FIVE YEARS ALREADY…

Highlights*

After its first five years of existence, Héma-Québec is proud to present a summary of its major accomplishments, including its 2003–2004 annual report. Its continuous development and rapid growth have enabled it to become an acknowledged model in the blood product supply system.

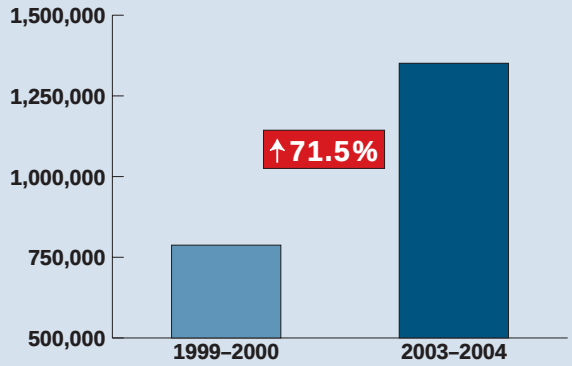
A safe blood supply means ensuring both the sufficiency and safety of blood products efficiently.

Adequate Product Supply

Since 1999, Héma-Québec's operations have experienced considerable growth, in order to meet the demand of hospitals and the needs of Quebeckers.

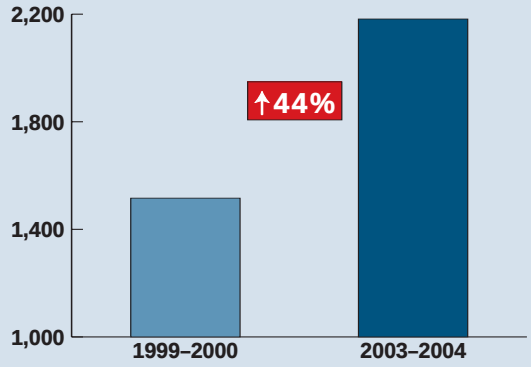
- Over the years, the telephone recruitment team, with the help of volunteers, made an increasing number of calls to Quebeckers to enlist more blood donors. Since 1999–2000, the number of calls rose 71.5%, from 787,568 to 1,351,131 calls in 2003–2004.

Number of calls made to recruit donors



- Since 1999–2000, the number of blood drives organized by the community, with the help of Héma-Québec, grew by almost 44%, from 1,516 to 2,182 drives in 2003–2004.

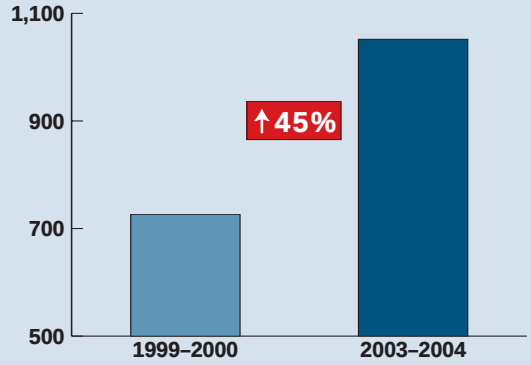
Number of mobile blood drives



- Fall 2001: New Place Versailles and Côte-Vertu Globule blood donor centres opened in Montréal.

Following the opening of these two centres in 2001–2002, the number of blood drive days at donor centres has grown steadily, with the aim of ensuring a sufficient supply of labile blood products. Since 1999–2000, the number of blood drive days at donor centres has increased by almost 45%, from 726 to 1,052 days in 2003–2004.

Number of blood drive days at blood donor centres

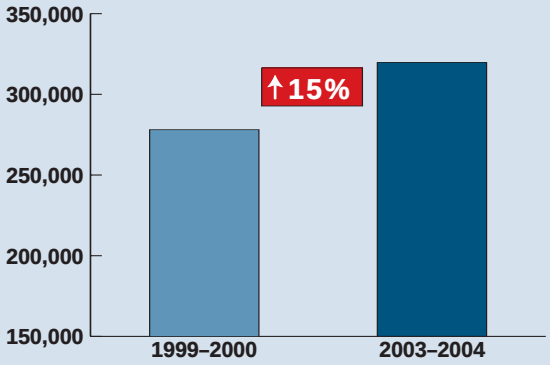


* These highlights refer to activities begun in 1999–2000, since Héma-Québec was only in operation for six months in 1998–1999.

Highlights

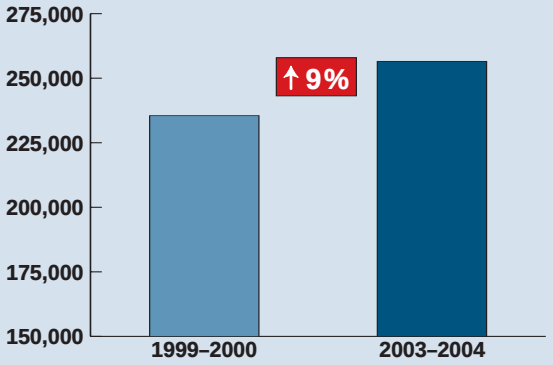
- Quebeckers were made aware of the importance of giving blood, mainly through three advertising campaigns. Since 1999–2000, the number of donors grew by almost 15%, from 278,092 to 319,628 donors in 2003–2004.

Number of donors



- Since 1999–2000, the number of bags of blood collected increased by almost 9%, from 235,488 to 256,518 units in 2003–2004.

Number of bags of blood collected



- Following the tragic events of September 11, 2001, in 2002–2003 Héma-Québec introduced a new standard of a reserve of six days or more of labile blood products, in order to ensure a sufficient supply, especially in case of emergencies. Since then, the organization has succeeded in maintaining its supply of such products at that level, which constitutes one of the best performances in North America.

Highlights

- Each year, Héma-Québec helps about 80,000 patients regain their health. During the first five years of its existence, it met the close to 5% annual growth in the demand of Québec hospitals. Overall, deliveries of labile blood products to hospitals increased by about 24% since 1999–2000, from 350,751 to 433,787 products delivered.

Labile blood products delivered to hospitals

YEAR	1999–2000	2000–2001	2001–2002	2002–2003	2003–2004
Packed red blood cells	195,312	200,747	211,901	221,659	223,723
Whole blood-derived platelets	95,606	108,040	114,305	107,612	98,114
Apheresis platelets	1,234	1,702	1,920	4,234	6,775
Platelet equivalents*	6,170	8,510	9,600	21,170	33,875
Whole blood-derived plasma	30,626	32,589	33,481	39,324	46,090
Apheresis plasma	6,335	7,549	6,989	8,200	8,231
Cryoprecipitate	11,599	11,935	12,102	12,685	12,888
Cryoprecipitate supernatants	5,103	6,069	6,714	6,593	10,866
Total*	**350,751**	**375,439**	**395,092**	**417,243**	**433,787**

** A bag of apheresis platelets is equivalent to the amount of platelets derived from five bags of whole blood. The total includes the platelet equivalents and not the number of apheresis platelets.*

Product Safety

Héma-Québec has become a synonym for safety, particularly through its introduction of a number of new measures.

- June 1999: systematic leukodepletion before storage of allogenic blood donations, with filters that remove leukocytes (white blood cells) while being permeable for red blood cells and platelets
- November 1999: introduction of PROGESA blood management software, making operations even safer and more efficient
- November 1999: introduction of nucleic acid testing to detect the hepatitis C virus
- January 2001: introduction of nucleic acid testing to detect HIV, the virus responsible for AIDS
- March 2001: received accreditation from the American Association of Blood Banks
- May 2002: consolidation of all Montréal activities in modern facilities, including a new structure that meets production and safety requirements
- May 2002: introduction of PRISM® high-volume technology that enables several screening tests to be conducted simultaneously, the automation of operations previously carried out manually, and the increase of HBsAg test sensitivity
- February 2003: introduction of a new blood collection device that includes a bypass pouch for the first few millilitres of blood, which can contain bacteria from the area where the needle is in contact with the skin
- March 2003: establishment of a system for detecting bacteria in apheresis platelets
- April 2003: introduction of the anti-HBc test for detecting the hepatitis B virus

Highlights

- June 2003: introduction of nucleic acid testing (experimental test, experimental testing authorization request phase) for detecting the West Nile virus

- Addition of various donor qualification criteria aimed to temporarily or permanently prohibit blood donation by individuals at risk of being infected by (or exposed to) illnesses that may be transmitted by transfusion. These qualification criteria are continuously reviewed and updated. For example:

  - September 1999, October 2000, and October 2001: introduction of qualification criteria related to variant Creutzfeldt-Jakob disease

  - April 2003: introduction of qualification criteria in respect to severe acute respiratory syndrome (SARS)

  - December 2002 and June 2003: introduction of qualification criteria related to the West Nile virus

Reduction of Residual Risks

- These are the risks that "remain" after the donor has been qualified and all tests have been performed. Residual risks are attributable to a latent period (the incubation period during which blood-borne viruses are undetectable in recently infected individuals).

  For the first time, estimations of residual risks for Québec were able to be established. Compiling new cases of HIV (the virus that causes AIDS), hepatitis C (HCV), hepatitis B (HBV) and HTLV (Human T-cell Leukemia Virus) infection detected among blood donors in Québec between April 1, 1997 and July 31, 2002, made it possible to estimate these residual risks.

Through the use of nucleic acid testing to qualify donated blood, therefore, residual risks are extremely low in Québec.

VIRUS	RESIDUAL RISK IN QUÉBEC
HTLV	1 in 5,505,279
HIV	1 in 4,952,510
HCV	1 in 1,226,478
HBV	1 in 278,413

Source: Germain M., Gélinas S., Delage G. "Estimates of risk of window-period transmission of blood-borne viral diseases in Quebec." Canadian Medical Association Journal*. March 30, 2004; 170 (7): 1077–8.*

By comparing these estimates of residual risks to those published by other suppliers of labile blood products, it seems that the residual risk of virus transmission in Québec is generally comparable to that in the United States, France and the rest of Canada.

Results for Viral Markers

- A very low annual proportion of allogenic blood donations were confirmed positive according to each viral marker.

  Each allogenic blood donation undergoes testing for all communicable disease markers (HIV, HCV, HBV, HTLV, syphilis) in order to detect the presence of these viruses.

Highlights

The proportion of donations confirmed through qualification analyses performed by Héma-Québec to be carriers of these viruses is very low. All bags of blood confirmed positive are destroyed.

Allogenic blood donations are donations to the collective blood supply.

Annual proportion of allogenic blood donations confirmed positive according to each viral marker

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

Human Tissue Division, Histo-Québec

In December 2001, Héma-Québec integrated the assets of the Centre de conservation des tissus humains du Québec to create the Histo-Québec division, which would become the supplier of human tissues in Québec.

Innovation and Efficiency

- In order to develop new technologies and innovative products related to blood and tissue management and processing, Héma-Québec established a research and development program that included, in 2000, the creation of the Hématech testing group.

  Since its creation, the Hématech testing group has conducted several evaluation studies, including:

  - Validation of a collection device that bypasses the first few millilitres of blood
  - Screening and establishment of a bank of donors who have immunoglobulin A (IgA) deficiency
  - Evaluation of various models of cell separators for thrombapheresis
  - Evaluation of various models of heat sealers used in the collection and processing of blood components
  - Evaluation of the effect of a 24-hour waiting period at room temperature before processing blood

- Since 2003, the organization has been in charge of every aspect related to the management of its fractionated product distribution operations. In particular, it introduced a computerized system for managing fractionated product information.

  Fractionated products delivered by Héma-Québec to hospitals include intravenous immunoglobulins, coagulation factors (plasma-derived and recombinant proteins), albumin and hyperimmunes.

Delivery of fractionated products to hospitals

YEAR	VALUE (CAN$)
1999–2000*	$71,703,615
2000–2001	$89,678,373
2001–2002	$110,494,426
2002–2003	$132,235,202
2003–2004	$132,624,872

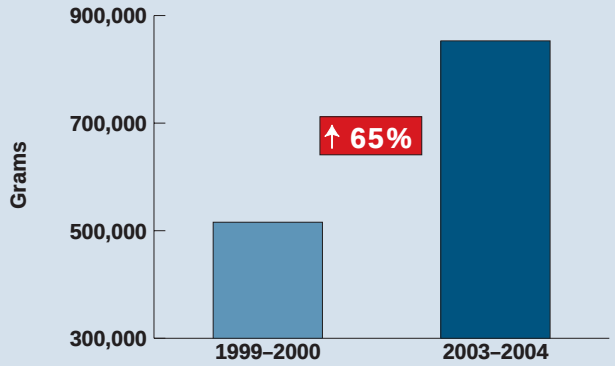
** Does not include costs of plasma for fractionation.*

Intravenous immunoglobulins and recombinant antihemophilic factors account for more than 70% of the budget for fractionated products.

Highlights

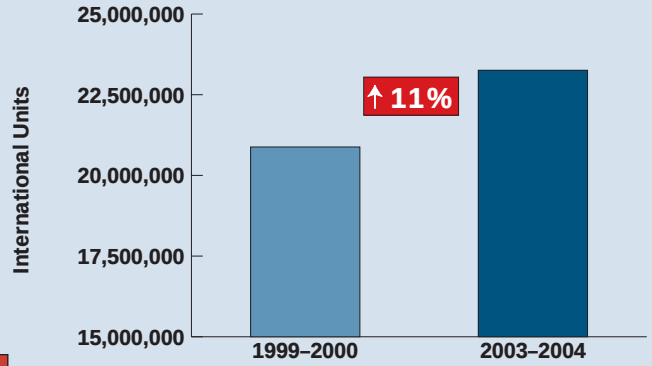
- Since 1999–2000, the amount of intravenous immunoglobulins delivered to hospitals has grown by about 65%, from 515,761 to 852,948 grams.

Deliveries of intravenous immunoglobulins



- Since 1999–2000, the amount of recombinant antihemophilic factors delivered to hospitals has increased 11%, from 20,880,591 to 23,257,878 international units.

Deliveries of recombinant antihemophilic factors



Reputation and Image

Héma-Québec quickly earned the trust of donors, recipients, volunteers and the public in general. According to a survey conducted in January 2004 by an external marketing and opinion research firm:

- *Quebeckers trust the blood collection and distribution system in Québec as much as or more than five years ago, particularly because of the increased controls and screening tests. They are generally of the opinion that Héma-Québec does as much as it possibly can to ensure the safety of the blood supply system.*
- *A large proportion of Quebeckers considers blood donation and transfusions to be safer since Héma-Québec came into operation.*
- *An overwhelming majority of Quebeckers thinks that Héma-Québec manages the blood supply well and considers that the organization is ready to react to any emergency that could involve the safety of the blood supply.*
- *Most people who know about Héma-Québec agree that, since its founding, there is less risk of a blood shortage.*
- *Héma-Québec has a positive image and is one of the most highly regarded companies or organizations in Québec.*

A Great Mission. A Great Team.

- Close to 1,500 blood drive organizing committees
- Approximately 25,000 volunteers
- 1,500,000 donors welcomed at 10,000 community-organized blood drives
- More than 1,300 employees
- A board of directors made up of representatives of the entire transfusion chain