be performed in a single step. This simplified procedure is almost four times faster than before and reduces the number of culture kits needed.

Héma-Québec's Public Cord Blood Bank is the first Canadian public bank to comply with these strict standards. This accreditation positions Héma-Québec among the leaders in the field of cord blood banking.

Units of cord blood are frozen at -150 °C.

INNOVATION AND CONTINUOUS IMPROVEMENT

Héma-Québec's participation in upgrading the system used to ensure the traceability of blood products

As part of its activities, Héma-Québec uses a software solution called ePROGESA to support operations in the collection, transformation, qualification and distribution of blood products. The primary objective of this software is to ensure the traceability of blood products and derivatives up to the moment they are shipped to the province's healthcare institutions. A major update of this system was completed in 2015.

Another software solution picks up the tracking process from receipt of the blood products at the hospital to their transfusion, making it possible to manage the products and testing done on the recipients.

The software, called *Système d'information intégré sur les activités transfusionnelles et d'hémovigilance* (SIIATH – Integrated information system on transfusion and hemovigilance activities), ensures the traceability of all transfusion activities within the healthcare network. Together, the two software systems connect all components across the overall blood system, maximizing their safety.

Because the information systems are complementary, the *Ministère de la Santé et des Services sociaux* entrusted Héma-Québec with a mandate to assist in the evolution of the SIIATH.

This mandate falls within Héma-Québec's vision of becoming a strategic partner serving Québec's healthcare system.

Research and innovation

The knowledge developed within Héma-Québec is shared with the medical and scientific community. This work contributes significantly to making Héma-Québec a strategic partner of the healthcare network. In 2018–2019, the Medical Affairs and Innovation teams (physicians, statisticians, epidemiologists and researchers) worked on 76 research, development or operational assessment projects. Various achievements were disseminated through:

- 15 scientific publications;
- 6 oral presentations at international conferences; and
- 18 scientific posters.

The efforts dedicated to these activities also supported Héma-Québec's overall operations.

New method for determining the functional activity of stem cells

While significant improvements have been made to the method used to perform the functional activity test on units of cord blood, the time required to obtain results (approximately 14 days), remains a major limitation, delaying the release of a product for stem cell transplantation.

In recent years, Héma-Québec developed a method that is just as effective as the current reference method and produces results in 24 hours. This new quick method, based on flow cytometry, is currently at the validation stage, with implementation planned for spring 2019. This will streamline the qualification of cord blood units destined for transplantation.

INNOVATION AND CONTINUOUS IMPROVEMENT

Evaluation of technologies

As part of a call for tenders process, the organization must often evaluate equipment to be purchased to ensure it meets operational needs and makes it possible to manufacture products that comply with current standards.

During the last fiscal year, reduction bags and an automated press were evaluated. These devices are used to separate the components of cord blood for storage. The findings were shared with the Public Cord Blood Bank's staff.

Partnerships in innovation

Multicentre study: plasma exposure to room temperature

The CSA Group's (Canadian Standard Association) standard for blood currently requires that a bag of unfrozen plasma not be exposed to room temperature for longer than 30 minutes. This is an issue for hospitals, since the short timeframe restricts their freedom of action, sometimes resulting in product loss. Héma-Québec participated in a study in partnership with Canadian Blood Services and UK's NHS Blood and Transplant, to evaluate whether various scenarios of plasma exposure to room temperature affected the quality of the plasma and/or allowed the growth of bacteria.

The results obtained indicate that it is safe to double the acceptable exposure time to 60 minutes. A recommendation to update the standard will be made by the research team to the CSA Group to reflect this reality.

Participation in an international study sponsored by the WHO

In partnership with 14 other international agencies, Héma-Québec is participating in a multicentre study sponsored by the World Health Organization (WHO) aimed at establishing a bacteria reference bank for research on packed red blood cells.

During the year, Héma-Québec, along with the participating organizations, conducted various tests on bacterial growth in packed red blood cells. The information pooled as part of this project will not only help create a bacteria reference bank, but also contribute to better standardization of work methods between blood banks around the world.

Training the next generation in basic and applied research on blood

Since its founding, Héma-Québec has contributed to training the next generation of blood and stem cell scientists. Several Héma-Québec researchers co-direct the research work of students enrolled in the master's and doctoral programs at *Université Laval* and supervise the work of postdoctoral interns. During the past year, three graduate students and two postdoctoral interns have benefited from the guidance of Héma-Québec researchers.

The organization also regularly hosts student interns from various educational institutions in Québec. These internships enable the students to put their academic training into practice in a real work setting. In the past year, four student interns were admitted to the Medical Affairs and Innovation teams.

Finally, two physicians also began postdoctoral research with these teams in a transfusion medicine specialty.

ESSENTIAL PARTNERS

TO FULFILL OUR MISSION

Héma-Québec's objective is to be a strategic partner serving Québec's healthcare system. Each year, thanks to the commitment of its donors, volunteers, employees, partners and administrators, it supplies quality biological products of human origin to Québec hospitals and supports health professionals by offering innovative specialized services.

ESSENTIAL PARTNERS TO FULFILL OUR MISSION

Over time, Héma-Québec has formed essential partnerships that unite strengths to provide the gift of life. The importance of partnerships is also enshrined in the *Act respecting Héma-Québec and the biovigilance committee,* which states that the organization must "maintain links to ensure collaboration and the exchange of information with counterpart organizations in Canada and elsewhere, in order to be informed of and share expertise." Below are several partners with whom the organization had the opportunity to collaborate during 2018–2019:

- AABB
  America's Blood Centers
  American Association of Tissue Banks
- American Society for Apheresis
- American Society of Histocompatibility and Immunogenetics
- Americas' SAP Users' Group
- *Association d'anémie falciforme du Québec*
- *Association des bénévoles du don de sang*
- *Association de thérapie génique du Québec*
- *Association des patients immunodéficients du Québec* (APIQ)
- Association of Donor Recruitment Professionals (ADRP)
- *Banque d'yeux du Centre universitaire d'ophtalmologie*
- *Banque d'yeux du Québec*
- Biomedical Excellence for Safer Transfusion
- *Bureau du coroner*
- Canadian Association of Eyes and Tissue Banks
- Canadian Blood and Marrow Transplant Group
- Canadian Blood Services
- Canadian Society for Transfusion Medicine (CSTM)
- *Centre hospitalier universitaire de Montréal* (CHUM)
- *Chambre des notaires du Québec*
- Consortium for Blood Group Genes
- *Corporation des thanatologues du Québec*
- CSA Group
- *Établissement français du sang*
- *Fondation Héma-Québec*
- *Fonds de recherche du Québec – Nature et technologies*
- *Fonds de recherche du Québec – Santé*
- Human Milk Banking Association of North America
- *Institut national de la recherche scientifique*
- *Institut national de santé publique du Québec*
- International Society of Blood Transfusion
- International Society of Hematology
- National Advisory Committee on Blood and Blood Products
- Natural Sciences and Engineering Research Council of Canada
- *Ordre professionnel des technologistes médicaux du Québec : Formaline*
- Québec Cell, Tissue and Gene Therapy Network (TheCell)
- Safe Blood For Africa Foundation
- *Société canadienne de l'hémophilie*
- Toyota
- *Transplant Québec*
- *Unité de coordination clinique des services préhospitaliers d'urgence* (UCCSPU) of *Hôtel-Dieu de Lévis*
- *Urgences-santé*
- World Marrow Donor Association (WMDA)

RESULTS RELATIVE

2017–2020 STRATEGIC PLAN

The strategic plan revolves around six strategic orientations that represent as many challenges to be faced in positioning the organization as a strategic partner serving Québec's healthcare system

1. Compare practices with those of the leaders in the field, and take the necessary steps to achieve objectives for the benefit of partners, and assume responsibility for the results
2. Keep up with the latest developments in human biological products and be proactive so that the healthcare network can benefit from this expertise
3. Manage risks in an integrated manner at all levels of the organization in accordance with best practices
4. Modernize and streamline processes in order to be more effective
5. Take advantage of digital technology to improve communications with partners
6. Develop the skills of employees and mobilize them by implementing a talent and succession management program

SUMMARY OF THE 2018–2019 ORGANIZATIONAL OBJECTIVES

STRATEGIC ORIENTATION 1

Compare practices with those of the leaders in the field, and take the necessary steps to achieve objectives for the benefit of partners, and assume responsibility for the results

AREAS OF INTERVENTION, OBJECTIVES, INDICATORS

1.1 Benchmarking and accountability of areas of activity

- 1.1.1 Keep a scorecard to evaluate the performance of the different areas of activity
- 1.1.2 Perform benchmarking activities
- 1.1.3 Incorporate a systematic review of activity sectors

1.2 High-performing areas of activity

- 1.2.0 Attain efficiency objectives

LABILE PRODUCTS

- 1.2.1 Reduce the number of collection hours worked per product collected

PLASMA FOR FRACTIONATION

- 1.2.2 Increase the number of litres collected and reduce the cost per litre

HUMAN TISSUES

- 1.2.3 Maintain critical mass to better serve the Québec market

MOTHER'S MILK

- 1.2.4 Meet the needs of premature infants born at 32 weeks or earlier

CORD BLOOD

- 1.2.5 Offer products most sought after by transplant physicians

STEM CELL DONOR REGISTRY

- 1.2.6 Have better representation (diversity) of the Québec population in the registry

STRATEGIC ORIENTATION 2

Keep up with the latest developments in human biological products and be proactive so that the healthcare network can benefit from this expertise

AREAS OF INTERVENTION, OBJECTIVES, INDICATORS

2.1 Value-added products and services for the health network

- 2.1.1 Evaluate the possibility of creating a provincial transfusion medicine research group
- 2.1.2 Establish a governance framework to analyze requests for new products and services
- 2.1.3 Recover by-products and production waste

2.2 Knowledge of the environment

- 2.2.1 Institutionalize active monitoring practices by area of activity

The progress made with these objectives is explained in the context of transformation, which is discussed on page 57.

STRATEGIC ORIENTATION 3

Manage risks in an integrated manner at all levels of the organization in accordance with best practices

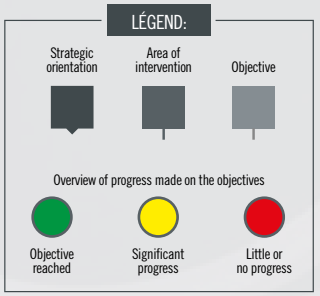
AREAS OF INTERVENTION, OBJECTIVES, INDICATORS

3.1 Overall risk management culture

- 3.1.1 Conduct monitoring of best practices

3.2 Program that reflects the latest best practices

- 3.2.1 Optimize governance and the risk management program
- 3.2.2 Implement succession plans (ERP, BCP and others)
- 3.2.3 Manage priority risks



SUMMARY OF THE 2018–2019 ORGANIZATIONAL OBJECTIVES

STRATEGIC ORIENTATION 4

Modernize and streamline processes in order to be more effective

AREAS OF INTERVENTION, OBJECTIVES, INDICATORS

4.1 An effective management model that focuses on accountability and a comprehensive view of processes

- 4.1.1 Choose a common streamlining methodology
- 4.1.2 Streamline and optimize four complex processes
- 4.1.3 Optimize priority sub-processes among the seven mapped production processes
- 4.1.4 Finalize the review of non-compliances
- 4.1.5 Finalize the redesign of controlled documents

4.2 Culture of accountability and synergetic partnership

- 4.2.1 Gain maturity in project management

STRATEGIC ORIENTATION 5

Take advantage of digital technology to improve communications with partners

AREAS OF INTERVENTION, OBJECTIVES, INDICATORS

5.1 Foundations for digital transformation

- 5.1.1 Develop the IT strategy
- 5.1.2 Develop digital expertise
- 5.1.3 Build technological fundamentals

5.2 Digital technology for the benefit of partners

- 5.2.1 Deploy a digital business capacity tailored to the needs of donors and volunteers (for all areas of activity)
- 5.2.3 Information system on the tracability of blood products (SIIATH) +

5.3 Digital technology for the benefit of employees

- 5.3.1 Optimize the quality management software package
- 5.3.2 Optimize the workforce planning process

\+ Added, in reference to this mandate entrusted to Héma-Québec by the MSSS in May 2018.

STRATEGIC ORIENTATION 6

Develop the skills of employees and mobilize them by implementing a talent and succession management program

AREAS OF INTERVENTION, OBJECTIVES, INDICATORS

6.1 Integrated and open-ended talent and succession management program

- 6.1.1 Implement a succession management process for critical and key positions
- 6.1.2 Develop a strategy for assigning and developing individuals bound for critical and key positions
- 6.1.3 Create an integrated talent and succession management program that fosters the development of skills related to business needs
- 6.1.5 Implement a computerized, integrated system to manage performance, talent and succession
- 6.1.6 Empower and support managers in their role as talent developers to foster the emergence of a culture of learning

6.2 Motivational and inspiring leaders

- 6.2.2 Create leadership development path 2.0 for demonstration of new skills and behaviour related to business needs
- 6.2.4 Creation of a (non-regulatory) training program for unionized staff

RESULTS RELATIVE TO THE 2017–2020 STRATEGIC PLAN

A team dedicated to the gift of life

At this time of major change for Héma-Québec, the contribution and engagement of employees is vital. For 20 years, they have contributed energetically to the organization's mission and vision by consolidating their strengths and working as a team. Together, they contribute every day to improving the lives of thousands of people in Québec.

Héma-Québec's greatest asset is its solid team, which ensures its success. The diversity of expertise and complementary nature of talents are inherent realities of our daily existence. Our achievements depend on the respective contribution of people from varied backgrounds who share the same desire to contribute to improving—and saving—lives.

Blood drive advisors, call centre agents, blood drive organizers, nurses, assistants and drivers ensure that the blood drives go smoothly. These employees from various professions work not only with labile blood products but may also be involved in human tissue, plasma, stem cell and mother's milk activities.

Their laboratory colleagues take over from there to process the donations and confirm the safety of the products before their transportation colleagues take to the road to deliver the precious products to hospitals.

A group of people from varied backgrounds supports all these operations behind the scenes to ensure that they run without a hitch. Regulatory affairs, compliance and risk management professionals make sure best practices are followed; researchers and scientists work to identify innovations that can improve operations; technology teams play a vital role in the proper functioning of the multiple information systems that guarantee the traceability of even the smallest action, as well as the equipment that supports this software… not to mention the contribution of colleagues in purchasing and finance, who monitor a well fonctioning supply chain, and those whose job it is to make the donor and volunteer experience as positive as possible and, thanks to the most relevant business intelligence, as relevant as possible. The human resources team has the delicate mission of recruiting, nurturing and developing the potential of this pool of talent.

The wealth of experience and expertise of each member of Héma-Québec's large family enables the organization to meet today's stimulating challenges, contributing to its evolution.

The transformation begun with the implementation of the 2017–2020 Strategic Plan continued this year. Ultimately, the desired benefits remain the same:

- an organization undergoing changes that will enable it to consolidate teams and enhance activity sectors to create or strengthen partnerships;
- a simplified, high performance organization supported by an organizational structure that eliminates silos, increases synergies, reinforces skills, clarifies responsibilities and modernizes operations;
- an organization serving Québec's healthcare system, a partner of hospitals and close to its stakeholders;
- an organization that takes care of its donors and volunteers and optimizes their dedication with a rewarding "Héma-Québec experience";
- an organization that cares for its employees by guiding and supporting them through needed changes to the organization and the evolution of its culture.

Progress on certain organizational objectives has met with delays in some sectors. This is the case with digital technology. The executive committee is aware of the situation, and targeted corrective action plans have been deployed: among these is the arrival of a new Vice-President, Information Technology and Digital Strategy. Significant efforts will be required on the part of the organization to upgrade its technological infrastructure.

Véronique and Nancy, supervisors at the Sainte-Foy GLOBULE Centre.

GOVERNANCE

Héma-Québec's activities are governed by a board of directors made up of members representing a balance of experience and expertise aligned with the organization's activities. Provision is also made for representation by various groups in the transfusion chain. To fulfill its role, the board is supported by committees made up of board members as well as by advisory committees made up of external members. Day-to-day management is delegated to the president and CEO and the executive committee, who collaborate closely to ensure in the good governance of the organization and to implement its strategic orientations.

AT A GLANCE

BOARD MEMBERS

12 + **1**

board members named by the government

including board chair elected among the members

President and CEO

chosen and named by the members

Composition of the board of directors

Members from the following categories:

- blood donors and volunteers
- recipients
- presidents and CEOs and chief executives of public institutions (health)
- physicians
- public health community
- scientific research community
- business community
- *Ordre des comptables professionnels agréés du Québec*
- Héma-Québec (president and CEO)

Independence and remuneration of members

All board members are independent from Héma-Québec, with the exception of Héma-Québec's president and CEO.

Members of the board are not remunerated.

They may be compensated for actual loss of salary or income (based on the provisions of a government decree) resulting from their attendance at meetings or other gatherings.

Meetings in 2018–2019

9

BOARD MEETINGS

(6 regular sessions and 3 extraordinary sessions)

33

MEETINGS OF THE BOARDS COMMITTEES

(27 regular sessions and 6 extraordinary sessions)

92%

attendance rate of board and committee members

Parity

At March 31, 2019, the board was made up of

7 women and 3 men

ORGANIZATIONAL CHART OF THE BOARD OF DIRECTORS AND ITS COMMITTEES

BOARD OF DIRECTORS

COMMITTEES OF THE BOARD OF DIRECTORS

- Audit Committee
- Human Resources and Compensation Committee
- Governance and Ethics Committee
- Information Resources Committee

- Created by the board
- Made up exclusively of board members, with the exception of the Information Resources Committee, which also includes external experts

DECISION-MAKING COMMITTEE

- Research Ethics Committee

- Created by the board
- The Research Ethics Committee is a decision-making committee through authority delegated by the board
- Made up of external members named by the board

ADVISORY COMMITTEES

- Safety Advisory Committee
- Recipient Representatives Advisory Committee
- Scientific and Medical Advisory Committee*

- Created by the board following the recommendations of the Commission of Inquiry on the Blood System in Canada (Krever Report)
- Made up of external members named by the board
- Report to the board and make recommendations based on their respective area of expertise

* Owing to current consideration about the directions of research at Héma-Québec, the activities of the Scientific and Medical Advisory Committee have been suspended.

MEMBERS OF THE BOARD OF DIRECTORS

RECIPIENTS

Martine Carré
Chair
Corporate Director
Leucan Member

BUSINESS COMMUNITY

Jean-Frédéric Lafontaine Atty
Vice-Chair
Director, Government Relations – Québec
AstraZeneca Canada Inc.

HÉMA-QUÉBEC

Nathalie Fagnan
Secretary
President and Chief Executive Officer
Héma-Québec

COLLÈGE DES MÉDECINS DU QUÉBEC

Dr. Jean-Marie Leclerc
Hematologist-Oncologist
Centre hospitalier universitaire Sainte-Justine

Dr. Patricia Pelletier
Director of Transfusion Medicine Service
Centre universitaire de santé McGill

SCIENTIFIC RESEARCH COMMUNITY

Anne Bourhis
Full professor
Department of Human Resources Management
HEC Montréal

MEMBERS OF THE BOARD OF DIRECTORS

PRESIDENTS AND CEOS AND EXECUTIVE DIRECTORS OF PUBLIC INSTITUTIONS*

Caroline Barbir

President and General Manager
Centre hospitalier universitaire Sainte-Justine

BUSINESS COMMUNITY

Caroline Banville

Partner
Consulting and Deals
PricewaterhouseCoopers

Pierre Thivierge, CPA, CA

President, Octium Solutions Inc.
Chief Financial Oficer
Quadra Chimie ltée

PUBLIC HEALTH

Dr. Patricia Hudson

Scientific Director
Direction des risques biologiques et de la santé au travail
Institut national de santé publique du Québec

DONORS AND VOLUNTEERS

Vacant

ORDRE DES COMPTABLES PROFESSIONNELS DU QUÉBEC

Vacant

BIOVIGILANCE COMMITTEE OBSERVER

Daniel Tremblay

* Within the meaning of the *Act respecting health services and social services.*

BOARD COMMITTEES

GOVERNANCE AND ETHICS COMMITTEE

Jean-Frédéric Lafontaine Atty, Chair

Martine Carré

Dr. Patricia Hudson

Areas of interest:

- Makeup of the board of directors and files of applicants to director positions
- Governance review
- Succession to the chairmanship of the board

INFORMATION RESOURCES COMMITTEE

DIRECTOR MEMBERS	**Caroline Banville,** Chair
	Martine Carré
EXTERNAL MEMBERS	**Michèle Bureau** Consultant, Information Technology and Electronic Affairs *Bureau et Associés inc.*
	Robert Charbonneau Consultant, Information Technology
	Daniel Tremblay Information Technology Advisor

Areas of interest:

- Information system on the traceability of blood products (SIIATH)
- Workforce planning project
- Governance related to information resources management

AUDIT COMMITTEE

Pierre Thivierge, CPA, CA, Chair

Dr. Jean-Marie Leclerc

Jean-Frédéric Lafontaine Atty

Areas of interest:

- Updates to the contract policy (and other guidelines) in keeping with the coming into force of the *Act respecting contracting by public bodies*
- Supply strategy for fractionated plasma
- Supplementary pension plan funding policy

HUMAN RESOURCES AND COMPENSATION COMMITTEE

Anne Bourhis, Chair

Martine Carré

Caroline Barbir

Areas of interest:

- Evolution of the business model and organizational structure
- Negotiation of collective agreements
- Process of recruitment and nomination of vice-presidents

ADVISORY COMMITTEES

RECIPIENT REPRESENTATIVES ADVISORY COMMITTE

Fields represented	Members
COCQ-SIDA	*Chair* **Michel Morin**
ASSOCIATION DES PATIENTS IMMUNODÉFICIENTS DU QUÉBEC	**Martine Allard** **Geneviève Solomon**
SOCIÉTÉ CANADIENNE DE L'HÉMOPHILIE – SECTION QUÉBEC	**Marius Foltea** **Pascal Mireault**
ASSOCIATION D'ANÉMIE FALCIFORME DU QUÉBEC	**Delano George** **Wilson Sanon**
LEUCAN	**Pierre Verret**
ASSOCIATION DES GRANDS BRÛLÉS	**François Pellerin**
LEUKEMIA AND LYMPHOMA SOCIETY OF CANADA	**Pascale Rousseau** **Qi Li**
BOARD OBSERVER	**Martine Carré**

ADVISORY COMMITTEES

SAFETY ADVISORY COMMITTEE

Fields represented	Members
PUBLIC REPRESENTATIVE	*Chair* **David Page** National Director of Health Policy *Société canadienne de l'hémophilie,* Montréal, Canada
INFECTIOUS DISEASES	**Dr. Susan Stramer** Vice-President of Scientific Affairs, Biomedical Services American Red Cross, Gaithersburg, United States
	Dr. Hans L. Zaaijer Professor, Blood-borne Infections Sanquin Blood Supply Foundation University Medical Centers, Amsterdam, Netherlands
	Dr. Louis M. Katz Medical Associate Director Mississippi Valley Regional Blood Center, Davenport, Iowa, United States
	Dr. Jutta Preiksaitis Professor of Medicine, Division of Infectious Diseases University of Alberta, Edmonton, Canada
EPIDEMIOLOGY	**Dr. Steven Kleinman** Biomedical Consultant Victoria, Canada
TRANSFUSION MEDICINE AND PRACTICES	**Dr. Luiz Amorim** President and Chief Executive Officer Hemorio, Rio de Janeiro, Brazil
	Dr. Rebecca Cardigan National Head of Component Development NHS Blood and Transplant, Cambridge, United Kingdom
	Dr. James P. AuBuchon President and Chief Executive Officer Bloodworks Northwest, Seattle, United States
	Dr. Reinhard Henschler Director, Institute of Transfusion Medicine University Hospital Leipzig AöR, Leipzig, Germany
	Dr. Pierre Tiberghien Professor of Medicine, Immunology Senior Advisor for Medical and Scientific Affairs, Europe and International *Établissement français du sang,* La Plaine Saint-Denis (Paris), France
CANADIAN BLOOD SERVICES	**Vacant**
REPRESENTATIVE OF THE RECIPIENT REPRESENTATIVES ADVISORY COMMITTEE	**Marius Foltea** *Société canadienne de l'hémophilie, section Québec,* Montréal, Canada
BOARD OBSERVER	**Dr. Patricia Pelletier** Director of Transfusion Medicine Service *Centre universitaire de santé McGill*, Montréal, Canada

ADVISORY COMMITTEES

RESEARCH ETHICS COMMITTEE

Fields represented	Members
LAW	**Geneviève Cardinal Atty** Head of the Research Ethics Office Chair of the Research Ethics Committee, *Centre hospitalier universitaire Sainte-Justine,* Montréal, Canada
LAW, SUBSTITUTE LAWYER	**Alexandra Sweeney-Beaudry** Lecturer in the Master's in Health Law and Policy program Faculty of Law, *Université de Sherbrooke* Sherbrooke, Canada
SPECIALISTS IN THE FIELD OF RESEARCH	*Chair* **Clermont Dionne** Full Professor Rehabilitation Department Faculty of Medicine, *Université Laval* Researcher *Centre de recherche du CHU de Québec – Université Laval,* Population Health and Optimal Health Practices, Québec City, Canada
	Patrick Rochette Associate professor Department of Ophthalmology and ENT – cervicofacial surgery Faculty of Medicine, *Université Laval* Researcher Research centre of the CHU de Québec – *Université Laval* Focus: regenerative medicine, Québec City, Canada
	Jacques J. Tremblay Full Professor Department of Obstetrics, Gynecology and Reproduction Faculty of Medicine, *Université Laval* Researcher *Centre de recherche du CHU de Québec – Université Laval,* Reproduction, Mother and Child Health, Québec City, Canada
BLOOD DONORS	**Pierre McDuff** Founding Member *Association des bénévoles du don de sang,* Montréal, Canada
RECIPIENT REPRESENTATIVES ADVISORY COMMITTEE, ETHICIST	**Michel Morin** Assistant Director COCQ-Sida, Montréal, Canada
SUBSTITUTE ETHICIST	**Johane de Champlain Atty** Vice-Chair and Ethics Advisor *Comité central d'éthique de la recherche (MSSS),* Montréal, Canada

EXECUTIVE COMMITTEE

Nathalie Fagnan
President and Chief Executive Officer

Sylvie Allard
Vice-President, Client Experience and Business Intelligence

Martin Beaudry
Vice-President, Information Technology and Digital Strategy

Dr. Marc Germain
Vice-President, Medical Affairs and Innovation

Smaranda Ghibu Atty*
Vice-President, General Secretariat and Auditing

Annie Gingras
Vice-President, Quality and Development

Luc Lévesque
Vice-President, Blood Products and Mother's Milk

Luc Vermeersch
Vice-President, Finance and Infrastructure

Acting Vice-President, Supply Chain

Roselyne Zombecki
Vice-President, People, Culture and Leadership

***1968–2019**
The values of integrity and thoroughness that characterized her work will be her legacy in our life-giving mission.

LEGISLATIVE REQUIREMENTS

The laws, regulations or policies that contain the legal obligations of Héma-Québec's annual report are the:

- *Sustainable Development Act;*
- *Act respecting the Ministère du Conseil exécutif;*
- *Regulation respecting the distribution of information and the protection of personal information;*
- *Politique gouvernementale relative à l'emploi et à la qualité de la langue française dans l'Administration;*
- *Policy for the funding of public services;*
- *Act respecting workforce management and control within government departments, public sector bodies and networks and state-owned enterprises;*
- *Act to facilitate the disclosure of wrongdoings relating to public bodies.*

LEGISLATIVE REQUIREMENTS

Compliance with laws

Sustainable Development Act

Héma-Québec's action plan is set out in the framework of the Government Sustainable Development Strategy 2015–2020 and is structured around the following directions and objectives:

Government direction 1 – Strengthen sustainable development governance throughout the civil service

> **Objective 1.1** Strengthen the use of ecoresponsible management practices in the public administration
> **Objective 1.2** Strengthen use of the principles of sustainable development by government ministries and public bodies
> **Objective 1.5** Strengthen access to and participation in cultural life as a lever for social, economic and land development

Government direction 2 – Sustainably develop a prosperous economy: green and responsible

> **Objective 2.1** Support the development of green and responsible business practices and models

Government direction 5 – Improve public health through prevention

> **Objective 5.2** Act to ensure that living environments are healthy and safe

Government direction 6 – Ensure sustainable land development and support community vitality

> **Objective 6.2** Strengthen community capabilities to support dynamic economic and social land development

Some of the objectives in the government strategy have not been included in the sustainable development plan since they did not apply to Héma-Québec's organizational reality. They are prioritized in order to optimize actions that can contribute to achieving the government's objectives. The following table identifies actions in the plan and the ensuing results.

Save the planet one drop at a time

Since June 2017, as a preventive measure to reduce adverse reactions during blood donations, Héma-Québec has been asking blood donors to drink 500 ml of water and to eat a salty snack before completing their blood donation to compensate for the loss of volume from donating blood. A comparison of the incidence of vasovagal reactions before and after implementation of this measure shows that the new measures have reduced the number of reactions.

With this measure well integrated into the process for the well-being of donors and that of the planet, Héma-Québec now encourages donors to bring their reusable water bottle with them when they donate. Frequent donors are also given a reusable bottle at certain facilities.

LEGISLATIVE REQUIREMENTS

	Héma-Québec's actions	Related objectives	Measurement points	2018–2019 results
1	Optimize deliveries to hospitals in connection with the opening of donor centres	1.2 6.2	• Number of deliveries	• No change from last year.
2	Promote carpooling	1.2	• Number of users • Number of carpoolers registered	• The carpooling program continued with 11 dedicated parking spaces.
3	Continue the annual distribution of trees and plants	1.2 1.5 6.2	• Number of sites that participated • Number of persons who participated	• 1,500 plants distributed in May 2018 to approximately 500 employees in all the organization's facilities.
4	Maintain and develop tools for working remotely	1.2	• Number of training sessions • Number of participants	• Continuance of measures implemented in 2016–2017: > Videoconference rooms set up to meet organizational needs, reducing GHG emissions associated with travel for meetings. > The Campus eLearning platform is now being used for all regular training courses (a minimum of 6 times per year), and blood drive staff (approximately 400 people) can access it from home. Certificates for these courses are issued electronically. > Knowledge acquisition for all staff members who have to follow regulatory procedures (about 800 people) can be validated online.
5	Add contractual clauses incorporating sustainable development principles into calls for tenders and contracts	1.2 2.1	• Number of calls for tenders and contracts affected	• Not completed in 2018–2019. • Héma-Québec working with the board of directors of the *Espace de concertation pour un approvisionnement responsable* (ECPAR), whose aim is to develop a common sustainable development strategy, including the clauses that should be added to calls for tenders.
6	Promote the use of hybrid and electric vehicles	1.2 2.1	• Use of electric and hybrid vehicles	• Addition of three new hybrid vehicles to the fleet.
7	Minimize the expiry of blood products	1.2 6.2	• Internal expiry rate • Follow-up and awareness raising among hospital clients	• Expiry rate internally: > Red blood cells: stable at 0.03%; > Platelets: down slightly to 2.05% (compared with 2.7% in 2017–2018).

LEGISLATIVE REQUIREMENTS

	Héma-Québec's actions	Related objectives	Measurement points	2018–2019 results
8	Continue efforts to reduce the use of paper	1.2	• Amount of paper for recycling/trash	• Amount of material recycled at the Montréal facility: > Cardboard: 26,000 kg per year; > Paper: 7,800 kg per year; > Plastic: 700 kg per year.
9	Encourage alternative methods to individual commuting by car	1.2 2.1	• Number of participants	• 154 employees subscribe to public transit incentive programs.
10	Continue photography courses and review the exhibition concept	1.5	• Number of participants • Report for each of the events	• Exhibition displayed in all of the organization's facilities on an ongoing basis.
11	Develop local partnerships in connection with opening of donor centres	1.5 6.2	• Number of jobs created • Number of local suppliers	• Opening of a new donor centre in Québec City that employs some 30 people.
12	Maintain the annual influenza vaccination program for staff	5.2	• Number of employees vaccinated	• 255 employees vaccinated on a voluntary basis in all the organization's facilities.
13	Update the program for reimbursement of expenses related to physical activity and sporting events	5.2	• Number of employees participating	• 218 individuals partially reimbursed for physical activity expenses. • 37 individuals reimbursed for participation in one or more sporting events.
14	Continue training on the principles of the *Sustainable Development Act*	6.2	• Number of training sessions and presentations	• More than five publications aimed at training and informing staff, reinforcing ecoresponsible behaviour and promoting green committee activities related to the sustainable development action plan were distributed to employees.
15	Include volunteers in the plasma donation recruitment program	6.2	• Number of participants	• Integration ended in 2017; 150 volunteers are trained and contribute to the recruitment of plasma donors.
16	Maintain the commitment of mobile blood drive organizing committees to serve the mission of Héma-Québec	6.2	• Number of blood drives organized with their collaboration	• 2,258 blood drives organized in partnership with organizing committees.

LEGISLATIVE REQUIREMENTS

Act respecting the Ministère du Conseil exécutif

The directors of Héma-Québec are held to the highest ethical and professional standards, thereby fostering and preserving public trust and transparency in the management of Québec's biovigilance system.

Under *the Regulation respecting the ethics and professional conduct of public office holders*, Héma-Québec directors adopted a governance framework and a director code of ethics in 1999. It is reviewed annually by the Governance and Ethics Committee, and the directors sign a form every year attesting that they undertake to comply with it.

The directors' declarations of interests are verified at the beginning of every board or committee meeting and included in the minutes. Furthermore, no case has ever been brought forward under the director code of ethics and no breach of conduct was reported in 2017–2018.

Héma-Québec's directors' code of ethics can be consulted on page 79.

Act to facilitate the disclosure of wrongdoings relating to public bodies

Public trust in Héma-Québec stems not only from its ability to distribute safe, high-quality biological products of human origin, but also from every action taken and decision made. The organization's integrity is founded on sound financial management and the implementation of organizational values (integrity/honesty, respect, empowerment and engagement).

To earn this trust and to comply with the *Act to facilitate the disclosure of wrongdoings relating to public bodies*, Héma-Québec maintains a policy governing the disclosure of wrongdoings. The aim of this policy is to encourage and facilitate the disclosure of wrongdoings relating to Héma-Québec that have been or are about to be committed, while protecting whistleblowers from reprisals.

During the year, no disclosure was made nor information communicated to the person responsible for following up disclosures.

Politique gouvernementale relative à l'emploi et à la qualité de la langue française dans l'Administration

In accordance with the *Politique gouvernementale relative à l'emploi et à la qualité de la langue française dans l'Administration* (policy on the use and quality of French within the government), the standing committee chaired by the representative of the *Charter of the French Language* ensures that the language policy is implemented within the organization.

Over the past year, the committee developed and disseminated a variety of information messages geared to employees to highlight the language policy and the various tools available to encourage the use of quality French and standardize terms used at Héma-Québec. An activity also took place as part of Héma-Québec's 20th anniversary celebrations.

LEGISLATIVE REQUIREMENTS

Regulation respecting the distribution of information and the protection of personal information

Pursuant to division III of the *Regulation respecting the distribution of information and the protection of personal information*, Héma-Québec attests to having published the required documents and information on its website.

Acces to information

In 2018–2019, 15 requests for access to documents held by Héma-Québec and nine requests for access to personnal information or corrections were received and processed within the timelines prescribed by the *Act respecting Access to documents held by public bodies and the Protection of personal information.*

PROCESSING OF ACCESS REQUESTS

Nature of the request	Processing time		Desicion rendered	
Administrative documents	0–20 days 21–30 days 31 days or more	9 6 0	Accepted Partially accepted Refused Other	12 1[1] 2[1] 0
	Total	**15**	**Total**	**15**
Personal information	0–20 days 21–30 days 31 days or more	8 1 0	Accepted Partially accepted Refused Other	6 2[1] 1[1] 0
	Total	**9**	**Total**	**9**
Correction	0–20 days 21–30 days 31 days or more	0 0 0	Accepted Partially accepted Refused Other	0 0 0 0
Total number of access requests subjected to reasonable accommodation measures				0
Number of review notices received from the *Commission d'accès à l'information*				0

[1] Provisions of the Act justifying the decisions rendered: 21, 37, 53, 54, 57, 59, 63.1, 88.1.

Information security committee

The Information Security Committee (ISC) provides support for information security management and coordination activities, specifically by monitoring the measures put in place to ensure the integrity, security and confidentiality of the information collected and held by Héma-Québec. In accordance with the *Regulation respecting the distribution of information and the protection of personal information,* the individuals in charge of information security and access to information and personal information sit on the committee.

Following analyses performed last year on governance and cybersecurity, the ISC implemented an action plan and followed up the recommendations for improvements that were identified.

A plan to review policies and procedures was also implemented to integrate new elements, including the management of access to information and issues related to cybersecurity.

Finally, a new integrated review of risks to information security and the protection of personal information was initiated and will form the future basis of the annual intervention plan that will be governed by the committee.

LEGISLATIVE REQUIREMENTS

POLICY FOR THE FUNDING OF PUBLIC SERVICES

In accordance with the *Policy for the funding of public services,* information pertaining to Héma-Québec fees to which the policy applies is provided below. Billing to parties other than Québec hospitals represents less than 0.04% of the organization's total budget.

Billing other than to Québec hospitals (thousands of dollars)	Revenues	Costs	Funding level achieved
Labile and stable product sectors	289	219	132%
Innovative product sectors (human tissues and stem cells)	1,364	1,297	105%
Total	**1,653**	**1,516**	**109%**

As a non-profit organization, Héma-Québec targets a funding level of 100%. This was slightly exceeded for the billing other than to hospitals for stable products, labile products and innovative products. The difference of 9%, or $137K, is not significant relative to Héma-Québec's total billing of $427M.

Héma-Québec fees are revised on April 1 of each year and indexed based on budgeted costs and volumes. Fees are set for each sector.

Labile products

Héma-Québec uses an activity-based accounting model to determine production and distribution costs, which are used to set fees (total cost) for each labile product. These fees are presented for approval to SigmaSanté, the joint procurement management organization designated by the *Ministère de la Santé et des Services sociaux*.

Stable products

Héma-Québec uses full cost plus pricing to set the fees for stable products charged to a third party other than Québec hospitals to cushion itself against a potential increase in costs.

Héma-Québec acts as the distributor of these products. It purchases the products through calls for tenders and manages the reserve. Several suppliers are located in the United States; as such, Héma-Québec's purchases are subject to fluctuations in the exchange rates.

Innovative products (human tissues and stem cells)

In the case of the other sectors, the fees are mainly determined based on the market since Héma-Québec does not have exclusive rights to distribute these products in Québec.

LEGISLATIVE REQUIREMENTS

Act respecting workforce management and control within government departments, public sector bodies and networks and state-owned enterprises

The *Act respecting workforce management and control within government departments, public sector bodies and networks and state-owned enterprises* was adopted by the National Assembly in December 2014 to strengthen the mechanisms for managing and controlling the workforce of public bodies. Héma-Québec confirms that it has complied with the provisions of the Act that apply to it. In accordance with the prescribed terms and conditions, the organization communicated the required information about service contracts authorized by the president and CEO to the *Conseil du trésor*.

SERVICE CONTRACTS VALUED AT $25,000 OR MORE

	Number	Value
Service contract with a physical person	1	$30,000
Service contracts with a contracting party other than a physical person	12	$578,149
Total service contracts	**13**	**$608,149**

The organization also periodically informed the Minister of Health and Social Services about its staffing level, providing a breakdown by job category, in accordance with the terms and conditions determined by the *Conseil du trésor*.

The target set for Héma-Québec for 2018–2019 represented a 3.17% increase in paid hours compared with the reference year 2014–2015.

Some investments in the health and social services network announced during the fiscal year may have had unforeseen additional impacts on the staffing of the facilities and contributed, in some cases, to exceeding the staffing targets allocated by the Minister of Health and Social Services.

In the case of Héma-Québec, a 1.45% increase in paid hours was recorded compared with the target. The difference from the target at March 31, 2019, is attributed to an increase in the workforce in the PLASMAVIE Plasma Donor Lounges resulting from the self-sufficiency strategy and the opening of a new GLOBULE Centre. The introduction of activities for the Public Mothers' Milk Bank in 2014 also contributed to this divergence from the target.

LEGISLATIVE REQUIREMENTS

STAFF BREAKDOWN BY PAID HOURS FOR THE PERIOD FROM APRIL 1, 2018, TO MARCH 31, 2019

Category	Hours worked	Overtime hours	Total paid hours	Full-time equivalent	Number of employees at March 31
Managerial staff	307,715	39	307,754	169	179
Professional staff	395,706	2,104	397,810	217	233
Nursing staff	369,286	13,607	382,892	203	254
Office staff, technicians and related staff	981,973	34,993	1,016,966	540	628
Labourers, maintenance and service staff	115,185	12,882	128,067	63	64
Students and interns	1,078	–	1,078	1	–
TOTAL*	**2,170,943**	**63,624**	**2,234,567**	**1,193**	**1,358**

* Totals may be off by plus or minus 1 due to rounding.

LEGISLATIVE REQUIREMENTS

Directors' Code of Ethics

Preamble

Héma-Québec's mission is to efficiently provide adequate quantities of safe, optimal blood components and substitutes, human tissues and cord blood to meet the needs of all Quebecers as well as to provide and develop expertise along with specialized and innovative services and products in the fields of transfusion medicine and human tissue transplantation. This mandate is pursuant to the *Act respecting Héma-Québec and the biovigilance committee* and to the recommendations of the Commission of Inquiry into the Blood System in Canada, headed by the Honourable Horace Krever.

Héma-Québec's directors, who are public administrators in accordance with the *Act respecting the Ministère du Conseil exécutif* (R.S.Q. M-30), are held to the highest ethical and professional standards, thereby fostering and preserving public trust and transparency in its mission.

Code of Ethics

1. General provisions

Definitions

In this code of ethics, unless the context dictates otherwise, the terms and expressions below are used as follows:

1.1. "Director or member of the Board of Directors": Person appointed to the Héma-Québec Board of Directors by the government, as well as the President and Chief Executive Officer, who is an ex officio member of the Board of Directors and acts as Secretary;

1.2 "Conflict of interest": Any real, apparent, potential or future situation in which a director may be inclined to give preference to his or her personal interest, or the interest of a related party, to the detriment of Héma-Québec;

1.3 "Board": Héma-Québec's Board of Directors;

1.4 "Related party": Individuals related by blood, adoption or marriage, or who have been living in a conjugal relationship for at least one year, as well as any organization, partnership or other entity in which the director or his/her friends and family may have a controlling interest.

Application and interpretation

1.5. This code of ethics applies to Héma-Québec's directors.

1.6 The code of ethics is not a substitute for any statutory, regulatory or ethical provision applicable to Héma-Québec directors, including those set out in the Regulation respecting the ethics and professional conduct of public office holders.

Where such provisions differ, Héma-Québec directors shall abide by the more stringent provision. Moreover, in case of doubt, they must act in the spirit of the principles described in the provisions.

1.7 The code of ethics in no way rules out the drafting of additional guidelines or rules pertaining to certain more specific sectors of activity or situations.

2. Management duties

2.1. Directors are appointed to contribute to the fulfillment of Héma-Québec's mission as part of their mandate. In carrying out their duties, they must adhere to the obligations imposed upon them by the laws, the constitution and the rules and regulations and act within the limits of the power conferred upon them.

2.2 The director must perform his/her duties with care and reserve:

2.2.1. The director must be rigorous and independent, and act in the best interests of Héma-Québec.

2.2.2 The behavior of a director must be impartial.

2.2.3 The director must act within the limits of his/her mandate.

2.2.4 The director must be courteous and his/her relationships must be characterized by good faith so as to maintain the trust and consideration required by his/her role.

2.2.5. The director must not in any way participate in illicit activities.

2.2.6 In the carrying out of his/her duties and responsibilities, the director must make decisions without regard for any partisan political consideration. Moreover, he/she must demonstrate restraint in the public expression of personal opinions in matters directly concerning the activities of Héma-Québec and in which the Board of Directors has been involved.

2.3. The director must act with honesty, loyalty and solidarity:

2.3.1. The director must act with integrity and impartiality in the best interests of Héma-Québec.

2.3.2 The director must actively take part in the development and implementation of the general directions of Héma-Québec, which in no way precludes his or her right to dissent.

2.3.3 The director must be loyal and upstanding to his/her colleagues and honest in his/her dealings with them.

2.3.4 The director must dissociate the fulfillment of his/her duties from the promotion or exercise of his/her professional or business activities, save for the President and Chief Executive Officer, who is at the exclusive service of Héma-Québec.

2.4. The director must act with skill, diligence and efficiency:

2.4.1. The director must exercise his/her skills and abilities, demonstrating diligence and effectiveness in carrying out his/her mandate. He/she must also demonstrate independent professional judgment.

2.4.2 The director is responsible and accountable for all his/her actions taken in the performance of his/her duties.

2.4.3 The director must make informed decisions, taking into account any necessary expertise if need be and considering each file in its entirety.

2.4.4 All members of the Board of Directors must actively participate in the Board's work and attend meetings regularly. They must also be assiduous when taking part in Board committees.

2.4.5 The director must show discernment in the courses of action and choices he/she favors.

2.5. The director must act according to the rules of confidentiality:

2.5.1. The director must respect the confidential nature of any information that comes to his/her attention in the course of his/her duties or by virtue of his/her position.

The first clause is not intended to restrict necessary communications between Board members.

2.5.2 The director must not use confidential information that comes to his/her attention during the course of his/her duties for the purpose of obtaining a direct or indirect advantage, now or in the future, for him/herself or a related party.

3. Conflicts of interest

General provisions

3.1. The director must at all times maintain a high level of independence and avoid any situation in which there could be a personal advantage, direct or indirect, either now or in the future, which could jeopardize his/her independence, integrity or impartiality.

3.2 The director must prevent any conflict of interest or appearance thereof and avoid putting him/herself in a position that could ultimately prevent him/her from fulfilling his/her duties.

3.3 The director must avoid any situation which could compromise his/her capacity to fulfill his/her duties in an impartial, objective, professional and independent manner.

3.4 The director shall not commingle the assets of Héma-Québec with his/her own; he/she shall not use the assets of Héma-Québec for his/her personal gain or the gain of a related party.

3.5. The director may not use Héma-Québec's services or information for his/her personal benefit or for the benefit of a related party.

3.6 The director may not exercise his/her duties in his own interest or in the interest of a related party.

3.7 The director must not accept a current or future advantage from anyone if he/she has knowledge, evidence or reason to believe that this current or future advantage is granted to him/her for the purpose of influencing his/her decision.

3.8 The director shall not make a commitment to a third or related party nor grant that party any guarantee with regard to a vote he/she may be required to cast or to any decision whatsoever that may be made by the Board of Directors.

3.9 The director must avoid any situation in which he/she could be in a conflict of interest. Without limiting the scope of the foregoing, the director:

3.9.1. Is in a conflict of interest when the interests in question are such that he/she may be brought to show preference for some of them to the detriment of Héma-Québec, or where his/her judgment and loyalty could be negatively affected.

3.9.2 Is not independent from a given decision if there is a personal advantage or advantage to a related party, now or in the future, as described in article 3.1.

Preventive measures

3.10. At the start of each meeting, the director must declare any existing conflict of interest to the Chair and ensure the disclosure is recorded in the minutes.

3.11 The President and Chief Executive Officer may not, under penalty of dismissal, have a direct or indirect interest in a corporate body, partnership or other entity which could lead to a conflict of interest between him/herself and Héma-Québec. However, dismissal shall not be invoked if the interest is devolved upon the President and Chief Executive Officer by succession or gift, provided he/she renounces it or disposes of it promptly.

Any other director having a direct or indirect interest in a corporate body, partnership, or other entity which could lead to a conflict of interest between him/herself and Héma-Québec must, under penalty of dismissal, declare this interest in writing to the Chair of the Board and, if need be, abstain from participating in any deliberation or decision related to said corporate body, partnership or other entity in which he/she has an interest. The director must also withdraw from the meeting for the duration of the deliberations and vote concerning the matter.

3.12 The director must demonstrate impartiality:

3.12.1. The director shall not solicit, accept or demand any gift, favor, other advantage or consideration, for him/herself or a related party, either directly or indirectly, now or in the future, which could compromise his/her independence, integrity or impartiality; such is the case of gifts, favors, advantages or considerations other than what is customary and of modest value.

3.12.2 The director must not award, offer to award or promise to award to a third party a gift, favor or other advantage or consideration that could compromise his/her independence, integrity or impartiality.

4. Political activity

4.1. Any director who intends to run for public office must inform the Chair of the Board of Directors.

4.2 A Chair of the Board of Directors or President and Chief Executive Officer who wishes to run for public office must tender his/her resignation.

5. Post-mandate measures

5.1. After his/her mandate expires, the director must maintain confidentiality and refrain from disclosing any non-public data, information, debate or discussion to which he/she was privy by virtue of his/her position at Héma-Québec.

5.2 In the year following the expiration of his/her mandate, the director may not participate, either on his/her own behalf or that of a third party, in a procedure, negotiation or other operation to which Héma-Québec is a party and with regard to which he/she has information that is not available to the public.

As well, the director must refrain from offering advice based on information that is not publicly available regarding Héma-Québec or another corporate body, partnership or entity with which he/she has had significant direct dealings in the course of the year preceding the conclusion of his/her mandate.

5.3 A director who has relinquished his/her duties must act in such a way so as not to reap undue advantage from his/her previous duties in the service of Héma-Québec.

6. Responsabilities and sanctions

6.1. Compliance with the code of ethics is an integral part of the duties and obligations of directors.

6.2 A director who observes an ethical failure, perceived or real, must inform the Chair of the Board of Directors. If this failure involves the Chair of the Board of Directors, the director must inform the Chair of the Governance Committee.

6.3 The Chair of Héma-Québec's Board of Directors or, in the cases involving him or her, the Chair of the Governance Committee, must investigate to ensure that the code of ethics is respected and applied.

6.4 A director who infringes upon any of the provisions in the code of ethics leaves him/herself open to the sanctions outlined in the Regulation respecting the ethics and professional conduct of public office holders, in accordance with the procedure established in said regulation.

6.5 Héma-Québec's Board of Directors shall revise this code of ethics on an annual basis to ensure that it adequately reflects changes in the laws, rules, regulations and situations specific to Héma-Québec.

6.6 Each director undertakes to sign the code of ethics agreement form appended hereto at the start of his/her mandate and every year thereafter.

This code was adopted by the Board of Directors on May 7, 2014.

FINANCIAL STATEMENTS

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MANAGEMENT'S REPORT

The financial statements of Héma-Québec in this Annual Report were drawn up by Management, which is responsible for their preparation, presentation and the significant judgments and estimates included therein. This responsibility involves the selection of appropriate accounting policies that comply with Canadian Public Sector Accounting Standards. The financial information presented elsewhere in this Annual Report is consistent with that provided in the financial statements.

To fulfil its responsibilities, Management maintains a system of internal accounting controls designed to provide reasonable assurance that assets are safeguarded and that transactions are duly approved and properly recorded on a timely basis and in a manner suitable for preparing reliable financial statements.

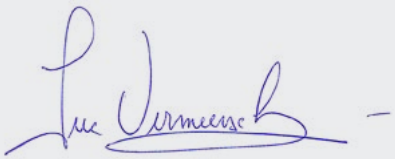
Héma-Québec recognizes that it is responsible for conducting its affairs in accordance with the statutes and regulations governing it.

The Board of Directors monitors the manner in which Management carries out its financial reporting responsibilities and approves the financial statements. It is assisted in its responsibilities by the Audit Committee whose members are not part of Management. The Committee meets with Management and the Auditor General of Québec, reviews the financial statements, and recommends their approval to the Board of Directors.

The Auditor General of Québec has audited the financial statements of Héma-Québec in accordance with Canadian generally accepted auditing standards. His independent auditor's report states the nature and scope of the audit and expresses his opinion.

The Auditor General of Québec has full and unrestricted access to the Audit Committee to discuss any matter related to his audit.

Nathalie Fagnan, CPA, CA
President and Chief Executive Officer



Luc Vermeersch, CPA, CA
Vice-President, Finance and Infrastructure

Montréal, June 12, 2019

INDEPENDENT AUDITOR'S REPORT

To the National Assembly

Report on the audit of the financial statements

Opinion

I have audited the accompanying financial statements of Héma-Québec (the "Entity"), which comprise the statement of financial position as at March 31, 2019, and the statements of operations and accumulated surplus, remeasurement gains and losses, changes in net debt and cash flows for the year then ended, and the accompanying notes, including a summary of significant accounting policies.

In my opinion, the financial statements herewith present fairly, in all material respects, the financial position of the Entity as at March 31, 2019, and the results of its operations, its remeasurement gains and losses, changes in its net debt and its cash flows for the year then ended, in accordance with Canadian Public Sector Accounting Standards.

Basis for opinion

I conducted my audit in accordance with Canadian generally accepted auditing standards. My responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of my report. I am independent of the Entity in accordance with the ethical requirements that are relevant to my audit of the financial statements in Canada, and I have fulfilled my other ethical responsibilities in accordance with these requirements. I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Responsibilities of Management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian Public Sector Accounting Standards, and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, Management is responsible for assessing the Entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless Management either intends to liquidate the Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity's financial reporting process.

Auditor's responsibilities for the audit of the financial statements

My objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes my opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, I exercise professional judgment and maintain professional skepticism throughout the audit. I also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for my opinion. The risk of not detecting a material misstatement

resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;

- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control;
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management;
- conclude on the appropriateness of Management's use of the going concern basis of accounting and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If I conclude that a material uncertainty exists, I am required to draw attention in my auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify my opinion. My conclusions are based on the audit evidence obtained up to the date of my auditor's report. However, future events or conditions may cause the Entity to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

I communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that I identify during my audit.

Report on other legal and regulatory requirements

As required by the *Auditor General Act* (CQLR, chapter V-5.01), I report that, in my opinion, the accounting principles in these standards have been applied on a basis consistent with that of the previous year.

For the Auditor General of Québec,

Roch Guérin, CPA auditor, CA
Senior Manager

Montréal, June 12, 2019

FINANCIAL STATEMENTS

STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS FOR THE YEAR ENDED MARCH 31, 2019 (in thousands of dollars)

	2019 BUDGET	2019 ACTUAL	2018 ACTUAL
REVENUES			
Blood products (note 3)	387,443	378,348	406,444
Grants from the Gouvernement du Québec	34,434	32,747	28,089
Innovative products	11,229	10,189	10,716
Interest	88	966	485
SIIATH expertise	–	287	–
Other	5,225	4,843	4,822
	438,419	**427,380**	**450,556**
EXPENSES (note 4)			
Stable products	279,274	251,690	264,038
Labile products	125,496	117,821	116,800
Innovative products	33,649	30,944	30,044
SIIATH expertise	–	1,060	–
	438,419	**401,515**	**410,882**
ANNUAL OPERATING SURPLUS (before undernoted)	**–**	**25,865**	**39,674**
Transfer of the surplus for the year (note 5)	–	–	(39,674)
Transfer of the prior year's surplus (note 5)	–	–	(11,343)
ANNUAL OPERATING SURPLUS (SHORTFALL)	**–**	**25,865**	**(11,343)**
ACCUMULATED OPERATING SURPLUS, BEGINNING OF YEAR		–	11,343
ACCUMULATED OPERATING SURPLUS, END OF YEAR		**25,865**	**–**

The accompanying notes are an integral part of the financial statements.

STATEMENT OF REMEASUREMENT GAINS AND LOSSES FOR THE YEAR ENDED MARCH 31, 2019 (in thousands of dollars)

	2019	2018
ACCUMULATED REMEASUREMENT GAINS (LOSSES), BEGINNING OF YEAR	2,202	(1,112)
Unrealized gains attributable to:		
Derivatives	1,864	2,079
Exchange rates	3	123
Amount reclassified to operating surplus		
Derivatives	(2,079)	1,140
Exchange rates	(123)	(28)
Net remeasurement (losses) gains for the year	**(335)**	**3,314**
ACCUMULATED REMEASUREMENT GAINS, END OF YEAR	**1,867**	**2,202**

The accompanying notes are an integral part of the financial statements.

FINANCIAL STATEMENTS

STATEMENT OF FINANCIAL POSITION AS AT MARCH 31, 2019 (in thousands of dollars)

	2019	2018
FINANCIAL ASSETS		
Cash and cash equivalents	17,403	12,645
Accounts receivable (note 6)	4,766	5,082
Inventories held for sale (note 7)	61,641	54,353
Derivatives	1,864	2,079
	85,674	**74,159**
LIABILITIES		
Accounts payable and accrued liabilities (note 8)	36,814	34,064
Deferred grants from the Gouvernement du Québec (note 9)	5,695	5,674
Non-interest bearing advance from the Gouvernement du Québec	9,034	25,742
Debt (notes 11)	36,995	42,674
Employee future benefit liability (note 12)	11,854	11,487
	100,392	**119,641**
NET DEBT	**(14,718)**	**(45,482)**
NON-FINANCIAL ASSETS		
Tangible capital assets (note 13)	37,008	42,107
Prepaid expenses	2,768	3,165
Supply inventories	2,674	2,412
	42,450	**47,684**
ACCUMULATED SURPLUS	**27,732**	**2,202**
Accumulated operating surplus (note 5)	25,865	–
Accumulated remeasurement gains	1,867	2,202
	27,732	**2,202**
Contractual commitments (note 15)		
Contingencies (note 16)		

The accompanying notes are an integral part of the financial statements.

ON BEHALF OF THE BOARD OF DIRECTORS,

Martine Carré
Chair of the Board of the Directors

Pierre Thivierge, CPA, CA
Chair of the Audit Committee

STATEMENT OF CHANGES IN NET DEBT FOR THE YEAR ENDED MARCH 31, 2019 (in thousands of dollars)

	2019 BUDGET	2019 ACTUAL	2018 ACTUAL
ANNUAL OPERATING SURPLUS (SHORTFALL)	**–**	**25,865**	**(11,343)**
Changes due to tangible capital assets:			
Additions	(12,059)	(3,774)	(5,029)
Amortization	10,330	7,969	8,165
Loss on disposal and write-off	–	816	298
Proceeds on disposal	–	88	–
	(1,729)	**5,099**	**3,434**
Change due to other non-financial assets:			
Acquisition of prepaid expenses		(2,948)	(3,320)
Use of prepaid expenses		3,345	3,469
Acquisition of supply inventories		(17,468)	(17,327)
Use of supply inventories		17,206	17,165
		135	**(13)**
Net remeasurement (losses) gains for the year		(335)	3,314
Decrease (increase) in net debt	**(1,729)**	**30,764**	**(4,608)**
NET DEBT, BEGINNING OF YEAR	(45,482)	(45,482)	(40,874)
NET DEBT, END OF YEAR	**(47,211)**	**(14,718)**	**(45,482)**

The accompanying notes are an integral part of the financial statements.

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED MARCH 31, 2019 (in thousands of dollars)

	2019	2018
OPERATING ACTIVITIES		
ANNUAL OPERATING SURPLUS (SHORTFALL)	25,865	(11,343)
Items not affecting cash and cash equivalents		
Amortization of tangible capital assets	7,969	8,165
Effective rate debt adjustment	50	54
Loss on disposal and write-off of tangible capital assets	816	298
Unrealized foreign exchange (loss) gain on cash and non-cash working capital items denominated in foreign currencies	(120)	95
	34,580	**(2,731)**
Changes in assets and liabilities related to operating activities		
Accounts receivable	316	3,761
Inventories held for sale	(7,288)	1,652
Accounts payable and accrued liabilities	3,221	3,572
Deferred grants from the Gouvernement du Québec	21	111
Advance from the Gouvernement du Québec	(16 ,708)	31,576
Employee future benefit liability	367	392
Prepaid expenses	397	149
Supply inventories	(262)	(162)
Cash flows related to operating activities	**14,644**	**38,320**
CAPITAL ACTIVITIES		
Additions to tangible capital assets	(4,245)	(4,504)
Proceeds on disposal of tangible capital assets	88	–
Cash flows related to capital activities	**(4,157)**	**(4,504)**
FINANCING ACTIVITIES		
Line of credit	–	(20,006)
Increase in debt	2,481	4,277
Debt repayment	(8,210)	(8,466)
Cash flows related to financing activities	**(5,729)**	**(24,195)**
CHANGE IN CASH AND CASH EQUIVALENTS	**4,758**	**9,621**
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	12,645	3,024
CASH AND CASH EQUIVALENTS, END OF YEAR	**17,403**	**12,645**
ADDITIONAL INFORMATION		
Interest paid	946	1,111
Interest received	944	455
Additions to tangible capital assets funded by accounts payable and accrued liabilities	196	667

The accompanying notes are an integral part of the financial statements.

1. INCORPORATION AND NATURE OF OPERATIONS

Héma-Québec, constituted on March 26, 1998 by letters patent issued under Part III of the Companies Act (CQLR, chapter C 38), is continued in accordance with the provisions of the *Act respecting Héma-Québec and the biovigilance committee* (CQLR, chapter H-1.1). Héma-Québec's mission is to efficiently meet the needs of the Québec population for quality blood and other biological products of human origin. Héma-Québec operates in a regulated environment in compliance with the requirements of the *Food and Drug Act* (R.S.C. 1985, c. F-27) and its related regulations. To fulfil its mission, Héma-Québec also meets the requirements and regulations of several Canadian and international standards. Under the *Income Tax Act* (R.S.C. 1985, c. 1 (5th Supp.)) and the *Taxation Act* (CQLR, chapter I-3), Héma-Québec is not subject to income taxes.

2. SIGNIFICANT ACCOUNTING POLICIES

Basis of accounting

For the preparation of its financial statements, Héma-Québec mainly uses the *CPA Canada Public Sector Accounting Handbook*, with which any other source used in applying accounting policies is required to be consistent.

Use of estimates

The preparation of the financial statements of Héma-Québec in accordance with Canadian Public Sector Accounting Standards requires Management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the recognition of amounts of revenues and expenses for the financial statement reporting period. The main estimates consist of the useful life of capital assets, the valuation of inventories held for sale, the allowance for pay equity, the provision for the removal of cell production activities and the employee future benefit liability. Actual results could differ from Management's best estimates.

Financial instruments

Financial instruments comprise financial assets and liabilities as well as derivatives. Their measurement depends on their classification, as described below.

Cash and cash equivalents	Cost
Trade accounts and other receivables	Cost
Trade accounts payable, salaries and accrued vacation	Cost
Advance from the Gouvernement du Québec	Cost
Derivatives	Fair value
Debt and accrued interest payable	Amortized cost using the effective interest method

Héma-Québec uses derivative financial instruments to manage currency risk. Unrealized gains and losses on foreign exchange contracts are recognized until the settlement period in the statement of remeasurement gains and losses, and upon settlement, the accumulated balance of remeasurement gains or losses is reclassified as a foreign exchange gain or loss under expenses in the statement of operations and accumulated surplus.

2. SIGNIFICANT ACCOUNTING POLICIES (cont'd)

Fair value hierarchy

Financial instruments recorded at fair value are classified using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy requires the use of observable market data whenever available. The fair value hierarchy has the following levels:

Level 1: The fair value of the instrument is determined using quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2: The fair value of the instrument is determined using inputs other than quoted prices included within Level 1 that are observable either directly (i.e., as prices) or indirectly (i.e., derived from prices).

Level 3: The fair value of the instrument is determined using inputs that are not based on observable market data (unobservable inputs).

Derivative financial instruments are classified within Level 2 of the fair value hierarchy (the fair value of derivatives is based on inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices)).

REVENUES

Revenues are accounted for on an accrual basis. Revenues resulting from the sale of products are recognized once all the risks and rewards of ownership have been transferred to clients, while revenues from services are recognized as the services are rendered.

Revenues derived from Gouvernement du Québec grants are recognized in the period where events giving rise to such revenues occurred, provided the grants are authorized and all eligibility criteria, if any, are met. Grants are presented as deferred grants where transferor imposed stipulations create an obligation that meets the definition of a liability. Deferred grants are transferred to revenues as the liability is settled.

EXPENSES

Employee benefit plans

Héma-Québec offers its employees defined benefit pension plans. Contributions are made by both Héma-Québec and plan members. Certain employees also have defined contribution plans. In addition, Héma-Québec provides its employees with certain post-employment benefits reported under "other plans," while providing certain retirees with health and life insurance benefits.

The cost of retirement benefits for the period is actuarially determined using the projected benefit method prorated on service. The cost of retirement benefits is measured using net current period benefit cost, amortization of actuarial gains and losses, and employee future benefit obligation interest expense, less the expected return on plan assets. Plan amendments give rise to a past service cost, which is recognized as an expense in the year of the amendments.

Employee future benefit obligations are actuarially determined using the projected benefit method prorated on services and Management's best estimates as to the expected rate return on plan investments, inflation rate, discount rate, rate of compensation increase, employee retirement ages and assumed health care cost trends.

Assets and expected return on plan assets are valued using a five-year smoothed market value method.

2. SIGNIFICANT ACCOUNTING POLICIES (cont'd)

Employee benefit plans (cont'd)

Actuarial gains or losses arise from, in particular, the difference between the actual return on plan assets and the expected return on plan assets, as well as the difference between plan experience and the actuarial assumptions used to determine the employee future benefit obligation, as well as changes to these assumptions. Actuarial gains and losses are amortized over the average expected remaining service life of participating employees.

A valuation allowance is recorded for any excess of the adjusted value of the accrued benefit asset (that is, the value of the accrued benefit asset less unamortized net actuarial losses) over the expected future benefit (that is, any withdrawable surplus or reduction in future contributions).

An employee future benefit asset or liability is presented in the statement of financial position to reflect the difference at year end between the value of employee future benefit obligations and the value of plan assets, net of unamortized actuarial gains and losses and valuation allowance.

FINANCIAL ASSETS

Cash and cash equivalents

Héma-Québec's policy consists in presenting in the cash and cash equivalents line item bank balances, including bank overdrafts whose balances fluctuate frequently from being positive to overdrawn, as well as the line of credit used to make up cash deficiencies when they are held by the same institution.

Inventories held for sale

Inventories held for sale, consisting of stocks of blood products (labile and stable) and innovative products (cord blood, human tissues and mother's milk), are measured at the lower of cost and net recoverable amount, with cost determined using the average cost method. The net recoverable amount is the estimated selling price less costs to sell.

Foreign currency translation

Foreign currency transactions are accounted for at the average monthly exchange rate. Monetary assets and liabilities denominated in foreign currency are translated at the exchange rate in effect on the statement of financial position date, whereas non-monetary items are translated at the historical average monthly exchange rate. Exchange rate fluctuations give rise to foreign exchange gains or losses that are recognized until the settlement period in the statement of remeasurement gains and losses and, upon settlement, the accumulated balance of remeasurement gains or losses is reclassified as a foreign exchange gain or loss in expenses in the statement of operations and accumulated surplus.

LIABILITIES

Advance from the Gouvernement du Québec

The Ministère de la Santé et des Services sociaux (MSSS) annually confirms a budgetary level with Héma-Québec for the acquisition of blood products by hospitals. Héma-Québec therefore records, under Advance from the Gouvernement du Québec, the amounts received from the MSSS, which acts as a third party payor the purchase of labile and stable products on behalf of hospitals. Any payment below the amount from sales of blood products to hospitals becomes an amount receivable from the government, while any payment exceeding the sales of blood products to hospitals is recovered in accordance with a timeline agreed upon between the MSSS and Héma-Québec.

2. SIGNIFICANT ACCOUNTING POLICIES (cont'd)

NON-FINANCIAL ASSETS

By their nature, the non-financial assets of Héma-Québec are normally used to provide future services.

Tangible capital assets

Tangible capital assets are recorded at cost, which consists of expenses directly attributable to their acquisition, and amortized on a straight-line basis over their useful lives commencing on the date they are ready for commissioning, using the following periods:

Building, betterment to building and other	from 10 to 25 years
Machinery and automotive equipment	5 and 10 years
Office furniture and equipment	5 and 10 years
Computer hardware and software	3 years
Systems development	5 and 7 years

Land and tangible capital assets under construction or development are not amortized.

When conditions indicate that a tangible capital asset no longer contributes to Héma-Québec's ability to provide goods and services, or that the value of future economic benefits associated with the tangible capital asset is less than its net book value, the cost of the tangible capital asset is reduced to reflect the decline in the asset's value. Writedowns are accounted for as expenses for the year in the statement of operations and accumulated surplus and are not subsequently reversed.

INTER-ENTITY TRANSACTIONS

Inter-entity transactions are transactions entered into between entities controlled or subject to joint control by the Gouvernement du Québec.

Assets received for no consideration from a Gouvernement du Québec reporting entity are recognized at their carrying amount. Services received at no cost are not recognized. The other inter-entity transactions were carried out at the exchange amount, which is the amount of the consideration agreed for the item transferred or service provided.

3. BLOOD PRODUCTS

The budgeted prices for all blood products are submitted every year to SigmaSanté, which is the joint procurement group designated by the Minister of Health and Social Services under Division VI of the *Act respecting Héma-Québec and the biovigilance committee*. Following consultations with the Blood System Procurement and Financing Management Committee (PFMC), the budgeted prices are confirmed by SigmaSanté. The PFMC is an advisory committee to the Direction de la biovigilance, which falls under the purview of the Direction générale des services de santé et médecine universitaire. The PFMC's role is to make recommendations on financial and accounting issues relating to the supply of blood products.

(tabular amounts are in thousands of dollars, unless otherwise indicated)

4. EXPENSES

	STABLE PRODUCTS	LABILE PRODUCTS	INNOVATIVE PRODUCTS[1]	SIIATH EXPERTISE[2]	2019 TOTAL	2018 TOTAL
Stable products	223,140	–	–	–	223,140	224,727
Salaries and benefits	4,971	85,650	11,382	500	102,503	99,196
Blood drives	1,665	14,634	392	–	16,691	16,935
Medical supplies	673	9,871	5,545	–	16,089	15,378
Buildings and premises	759	10,428	281	44	11,512	10,615
Amortization of tangible capital assets	932	6,663	374	–	7,969	8,165
Foreign exchange (gain) loss	(5,215)	(26)	(91)	–	(5,332)	8,121
Freight and shipping	61	4,064	752	–	4,877	4,781
Purchase of cord blood, stem cells, labile products and human tissues	–	3	4 ,283	–	4,286	4,925
Purchased services	8,035	(11,696)	7,276	419	4,034	3,784
Advertising and public relations	9	3,300	207	–	3,516	3,489
Information technology	1	2,936	15	51	3,003	3,327
Interest on long-term debt	–	943	–	–	943	977
Insurance	–	460	–	–	460	668
Loss on disposal of tangible capital assets	–	270	4	–	274	298
Other interest and bank charges	–	106	–	–	106	322
Other expenses	110	3,808	452	46	4,416	4,223
Subtotal	**235,141**	**131,414**	**30,872**	**1,060**	**398,487**	**409,931**
Plasma for fractionation[3]	13,647	(13,647)	–	–	–	–
Change in inventories[4]	2,902	54	72	–	3,028	951
Total	**251,690**	**117,821**	**30,944**	**1,060**	**401,515**	**410,882**

[1] Innovative products comprise the following activity sectors: stem cells, human tissues and mother's milk.

[2] SIIATH expertise includes activities related to the Système d'information intégré sur les activités transfusionnelles et d'hémovigilance awarded by the MSSS.

[3] Some expenses related to plasma extraction are reallocated to stable products based on litres of plasma shipped to the fractionator.

[4] Change in inventories include stable products, plasma for fractionation, labile products, cord blood, human tissues and mother's milk.

(tabular amounts are in thousands of dollars, unless otherwise indicated)

5. ACCUMULATED OPERATING SURPLUS

As required by the provisions of section 25 of the *Act respecting Héma-Québec and the biovigilance committee,* any funding surpluses resulting from the application of prices are paid into the General Fund of the Consolidated Revenue Fund, unless a prior agreement between the Minister of Health and Social Services and Héma-Québec is entered into on the use of the surplus.

In respect of this, on March 14, 2019, Héma-Québec submitted to the Minister of Health and Social Services a request for the use of the surplus resulting from the 2018-2019 fiscal year. A letter from the MSSS dated March 18, 2019 confirmed that we may present the operating surplus in accumulated surplus for use in 2019-2020.

Héma-Québec remitted the surplus of $39.674 million for the year ended March 31, 2018, and the surplus of $11.343 million for the year ended March 31, 2017, as requested by the Minister of Health and Social Services. This recovery is made against the advances to finance the sale of labile and stable products.

6. ACCOUNTS RECEIVABLE

	2019	2018
Commodity taxes	1,595	1,643
Trade accounts receivable	2,111	1,910
Other receivables	1,060	1,529
	4,766	**5,082**

7. INVENTORIES HELD FOR SALE

	2019	2018
Stable products	34,944	31,390
Plasma for fractionation	21,903	17,931
Labile products	2,844	3,011
Cord blood	935	1,016
Human tissues	862	904
Mother's milk	153	101
	61,641	**54,353**

8. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	2019	2018
Trade accounts payable	20,300	17,527
Salaries and accrued vacation	11,707	12,769
Benefits	3,843	2,716
Deferred revenues	895	981
Accrued interest payable	69	71
	36,814	**34,064**

(tabular amounts are in thousands of dollars, unless otherwise indicated)

9. DEFERRED GRANTS FROM THE GOUVERNEMENT DU QUÉBEC

In February 2019, the MSSS authorized Héma-Québec to defer the surplus balance of the grant, to be used only for the purposes intended. The changes are explained as follows:

	2019	2018
Balance, beginning of year	5,674	5,563
Grants awarded	34,477	33,763
Transfer to revenues: Synagis products and other services	(31,976)	(28,089)
Receivable for SIIATH expertise	(771)	–
MSSS recovery	(1,709)	(5,563)
Balance, end of year	**5,695**	**5,674**

10. CREDIT FACILITIES

Héma-Québec was authorized by the Minister of Health and Social Services to establish a borrowing plan under section 78 of the *Financial Administration Act* (CQLR, chapter A-6.001). Under this borrowing plan, Héma-Québec may borrow over the short term or under credit facilities from financial institutions or the Québec Minister of Finance, as manager of the Financing Fund, and over the long term from said Minister.

The authorized amount for the April 1, 2018 to March 31, 2021 period is for requirements not exceeding $94.6 million. The borrowings provided for under this plan serve primarily to fund bank overdrafts, asset acquisitions and renewals, loan renewals and the implementation of product safety improvement projects. Héma-Québec's borrowing terms comprise rates similar or equivalent to Gouvernement du Québec rates. Under this plan, Héma-Québec's line of credit was undrawn as at March 31, 2019 and 2018.

Héma-Québec also has a $15 million revolving line of credit with a financial institution under terms that may be changed at the bank's option. As at March 31, 2019 and 2018, this line of credit, which is repayable at any time, was undrawn.

11. DEBT

	2019	2018
Borrowings from the Financing Fund repayable in monthly instalments of 504 (principal only) (583 in 2018), at fixed rates ranging from 1.54% to 3.31% (1.24% to 3.09% in 2018), maturing from 2020 to 2033	25,726	29,921
Borrowings from the Financing Fund repayable in monthly instalments of 124 (principal only) (124 in 2018), at fixed rates ranging from 1.80% to 3.93% (1.80% to 3.93% in 2018), renewable from 2020 to 2023 and maturing from 2024 to 2031	11,269	12,753
	36,995	**42,674**

Assuming renewal under the same terms, principal repayments on debt over the upcoming fiscal years are as follows:

2020	7,536
2021	6,110
2022	5,395
2023	4,437
2024	3,695
2025 et suivantes	9,975

(tabular amounts are in thousands of dollars, unless otherwise indicated)

12. EMPLOYEE FUTURE BENEFIT LIABILITY

Héma-Québec has several funded and unfunded defined benefit plans to ensure that pension, post-retirement and post employment benefits are paid to most employees. Actuarial valuations of the retirement plans were carried out as at December 31, 2017. The employee future benefit obligations shown as at March 31, 2019 and retirement benefit expense for the fiscal year then ended are based on an extrapolation of the latest actuarial valuations.

The defined benefit plans are based on years of service and final average salary. They also provide for partial indexation of pension benefits based on inflation.

The actuarial valuations of the other post-retirement and post-employment benefit plans were carried out as at January 1, 2019. The employee future benefit obligations shown as at March 31, 2019 and retirement benefit expense for the fiscal year then ended are based on an extrapolation of that latest actuarial valuation.

Héma-Québec also has defined contribution plans under which the commitment is limited to the total value of the individual accounts of plan participants. No expense was recognized in these plans during the year.

Actuarial gains and losses are amortized over the expected average remaining service life of active participating employees, which is 11 years for the unionized employee pension plan, 13 years for the non-unionized employee pension plan, 6 years for the supplemental pension plan, 15 years for the extended health and life insurance plans and 2 years for post-employment benefits.

CLASSIFICATION OF EMPLOYEE FUTURE BENEFIT LIABILITY

	2019	2018
Pension plans	5,203	4,807
Other plans	6,651	6,680
Total employee future benefit liability	**11,854**	**11,487**

RECONCILIATION OF FINANCIAL POSITION

	2019		2018	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Pension plan assets	262,362	–	242,663	–
Employee future benefit obligation	231,804	6,097	228,178	5,674
Financial position surplus (deficit)	**30,558**	**(6,097)**	**14,485**	**(5,674)**
Unamortized actuarial gains	(21,231)	(554)	(7,811)	(1,006)
Valuation allowance	(14,530)	–	(11,481)	–
Employee future benefit liability, end of year	**(5,203)**	**(6,651)**	**(4,807)**	**(6,680)**

(tabular amounts are in thousands of dollars, unless otherwise indicated)

12. EMPLOYEE FUTURE BENEFIT LIABILITY (cont'd)

EMPLOYEE FUTURE BENEFIT OBLIGATION

	2019		2018	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Employee future benefit obligation, beginning of year	228,178	5,674	212,191	5 614
Current period benefit cost	12,252	4,119	11,904	3,454
Interest expense on obligation	12,049	97	11,246	96
Benefits paid	(9,198)	(4,244)	(7,098)	(3,446)
Cost of amendments	145	–	–	–
Actuarial (gain) loss	(11,622)	451	(65)	(44)
Employee future benefit obligation, end of year	**231,804**	**6,097**	**228,178**	**5,674**

PENSION PLAN ASSETS

	2019		2018	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Pension plan assets, beginning of year	242,663	–	219,133	–
Employer contributions	8,664	–	8,661	–
Employee contributions	5,593	–	5,413	–
Expected return on plan assets	12,995	–	11,799	–
Benefits paid	(9,198)	–	(7,098)	–
Actuarial gain on plan assets	1,645	–	4,755	–
Pension plan assets, end of year	**262,362**	**–**	**242,663**	**–**

FAIR VALUE OF PLAN ASSETS AS AT MARCH 31

	2019		2018	
Bonds	32,048	12%	63,708	26%
Shares	43,221	17%	44,652	18%
Other	182,654	71%	135,101	56%
Total	**257,923**	**100%**	**243,461**	**100%**

(tabular amounts are in thousands of dollars, unless otherwise indicated)

12. EMPLOYEE FUTURE BENEFIT LIABILITY (cont'd)

ACTUAL RETURN ON PLAN ASSETS

	2019	2018
Expected return on plan assets	12,995	11,799
Actual return on plan assets	14,640	16,554
Actuarial gain on plan assets	**1,645**	**4,755**
Actual rate of return	5.97%	7.44%

EMPLOYEE FUTURE BENEFIT EXPENSE FOR THE YEAR

	2019		2018	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Current period net benefit cost	6,659	4,119	6,491	3,454
Cost of amendments	145	–	–	–
Amortization of actuarial losses	153	–	575	–
Change in valuation allowance	3,049	–	2,436	–
Benefit expense	**10,006**	**4,119**	**9,502**	**3 454**
Interest expense on obligation	12,049	97	11,246	96
Expected return on plan assets	(12,995)	–	(11,799)	–
Benefit interest expense	**(946)**	**97**	**(553)**	**96**
Total benefit expense	**9,060**	**4,216**	**8,949**	**3,550**

SIGNIFICANT ASSUMPTIONS

	2019		2018	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Employee future benefit obligation as at March 31				
Discount rate	5.50%	2.40%	5.30%	2.80%
Rate of compensation increase	3.25%	3.25%	3.40%	3.40%
Inflation rate	2.00%	–	2.15%	–
Benefit expense for the years ended March 31				
Discount rate	5.30%	2.80%	5.30%	2.70%
Expected rate of return on plan assets	5.30%	–	5.30%	–
Rate of compensation increase	3.40%	3.40%	3.40%	3.40%
Demographic factors				
Mortality	CPM-2014 projected using improvement scale CPM-B		CPM-2014 projected using improvement scale CPM-B	

(tabular amounts are in thousands of dollars, unless otherwise indicated)

13. TANGIBLE CAPITAL ASSETS

	2019						
	LAND	BUILDING, BETTERMENT TO BUILDING AND OTHER	MACHINERY AND AUTOMOTIVE EQUIPMENT	OFFICE FURNITURE AND EQUIPMENT	COMPUTER HARDWARE AND SOFTWARE	SYSTEMS DEVELOPMENT	TOTAL
Cost							
Opening balance	2,140	48,913	30,230	4,755	12,928	17,627	116,593
Acquisitions	–	1,193	944	180	1,192	265	3,774
Disposals and write-off	–	(1,153)	(1,206)	(17)	(619)	(667)	(3,662)
Closing balance*	**2,140**	**48,953**	**29,968**	**4,918**	**13,501**	**17 ,225**	**116,705**
Accumulated amortization							
Opening balance	–	28,471	19,473	4,272	11,415	10,855	74,486
Amortization for the year	–	2,534	2,453	103	972	1,907	7,969
Disposals and write-off	–	(956)	(1,106)	(17)	(616)	(63)	(2,758)
Closing balance	**–**	**30,049**	**20,820**	**4,358**	**11,771**	**12,699**	**79,697**
Net carrying amount	**2,140**	**18 ,904**	**9,148**	**560**	**1,730**	**4,526**	**37,008**

	2018						
	LAND	BUILDING, BETTERMENT TO BUILDING AND OTHER	MACHINERY AND AUTOMOTIVE EQUIPMENT	OFFICE FURNITURE AND EQUIPMENT	COMPUTER HARDWARE AND SOFTWARE	SYSTEMS DEVELOPMENT	TOTAL
Cost							
Opening balance	2,140	47,440	30,028	4,711	12,833	16,541	113,693
Acquisitions	–	1,703	1,391	46	803	1,086	5,029
Disposals and write-off	–	(230)	(1,189)	(2)	(708)	–	(2,129)
Closing balance*	**2,140**	**48,913**	**30,230**	**4,755**	**12,928**	**17,627**	**116,593**
Accumulated amortization							
Opening balance	–	25,997	18,051	4,174	10,988	8,942	68,152
Amortization for the year	–	2,500	2,523	98	1,131	1,913	8,165
Disposals and write-off	–	(26)	(1,101)	–	(704)	–	(1,831)
Closing balance	**–**	**28,471**	**19,473**	**4,272**	**11,415**	**10,855**	**74,486**
Net carrying amount	**2,140**	**20,442**	**10,757**	**483**	**1 ,513**	**6 ,772**	**42,107**

*The closing balance includes the following tangible capital assets under development:

	LAND	BUILDING, BETTERMENT TO BUILDING AND OTHER	MACHINERY AND AUTOMOTIVE EQUIPMENT	OFFICE FURNITURE AND EQUIPMENT	COMPUTER HARDWARE AND SOFTWARE	SYSTEMS DEVELOPMENT	TOTAL
2019	–	1,036	88	91	410	121	1,746
2018	–	1,151	931	–	176	738	2,996

14. RISK MANAGEMENT AND FINANCIAL INSTRUMENTS

Risk management

In the normal course of its operations, Héma-Québec is exposed to various financial risks, described below. Management assesses these risks and implements strategies to minimize their impact on its performance.

I. Credit risk

Credit risk is the risk that one entity's failure to discharge an obligation under a financial instrument will cause a financial loss for the other party. Héma-Québec is exposed to credit risk resulting from the possibility that parties may default on their financial obligations, where there is a concentration of transactions with a same party or a concentration of third party financial obligations with similar economic characteristics that would be affected in the same way by future developments. Héma-Québec's financial instruments exposed to credit risk include the following line items: cash and cash equivalents, trade accounts receivable, other receivables and derivatives.

The credit risk associated with cash and cash equivalents is limited as the counterparty is a Canadian chartered bank which is assigned a high credit rating by national rating agencies.

Credit risk arising from trade accounts receivable is limited as they primarily involve public bodies that are Gouvernement du Québec reporting entities. Such receivables are collectible during the following year.

Other receivables primarily include amounts receivable under contractual agreements with suppliers. Credit risk is limited as these receivables are provided for under the contracts and Héma-Québec has met its purchase obligations. These amounts are collectible within 60 days after the end of the fiscal year.

The credit risk arising from derivatives is limited as Héma-Québec deals with the Financing Fund which is assigned a high credit rating by national rating agencies.

The carrying amount of Héma-Québec's financial instruments exposed to credit risk represents the maximum amount of credit risk to which the organization is exposed and totalled $22.5 million ($18.2 million in 2018) in the statement of financial position. During the fiscal year, $80k was impaired (nil as at March 31, 2018) and Management estimates that the credit quality of all instruments which have not been impaired or are past due was strong as at the date of the financial statements.

II. Liquidity risk

Liquidity risk is the risk that Héma-Québec will not have the necessary funds to meet a demand for cash or fund its obligations associated with financial liabilities as they come due. Liquidity risk also includes the risk that Héma-Québec will not be able to liquidate its financial assets on a timely basis at a reasonable price.

Héma-Québec actively manages its cash and cash equivalents that arise from its operations and believes it has sufficient liquidity and credit facilities to ensure the necessary funds to meet its current and long-term financial obligations at a reasonable cost, if required. Credit facilities are disclosed in note 10.

(tabular amounts are in thousands of dollars, unless otherwise indicated)

14. RISK MANAGEMENT AND FINANCIAL INSTRUMENTS (cont'd)

II. Liquidity risk (cont'd)

As at March 31, 2019 and 2018, the contractual maturities of the financial liabilities were as follows:

	2019				
	2020	2021	2022 AND THEREAFTER	TOTAL	CARRYING VALUE
Trade accounts payable, salaries and accrued vacation	32,007	–	–	32,007	32,007
Advance from the Gouvernement du Québec	9,034	–	–	9,034	9,034
Interest on debt	881	719	2,150	3,750	3,597
Debt	7,496	6,078	23,421	36,995	37,148
Total non-derivative financial instruments	**49,418**	**6,797**	**25,571**	**81,786**	**81,786**

	2018				
	2020	2021	2022 AND THEREAFTER	TOTAL	CARRYING VALUE
Trade accounts payable, salaries and accrued vacation	30,296	–	–	30,296	30,296
Advance from the Gouvernement du Québec	25,742	–	–	25,742	25,742
Interest on debt	973	803	2,354	4,130	3,945
Debt	8,105	7,331	27,238	42,674	42,859
Total non-derivative financial instruments	**65,116**	**8,134**	**29,592**	**102,842**	**102,842**

III. Market risk

Market risk is the risk that the market value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk is threefold, comprising interest rate risk, currency risk and other price risk.

Héma-Québec is exposed to interest rate risk and currency risk.

Interest rate risk:

Interest rate risk is the risk that the fair value or future cash flow of a financial instrument will fluctuate because of changes in market interest rates.

Héma-Québec is subject to a cash flow risk with respect to the use of its line of credit bearing interest at a variable rate. Héma-Québec considers it has little exposure to this risk.

Héma-Québec's debt bears interest on a fixed rate basis. Accordingly, Héma-Québec's exposure to interest rate risk related to its cash flows is minimal, as Héma-Québec does not intend to early repay it.

(tabular amounts are in thousands of dollars, unless otherwise indicated)

14. RISK MANAGEMENT AND FINANCIAL INSTRUMENTS (cont'd)

III. Market risk (cont'd)

Currency risk:

In the normal course of operations, Héma-Québec purchases its stable products primarily in U.S. dollars and is therefore exposed to fluctuations in that currency. Héma-Québec has established a currency risk management policy and enters into derivative financial instruments to manage currency risk exposures particularly through foreign exchange contracts. To manage the currency risk related to the purchase of stable products, medical supplies, blood drive supplies, stem cells, cord blood and human tissues, Héma-Québec entered into 26 foreign exchange contracts to cover 90% of its expected foreign currency requirements in an amount of US$156 million at a rate of 1.324 for the period from April 4, 2019 to March 19, 2020 (in 2018, 26 foreign exchange contracts in an amount of US$156 million at a rate of 1.276 for the period from April 3, 2018 to March 14, 2019).

As at March 31, 2019, unrealized losses on foreign exchange contracts in the amount of $1.9 million were recognized in the statement of remeasurement gains and losses (unrealized gains of $2 million as at March 31, 2018) and were measured based on the difference between the foreign currency contract purchase rates and the rate of 1.3363 on quoted prices (unadjusted) in active markets for identical instruments (1.2894 as at March 31, 2018).

The statement of financial position includes the following amounts in Canadian dollars with respect to financial assets and liabilities denominated in foreign currencies:

	2019	2018
U.S. dollars		
Cash and cash equivalents	5,285	8,863
Trade accounts receivable and other receivables	663	897
Trade accounts payable	5,756	4,145
Euros		
Trade accounts payable	150	152
Other currencies		
Trade accounts payable	1	8

Based on the financial assets and liabilities denominated in foreign currencies held by Héma-Québec as at the date of the financial statements, a 3% change in the U.S. dollar exchange rate (5% in 2018), corresponding to market volatility in the last 12 months, would not have any material effect on the operating surplus or on the remeasurement gains and losses.

(tabular amounts are in thousands of dollars, unless otherwise indicated)

15. CONTRACTUAL OBLIGATIONS

Héma-Québec has entered into long-term leases expiring at various dates over the next 19 years for its operating facilities and administrative premises. In some instances, the leases for premises include renewal options of up to 10 years. The lease expense for the premises for the year ended March 31, 2019 amounted to $3.7 million ($3.3 million in 2018).

Future minimum payments under long-term leases total $37.1 million ($37.4 million as at March 31, 2018) and are as follows:

2020	3,501
2021	3,444
2022	3,380
2023	3,294
2024	3,041
2025 and thereafter	20,476

16. CONTINGENCIES

Héma-Québec is exposed to various claims and legal actions in the normal course of operations. Management believes that potential outlays arising from those disputes have been sufficiently provisioned and foresees no adverse material effect on the financial position or results of Héma-Québec.

17. RELATED PARTY TRANSACTIONS

Héma-Québec is related to all entities controlled or jointly controlled by the Gouvernement du Québec. It is also related to its key management personnel, their close relatives and to entities for which one or more of these persons have the power to determine the financial and administrative decisions. Key management personnel consists of members of the Board of Directors and Management Committee and the President and Chief Executive Officer of Héma-Québec.

Héma-Québec has entered into no significant transactions with related parties at a value different from that which would have been arrived at had the parties not been related.

18. COMPARATIVE FIGURES

Certain prior-year figures have been reclassified to conform to current-year presentation.

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