HÉMA-QUÉBEC

2004-2005
ANNUAL REPORT

Mission

Héma-Québec's mission is to efficiently provide adequate quantities of safe, optimal blood components, substitutes, human tissues and cord blood to meet the needs of all Quebecers; provide and develop expertise along with specialized and innovative services and products in the fields of transfusion medicine and human tissue transplantation.

Vision

Becoming the North American leader in its field by 2005.

Values

Authenticity and transparency

Solving problems at the source

Getting it right the first time

Always thinking “customer”

Héma-Québec’s licence numbers
100862-A (Montréal facility)
100862-B (Québec City facility)

TABLE OF CONTENTS

MESSAGE FROM THE CHAIRMAN OF THE BOARD OF DIRECTORS AND THE CHIEF EXECUTIVE OFFICER

Dr. André Lebrun
Chairman of the Board of Directors

Dr. Francine Décary
Chief Executive Officer

Héma-Québec's mission is to provide Quebecers with an adequate and safe supply of blood products, cord blood and human tissues.

Obviously, this mission cannot be achieved without the support of a competent staff. But, it is also important that this staff be satisfied with its working environment. To ensure this, Management pledged last year to pay special attention to the concerns and expectations of the staff. Accordingly, in 2004-2005, a follow-up was done on the survey about the organizational climate, "Mieux connaître", the results of which had been revealed during the previous year. In the wake of this survey, discussion groups were held with over 300 employees to identify possible ways of improving the management of operations. This consultation process generated five recommendations for improvement that were accepted by Management. These recommendations, now identified by the slogan "Mieux faire", were formalized by a series of actions that will be implemented in the short and long terms. This initiative is a formal commitment by Management.

Unfortunately, this year we had problems managing the supply of packed red cells. At certain times during the year, we even had to cut down on shipments of this component. These problems included a drop in the number of donors at blood drives; an operational decision to transfer collection targets from Québec City to Montréal, which did not produce the expected results; and several blood drives planned for cégeps and universities that had to be cancelled or delayed due to the student demonstrations.

Incidentally, these problems coincided with a significant drop in demand from hospitals during the year. We do not yet understand all of the reasons for this decreased demand, although some of the ones mentioned include the performance plan for better inventory management in hospitals, implemented by the Ministère de la Santé et des Services sociaux; the reduction in the postoperative transfusion threshold; and better inventory rotation between designated and affiliated hospitals. We need to plan better to realize the hospitals' needs, specifically for packed red cells, and we will try to improve this process in the coming year.

We met the objectives for the platelet inventory stated in our 2003-2008 supply strategy. At the end of 2004-2005, platelet shipments to hospitals were made up of 50% platelets by apheresis and 50% platelets from blood.

To conclude this section on the blood supply, we have developed a new recognition program for volunteers, blood drive organizing committees, blood recipient spokespersons and members of the Association of Blood Donation Volunteers, to publicly thank everyone for their role in helping us to fulfill our mission.

Several measures and projects also focused on the safety of blood products, including follow-up of our action plan to counter the effects of West Nile virus on blood donations and the project to upgrade our blood management software, PROGESA. We also introduced a bacterial detection system for platelet concentrates in February 2005.

We constantly monitor our eligibility criteria in order to adapt them to safety measures and the adequacy of the blood supply.

As mentioned, the shrinking gap between shipment objectives set in the 2004-2005 budget and actual demand from hospitals required us to review our methods. The staff was presented with the “Défi-ÉTAPES” challenge, which involves adjusting operations to meet market conditions. Accordingly, all managers reviewed their work methods and identified ways to make savings in each of their activity sectors. Moreover, improvements were made to tools for tracking performance and efficiency. All of these efforts combined helped keep the price of a unit of packed red cells at a reasonable level.

We are very proud of our new building on the Université Laval campus. Close to 400 people work at this facility, which is better suited to our activities. Our location in Québec City’s cité universitaire (university sector) provides access to a pool of high-quality intellectual resources, which, combined with our expertise, will enable us to assemble a critical R&D mass.

We also launched Québec's Public Cord Blood Bank, in partnership with Sainte-Justine Hospital and St. Mary's Hospital. Our objective is to make hematopoietic stem cells, derived from umbilical cord blood, a community resource, and to supply a volume that meets the needs of sick children waiting for a stem cell transplant.

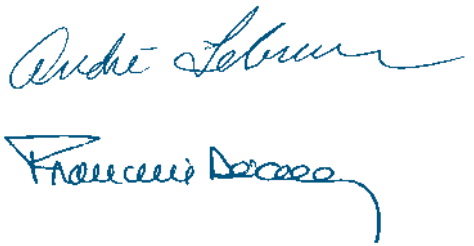
We also obtained American Association of Tissue Banks (AATB) certification for the harvesting, processing, storage and distribution of human musculoskeletal tissue, as well as for the harvesting of heart tissue. Our organization was awarded this certification without restriction.

In addition, note that our financial statements were audited by the Auditor General, who issued no reservations.

As 2004-2005 draws to a close, we would like to thank the blood drive organizing committees, as well as the donors and all the other volunteers whose generosity and support helped us reach our objectives. Their contribution is priceless, not only for Héma-Québec, but first and foremost, for the recipients. Our staff also deserves congratulations and thanks for its dedication.

Finally, we would like to thank the directors and the members of our various advisory committees for helping us achieve our mission.

If you thought 2004-2005 was busy, just wait for 2005-2006!



2004-2005 ACTIVITIES REVIEW

HUMAN RESOURCES

Since Héma-Québec is a labour-intensive organization, the quality of human resources management plays a key role in its success.

In 2004-2005, the organization was influenced by the results of a survey on the work climate conducted in fall 2003. The goal of this survey was to give Management an assessment of the strengths and weaknesses of certain aspects as seen by the staff.

Follow-up to the work climate survey

The year was marked by a follow-up focused on openness and a consultation of the employees' opinion survey, the results of which were released last year. This survey covered six specific topics: Management, supervision, work, work environment, career path, and information.

As the staff submitted over 1,000 comments in the survey, it was decided to consult it to determine the main issues and the most urgent points for improvement. There was a series of discussion groups open to all employees from June to September 2004, comprising a total of 35 workshops led by consultants, which attracted 250 employees.

Each division developed an action plan for submission to the Chief Executive Officer that took into consideration the main suggestions stemming from the workshops and including initiatives for its specific sector, as well as for the organization overall. Basically, the staff's comments and opinions were used as a starting point for defining the organization's future orientations and improvements in terms of human resources management.

Subsequently, the organization's action plan was presented to the entire staff in a video entitled "*Téléjournal*", and the measures stemming from each division's plan were presented during special meetings by work sector.

Accordingly, for the organization overall, five major recommendations were made for the coming years:

- Reexamine management practices to take into account the scientific and operational challenges facing the organization.
    - A task force, comprised of employees from different sectors, was created to propose actions for improving the balance between work and personal life.
    - Various tools were implemented to collect ideas or suggestions from the staff.
- Give managers training on managing individuals and teams.
    - We are in the process of developing a new human resources management policy based on three key words—involve, support and acknowledge. A training program was designed with this approach in mind to develop the necessary skills for managers, in terms of managing individuals and teams.
- Involve the staff in developing the future vision for 2005-2010 and the organization's values.
    - A group of employees was formed with a mandate to develop the organization's new vision for 2010 by October 2005.
- Clarify the roles, responsibilities, scope of authority and maneuvering room of managers and employees.
- Establish regular, frequent communications and discussions between Management and employees.
    - Meetings between the Chief Executive Officer and staff organized according to a set schedule and adapted to each sector in the organization.
    - More frequent and better-prepared meetings between managers and their staff, and more regular visits to the workplace by senior managers.

The period aimed at “better understanding” employees’ opinions and suggestions on management practices is now over, and the “improvement” phase, officially launched in 2004-2005, will continue for several years. Through a series of actions stemming from the survey, Management intends to ensure the satisfaction of its human resources, and their productivity.

Une grande mission une grande équipe
HÉMA-QUÉBEC

Human resources development

To help keep employees satisfied in terms of their needs for learning and self-affirmation, and help them make optimal use of their skills in the workplace, numerous development opportunities were offered to the staff in 2004-2005.

Salary equity and employee benefits

In 2004-2005, the implementation of seven salary equity programs was continued, pursuant to the Pay Equity Act. Information meetings were held with employees on these programs and the work of the committees involved in their development. The first salary adjustments were paid in 2004-2005.

Also, as a follow-up to the overhaul of the employee benefits programs in 2003-2004, and in keeping with the numerous internal written memos on this topic, a first series of information meetings for the staff was organized in spring 2004. A second series of meetings is scheduled for fall 2005.

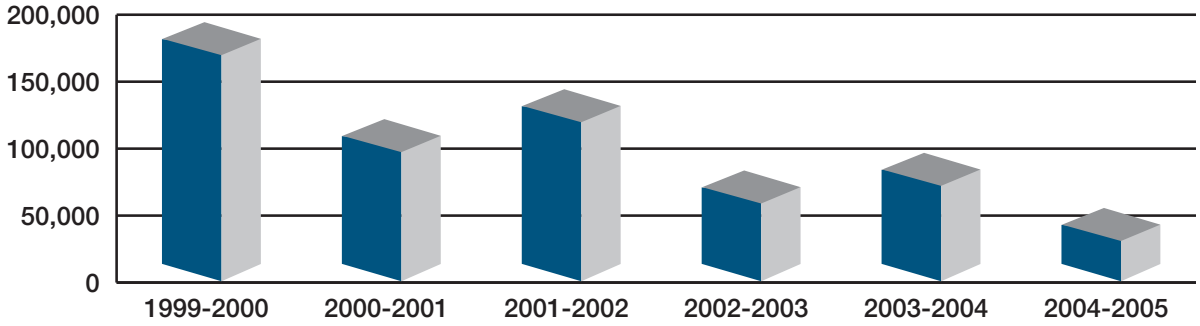
Occupational health and safety

In 2004-2005, the organization adopted two new policies—one to counter workplace harassment, pursuant to the Act Respecting Labour Standards, and the other on occupational health and safety. By acknowledging the importance of ensuring a workplace free of threats, intimidation and humiliation, and in condemning all forms of harassment, Héma-Québec undertakes to provide a safe, quality working environment in which everyone can work without compromising their health or safety.

Also in 2004-2005, Human Resources launched the Occupational Health and Safety newsletter, whose goal is to inform all employees about measures taken in this regard in their organization. Health promotion activities were also held every month, including conferences and information booths on subjects such as nutrition, physical activity, stress, heart disease and smoking.

With the help of three health and safety committees made up of employees from different sectors, the organization stepped up its safety measures and actions to counter workplace accidents: safety analyses of various workstations to identify the risks associated with them, corrective measures for the risks identified, and a group dedicated to laboratory ergonomics. As a result, the costs of workplace accidents dropped 42% compared with last year and 71% since 1999.

Cost ($) of workplace accidents



Since 1999, the cost of accidents has dropped 3.5-fold. This drop is attributable to a constant increase in safety and workplace accident management activities.

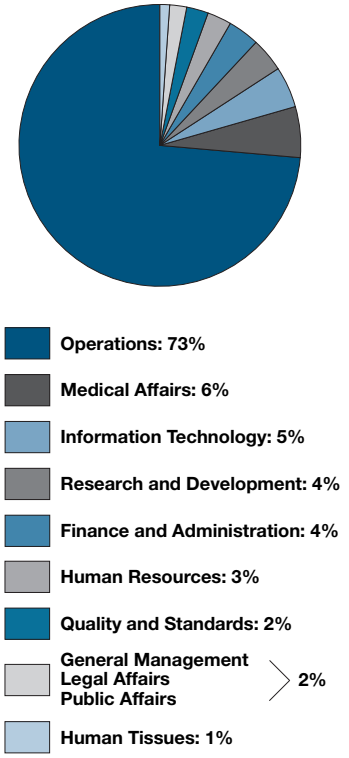
Breakdown of employees

68% of employees are unionized. The organization has nine collective agreements with the following nine unions:

- L'Association professionnelle des technologistes médicaux du Québec (APTMQ)
- Le Syndicat canadien de la fonction publique, section locale 1987 (SCFP 1987)
- Le Syndicat canadien de la fonction publique, section locale 3817 (SCFP 3817)
- Le Syndicat des infirmières et infirmiers d'Héma-Québec (CSN)
- Le Syndicat canadien de la fonction publique, section locale 3807 (SCFP 3807)
- L'Union professionnelle des infirmières et infirmiers du Québec (UPIIQ)
- Le Syndicat des techniciens(nes) de laboratoire d'Héma-Québec (CSN)
- Le Syndicat des assistants(tes) techniques de laboratoire d'Héma-Québec (CSN)
- Le Syndicat des travailleuses et travailleurs d'Héma-Québec (CSN).

The entire content of these agreements was analyzed for integration into the new Héma-Québec Integrated Resource Management System (see section *Efficiency – SIGRHQ* for more details).

Breakdown of employees by division as at March 31, 2005



The organization had 1,326 employees as at March 31, 2005. Of these, 73% work in the Operations division, responsible primarily for planning supply, organizing community blood drives, analyzing blood bags collected, processing blood into labile blood products, providing technical services and implementing projects (material resources and biomedical equipment), and distributing labile and fractionated products.

Fellowship

Héma-Québec offers bursaries to physicians wishing to pursue their training in transfusion medicine. Dr. Nancy Robitaille, pediatric hematologist, joined the program from March 1, 2004 to May 16, 2005. She divided her time between training sessions within the organization and at the following hospitals: Royal Victoria, Toronto Sick Children's Hospital and the Sunnybrook and Women's College Health Sciences Centre.

Service awards

This year, two events were held to celebrate the staff's years of service, one in Québec City and the other in Montréal, at which the careers of 203 employees were recognized.

YEARS OF SERVICE	NUMBER OF EMPLOYEES
5	137
10	26
15	7
20	15
25	14
30	3
40	1

During the ceremonies, several staff members received special tributes. Denise Demers and Isabelle Paquette, blood drive technical assistants, both celebrated 30 years of service, and Louise-Andrée Clément, registration clerk, celebrated 40 years of service.

They are pictured here with Pierre Julien, Supply Manager (Montréal), Roger Carpentier, Vice-President, Human Resources, Dr. Francine Décary, Chief Executive Officer and Yvan Charbonneau, Vice-President, Operations.

Absent: Marguerite Gélinas, blood drive technical assistant (30 years of service)

SUPPLY ADEQUACY

The adequacy of the supply for Quebec hospitals and their patients rests above all on the generosity of donors and volunteers. It also depends on Héma-Québec's ability to raise donor and volunteer awareness to the cause of blood donation and to recruit them; as well as to design, develop and adopt efficient methods of achieving its blood collection objectives; and to manage the inventory of labile blood products, including specialized products.

During 2004-2005, Héma-Québec was confronted with certain supply problems. It took several initiatives and implemented numerous projects to ensure the adequacy of the supply and to maintain the collective blood supply at an adequate level.

Labile blood products

Labile blood products are perishable blood components, derived either from blood donations or donations by apheresis.

They include:

- Packed red blood cells (conservation period of 42 days);
- Platelets from blood and platelets by apheresis (conservation period of 5 days);
- Plasma from blood and plasma by apheresis (conservation period of one year);
- Cryoprecipitates (conservation period of one year).

Transfusion is an interim treatment crucial to the survival of thousands of patients. Many diseases and surgeries require one or even several transfusions. Each labile blood product has a specific usefulness. Patients are transfused only the blood product or component that they need.

Supply strategy

Given the decreased demand from hospitals for packed red blood cells (the organization's basic product), the 2003-2008 supply strategy was reviewed and adjusted. This strategy focuses not only on collection but also on improved product management.

It is specifically focused on the following for 2004-2005:

- Increased visits to the GLOBULE Blood Donor Centres;
- Introduction of a mobile blood donation unit (pilot project);
- More efficient, improved management and production of blood products, specifically, an improved loss rate for products during production;
- Achievement of specific objectives for collecting, managing and delivering platelets by apheresis.

New age criterion

In 2004-2005, the donor age criterion was changed. Since October 31, 2004, there is no longer an upper age limit for blood donors in Quebec. The age limit was previously 60 for a first donation, whereas a regular donor could donate blood up to age 70.

The shrinking pool of blood donors, specifically due to population aging, has added to the challenge of recruiting donors. Changing the age limit ensures an even greater adequacy of the blood supply, since healthy donors can now continue to donate blood for many more years. However, to ensure the safety of blood donors, specific criteria must be respected depending on age (see www.hema-quebec.qc.ca for more details).

Awareness

Advertising campaigns are an effective means of raising Quebecers' awareness about the need for blood donation and its positive effects for the community.

The advertising strategy includes a television component that appeals to the emotions, and a complementary highway billboard campaign to get people thinking about the issue.

As with last year, the 2004-2005 blood donation awareness campaign had the theme “Give blood. Give life.” It also featured the same television message featuring an imaginary meeting between donors and recipients, evoking the pleasure of giving.

This year, the awareness campaign “Give blood. Give life.” also included a revised poster component featuring three new posters with different messages.

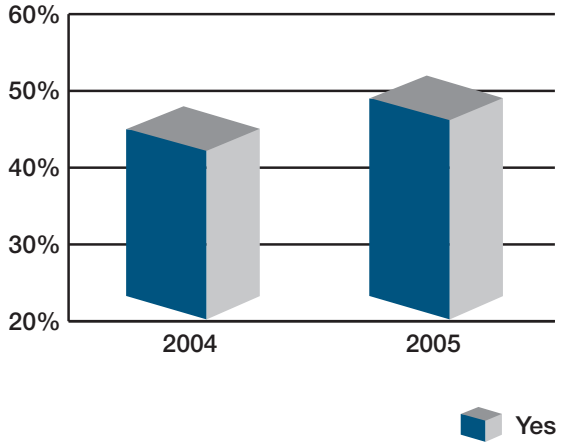
A new television ad promoted the GLOBULE Blood Donor Centres for the first time. These are permanent collection centres specially designed to facilitate blood donation, specifically with opening hours adapted to donor availability. This ad was launched in September 2004 with the theme “Take the time to stop by, so that life... can continue.”

The ad was designed to raise public awareness about the three GLOBULE Blood Donor Centres, and to emphasize their boutique concept, in the aim of increasing donor awareness and numbers so as to achieve the objectives set in the supply strategy. The ad emphasizes the user-friendly nature and easy access of the centres, which are open seven days a week.

In conjunction with an external firm, a telephone survey of 1,000 Quebec adults was conducted to gauge the level of awareness of the advertising campaign conducted in 2004-2005. The results were positive.

Awareness of the television campaign

In recent weeks, have you seen a TV ad for Héma-Québec featuring…



According to the survey conducted in January 2005, 52% of Quebecers saw the TV ad about blood donation, more than in January 2004 (48%), and with a lower media weighting.

Assessment of the television campaign

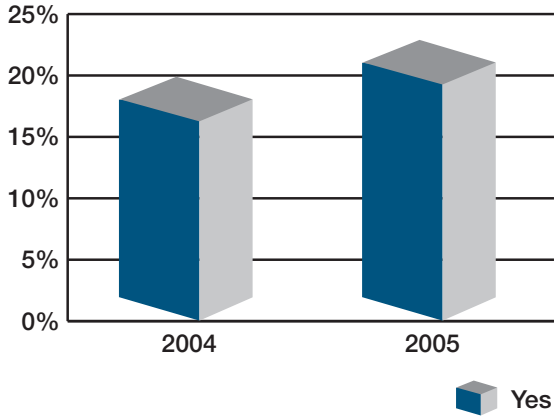
Did you like this ad campaign?

	JANUARY 2005 (N=513)	JANUARY 2004 (N=509)
Very much	50%	48%
Quite a lot	44%	44%
A little	4%	4%
Not at all	1%	1%
Not specified	1%	3%

94% of people who saw the TV campaign liked it very much or quite a lot, compared with 92% in January 2004.

Awareness of the poster campaign

In recent weeks, have you seen a billboard or a poster...



Close to one in four Quebecers remember having seen a new Héma-Québec poster.

Assessment of the poster campaign

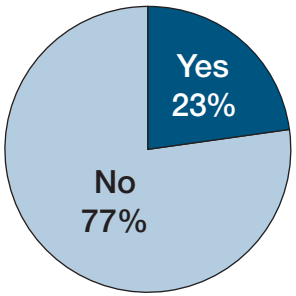
Did you like this ad campaign?

	JANUARY 2005 (N=249)	JANUARY 2004 (N=215)
Very much	33%	37%
Quite a lot	56%	54%
A little	7%	5%
Not at all	1%	1%
Not specified	3%	3%

The revised component of the poster campaign was well liked—89% of people who saw it liked it very much or quite a lot.

Awareness of the GLOBULE TV campaign

In recent weeks, have you seen a Héma-Québec TV ad featuring a red balloon...?



People noticed and liked the ad for the GLOBULE Blood Donor Centres. Close to one in four Quebecers saw the ad.

Assessment of the GLOBULE TV campaign

Did you like this ad campaign?

	JANUARY 2005 (N=228)
Very much	24%
Quite a lot	64%
A little	7%
Not at all	2%
Not specified	3%

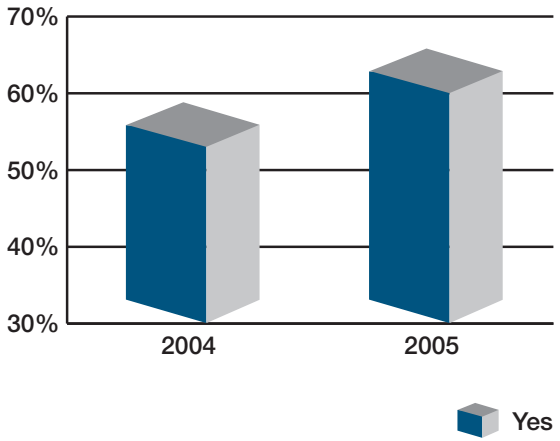
88% of people who saw the GLOBULE campaign said they liked it very much or quite a lot, an excellent result given the low media weighting attributed to this component. This positive assessment had a direct effect on donor numbers at the GLOBULE Blood Donor Centres, with all three centres seeing an average of over 1,000 donors per week in 2004-2005, i.e. approximately 16% more donations than last year (see Blood drives and GLOBULE Blood Donor Centres).

Annual frequency of blood donations at GLOBULE Blood Donor Centres

GLOBULE	NUMBER OF DONATIONS	NUMBER OF DONORS	ANNUAL FREQUENCY 2003-2004	ANNUAL FREQUENCY 2004-2005
Côte-Vertu	1,885	1,291	1.43	1.46
Place Versailles	15,158	8,656	1.75	1.75
Place Laurier	14,649	8,802	1.33	1.66

The number of donations per donor at the Côte-Vertu and Place Laurier GLOBULE Blood Donor Centres increased in 2004-2005 compared with 2003-2004. The annual frequency of donations remained stable at 1.75 for the Place Versailles GLOBULE centre. These results reflect the positive effects of the new GLOBULE TV campaign.

Combined awareness for the campaigns



The combination of the TV ad promoting awareness for blood donation and the new poster campaign, paired with the TV ad about the GLOBULE Blood Donor Centres, yielded better results than last year for Héma-Québec in terms of awareness for the campaign. Accordingly, two out of three Quebecers (66%) saw one of the two components of Héma-Québec's 2004-2005 campaign, compared with 59% for the previous campaign.

Donor recruitment

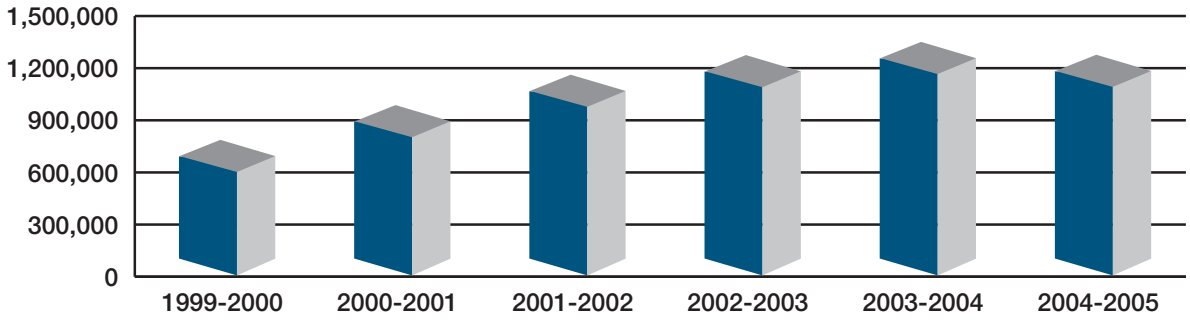
Telephone calls

During the year, 1,277,177 telephone calls were made to donors to ask them to give blood again; this is approximately 74,000 fewer calls than last year.

A new marketing software was used to compile and manage an improved donor database (see *Donor Loyalty* for more details).

The telephone recruitment team also adopted a more targeted approach. Note that the telephone recruitment team was assisted by some 450 volunteers during the year.

Number of calls made to recruit donors



Organizing committees

Some 1,500 committees of volunteers organized blood drives across the province. The organizing committees are responsible for recruiting donors for blood drives, and planning blood drive logistics and advertising, with the help of blood drive organization advisors.

Within Héma-Québec, committees of employees from each division take turns organizing internal blood drives. Blood donors are mainly recruited from among the Héma-Québec staff. In 2004-2005, there were four internal blood drives under different themes: The strawberry season blood drive (June 2004) organized by the Administration and Finance division; the “Peace and Blood” blood drive in honour of the 1960s (September 2004) and the “You are unique” blood drive (December 2004) organized by the Operations division; and the Easter blood drive organized by Medical Affairs (March 2005).

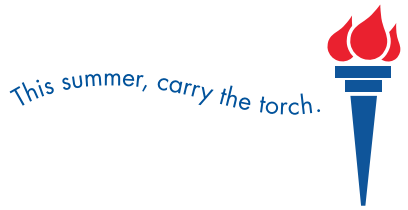
It is important to mention the strong support from the Association of Blood Donation Volunteers (ABDV) in planning the blood supply. The ABDV has several regional chapters of volunteers and donors. Its main objectives are to promote blood donation in partnership with Héma-Québec, support donor recruitment, and educate young people about the importance of giving blood.

Summer and Holiday campaigns

During 2004-2005, a summer campaign and a Holiday campaign were held to encourage the public to give blood during these crucial periods, during which it is generally more difficult to maintain the blood supply.

The launch of the summer campaign, with the Olympic theme “This summer, carry the torch”, coincided with World Blood Donor Day on June 14, 2004. The public was asked to donate blood from June 14 to September 5, 2004 at over 400 blood drives.

Like the athletes who competed at the Athens Olympics, 70,000 people, including 7,800 new donors, became heroes, albeit anonymous ones, by donating blood.



The Holiday campaign, which ran from December 2, 2004 to January 9, 2005 at 175 blood drives under the theme “Share a unique gift”, attracted close to 28,500 blood donors.

Blood drives and GLOBULE Blood Donor Centres

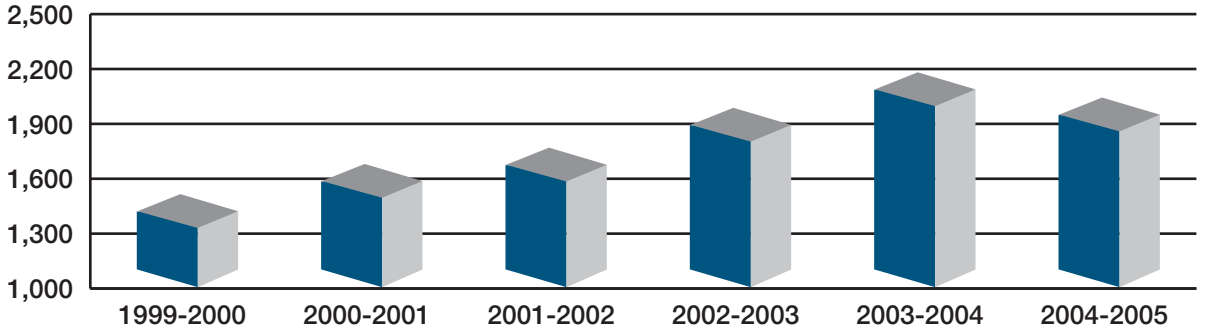
In 2004-2005, the Operations division focused more on organizing blood drives in cities and on the island of Montréal. Emphasis was also placed on holding blood drives in companies, shopping centres and schools, with more partnerships between Héma-Québec and representatives in these sectors.

Héma-Québec also strongly encouraged blood drives in cultural communities, and worked to develop different partnerships.

It also introduced a new shuttle service to transport donors to their nearest GLOBULE Blood Donor Centre. This service is provided when a limited number of employees at a company wishes to donate blood, or if a company does not have enough space to hold a blood drive. Mentoring weeks (or GLOBULE theme weeks) were also organized with large companies.

With help from the Operations team, the community organized 2,044 blood drives in 2004-2005, a 6% decrease compared with last year.

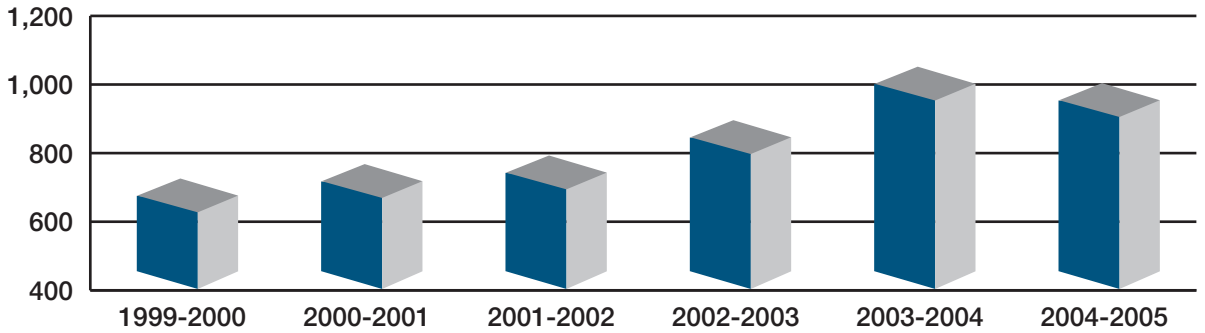
Number of blood drives



The decrease in the number of blood drives organized is due to several factors. First, the organization's supply strategy targets an increased proportion of collections at the GLOBULE Blood Donor Centres which are open seven days a week. The year 2004-2005 also saw a significant drop in the demand for packed red cells. The lower loss rate during production and the lower expiry rate also helped significantly bring down the number of drives.

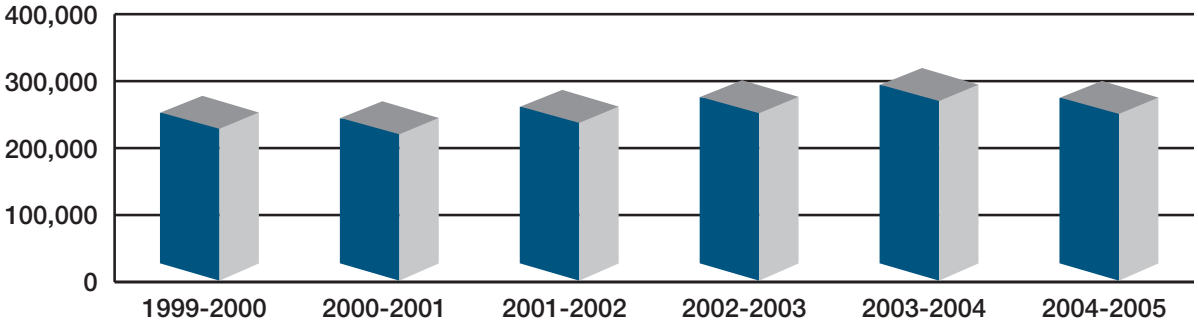
Moreover, in 2004-2005, there were 1,004 collection days at GLOBULE Blood Donor Centres, down approximately 5% compared with 2003-2004.

Number of collection days at GLOBULE Blood Donor Centres



There was a decrease, specifically after the merger of two collection centres in Québec City into one, i.e. the Place Laurier GLOBULE Blood Donor Centre. Note that all three centres saw an average of over 1,000 donors per week, i.e. approximately 16% more donations than last year. This increased traffic is also related to the new advertising campaign for the GLOBULE Blood Donor Centres (see Awareness for more details).

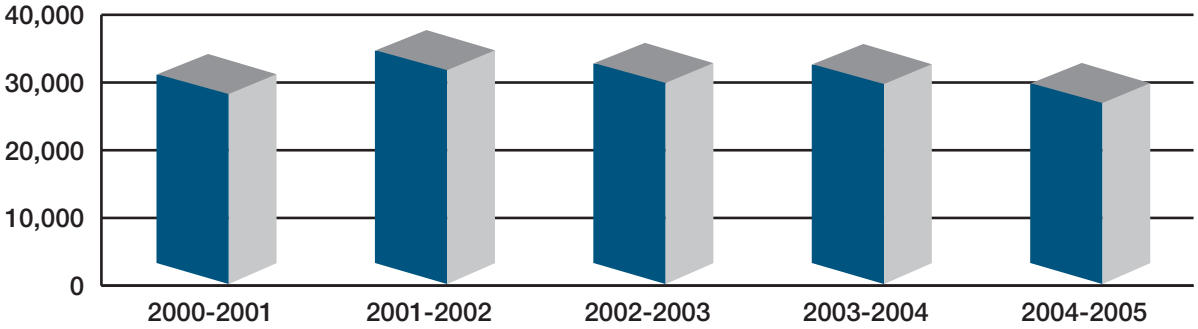
Number of registered blood donors



The number of registered blood donors dropped in 2004-2005, as did the demand for packed red cells and the number of blood drives organized.

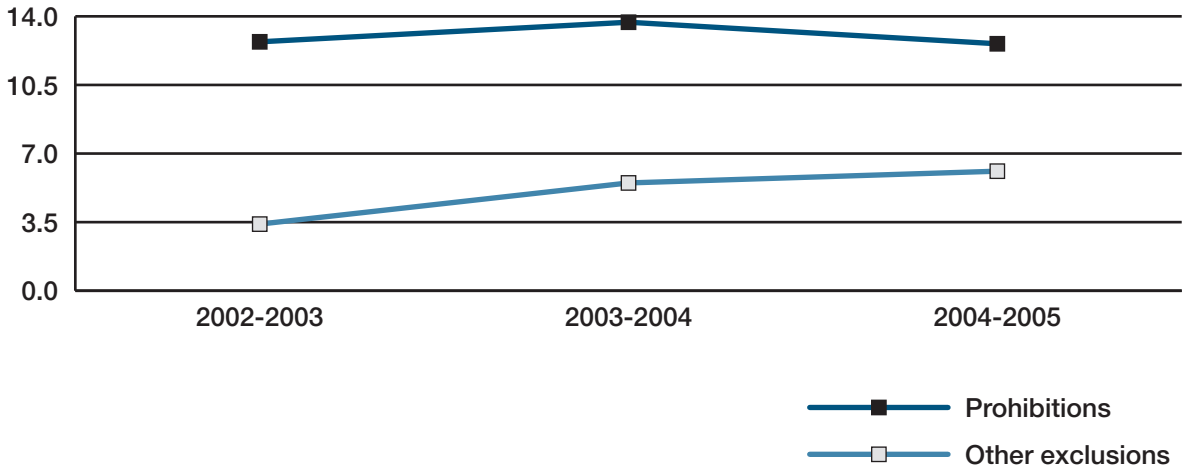
A total of 300,364 people registered to give blood, compared with 319,628 last year. Approximately 13% of registered donors visited a GLOBULE Blood Donor Centre in 2004-2005, compared with 10% the previous year.

Number of new registered blood donors (including designated and directed)



In 2004-2005, there were 32,892 new blood donors, an 8% decrease compared with 2003-2004. While it is still necessary to invest in an awareness campaign to attract new donors, the significant efforts focused on keeping existing donors loyal to the cause is a more economical development option.

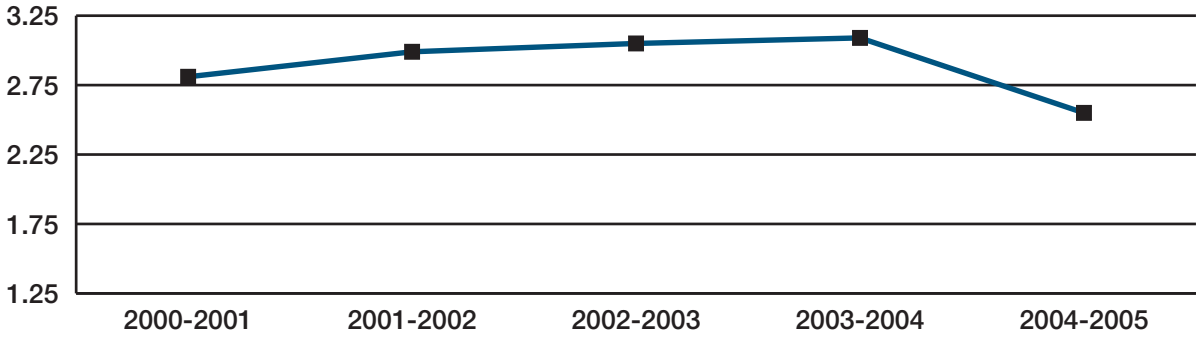
Proportion (%) of donors who could not give blood



The proportion of donors prohibited from giving blood dropped compared with last year. In 2004-2005, 12.6% of registered blood donors could not give blood due to regulatory restrictions, further to the qualification process to ensure the safety of donors and recipients. This proportion was 13.7% in 2003-2004.

Moreover, 6.1% of registered blood donors could not give blood in 2004-2005 due to other exclusions, such as discomfort or having left the blood drive location; this proportion increased from 5.5% in 2003-2004.

Proportion of people who made at least one donation among all people of age to donate in Quebec



The proportion of blood donors among the eligible population dropped from 3.09% in 2003-2004 to 2.55% in 2004-2005. This year, the proportion was calculated differently than in previous years, which largely explains the decrease noted. The population of age to donate increased following the elimination of the upper age limit for blood donors in Quebec (see New age criterion for more details). Moreover, the population figures for Quebec used this year are those updated by the Ministère de la Santé et des Services sociaux, whereas the statistics from 2001 were used in previous years. The new Quebec population data are slightly higher than those for 2001.

Donor loyalty

New marketing tool

The IT and Marketing teams created a software specifically designed to promote and track blood donation awareness and loyalty programs.

Previously, information on donors, used to develop such marketing programs, came from the PROGESA blood management system. However, this software suite is not suitable for marketing applications.

Developed in the .NET environment, the new marketing application complements PROGESA and helps build and manage a more detailed, user-friendly donor database, and design communications that are more donor-specific.

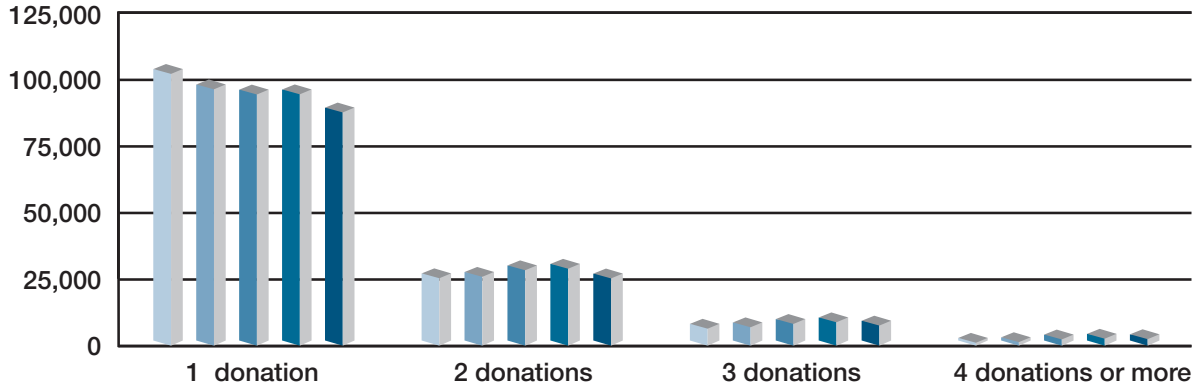
New program for GLOBULE Blood Donor Centres

In addition to the advertising campaign for the GLOBULE Blood Donor Centres, a loyalty program was launched in February 2005. This aims to increase the frequency of donations by donors having opted for one of the GLOBULE centres as their preferred donation site. This program is part of Héma-Québec's supply strategy.

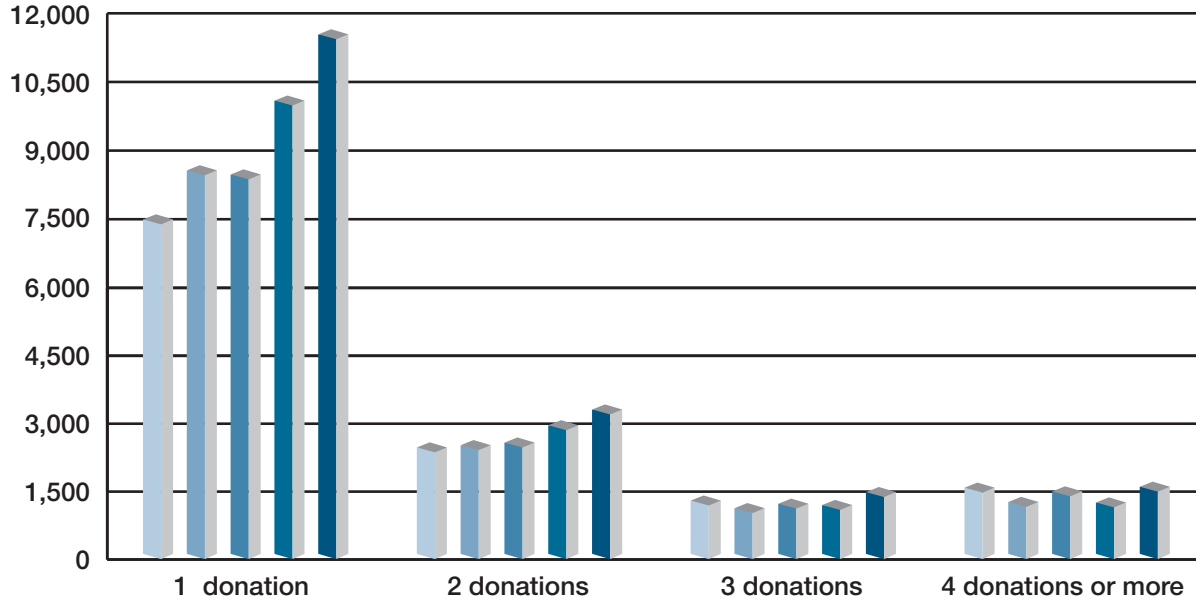
Essentially, donors who donate blood at a GLOBULE centre one to three times a year are challenged to increase by one their number of donations. The loyalty process first involves sending a kit and a loyalty card, followed by a telephone call from Héma-Québec's telephone recruitment team.

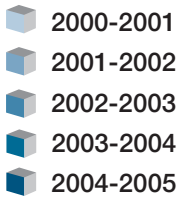
A pilot mailing was done in mid-February to almost 2,000 eligible donors likely to make a donation shortly. This mailing helped validate the segmentation of donors, with a view to extending the program to all targeted donors. The mailings will be sent regularly throughout the year to generate donations on a continuous basis.

Distribution of the number of donations made by donors at blood drives



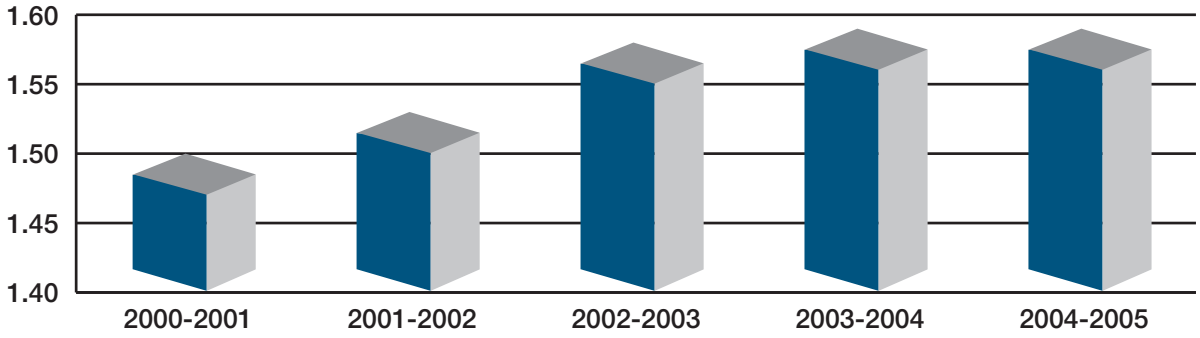
Distribution of the number of donations made by donors at GLOBULE Blood Donor Centres





From 2001-2002 to 2003-2004, the number of donations increased constantly, both for blood drives and GLOBULE Blood Donor Centres. The drop noted in 2004-2005 for blood drives can be explained by the decreased demand from hospitals. For these years, and despite the variation in the number of donors from one year to the next, the proportion of people who made more than one donation remained fairly constant.

Average number of donations per blood donor



The frequency of donations per donor stayed the same even though the number of blood donations decreased.

Recognition

Tribute to donors

In 2004-2005, seven recognition galas were held for donors who had made 100 or more donations, to pay tribute to their enormous generosity and invaluable community spirit. These events were held in several cities across Quebec, including Sainte-Foy, Joliette, Sherbrooke, Longueuil, Laval, Montréal and Trois-Rivières. At these events, donors of blood, plasma and platelets were presented with a token of appreciation certifying their number of donations.

Tribute to volunteers

A new recognition program for volunteers was also developed. Under the theme “Partner for life”, the program was designed to highlight the role of volunteers in telephone recruiting and administration, of blood drive organizing committees, members of the Association of Blood Donation Volunteers, and Héma-Québec’s blood recipient spokespersons. Héma-Québec could not fulfill its mission without the help of these volunteers. The new program will be introduced in April 2005.

GLOBULE mobile blood donation unit

The blood supply strategy specifically aims to reach (at a reasonable cost) donors who are not accessible by traditional methods such as mobile blood drives. Accordingly, following a feasibility study, the pilot project of a mobile blood donation unit was developed in 2004-2005.

This mobile unit, to be introduced gradually in 2005-2006, is the perfect combination of a GLOBULE Blood Donor Centre and a mobile blood drive. It is a 12.8-m bus equipped with two generators, a registration desk, two private cubicles, five collection beds, a work table, a temperature-controlled refrigerator and a snack space for donors.

The objective is to process an average of 40 donors per day, mainly by appointment. The GLOBULE mobile blood donation unit will be used to accommodate donors in industrial parks, shopping centres and power centres; to support a blood drive where the available space is not sufficient to handle all of the expected donors; and to help out with blood drives where there are more donors than expected.

This project is the first one to be embraced by the Association of Blood Donation Volunteers Foundation, recently created and affiliated with the Héma-Québec Foundation by reason of their similar objectives.

The Association of Blood Donation Volunteers will assume the cost of the bus in five installments of $20,000 over five years, for a total of $100,000.

Management of platelets

In 2004-2005, the Operations division achieved better management of the platelet inventory, through the implementation of several measures in compliance with the supply strategy.

Increased shipments of platelets by apheresis

The demand for platelets in hospitals is met by two types of products, platelets from a blood donation and platelets collected by apheresis.

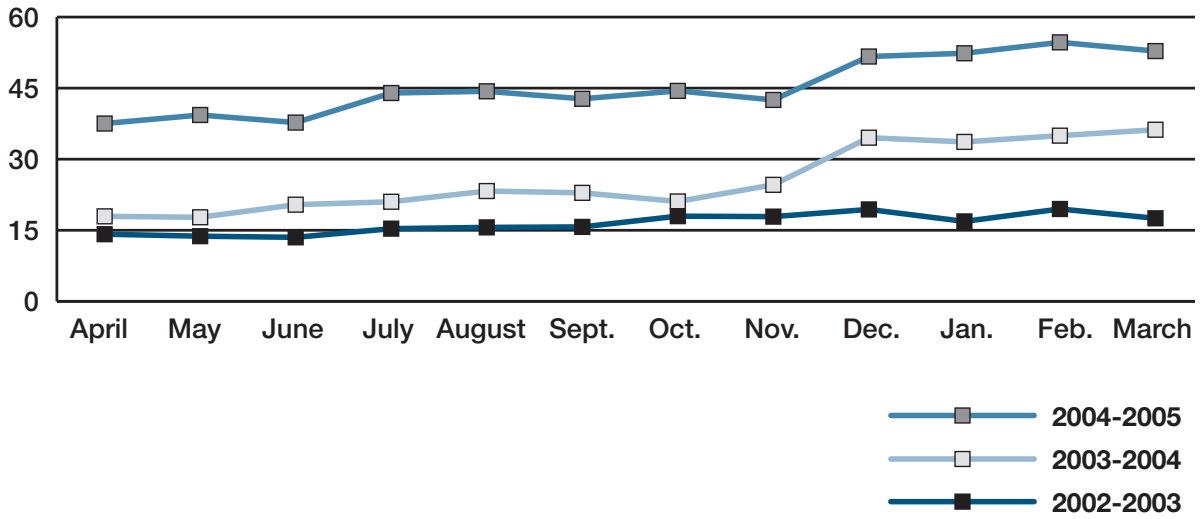
Through thrombapheresis, an automated procedure, a quantity of platelets can be collected from a single donor equivalent to that collected from five bags of blood from different donors.

Platelets by apheresis are safer for patients, since the latter are exposed to fewer donors.

Accordingly, Héma-Québec's supply strategy stipulates that platelets by apheresis make up 50% of its total platelet shipments, with the remaining 50% coming from blood. Last year, the organization installed ten new thrombapheresis machines at its GLOBULE Blood Donor Centres.

In December 2004, the target level of 50% was achieved, in keeping with the supply strategy.

Proportion (%) of shipments of platelets by apheresis to total shipments of platelets



Optimized use of collection units

To produce blood platelets, the donation must be collected in a triple blood-pack unit. The triple blood-pack unit comprises three bags and several filters for collecting the blood that will be used to produce three products: Red cells, plasma and platelets.

In 2004-2005, the increased collection of platelets by apheresis significantly lessened the organization's need for triple blood-pack units by replacing some of them with double blood-pack units, which are less costly. The double blood-pack units are used to collect blood to produce two products: Red cells and plasma.

This measure alone has resulted in significant savings.

Supply by blood group

In 2004-2005, the Operations division adjusted its daily production of blood platelets to correspond to hospital demand and the quantity of platelets by apheresis in inventory. The significant increase in the production of platelets by apheresis helped develop a supply approach for platelets by blood group.

Accordingly, for each collection site (blood drives and GLOBULE centres), specific instructions can be given for collections by blood group. The organization is thereby able to meet hospital demand for specific blood groups.

Consequently, Héma-Québec succeeded in increasing its inventory of group A platelets (group most frequently requested by hospitals) and decreasing its inventory of group O platelets (group less requested).

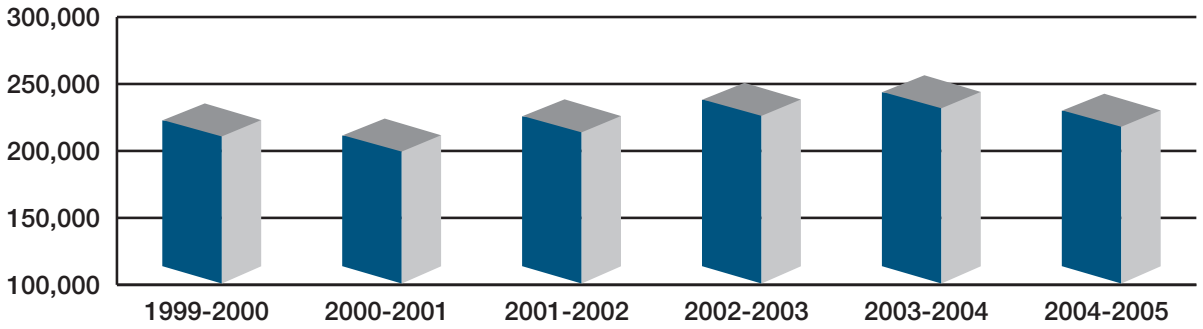
New software for selecting compatible donors of platelets by apheresis

In 2004-2005, the organization acquired a new search engine to facilitate the search for compatible donors of platelets by apheresis, who have the best profile for blood recipients. This software was installed in fall 2004.

Blood donations

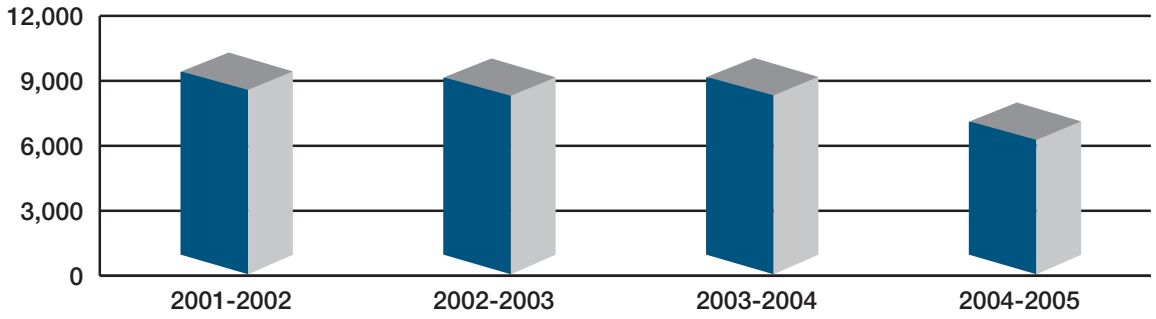
During 2004-2005, 242,721 blood donations were collected, as well as 8,001 donations of plasma by apheresis and 12,273 donations of platelets by apheresis.

Number of blood donations collected



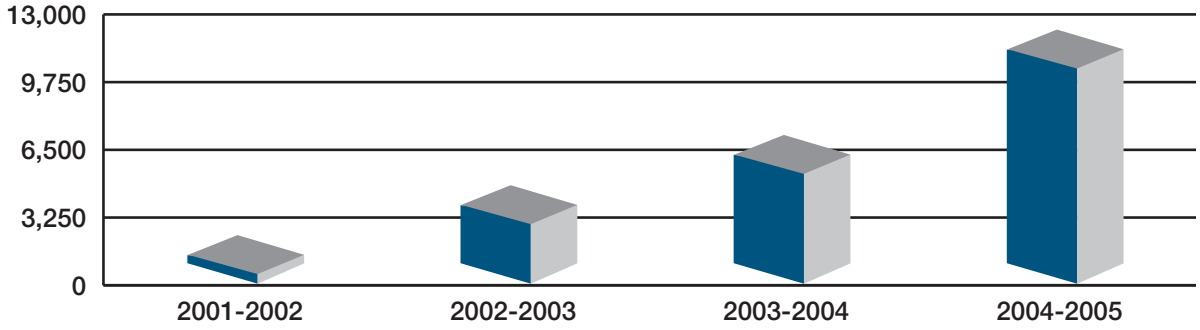
5% decrease in the number of blood donations collected in 2004-2005 compared with the previous year, due to the decreased demand for packed red cells.

Number of plasma donations by apheresis collected



20% decrease in the number of bags of plasma by apheresis collected in 2004-2005 compared with the previous year. A number of plasma donors (group A) were referred to the platelet donations by apheresis program, pursuant to the supply strategy.

Number of platelet donations by apheresis collected



70% increase in the number of platelet donations by apheresis collected in 2004-2005 compared with 2003-2004.

Status of the supply and shipments to hospitals

The organization managed to meet the needs of Quebec hospitals, albeit not without difficulty. It especially had problems during the last three months of the year. Specifically, an operational decision to transfer collection targets from Québec City to Montréal did not produce the expected results.

This situation then worsened when the blood drives planned for cégeps and universities in February and March 2005 did not meet expected objectives or had to be cancelled or delayed due to the student demonstrations.

Labile blood products shipped to hospitals

YEAR	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
Packed red cells	195,312	200,747	211,901	221,659	223,723	220,215
Platelets from whole blood	95,606	108,040	114,305	107,612	98,114	71,284
Equivalent-platelets by apheresis*	6,170	8,510	9,600	21,170	33,875	58,950
Total platelets	**101,776**	**116,550**	**123,905**	**128,782**	**131,989**	**130,234**
Plasma from whole blood	30,626	32,589	33,481	39,324	46,090	46,999
Plasma by apheresis	6,335	7,549	6,989	8,200	8,231	7,170
Cryoprecipitate	11,599	11,935	12,102	12,685	12,888	11,568
Cryoprecipitate supernatants	5,103	6,069	6,714	6,593	10,866	8,768
Total*	**350,751**	**375,439**	**395,092**	**417,243**	**433,787**	**424,954**

**One bag of platelets by apheresis is equivalent to the quantity of platelets derived from five bags of whole blood. The total number of shipments includes total platelets.*

In total, the organization shipped 424,954 labile blood products, including 220,215 units of packed red cells, which represents a drop in demand from hospitals for labile blood products compared with previous years.

Specialized products and services

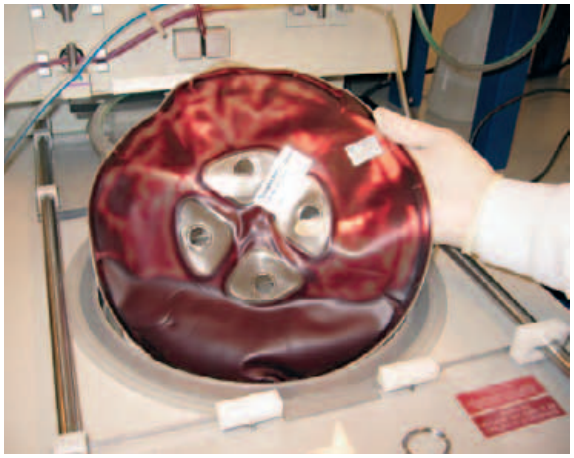
Specialized products

The supply of various specialized products to Quebec hospitals is an integral part of Héma-Québec's mission. It helps its hospital clientele identify and use the type of blood required in complex transfusion cases, in which patients have a rare blood group or specific antigens that could cause transfusion reactions.

Some antigen variations can stimulate the production of antibodies against certain blood groups, which leads to hemolytic reactions or blood group incompatibilities.

Héma-Québec provides the following specialized blood products:

- **Phenotyped packed red cells:** Units for which other blood groups, other than the basic ones (A, B, O, Rh), have been determined;
- **Washed packed red cells:** Units washed repeatedly to significantly reduce the plasma content, to avoid certain allergies in rare cases;
- **Rare blood:** Blood presenting with rare systems or combinations of antigens;
- **Pediatric bags:** Bags of blood specially prepared for transfusions to children.



Specialized labile blood products provided to hospitals

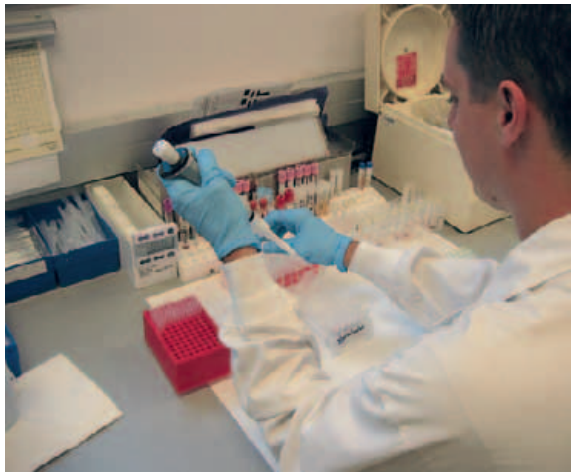
PRODUCTS	2003-2004	2004-2005
Phenotyped blood components	14,805	16,067
Washed packed red cells	1,489	1,556
Bags of rare blood	70	110
Pediatric bags	843	602

In 2004-2005, the organization provided 16,067 phenotyped blood components to hospitals, i.e. 1,262 more products than last year. This rise is mainly due to the increased number of orders for phenotyped blood from hospitals. Note that the average number of bags requested per order stayed about the same. The organization also provided 1,556 units of washed packed red cells compared with 1,489 last year, rise due to an increased number of orders for washed packed red cells. The increase in demand for rare blood was due to a number of cases of patients with rare blood who developed antibodies and required multiple transfusions. Also, a total of 602 pediatric bags were shipped to hospitals, 241 fewer than last year.

Specialized services

As part of its mission, the organization also offers the following expert services to Quebec hospitals:

- **Red cell immunology:** Specialized tests for complex clinical cases of red cell serology;
- **Red cell genotyping by molecular biology:** Genotyping or DNA analysis tests for Rh D, Rh C/E, Kell, Kidd and Duffy antigen systems;
- **Leukoplatelet immunology:** Specialized tests for complex clinical cases of platelet serology;
- **HLA typing of related donors and recipients:** HLA (Human Leukocyte Antigen) system tests in cases of stem cell transplants between related donors and recipients.



Specialized services provided to hospitals

SERVICES	1999-2000	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
Specialized red cell immunology tests	754	1,570	1,978	1,844	1,152	1,350
Platelet immunology tests	187	204	180	178	199	226
Red cell genotyping	0	0	0	18	359	948
HLA ABC typing	901	987	953	1,337	1,812	1,193
HLA DR and DQ typing	424	504	402	452	574	482

In 2004-2005, the Medical Affairs division conducted specialized red cell immunology testing for 1,350 patients, a 17% increase compared with last year, due to an increased demand for alloimmunization tests. A total of 226 patients had platelet immunology tests, compared with 199 patients in 2003-2004. This is mainly due to the increased demand for neonatal thrombopenia and bone marrow dysfunction testing. Also, 948 red cell genotyping tests were done for hospitals, i.e. 589 more than last year, when this specialized service was introduced. Genotyping tests are particularly useful for requests for tests on the phenotyped blood of patients having received multiple transfusions, and for determining fetal phenotype in mothers at high risk of delivering a newborn with a hemolytic disease.

SUPPLY SAFETY

The safety of the blood supply is Héma-Québec's main priority as a producer and supplier of labile blood products. The organization does everything in its power to supply safe, top-quality products to the Quebec public. In 2004-2005, several measures were implemented and numerous projects carried out to ensure and enhance the safety of the blood supply.

West Nile virus (WNV)

The action plan developed last year was continued to counter the effects of WNV on the blood supply.

Experimental test

As in 2003-2004, all labile blood products produced by the organization were screened for WNV using an experimental test on mixed samples developed by Roche Diagnostics.

Individual testing of blood donations

The organization also began individual testing of blood samples collected in regions, which, according to the regional public health branches or the prevalence of WNV identified in donors, were the most affected by WNV.

Accordingly, beginning in August 2004, all blood donations collected in high-prevalence regions for WNV were tested individually, and the test on mixed samples was continued in regions where there were few or no cases of human infection reported.

It was decided to suspend this additional method of individual screening in September 2004, given that WNV had not been detected in any of the blood bags collected and no epidemic had been reported. However, the organization continued to systematically test all blood donations by the mixed samples method, until April 4, 2005 (See *New provision* for more details).

Supply of frozen plasma products

An inventory of plasma products was built up over the winter. As they were collected at a time when there was no WNV in Quebec, these products were used during this summer.

Donor eligibility criterion

As in 2003-2004, a question was added to the blood donation file, asking whether donors had had a fever with a headache in the seven days preceding the donation. If so, the donor was excluded for a period of 55 days.

The blood drive staff also asked donors to report whether they were ill in the weeks following their donation, and specifically whether they had symptoms of WNV, in which case their donation was withdrawn from the inventory. A total of four donations were removed from the inventory.

Special telephone line

Again this year, a special telephone line, 1-877-VNO-HÉMA, was open to people with questions about the effects of WNV on blood donation.

Constant monitoring and collaboration

The organization constantly monitored the situation and collaborated closely with public health agencies in Quebec and Canada, as well as Canadian Blood Services.

Hospitals and regional public health branches notify the organization if a patient infected with WNV donated or received blood shortly before the onset of symptoms. The organization then takes the necessary measures to withdraw the relevant products from circulation.

New provision

In March 2005, the agency was authorized by Health Canada to stop systematic testing for WNV on blood donations between December 1 and May 31 of each year.

The application for Health Canada authorization had been made after an analysis of the risks associated with WNV and after consulting the different advisory committees of the board of directors and the haemovigilance committee. All donors were asked one additional question to identify and target those having traveled outside of Canada in the 56 days prior to their registration at a blood drive. The blood donations from this category of donors who may have been exposed to WNV continue to be screened for the virus.

According to epidemiological data, the period during which the WNV screening test is suspended poses no risk for the virus in Quebec and Canada. Initially, this measure was implemented exceptionally from April 4 to May 31, 2005, inclusively.

No blood donation tested by Héma-Québec came back positive on the additional test to confirm WNV infection, and there were no cases of WNV infection by blood transfusion in Quebec in 2004-2005.

Change to the eligibility criterion for malaria

In the days that followed the report of several cases of malaria in winter 2004 in people having traveled to the Dominican Republic, this risk area was added to the donor eligibility criterion to counter malaria.

As of December 2004, anyone having stayed in the following endemic regions of the Dominican Republic were temporarily prohibited from donating blood: Bayahibe, Catalina Island, Saona Island, La Romana and Punta Cana. Where applicable, donors must wait six months after leaving these endemic regions before donating blood.

Allogenic donations confirmed positive according to each virology marker

Allogenic donations are donations made for the collective blood supply, whether blood, platelets or plasma. Each donation undergoes screening tests for all markers of blood-borne diseases (HIV, HCV, HBV, HTLV, syphilis).

The proportion of donations confirmed positive on more specific screening tests is generally very low, and this was also the case in 2004-2005. All of the bags of blood that tested positive on the screening test are destroyed.

Annual proportion of allogenic donations confirmed positive for each virology marker

YEAR	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
Total number of donations tested	224,175	238,532	250,861	256,518	242,720
HIV	0%	0.0004%	0.0008%	0.0004%	0.002%
HCV	0.0166%	0.0119%	0.009%	0.0160%	0.011%
HBV	0.0109%	0.0123%	0.0082%	0.01%	0.015%
HTLV	0%	0.0008%	0.0016%	0.0039%	0.001%
Syphilis	0.0095%	0.011%	0.0094%	0.0105%	0.010%

During the year 2004-2005, five donors infected with the human immunodeficiency virus were detected. This is an increase in the number of cases compared with the previous three years, during which only four cases in total were detected. The five cases in 2004-2005 tested positive for the two screening tests used. On analyzing this situation, no risk factor was identified. The donors came from different areas of Quebec; four of the five cases were first-time donors. The last positive donation was on November 4, 2004. Since then (and until late March 2005), no other donor has tested positive for this virus. This fact suggests that this was not a trend but rather a cluster of random cases. It is important to note that since these cases were detected, the products prepared from the donations in question have been destroyed. Therefore, the safety of the supply was not threatened.

Upgrade of PROGESA

Since November 2004, a team has been working on upgrading the PROGESA blood management software suite (the PROMINI project).

This software suite supports all the steps in blood management, from donor registration to product shipments, and ensures that donations and blood products can be tracked.

In November 1999, Héma-Québec was the first organization in Canada to implement the PROGESA blood management software suite (version 4.4d), replacing the BLIS software, and thereby making its operations even safer and more efficient. Since then, an upgrade has become necessary.

There are four main objectives related to the PROGESA upgrade:

- Implement the current version (4.4g) of PROGESA.
- Update the technology infrastructure (mainly the servers) for running PROGESA, according to current industry standards and to enable increased safety and productivity of operations.
- Implement international labeling standard ISBT-128 for products, replacing the current barcode system.
- Review and optimize business processes, by reducing known anomalies in the current version of the software suite.

The PROMINI project involves multiple parties, particularly the expert skills of employees in the following sectors: Operations, Medical Affairs, Information Technologies, Quality and Standards, and Administration and Finance.

The project team includes over twenty employees. Also, several representatives from each sector of the organization affected by the blood management process and the use of PROGESA are helping develop the business processes to be implemented with the new version 4.4g of PROGESA. They are identifying elements and features specific to their sector which must be considered in upgrading the software suite, and they are responsible for liaising with the PROMINI team.

This new version of PROGESA is scheduled for official launch in 2006-2007.

Review of controlled documents

In 2004-2005, over 580 procedures, specifications and their related forms and operating guides were reviewed. These controlled documents describe the procedures employees must follow in blood production and management. The objective of the revision project is to check the accuracy of descriptions in all these documents, in order to guarantee the quality and safety of blood products, and the tracability of all actions taken to produce them.

This large-scale project requires the participation of all divisions involved in the blood management process. The review of these controlled documents and procedures should be completed by late 2005-2006.

Regulatory training

Employees involved in producing blood products must have ongoing training in order to stay abreast of all changes to the standard operating procedures that concern them and to have all the knowledge needed to ensure the safety of the blood supply.

Several changes were made to the regulatory training plan in 2004-2005: New management, revision of the standard operating procedure regarding the regulatory training system, and overhaul of the training program for trainers, which was cut from three days to two. To ensure better follow-up of regulatory training activities, Héma-Québec has developed a tool to track the certification of internal trainers, as well as a database to improve the management of the drafting and revision of training modules used as basic content for employee regulatory training sessions.

From January to December 2004, over 70,700 regulatory training hours were given, which represents approximately 80 hours per year per employee working within the regulatory framework for blood production.

Bacterial detection on platelets

Platelets must be stored at 20-24 ºC before transfusion to maintain their integrity. However, this storage temperature promotes bacterial growth, which could cause an infection in recipients of these labile blood products.

To counter this risk, Héma-Québec has implemented several safety measures over the years: Better disinfection of the donor puncture site; addition of a derivation pouch for the small piece of skin collected during the puncture; a bacterial detection system for platelets by apheresis.

In February 2005, after several months of work, the organization introduced a bacterial detection system for blood platelets. It now submits all platelet products to a systematic bacterial culture.

Platelet specimens are stored for 18 hours after collection, and then monitored for seven days for the presence of bacteria. In the meantime, platelet products are shipped to hospitals, which are quickly informed of any case of bacterial growth noted.

This process helps make platelet products even safer. As at March 31, 2005, 12,155 bacterial cultures had been done on platelet products, and no positive results (bacterial growth) had been observed.

Quality control of labile blood products

The organization applies a myriad of quality control processes to ensure that the labile blood products manufactured respect prevailing standards and are safe. It works constantly to comply with the strictest standards. The following table presents the quality control results for labile blood products for the year 2004-2005.

Quality control of labile blood products – Results for 2004-2005

TYPE OF PRODUCT (N=NUMBER)	TESTS	NUMBER OF PRODUCTS TESTED	PERCENTAGE OF COMPLIANCE	ACCEPTABLE VALUE	ACCEPTABLE PERCENTAGE
Packed red cell AS-3	Residual leukocytes	831	99.9%	< 5.0 x 10^6/bag	100% of bags tested
	Sterility	711	100%	No contamination	100% of bags tested
Platelet concentrate	Residual leukocytes	1,409	99.9%	< 5.0 x 10^6/bag	100% of bags tested
	Platelet count	1,409	82%	≥ 5.5 x 10^{10}/bag	75% of bags tested
	pH	1,409	100%	≥ 6.0	100% of bags tested
	Sterility	1,382	100%	No contamination	100% of bags tested
Thrombapheresis	Residual leukocytes	1,269	99.9%	< 5.0 x 10^6/bag	100% of bags tested
	Platelet count	12,133	90%	≥ 3.0-5.1x10^{11}/bag	75% of bags tested
	Sterility [1]	10,327	99.9%	No contamination	100% of bags tested
Granulopheresis	White cell count	36	89%	≥ 1.0 x 10^{10}/bag	75% of bags tested
	Sterility	20	100%	No contamination	100% of bags tested
Cryoprecipitate	Fibrinogen	196	99.5%	≥ 150 mg/bag	75% of bags tested
	Factor VIII	189	90%	≥ 80 IU/bag	75% of bags tested
Frozen plasma	Factor VIII	446	92%	≥ 0.52 IU/mL	75% of bags tested
Fresh frozen plasma	Factor VIII	41	76%	≥ 0.70 IU/mL	75% of bags tested
Fresh frozen plasma by apheresis	Factor VIII [2]	103	72%	≥ 0.70 IU/mL	75% of bags tested
	Sterility	114	100%	No contamination	100% of bags tested

[1] Staphylococcus epidermidis
[2] Corrective action taken to control the situation

Quality control checks of processes are done on a monthly basis, during which different products are selected at random, then tested according to pre-set quality parameters. The objective is to ensure that the blood products prepared respect prevailing safety and efficacy standards.

Residual leukocyte counts are used to check the quality of leukoreduced blood products. Sterility tests are used to ensure that the disinfection of the puncture site during collection is effective, thereby reducing the risks of contamination.

Platelet and white cell counts ensure that the products contain the minimum required quantity of these components, according to prevailing standards. Factor VIII and fibrinogen tests check whether the minimum required quantities of these components are respected.

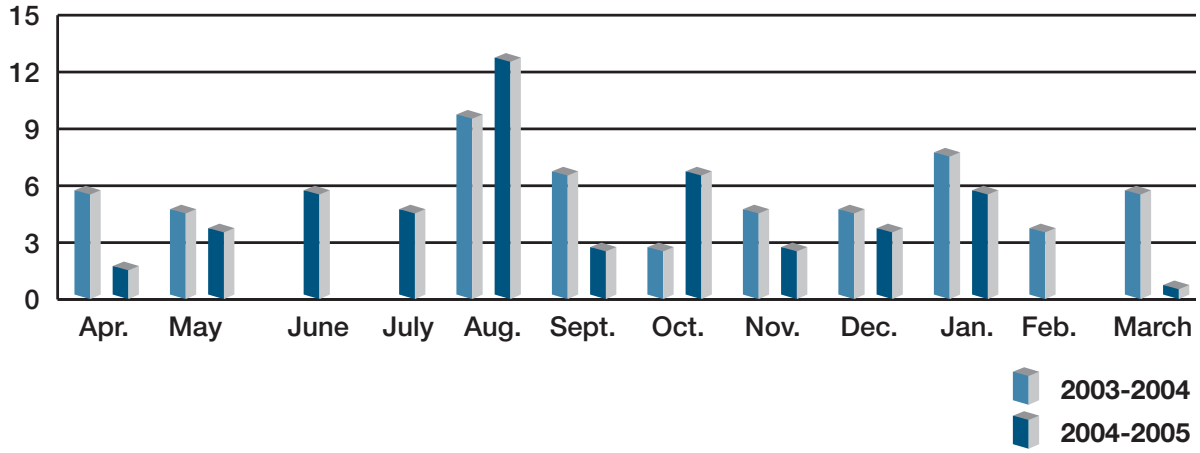
The table presents the compliance levels obtained by blood product type and test, as well as prevailing standards. The Acceptable Value column presents the required limits and the Acceptable Percentage column, the level of minimum required compliance according to prevailing standards.

Error and accident reports

Errors, unexpected deviations from procedures or standards that may occur at any stage in the blood management process, are compiled. These can compromise the safety, purity or efficacy of a product.

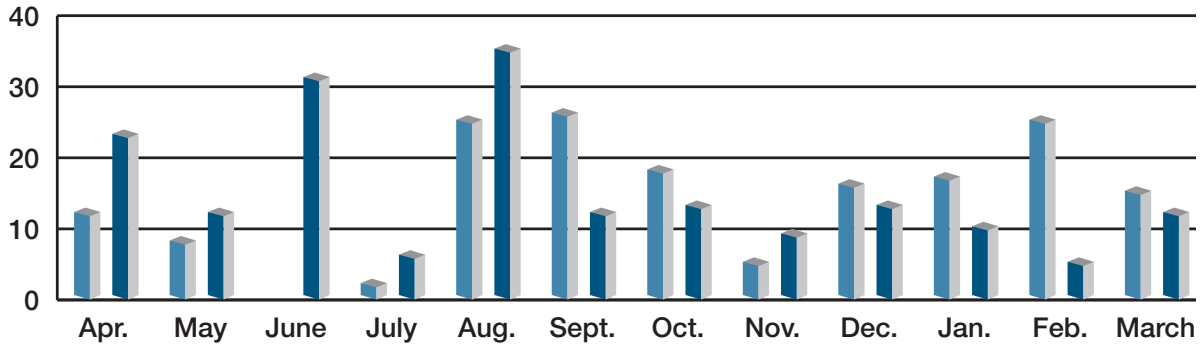
Where applicable, these products are immediately withdrawn from production and the inventory, and destroyed. Statistics on accidents are also compiled, i.e. situations that can occur at any time in the blood management process even if all procedures have been followed.

Errors and accidents (excluding shipping problems)



This graph includes all types of errors and accidents except those related to shipping problems. In 2004-2005, there were a total of 54 errors and accidents, excluding shipping problems, compared with 59 for the previous year. The organization has formed a task force to analyze the basic causes of these errors and accidents in order to take the appropriate corrective measures. Following certain analyses, several lapses at different stages in the blood management process were rectified, resulting in fewer errors and accidents since August 2004-2005. Corrective measures are monitored regularly.

Errors and accidents due to shipping problems



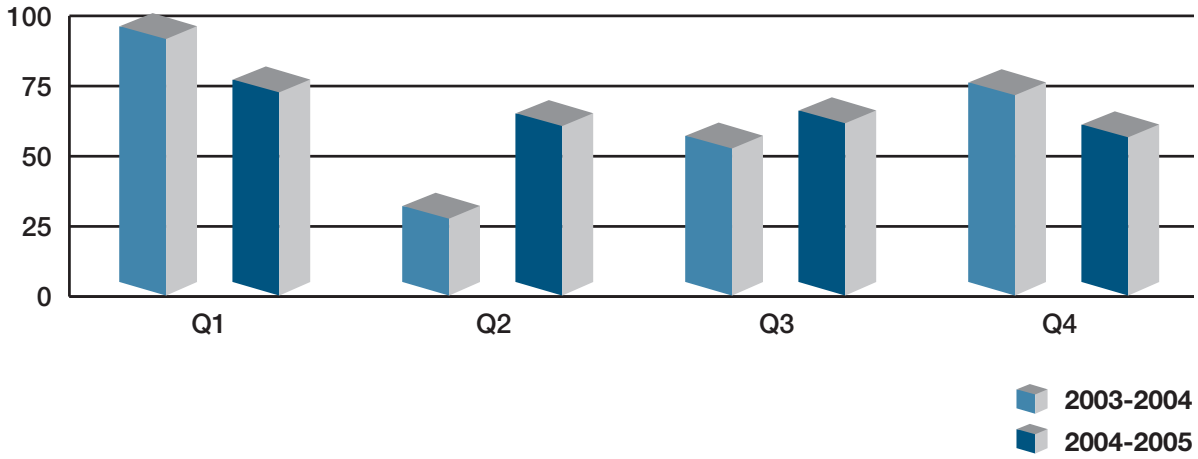
A total of 193 errors and accidents due to shipping problems occurred in 2004-2005, i.e. 13 more than in 2003-2004. Several lapses at different steps were corrected, and fewer errors and accidents due to shipping problems have been noted since August 2004-2005.

Post-donation information reports

Information received after a blood donation consists in reports of infection, use of medications, or at-risk activities reported after the blood donation.

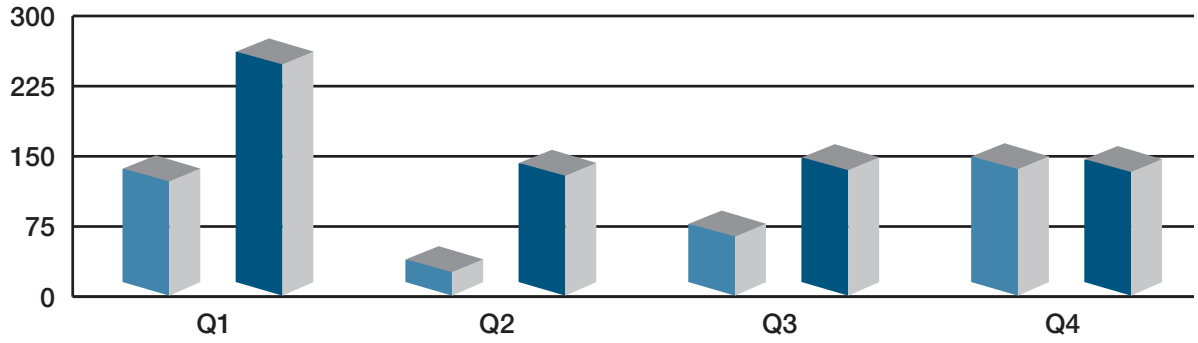
Given that this information can compromise the safety, purity or efficacy of the blood products derived from the donation in question, post-donation information reports are also reasons for withdrawing products from the inventory.

Post-donation information (except that related to the eligibility criterion for malaria)



Information reports include all types of information received from donors after the donation, except that concerning trips to malaria-endemic areas. A total of 289 reports were received after donations in 2004-2005, i.e. only 8 more reports than the previous year.

Post-donation information regarding trips to malaria-endemic areas



The table presents the number of information reports regarding trips to malaria-endemic areas. A total of 757 post-donation reports were received in 2004-2005, i.e. 296 more than in 2003-2004. This sizeable increase is the result of the introduction of a change to the new donor eligibility criterion for malaria (see Change to the eligibility criterion for malaria for more details).

Inspection of internal operations

During 2004-2005, the Quality and Standards division inspected all regulated departments (18 in Montréal and 17 in Québec City). The organization thus performed 122 days of audits.

These inspections are an integral part of a continuing improvement process, which enables employees and managers to take the necessary corrective measures to maintain the highest level of compliance with standards.

An observation report is issued for each inspection that requires an answer for each observation by a specific date. The answers from the departments in question describe the corrective measures proposed, and give a compliance date for each observation. All of these answers are reviewed as well as the proof of implementation of corrective measures, where applicable.

Inspection of suppliers

To ensure the safety of the blood supply for the Quebec public, periodic inspections are conducted at suppliers' premises, and new suppliers are evaluated to ensure they respect good manufacturing practices for the critical products or services they supply.

In 2004-2005, a total of eight suppliers, six of which were new, were inspected. Seven companies retained or earned the status of approved supplier. One was not approved. However, this did not have any negative impact on products.

New supplier certification or evaluation program

In addition, a new supplier certification program was developed in 2004-2005, with new tools to evaluate suppliers' degree of compliance with regulatory requirements and the organization's specifications. This new program will allow suppliers to obtain certification with greater efficiency.

It specifically considers the following:

- Critical nature of the product or service: Suppliers are categorized according to the impact they have on the preparation, eligibility, processing or distribution of the donation, and according to the type of products or services provided;
- Maturity of the supplier's quality system: The level of the supplier's qualification, combined with its performance, determines the frequency of audits;
- Customer service offered by the supplier: The Purchasing division and user services play a role in evaluating the supplier. An unsatisfactory performance can lead to the supplier being evaluated before the originally scheduled date.

The new supplier certification program will come into effect in early 2005-2006.

Inspection by Health Canada

Héma-Québec successfully passed its annual inspection by Health Canada. This year, the procedural audit visit took place from November 17-30, 2004 in Montréal and from January 17-21, 2005 in Québec City.

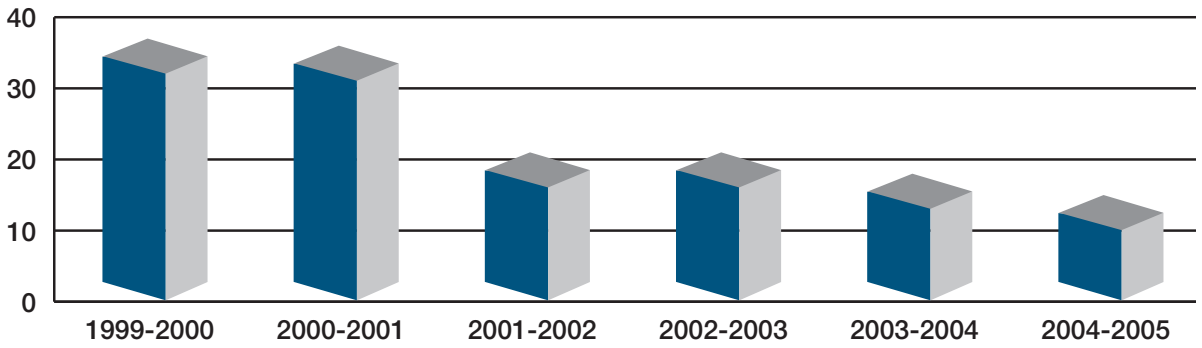
Health Canada representatives are mandated to ensure that the safety measures required by the latter and the conditions for the operating license are respected. Throughout the audit of the facilities, Health Canada inspectors noted that the safety of blood products is a priority for all staff members, as evidenced by their level of professionalism. They also noted a general improvement in documentation, employee training and inventory management.

The inspectors made observations only about a few activities having no major impact on product safety. Corrective measures have already been made or are imminent.

The renewal of its operating license once again shows that Héma-Québec respects the safety measures required by Health Canada and proves that the public, patients and hospitals in Quebec have reason to trust the organization and its team.

Moreover, the compilation of observations made by Health Canada inspectors shows that the number of observations is decreasing year after year.

Observations made by Health Canada



Health Canada made a total of 15 observations in 2004-2005, three fewer than in 2003-2004 and 22 fewer than in 1999-2000. It is important to note that not only did the number of observations decrease from 1999-2000 to 2004-2005, but they are also less significant in terms of their potential impact on existing procedures and product safety.

CUSTOMER SERVICE

In 2004-2005, Héma-Québec took several measures to improve its customer service.

Blood Donation Positive Experience

The Blood Donation Positive Experience (BDPE) project, started two years ago, involved a complete overhaul of the mobile blood drive process with the goal of offering a more pleasant setting and better customer service that is conducive to giving blood. The BDPE comprises three phases: An improved presentation of mobile blood drives, an improved blood donation procedure (IBDP) and improved customer service.

With the introduction of this blood drive approach, the organization aims to recruit more donors, build loyalty and step up the frequency of donations. During 2004-2005, some new elements of the BDPE project were implemented.

A new set of uniforms was introduced. A supplier was selected subsequent to a call for tenders. The contract included the design and production of the new collection. The contract, awarded to the lowest eligible bidder, nonetheless enabled Héma-Québec to get their uniforms from the renowned designer Jean-Claude Poitras.

Moreover, the set of blood drive accessories (carts, blood donation record folder, signage, etc.) were reviewed, and new chair cushions were installed, all to improve donor comfort and the appeal of blood drives. In brief, everything was done to present the blood drive as an esthetic, cohesive unit that complies with the standards for the presentation and modular layout of the various collection booths.

The computer hardware needed for mobile blood drives was entirely reviewed, and improved solutions developed. The new hardware, including wireless terminals for registration clerks, is scheduled to be deployed next year.

Note that the organization held regular consultations with its staff throughout the BDPE project.

Donor satisfaction

In October 2004, a telephone survey of blood donors was conducted, with the help of an outside firm, to assess their satisfaction with components of the Blood Donation Positive Experience. The results of the survey were also recorded as part of a first international benchmarking exercise involving other suppliers of blood products.

Accordingly, 38% of respondents gave Héma-Québec a perfect 10 for their general blood donation experience. A total of 60% of respondents found blood drive staff to be professional, scoring them a perfect 10. Also, 80% of respondent donors gave blood collection staff a high score in the following customer service categories: Satisfactory answer to their questions; attention to and respect for the donors, and an immediate response to their needs; full explanation of the donation process; and attention to donors' concerns.

Moreover, 90% of respondents gave a high score to telephone clerks for the following customer service categories: Courtesy, respect for donors, ability to answer donors' questions, prompt answers.

However, only 18% of respondents gave a perfect score for the waiting time to give blood and 31% said they had to wait longer than expected to give blood. The questionnaire also contained several questions developed in partnership with the participating blood organizations, as part of an ongoing international benchmarking exercise started in 2004-2005.

Héma-Québec obtained a comparable performance result for the general experience of giving blood, with 38% of respondents having given a perfect 10.

The other blood suppliers were given a perfect score by 32% and 41% of respondents.

However, the organization duly noted that it must work on cutting the waiting time for donors; only 18% of respondents gave it a perfect score for waiting time, compared with 24% and 26% for other participating blood organizations. A task force was therefore set up in 2004-2005 with a mandate to develop solutions and draft an action plan to cut donors' waiting time.

External customer service

In 2004-2005, the organization gave employees in regular telephone contact with external customers the tools to help them do their tasks effectively so as to improve relations with external customers.

A basic training program was developed, tailored to the realities of the organization and its staff. This training, focused on customer service and communications skills, promotes the development of positive and mutually satisfying communication with various customers, as well as a better assimilation of Héma-Québec's value “Always think service”. Several teams have taken this training.

Meetings with the clientele

To promote and maintain a direct and regular contact with its hospital clientele, the hospital relations and inventory team organizes meetings with hospital blood bank staff in the Montréal and Québec City areas. This is a forum for discussing transfusion medicine and ensuring the quality of customer service the organization gives to its participating clientele.

The main points of discussion concerned projects undertaken to ensure and improve the supply and safety of blood products, and the process Héma-Québec uses to communicate with hospital blood banks (for example, in the event of a product recall). The hospital blood bank staff actively participates in these meetings.

This year, there were a total of eight meetings with hospital blood bank staff. The staff that attended these meetings represents 55 of the 88 hospitals served by the organization.

Laboratory tours

In 2004-2005, the Operations division offered a tour of the facilities, especially the laboratories, for our hospital clients. The tour was held in June 2004 and it attracted over 70 blood bank specialists representing some 20 hospitals. The Operations staff was on hand to explain the work involved in managing blood and to talk with visitors, who were better able to appreciate and understand the work situation of their supplier.

Moreover, every year, Public Affairs welcomes visitors interested in the organization’s activities and who acknowledge its role as leader in this field. In 2004-2005, over 260 visitors were welcomed on 25 tours.

Overhaul of the Web site

In 2004-2005, Public Affairs developed and posted an improved version of the Web site at the following address www.hema-quebec.qc.ca.

Designed to better serve Internet users, the new site is more complete and reflects the changes in the organization since the last overhaul in fall 2001. Two new tabs were added, one for stem cells and one for human tissues. Also, some documents of particular interest to hospitals were added, as well as information on R&D activities.

EFFICIENCY

In 2004-2005, a drop in the demand for labile blood products was noted compared with the constant increase in demand noted since the creation of Héma-Québec.

To ensure the efficiency of its activities, the organization must specifically adapt its forecasts and production methods to the situation, focusing more on its processes and reducing its operating costs. This is to be able to maintain reasonable costs/prices for a unit of packed red cells, its basic product. The decreased demand implies the optimal use of labile blood products by hospitals. Note also that 2004-2005 was a pilot year leading to the introduction of billing of blood products to hospitals.

Accordingly, in 2004-2005, the organization proposed a certain number of initiatives and continued several projects focused on the efficiency of its processes and activities.

Relocation of the Québec City facility

In 2004-2005, the staff working in the Québec City area was moved and its activities transferred to the new building located on the Université Laval campus. Over 400 people work in this new three-story building, home to the different teams responsible for Operations and Medical Affairs, Research and Development, and the Human Tissues team.

The move to more appropriate facilities will add increased efficiency to the organization's activities. Moreover, its location in Québec City's cité universitaire (university sector) provides access to a pool of high-quality intellectual resources, which, combined with its expertise, will enable it to assemble a critical R&D mass dedicated to developing new products, services and technologies in transfusion medicine and which meet the needs of its hospital clientele. In addition, the organization now has new rooms specially designed for collecting and processing human tissue, which will allow it to carry out human tissue activities at an optimal level.

1009 Du Vallon Road, Sainte-Foy

The facilities at 1009 Du Vallon passed the pre- and post-move inspections by Health Canada with flying colours. The latter made no observations. The audit was conducted to ensure compliance of the new building.

This new building was officially inaugurated on September 29, 2004. Minister Sam Hamad, representing the Minister of Health and Social Services, was in attendance to highlight this event and pay tribute to the whole team.

Continuous work

In 2004-2005, regulatory analyses (blood eligibility tests) were restructured to implement a new continuous work method. This new method leads to significant savings in terms of the use of reagents. Each time a qualification instrument is opened, several tubes must be filled with reagents. With the continuous work method, instruments are no longer closed between the night shift and the day shift working on regulatory tests, which eliminates the need to fill the devices with new reagents.

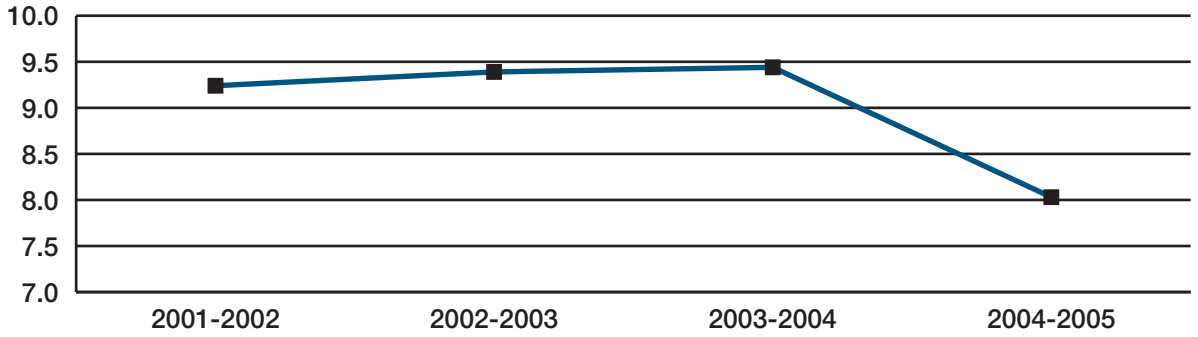
Upgrade of software in the regulatory testing laboratory

In 2004-2005, a new version of Olympus 3.a was installed on the two PK7200 machines used to determine blood groups and screen for syphilis in all blood donations. Other software (Amplilink v1.4 and Sunplus v3.7R) used to conduct nucleic acid tests were also upgraded.

Performance

In 2004-2005, the organization worked to perfect its labile blood products management and production processes. Managers were appointed for each activity sector. Operating results were analyzed weekly to find different ways to reduce product loss rates during production and product expiry rates.

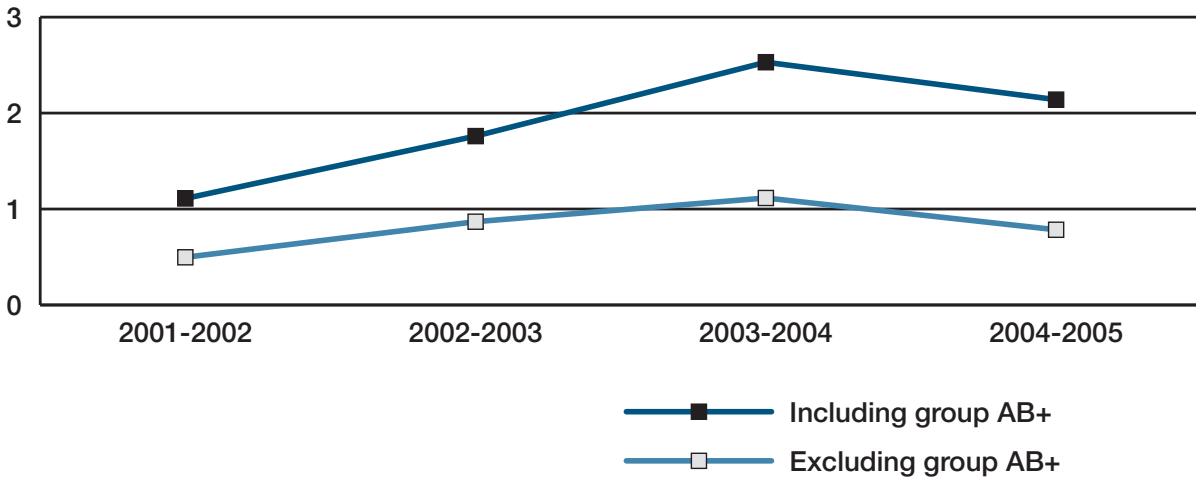
Loss rate (%) of allogenic packed red cells during production



The loss rate is conditioned by two factors, i.e. the results of regulatory eligibility tests on donations and the blood processing procedure. It goes without saying that the factors related to regulatory testing are more difficult to control than the processing as such; a donation that tests positive on a screening test must be withdrawn from the processing and manufacturing procedures.

The loss rate for allogenic packed red cells dropped from 9.4% in 2003-2004 to 8% in 2004-2005. A program to reduce losses, focused among other things on reviewing work procedures and raising employee awareness, contributed to the significant improvement in this rate.

Expiry rate (%) of allogenic packed red cells



The expiry rate of allogenic packed red cells (including group AB+) dropped from 2.5% in 2003-2004 to 2.1% in 2004-2005. This decrease is related to the decision to stop stockpiling blood for WNV, for which extra units of packed red cells had been collected, and to cancel the practice of telephone-recruiting donors of certain blood groups. Products derived from AB+ blood group represent an average of over 50% of expiries. This group represents a small proportion of the population (2.5%). As universal recipients, these people can receive blood from all other blood groups. Transfusions of a product of a blood group that differs from that of the recipient contribute to the discrepancy in expiries for group AB+. This is why we also show the expiry rate for allogenic packed red cells excluding group AB+. This dropped from 1.1% in 2003-2004 to 0.8% in 2004-2005.

Billing of blood products

Following a pilot project conducted last year, in 2004-2005, the organization prepared to bill hospitals per order of blood products. This billing method was officially introduced on April 1, 2005. Note that this billing was requested by the Ministère de la Santé et des Services sociaux (MSSS) and stems directly from recommendations in the Gélineau Report and from the stipulation to this effect in the Act respecting Héma-Québec and the haemovigilance committee. Per-order billing is an approach recommended to the MSSS by the Supply and Financing Management Committee.

Upgrade of server infrastructure and workstations

In 2004-2005, the Information Technologies division continued upgrading the organization's technology infrastructure in order to make savings of scale and optimize processes. The organization consolidated and improved the servers supporting its activities (except those related to operations) and its workstations. Moreover, telecommunication links and an improved antivirus infrastructure were installed.

Système intégré de gestion des ressources Héma-Québec (SIGRHQ)

The SIGRHQ project, begun last year, continued in 2004-2005.

SIGRHQ
Système intégré de gestion des ressources Héma-Québec

This large-scale project aims to integrate, harmonize and optimize the organization's systems and administrative procedures related to human resources management.

Héma-Québec was using outdated systems to manage its administrative activities. Following several workshops, it was noted that the same HR information in personnel files, from hiring to time management, was entered multiple times during a processing cycle. There were different work methods within the organization for the same activities. The implementation of an integrated, optimized human resources management system had become necessary.

With the SIGRHQ project, the organization expects to increase the efficiency of its administrative activities, including work planning; personnel assignments; personnel, time and bank (vacations, sick leave) file management; and payroll.

To do so, it is working to:

- Automate data entry processes to date done manually;
- Eliminate redundant data entry and thereby the risk of errors;
- Integrate new functions;
- Standardize the IT tools used for human resources management.

From summer 2004 to December 2004, the SIGRHQ team focused on designing improved administrative processes. A total of 75 processes were reviewed, and new work methods and functions were identified. The organization began implementing this project in January 2005, and has started to integrate the improved rules and functions into the SAP IT environment.

We expect to complete overall configuration during the coming year. The official commissioning of the integrated resource management system is scheduled for late 2005-2006.

Transfer of payroll

To help the Human Resources division focus more clearly on its mandate, payroll was transferred to the Administration and Finance division in September 2004.

This restructuring has led to improved synergy and efficiency, as the HR division remains responsible for all information related to the management of remuneration and labour condition programs and policies.

Management system for administrative documents and archives

A new computer system to manage administrative documents and archives was evaluated and validated. This system is used to more effectively manage the organization's administrative documents and archives, from their receipt or creation to their final destruction. It will be installed during 2005-2006.

Défi-ÉTAPES

Management launched an efficiency challenge throughout the organization called Défi-ÉTAPES. More specifically, ÉTAPES stands for:

- Effectiveness: Effectively ensure the safety and adequacy of the blood supply;
- Transformation: Deal with new realities;
- Adjustment: Adjust to market conditions, more specifically the decreased demand for labile blood products;
- Performance: Maintain and ensure the integrity of processes;
- Efficiency: Constantly seek to obtain the best performance at the best cost;
- Survey: Meet this challenge while considering staff comments made in last year's survey on the structural climate, while taking actions related to efficiency based on recommendations in this survey (see *Human Resources: Follow-up of survey on organizational climate*).

Accordingly, all employees were informed of this challenge in targeted memos, and in the performance of their respective daily tasks. The organization is specifically committed to finding ways to make savings in each activity sector and to review all work processes, with its employees' help. The staff were asked for their ideas and suggestions, and this will continue in the coming years.

The organization also worked on and is continuing to work on improving its tools to gauge and track performance and efficiency on a daily basis.

Management specifically implemented a system of performance indicators to facilitate budget follow-up, as well as the issue of the results report for all divisions. The managers have been trained to use this new system.

The organization is now better equipped to make informed decisions in order to optimize its business processes and the cost per unit of packed red cells.

All of these measures are necessary to meet the new realities facing the organization.

FRACTIONATED PRODUCTS

Héma-Québec is the distributor for fractionated products in Quebec. As the name indicates, fractionated products have a longer lifespan than labile blood products. Obtained by fractionating human plasma to collect various proteins, or by using recombinant production techniques, fractionated products are used for a variety of therapeutic purposes.

The categories of fractionated products distributed include:

- Intravenous immunoglobulins (IVIg);
- Recombinant coagulation factors;
- Coagulation factors derived from plasma;
- Albumin;
- Hyperimmune immunoglobulins.

Intravenous immunoglobulins and recombinant coagulation factors account for over 70% of the budget for fractionated products, whereas the value of fractionated products distributed to Quebec hospitals represents over half of the organization's total budget.

Distribution of new products

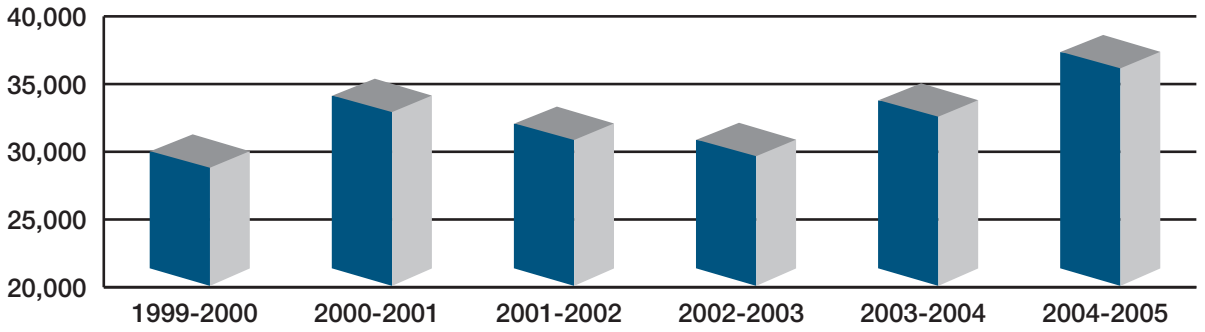
The organization began distributing a new fractionated product in 2004-2005, a fibrin-based biological glue that hospitals use during surgeries for hemostasis, leakproofing or attaching tissues, as well as to promote scarring.

In addition, the Quebec Minister of Health and Social Services has authorized Héma-Québec, starting April 1, 2005, to supply Quebec hospitals with specific immunoglobulins (anti-rabies, anti-tetanus, anti-botulism and anti-diphtheria).

Plasma sent for fractionation

The organization sends a portion of the plasma collected from blood and plasma collected by apheresis to Bayer, with which it has a fractionation contract. Bayer processes these labile blood products into fractionated products—intravenous immunoglobulins and albumin. Intravenous immunoglobulins are used, among others, for immunodeficient patients, whereas albumin is used mostly for maintaining oncotic pressure and transporting certain drugs.

Litres of plasma sent to Bayer

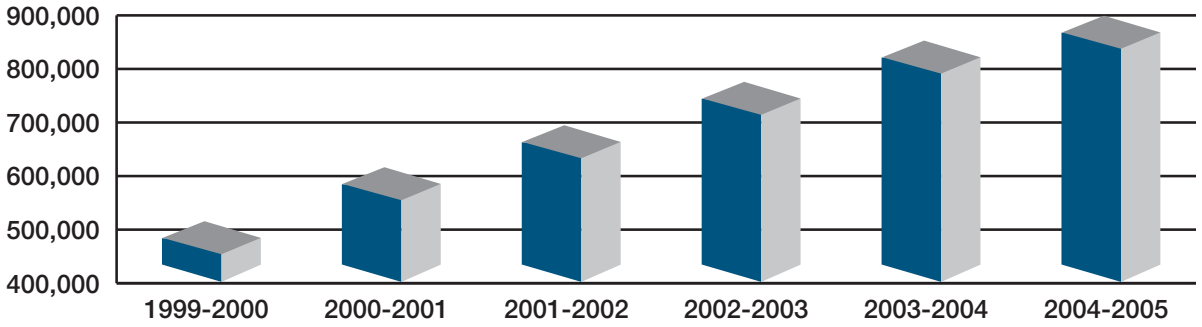


In 2004-2005, a total of 38,629 litres of plasma were sent to Bayer, an increase of 10% over last year.

Shipments of fractionated products to hospitals

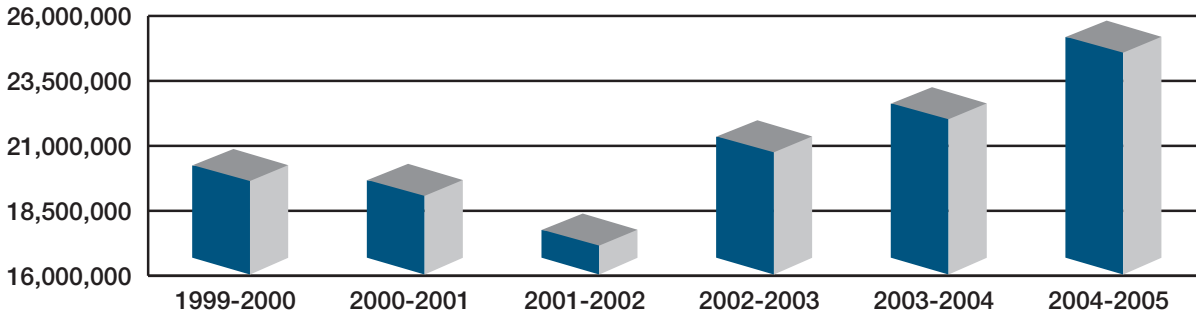
In 2004-2005, Héma-Québec distributed a volume of fractionated products to Quebec hospitals valued at CAD$137,117,876.

Shipments of intravenous immunoglobulins



Intravenous immunoglobulins are notably used for treating immunodeficient patients. In 2004-2005, Héma-Québec shipped 899,330 grams of intravenous immunoglobulins, an increase of 5% over 2003-2004.

Shipments of recombinant anti-hemophilic factors



Recombinant anti-hemophilic factors (FVIIIr) are used to prevent and control bleeding related to type A hemophilia. In 2004-2005, Héma-Québec delivered 25,820,245 IU (international unit) of FVIIIr, an increase of 11% over the previous year.

Information management system

The organization achieved an optimal level of efficiency in its purchasing, management, and distribution of fractionated products, due in large part to its computerized information management system for fractionated products. Accordingly, it was able to maintain good relations with its suppliers, which performed adequately and in keeping with the indicators set by the organization in its computer system. It managed to reduce its inventory of fractionated products as well as the distribution costs for these products, while ensuring availability and an adequate, safe supply for hospitals.

HEMATOPOIETIC STEM CELLS

Héma-Québec also works in the area of hematopoietic stem cells under a departmental authorization, pursuant to the Act respecting Héma-Québec and the haemovigilance committee. Stem cells are the mother cells from which all other blood cells (red cells, white cells and platelets) develop.

Bone marrow is the factory that produces stem cells. This soft, gelatinous tissue fills the insides of bones, such as the sternum and the pelvis.

Stem cells are found primarily in bone marrow and, in small quantities, in the peripheral blood. Blood from the umbilical cord of newborns is another source of stem cells.

Stem cell transplantation is a specific treatment for diseases such as medullary aplasia and leukemia, which result in an abnormal functioning of bone marrow.

Stem Cell Donor Registry

Héma-Québec has set up and manages Quebec's Stem Cell Donor Registry, a computerized database containing the names of people who have volunteered to donate their stem cells to an unrelated compatible patient.

The Quebec Registry is linked to the Canadian Registry, and to international registries, thereby enabling an international search for an unrelated donor for a Quebec patient. In return, the Quebec Registry is available for all patients awaiting a stem cell transplant in Canada and elsewhere in the world.

The Medical Affairs division is responsible for recruiting stem cell donors; the laboratory staff performs blood tests to determine compatibility between potential donors and recipients. The compatibility tests (HLA typing) aim to determine the characteristics of the antigens and proteins present on the surface of white cells.

In 2004-2005, an additional 479 people were added to Quebec's Stem Cell Donor Registry, bringing the total number of registered Quebec donors to 35,227 in December 2004. During this period, Héma-Québec successfully matched 13 Quebec stem cell donors with 13 recipients. Note that the likelihood of finding a compatible donor for a patient varies from 1/450 to over 1/750,000, depending on the patient's HLA typing. In addition, new technology has been introduced that has greatly improved the efficiency of HLA typing.

Number of unrelated donors registered in the Stem Cell Donor Registry

	DECEMBER 2002	DECEMBER 2003	DECEMBER 2004
Quebec	36,867	36,445	35,227
Canada	223,430	218,500	217,521
Worldwide	8,500,000	9,000,000	9,600,000

The number of donors on the Quebec registry (35,227) was down from the previous year. Similarly, the number of people on the Canadian registry fell from 218,500 in 2003 to 217,521 in 2004. These decreases were due to a lowering of the maximum eligible age, from 66 to 60, thereby excluding many previously registered donors.

Public Cord Blood Bank

Following the trial period which ended on April 29, 2004, Héma-Québec officially launched Quebec's Public Cord Blood Bank in June 2004, in partnership with Sainte-Justine Hospital and St. Mary's Hospital.

This bank aims to make stem cells from cord blood a community resource and to ensure an optimal-quality supply that meets patients' needs, especially those of children, who are waiting for a stem cell transplant.

As manager of the Bank, Héma-Québec's role is to manage the collection process at partner hospitals, process the cord blood, ensure its quality, freeze and preserve donations that meet the selection criteria, and distribute this new community resource to hospitals for transplant recipients. Also, samples that do not qualify for the Bank are kept for research purposes at Sainte-Justine Hospital, provided the mother in question consents.

Pregnant women, whose delivery is scheduled at St. Mary's Hospital or Sainte-Justine Hospital, can register for the Bank. Depending on the needs and status of the Bank, Héma-Québec could involve other hospitals.

The current partners have a volume of deliveries and expertise in multicultural recruiting. Moreover, the clinical and research expertise at Sainte-Justine is a major asset. The first cord blood collections began at both partner hospitals in July 2004.

The Public Cord Blood Bank provides access to a source of hematopoietic stem cells, in addition to bone marrow and peripheral blood, and is an integral part of Quebec's Stem Cell Donor Registry. Cord blood, which is rich in stem cells, is a good treatment option for people weighing less than 50 kg who need a bone marrow transplant. Since it has already been collected and processed, cord blood is more readily available than bone marrow, and the transplant is more quickly identified.

HUMAN TISSUES

As with blood products, Héma-Québec is also a supplier of human tissues for transplantation.

In fall 2001, the Minister of Health and Social Services officially recognized Héma-Québec's competency in the processing and distribution of human tissues, and authorized an extension of its activities to cover human tissues, since the risks involved in processing tissues are similar to those encountered in processing blood components. Convinced of Héma-Québec's professionalism in ensuring a safe supply of tissues, the Minister permitted it to take the necessary measures to implement this aspect of its mission.

There are various categories of human tissue, including bone grafts, or musculoskeletal tissue, and heart tissue. Currently, bones are harvested, processed and distributed mainly to hospitals in the Québec City area. In 2005-2006, the distribution will be gradually extended to all hospitals in Quebec that have a need. The organization also harvests heart tissue for the preparation of heart valves, which are currently processed and distributed by the Regional Tissue Bank in Halifax.

New facilities

In 2004-2005, activities related to human tissue were begun in the new tissue laboratories and processing rooms, generally known as white rooms, which were specifically designed for harvesting and processing human tissue (see section *Efficiency – Relocation of the Québec City facility*).

American Association of Tissue Banks (AATB) certification

In February 2005, Héma-Québec obtained American Association of Tissue Banks (AATB) certification for the harvesting, processing, storage and distribution of musculoskeletal tissue, as well as for the harvesting of heart tissue; this marks the completion of a necessary phase in the development of its human tissues harvesting and distribution network.

The AATB is the benchmark institution for standards governing aspects that are incumbent on human tissue banks in North America.

The organization was awarded this certification without restriction, following a complete inspection of its new Québec City facility from February 14 to 16, 2005.

The certification confirms that all medical, technical and administrative aspects of the human tissues team's facilities meet the AATB standards. Furthermore, this certification attests that the Quebec people and hospital patients have access to safe products for the transplantation of human tissue.

Raising awareness about human tissue donation

In 2004-2005, the organization continued its human tissue donation awareness-raising efforts among hospitals in the Québec City region. Meetings were organized with organ and tissue donation committees in several hospitals, and with a number of surgeons and emergency room managers. The human tissues team expressed to them the importance of their respective roles in approaching the families of potential donors and in the donor referral process. Héma-Québec was also very active in the National Organ and Tissue Awareness Week, specifically by organizing information booths and giving presentations at several hospitals.

In 2004-2005, human tissues were harvested from 68 donors, comprising 25 bone tissue donations, 13 heart tissue donations and 30 of both types.

Thanks to these donors, the Human Tissues Division was able to distribute 67 bone grafts to hospitals.

Number of bone grafts distributed to hospitals in 2004-2005

Tibial diaphysis	8
Distal femur	14
Proximal femur	2
Proximal femur (without head)	9
Femoral diaphysis	4
Fibula	1
Head of femur	24
Proximal tibia	5
Total	**67**

Preparation of application to Health Canada

During the year, the Human Tissues team also worked on preparing an application to Health Canada for a license to process and distribute human heart valves.

RESEARCH AND DEVELOPMENT

Héma-Québec develops innovative products and services in the field of transfusion medicine and human tissue grafts. In 2004-2005, various research and development projects were initiated and/or completed.

Operational research and bioproduction

The goal of the operational research is to develop phenotyping reagents for blood components and the application of nucleic acid tests for analyzing blood products. Hématech, a testing group, also evaluates and develops new technologies related to the collection and processing of blood. The bioproduction team's mandate is to produce reagents and diagnostic kits to meet the demands of internal and external clients, while applying good manufacturing practices.

Genotyping project with Génome Québec

In 2004-2005, the research and development team actively collaborated with Génome Québec in a blood donor genotyping project. They worked together to develop a method to determine the genotype of blood groups, by conducting tests on the blood of 1,000 regular donors using a high-flow microfluid technology that is more effective than the traditional serological method.

In some special cases, a donor's red cell antigens can stimulate the production of antibodies in a recipient. This blood group genotyping project will facilitate the identification of blood bags of specific phenotypes and the search for compatible blood in complex transfusion cases, which would improve safety for recipients.

Red cell genotyping technology

A second-generation red cell genotyping kit has been developed. While the first kit developed last year enabled analysis of Rh D, Rh C/E, Kell, Kidd and Duffy human antigen systems, the new kit covers S, s, N antigen systems and pseudogene Rh D. These kits are used to analyze DNA or the gene segment that codes for certain variations in these antigen systems that can cause transfusion reactions. The combination of these tests further simplifies the search for compatible blood in the case of complex transfusions.

Hématech

The Hématech group, a testing group within Héma-Québec, completed the evaluation of the effect of extending the storage period for blood bags before processing.

The evaluation involved determining whether the storage period could be extended from 8 to 24 hours at 20-24 ºC. It was found that the quality of blood components was not affected by this longer storage period. However, leukocyte reduction proved less effective in this scenario. Accordingly, another study will be done to determine the storage period required to obtain the desired leukocyte reduction.

New models for measuring donors' vital signs and blood bag agitator models for blood drives were evaluated. The operational testing of a new model of hematology counter for the GLOBULE Blood Donor Centres was also completed. The results of these evaluations will be considered when purchasing new equipment adapted to the organization’s needs.

WNV tests

A screening test for West Nile Virus (WNV) was validated to confirm the presence of WNV in the blood of donors in whom it is believed that the virus has been detected using the experimental test developed by Roche Diagnostics (see section *Safety of the supply – West Nile virus*). This test was also validated for WNV screening on cadaver blood, as part of human tissue grafts.

Evaluation of the operational research program and Hématech activities

At the request of the Scientific and Medical Advisory Committee of the Board of Directors, a team of independent experts was commissioned to evaluate the projects (including initial assumptions, scientific approaches and work progress) and the staff in the Operational Research program, as well as the activities of the bioproduction team. The committee of four experts conducted a two-day visit in October 2004.

In its report, the evaluation committee said it was impressed by the quality and commitment of the staff, as well as the positive impact of several projects, such as the Hématech testing group, on Héma-Québec's operational activities. The committee also suggested changes to the objectives and the management method for certain research projects, to make them more effective and proactive with respect to the organization's future needs. It also considers that Héma-Québec's two research and development programs—Operational Research and Cell Engineering—should work closer together.

All of the comments from the group of experts were duly noted by the research and development team. Appropriate changes will be made when reviewing the organization's research and development activities scheduled for 2005-2006.

Cell Engineering

The goal of the Cell Engineering research program is to develop blood substitutes, specifically for platelets and immunoglobulins for which there are currently no available substitutes. The Cell Engineering team plans to produce them from human cells grown in the laboratory. These initial cells are isolated from the blood of selected donors.

In 2004-2005, the research and development team made significant progress in its cell engineering work. This was reported in eight papers in specialized journals, and presented at six international conferences by guest speakers and as posters (see *Corporate Outreach*). Note that several of these projects are supported by external grants.

Research grants obtained in 2004-2005

Bayer – Canadian Blood Services (CBS) – Héma-Québec – Canada Institutes for Health Research (CIHR) Partnership Fund:

A two-year grant of $168,328 for Renée Bazin, Ph.D. (principal investigator) and Réal Lemieux, Ph.D. (co-investigator) to fund a project entitled: "Study of the Mechanisms of Action of Intravenous Immunoglobulins in an Animal Model."

Bayer – Canadian Blood Services (CBS) – Héma-Québec – Canada Institutes for Health Research (CIHR) Partnership Fund:

A two-year grant of $160,000 for Sonia Néron, Ph.D. (principal investigator) and Serge Côté, Ph.D. (co-investigator) to fund a project entitled: "Effects of Intravenous Immunoglobulins (IVIg) on B Lymphocyte Function in Autoimmune Diseases."

Research training

Héma-Québec is responsible for training the future generation of specialists in the areas of blood and transfusion. In 2004-2005, the research and development team completed the training of two new Master's students, one on a scholarship from the Natural Sciences and Engineering Research Council of Canada (NSERC). It also hosted four interns during summer 2004, two of them on NSERC scholarships. In March 2005, a total of 11 students were pursuing their Master's and Ph.D. studies at Héma-Québec.

CORPORATE OUTREACH

Corporate and Scientific Presentations

American Association of Blood Banks (AABB) Annual Meeting, Baltimore, United States, October 2004

Paper

Thibault L., Beauséjour A., de Grandmont M.-J., Côté C., Perreault J., Dumas G., Leblanc J.-F., Lemieux R. "Transient adverse metabolic effects of a 24-hour hold of whole blood at 20-22°C on the *in vitro* quality of components prepared by the PRP method."

Invited paper

Delage, G. "Emerging viral infections in transfusion medicine."

XXVIIIth Annual Congress of the International Society of Blood Transfusion (ISBT), Edinburgh, Scotland, July 2004

Posters

Delage G., Germain M., Bernier F., Gélinas S. "Implementation of anti-HBc screening of blood donors: first year's experience at Héma-Québec."

Roch, A. "Blood: from donor to recipient."

St-Louis M., Montpetit A., Phillips M. S., Lemieux R. "High-throughput genotyping of blood donors for minor blood group and major platelet antigens."

Paper

Lemieux R., Lamoureux J., Aubin É., St-Amour I., Tremblay T., Bazin R. "Complement activation of human serum in presence of auto-IgG isolated from preparations of IVIg."

Invited paper

Daigneault S. and Blais J., "Rethinking the donation experience: an integrated approach to improve the efficiency and the quality of each blood donation experience."

47th Annual Meeting of the Canadian Society of Biochemistry, Molecular & Cellular Biology, Mont-Tremblant, Canada, May 2004

Poster

Côté S., Simard C. "The survival of IL-6-dependent murine myeloma cells depends on their ability to by-pass a built-in G1 blockade."

2nd Annual Meeting of the International Society for Stem Cell Research, Boston, United States, June 2004

Poster

Cortin V., Garnier A., Lemieux R., Proulx C. "Analysis of multifactorial effects on the *in vitro* maturation of human megakaryocytes by means of statistical designs."

Canadian Society for Transfusion Medicine, Héma-Québec and Canadian Blood Services Annual Joint Conference, Niagara-on-the-Lake, Canada, May 2004

Posters

Chevrier M.-C., Proulx C., St-Amour I., Nolin M.-È. "Validation of the Stem-Kit™ assay for the enumeration of viable CD34+ cells in cord blood samples."

Décary F., Delage G., Germain M., Gélinas S. "Donors who were permanently deferred because of a false-positive screening test: Would they donate again if given the chance?"

St-Louis M., Perreault J., Boucher G., Lemieux R. "Development of a NAT assay for hepatitis B virus testing of anti-HBc-positive donors."

Paper

St-Louis M., Montpetit A., Phillips M. S., Lemieux R. "Minor blood group and major platelet antigens genotyping using a high-throughput technology."

Cell Cycle and Cancer: Pathways and Therapies (an American Association for Cancer Research Special Conference) Fort Lauderdale, United States, December 2004

Posters

Côté S., Lemieux R., Simard C. “Stimuli inducing S-phase entry are sufficient to prevent apoptosis of interleukin-6-starved myrine myeloma cells.”

Habel M.-È., Drouin M., Jung D. “Iron specific growth inhibition of Burkitt’s lumphoma cells *in vitro* due to homeostasis disruption by c-myc over-expression.”

Habel M.-È., Jung D. “Decrease of cyclin A expression triggers iron specific growth inhibition of Burkitt’s lymphoma cells *in vitro*.”

7e Colloque de l’Association de thérapie génique du Québec (ATGQ), Québec, Canada, October 2004

Invited paper

Lemieux R. “*In vitro* production of platelets for transfusion using cultured hematopoietic stem cells.”

Conférence grand public - Biosciences apprivoisées, Institut national de la recherche scientifique (INRS) - Institut Armand-Frappier, Laval, Canada, October 2004

Invited paper

Décary F. « Quand la vie dépend de 3 % »

2e Conférence internationale sur les cellules B & l’autoimmunité, Québec, Canada, July 2004

Posters

Bazin R., Lemieux R., Tremblay T. “Small size immune complexes can protect platelets from autoimmune destruction more efficiently than IVIg in a mouse assay.”

Néron S., Racine C., Boire G., Fernandes A., Jacques A. “*In vitro* characterization of IVIg effects on B lymphocytes from SLE paitents following CD40 sitmulation.”

Philippeau C., Aubin É., Lamoureux J., Bazin R., Lemieux R. “Polyreactivity of human IVIg-derived auto-IgG with multiple serum proteins.”

Sea S.-P., Aubin É., Lamoureux J., Bazin R., Lemieux R. “Stimulatory effect of natural autoantibodies on the *in vitro* proliferation of human B cells.”

Invited paper

Lemieux R. “Therapeutic intravenous immunoglobulins.”

Congrès annuel de l’Ordre professionnel des technologistes médicaux du Québec (OPTMQ), Saint-Jean, Canada, May 2004

Invited paper

Léveillé-Desjardins J. « Suivez la route du sang, de son prélèvement jusqu’à sa distribution. »

Congrès de la Société brésilienne d’hématologie et de transfusion, Sao Paulo, Brazil, November 2004

Invited papers

Décary F. « Organisation du système du sang au Canada »

Décary F. « Promotion du don de sang au Canada. »

Décary F. « Stratégie canadienne sur la déleucocytation universelle. »

Consensus Conference: Towards an understanding of TRALI, Toronto, Canada, April 2004

Invited paper

Delage, G. “TRALI: Héma-Québec’s experience.”

Délégation du Québec, Goiânia, Goiás, Brazil, November 2004

Invited paper

Décary F. « Le système du sang au Québec »

Forum professionnel sur le don d’organes et de tissus, Montréal, Canada, November 2004.

Invited paper

Germain M. « Le parcours des tissus humains destinés à la greffe, du donneur jusqu’au receveur : un bref survol ».

Forum public du Comité d'hémovigilance, Montréal, Canada, November 2004

Invited paper

Décary F. « La sécurité transfusionnelle à quel prix ? »

9th International Colloquium on the Recruitment of Voluntary Non-Remunerated Blood Donors

Invited paper

Daigneault S., Vassileva V. "Making a difference in Bulgaria."

12th International Congress of Immunology and 4th Annual Conference of FOCIS, Montréal, Canada, July 2004

Posters

Bazin R., Lemieux R., Tremblay T. "Small size immune complexes can protect platelets from autoimmune destruction more efficiently than IVIg in a mouse assay."

Branch D., Ma X.-Z., Sakac D., Roy A., Néron S. "pp60c-src protein tyrosine kinase expression in human B cells correlates with B cell proliferation following CD 40 stimulation."

Cortin V., Garnier A., Lemieux R., Proulx C. "Use of statistical factorial designs to analyse the effect of cytokines on the *in vitro* maturation of human megakaryocytes."

Côté S., Simard C. "The survival of IL-6-dependent myeloma cells critically relies on their capacity to transit the G1 to S phase of the cell cycle."

Fecteau J., Néron S. "Characterization of naïve and memory B cell differentiation toward plasma cells following low CD154 stimulation."

Habel M.-È., Lemieux R., Jung D. "Iron specific growth inhibition of Burkitt's lymphoma cells *in vitro*, associated with a decrease of translocated c-myc expression."

Néron S., Racine C., Roy A., Fecteau J., Guérin M. "Naïve and memory B lymphocytes can be differentially regulated through the level of CD40-CD154 stimulation."

Philippeau C., Aubin É., Lamoureux J., Bazin R., Lemieux R. "Polyreactivity of human IVIg-derived auto-IgG with multiple serum proteins."

Proulx J., Drouin M., Jacques A., Jung D. "Construction of adenoviral vector encoding XBP-1/GFP and development of infection method of human cultured cells."

Sea S.-P., Néron S., Lemieux R., Bazin R. "Effect of culture conditions on the *in vitro* proliferation of auoreactive B cells."

Paper

Néron S., Racine C., Roy A., Fecteau J., Guérin M. "Naïve and memory B lymphocytes can be differentially regulated through the level of CD40-CD154 stimulation."

International Society of Blood Transfusion (ISBT) - European Blood Alliance (EBA) Symposium, Netherlands Royal Academy of Sciences, Amsterdam, Holland, April 2004

Paper

Décary F. "Validation and Information Technology in a Regulatory Environment."

National West Nile Review and Planning Meeting, Ottawa, Canada, January 2005

Invited paper

Delage G. "Retrospective of the 2004 West Nile virus season: Héma-Québec."

Rencontre provinciale (Nouveau-Brunswick) sur l'implantation de la norme Z902 sur le sang. Frederiction, Canada, May 2005

Invited paper

Delage G. "Review of blood standards."

2e Symposium panaméricain de Vigilance sanitaire (II SIMBRAVISA), Caldas Novas, Goiás, Brazil, November 2004

Invited paper

Décary F. « Le système du sang au Québec. »

Université de Montréal, Faculté des sciences infirmières, Montréal, Canada, October 2004 and February 2005

Invited paper

Thibault S. « Bienvenue chez Héma-Québec. »

Publications

Bazin R., Lemieux R., Tremblay T., St-Amour I. (2004) Tetramolecular immune complexes are more efficient than IVIg to prevent antibody-dependent *in vitro* and *in vivo* phagocytosis of blood cells. Br J Haematol 127 (1): 90-96.

Branch D. R., Ma X.-Z., Sakac D., Roy A., Néron S. (2004).“pp60$^{c\text{-}src}$ protein kinase expression in human B cells correlates with B cell proliferation following CD40 stimulation. *Immunology 2004*. *Collection of Free Papers Presented at the 12th International Congress of Immunology and 4th Annual Conference of FOCIS* (Montréal, Canada, July 18 to 23, 2004). Monduzzi, éditeur. Medimond Srl, Bologne, Italie, pp. 129-134.

Chevrier M.-C., Châteauneuf I., Guérin M., Lemieux R. (2004) Sensitive detection of human IgG in ELISA using a monoclonal anti-IgG-peroxidase conjugate. Hybrid Hybridomics 23 (6): 362-367.

Côté S., Lemieux R., Simard C. (2005) The survival of IL-6-dependent myeloma cells critically relies on their capability to transit the G_1 to S phase interval of the cell cycle. Cell Signal 17 (5): 615-624.

Fecteau J. F., Néron S. (2004). Characterization of naïve and memory B cell differentiation toward plasma cells following low CD40 stimulation. *Immunology 2004*. *Collection of Free Papers Presented at the 12th International Congress of Immunology and 4th Annual Conference of FOCIS* (Montréal, Canada, July 18 to 23, 2004). Monduzzi, éditeur. Medimond Srl, Bologne, Italie, pp. 303-307.

Fournier S. (2004) Un don de vie et les technologies à son service. BulleTin FIQ 23 (8): 18-19.

Germain M., Gélinas S., Glynn S., Schreiber G., King M.R., Décary F. Determinants of return behavior: a comparison of current and lapsed donors. Transfusion 44 (9S): 143A.

Godin G., Sheeran P., Conner M., Blondeau D., Germain M., Beaulieu D., Naccache H., Lambert L.D. Factors explaining the intention to give blood among the general population. Transfusion 44 (9S): 187A.

Habel M.-È., Drouin M., Jung D. (2004) Maintenance of Epstein-Barr virus-derived episomal vectors in the murine Sp2/0 myeloma cell line is dependent upon exogenous expression of human EBP2. Biochem Cell Biol 82 (3): 375-380.

Habel M.-È., Lemieux R., Jung D. (2005) Iron-specific growth inhibition of Burkitt's lymphoma cells *in vitro*, associated with a decrease in translocated c-myc expression. J Cell Physiol 203 (1): 277-285.

Lamoureux J., Aubin É., Lemieux R. (2004) Autoantibodies purified from therapeutic preparations of intravenous immunoglobulins (IVIg) induce the formation of autoimmune complexes in normal human serum: a role in the *in vivo* mechanisms of action of IVIg? Int Immunol 16 (7): 929-936.

Lin X., Yan X., Chevrier M.-C., Craven S., Barrowcliffe T. W., Lemieux R., Ofosu F. A. (2004) Relationships between FVIII:Ag and factor VIII in recombinant and plasma-derived factor VIII concentrates. Haemophilia 10 (5): 459-469.

Proulx C., Dupuis N., St-Amour I., Boyer L., Lemieux R. (2004) Increased megakaryopoiesis in cultures of CD34-enriched cord blood cells maintained at 39°C. Biotechnol Bioeng 88 (6): 675-680.

Rousseau J., Goldman M., David M. (2004) HPA-5b (Br^{a}) neonatal alloimmune thrombocytopenia in Québec: incidence and clinical outcome in 31 cases. Transfusion 44: 844-848.

Saldhana J., Shead S., Heath A., Drebot M., et le *West Nile Virus Collaborative Study Group*. (2005) Collaborative study to evaluate a working reagent for West Nile virus RNA detection by nucleic acid testing. Transfusion 45 (1): 97-102.

Awards

Award of Merit, Awards of Excellence 2004

Awards of Excellence 2004, Canadian Public Relations Society, Award of Merit, *External Communications – Issues/Crisis Management* category, « Plan d'action intégré – Virus du Nil occidental » André Roch, Nicole Pelletier, APR, Josette Martel, APR, June 12, 2004.

Bronze Award, 2004 Spotlight Awards Print, Video & Web PR Competition

2004 Spotlight Awards Print, Video & Web PR Competition, League of American Communications Professionnals, Bronze Award, Print – Annual Report category, Annual Report 2003-2004, Nicole Pelletier, APR, Angela Avgoustakis, Dominic Armand, November 2004.

Coq d'or, Concours de création publicitaire du Publicité Club de Montréal

45e édition du Concours de création publicitaire, Publicité Club de Montréal, Coq d'or, *Publicité sociétale* category, campagne de sensibilisation « Merci madame Bergeron... Ça me fait plaisir », agence BOS, May 13, 2004.

Travel grant

National Cancer Institute of Canada, travel grant to present a paper on a cancer field during a scientific conference, Marie-Ève Habel, PhD student under the supervision of Daniel Jung, PhD, February 2005.

Women of Distinction 2004

Women of Distinction Gala 2004, The Women's Y foundation of Montréal, Women of Distinction Award 2004, *Business and Professions* category, Dr. Francine Décary, May 12, 2004.

ADMINISTRATION

Board of Directors

As at March 31, 2005

FIELD REPRESENTED	MEMBER
Transfusion Medicine	Chairman **Dr. André Lebrun**, Oncohematologist Hôpital du Sacré-Cœur de Montréal
Academic	Vice-chair **Dr. Yves St-Pierre**, Professor INRS-Institut Armand Frappier
Héma-Québec	Secretary **Dr. Francine Décary**, Chief Executive Officer Héma-Québec
Academic	**Dr. Serge Montplaisir**, Professor Department of Microbiology, Université de Montréal
Business Community	**Ms. Cheryl Campbell Steer**, President Campbell Steer & Associés
Donors	**Ms. Hélène Darby**, President Association of Blood Donation Volunteers
Hospitals	**Ms. Carole Deschambault**, Executive Director Hôpital Maisonneuve-Rosemont
	Dr. Lucie Poitras, Director, Professional Services Hôpital Sainte-Justine
Public Health	**Dr. Marc Dionne**, Scientific Director Institut national de santé publique du Québec
Recipients	**Mr. Christian Gendron**, Director, Operations Johnson & Johnson Canada
Transfusion Medicine	**Dr. Jean-François Hardy**, Anesthesiologist Department of Anesthesia, Université de Montréal
Haemovigilance committee	Observer **Mr. Jean-Guy Lorrain**

Regional Public Meetings

Since 1999, Héma-Québec's management and Board of Directors have been holding regional public meetings throughout Québec to promote the organization's openness and accessibility. In 2004–2005, meetings were held in 20 different cities and towns. These meetings constitute an ideal forum for touching base with the community.

Through this series of meetings open to the general public, the management and the Board wish to raise awareness of the valued commitment of community partners and the role of blood drive organizing committees in organizing blood drives and planning the blood product supply for Québec.

An overview of the organization is presented to meeting participants, along with a summary of Héma-Québec's accomplishments and major short-term projects. Ideas for underlining the importance of donating blood and the keys to a successful blood drive are also discussed. The need to prepare the next generation of donors and blood drive organizing committee members in the context of an aging population is also highlighted.

Several representatives of the transfusion chain—particularly blood transfusion recipients of all ages and the President of the Association of Blood Donation Volunteers—were in attendance to provide testimonials to the importance of giving blood. Héma-Québec representatives took advantage of these meetings to thank its community partners for their ongoing efforts to maintain the collective blood supply at an acceptable level.

Management Committee

As at March 31, 2005

1st ROW

Smaranda Ghibu, BCL, LLB
Vice-President, Legal Affairs

Suzanne Rémy, MSc, MBA
Vice-President, Quality and Standards

Francine Décary, MD, PhD, MBA
Chief Executive Officer

Yvan Charbonneau, Eng.
Vice-President, Operations

Roger Carpentier, CRIA
Vice-President, Human Resources

2nd ROW

Simon Fournier, DEC
Vice-President, Information Technology

Réal Lemieux, PhD
Vice-President, Research and Development

André Roch, BCom
Vice-President, Public Affairs

Guy Lafrenière, MBA, CMA
Vice-President, Finance and Administration

Gilles Delage, MD, MSc
Vice-President, Medical Affairs

Marc Germain, MD, PhD
Vice-President, Human Tissues

Scientific and Medical Advisory Committee

As at March 31, 2005

FIELD REPRESENTED	MEMBER
Transfusion Medicine	Committee Chair **Dr. Gwendoline Spurll**, Director McGill University Health Centre Designated Transfusion Centre (Royal Victoria Hospital) Associate Professor, McGill University
Biotechnology	**Dr. Bernard Massie**, Researcher NRC Biotechnology Research Institute
Blood Component and Tissue Manufacturing	Vacant
Diagnostic Technologies	**Mr. Marc Delpech**, Professor Genetics, Development and Molecular Pathology Faculté de medicine Cochin Port-Royal
Hematopoiesis	**Dr. James Michael Piret**, Professor Biotechnology Laboratory and Department of Chemical & Biological Engineering University of British Columbia
Immunology	**Dr. Walid Mourad**, Associate Professor Centre de recherche en rhumatologie et immunologie Centre hospitalier universitaire de Québec, pavillon CHUL
Industrial Research	**Dr. Denis Riendeau**, Director Biochemistry and Molecular Biology Merck Frosst Centre for Therapeutic Research
Molecular Biology	**Dr. Jean-Pierre Cartron**, Scientific Director Institut national de la transfusion sanguine
Plasma Derivatives	**Dr. Dana Devine**, Director Research and Development Canadian Blood Services Professor University of British Columbia
Recipients	Vacant
Transfusion Medicine	Vacant
Observers of the Board of Directors	**Dr. Serge Montplaisir**
	Dr. Yves St-Pierre

Safety Advisory Committee

As at March 31, 2005

FIELD REPRESENTED	MEMBER
Public Health	**Dr. Bryce Larke**, Medical Health Officer Yukon Health and Social Services
Canadian Blood Services	**Dr. Stephen Vamvakas**, Executive Vice-President, Medical, Scientific and Research Affairs Canadian Blood Services
Epidemiology	**Dr. Steven Kleinman**, Biomedical Consultant
Ethics	**Mr. Pierre Deschamps**, Attorney Centre de recherche en droit privé et comparé du Québec Université McGill
Infectious Diseases	**Dr. Susan Stramer**, Executive Scientific Officer National Confirmatory Testing Laboratory American Red Cross
Recipients	**Mr. Michel Morin** COCQ-Sida
	Mr. David Page Canadian Hemophilia Society – Québec Chapter
Transfusion Medicine and Practices	**Dr. Luiz Amorim**, Head - Transfusion Medicine Service and Donor Center HEMORIO
	Dr. James Aubuchon, Medical Director, Blood Bank and Transfusion Darmouth-Hitchcock Medical Center
	Dr. Paul Holland, Consultant
	Mr. Christopher Verrall Prowse, SNTBS Research & Development Director SNTBS National Science Laboratory
	Dr. Danielle Rebibo, Directeur adjoint et responsable des pôles de vigilances Établissement Français du sang
	Dr. Henk W. Reesink, Manager Infectious Disease Donor Laboratory Central Laboratory of the Blood Transfusion Services
Observers of the Board of Directors	**Ms. Hélène Darby**
	Dr. Marc Dionne
	Dr. Jean-François Hardy

Liaison Committee

As at March 31, 2005

FIELD REPRESENTED	MEMBER
Canadian Hemophilia Society – Québec Chapter	Committee Chair **Mr. Daniel Baribeau**
Association des grands brûlés	**Mr. Martin Guay**
	Mr. Jean-Pierre Juneau
Association générale des insuffisants rénaux	**Mr. Néville Galipeau**
Canadian Hemophilia Society – Québec Chapter	**Mr. Marius Foltea**
Canadian Sickle Cell Society	**Ms. Gisèle Bellemare**
	Ms. Évelyne Jean
COCQ-Sida	**Mr. Michel Morin**
Québec Society of Thalassemia	**Ms. Sophie Tuyssuzian**
Observers of the Board of Directors	**Ms. Hélène Darby**
	Mr. Christian Gendron

Research Ethics Committee

As at March 31, 2005

FIELD REPRESENTED
Blood Donors
Ethics
Law
Medicine – Anesthesiology
Medicine – Microbiology
Medicine – Molecular Biology
Recipients

Code of Ethics and Professional Conduct

SECTION I

PURPOSE AND SCOPE

1. The goal of this code of ethics is to maintain and strengthen the confidence of citizens in the integrity and impartiality of Héma-Québec management, promote openness within Héma-Québec and make management and administrators accountable for their actions.

   This code of ethics applies to Héma-Québec administrators and its executive director.

SECTION II

PRINCIPLES AND GENERAL RULES OF ETHICS

2. Directors are appointed to contribute, during their mandate, to fulfilling Héma-Québec's mission.

   Their contribution must be made, in respect for the law, with honesty, loyalty, caution, diligence, effectiveness, regularity and fairness.

3. In exercising their duties, directors are required to respect all principles and rules of ethics as stipulated by law and in the *Règlement sur l'éthique et la déontologie des administrateurs publics* (Regulation respecting the conduct and ethics of public administrators), as well as those set out in the present code of ethics. In case of a divergence, the most stringent rules and principles will apply.

   In case of doubt, they must act according to the spirit of these principles and rules. Also, they must arrange their personal business such that it does not detract from the performance of their duties.

   Any director who, at the request of Héma-Québec, carries out the duties of director within another organization or company, or is a member of such organization or company, is bound by the same obligations.

4. Directors are bound by discretion with respect to information obtained in carrying out their duties and are required at all times to respect the confidential nature of any information they receive.

   This requirement does not prevent directors representing or associated with a special interest group from acting as consultants to or reporting to the latter, unless the information is to be held confidential by law or unless the Board of Directors requires respect for confidentiality.

5. Directors must, in performing their duties, make decisions independent of all partisan political considerations.

6. The Chairman of the Board of Directors, the executive director and the full-time public directors must show restraint in the public expression of their political views.

7. Directors must avoid placing themselves in situations of conflict between their personal interests and the obligations of their duties.

   They must inform Héma-Québec of any direct or indirect interest they may have in any organization, company or association likely to place them in a situation of conflict of interest, as well as any rights they may exercise against Héma-Québec, indicating the nature and value thereof, where applicable.

   Subject to paragraph 4, directors who are named or appointed to another organization or company must also declare this information to the body that named or appointed them.

8. Full-time public administrators may not, on penalty of dismissal, have a direct or indirect interest in an organization, company or association that places their personal interests in conflict with those of Héma-Québec. However, dismissal shall not take place should such an interest fall to them through an inheritance or gift, provided they renounce or dispose of said gift or inheritance with due diligence.

   Any other directors who have a direct or indirect interest in an organization, company or association that places their personal interest in conflict with that of Héma-Québec must, on penalty of dismissal, notify the Chairman of the Board of Directors of this interest in writing and, where applicable, abstain from participating in any debate and any decision regarding the organization, company or association in which they hold this interest. Also, they must withdraw from the meeting for the duration of the debate and abstain from voting on this issue.

   However, this sub-section does not prevent directors from stating their opinions on general measures regarding the application of work conditions within the organization or company that would also affect them.

9. Directors must not consider Héma-Québec property as being their own, and may not use it for their profit or the profit of a third party.

10. Directors may not use for their profit or for the profit of a third party any information obtained in the performance of their duties.

    This requirement does not prevent directors representing or being associated with a special interest group from acting as a consultant to or reporting to the latter, unless the information is confidential under the law or if the board of directors requires respect for confidentiality.

11. Full-time public administrators may not be appointed to other positions, unless so named or appointed by the authority that named or appointed them to the Héma-Québec position. However, with the consent of the Chairman of the Board of Directors, they may hold teaching positions for which they may be remunerated, and non-remunerated positions in non-profit organizations.

12. Directors may not accept gifts, hospitality or any benefit other than those that are customary and of modest value.

    Any other gift, hospitality or benefit received must be returned to the donor.

13. If directors are offered a gift, hospitality or a benefit that is not customary or of modest value, they must inform the Chairman of the Board of Directors and the executive director in writing. The latter will determine whether the director can accept this gift, hospitality or benefit under the rules and customs of this code of ethics and will notify the director in writing of their decision to this effect.

14. Directors may not, directly or indirectly, grant, solicit or accept a favour or undue benefit for themselves or for a third party.

15. In making decisions, directors must avoid being influenced by job offers.

16. Directors who have ceased to perform their duties must act so as not to obtain undue advantage from their previous positions with Héma-Québec.

17. Directors who have ceased to perform their duties must not disclose any confidential information they have obtained, nor give advice to anyone based on information not available to the public concerning Héma-Québec, or any other organization or company with which they have had significant direct relations in the year preceding the end of their mandate as a Héma-Québec director.

    In the year following the end of their duties, they are prohibited from acting on behalf of another person or persons regarding a procedure, negotiation or other operation involving Héma-Québec and for which they have information not available to the public.

    Current Héma-Québec directors may not, under the circumstances stipulated in the preceding sub-section, have dealings with any former Héma-Québec directors in the year in which the latter have relinquished their duties.

18. The Chairman of the Board of Directors must ensure that Héma-Québec directors respect the organization's ethical principles and rules of professional conduct.

SECTION III

POLITICAL ACTIVITIES

19. If a full-time public director, the Chairman of the Board of Directors or the executive director intend to run for elected public office, they must inform the Secretary General of the Executive Council.

20. If the Chairman of the Board of Directors or the executive director wishes to run for elected public office, they must resign from their duties.

21. If a full-time public administrator whose mandate is for an unspecified duration is elected to public office, such administrator is entitled to an unpaid leave of absence for the duration of the first elected term.

22. A full-time public administrator who wishes to run for election to the Québec National Assembly, the House of Commons of Canada or any other public office whose duties would likely be full-time must request and is entitled to an unpaid leave of absence effective as of the day such candidacy is announced.

23. A full-time public administrator who wishes to run for elected public office whose functions would likely be part-time, but for which the campaign would likely interfere with regular duties, must request and is entitled to an unpaid leave of absence effective as of the day such candidacy is announced.

24. A full-time public administrator who is granted an unpaid leave in compliance with paragraph 22 or 23 is entitled to resume regular duties no later than the 30th day following closing of the nomination period, if not accepted as a candidate, or no later than the 30th day following the election of another candidate.

25. A full-time public administrator whose mandate is for a fixed duration, who is elected to a full-time public office and who accepts this position, must immediately step down.

    A director who is elected to a public office involving part-time duties must step down if these duties are likely to interfere with his or her regular duties.

SECTION IV

REMUNERATION

26. Directors are entitled only to the remuneration and reimbursement of expenses stipulated in the Act respecting Héma-Québec and the haemovigilance committee.

27. A director dismissed with just and sufficient cause may not receive a severance allowance or indemnity.

28. A director who has stepped down from the position as director, who has received or is receiving a severance allowance or indemnity and who occupies a position, employment or any other remunerated position within the public sector during the period corresponding to this allowance or indemnity must reimburse the portion of the allowance or indemnity covering the period for which a salary was received, or cease to receive it during this period.

    However, if the salary received is less than that received previously, the director need only reimburse the allowance or indemnity up to the amount of the new salary, or may continue to receive the portion of the allowance or indemnity that exceeds the new salary.

29. Anyone who has received or is receiving a severance allowance or indemnity from the public sector and who is receiving a salary as a director for the period corresponding to this allowance or indemnity must reimburse a portion of the allowance or indemnity for the period during which a salary was received, or cease to receive it during this period.

However, if the salary received as a director is less than that received previously, the director need only reimburse the allowance or indemnity up to the amount of the new salary, or may continue to receive the portion of the allowance or indemnity that exceeds the new salary.

30. A full-time public administrator who has ceased to perform regular duties, who has received an early retirement package and who, in the two years following the departure, accepts a position, employment or any other remunerated position within the public sector must reimburse the amount corresponding to the value of the package received, up to the amount of the remuneration received for returning to work during this two-year period.

31. A director's part-time teaching duties are not covered by paragraphs 28 to 30.

32. For the purposes of paragraphs 28 to 30, "public sector" refers to organizations, establishments and companies covered in the appendix.

    The period covered by the severance allowance or indemnity stipulated in paragraphs 28 and 29 refers to the period that would have been covered by the same amount had the person received it as a salary for the position, employment or previous function.

SECTION V

DISCIPLINARY PROCEDURE

33. In the case of failure to comply with the points of ethics and/or professional conduct stipulated in this code, the director in question shall be subject to the disciplinary procedure described in section VI of the *Règlement sur l'éthique et la déontologie des administrateurs publics* (Regulation respecting the conduct and ethics of public administrators).

Code of ethics and professional conduct

Since the creation of Héma-Québec in September 1998, no case has had to be treated under the terms of the Code of ethics and professional conduct, and the year 2004–2005 was not an exception.

2004-2005 FINANCIAL REVIEW

Management's Report

The financial statements of Héma-Québec were drawn up by Management, which is responsible for their preparation and presentation, including some amounts that are based on best estimates and judgments of Management. This responsibility includes the choice of appropriate accounting polices in conformity with Canadian generally accepted accounting principles. The financial information presented elsewhere in this annual activity report is consistent with that given in the financial statements.

In order to discharge its responsibilities, Management maintains a system of internal accounting controls that will allow it to produce reliable financial statements and that are designed to provide reasonable assurance that assets are protected and that transactions are duly approved and accounted for correctly, within the required delays.

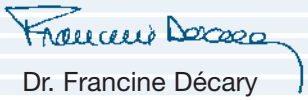
Héma-Québec recognizes that it is responsible for managing its affairs in conformity with the laws and regulations governing it.

Actuaries from the firm of Morneau Sobeco have been appointed as consultants to the Héma-Québec employees' pension plan.

The Board of Directors must monitor the manner in which Management carries out its responsibilities in relation to financial information and it has approved these financial statements.

The Auditor General of Québec has audited the financial statements of Héma-Québec, in accordance with Canadian generally accepted auditing standards, and his auditor's report reveals the nature and extent of the audit and the statement of his opinion. The Auditor General of Québec can, without any restriction whatsoever, meet with the Board of Directors to discuss any aspect of this audit.

Guy Lafrenière
Vice-President, Administration & Finance



Dr. Francine Décary
Chief Executive Officer

Montréal, June 3, 2005

Auditor's Report

To the National Assembly

I have audited the balance sheet of Héma-Québec as at March 31, 2005, and the statement of operating results and net assets, as well as the statement of cash flows, for the financial year ended on that date. These financial statements are the responsibility of the management of Héma-Québec. My responsibility is to express an opinion on these financial statements, based on my audit.

My audit has been conducted in accordance with Canadian generally accepted auditing standards. Those standards require that the audit be planned and performed to obtain reasonable assurance that the financial statements are free of material misstatement. The audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. It also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, these financial statements present fairly, in all material respects, the financial position of Héma-Québec as at March 31, 2005, and the results of its operations and its cash flows for the financial year ended on that date, in accordance with Canadian generally accepted accounting principles. In compliance with the requirements of the Auditor General Act (R.S.Q., Chapter V-5.01), I declare that, in my opinion, these principles have been applied in the same manner as during the preceding financial year.

Renaud Lachance, CA
Auditor General of Québec

Québec City, June 3, 2005

Financial Statements

OPERATING RESULTS AND NET ASSETS FOR THE YEAR ENDED MARCH 31

	2005	2004
REVENUES		
Grant from the Government of Québec	$ 258 282 306	$ 259 815 785
Blood products sold to Canadian Blood Services	6 036	233 592
Interest on term deposits	742 235	827 859
Other income	1 737 846	1 191 989
	260 768 423	262 069 225
EXPENSES (Note 3)	258 330 074	255 316 161
EXCESS OF REVENUES OVER EXPENSES	2 438 349	6 753 064
NET ASSETS AT BEGINNING	14 852 896	8 099 832
NET ASSETS AT END	$ 17 291 245	$ 14 852 896

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

BALANCE SHEET AS AT MARCH 31

	2005	2004
ASSETS		
Short-term		
Cash	$ 9 708 700	$ 522 658
Short-term investments (Note 4)	7 343 019	10 856 988
Accounts receivable (Note 5)	9 019 073	9 193 771
Grant forthcoming from the Government of Québec	137 127	206 252
Inventory (Note 6)	18 631 882	19 801 427
Prepaid expenses (Note 7)	4 654 511	3 398 374
	49 494 312	43 979 470
Fixed assets (Note 8)	38 352 973	37 757 294
Deferred charges (Note 9)	1 755 111	-
Accrued benefit asset (Note 13)	554 500	-
	$ 90 156 896	$ 81 736 764
LIABILITIES		
Short-term		
Accounts payable and accrued liabilities (Note 11)	$ 30 419 800	$ 24 349 773
Portion of long-term debt payable within a year (Note 12)	5 700 826	5 984 167
	36 120 626	30 333 940
Long-term debt (Note 12)	33 933 337	33 334 053
Accrued benefit liability (Note 13)	2 811 688	3 215 875
NET ASSETS	17 291 245	14 852 896
	$ 90 156 896	$ 81 736 764
COMMITMENTS (Note 15)		

For the Board of Directors

André Lebrun
Director

Cheryl Campbell Steer
Director

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

CASH FLOWS FOR THE YEAR ENDED MARCH 31

	2005	2004
OPERATING ACTIVITIES		
Items not affecting cash flows and cash equivalent		
Excess of revenues over expenses	$ 2 438 349	$ 6 753 064
Fixed assets depreciation	4 392 556	4 552 965
Depreciation of deferred charges	120 486	-
Loss on write-offs and disposal of assets	138 046	2 544 776
Unrealized loss on exchange	1 537 465	623 809
Increase in accrued benefit asset	(554 500)	-
Reduction in accrued benefit liability	(404 187)	(461 322)
	7 668 215	14 013 292
Changes in non-cash working capital		
Decrease (increase) in accounts receivable	174 698	(6 576 996)
Decrease in grant forthcoming from the Government of Québec	69 125	54 743
Decrease in inventory	1 169 545	5 060 163
Decrease (increase) in prepaid expenses	(1 256 137)	554 173
Increase in deferred charges	(1 875 597)	-
Increase in payables and accrued liabilities	6 070 027	9 630 978
Cash flow from operating activities	12 019 876	22 736 353
INVESTING ACTIVITIES		
Decrease in the long-term investment	-	1 795 000
Acquisition of fixed assets	(5 126 281)	(5 626 734)
Proceeds from disposal of fixed assets	-	16 306
Cash flow from investing activities	(5 126 281)	(3 815 428)
FINANCING ACTIVITIES		
Long-term debt	6 300 000	3 775 000
Settlement of long-term debt	(5 984 057)	(5 694 144)
Cash flow from financing activities	315 943	(1 919 144)
Unrealized loss on exchange on cash flow and non-cash elements of working capital denominated in foreign currency	(1 537 465)	(623 809)
INCREASE IN CASH AND CASH EQUIVALENTS	5 672 073	16 377 972
CASH AND CASH EQUIVALENTS AT BEGINNING	11 379 646	(4 998 326)
CASH AND CASH EQUIVALENTS AT END	$ 17 051 719	$ 11 379 646
Cash and cash equivalents are as follows:		
Cash	$ 9 708 700	$ 522 658
Short-term investments	7 343 019	10 856 988
	$ 17 051 719	$ 11 379 646
Interest paid	$ 2 031 858	$ 2 200 199

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

COMPLEMENTARY NOTES TO THE FINANCIAL STATEMENTS FOR THE YEAR ENDED MARCH 31, 2005

1. INCORPORATION AND FUNCTIONS

Héma-Québec, constituted on March 26, 1998, by letters patent issued under Part III of the Companies Act (R.S.Q., Chapter C-38), has continued its operations in accordance with the provisions of the Act respecting Héma-Québec and the haemovigilance committee (S.Q. 1998, Chapter C-41). Héma-Québec is a non-profit legal entity whose mission is to efficiently provide adequate quantities of safe, optimal blood components, substitutes, human tissues and cord blood to meet the needs of all Quebecers, and to provide and develop expertise, services, and specialized and innovative products in the fields of transfusion medicine and human tissue transplantation.

2. SIGNFICANT ACCOUNTING POLICIES

The financial statements of Héma-Québec have been prepared by Management in conformity with Canadian generally accepted accounting principles. These statements include some amounts that are based on best estimates and judgments.

Inventory

The inventory of fractionation products and of collection and laboratory equipment is evaluated at the lesser of cost or replacement value, the cost being determined according to the average cost method.

Fixed assets

Fixed assets are recorded at cost. Depreciation is calculated in terms of the economic life of these fixed assets, according to the straight-line depreciation method and at the following rates:

Tangible assets	
Building	4%
Betterment	5%
Leasehold improvements	length of lease
Automotive equipment	20%
Machinery and equipment	10% and 20%
Office furniture and equipment	20%
Computer equipment	33 ⅓%
Intangible assets	
Computer software	33 ⅓%
Software packages	20%

Foreign currencies translation

Foreign currencies transactions are accounted at the average rate of the transaction date. Monetary items are translated at the rate of exchange in effect at the balance sheet date whereas non-monetary items are translated at the exchange rate in effect on the date of the transaction. Exchange gains or losses related to monetary items are included in the results for the current period.

Employee benefit plans

Héma-Québec offers its employees defined benefit and defined contribution pension plans. Both Héma-Québec and the participants contribute to these plans. It also offers its employees certain benefits that apply after termination of employment but before retirement and offers to certain of its retirees health insurance and life insurance benefits.

The cost of pensions and other retirement benefits earned by employees is actuarially determined using the projected benefit method, pro-rated on service and based on management's best estimates of expected plan investment performance, salary escalation, retirement ages of employees and anticipated health-care costs.

The obligation in terms of benefits is evaluated using the market interest rate as at the date of evaluation. Pension plan assets are evaluated at fair value. This same method is used to calculate the expected performance of plan assets.

Actuarial losses and gains result, among other things, from the gap between the real, long-term yield of plan assets and the expected yield of those assets, as well as changes made to the actuarial assumptions used to determine the obligation in terms of accrued benefits.

The net actuarial gain or loss is amortized if, at the beginning of the current year, the unamortized balance of the gain or loss exceeds 10% of the accrued benefit obligation or the value of the assets, according to whichever of the two amounts is greater.

This excess is amortized according to the straight-line method over the average remaining service period of active employees. The average remaining service period is 12 years for the unionized employee pension plan, 14 years for the non-unionized employee pension plan, 10 years for the supplemental pension plan and 17 years for the other benefit plans.

The transitional obligation and the past service costs are normally amortized over the average remaining service period of active employees.

Cash and cash equivalents

Héma-Québec's policy is to present bank balances—including bank overdrafts whose balances often fluctuate between the overdraft, available funds and the short-term investments whose maturity dates do not exceed three months from their acquisition dates—in cash and cash equivalents.

3. EXPENSES BY RESPONSIBILITY CENTRE (LABILE PRODUCTS, FRACTIONATED PRODUCTS AND OTHER SERVICES)

	2005						
	Recruiting, marketing and promotion	Procurement	Production	Distribution	Medical services	Medical affairs	Quality and standards
Wages	$ 688 368	$ 21 270 562	$ 9 329 284	$ 3 678 961	$ 1 510 185	$ 1 241 176	$ 900 662
Benefits	174 033	5 408 709	2 344 422	944 014	395 781	307 001	212 854
Travel and training	73 651	695 975	129 461	51 360	44 082	38 986	65 601
Human resources	58 677	102 376	39 199	3 198	3 303	21 078	15 206
Medical supplies	8 470	1 402 959	11 561 516	106 937	833 397	4 579	1 244
Fractionated products	-	-	-	-	-	-	-
Blood drives	532	15 316 773	178 661	1 151 823	18 716	1 372	205
Transportation and delivery	1 111	173 757	1 056 064	1 683 799	945	265	-
Bought-in services	192 924	67 354	309 663	43 290	17 901	107 798	33 374
Building and premises	1 094	298 159	489 331	134 769	40 307	43 747	19 225
Advertising and public relations	3 261 233	609 883	4 095	1 627	-	254	-
Information technology	73 955	89 569	18 213	41 364	6 492	5 583	6 013
Office expenses	192 979	496 468	85 645	46 000	39 134	31 284	13 753
Insurance	-	-	-	-	-	-	-
Loss (gain) on write-offs and disposal of assets	(387)	75	32 267	7 336	13 667	-	-
Loss (gain) on exchange	-	-	-	-	-	-	-
Fixed asset depreciation	116 499	177 936	473 328	72 379	117 112	9 446	20 770
Interest on advances and bank charges	-	-	46	-	-	-	-
Interest on long-term debt	-	-	-	-	-	-	-
Subtotal	**$ 4 843 139**	**$ 46 110 555**	**$ 26 051 195**	**$ 7 966 857**	**$ 3 041 022**	**$ 1 812 569**	**$ 1 288 907**
Plasma for fractionation *							
Total	**$ 4 843 139**	**$ 46 110 555**	**$ 26 051 195**	**$ 7 966 857**	**$ 3 041 022**	**$ 1 812 569**	**$ 1 288 907**

* Héma-Québec has three major areas of activity: labile products, fractionated products and other products and services.
Some expenses related to collecting plasma for fractionation are incurred for labile products and reallocated to fractionated products on the basis of costs incurred.
The cost allocation is made according to units shipped.

Research and development	Information technology	Administration	Operation of physical plant	Labile subtotal	Fractionated products	Other services	2005 Total	2004 Total
$ 2 257 285	$ 3 318 844	$ 4 942 015	$ 940 943	$ 50 078 285	$ 865 603	$ 1 505 976	**$ 52 449 864**	$ 52 865 287
573 230	855 336	307 635	241 417	11 764 432	221 261	388 419	**12 374 112**	11 930 702
98 156	259 566	319 289	68 461	1 844 588	16 934	60 558	**1 922 080**	1 508 836
7 473	68 540	169 442	48 989	537 481	1 861	11 326	**550 668**	481 170
510 701	30	12 505	12 654	14 454 992	21 101	157 006	**14 633 099**	14 960 542
-	-	-	-	-	124 134 645	-	**124 134 645**	121 309 648
10 307	402	5 949	12 468	16 697 208	467	32 074	**16 729 749**	16 661 989
1 528	29 378	52	439	2 947 338	68 173	30 130	**3 045 641**	2 860 007
112 160	623 115	975 107	299 947	2 782 633	439 361	788 289	**4 010 283**	3 550 899
82 107	19 786	337 723	5 112 617	6 578 865	3 999	11 223	**6 594 087**	4 424 225
2 410	-	145 470	971	4 025 943	548	83 950	**4 110 441**	3 924 652
4 575	1 322 324	26 299	54 972	1 649 359	4 318	10 674	**1 664 351**	1 749 353
72 688	31 644	151 905	34 964	1 196 464	74 433	60 443	**1 331 340**	1 242 364
-	-	7 098 024	-	7 098 024	-	200 000	**7 298 024**	8 642 035
32 902	616	-	51 570	138 046	-	-	**138 046**	2 544 776
-	-	-	156 304	156 304	747 455	(160)	**903 599**	(137 305)
148 306	1 243 651	29 392	1 752 916	4 161 735	164 694	66 127	**4 392 556**	4 552 965
-	1 248	4 952	9 065	15 311	-	-	**15 311**	12 730
-	-	-	1 246 550	1 246 550	785 628	-	**2 032 178**	2 231 286
$ 3 913 828	**$ 7 774 480**	**$ 14 525 759**	**$ 10 045 247**	**$ 127 373 558**	**$ 127 550 481**	**$ 3 406 035**	**$ 258 330 074**	$ 255 316 161
				(9 567 395)	9 567 395			
$ 3 913 828	**$ 7 774 480**	**$ 14 525 759**	**$ 10 045 247**	**$ 117 806 163**	**$ 137 117 876**	**$ 3 406 035**	**$ 258 330 074**	$ 255 316 161

4. SHORT-TERM INVESTMENTS

Héma-Québec has a term deposit of $7,257,600 bearing interest at a rate of 2.74% ($9,000,000 in 2004). Héma-Québec also holds an investment of $85,419 ($1,856,988 in 2004) in a trust account, entered at cost, bearing interest at the rate of 1.25%.

5. ACCOUNTS RECEIVABLE

	2005	2004
Customers	$ 85 179	$ 194 308
Sales taxes	2 090 940	1 569 782
Security deposit	6 410 880	6 949 890
Other accounts receivable	432 074	479 791
	$ 9 019 073	$ 9 193 771

6. INVENTORY

Fractionated products and substitutes	$ 15 904 269	$ 16 464 517
Collection equipment	1 861 659	2 411 404
Laboratory equipment	865 954	925 506
	$ 18 631 882	$ 19 801 427

7. PREPAID EXPENSES

Insurances	$ 3 204 614	$ 3 156 413
Other	1 449 897	241 961
	$ 4 654 511	$ 3 398 374

8. FIXED ASSETS

	2005			2004
	COST	ACCUMULATED DEPRECIATION	NET VALUE	NET VALUE
Tangible assets				
Land	$ 2 139 500	$ -	$ 2 139 500	$ 2 139 500
Building	19 698 575	2 731 023	16 967 552	17 755 495
Betterment*	7 404 851	1 296 250	6 108 601	6 093 755
Leasehold improvements*	1 283 893	298 121	985 772	1 178 276
Automotive equipment	36 469	14 513	21 956	26 055
Machinery and equipment*	10 965 805	4 014 675	6 951 130	6 250 542
Office furniture and equipment*	3 223 206	1 814 701	1 408 505	1 279 846
Computer equipment*	7 152 003	4 687 210	2 464 793	1 679 398
	51 904 302	14 856 493	37 047 809	36 402 867
Intangible assets				
Software and software packages*	4 869 807	3 564 643	1 305 164	1 354 427
	$ 56 774 109	$ 18 421 136	$ 38 352 973	$ 37 757 294

* The accumulated cost of work in progress, as at March 31, 2005, totals $525,348, excluding taxes, of which $21,944 is included in the physical improvements category, $4,067 in the machinery and equipment category, and $499,337 in the software and software packages category. The amortization of these fixed assets will begin when the projects have been completed.

9. DEFERRED CHARGES

Under an emphyteutic lease, Héma-Québec paid the amount of $1,875,597 to obtain the right to occupy premises at Université Laval for a period of thirty years. The amortization for the period is $120,486 and was entered in the statements under the category of “Building and premises.”

10. BANK OVERDRAFT

As at March 31, 2005, Héma-Québec had a revolving line of credit of $15,000,000 bearing interest at the prime rate less 0.50%.

11. ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

	2005	2004
Suppliers	$ 24 000 595	$ 17 682 392
Salaries and fringe benefits	6 419 205	6 667 381
	$ 30 419 800	$ 24 349 773

12. LONG-TERM DEBT

Loan, secured by the land and the building, with a net book value of $19,107,052, repayable by monthly instalments of $36,337 (including capital and interest), at a fixed rate of 6.19%, renewable in 2008 and falling due in 2023.	$ 4 818 739	$ 4 951 888
Loan, secured by the land and building, with a net book value of $19,107,052, repayable by monthly instalments of $53,783 (capital only), at a fixed rate of 5.79%, renewable in 2009 and falling due in 2027.	14 413 944	15 059 340
Loans, repayable by monthly instalments of $214,678 (including capital and interest), at fixed rates of 6.01% and 6.38%, falling due in 2005 and 2008.	4 723 540	7 879 001
Loans, repayable by monthly instalments of $228,489 (capital only) and annual payments of $256,429 (capital only), at fixed rates varying from 3.16% to 4.98%, falling due between 2007 and 2012.	13 152 000	8 761 721
Loan, repayable by monthly instalments of $11,694 (capital only), at a fixed rate of 5.41%, renewable in 2010 and falling due in 2023.	2 525 940	2 666 270
	39 634 163	39 318 220
Portion of long term debt payable within one year	(5 700 826)	(5 984 167)
	$ 33 933 337	$ 33 334 053

Instalments on long-term debt required during the next five years are the following:

2006	$ 5 700 826
2007	4 985 338
2008	4 592 290
2009	3 859 057
2010	2 612 759

13. DESCRIPTION OF BENEFIT PLANS

Héma-Québec has several defined benefit plans, both funded and non-funded, which guarantee the payment of pensions, post-retirement benefits other than pensions and post-employment benefits to most employees.

The defined benefit pension plans are based on the number of years of service and the average salary at the time of the employee's retirement. They also provide for partial indexation of pension benefits, in keeping with the inflation rate.

Before January 1, 2004, Héma-Québec also offered to certain employees defined contribution plans. As of April 1, 2005, the employees who enjoyed rights under the defined contribution plans were given the opportunity to convert these rights to defined benefit plans. The impact of this event was reflected in the statements as at March 31, 2005 by an increase in the accrued benefits obligation of $10,251,000 and an increase in the fair value of the assets of $7,904,000.

Total cash payments

Total cash payments for future benefits for 2005, which consists of Héma-Québec's contributions to its funded pension plans, amounts paid directly to beneficiaries in the case of its other, non-funded plans, and contributions to its defined contributions plan, amounted to $6,351,145 ($5,189,913 in 2004).

Dates for valuations of defined benefit plans

Héma-Québec valuates its accrued benefits obligations and the fair value of the assets of the plans for accounting purposes as at March 31 of each year. The effective dates of the most recent actuarial valuations, as well as of the upcoming mandatory valuations for the purposes of funding those plans that are funded, are as follows:

	DATE OF MOST RECENT ACTUARIAL VALUATION	DATE OF MANDATORY ACTUARIAL VALUATION
Unionized employees' pension plan	December 31, 2002	December 31, 2005
Pension plan for management, professional, technical and administrative support staff	December 31, 2002	December 31, 2005

Defined benefit plan obligations

	2005		2004	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Variation in the accrued benefits obligation				
Accrued benefit obligation at beginning of current year	$ 43 918 200	$ 3 878 575	$ 29 679 600	$ 4 957 097
Current service cost	3 220 300	2 089 258	1 380 300	1 952 991
Employees' contributions	2 512 000	-	2 177 900	-
Interest cost on accrued benefit obligation	2 961 100	160 000	2 366 900	286 000
Past services costs (changes to plans)	2 347 000	-	278 600	217 000
Benefits paid	-599 000	-2 240 145	-576 300	-1 931 513
Actuarial losses	1 942 200	85 000	7 046 100	302 000
Others	7 904 000	-	1 565 100	-1 905 000
Accrued benefit obligation at end of current year	$ 64 205 800	$ 3 972 688	$ 43 918 200	$ 3 878 575

Defined benefit plan assets

	2005		2004	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Variation in the fair value of plan assets				
Fair value of plan assets at beginning of current year	$ 40 767 300		$ 30 187 200	
Héma-Québec contributions	4 111 000		3 258 400	
Employees' contributions	2 512 000		2 177 900	
Actual return on plan assets	1 737 700		4 155 000	
Benefits paid	-599 000		-576 300	
Others	7 904 000		1 565 100	
Fair value of plan assets at end of current year	$ 56 433 000		$ 40 767 300	

Composition of plan assets

(in % as at March 31)

	2005	2004
Shares	61%	62%
Bonds	35%	34%
Others	4%	4%
Total	100%	100%

Reconciliation of financial situation and amounts recorded in the financial statements

	2005		2004	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Fair value of plan assets	$ 56 433 000	$ -	$ 40 767 300	$ -
Accrued benefit obligation	64 205 800	3 972 688	43 918 200	3 878 575
Financial situation – deficit	-7 772 800	-3 972 688	-3 150 900	-3 878 575
Unamortized transitional obligation	40 500	-	45 500	-
Cost of benefit for unamortized past services	2 547 400	109 000	225 500	163 000
Net, unamortized actuarial losses	5 739 400	1 052 000	2 368 600	1 011 000
Accrued benefit asset (liability) at end of current year	$ 554 500	$ -2 811 688	$ -511 300	$ -2 704 575
Classification of amounts recorded in the Héma-Québec's financial statements				
Accrued benefit asset	$ 554 500			
Accrued benefit liability		$ 2 811 688	$ 511 300	$ 2 704 575

Accrued benefit obligation is greater than asset for all Héma-Québec plans.

Breakdown of cost recognized for the current year

	2005		2004	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Current service cost	$ 3 220 300	$ 2 089 258	$ 1 380 300	$ 1 952 991
Interest charges for the accrued benefit obligation	2 961 100	160 000	2 366 900	286 000
Past service costs (changes to plans)	2 347 000	-	2 561 400	217 000
Actual return on plan assets	- 1 737 700	-	-4 155 000	-
Actuarial losses on the accrued benefit obligation	1 942 200	85 000	7 046 100	302 000
Others	-	-	-	-1 291 000
Elements of cost before considering its long-term maturity	8 732 900	2 334 258	9 199 700	1 466 991
Variance between actual and expected return	-1 436 300	-	1 733 500	-
Variance between the amortization recognized for the actuarial loss and the actuarial loss for the current year of the obligation	- 1 934 500	-41 000	-7 046 100	-242 000
Variance between the amortization of the past service costs and the past service costs (changes to plans) for the current year	-2 321 900	54 000	-225 500	-163 000
Amortization of the transitional obligation	5 000	-	5 000	-
Adjustments considering the long-term maturity of the future benefits	-5 687 700	13 000	-5 533 100	-405 000
Cost for defined benefit plans	3 045 200	2 347 258	3 666 600	1 061 991
Cost for defined contributions plans			570 900	
Cost for future benefits	$ 3 045 200	$ 2 347 258	$ 4 237 500	$ 1 061 991

Main assumptions

	2005		2004	
	PENSION PLANS	OTHER PLANS	PENSION PLANS	OTHER PLANS
Accrued benefits obligation as at March 31				
Discount rate	5,75%	5,75%	6,00%	6,00%
Rate of salary escalation	4,00%	4,00%	4,00%	4,00%
Cost of benefit for year ended March 31				
Discount rate	6,00%	6,00%	7,00%	7,00%
Expected long-term rate of return on plan assets	7,25%	-	7,25%	-
Rate of salary escalation	4,00%	4,00%	4,00%	4,00%

Assumed trend rate for health-care costs

	2005	2004
Initial trend rate of health-care costs as at Match 31	8,50%	9,00%
Level to which trend rate is declining	5,00%	5,00%
Year when the rate should stabilize	2013	2013

14. FINANCIAL INSTRUMENTS

FAIR VALUE OF FINANCIAL INSTRUMENTS

Long-term debt

As at March 31, 2005, the fair value of the long-term debt of $39,634,163 ($39,318,220 in 2004) came to $41,810,897 ($39,671,156 in 2004), in light of the discounted cash flow value at the market price for securities of a similar nature with regard to maturity dates and interest rates.

Other assets and liabilities

The fair value of the cash on hand, accounts receivable, subsidy to be received, short-term investment, bank overdraft, accounts payable and accrued liabilities amount to their book value, given their short term.

DERIVATIVE INSTRUMENTS

Foreign exchange contract

Héma-Québec committed itself through a foreign exchange contract to purchase American currency in the amount of $45,000,000 at a rate of 1.2251 for the period from April 1 to September 30, 2005 in order to manage certain identifiable risks linked to the purchase of products in foreign currency. As at March 31, 2005, Héma-Québec held no foreign exchange contracts.

15. COMMITMENTS

Héma-Québec has committed itself through long-term leases falling due at various dates over the next 30 years to its operations and administration premises. The leases for these premises include, in some cases, a five-year renewal option.

The rental expenses for these premises, for the financial year ended March 31, 2005, stood at $1,511,105 ($1,549,526 in 2004). The future minimum payments related to these long-term leases are the following:

2006	$ 2 036 415
2007	1 926 945
2008	1 890 456
2009	1 788 039
2010	1 541 832
2011 and subsequent	37 152 588

16. RELATED PARTY TRANSACTIONS

In addition to operations among affiliates already disclosed in the financial statements, Héma-Québec is affiliated with all government departments and special funds, as well as all organizations and enterprises controlled directly or indirectly by the Government of Québec or subjected either to joint control or to significant common influence on the part of the Government of Québec. Héma-Québec has not concluded any business transactions with these affiliates other than in the normal course of its activities and according to usual business terms. These operations are not disclosed separately in the financial statements.

17. COMPARATIVE FIGURES

Certain figures for 2004 have been reclassified in order to conform to the presentation adopted in 2005.

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