HÉMA-QUÉBEC

BLOOD PRODUCTS

STABLE PRODUCTS

STEM CELLS

MOTHER'S MILK

HUMAN TISSUES

Héma-Québec is all of us!

2016
2017

ANNUAL REPORT

Héma-Québec in numbers
2016–2017

BLOOD PRODUCTS

359,305
total visits to blood drives (all types of donations)

176,633
registered donors* (all types of donations)

1.6
whole blood donations per donor on average

316,498
blood products delivered to hospitals

2,391
mobile blood drives organized (including blood drives in mobile units)

STABLE PRODUCTS

9,771
registered plasma donors

6.5
plasma donations per donor on average

95,881
litres of plasma sent for fractionation

405,801
stable products delivered to hospitals

*Donors who presented themselves at a blood drive at least once.

STEM CELLS

60,243
donors registered in the Stem Cell Donor Registry

4,638
donors registered in the Public Cord Blood Bank

10
cord blood units distributed

HUMAN TISSUES

880
donors whose tissues were collected

4,782
human tissues delivered to hospitals

MOTHER'S MILK

695
registered donors

9,865
bottles of mother's milk delivered to hospitals

1,376
employees

$460M
annual revenue

4,130
analyses performed for hospitals by the reference laboratories

77
research projects

LEADERS' MESSAGES

MESSAGE FROM THE CHAIR OF THE BOARD OF DIRECTORS

A renewed vision and a consolidated mission

Over the years, Héma-Québec has constantly striven to improve the safety of donors and recipients, the quality of products and services offered and donor eligibility, as well as its methods, processes and strategies. This past year is no exception. It was filled with exciting progress aimed at meeting the continuing and evolving needs of patients in Québec.

We are well aware that none of these achievements would be possible without the unwavering support of our donors, volunteers, employees and partners. Your support is an integral part of our operations and I would like to express my sincere thanks for your valuable commitment. Every day you remind us how privileged we are to work with such inspiring and generous people.

In the past year, Héma-Québec's Board of Directors gave the green light to the 2017–2020 Strategic Plan that will guide the organization's actions for the next three years. Héma-Québec's executives and managers contributed to this massive undertaking, along with all Board committees, recipient associations, experts in human biological products, information technology and research, to ensure that the new orientations, and their related objectives, strengthen Héma-Québec's position as a strategic partner of the health system. This is clearly stated in its new vision, which is "To become a strategic partner for the Québec health system." The mission has also been simplified, and now reads: "To efficiently meet the needs of the Québec population for quality blood and other biological products of human origin."

The 2016–2017 Annual Report demonstrates that the organization has shown efficiency and sound management to the greatest benefit of the Québec population. Its new strategic plan shows its desire to be ever more efficient: by modernizing and streamlining its processes and taking full advantage of the potential offered by digital technologies, and doing so with deep respect for the values and expectations of donors and recipients.

Héma-Québec is well positioned to successfully meet the challenges that will arise. I would like to take this opportunity to thank my fellow directors for their sustained contribution throughout the year and welcome Caroline Barbir, who hails from the health sector.

Martine Carré
Chair of the Board of Directors

MESSAGE FROM THE PRESIDENT AND CHIEF EXECUTIVE OFFICER

Partners of the gift of life

The Québec population relies on us to efficiently and safely manage the supply of human-derived biological products for hospitals. And we earn their trust by focusing on quality in everything we do whether it be recruiting or qualifying donors, collecting, analyzing, preparing and distributing products or offering specialized services to health professionals.

Our goal is to always do better and more for patients in need of blood products, stable products, stem cells, cord blood, human tissues or mother's milk. Here are some highlights from the past year that demonstrate our commitment.

Plasma supply

In 2016–2017, Héma-Québec increased its plasma supply by using a strategy based mainly on a network of centres dedicated to plasma donation: PLASMAVIE Plasma Donor Lounges and the Québec City GLOBULE Blood Donor Centre. These centres respond to a real need for thousands of patients in Québec, as well as support job creation in several regions. PLASMAVIE Lounges are now operating in Gatineau, Sherbrooke, Trois-Rivières and Saguenay.

These plasma donation initiatives have a direct impact on a major part of our business. Héma-Québec is the exclusive distributor of stable products for Québec, the medications manufactured mainly from proteins present in human plasma. This activity alone accounts for about two-thirds of our organization's annual budget.

As part of its mandate, Héma-Québec is required to renew supply contracts by call for tenders at specified intervals. The main reason for this exercise is to preserve accessibility to medications, while allowing the Québec health system to obtain them at the best possible price. The outcome of the call for tenders carried out during the financial year fully achieved this objective, not only guaranteeing the patients a constant supply of medications but also resulting in savings for Québec taxpayers valued at $200 million over five years.

Challenge of diversity

Another important issue is donor diversity. The number of donor searches for non-Caucasian patients is increasing year by year, reflecting the growing diversity of the Québec population. To address this gap, we are continuing our recruitment efforts in the Black community in collaboration with its leaders.

This diversity issue is also reflected in the Stem Cell Donor Registry with the rise in complex searches. During the year, Héma-Québec signed agreements with the First Nations communities of Wendake and Kahnawake to study their populations. Three other targeted nations showed interest in participating in the project.

Mother's milk supply

Over the past year, the Public Mothers' Milk Bank reached a significant milestone by distributing its 10,000th bottle of milk. The Public Mothers' Milk Bank is mandated to supply pasteurized human milk to premature babies born at 32 weeks or earlier whose mother is not able to breastfeed. The current supply does not meet all the needs, however. An action plan was deployed to increase the quantity of qualified milk available.

We therefore conclude this exercise with the satisfaction of having accomplished our mission, not only in respect to the current budgetary context related to public finances but also in terms of sufficiency and quality. We did this by conducting a rigorous strategic planning exercise, which will guide our actions for the years 2017 to 2020.

It goes without saying that the success of our initiatives rests on a strong and constantly renewed partnership with our partners and the dedication of our employees, volunteers and donors. Our intention is to constantly strive to do more for the gift of life. We always want to do better when it comes to the safety and sufficiency of human-derived biological products. Thank you for helping us save lives!

Serge Maltais
President and Chief Executive Officer

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Héma-Québec's 2016–2017 annual report covers the financial year from April 1, 2016, to March 31, 2017.

MISSION

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

VAL

INTEGRITY/HONESTY

Act in accordance with one's words and values, both on a personal and organizational level, and comply with laws, policies and directives while respecting commitments with honesty and conviction.

Communicate in a transparent and sincere manner and tell things how they are to foster a climate of trust and partnership.

RESPECT

Accept individual differences and each person's right to express his or her opinions, ideas and different points of view.

Listen to others and recognize their expertise, values and qualities in a spirit of collaboration and team work.

VISION

To become a strategic partner for the Québec health system.

UES

COMMITMENT

Contribute to creating and maintaining an environment that inspires people to excel.

Serve Héma-Québec's mission and work together to achieve excellence and expected results in an environment where each individual has the opportunity to succeed.

Give the best of oneself and contribute with heart and passion to the implementation of the vision and the creation of positive relationships with all of our partners, volunteers and donors.

ACCOUNTABILITY

Take responsibility for one's actions, be accountable for the actions taken and results obtained in the performance of one's duties.

Take on the role that we have been given and demonstrate the independence needed to take actions and make decisions as required based on the situations that arise.

Take initiative, be open-minded and strive to develop one's full potential in keeping with the goals of the organization.

ADMINISTRATIVE ORGANIZATION

NON-PROFIT ORGANIZATION

Activity sectors

BLOOD PRODUCTS

Exclusive distribution for Québec.

Donor recruitment and qualification.

Collection, analyses, processing and delivery of products to hospitals.

STABLE PRODUCTS

Exclusive distribution for Québec.

Purchasing medications manufactured mainly from plasma, managing the reserve and supplying hospitals.

FOUNDED IN 1998

MANAGED BY A BOARD OF DIRECTORS

The members are from the following groups:

- blood donors and blood donation volunteers
- recipients
- doctors
- CEOs and executive directors of public facilities (health)
- public health
- scientific research community
- business community

SUBJECT TO HEALTH CANADA REGULATIONS

STEM CELLS

First and largest public cord blood bank operating in Canada.

Management of the Stem Cell Donor Registry for Québec.

Donor recruitment and processing and banking of the cord blood units.

HUMAN TISSUES

Largest human tissue bank in Canada.

Collection and processing of human tissues and distribution to hospitals.

MOTHER'S MILK

Only public mother's milk bank in Québec.

Donor recruitment and qualification.

Processing and analyses of milk and distribution to hospitals.

BREAKDOWN OF EMPLOYEES

4%
Research and Development

5%
Quality and Regulatory Affairs

6%
Information Technology

9%
Administration

1,376
EMPLOYEES

76%
Operations

2
FACILITIES

1
REGIONAL
BLOOD DRIVE SERVICE

4
GLOBULE
BLOOD DONOR CENTRES

4
PLASMAVIE
PLASMA DONOR LOUNGES
(including 2 with a GLOBULE space)

3
MOBILE
BLOOD COLLECTION UNITS

TERRITORIAL DISTRIBUTION OF OUR CENTRES AND FACILITIES

- Facility
- GLOBULE
- Regional Blood Drive Service
- PLASMAVIE
- PLASMAVIE-GLOBULE

Saguenay

Saint-Laurent

Québec

Trois-Rivières

Montréal

Laval

Brossard

Sherbrooke

Gatineau

ACCOMPLISHMENTS
BY ACTIVITY SECTOR

BLOOD PRODUCTS

Blood products delivered to hospitals

316,498

Volunteer Jean-René cuts Felix-Antoine's bracelet after his blood donation.

ISSUES AND PRIORITIES

Changes to criteria to allow greater accessibility to blood donation

Donors and recipient safety is a priority at Héma-Québec, and very strict qualification criteria have been established. 2016–2017 was marked by the easing of certain criteria, which will promote greater accessibility to blood donation while guaranteeing a high level of safety of the supply.

MSM: reduction of the exclusion period

In 2013, Héma-Québec changed its blood donation eligibility criterion for men who have sex with men (MSM). The exclusion was changed from permanent to temporary. Any MSM was eligible on condition that he had not had sex with another man in the last five years.

In June 2016, Health Canada responded favorably to the request by Héma-Québec and Canadian Blood Services by authorizing the exclusion period to be reduced from 5 years to 12 months. This criterion has been in effect since August 15, 2016.

In August 2016, the exclusion period for men who have sex with men was reduced from 5 years to 12 months.

Recent scientific evidence and progress in blood transfusion safety have resulted in a review of the MSM exclusion policy. The risk analysis on which the change request is based has demonstrated that such a change is scientifically justified and will not in any way jeopardize the very high level of safety of blood products.

Moreover, no increase in the number of donations confirmed positive for the HIV marker was observed following the implementation of the new criterion (see table on page 22).

Studies to determine the feasibility of making the MSM qualification criterion more inclusive

The federal Department of Health asked Héma-Québec and Canadian Blood Services to assess whether the MSM criterion could be more inclusive than the one based on a 12-month temporary ban, for example by taking into account notions of behavior.

In January 2017, Canadian Blood Services and Héma-Québec organized an international conference bringing together scientists, Health Canada representatives, recipient groups and groups representing the interests of the lesbian, gay, bisexual, transgender and queer (LGBTQ) community. This meeting marked the kick-off for carrying out research relevant to this issue.

Tattoos and piercings: reduction in the waiting period

Since tattoos and piercings are performed with needles that come into contact with blood, there is a risk that pathogens may be transmitted. A waiting period is therefore imposed before being able to give blood.

Data collected following an update of the risk analysis allowed for the waiting period to be reduced from six months to three months in November 2016.

Easing of the rules for people who have had cancer

Scientific evidence shows that the risk of transmission of cancer by transfusion is extremely low, if not zero. Such data now allow for an easing of the criterion for people in remission from cancer and for the permanent exclusion to be reduced to a temporary five-year exclusion post-remission for most cancers.

From 2010 to 2016, just over 4,000 donors were excluded for a history of cancer. Even if only half of them would now be eligible for blood donation, more than 2,000 people could donate once again.

From a permanent exclusion to a temporary 5-year exclusion post-remission for most cancers.

Previous criterion	Criterion applicable since November 27, 2016
Certain successfully treated cancers of the skin or cervix: no exclusion from donating blood	Certain successfully treated cancers of the skin or cervix: no exclusion from donating blood
All other types of cancer: permanent exclusion from donating blood	Certain types of cancer still entail a permanent exclusion (e.g., melanoma, blood cancers)
	All other types of cancer: donor eligible five years post-remission

RISK MANAGEMENT

Héma-Québec constantly monitors bacteria, viruses or parasites that can be transmitted through blood.

Emerging pathogens: Zika virus under high surveillance

Héma-Québec constantly monitors bacteria, viruses or parasites that can be transmitted through blood. The appearance of a new pathogen may lead to the introduction of additional measures. Fifteen pathogens are thus being monitored, including the Zika virus.

The various risk analyses performed have demonstrated that the criterion in place in Canada remains adequate and sufficient to ensure optimal product safety.

It should be noted that because of the risk that this virus presents in terms of transfusions, a qualification criterion was added in February 2016 to exclude any donor who has travelled outside of Canada, the continental United States or Europe. This measure addresses the risks associated not only with the Zika virus, but also with other insect-borne viruses, including Dengue Fever and Chikungunya.

This precautionary measure helps to prevent people who may have contracted these infections in the affected countries from making a donation while they are still carriers.

Hemovigilance system for donors

Donor safety is as important as that of the recipient. Héma-Québec documents all reactions following a blood donation, regardless of their severity. Adverse reactions are infrequent and mostly benign.

In 2016–2017, adverse reactions were observed in 7% of donations. The most frequent are vasovagal reactions: they account for almost two out of three cases and are benign in 94% of cases.

Analysis of these data makes it possible to adopt preventive measures in order to attenuate the reactions that may occur. Measures will be deployed in blood drives in spring 2017.

ADVERSE REACTIONS

THERE WERE

21,720

REACTIONS

for

311,600

DONATIONS

representing **7%** of donations

Rate and type of complications per 100 donations

4.5

VASOVAGAL REACTIONS

4.3
light reactions

1.8

REACTIONS DURING A DONATION BY APHERESIS*

(e.g., citrate reaction)

0.7

ARM REACTIONS

(e.g., hematoma, bruising, allergy)

*These reactions can only occur during a donation by apheresis.

The need for donors from Black communities has almost doubled since 2010.

Promotion of blood donation in Black communities

Black people are particularly affected by sickle cell anemia, an inherited blood disease whose treatment may require transfusions at regular intervals. One of the main complications associated with frequent transfusions is the development of antibodies. This condition is less likely to develop when the donor and recipient share a similar genetic background. It is therefore important to diversify the collective blood supply to include donations from donors other than Caucasians.

The need for donors from Black communities has almost doubled since 2010. Today, about 100 patients from these communities require frequent transfusions. Many efforts are being made by Héma-Québec to mobilize more Black donors, namely:

- a partnership with the *Association d'anémie falciforme du Québec*;
- organizing blood drives in collaboration with Black community groups and leaders; and
- participation in various events, including Black History Month.

These various initiatives have made it possible to recruit more than 4,500 donors.

Replacing iron lost after a blood donation in Black women

Black women have a physiologically lower hemoglobin level. This means that about one-third of those who register at blood drives are excluded from donating blood because they do not meet the usual hemoglobin criterion. In August 2015, Héma-Québec launched a program to increase the donor pool from the Black community. It provides for an adjusted hemoglobin criterion and the supply of iron supplements.

One of the objectives of the program is to demonstrate that it is safe for Black women to donate blood with a lower hemoglobin level than the criterion normally applied. A second is to promote their eligibility. The program aims to recruit 500 participants.

Activities carried out over the last fiscal year on about 100 targeted blood drives and in the GLOBULE Blood Donor Centres of the Montréal metropolitan area and the Québec City helped recruit 332 female donors. Since the launch of the program, 434 women from Black communities have participated. This initiative resulted in a 33% increase in the number of donations by women who had previously been excluded from donating blood due to their hemoglobin levels.

Bihanca, donor

Héma-Québec tests all donations it collects to detect blood-borne diseases.

Pathogen reduction: evaluation continues

In the field of transfusion safety, pathogen reduction technologies are considered as one approach to mitigate transfusion risks. These technologies are already used in some European countries and the United States to deactivate diseases or viruses likely to be found in blood platelets or plasma. In 2007, a conference on pathogen reduction involving international experts recommended introducing these technologies when they become available, provided they are shown to be safe and effective.

Héma-Québec is analyzing the possibility of using pathogen reduction technologies in its activities. It initiated the evaluation of two pathogen reduction technologies, including one for plasma approved by Health Canada.

Donations confirmed positive by communicable disease markers

Héma-Québec tests all donations 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 detected in donors has not changed significantly in recent years.

CONFIRMED POSITIVE DONATIONS ACCORDING TO MARKERS

	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
Human immunodeficiency virus (HIV)	1	0	1	0	0
Hepatitis C virus (HCV)	7	22	12	9	13
Hepatitis B virus (HBV)*	20	16	14	5	10
Human T-cell lymphotropic virus (HTLV)	7	0	1	2	1
Syphilis	24	23	17	8	17
Total donations	**290,787**	**277,956**	**276,473**	**276,956**	**305,201**

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

Prevalence of HIV and HCV among Héma-Québec donors compared with the general population: effective qualification criteria

The number of infections in blood donors remains well below that observed in the population. These results demonstrate the effectiveness of the blood donation qualification questionnaire used as a safety measure.

POPULATION		HÉMA-QUÉBEC
0.2% (1/500)	HIV	0% (0/305,201)
0.8% (1/125)	HCV (Hepatitis C virus)	0.004% (1/23,477)

Audits

Periodic audits of Héma-Québec's operational processes by regulatory agencies reflect the level of quality control that the organization has on its operations.

Each year, Health Canada inspects Héma-Québec's facilities in Montréal and the Québec City. The GLOBULE Blood Donor Centres and PLASMAVIE Plasma Donor Lounges are inspected every two years. No major observations were made and each site was recognized as compliant.

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HEALTH CANADA

Québec City facility	PLASMAVIE Trois-Rivières	PLASMAVIE-GLOBULE Saguenay	Montréal facility	GLOBULE Place Versailles	GLOBULE DIX30	PLASMAVIE Sherbrooke
MAY 2016	MAY 2016	MAY 2016	DECEMBER 2016	DECEMBER 2016	DECEMBER 2016	JANUARY 2017

Facility licences renewed in accordance with the *Blood Regulations*

MAIN ACTIVITIES AND ACCOMPLISHMENTS

Supply strategy

Héma-Québec's labile blood product supply strategy is reviewed annually and approved by the Board of Directors. It aims to improve the efficiency of operations while maintaining the safety and sufficiency of the supply. The strategy focuses specifically on the following strategic goals:

- increase the volume of plasma sent for fractionation;
- increase the number of collections in donor centres;
- increase workforce adaptability;
- develop a culture focused on continuous improvement, problem solving and accountability;
- anticipate the needs of our partners and clients in the hospital environment.

98%

OF THE HOSPITAL CLIENTELE

IS SATISFIED

with the products and services provided by Héma-Québec

Changes in demand

The decline in demand for labile blood products continues. This decrease, which began four years ago, stands at 1.1% in 2016–2017 for all labile blood products. The cumulative decline is 14.8% since 2012–2013.

Shipments of red blood cells to hospitals decreased by 3% (13.7% since 2012–2013); those of platelets decreased by 1.5% (5.1% since 2012–2013).

Demand for plasma used for transfusion purposes increased by 6%, ending the steady decline for this component since 2012–2013, which stands at 31.9%.

BLOOD PRODUCTS DELIVERED TO HOSPITALS

	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
Total red blood cells (packed)	**246,593**	**232,838**	**224,203**	**219,315**	**212,705**
Platelet pools[1]	6,343	4,388	4,891	5,632	3,853
Platelets collected by apheresis	34,748	35,459	32,652	33,853	35,161
Total platelets[2]	**41,091**	**39,847**	**37,543**	**39,485**	**39,014**
Plasma from whole blood 250 ml	30,914	25,961	13,319	15,207	29,280
Plasma collected by apheresis 250 ml	11,368	10,464	16,945	14,323	7,940
Plasma collected by apheresis 500 ml	6,250	5,488	6,086	2,834	45
Equivalent plasma (apheresis 500 ml × 2)	12,500	10,976	12,172	5,668	90
Total plasma[3]	**54,782**	**47,401**	**42,436**	**35,198**	**37,310**
Granulocytes	**99**	**258**	**33**	**30**	**13**
Cryoprecipitates	**20,657**	**21,367**	**22,758**	**23,335**	**25,542**
Cryoprecipitate supernatents	**8,274**	**5,064**	**7,703**	**2,733**	**1,914**
Grand total	**371,496**	**346,775**	**334,676**	**320,096**	**316,498**

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

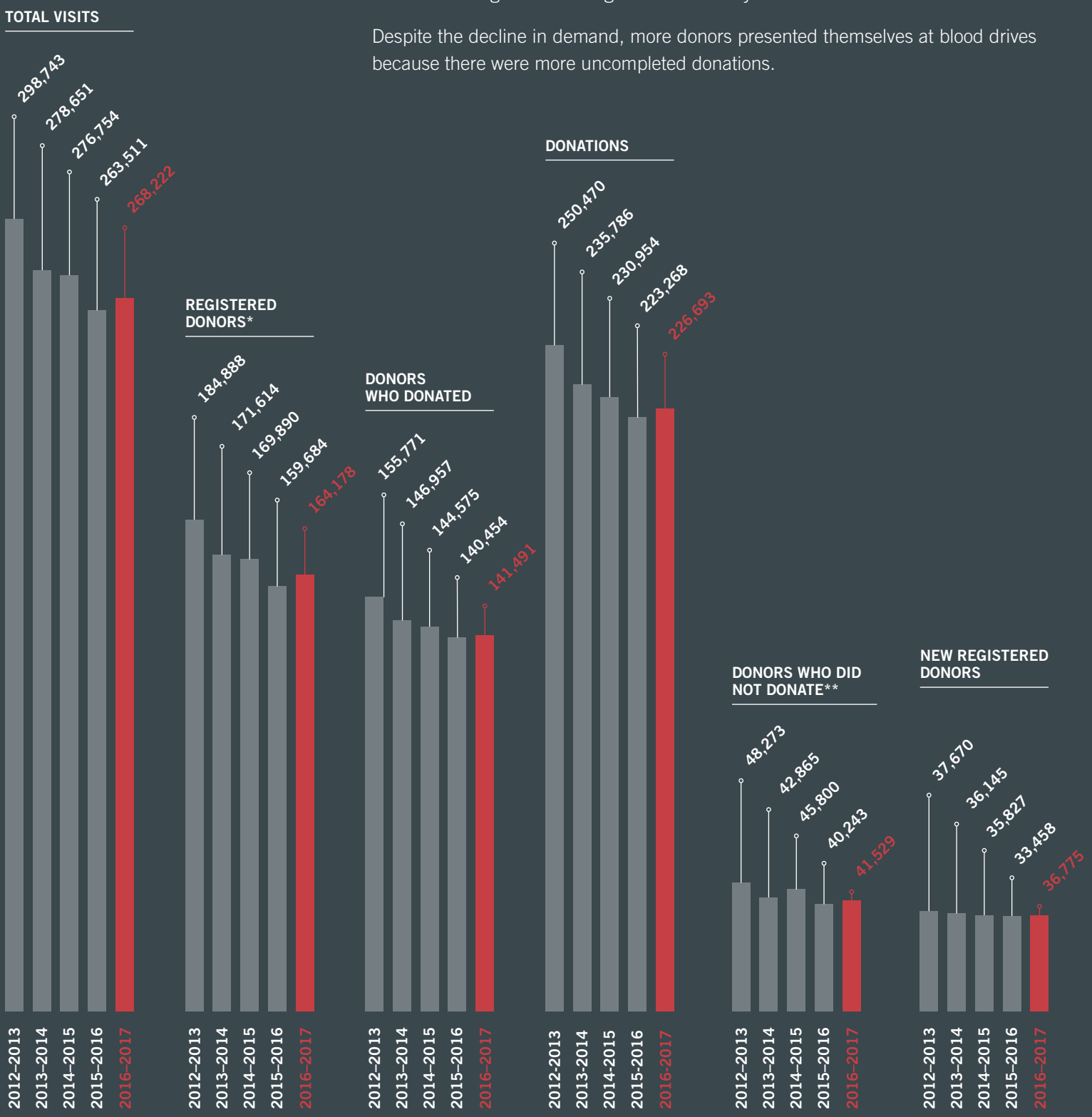
[2] "Total platelets" is the sum of "platelet pools" and "platelets collected by apheresis."

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

Results for whole blood donation

There were a total of 268,222 visits to blood drives made by 164,178 donors. Of these, 141,491 donors had their blood drawn and made 226,693 donations. A blood donor gives an average of 1.6 times a year.

Despite the decline in demand, more donors presented themselves at blood drives because there were more uncompleted donations.



*Donors who presented themselves at a blood drive at least once.

**The number of donors who did not donate corresponds to the registered donors who did not make any donations, but for whom an exclusion was issued the same day or within the seven days following the registration.

Packed red blood cells in quarantine area pending qualification test results.

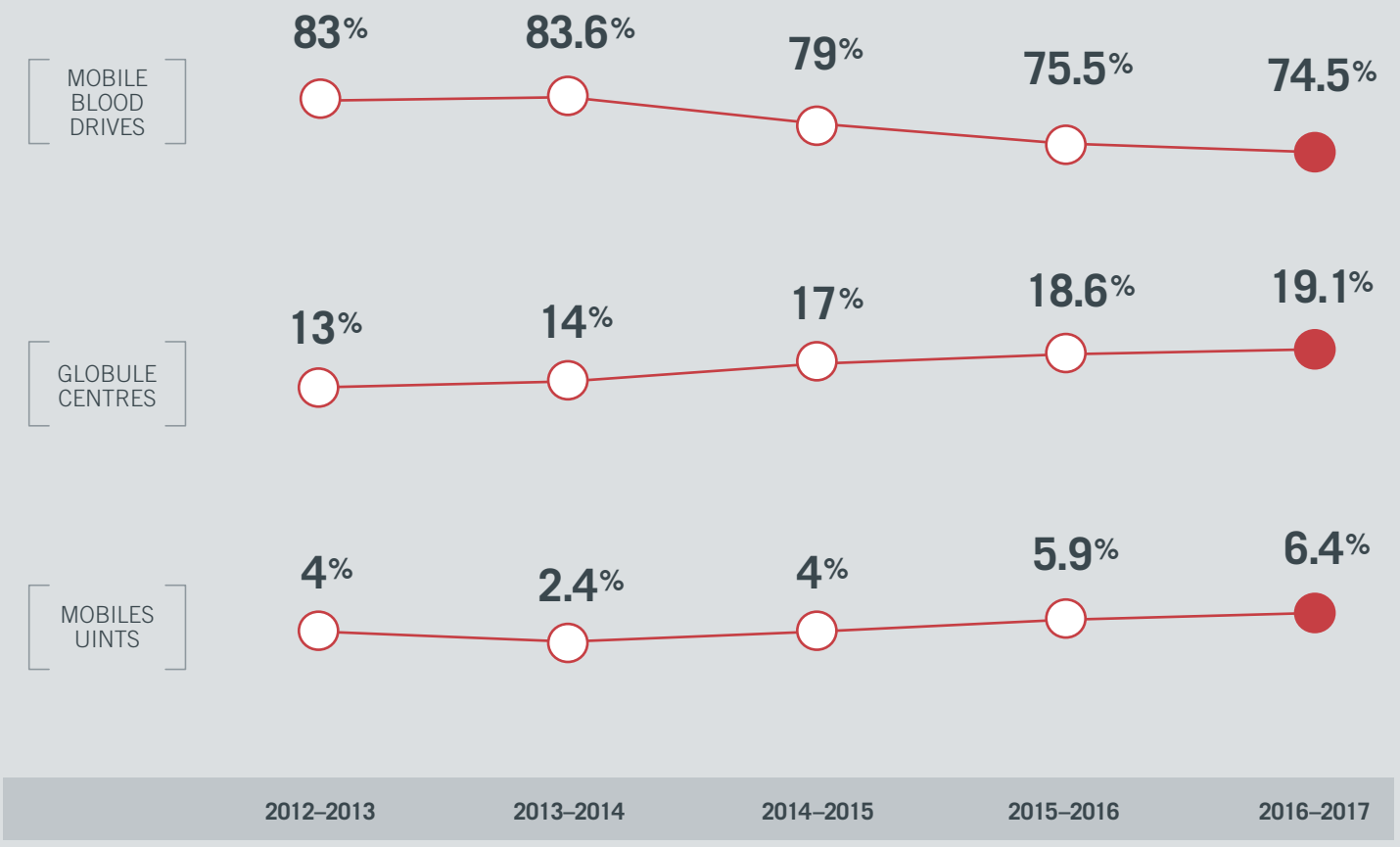
New collection chairs for mobile blood drives

Héma-Québec has replaced its collection chairs for mobile blood drives. This was a great opportunity to review the ergonomics in order to optimize donor comfort. The new chairs have also been designed for ease of assembly and disassembly at blood drive sites.

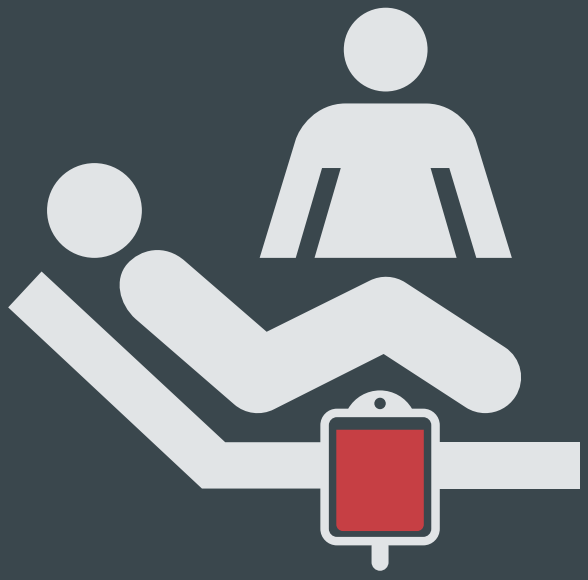
The 220 collection chairs and 32 trolleys necessary for their transport were manufactured in Québec.

Breakdown of whole blood collections

A key part of the procurement strategy is to increase the proportion of whole blood collections performed in GLOBULE Blood Donor Centres and the GLOBULE spaces in the Saguenay and Gatineau PLASMAVIE Plasma Donor Lounges.



WHOLE BLOOD COLLECTIONS IN GLOBULE CENTRES

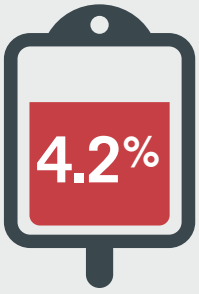


19.1%

of whole blood donations are made in

GLOBULE CENTRES

Whole blood collections increased



IN GLOBULE CENTRES

The unit cost per collection is

22.8%

LOWER IN GLOBULE CENTRES

than at mobile blood drives

Apheresis plasma donation at Laurier GLOBULE Centre.

Collections in Globule Blood Donor Centres

The GLOBULE Blood Donor Centres make it possible to collect targeted products according to needs through donations by apheresis. This strategy is advantageous in a context of fluctuating demand. Over the past year, an average of 1,835 donors registered at the centres each week.

PRODUCTS COLLECTED IN GLOBULE BLOOD DONOR CENTRES

	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
Whole blood	32,440	33,014	39,303	41,578	43,319
Apheresis platelets	36,788	37,548	35,299	36,980	37,950
Apheresis plasma 500 ml	10,004	10,712	12,201	8,676	0[1]
Apheresis plasma 750 ml	–	–	–	4,550[2]	12,619
Apheresis red blood cells (packed)	9,120	8,658	6,847	4,594	3,911
Apheresis plasma 250 ml (including MC[3])	11,174	11,338	18,748[4]	22,044	23,210
Granulocytes	138	275	33	38	37
Total products collected	**99,664**	**101,545**	**112,431**	**118,460**	**121,046**

[1] Plasma collections at the Québec City GLOBULE are now 750 ml and are sent for fractionation.

[2] Year in which the distribution began.

[3] MC: donations made through multiple collections.

[4] The possibility of collecting plasma concurrently with each platelet donation (possible every 14 days instead of every 56 days) accounts for a portion of the increase in 250 ml plasma collections.

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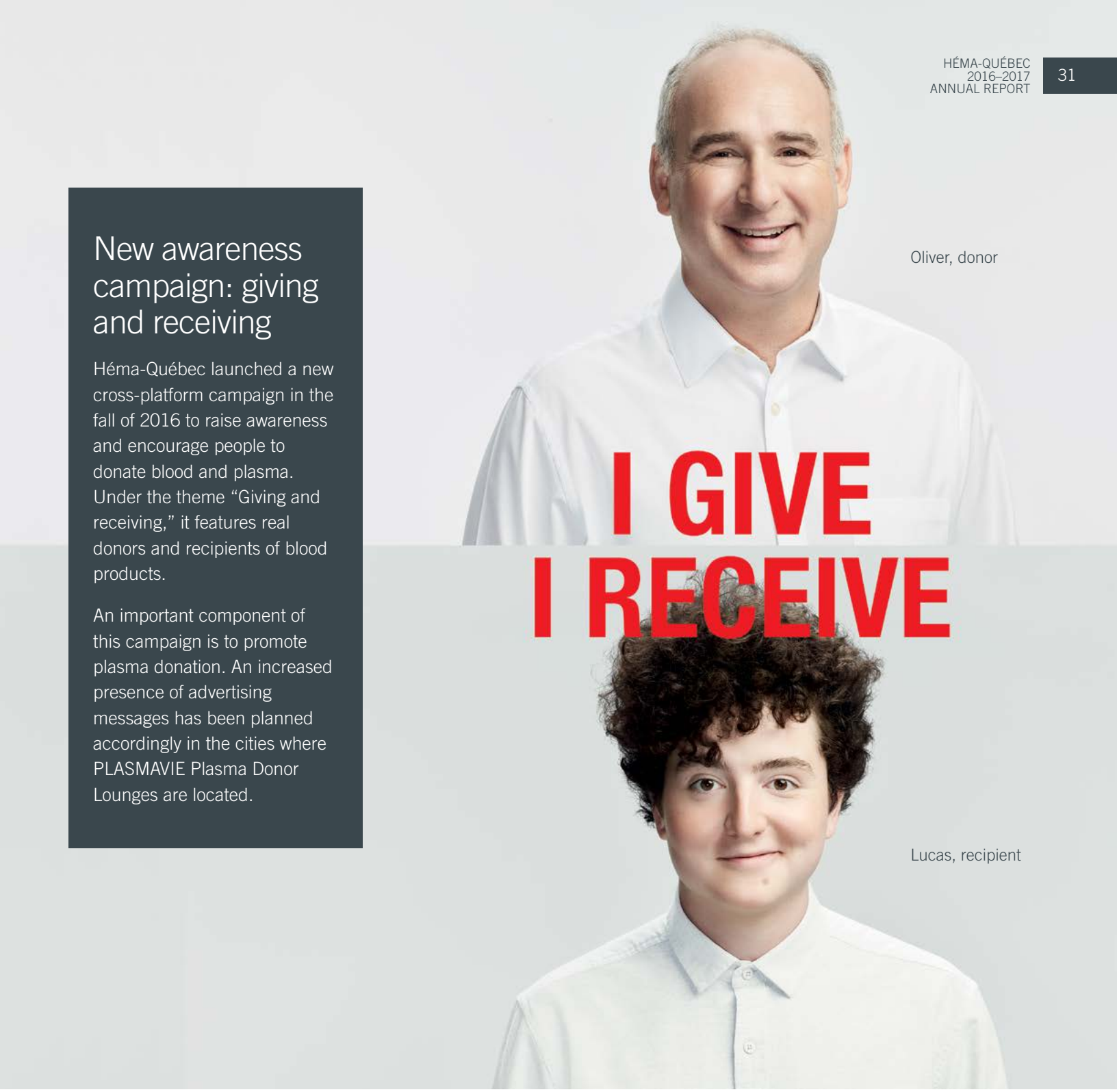
New awareness campaign: giving and receiving

Héma-Québec launched a new cross-platform campaign in the fall of 2016 to raise awareness and encourage people to donate blood and plasma. Under the theme “Giving and receiving,” it features real donors and recipients of blood products.

An important component of this campaign is to promote plasma donation. An increased presence of advertising messages has been planned accordingly in the cities where PLASMAVIE Plasma Donor Lounges are located.



Oliver, donor

Lucas, recipient

In collaboration with the *Centre hospitalier universitaire Sainte-Justine*

Work done in collaboration with the *Centre hospitalier universitaire* (CHU) Sainte-Justine has made it possible to perform genetic profiling on certain blood groups in more than 200 pediatric patients with sickle cell anemia in order to facilitate the search for compatible donors for transfusion, as part of their treatment protocol.

This study identified certain patients with genetic characteristics for which Héma-Québec did not have compatible donors. A search for donors among targeted groups was therefore launched to meet the transfusion needs of these children. Donor genotyping on a larger scale, as discussed on page 66, will also help to identify donors with the desired genetic features.

ACCOMPLISHMENTS
BY ACTIVITY SECTOR

STABLE PRODUCTS

Stable products delivered to hospitals

405,801

Rosalie makes her first apheresis plasma donation.

ISSUES AND PRIORITIES

Increasing plasma collection

Plasma is widely used to manufacture medications, which are referred to as stable products. Thousands of Quebecers need these products to treat immune deficiencies or other diseases, such as hemophilia. Collecting plasma to manufacture these medications is thus a key issue.

Immunoglobulins are the most widely used plasma product. In 2016–2017, the volume of plasma sent for fractionation met 21% of the need for immunoglobulin in Québec, with the rest coming from abroad. Héma-Québec wants to gradually increase the proportion of immunoglobulins derived from Québec plasma.

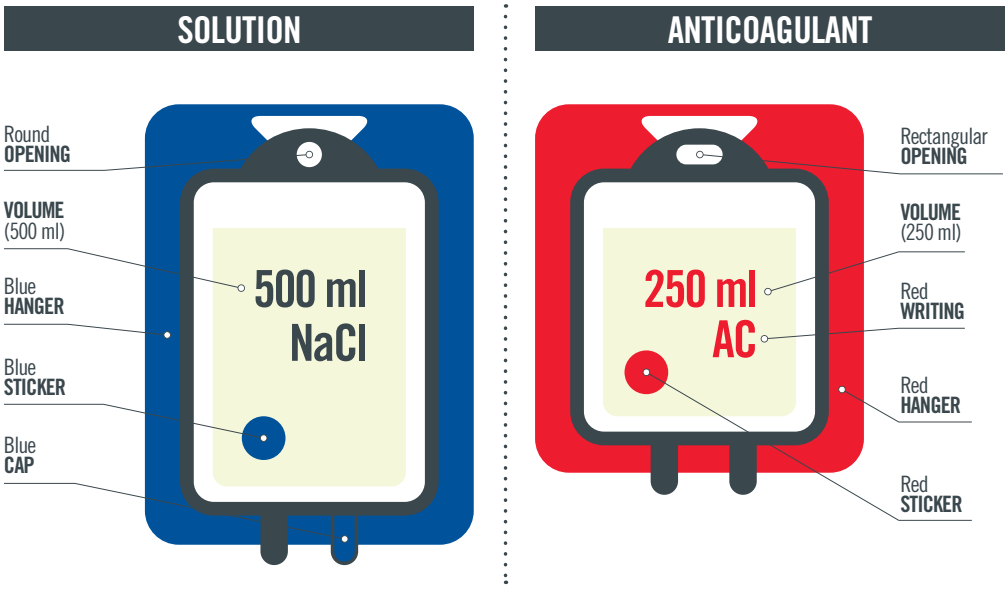
To do this, the organization aims to increase the collection of plasma for fractionation in order to achieve a target of 150,000 litres by 2020. In 2016–2017, this volume was 95,881 litres.

RISK MANAGEMENT

Reducing the risk of connection error

During plasma donations, an anticoagulant is added to the blood to prevent it from coagulating in the device. The quantity collected varies from 550 to 880 ml, depending on the weight and size of the donor, so as to correspond to less than 18% of his or her blood volume. For donations of more than 550 ml, the donor also receives a solution to replace the volume collected and ensure maximum comfort.

One of the risks associated with this type of collection is a connection error, that is, mixing up the bags containing the anticoagulant and the solution. In addition to the verification measures already in place, Héma-Québec has implemented preventive action aimed at considerably reducing the risk of a connection error with these solutions. Fool-proofing features have been specially designed to highlight the differences between the two solutions: the volume, the color and the shape of the opening for hanging the bags. They were added to all devices used to collect plasma for fractionation.



Privigen is made partially from Québec plasma.

MAIN ACTIVITIES AND ACCOMPLISHMENTS

Plasma for fractionation

Plasma collection

Héma-Québec increased its plasma supply by using an adapted strategy, relying mainly on a network of centres dedicated to plasma donation. Operating under the PLASMAVIE banner, these centres run between 41% and 78% of their capacity.

The GLOBULE Blood Donor Centres network is also involved. At the moment, only one GLOBULE is involved in the plasma supply strategy. The goal of 12,500 donations of plasma for fractionation was achieved at the Québec City GLOBULE Blood Donor Centre.

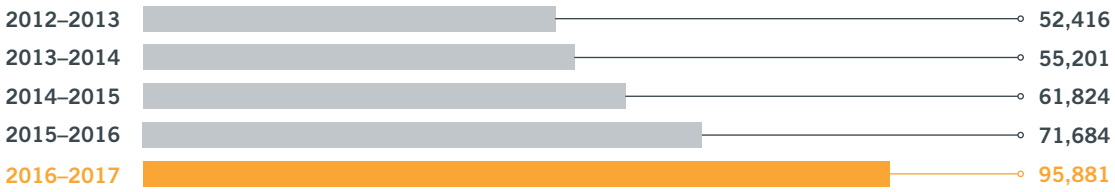
Plasma can be donated every six days, up to 50 times a year, compared with whole blood, which can be donated only every 56 days. Héma-Québec is working to increase the number of donations per donor over the course of a year to an average of eight.

COLLECTIONS OF PLASMA FOR FRACTIONATION

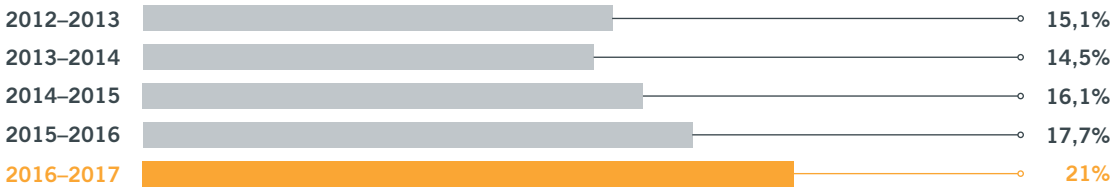
Number of collections by type of donor centre

QUANTITY OF PLASMA SENT FOR FRACTIONATION

Litres



IMMUNOGLOBULIN SELF-SUFFICIENCY RATE*



*Based on the quantity of plasma sent for fractionation relative to immunoglobulin distributions made during the year.

PLASMA DONATIONS IN NUMBERS

9,771
DONORS MADE
57,244
DONATIONS

1,308
APPOINTMENTS PER WEEK
on average

6.5
AVERAGE DONATIONS PER DONOR
per year

28%
of donors made
8 DONATIONS OR MORE

Distribution of stable products to hospitals

Héma-Québec has the exclusive mandate of distributing stable products in Québec. Its role is to:

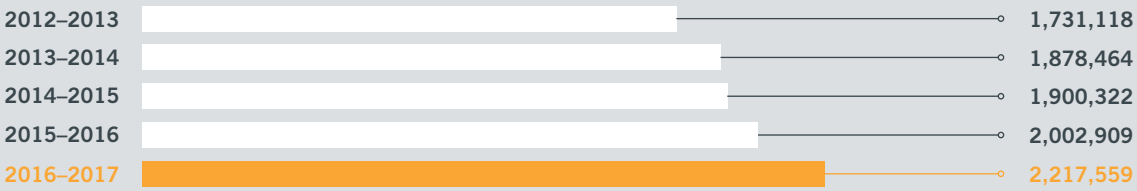
- negotiate the purchase of the safest and most efficient products from suppliers under the best terms possible;
- manage the reserve; and
- supply hospitals.

The organization distributes about 50 different stable products, four of which are made from plasma collected in Québec. This activity makes up a large share of Héma-Québec's budget, i.e., 67% of total expenditure.

INTRAVENOUS (IVIG) AND SUBCUTANEOUS (SCIG) POLYVALENT IMMUNOGLOBULINS

Immunoglobulins are the most sought-after stable product. They are used, among other things, to treat patients with immune deficiencies or neurological disorders. These are the products for which the organization aims to increase self-sufficiency. The increase in demand is significant and averages approximately 6.4% annually since 2012–2013.

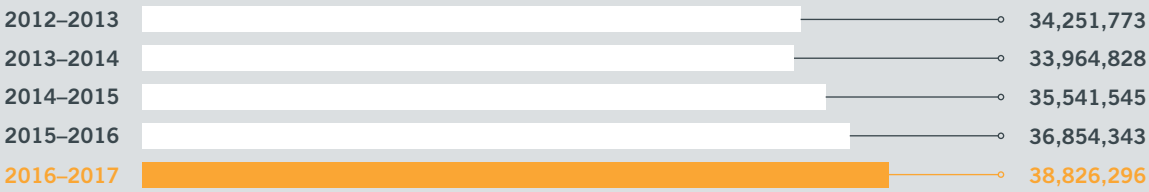
Grams



RECOMBINANT FACTOR VIII

Recombinant Factor VIII is the second most important stable product in terms of distribution. This medication is used to treat hemophilia and its distribution has increased an average of 3.2% since 2012–2013.

International units



Leksia has been cured thanks to immunoglobulins.

ACCOMPLISHMENTS
BY ACTIVITY SECTOR

STEM CELLS

Sopheap,
Héma-Québec
employee and cord
blood donor

Units of cord blood distributed throughout the world in 2016–2017

10

ISSUES AND PRIORITIES

Finding a compatible donor for a patient waiting for a stem cell transplant is a challenge.

Diversifying the Québec registry: a major project with First Nations

When a stem cell transplant is necessary for a patient's treatment, the characteristics of the grafted cells must be as close as possible to those of the patient. As these characteristics are hereditary, close family members are more likely to be compatible (1 in 4 chance). In other cases, a matching non-related donor must be sought for among individuals registered in stem cell donor registries worldwide.

In practical terms, it is the HLA markers that determine stem cell compatibility. This is a special system requiring very specific research since more than 15,000 markers exist, and this number increases every year. Finding a compatible donor for a patient waiting for a stem cell transplant is therefore a challenge.

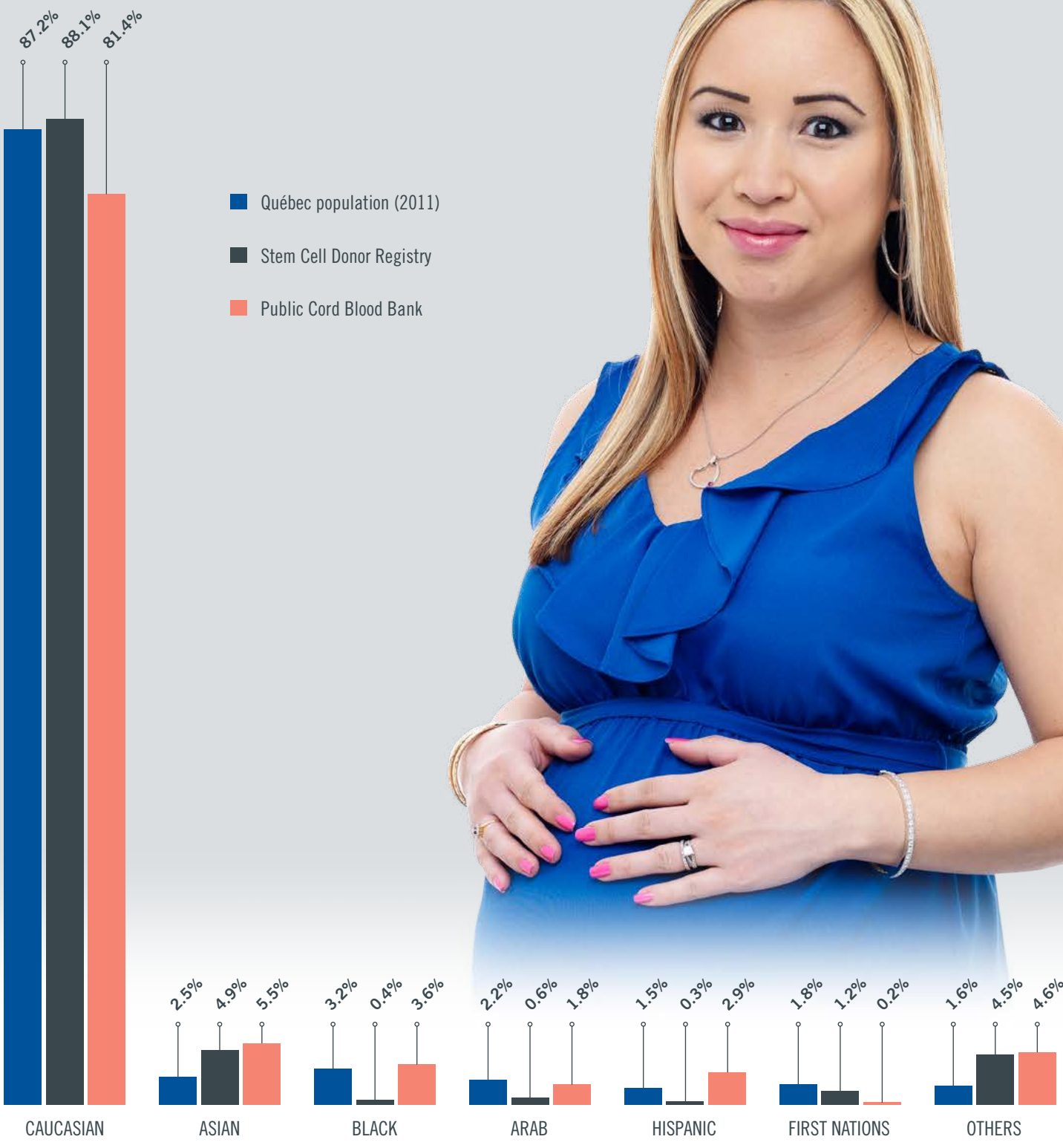
The Héma-Québec Stem Cell Donor Registry primarily includes persons of Caucasian origin, as is the case with registries around the world. The same is true of the Public Cord Blood Bank. It is a major issue since a diversified registry (representing the Québec population) would better meet potential needs.

First Nations are very poorly represented in Canadian registries and absent from international ones. The few existing data on their HLA typing make searches even more complex, as it is difficult to evaluate the various compatible combinations. A study with Aboriginal communities was launched to address this issue. The objectives of this study, funded in part by the *Fondation Héma-Québec*, are numerous, in particular:

- evaluate the distribution of HLA typing in the various communities;
- demonstrate differences between communities;
- check whether their typing has similarities with other populations throughout the world;
- raise awareness to increase First Nations participation in the registry; and
- provide tools to First Nations communities so that they can contribute to recruiting their members.

During the year, Héma-Québec signed agreements with the communities of Wendake and Kahnawake to study their populations. Three other targeted nations have shown interest in participating in the study.

DISTRIBUTION OF HUMAN BIOLOGICAL GROUPS IN THE POPULATION, REGISTRY AND PUBLIC CORD BLOOD BANK



RISK MANAGEMENT

WMDA is a vital organization in the field of stem cells.

On the road to obtaining a new certification

The Stem Cell Donor Registry and the Héma-Québec Public Cord Blood Bank are members of the World Marrow Donor Association (WMDA), a collaborative worldwide network. Héma-Québec's involvement in various WMDA working groups over the years has helped to make the Québec registry known internationally.

WMDA is a vital organization in the field of stem cells. It certifies stem cell and cord blood donor registries according to high standards to ensure standardization and promote best practices.

In the fall of 2016, the Stem Cell Donor Registry and the Public Cord Blood Bank successfully completed new stages leading to WMDA certification.

Becoming a qualified member means that Héma-Québec complies with the vast majority of the requirements of the standard. The full certification process takes two years.

ON THE ROAD TO WMDA CERTIFICATION

Audits

ASHI
(American Society for Histocompatibility and Immunogenetics)

HLA Analyses Laboratory
APRIL 2016

Certification renewed in accordance with ASHI standards

MAIN ACTIVITIES AND ACCOMPLISHMENTS

Stem Cell Donor Registry

5,852
REGISTRATIONS

58%
RATE OF RETURN OF REGISTRATION KITS

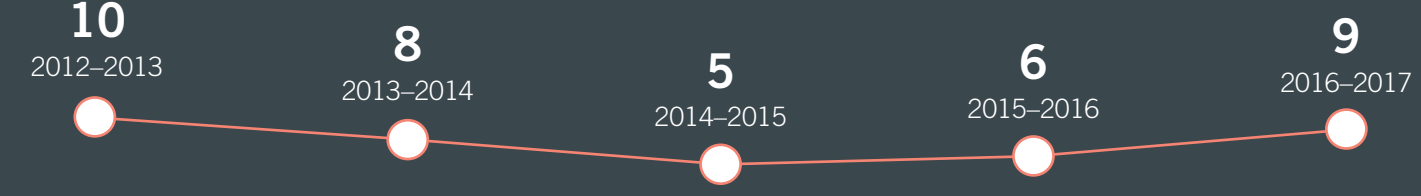
60,243
DONORS REGISTERED

30 MILLION
POTENTIAL DONORS
worldwide

132
QUEBECERS RECEIVED AN UNRELATED TRANSPLANT,
including 22 from cord blood

9
QUEBECERS DONATED STEM CELLS DURING THE YEAR
4 of these donations went to Québec patients

QUÉBEC STEM CELL DONORS



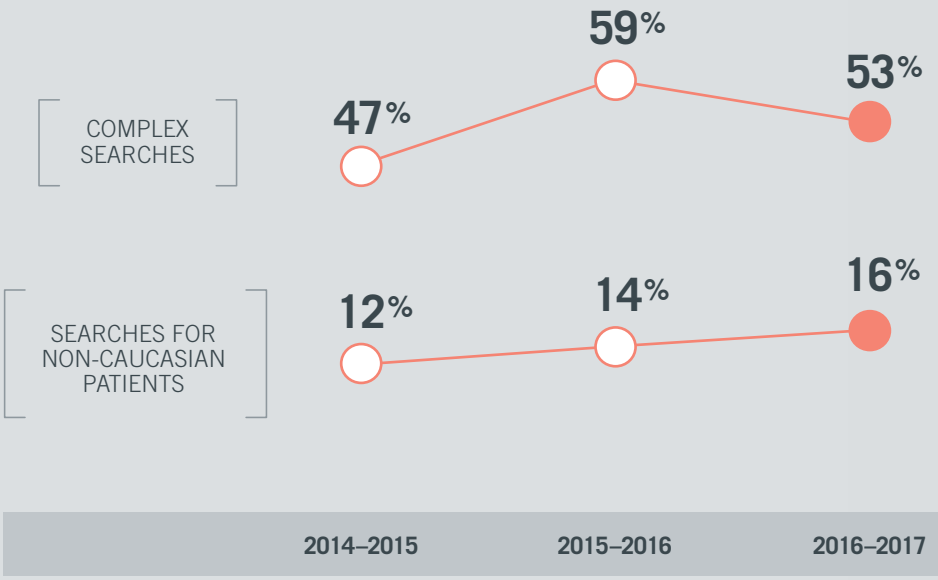
Searches for compatible donors: the challenge of diversity

The number of donor searches for non-Caucasian patients is increasing yearly, reflecting the growing diversity of the Québec population. The increase in complex research demonstrates the importance of having a registry with greater diversity.

A search is considered complex when it is not possible to find a perfectly compatible donor or only one perfectly compatible donor has been identified.

The number of donor searches for non-Caucasian patients is increasing year by year.

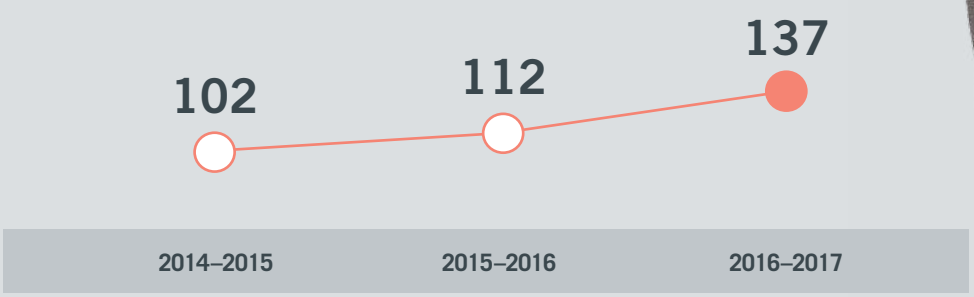
INCREASE IN COMPLEX SEARCHES AND SEARCHES FOR NON-CAUCASIAN PATIENTS



Pre-transplant coordination service

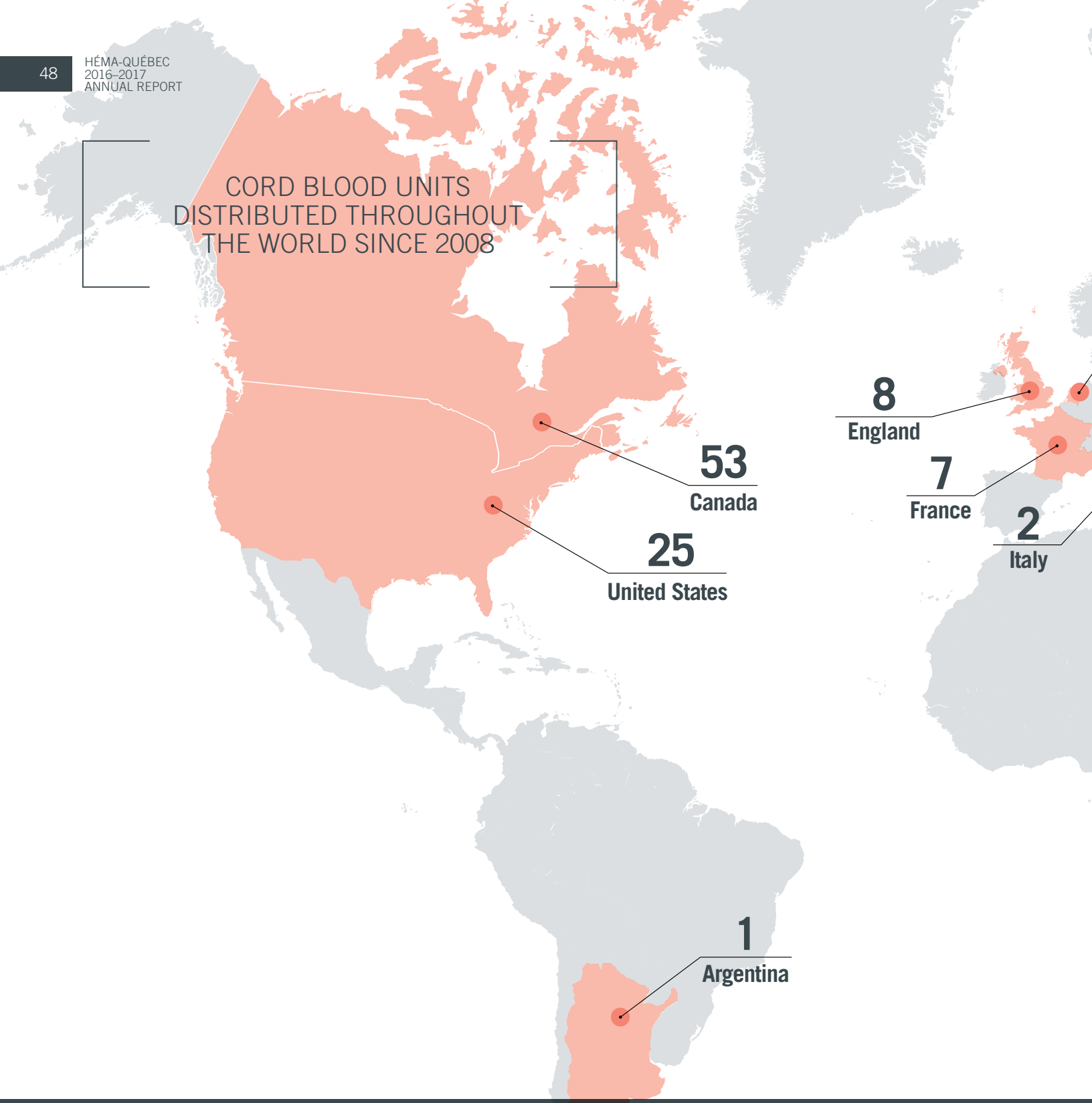
The Registry team facilitated the import and distribution of 137 products intended for Québec patients in 2016–2017. It also collaborates with the transplant teams of six hospitals by facilitating communication with international registries.

PRE-TRANSPLANT COORDINATION



Andy,
donor

Priscille,
recipient



Public Cord Blood Bank

As of March 31, 2017, the Public Cord Blood Bank had a total of 10,594 units. During the year, 10 cord blood units were distributed. The decline in distributions since 2013–2014 is an international trend attributable to the advent of new therapies, including transplants using stem cells from adult relatives.

10 UNITS
DISTRIBUTED THROUGHOUT THE WORLD IN 2016-2017

FIRST AND LARGEST BANK
IN CANADA

MORE THAN
10,000
UNITS BANKED

117 UNITS
DISTRIBUTED THROUGHOUT THE WORLD SINCE 2008

Significant impact on the activities of the Héma-Québec Public Cord Blood Bank.

Zika: a direct impact on the Public Cord Blood Bank

Mitigation measures implemented due to the risks associated with the Zika virus for cord blood donations have had a significant impact on the activities of the Héma-Québec Public Cord Blood Bank.

Specifically, mothers cannot give their cord blood if they:

- were diagnosed with the Zika virus during pregnancy;
- have travelled to endemic areas; or
- have had sexual intercourse with a man who was diagnosed with Zika virus within six months prior to the sexual intercourse or who resided or travelled to an endemic country within six months prior to the sexual intercourse.

These measures had a direct impact on recruitment, with 16% of registrations being denied based on this criterion. In 2016–2017, 659 units were banked compared with 950 for the previous year, a 30% decrease.

A new step completed in the project to find a therapeutic solution for graft versus host disease

Graft versus host disease (GvHD) occurs when the immune cells present in the graft react against the tissues and organs of the recipient (host). Mesenchymal stem cells (MSC) extracted from the umbilical cord have immunosuppressive properties that make them attractive for the treatment of immune system disorders such as GvHD.

In collaboration with *CHU Sainte-Justine*, a research project aiming to produce therapeutic doses of MSCs extracted from umbilical cords, according to good manufacturing practices, is under way as part of a clinical study.

Therapeutic dose manufacturing procedures were finalized, enabling *CHU Sainte-Justine* clinicians and their collaborators to submit an application to Health Canada to conduct clinical trials.

With cell production activities ending on March 20, 2017, a transition will be made with the research team for the continuation of the clinical study. For more information on the ceasing of cell production activities, see page 76.

Charles, a stem cell transplant recipient, accompanied by the employees of the Public Cord Blood Bank.

ACCOMPLISHMENTS
BY ACTIVITY SECTOR

HUMAN TISSUES

Human tissues distributed to hospitals

4,782

Martin, human tissue technician.

ISSUES AND PRIORITIES

Recommendations of human tissue donors in hospitals

As a supplier of human tissues, Héma-Québec's role is to make hospital stakeholders aware of the importance of recommending potential donors.

Recommendations of potential donors by professionals in the healthcare network are vital to ensuring a greater supply. Otherwise, Héma-Québec must obtain the tissues from other suppliers. In September 2016, a decrease in recommendations of human tissue donors was observed, particularly in the local cornea supply.

The organization has intensified its outreach activities with its partners in the health network in order to highlight the importance of recommending donors for the Québec human tissue supply.

This operation resulted in a 64% increase in recommendations between September 2016 and March 2017. The organization showed a record number of recommendations for the year 2016–2017.

DONOR RECOMMENDATIONS

RISK MANAGEMENT

Audits

AATB
(American Association of Tissue Banks)

Human tissue bank
(excluding eye tissue)
NOVEMBER 2016

Certification renewed in accordance with AATB standards

Intertek
(body mandated by Health Canada for ISO 13485 certification)

Human tissue quality system related to the production of heart valves
(medical insruments)
FEBRUARY 2017

ISO 13485 certification renewed for medical instruments

MAIN ACTIVITIES AND ACCOMPLISHMENTS

880
DONORS WHO DONATED

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

4,782
TISSUES DISTRIBUTED

NEW
HÉMA-QUÉBEC HAS BEGUN DISTRIBUTING THE ARTERIAL TISSUES
it collects and processes

Béatrice, human tissue technologist, prepares vascular tissus.

Human tissue distribution in 2016–2017

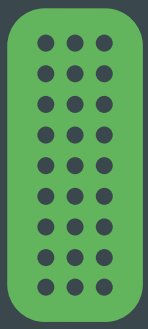
56%

DECREASE IN IMPORTED TISSUES

(other than ocular) through improved self-sufficiency in human tissues

46%
OF TOTAL DISTRIBUTIONS
are musculoskeletal products

25%
INCREASE IN DISTRIBUTION
of musculoskeletal products



22%
OF THE DISTRIBUTED PRODUCTS
are skin tissues intended for severe burn victims

100%

OF REQUESTS FULFILLED

despite the decline in distribution

51%

INCREASE

in the distribution of valve and vascular products

CORNEA SELF-SUFFICIENCY

achieved as of March 31, 2017

Growth in local cornea distributions: ▲ **14%**

Decrease in imported cornea distributions: ▼ **14%**

HUMAN TISSUE DISTRIBUTION

	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
Valve and vascular products	47	40	61	39	59[1]
Skin products	1,231	1,340	1,090	1,489	1,036
Musculoskeletal products (tendons, bone chips, femoral heads)	1,281	1,292	1,371	1,768	2,214
Corneas	429	561	448	606	689
Scleras	381	445	416	460	468
IMPORTS					
Imported human tissues	96	85	28	73	32
Imported corneas	306	249	337	205	176
Imported amniotic membranes	–	–	92[2]	94	108
Grand total	**3,771**	**4,012**	**4,080**	**4,734**	**4,782**

[1] The distribution of arterial tissues collected and manufactured by Héma-Québec began in 2016–2017.

[2] Year in which the distribution began.

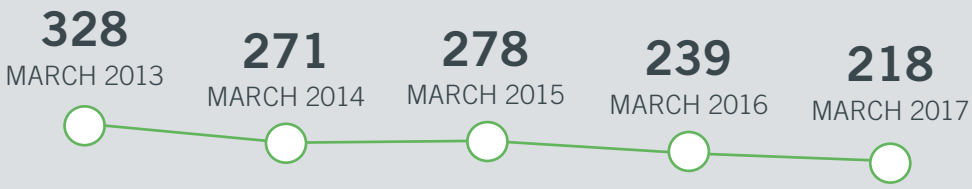
Wait time for corneal transplants

Since January 2009, Héma-Québec has been responsible for donor qualification, collection, the regulatory framework and the supply of corneas to surgeons in Québec.

The number of patients waiting for a corneal transplant went from 704 in February 2011 to 218 in March 2017, a 69% drop. As for the average waiting period, it is now less than three months, compared with five years in 2011.

This turnaround was made possible thanks to the supply dynamics deployed and the sustained efforts of all partners in the Québec healthcare system.

NUMBER OF PATIENTS WAITING FOR A CORNEAL TRANSPLANT



Agreement with SigmaSanté for the supply of human tissues for Québec hospitals

Forty-nine hospitals adhered to an agreement between Héma-Québec and SigmaSanté, an organization that manages the joint supply of health and social services establishments, enabling them to obtain quality grafts at competitive rates from Héma-Québec.

The new agreement will promote the purchase of local human tissues, as well as simplify the administrative and contractual arrangements related to the supply of quality grafts.

Bilamellar skin production: feasibility study completed

Héma-Québec continued its collaboration with the *Laboratoire d'organogénèse expérimentale* (LOEX) for the production of autologous reconstructed bilamellar skin grafts. Few treatments are currently available for severe burn victims, and those that are available are associated with a high risk of reaction. Being produced from cells derived from the skin of the patient to be treated, this reconstructed skin would considerably reduce the risk of rejection following the grafting of severe burn victims.

The feasibility study has been completed and has made it possible to:

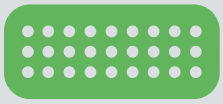
- evaluate the LOEX technology and optimize its manufacturing process; and
- assess Héma-Québec's ability to produce reconstructed bilamellar skin in white rooms.

With the mandate being completed and considering the shutdown of cell production activities, the transfer of the technology to Héma-Québec will not be carried out. For more information on the ceasing of cell production activities, see page 76.

Héma-Québec collects the following human tissues:

Corneas

Heart valves



Skin tissues

Arterial tissues
(abdominal aortas, arteries)

Musculoskeletal tissues
(ligaments, tendons, bone chips, femoral heads)

ACCOMPLISHMENTS
BY ACTIVITY SECTOR

MOTHER'S MILK

Bottles of mother's milk delivered to hospitals

9,865

Kathleen, with her daughter Justine, mother's milk recipient.

ISSUES AND PRIORITIES

Ensure a sufficient supply

The Public Mothers' Milk Bank is mandated to supply pasteurized human milk to premature babies born at 32 weeks or earlier whose mother is not able to breastfeed. However, the current supply does not fully meet needs.

An action plan has been deployed to increase the quantity of qualified milk available to meet the needs.

Review of recruitment criteria

Since July 2016, any mother who is breastfeeding her child under the age of 12 months and who wishes to donate her surplus milk can register according to her place of residence (Montréal or Québec City areas) rather than the hospital where she gave birth. Previously, only women who had given birth in certain hospitals were eligible to donate their milk. Recruitment activities have also been intensified.

Donor awareness activities were conducted to minimize the possibility of bacterial contamination of the milk.

Start of a partnership to optimize operations

A process to optimize operations aimed in particular at increasing the production capacity of the milk bank was also introduced at the end of the year with the Toyota Production System Support Center (TSSC), which will use its expertise under a partnership agreement concluded through the *Fondation Héma-Québec*.

RISK MANAGEMENT

Microbiological testing of mother's milk

Since the spring of 2016, the regulatory testing laboratory team has been working to establish a microbiology laboratory for bacterial testing. Testing to qualify the milk of the Héma-Québec Public Mothers' Milk Bank was previously assigned to the *Laboratoire de santé publique du Québec* (LSPQ).

The redesign of the laboratory and validation of the equipment needed for the testing were completed during the year. The laboratory technicians were also trained. As of March 31, all that was left to do was complete the trials.

Collaboration with the LSPQ will continue, enabling Héma-Québec to benefit from the expertise of this specialized laboratory.

France, mother's
milk donor

Frozen mother's milk bottles ready for delivery.

MAIN ACTIVITIES AND ACCOMPLISHMENTS

Over the past year, the Public Mothers' Milk Bank reached a major milestone by distributing its 10,000th bottle of milk. Since the start of operations, 13,721 bottles have been distributed with 9,865 distributed in 2016–2017.

According to current estimates, 260 donors must be active at all times to adequately meet the demand. Since a mother participating in the Public Mothers' Milk Bank supplies milk for an average of six months, Héma-Québec estimates that 500 active donors are required yearly to meet the demand. In 2016–2017, 377 mothers sent milk to Héma-Québec, out of a pool of 695 registered mothers. As of March 31, 180 mothers were contributing.

PUBLIC MOTHERS' MILK BANK IN NUMBERS

9,865
BOTTLES DISTRIBUTED

695
REGISTERED DONORS

377
ACTIVE DONORS

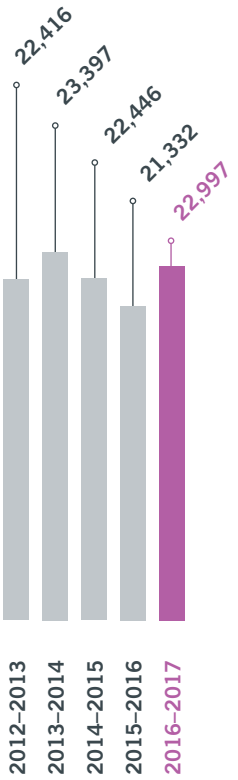
ACCOMPLISHMENTS
BY ACTIVITY SECTOR

SPECIALIZED SERVICES

Analyses performed for hospitals by the reference laboratories

4,130

PHENOTYPED RED BLOOD CELLS DELIVERED TO QUÉBEC HOSPITALS



Reference and stem cell laboratories

The reference and stem cell laboratories respond to numerous requests for specialized testing. These include requests from hospitals for phenotyped blood, erythrocyte or leuko-platelet immunology studies and erythrocyte and platelet genotyping studies.

The HLA laboratory performs HLA typing on cord blood units and adult donors registered in the Stem Cell Donor Registry.

Since July 2016, Héma-Québec also performs genotyping on blood donors, enabling better compatibility for patients with special needs in transfusion medicine.

New specialized testing for Quebecers

Héma-Québec, at the request of the *Comité consultatif national de médecine transfusionnelle* (CCNMT) following the recommendations of the *Direction de la biovigilance et de la biologie médicale du Québec*, offers a new testing service to all Québec hospitals since June 2016. This new service standardizes genetic testing to correctly identify the RhD blood group in women aged 45 and under when the result is undetermined following tests performed in hospitals. These tests help to make an informed decision about the treatment to be provided for the prevention of a newborn disease caused when the mother and the fetus have different RhD blood groups.

Thus, from June 2016 to March 31, 2017, one-third of the 315 tests performed confirmed that no additional treatment was necessary.

SPECIALIZED TESTS PERFORMED

	2012–2013	2013–2014	2014–2015	2015–2016	2016–2017
Erythrocyte immunology (patient cases)	1,342	1,430	1,550	1,591	1,558
Platelet immunology (patient cases)	383	483	461	476	472
Erythrocyte genotyping (patient cases)	4,721 (550)[1]	2,832 (588)[1]	548[1]	575	862[2]
Erythrocyte genotyping (donors)	–	–	–	–	1,128[3]
HLA A, B, C, DR, DQ typing	7,292	7,700	14,804[4]	11,176[4]	5,333

[1] The number of erythrocyte genotyping tests refers to the genotypes tested for patient cases. Several genotypes can be tested for a given patient and, to date, the genotyping analyses performed have varied based on the request. Since 2015, patient cases have been tested using a new genotyping platform with systematic complete genotyping. In order to better reflect estimates, erythrocyte genotyping is now expressed in number of patient cases.

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

[3] Year in which donor genotyping began.

[4] Increase due to the record increase in Stem Cell Donor Registry registrations in 2014–2015.

Testing service for Transplant Québec

Since June 2015, Héma-Québec has been providing testing services to Transplant Québec for qualification tests that are not carried out in hospitals.

Before a donor's organs are removed for transplant, a series of tests are conducted to determine whether the donor is carrying viruses or blood-borne infections. These tests must be obtained promptly and performed using equipment approved by Health Canada. Some equipment is found in hospitals, but not for nucleic acid tests (NAT). As this equipment is found at Héma-Québec's regulatory testing laboratory, a partnership agreement was signed with Transplant Québec to provide this service 24 hours a day, 7 days a week.

The addition of an on-call service to handle requests received outside of regular working hours was successfully implemented through the collaboration of employees and the laboratory technicians' union. The regulatory testing laboratory commits to providing the results within eight hours of receipt. This objective is achieved in almost all cases.

125
SAMPLES
processed in
2016–2017

83%
OF TESTING PERFORMED
outside regular
working hours

98%
OF RESULTS SENT WITHIN

8
hours

RESULTS PERTAINING TO

ORGANIZATIONAL OBJECTIVES

OBJECTIVE 1

Accelerate the quality shift that has already begun

OBJECTIVE 2

Continue efficiency efforts

OBJECTIVE 3

Continue the shift towards a culture of excellence

OBJECTIVE 4

Develop a new integrated risk management framework

OBJECTIVE 5

Design the new strategic plan

Marie-Pier, assistant human tissue technologist.

OBJECTIVE 1

Accelerate the quality shift that has already begun

Ensure greater safety by managing issues raised by complaints more quickly.

New complaint management system implemented

A redesign of the complaint management system, deployed in October 2016, simplifies and standardizes the receipt and management of complaints. The objectives are multiple:

- ensure greater safety by managing the issues raised by complaints more quickly;
- provide better customer service;
- better meet regulatory requirements; and
- have an overview of trends.

The various complaints management databases are now consolidated into a single computer application that was developed by Héma-Québec.

Mapping of operational processes completed

As part of the redesign of the quality system, Héma-Québec completed the mapping of business processes across all areas of activity. The exercise created a visual representation (diagram) of the sequence of activities in Héma-Québec's production and service processes.

This overview of the organization's business processes helps to better understand the interrelations between the organization's various sectors. Each process will then be analyzed and reviewed according to its level of risk in order to validate the control points in place.

Overhaul of the non-compliance management process

Management of non-compliances provides an opportunity to learn about deviations in the ways a task is performed in the production of a biological product of human origin and to detect, assess and document the risks and take corrective action.

The non-compliance management process has undergone a major overhaul in order to standardize and optimize the existing system. The handling of non-compliances will be carried out according to predetermined methods and criteria, thus ensuring a better monitoring and overview of trends as well as improved risk management.

OBJECTIVE
2

Continue efficiency efforts

Donor recruitment is a key element of the plasma self-sufficiency strategy.

Achieving the targets of the plasma self-sufficiency strategy

PLASMAVIE Plasma Donor Lounges and the Québec City GLOBULE Blood Donor Centre reached 90% of plasma fractionation targets for the 2016–2017 fiscal year

Donor recruitment is a key element of the plasma self-sufficiency strategy. The *Fondation Héma-Québec* has offered increased financial support to the *Association des bénévoles du don de sang* (ABDS) to enhance this partner's efforts in recruiting plasma donors. The ABDS has greatly contributed to the recruitment of plasma donors over the past year, in particular by deploying teams of volunteers in all regions where a PLASMAVIE Lounge is active.

Employees who are in contact with donors have also been involved in recruiting, retaining and converting blood donors into plasma donors. As such, 80.7% of new plasma donors who donated to a donor centre over the year had previously donated blood.

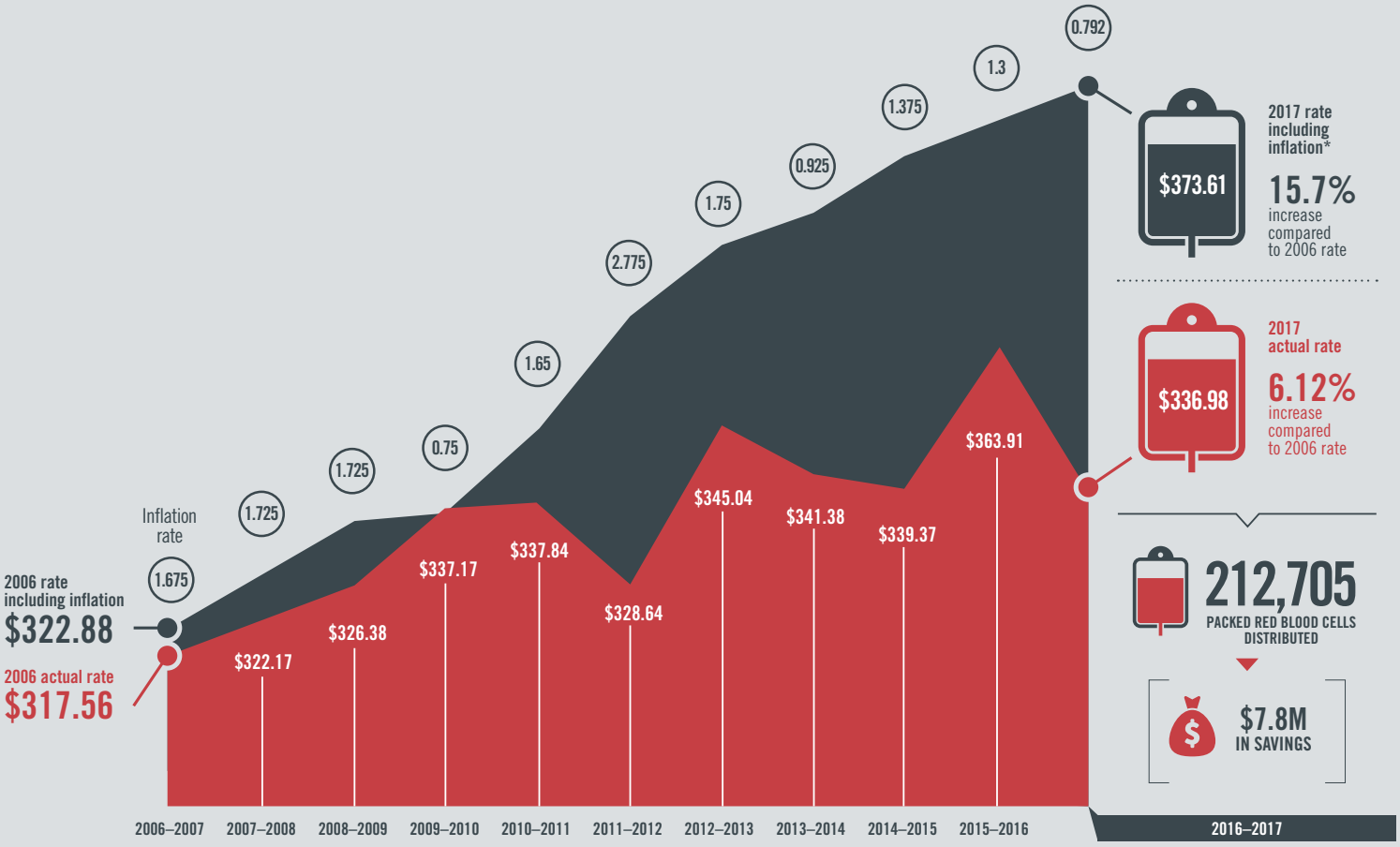
Maintaining rate increases below the consumer price index for blood products

Efficiency gains since 2009 have once again made it possible to keep rate increases below inflation. In 2016–2017, the price of packed red blood cells, the main labile product distributed by Héma-Québec, was $336.98, compared with $363.91 the previous year.

It should be noted that the 2015–2016 rate was greatly affected by the coming into force of the *Act to amend the Supplemental Pension Plans Act* mainly with respect to the funding of defined benefit pension plans concerning pension plans as well as non-recurring items. Also, an adjusted rate of $339.15 had been presented. This year, the actual base price decreased by $2.17 (0.6%) compared with this adjusted rate.

In addition, the rate indexed to inflation since 2006 would now be $373.61. Taking inflation into account, it now costs 15.7% less for the healthcare system to obtain packed red blood cells than it cost in 2006–2007, despite the introduction of several measures to ensure product safety.

CHANGES IN THE RATE FOR PACKED RED BLOOD CELLS



$33.9M IN SAVINGS

over 10 fiscal years compared to the increase in the consumer price index (CPI)

*The rate including inflation refers to what the rate would have been if it had increased at the same rate as inflation.

OBJECTIVE
2

The tendering process helps to keep the products accessible, while allowing the Québec health system to obtain them at the best possible price.

Call for tenders for stable products: savings of $200 million over five years

A public call for tenders was made to suppliers during the year for 11 different products of plasmatic and recombinant origin, several of which were in the immunoglobulin family. Immunoglobulins represent two-thirds of the value of all stable products distributed by Héma-Québec. This process helps to keep the products accessible, while allowing the Québec health system to obtain them at the best possible price. To participate in the call for tenders, a supplier must offer a product that is both as safe and as efficient as those currently distributed.

The outcome of the call for tenders will not only change the product offering but will also result in estimated savings of $200 million over five years compared with previous contractual arrangements.

Several stakeholders were consulted throughout the process. Various selection committees were also formed, involving multiple stakeholders:

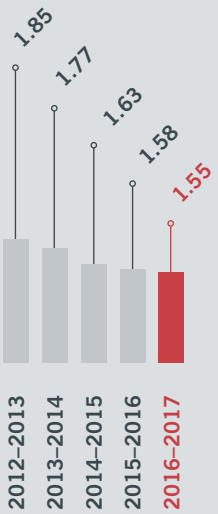
- medical specialists from a variety of fields (neurology, immunology, allergology, anesthesiology, hematology, infectiology, microbiology);
- recipient representatives from the main organizations and associations representing the groups of recipients concerned (Canadian Hemophilia Society, *Association des patients immunodéficients du Québec*).

The Héma-Québec Board of Directors and the Recipient Representatives Advisory Committee ensured that the process met recipients' expectations.

The transition plan between old and new products has begun. Héma-Québec has worked closely with recipient groups to prepare the transition and communications with patients. Lastly, the participation of a large number of stakeholders fostered greater support for the change.

OBJECTIVE
2

NUMBER OF HOURS WORKED PER PRODUCT



The graph above illustrates the number of hours worked per product collected in mobile blood drives and in GLOBULE Blood Donor Centres for the following five employment types: nurse, blood drive agent, blood drive technical assistant, registration clerk and driver.

The quicker the plasma is frozen, the more proteins can be extracted from it.

Workforce adaptability

The latest agreements with trade unions on workforce adaptability have resulted in a diversification of the duties of registration personnel, blood drive technical assistants and drivers. Over the year, Héma-Québec continued to optimize these changes.

In this context, an agreement was signed with the Montréal drivers group, leading to a revision of the hiring criteria for this job title in order to facilitate the acquisition of new talent meeting the specific needs of the organization. Héma-Québec is proud to offer development opportunities to its new employees, combining the responsibilities of driving a vehicle with customer service.

This new approach is particularly appealing in that it brings greater organizational flexibility and improves staff utilization. This strategy allows for the dynamic management of human resources by leveraging skills and employee engagement.

The number of hours worked per product collected also decreased: a collected product required 1.55 hours of work in 2016–2017. It should be noted that, ultimately, the objective is to achieve an index of 1.25 hours per collected product.

Freezing of plasma for fractionation in donor centres

The freezing of plasma for the manufacture of medications is an important issue because the quicker the plasma is frozen, the more proteins can be extracted from it. The plasma freezing process has therefore been revised (particularly for Factor VIII) to be able to preserve more proteins and better meet international standards.

In the past, plasma units were frozen in laboratories at Héma-Québec's facilities. PLASMAVIE Plasma Donor Lounges in Sherbrooke and Gatineau are now freezing the plasma units collected on-site within 24 hours of collection. Once the freezing process has begun, the plasma must be completely frozen within 12 hours before being shipped for fractionation. With Factor VIII being better preserved, it will be possible to manufacture an additional product with Québec plasma and even achieve self-sufficiency for this product. The Saguenay and Trois-Rivières PLASMAVIE Lounges will follow suit in the next year.

OBJECTIVE
2

The T4 device contributes to the collection of additional plasma.

A new collection device contributing to plasma collection

The T4 collection device was introduced at blood drives in July 2016. One of its advantages is that it collects an additional quantity of blood during a donation, thus contributing to the collection of additional plasma. In 2016–2017, about half of the blood drive collection devices were replaced with the T4. This measure resulted in the collection of almost 2,000 litres of additional plasma. This amount will increase when all collection devices are replaced.

Shutdown of cell production activities

In September 2015, Héma-Québec announced its decision to abandon construction of the C·LAVIE complex and redirect cell production activities towards products in which the organization is already active (blood products, human tissues, stem cells). An international benchmarking exercise for cell production and the assessment of existing capabilities and skills had also been announced.

Over the past year, this benchmarking exercise was completed and the results prompted the organization to announce the shutdown of cellular production activities as of March 20, 2017. Consequently, the *vice-présidence à la recherche et au développement* has reorganized its structure. It continues with its mandate of supporting Héma-Québec in carrying out its mission through its scientific expertise.

Lastly, transition measures were planned with the *CHU Sainte-Justine* and LOEX teams with which Héma-Québec had cell production projects under way. See pages 50 and 57 for more details on these projects.

OBJECTIVE
3

Continue the shift towards a culture of excellence

Promoting continuous improvement and innovation initiatives

An interactive platform accessed from the organization's intranet portal makes use of the creative and innovative potential of all employees. Known as the *Boîte à idées,* it contributes to the organization's goal of fostering continuous improvement and innovation initiatives. A total of 469 ideas have been submitted. Of these, 164 were implemented over the year.

Employees can suggest ideas for improvement or ask for a problem to be solved and track the progress up to implementation. Managing wait times for registration and the optimization of priority management on the collection floor at blood donor centres, redesigning workspaces and coordinating appointment changes at blood drives are some of the proposed ideas that have been put into action. Improvements were made to the platform during the year to facilitate the search and follow-up of ideas.

469
IDEAS SUGGESTED IN 2016–2017 WITH A TARGET OF 500

164
IDEAS IMPLEMENTED* WITH A TARGET OF 125

171
IDEAS IN THE PROCESS OF BEING IMPLEMENTED*

55
IDEAS UNDER ASSESSEMENT

29 DEPARTMENTS CONCERNED, MAINLY:

> mobile blood drives
> GLOBULE Centres
> planning, donor recruitment and marketing
> PLASMAVIE Lounges

*Some of these ideas may have been submitted in 2015–2016 as well.

OBJECTIVE
3

A new version of the performance management process will help to focus everyone's efforts.

Optimization of organizational development

Organizational values are critical guidelines for employee soft skills. The values identified to support the actions, decisions and behaviors Héma-Québec fosters are: integrity/honesty, respect, commitment and accountability. These values, shared by all employees, reflect the hopes and commitment of Héma-Québec's great team and are the pillars of its organizational culture.

Performance management process

This year, a new version of the performance management process for non-unionized staff promotes directing one's efforts towards activities that directly support the organization's objectives while being in line with its values.

A few facts about the optimized process:

> Value-related behaviors are now an integral part of the performance management process.

> The result is a better alignment between the objectives to be met (organizational, sectoral—division, department, service—and individual) and the behaviors to be fostered in relation to our values.

Leadership development

The first cycle of the leadership development accelerator launched in 2013 and offered to managers was completed during the course of the year. Its main objective was to equip managers with fundamental knowledge and experience pertaining to their role as a manager from various angles. Specific skills in communication, empowerment and mobilization were developed to the benefit of all participants.

Talent and succession management

Héma-Québec wants to further encourage the development of its employees based on the needs of the organization, particularly those associated with succession planning. A talent management and succession strategy has been designed to develop the program structure and its implementation, as planned by one of the orientations of the strategic plan.

OBJECTIVE
4

Develop a new integrated risk management framework

Work to design a new integrated risk management framework is underway and will continue next year as part of the 2017–2020 Strategic Plan.

OBJECTIVE
5

Design the new strategic plan

Development of the new strategic plan provided an opportunity to review Héma-Québec's vision and mission statements.

Putting together Héma-Québec's 2017–2020 Strategic Plan is the work of multiple stakeholders: the Board of Directors and its committees, the Management Committee, managers and employees. This exercise also provided an opportunity to review Héma-Québec's vision and mission statements to better reflect the direction chosen for the coming years. These can be found on pages 8 and 9.

The Board of Directors, its committees and managers have worked closely with the Management Committee to define the context of the organization and its environment. In particular, the managers' field expertise was put to use through their participation in consultation exercises, including focus groups.

This stakeholder teamwork helped to determine the strategic orientations. Subsequently, working groups comprised of managers and chaired by the vice-presidents were involved in drafting the focuses, objectives and key indicators for each of the orientations.

Lastly, the Board approved the orientations, objectives, indicators and targets on February 22, 2017.

A deployment plan has been developed with the goal of fostering better adherence from all Héma-Québec employees and partners. A committee of dynamic employees known for their dynamism and their ability to contribute to thought processes, hailing from various departments, was formed to contribute to the deployment strategy.

HÉMA-QUÉBEC

2017–2020 STRATEGIC PLAN

6 STRATEGIC ORIENTATIONS

Héma-Québec will implement six strategic orientations that reflect the challenges and key issues it faces in order to become a strategic partner serving the Québec healthcare system.

6

STRAT
ORIENT

1

By comparing its practices with those of the leaders in its field, and taking the necessary steps to achieve its objectives for the benefit of its partners and assuming its responsibility for the results

2

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

6 TEGIC ATIONS

6

By developing the skills of its employees and mobilizing them by implementing a talent and succession management program

5

By taking advantage of digital technology to improve its communication with its partners

4

By modernizing and streamlining its processes in order to be more effective

3

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

HÉMA-QUÉBEC

GOVERNANCE

BD

ACTIVITIES AND STRUCTURE
OF THE BOARD OF DIRECTORS

MC

MANAGEMENT COMMITTEE

ACTIVITIES AND STRUCTURE OF THE BOARD OF DIRECTORS

Structure of the board of directors

A new member of the Board of Directors was appointed by the *gouvernement du Québec* on October 19, 2016: Caroline Barbir, recommended by the CEOs and executive directors of public institutions (health).

The Governance and Ethics Committee continued to work with groups and associations to find candidates who fit the skill profiles sought and established by the Board of Directors. The goal is to maintain a proper balance of experience and expertise on the Board, based on the organization's activities, as well as to ensure the representation of:

- the various groups in the transfusion chain, pursuant to the *Act respecting Héma-Québec and the Biovigilance Committee;* and
- the diversity of the Québec population.

Following these efforts, applications were submitted to the government to fill vacancies and to replace certain members whose term of office had expired.

Strategic planning

The Board of Directors and the Governance and Ethics Committee were instrumental in all stages of the development of the 2017–2020 Strategic Plan, working in synergy with the Executive Committee. The other Board committees as well as the advisory committees were also involved, improving the analysis of the organizational context and capacity by proposing topics specific to their respective fields of expertise.

In addition to being an integral part of this planning, the Board approved each of the components of the strategic plan, as detailed in the table below.

APPROVAL BY THE BOARD OF DIRECTORS

Shutdown of cell production activities

The Board of Directors approved the proposal to cease cellular production activities as set out on page 76.

Consequently, the Cell and Tissue Production Advisory Committee (a committee created by the Board) was abolished. This committee's mandate was to evaluate cell production projects submitted by partners.

Approval of a visibility plan for the *Fondation Héma-Québec*

A visibility framework between Héma-Québec and the *Fondation Héma-Québec* was approved by the Board in December 2016. It establishes the principles for the solicitation, recognition and visibility of the foundation's donors in the activities of Héma-Québec and is structured around three areas:

- sponsorships;
- recognition; and
- promotion of the *Fondation Héma-Québec*.

It is part of the increased collaboration that began in 2015 in order to identify the priority projects for which Héma-Québec needs funding, highlighting the foundation's support role in some of our activities.

A visibility framework sets out the principles for the solicitation, recognition and visibility of the Foundation's donors in Héma-Québec's activities.

FONDATION
HÉMA-QUÉBEC

Members of the Board of Directors

RECIPIENTS

Martine Carré
Chair
Corporate Director
Leucan member

PUBLIC HEALTH

Michèle Beaupré Bériau
Vice-Chair
Corporate Director

HÉMA-QUÉBEC

Serge Maltais
Secretary
President and Chief Executive Officer
Héma-Québec

PRESIDENTS AND CEOs AND EXECUTIVE DIRECTORS OF PUBLIC INSTITUTIONS*

René Carignan, CPA, CA
Financial and Tax
Consultant

Caroline Barbir
President and CEO
Centre intégré de santé et de services sociaux de Laval

DONORS AND VOLUNTEERS

Wilson Sanon
President, Founder and
Executive Director
Association d'anémie falciforme du Québec

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

BUSINESS COMMUNITY

Christine Beaubien

Corporate Director
President, Groupe BSC

Jean-Frédéric Lafontaine

Director, Government
Relations – Québec
AstraZeneca Canada Inc.

Pierre Thivierge, CPA, CA

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

COLLÈGE DES MÉDECINS DU QUÉBEC

Dr. Jean-Marie Leclerc

Hematologist-oncologist
Centre hospitalier universitaire Sainte-Justine

SCIENTIFIC RESEARCH COMMUNITY

Daniel Beaupré

Full Professor, Department of
Organization and Human resources
School of Management
Université du Québec à Montréal

ORDRE DES COMPTABLES PROFESSIONNELS AGRÉÉS DU QUÉBEC

Vacant

BIOVIGILANCE COMMITTEE OBSERVER

Vacant

Board committees

EXECUTIVE COMMITTEE	GOVERNANCE AND ETHICS COMMITTEE
Martine Carré, Chair of the Board of Directors	**Michèle Beaupré Bériau**, President
Michèle Beaupré Bériau, Vice-Chair of the Board of Directors	**Martine Carré**
Serge Maltais, Secretary of the Board of Directors	**Jean-Frédéric Lafontaine**
René Carignan, CPA, CA, Director	**Wilson Sanon**
Dr. Jean-Marie Leclerc, Director	

AUDIT COMMITTEE	HUMAN RESOURCES AND COMPENSATION COMMITTEE
René Carignan, CPA, CA, Chair	**Martine Carré,** Chair
Dr. Jean-Marie Leclerc	**Christine Beaubien**
Pierre Thivierge, CPA, CA	**Caroline Barbir**
Jean-Frédéric Lafontaine	**Daniel Beaupré**

INFORMATION RESOURCES COMMITTEE	
DIRECTOR MEMBERS	**Christine Beaubien,** Chair
	Martine Carré
	René Carignan, CPA, CA
EXTERNAL MEMBERS	**Michèle Bureau** Consultant, Information Technology and e-business *Bureau et Associés inc.*
	Robert Charbonneau Consultant, Information Technology
	Pierre Montminy Senior Advisor Head of IT practices, *E3 Services Conseils*

Advisory committees

RECIPIENT REPRESENTATIVES ADVISORY COMMITTEE

Fields represented	Members
COCQ-SIDA	*Chair* **Michel Morin**
ASSOCIATION DES PATIENTS IMMUNODÉFICIENTS DU QUÉBEC	**Martine Allard**
	Jean-Philippe Michaud
CANADIAN HEMOPHILIA SOCIETY, QUÉBEC BRANCH	**Marius Foltea**
	Pascal Mireault
CANADIAN TRANSPLANT ASSOCIATION	**Gaston Martin**
ASSOCIATION D'ANÉMIE FALCIFORME DU QUÉBEC	**Delano George**
LEUCAN	**Pierre Verret**
LEUKEMIA & LYMPHOMA SOCIETY OF CANADA	**Pascale Rousseau**
BOARD OBSERVERS	**Martine Carré**
	Wilson Sanon

SAFETY ADVISORY COMMITTEE

Fields represented	Members
PUBLIC HEALTH	*Chair* **Dr. Bryce Larke** Medical Virologist Virologie, ProvLab, Edmonton, Canada
INFECTIOUS DISEASES	**Dr. Susan Stramer** Vice-President of Scientific Affairs, Biomedical Services American Red Cross, Gaithersburg, United States
	Dr. Hans L. Zaaijer Professor, Medical Microbiology Sanquin Blood Supply Foundation, Academic Medical Centre, Amsterdam, Netherlands
EPIDEMIOLOGY	**Dr. Steven Kleinman** Biomedical Consultant Victoria, Canada
TRANSFUSION MEDICINE AND PRACTICES	**Dr. Luiz Amorim** President and Chief Executive Officer Hemorio, Rio de Janeiro, Brésil
	Dr. Rebecca Cardigan National Head of Components Development NHS Blood and Transplant, Cambridge, United Kingdom
	Dr. James P. AuBuchon President and Chief Executive Officer Bloodworks Northwest, Seattle, United States
	Dr. Louis M. Katz Chief Medical Officer America's Blood Centers, Washington, United States
	Dr. Reinhard Henschler Medical Director Swiss Red Cross Blood Centres, Zurich and Chur, Switzerland
CANADIAN BLOOD SERVICES	**Dr. Margaret Fearon** Medical Director, Medical Microbiology Canadian Blood Services, Toronto, Canada
PUBLIC REPRESENTATIVE	**David Page** National Executive Director Canadian Hemophilia Society, Montréal, Canada
REPRESENTATIVE OF THE RECIPIENT REPRESENTATIVES ADVISORY COMMITTEE	**Marius Foltea** Canadian Hemophilia Society, Québec branch Montréal, Canada
BOARD OBSERVER	**Dr. Jean-Marie Leclerc** Hematologist-oncologist *Centre hospitalier universitaire Sainte-Justine*

SCIENTIFIC AND MEDICAL ADVISORY COMMITTEE

Fields represented	Members
IMMUNOLOGY	*Chair* **Yves St-Pierre** Full Professor *INRS – Institut Armand-Frappier,* Laval, Canada
	Srini V. Kaveri Director Office of the *Centre national de la recherche scientifique* New Delhi, India
DIAGNOSTIC TECHNOLOGY	**Michel Houde** Senior Consultant, Medical Device Development LOK Group North America, Laval, Canada
TRANSFUSION MEDICINE	**Dr. Jean-François Hardy** Anesthesiologist *Centre hospitalier de l'Université de Montréal* Full Professor, Anesthesiology Department *Université de Montréal,* Canada
	Dr. Vincent Laroche Hematologist and Blood Bank Director and Associate Director of Clinical Research *Centre hospitalier affilié universitaire de Québec* Hematologist and Blood Bank Director Québec Heart and Lung Institute, Canada
BIOTECHNOLOGY	**Bernard Massie** Director Bioprocess Centre, National Research Council of Canada (Biotechnology Research Institute), Montréal, Canada
HEMATOPOIESIS	**Julie Audet** Assistant Professor Associate Director Institute of Biomaterials and Biomedical Engineering University of Toronto, Canada
CANADIAN BLOOD SERVICES	**William P. Sheffield** Associate Director, Research and Principal Investigator Centre for Innovation, Canadian Blood Services, Ottawa, Canada Professor, Pathology and Molecular Medicine McMaster University, Hamilton, Canada
REPRESENTATIVE OF THE RECIPIENT REPRESENTATIVES ADVISORY COMMITTEE	**Marius Foltea** Canadian Hemophilia Society, Québec branch, Montréal, Canada
HÉMA-QUÉBEC BOARD OBSERVER	Vacant

RESEARCH ETHICS COMMITTEE

Fields represented	Members
LAW	**Geneviève Cardinal Atty** Research Ethics Committee, *Centre hospitalier universitaire Sainte-Justine,* Montréal, Canada
LAW, SUBSTITUTE LEGAL EXPERT	**Mélanie Champagne Atty** Lawyer Borden Ladner Gervais, Montréal, Canada
RESEARCH FIELD SPECIALISTS	*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, Canada
	Michel Vincent Full Professor Department of Molecular Biology, Medical Biochemistry and Pathology Institute for Integrative Systems Biology, Faculty of Medicine, *Université Laval,* Québec, 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, 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

MANAGEMENT COMMITTEE

Serge Maltais
President and Chief Executive Officer

Yves Blais
Vice-President, Research and Development

Simon Fournier
Vice-President, Information Technology

Dr. Marc Germain
Vice-President, Medical Affairs, and Medical Director, Human Tissues

Smaranda Ghibu Atty
Vice-President, Corporate Affairs

Annie Gingras
Vice-President, Quality and Regulatory Affairs

Luc Vermeersch
Vice-President, Finance and Administration

Roselyne Zombecki
Vice-President, Human Resources

LEGISLATIVE

REQUIREMENTS

COMPLIANCE WITH LAWS

DIRECTORS' CODE OF ETHICS

Electric and hybrid vehicles in Héma-Québec's fleet travelled 115,156 km.

COMPLIANCE WITH LAWS

Sustainable development act

A new sustainable development action plan that is aligned with the new *Government Sustainable Development Strategy 2015–2020* has been implemented. The plan covers five objectives considered to be key in the new strategy.

The following government directions and objectives were adopted:

- **Government direction 1** – Strengthen sustainable development governance throughout the public administration
  - > **Objective 1.1** – Strengthen eco-responsible management practices in the civil service
  - > **Objective 1.2** – Strengthen the consideration of sustainable development principles by ministries and public bodies
  - > **Objective 1.5 –** Strengthen access to and participation in cultural life as a lever for social, economic and territorial 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 5.1** – Take steps to make living environments healthier and safer

- **Government direction 6** – Ensure sustainable land development and support community vitality
  - > **Objective 6.2** – Strengthen community capabilities to support dymanic economic and social land development

Some of the objectives of the government strategy have not been included in the sustainable development plan; the organizational reality made these objectives obsolete. A prioritization of the objectives was carried out in order to optimize the actions that could contribute to the government objectives. The following table describes the actions of the plan.

	HÉMA-QUÉBEC ACTIONS	RELATED OBJECTIVES	MEASUREMENT POINTS	RESULTS
1	Optimize deliveries to hospitals in connection with the opening of PLASMAVIE Lounges	1.2 6.2	• Number of deliveries	• No change from last year.
2	Promote carpooling	1.2	• Number of users • Number of carpoolers registered	• Application facilitating carpooling of employees between different establishments (under development). • Number of carpool vignette users stable (34 users).
3	Continue the annual activity of distributing trees and plants	1.2 1.5 6.2	• Number of sites that participated • Number of employees who participated	• More than 2,200 plants distributed to 500 employees, in all the organization's facilities (10).
4	Maintain and develop tools for working remotely	1.2	• Number of training sessions • Number of participants	• Videoconferencing rooms set up to meet organizational needs, reducing GHG emissions associated with travel for meetings. • The Campus e-learning platform now being used for all regular training courses (minimum six 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 members of staff who have to follow regulatory procedures (approximately 800 people) can be validated on line.
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	• About ten contracts include specific clauses pertaining to ecological aspects and sustainable development. • New partnership with an organization to deploy a program promoting surplus and scrap recovery. The first phase has been completed.
6	Promote the use of hybrid and electric vehicles	1.2 2.1	• Use of electric and hybrid vehicles	• Electric and hybrid vehicles in Héma-Québec's fleet travelled 115,156 km. • Ongoing analysis to assess the feasibility of installing electric vehicle charging stations in the parking lots of the various donor centres.
7	Minimize the expiry of blood products	1.2 6.2	• Internal expiry rate • Follow-up and awareness raising among hospital clients	• Expiry rates at Héma-Québec reduced: > Red blood cells: 0.14% in 2015–2016 to 0.05% in 2016–2017 > Platelets: 3.9% in 2015–2016 to 2.4% in 2016–2017

	HÉMA-QUÉBEC ACTIONS	RELATED OBJECTIVES	MEASUREMENT POINTS	RESULTS
8	Continue efforts towards becoming a paperless company	1.2	• Amount of paper for recycling/trash	• Amount of materials recycled at the Montréal facility: > Cardboard: 27.5 metric tons (mt) > Paper: 7.8 mt > Plastic: 1.5 mt Data not available for other facilities.
9	Encourage alternative methods to individual car transport	1.2 2.1	• Number of participants	• Approximately 10% of employees (140) subscribe to transit incentive programs.
10	Continue photography courses and review the display concept	1.5	• Number of participants • Report for each of the events	• 26 employees participated in the photography courses given at the Montréal and Québec City facilities. • Display deployed in the organization's ten facilities.
11	Develop local partnerships in connection with PLASMAVIE Lounges	1.5 6.2	• Number of jobs created • Number of local suppliers	• Locally outsourced rental improvements, recruitment efforts and organization of activities with the community.
12	Maintain the annual influenza vaccination program for staff	5.2	• Number of employees vaccinated	• 304 employees vaccinated on a voluntary basis in all of the organization's facilities.
13	Update the program for reimbursement of expenses related to physical activity and sports events	5.2	• Number of employees participating	• 76 people received a refund for participation in one or more sporting events. • 200 people received a partial refund for physical activity expenses.
14	Continue training on the principles of the *Sustainable Development Act*	6.2	• Number of training sessions and presentations	• More than 20 publications aimed at training, informing, reinforcing eco-responsible behaviors and promoting the activities of the green committee, in relation to the sustainable development action plan, have been provided to employees.
15	Include volunteers in the plasma donation recruitment program	6.2	• Number of participants	• More than 100 volunteers have received this training.
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	• 2,391 mobile blood drives organized in partnership with organizing committees.

Héma-Québec directors are held to the highest ethical and professional standards.

Act respecting the Ministère du Conseil exécutif

Héma-Québec's directors 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 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. It was amended in 2014.

Lastly, the directors' declarations of interest are verified at the beginning of every Board or committee meeting and included in the minutes. In the current fiscal year, one case of breach of the director code of ethics was brought to the attention of the Governance and Ethics Committee and the Board of Directors. A written notice was sent to the director in question.The director code of ethics can be consulted on page 106.

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

Pursuant to section 4 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 Web site.

Requests for access to information

In 2016–2017, 13 requests for access to documents held by Héma-Québec and 8 requests for access to personal information or corrections were received. All of the requests were processed within the time frame prescribed by the *Act respecting access to documents held by public bodies and the protection of personal information*.

HANDLING OF ACCESS REQUESTS ACCORDING TO THEIR NATURE			
Nature of requests	**Handling of requests**	**2016–2017**	**Total**
Administrative documents	Accepted	7	**13**
	Partially accepted	3[1]	
	Refused	2[2]	
	Being processed	1	
Personal information	Accepted	7	**8**
	Partially accepted	1[3]	

[1] Provisions justifying decisions rendered: 1, 21, 22, 23, 24, 32, 37, 38, 39, 53 and 57 of the Act.

[2] Provisions justifying refusals: 2, 27, 32, 37, 38 and 53 of the Act.

[3] Provisions justifying decisions rendered: 53, 54 and 59 of the Act.

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 persons in charge of information security, access to information and personal information, and document management sit on the committee. Over the past year, the ISC conducted best practice intrusion tests to validate the security of its industrial park and continued the dissemination of information capsules on security and the protection of data and personal information.

Policy on the use and quality of French within the government

Héma-Québec's language policy was approved and submitted to the *Office québécois de la langue française* 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 mandatary of the Charter of the French Language, ensures the implementation of the language policy. The standing committee has created a policy section on the employee intranet site where tools and other communications of interest are disseminated.

Policy for the funding of public services

In accordance with the *Policy for the funding of public services,* information about the Héma-Québec fees to which the policy applies is provided below.

INVOICING OTHER THAN TO QUÉBEC HOSPITALS (thousands of dollars)	REVENUE	COSTS	LEVEL OF FINANCING ATTAINED
Sales of labile and stable products	380	560	67.9%*
Sales of human tissues and stem cells	1,177	1,146	102.7%

*We acquired and validated new equipment to produce granulocytes, resulting in an increase in the actual rate compared to the budgeted rate for funding the labile and stable product sectors.

Moreover, Héma-Québec's financial statements published in the annual report include the fees for all products. Note 3 to the financial statements (page 123) explains the methods for setting the fees for the blood products supplied by Héma-Québec and the means for revising and indexing them.

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

The workforce increase in PLASMAVIE Plasma Donor Lounges is part of the plasma self-sufficiency strategy.

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 workforces of public organizations. Héma-Québec certifies that it has complied with the provisions of the act to which it is subject. In particular, in accordance with the prescribed conditions and terms, it submitted to the *Conseil du trésor* the required information regarding authorized service contracts.

Héma-Québec also periodically informed the Minister of Health and Social Services about its number of employees, providing a breakdown per job category, in accordance with the terms established by the *Conseil du trésor*.

A target was set for Héma-Québec for 2016–2017, representing a 0.2% decrease in paid hours compared with 2014–2015 and a 4.3% decrease from 2015–2016. However, a 1.7% increase in paid hours compared with the previous fiscal year was recorded, for a total increase of 6.1% compared with 2014–2015. The gap between the target and the actual paid hours was reported to the *Ministère de la Santé et des Services sociaux* during the year and, for 2016–2017, is entirely attributable to the workforce increase in PLASMAVIE Plasma Donor Lounges, which is part of the plasma self-sufficiency strategy.

DATA FOR THE MONITORING OF THE *ACT RESPECTING WORKFORCE MANAGEMENT AND CONTROL*

HÉMA-QUÉBEC		COMPARISON OVER 364 DAYS FROM APRIL TO MARCH				
		April 6, 2014 to April 4, 2015		April 3, 2016 to April 1st, 2017		
Job subcategory determined by the *Secrétariat du Conseil du trésor*	Values observed	Hours worked	Overtime hours	Total hours paid	Number of full-time equivalent	Number of employees
Managerial personnel	2014–2015	286,779.9	10.0	286,789.9	158	178
	2015–2016	300,402.8	7.0	300,409.8	165	192
	2016–2017	305,079.6	0.3	305,079.9	168	194
	Variance	6.4%	(97.0%)	6.4%	6.3%	9.0%
Professional personnel	2014–2015	361,515.4	3,805.5	365,320.9	199	237
	2015–2016	373,725.3	2,920.8	376,646.1	205	231
	2016–2017	365,983.5	2,783.7	368,767.2	201	234
	Variance	1.2%	(26.9%)	0.9%	1.0%	(1.3%)
Nursing personnel	2014-2015	309,741.9	17,585.7	327,327.6	170	258
	2015-2016	358,858.7	15,941.3	374,800.0	197	298
	2016-2017	396,484.4	11,699.4	408,183.8	218	304
	Variance	28.0%	(33.5%)	24.7%	28.2%	17.8%
Office personnel, technicians and related workers	2014–2015	988,085.6	39,556.2	1,027,641.9	543	719
	2015–2016	998,935.4	41,943.1	1,040,878.5	549	711
	2016–2017	1,018,665.6	33,892.6	1,052,558.2	559	720
	Variance	3.1%	(14.3%)	2.4%	3.0%	0.1%
Labourers, maintenance and service personnel	2014–2015	118,198.7	9,155.9	127,354.6	65	88
	2015–2016	121,535.6	9,069.4	130,605.0	67	88
	2016–2017	117,674.8	10,741.8	128,416.7	65	86
	Variance	(0.4%)	17.3%	0.8%	(0.0%)	(2.3%)
Students and trainees	2014–2015	419.0	5.0	424.0	0	1
	2015–2016	2,105.8	22.0	2,127.8	1	4
	2016–2017	1,019.8	12.5	1,032.3	1	2
	Variance	143.4%	150.0%	143.5%	100.0%	100.0%
TOTAL	**2014–2015**	**2,064,740.5**	**70,118.3**	**2,134,858.9**	**1,135**	**1,481**
	2015–2016	**2,155,563.6**	**69,903.6**	**2,225,467.2**	**1,184**	**1,524**
	2016–2017	**2,204,907.7**	**59,130.3**	**2,264,038.1**	**1,212**	**1,540**
	Variance	**6.8%**	**(15.7%)**	**6.1%**	**6.8%**	**4.0%**

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.

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

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.

The director must exercise his/her skills and abilities, demonstrating diligence and effectiveness in carrying out his/her mandate.

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.

The director must at all times maintain a high level of independence.

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:

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 ACTIVITIES

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. RESPONSIBILITIES AND SANCTIONS

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

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 mandate, 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.

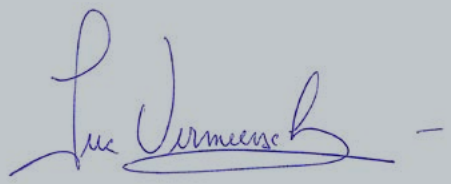
Héma-Québec recognizes that it is responsible for conducting its affairs in accordance with the statutes and regulations governing it.

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.

Serge Maltais
President and Chief Executive Officer



Luc Vermeersch, CPA, CA
Vice-president, Administration and Finance

Montréal, June 14, 2017

VÉRIFICATEUR GÉNÉRAL
DU QUÉBEC

INDEPENDENT AUDITOR'S REPORT

To the National Assembly

Report on the financial statements

I have audited the accompanying financial statements of Héma-Québec, which comprise the statement of financial position as at March 31, 2017, 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 a summary of significant accounting policies and other explanatory information included in the notes to the financial statements.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these 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.

Auditor's responsibility

My responsibility is to express an opinion on these financial statements based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by Management, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

Opinion

In my opinion, the financial statements present fairly, in all material respects, the financial position of Héma-Québec as at March 31, 2017, and the results of its operations, its remeasurement of gains and losses, changes in net debt and its cash flows for the year then ended, in accordance with Canadian public sector accounting standards.

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, for the year ended March 31, 2017, 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,

Jean-Pierre Fiset CPA auditor, CA

Jean-Pierre Fiset, CPA auditor, CA
Assistant Auditor General

Montréal, June 14, 2017

STATEMENT OF OPERATIONS AND ACCUMULATED SURPLUS FOR THE YEAR ENDED MARCH 31, 2017
(in thousands of dollars)

	2017 BUDGET	2017 ACTUAL	2016 ACTUAL
REVENUES			
Blood products (note 3)	398,522	410,839	349,465
Grants from the gouvernement du Québec	36,423	35,559	32,101
Other services	10,476	9,955	8,949
Interest	342	193	296
Other	2,627	3,611	2,871
	448,390	**460,157**	**393,682**
EXPENSES (note 4)			
Stable products	299,127	297,833	221,066
Labile products	119,913	117,958	125,370
Other services	29,350	31,619	32,340
	448,390	**447,410**	**378,776**
ANNUAL OPERATING SURPLUS (before undernoted)	**–**	**12,747**	**14,906**
Transfer of previous year's surplus (note 5)	–	(16,977)	(15,536)
Cancellation of cellular production operations (note 5)	–	(1,404)	(2,414)
ANNUAL OPERATING SHORTFALL	**–**	**(5,634)**	**(3,044)**
ACCUMULATED OPERATING SURPLUS, BEGINNING OF YEAR		16,977	20,021
ACCUMULATED OPERATING SURPLUS, END OF YEAR		**11,343**	**16,977**

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

STATEMENT OF REMEASUREMENT GAINS AND LOSSES FOR THE YEAR ENDED MARCH 31, 2017
(in thousands of dollars)

	2017	2016
ACCUMULATED REMEASUREMENT GAINS (LOSSES), BEGINNING OF YEAR	(13,558)	22,389
Unrealized gains (losses) attributable to the following:		
Derivatives	(1,140)	(13,443)
Exchange rate	28	(115)
Amount reclassified to operating surplus		
Derivatives	13,443	(22,114)
Exchange rate	115	(275)
Net remeasurement gains (losses) for the year	**12,446**	**(35,947)**
ACCUMULATED REMEASUREMENT LOSSES, END OF YEAR	**(1,112)**	**(13,558)**

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

STATEMENT OF FINANCIAL POSITION AS AT MARCH 31, 2017
(in thousands of dollars)

	2017	2016
FINANCIAL ASSETS		
Cash and cash equivalents	3,024	12,211
Accounts receivable (note 6)	8,843	11,940
Non-interest bearing advance to be received from the gouvernement du Québec	5,834	–
Inventories held for sale (note 7)	56,005	47,662
	73,706	**71,813**
LIABILITIES		
Credit facilities (note 10)	20,006	–
Accounts payable and accrued liabilities (note 8)	29,967	42,324
Deferred grants from the gouvernement du Québec (note 9)	5,563	1,265
Non-interest bearing advance from the gouvernement du Québec	–	6,235
Derivatives (note 14)	1,140	13,443
Debt (notes 11)	46,809	49,252
Employee future benefit liability (note 12)	11,095	10,879
	114,580	**123,398**
NET DEBT	**(40,874)**	**(51,585)**
NON-FINANCIAL ASSETS		
Tangible capital assets (note 13)	45,541	48,457
Prepaid expenses	3,314	3,617
Supply inventories	2,250	2,930
	51,105	**55,004**
ACCUMULATED SURPLUS	**10,231**	**3,419**
Accumulated operating surplus (note 5)	11,343	16,977
Accumulated remeasurement losses	(1,112)	(13,558)
	10,231	**3,419**
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

René Carignan, CPA, CA
Chair of the Audit Committe

STATEMENT OF CHANGES IN NET DEBT FOR THE YEAR ENDED MARCH 31, 2017
(in thousands of dollars)

	2017 BUDGET	2017 ACTUAL	2016 ACTUAL
ANNUAL OPERATING SHORTFALL	–	**(5,634)**	**(3,044)**
Changes due to tangible capital assets:			
Additions	(12,981)	(5,791)	(10,212)
Amortization	8,779	8,222	7,173
Loss on disposal and write-off	1	472	1,540
Writedown	–	–	1,003
Proceeds on disposal	–	13	2
	(4 201)	**2 916**	**(494)**
Change due to other non-financial assets:			
Acquisition of prepaid expenses		(3,861)	(4,291)
Use of prepaid expenses		4,164	4,100
Acquisition of supply inventories		(17,543)	(18,626)
Use of supply inventories		18,223	17,921
		983	**(896)**
Net remeasurement gains (losses) for the year		12,446	(35,947)
Decrease (increase) in net debt	**(4,201)**	**10,711**	**(40,381)**
NET DEBT, BEGINNING OF YEAR	(51,585)	(51,585)	(11,204)
NET DEBT, END OF YEAR	**(55,786)**	**(40,874)**	**(51,585)**

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

STATEMENT OF CASH FLOWS FOR THE YEAR ENDED MARCH 31, 2017
(in thousands of dollars)

	2017	2016
OPERATING ACTIVITIES		
Annual operating shortfall	(5,634)	(3,044)
Items not affecting cash and cash equivalents		
Amortization of tangible capital assets	8,222	7,173
Effective rate debt adjustment	84	48
Loss on disposal and write-off of tangible capital assets	472	1,540
Writedown on tangible capital assets	–	1,003
Unrealized foreign exchange gain (loss) on cash and non-cash working capital items denominated in foreign currencies	144	(390)
	3,288	**6,330**
Changes in assets and liabilities related to operating activities		
Accounts receivable	3,097	(3,922)
Inventories held for sale	(8,343)	(9,459)
Accounts payable and accrued liabilities	(11,729)	8,477
Deferred grants from the gouvernement du Québec	4,298	(7)
Prepayments from the gouvernement du Québec	–	(5,957)
Advance from the gouvernement du Québec	(12,069)	477
Prepaid expenses	303	(191)
Supply inventories	680	(705)
Employee future benefit liability	216	4,889
Cash flows used in operating activities	**(20,259)**	**(68)**
INVESTING ACTIVITIES RELATED TO TANGIBLE CAPITAL ASSETS		
Acquisition of tangible capital assets	(6,420)	(11,435)
Proceeds on disposal of tangible capital assets	13	2
Cash flows related to investing activities related to tangible capital assets	**(6,407)**	**(11,433)**
FINANCING ACTIVITIES		
Credit facility	20,006	–
Increase in debt	15,212	9,944
Debt repayment	(17,739)	(7,917)
Cash flows related to financing activities	**17,479**	**2,027**
DECREASE IN CASH AND CASH EQUIVALENTS	**(9,187)**	**(9,474)**
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	12,211	21,685
CASH AND CASH EQUIVALENTS, END OF YEAR	**3,024**	**12,211**
ADDITIONAL INFORMATION		
Interest paid	1,136	1,168
Interest received	192	308
Acquisition of tangible capital assets funded by accounts payable and accrued liabilities	142	771

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, Ch.1 5th supplement) and the *Taxation Act* (CQLR, chapter I-3), Héma-Québec is not subject to income taxes.

2. SIGNIFICANT ACCOUNTING POLICIES

Basis of accounting

For purposes of preparing financial statements, Héma-Québec mainly uses the *CPA Canada Handbook – Public Sector Accounting*. The use of any other source in the application of accounting policies must be consistent with the latter.

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 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 assessment 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
Line of credit	Cost
Prepayments from the Government of 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 recorded up until the period in which the remeasurement of gains and losses is settled, and upon settlement, the accumulated balance of remeasurement gains or losses will be reclassified to the statement of operations and the accumulated surplus.

Hierarchy of fair value measurements

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 measurement hierarchy requires the use of observable market data whenever available. The fair value hierarchy has the following levels:

Level 1 : The fair value measurements are based on quote prices (unadjusted) in active markets for identical assets or liabilities.

2. SIGNIFICANT ACCOUNTING POLICIES (cont'd)

Hierarchy of fair value measurements (cont'd)

Level 2 : The fair value measurements are based on 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 measurements are based on inputs that are not based on observable market data (unobservable inputs).

The derivative financial instruments are classified within Level 2 of the fair value measurement hierarchy (the fair value of derivatives is based on inputs other than quoted prices included in 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 the provisions imposed by the transferor create an obligation that meets the definition of a liability. Deferred grants are reduced, and an equivalent amount of grant revenues is recognized as the conditions relative to the liability are met.

EXPENSES

Employee benefit plans

Héma-Québec offers its employees defined benefit and defined contribution pension plans. Contributions are made by both Héma-Québec and plan members. Héma-Québec also provides its employees with certain post-employment benefits accounted for 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 actually 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.

The market-related value approach is used to calculate the value of assets and expected return on assets smoothed over a five-year period.

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.

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.

2. SIGNIFICANT ACCOUNTING POLICIES (cont'd)

FINANCIAL ASSETS

Cash and cash equivalents

Héma-Québec's policy consists in presenting bank balances, in cash and cash equivalents, 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 inventories of blood products (labile and stable), cord blood, human tissue, and mother's milk, are measured at the lower of cost and recoverable amount, with cost determined using the average cost method. Recoverable value is the estimated selling price less the related variable selling expenses.

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. Fluctuations in foreign exchange give rise to foreign exchange gains or losses recorded under remeasurement of gains and losses until the settlement period, at which point the accumulated balance of remeasurement of gains and losses is reclassified under 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 for payment of expenses for labile and stable products on behalf of the 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.

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 rates:

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.

For the year ended March 31, 2017 (tabular amounts are in thousands of dollars, unless otherwise indicated)

3. BLOOD PRODUCTS

The budgeted prices for all blood products are submitted every year to SigmaSanté, which is the body designated by the Minister of Health and Social Services to manage joint supplies under Section 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 Québec government's *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.

4. EXPENSES

				2017	2016
	STABLE PRODUCTS	**LABILE PRODUCTS**	**OTHER SERVICES**	**TOTAL**	**TOTAL**
Stable products	264,735	–	–	264,735	239,118
Salaries and benefits	5,547	81,758	10,678	97,983	101,525
Medical and blood drive supplies	1,414	24,141	6,173	31,728	30,633
Foreign exchange loss (gain)	11,965	47	221	12,233	(29,786)
Building and premises	553	10,386	210	11,149	10,277
Amortization of tangible capital assets	890	6,842	490	8,222	7,173
Purchase of cord blood, stem cells, labile products and human tissue	–	1	5,474	5,475	5,165
Freight and shipping	72	4,055	585	4,712	4,616
Advertising and public relations	80	3,443	251	3,774	3,189
Purchased services	6,730	(9,669)	6,377	3,438	4,062
Information technology	1	3,303	3	3,307	3,256
Interest on long-term debt	–	1,118	–	1,118	1,163
Insurance	–	734	–	734	850
Writedown on tangible capital assets	–	–	–	–	628
Other interest and bank charges	–	205	49	254	74
Loss (gain) on disposal of tangible capital assets	63	(10)	–	53	(2)
Other expenses	221	5,163	978	6,362	6,499
Subtotal	**292,271**	**131,517**	**31,489**	**455,277**	**388,440**
Plasma for fractionation*	12 835	(12 835)	–	–	–
Change in inventories**	(7,273)	(724)	130	(7,867)	(9,664)
Total	**297,833**	**117,958**	**31,619**	**447,410**	**378,776**

**Some expenses related to plasma extraction are reallocated to stable products based on units shipped to the fractionator.*
***Change in inventories include stable products, plasma for fractionation, labile products, cord blood, human tissue and mother's milk.*

For the year ended March 31, 2017 (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.

Héma-Québec remitted the surplus of $16.977 million from activities for the year ended March 31, 2016, as requested by Minister of Health and Social Services ($15.536 million in 2016). This recovery is made against the advances to finance the sale of labile and stable products.

In March 2017, Héma-Québec decided to terminate its cell production activities. The amounts estimated, committed, and written-off totalled $1.404 million, and are reported separately in the statement of operations and accumulated surplus. In September 2015, Héma-Québec decided to reorient its cell production activities and not pursue its C·LAVIE complex production project. The $2.414 million spent and invested in tangible capital assets for this project were written-off and are reported separately in the statement of operations and accumulated surplus.

6. ACCOUNTS RECEIVABLE

	2017	2016
Sales taxes	2,144	1,879
Trade accounts receivable	2,280	2,070
Other receivables	4,419	7,991
	8,843	**11,940**

7. INVENTORIES HELD FOR SALE

	2017	2016
Stable products	36,553	31,436
Plasma for fractionation	14,546	11,920
Labile products	2,870	2,139
Cord blood	1,083	1,435
Human tissue	932	685
Mother's milk	21	47
	56,005	**47,662**

8. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	2017	2016
Trade accounts payable	14,081	28,097
Salaries and accrued vacation	13,078	11,278
Benefits	1,737	1,786
Deferred revenues	999	1,073
Accrued interest payable	72	90
	29,967	**42,324**

For the year ended March 31, 2017 (tabular amounts are in thousands of dollars, unless otherwise indicated)

9. DEFERRED GRANTS FROM THE GOUVERNEMENT DU QUÉBEC

Héma-Québec received $4.7 million in supplementary financing from the MSSS to cover the additional contributions to be paid to the pension plans as required by the provisions of the *Act to amend the Supplemental Pension Plans Act* (CQLR, chapter R-15.1). In December 2016, the MSSS authorized Héma-Québec to defer the surplus balance of the grant, to be used only for the purposes intended. The variations are explained as follows:

	2017	2016
Beginning balance	1,265	1,272
Grants received	41,122	33,366
Expenses: Synagis products and other services	(30,859)	(32,101)
Supplementary financing for pension plans	(4,700)	–
MSSS recovery	(1,265)	(1,272)
Ending balance	**5,563**	**1,265**

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 the said Minister. The authorized amount for the period beginning April 1, 2015 and ending March 31, 2018 aims to make up funding needs not exceeding $94.6 million. The borrowings provided for under these plans 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, as at March 31, 2017, Héma-Québec had a $20 million of dollar loan on its line of credit.

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, 2017, this line of credit, which is repayable at any time, was undrawn ($99 thousand as at March 31, 2016).

11. DEBT

	2017	2016
Borrowings from the Financing Fund repayable in monthly instalments of 602 (principal only) (474 in 2016), at fixed rates ranging from 1.24% to 3.09% (1.24% to 3.09% in 2016), maturing from 2018 to 2027.	32,574	23,220
Borrowings from the Financing Fund repayable in monthly instalments of 124 (principal only) (223 in 2016), at fixed rates ranging from 1.80% to 3.93% (1.80% to 3.93% in 2016), renewable from 2020 to 2023 and maturing from 2024 to 2031.	14,235	26,032
	46,809	**49,252**

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

2018	8,411
2019	7,499
2020	6,669
2021	5,250
2022	4,541
2023 and thereafter	14,439

For the year ended March 31, 2017 (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. The actuarial valuations of the retirement plans were carried out as at December 31, 2015. The employee future benefit obligations shown as at March 31, 2017 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.

Actuarial valuations of the other post-retirement and post-employment benefit plans were carried out as at January 1, 2016. The employee future benefit obligations shown as at March 31, 2017 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.

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

	2017	2016
Pension plans	4,519	4,215
Other plans	6,576	6,664
Total employee future benefit liability	**11,095**	**10,879**

RECONCILIATION OF FINANCIAL POSITION

	2017		2016	
	PENSION PLANS	**OTHER PLANS**	**PENSION PLANS**	**OTHER PLANS**
Pension plan assets	219,133	–	196,163	–
Employee future benefit obligation	212,191	5,614	192,008	5,852
Financial position surplus (deficit)	**6,942**	**(5,614)**	**4,155**	**(5,852)**
Unamortized actuarial gains	(2,416)	(962)	(2,329)	(812)
Change in valuation allowance	(9,045)	–	(6,041)	–
Employee future benefit liability, end of year	**(4,519)**	**(6,576)**	**(4,215)**	**(6,664)**

For the year ended March 31, 2017 (tabular amounts are in thousands of dollars, unless otherwise indicated)

12. EMPLOYEE FUTURE BENEFIT LIABILITY (cont'd)

EMPLOYEE FUTURE BENEFIT OBLIGATION

	2017		2016	
	PENSION PLANS	**OTHER PLANS**	**PENSION PLANS**	**OTHER PLANS**
Employee future benefit obligation, beginning of year	192,008	5,852	180,101	7,078
Current period benefit cost	11,318	3,404	10,867	3,047
Interest expense on obligation	10,315	92	10,014	113
Benefits paid	(7,621)	(3,584)	(6,892)	(2,902)
Actuarial loss (gain)	6,171	(150)	(2,082)	(1,484)
Employee future benefit obligation, end of year	**212,191**	**5,614**	**192,008**	**5,852**

PENSION PLAN ASSETS

	2017		2016	
	PENSION PLANS	**OTHER PLANS**	**PENSION PLANS**	**OTHER PLANS**
Pension plan assets, beginning of year	196,163	–	176,991	–
Employer contributions	9,099	–	8,555	–
Employee contributions	5,036	–	4,668	–
Expected return on plan assets	10,751	–	10,070	–
Benefits paid	(7,621)	–	(6,892)	–
Actuarial gain on plan assets	5,705	–	2,771	–
Pension plan assets, end of year	**219,133**	**–**	**196,163**	**–**

MARKET VALUE OF PLAN ASSETS AS AT MARCH 31

	2017		2016	
Shares	104,386	46%	95,676	49%
Bonds	89,359	40%	64,220	33%
Other	32,496	14%	36,405	18%
Total	**226,241**	**100%**	**196,301**	**100%**

ACTUAL RETURN ON PLAN ASSETS

	2017	2016
Expected return on plan assets	10,751	10,070
Actual return on plan assets	16,456	12,841
Actuarial gain on plan assets	**5,705**	**2,771**
Actual rate of return	8,25%	7,13%

For the year ended March 31, 2017 (tabular amounts are in thousands of dollars, unless otherwise indicated)

12. EMPLOYEE FUTURE BENEFIT LIABILITY (cont'd)

EMPLOYEE FUTURE BENEFIT EXPENSE FOR THE YEAR

	2017		2016	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Current period net benefit cost	6,282	3,404	6,199	3,047
Amortization of actuarial losses	553	–	1,002	–
Change in valuation allowance	3,004	–	6,041	–
Benefit expense	**9,839**	**3,404**	**13,242**	**3,047**
Interest expense on obligation	10,315	92	10,014	113
Expected return on plan assets	(10,751)	–	(10,070)	–
Benefit interest expense	**(436)**	**92**	**(56)**	**113**
Total benefit expense	**9,403**	**3,496**	**13,186**	**3,160**

SIGNIFICANT ASSUMPTIONS

	2017		2016	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Employee future benefit obligation as at March 31				
Unionized employee plan discount rate	5,30%	2,70%	5,35%	2,50%
Non-unionized employee plan discount rate	5,30%	2,70%	5,45%	2,50%
Rate of compensation increase	3,40%	3,40%	3,45%	3,45%
Inflation rate	2,15%	–	2,20%	–
Benefit expense for the years ended March 31				
Unionized employee plan discount rate	5,35%	2,50%	5,55%	2,20%
Non-unionized employee plan discount rate	5,45%	2,50%	5,65%	2,20%
Expected rate of return on plan assets:				
Unionized employee plan	5,35%	–	5,55%	–
Non-unionized employee plan	5,45%	–	5,65%	–
Rate of compensation increase	3,45%	3,45%	3,75%	3,75%
Demographic factors				
Mortality	CPM-2014 projected using improvement scale CPM-B		CPM-2014 projected using improvement scale CPM-B	

For the year ended March 31, 2017 (tabular amounts are in thousands of dollars, unless otherwise indicated)

13. TANGIBLE CAPITAL ASSETS

	2017						
	LAND	BUILDING, BETTERMENT TO BUILDING AND OTHER	MACHINERY AND AUTOMOTIV EQUIPMENT	OFFICE FURNITURE AND EQUIPEMENT	COMPUTER HARDWARE AND SOFTWARE	SYSTEMS DEVELOPMENT	TOTAL
Cost							
Beginning balance	2,140	47,078	28,086	4,660	12,942	15,232	110,138
Additions	–	801	2,937	105	639	1,309	5,791
Disposals and write-off**	–	(439)	(995)	(54)	(748)	–	(2,236)
Ending balance*	**2,140**	**47,440**	**30,028**	**4,711**	**12,833**	**16,541**	**113,693**
Accumulated amortization							
Beginning balance	–	23,586	16,470	4,088	10,534	7,003	61,681
Amortization for the year	–	2,541	2,432	108	1,202	1,939	8,222
Disposals and write-off**	–	(130)	(851)	(22)	(748)	–	(1,751)
Ending balance	**–**	**25,997**	**18,051**	**4,174**	**10,988**	**8,942**	**68,152**
Net book value	**2,140**	**21,443**	**11,977**	**537**	**1,845**	**7,599**	**45,541**

	2016						
	LAND	BUILDING, BETTERMENT TO BUILDING AND OTHER	MACHINERY AND AUTOMOTIV EQUIPMENT	OFFICE FURNITURE AND EQUIPEMENT	COMPUTER HARDWARE AND SOFTWARE	SYSTEMS DEVELOPMENT	TOTAL
Cost							
Beginning balance	2,140	45,064	25,736	4,340	12,138	13,867	103,285
Additions	–	3,556	3,552	320	1,419	1,365	10,212
Disposals and write-off	–	(1,542)	(199)	–	(615)	–	(2,356)
Writedown	–	–	(1,003)	–	–	–	(1,003)
Ending balance*	**2,140**	**47,078**	**28,086**	**4,660**	**12,942**	**15,232**	**110,138**
Accumulated amortization							
Beginning balance	–	21,394	14,502	3,962	10,051	5,413	55,322
Amortization for the year	–	2,192	2,167	126	1,098	1,590	7,173
Disposals	–	–	(199)	–	(615)	–	(814)
Ending balance	**–**	**23,586**	**16,470**	**4,088**	**10,534**	**7,003**	**61,681**
Net book value	**2,140**	**23,492**	**11,616**	**572**	**2,408**	**8,229**	**48,457**

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

	LAND	BUILDING, BETTERMENT TO BUILDING AND OTHER	MACHINERY AND AUTOMOTIV EQUIPMENT	OFFICE FURNITURE AND EQUIPEMENT	COMPUTER HARDWARE AND SOFTWARE	SYSTEMS DEVELOPMENT	TOTAL
2017	–	135	1,238	–	154	475	2,002
2016	–	1,418	1,073	86	478	189	3,244

***The end of the cellular production activities represents a write-off of tangible capital assets in the amounts of $309 thousand, $78 thousand and $32 thousand, respectively, in the Building, betterment to building and other, Machinery and automotive equipment, and Office furniture and equipment categories.*

For the year ended March 31, 2017 (tabular amounts are in thousands of dollars, unless otherwise indicated)

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 party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. 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 cash and cash equivalents, the advance receivable from the gouvernement du Québec, trade accounts receivable and other receivables.

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 the advance receivable from the gouvernement du Québec and trade accounts receivable is limited as the main receivables are associated with the sale of cord blood, stem cells, human tissue and mother's milk or services mainly for government organizations that are included in the gouvernement du Québec's reporting entity. Such receivables are collectible during the year.

Other receivables include mainly discounts 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 carrying amount of Héma-Québec financial instruments exposed to credit risk represents the maximum amount of credit risk to which the organization is exposed and totalled $15.6 million ($22 million in 2016) in the statement of financial position. None of these financial instruments was written down and Management estimates that the credit quality of all instruments which have not been written down or are past due is strong as at the date of the financial statements.

II. Liquidity risk

Liquidity risk is the risk that Héma-Québec may not have the necessary funds to meet its cash needs or to finance its obligations in respect of its financial liabilities as they mature. 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.

As at March 31, 2017 and 2016, the contractual maturities of the financial liabilities were as follows:

	2017				
	2018	**2019**	**2020 AND THEREAFTER**	**TOTAL**	**CARRYING VALUE**
Trade accounts payable, salaries and accrued vacation	27,159	–	–	27,159	27,159
Line of credit	20,006	–	–	20,006	20,006
Interest on debt	1,032	862	2,805	4,699	4,483
Debt	8,411	7,499	30,899	46,809	47,025
Total non-derivative financial instruments	**56,608**	**8,361**	**33,704**	**98,673**	**98,673**
Derivative financial instruments	1,140	–	–	1,140	1,140
Total financial instruments	**57,748**	**8,361**	**33,704**	**99,813**	**99,813**

For the year ended March 31, 2017 (tabular amounts are in thousands of dollars, unless otherwise indicated)

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

II. Liquidity risk (cont'd)

	2016				
	2017	2018	2019 AND THEREAFTER	TOTAL	CARRYNG VALUE
Trade accounts payable, salaries and accrued vacation	39,375	–	–	39,375	39,375
Advance from the gouvernement du Québec	6,235	–	–	6,235	6,235
Interest on debt	1,224	1,043	3,835	6,102	5,890
Debt	8,318	7,588	33,346	49,252	49,464
Total non-derivative financial instruments	**55,152**	**8,631**	**37,181**	**100,964**	**100,964**
Derivative financial instruments	13,443	–	–	13,443	13,443
Total financial instruments	**68,595**	**8,631**	**37,181**	**114,407**	**114,407**

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 flows of a financial instrument will fluctuate due to changes in market interest rates.

The line of credit bears interest at a variable rate, subjecting Héma-Québec to a cash flow risk. As at March 31, 2017, if the interest rate in effect had increased or decreased by 10%, the operating surplus would have increased or decreased by $0.6 thousand.

Héma-Québec's debts bear interest on a fixed rate basis. Accordingly, Héma-Québec's exposure to interest rate risk related to its cash flows as well as to market risk is minimal since Héma-Québec does not intend to repay them early.

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 of 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 and medical and blood drive supplies, stem cells, cord blood and human tissue, Héma-Québec entered into 26 foreign exchange contracts to cover 90% of its expected foreign currency requirements in the amount of US$158.6 million at a rate of 1.337 for the period from April 3, 2017 to March 15, 2018 (in 2016, 26 foreign exchange contracts in the amount of US$145.6 million at a rate of 1.391 for the period from April 1, 2016 to March 16, 2017).

As at March 31, 2017, unrealized losses on foreign exchange contracts in the amount of $1 million had been recorded in the statement of remeasurement gains and losses (unrealized losses of $13 million as at March 31, 2016) and are measured based on the difference between the foreign currency purchase contract rates and the rate of 1.3299 on quoted prices (unadjusted) in active markets for identical instruments, as at March 31, 2017 (1.2987 as at March 31, 2016).

For the year ended March 31, 2017 (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 (cont'd)

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

	2017	2016
U.S. DOLLARS		
Cash and cash equivalents	455	10,290
Trade accounts and other receivables	2,604	4,756
Trade accounts payable	1,313	9,338
EURO		
Trade accounts payable	61	103

An 2% change in the U.S. dollar exchange rate (8% in 2016), corresponding to market volatility in the last 12 months, would not have any material effect on the operating surplus or on the remeasurement of gains and losses taking into account the financial assets and liabilities denominated in foreign currencies held by Héma-Québec as at the date of the financial statements.

15. CONTRACTUAL OBLIGATIONS

Héma-Québec has entered into long-term leases expiring at various dates over the next 18 years for its operating facilities and administrative premises. In some instances, the leases for premises include a renewal option of up to five years. The lease expense for the premises for the year ended March 31, 2017 amounted to $3.6 million ($3.3 million in 2016). Future minimum payments under long-term leases are as follows:

2018	3,205
2019	2,938
2020	2,577
2021	2,581
2022	2,574
2023 and thereafter	21,105

16. CONTINGENCIES

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

17. RELATED PARTY TRANSACTIONS

In addition to the related party transactions already disclosed in the financial statements and measured at the exchange amount, Héma-Québec is related to all government departments, special funds, agencies and public enterprises controlled directly or indirectly by the gouvernement du Québec or subject to joint control or common significant influence by the gouvernement du Québec. Héma-Québec has not entered into any commercial transactions with these related parties that were not in the normal course of operations and subject to business terms that are usual and customary. These transactions are not disclosed separately in the financial statements.

18. COMPARATIVE FIGURES

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

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