

Managing Canada's Blood System

Canadian Blood Services' Response to Questions from the Canadian Hemophilia Society

Introduction

On Nov. 26, 1997, the final report of the Royal Commission of Inquiry on the Blood System in Canada was tabled in the House of Commons. It detailed Justice Horace Krever's recommendations for an independent, accountable, publicly funded national blood service. Canadian Blood Services was established the following year.

For Canadian Blood Services, Justice Krever's principles served as a fundamental framework for policy development and a touchstone for evaluating our progress in earning and retaining the trust of Canadians. The insights from the inquiry have guided our evolution into an agile, responsive, service-focused organization committed to the highest standards of safety and quality — and accountable to all Canadians.

It is therefore fitting, as we mark the 20th anniversary of Justice Krever's report, to cite one of its key recommendations: "The public must have access to information about the policy, management and operations of the blood supply system and be represented in the decision making." In the spirit of continuing openness, collaboration and transparency, we are pleased to offer this response as input to the Canadian Hemophilia Society's report card on Canada's blood system.

1. What new measures have been introduced to ensure a safe supply?

We constantly review our safety practices to ensure they reflect the best available evidence from current research. Where appropriate, we conduct research ourselves to ensure we have relevant Canadian evidence. We also closely monitor emerging risks, consulting regularly with other blood operators and international epidemiology and surveillance groups. We recognize that a vital part of our role as stewards of Canada's blood system is our ability to respond quickly when new threats emerge or when known threats increase in frequency or risk.

Risk-Based Decision-Making Framework and the Zika virus

Recently, the global outbreak of the Zika virus demanded a rapid response from all blood operators. In February 2016, following a detailed risk assessment and consultations with Héma-Québec and Health Canada, Canadian Blood Services implemented a 21-day waiting period for donors wishing to give blood following travel outside Canada, the continental U.S. and Europe. In addition to people donating whole blood, the waiting period also covers cord blood and stem cell donors.

Developed using a rigorous Risk-Based Decision-Making Framework (please see our answer to Question 4 for more information about the framework), our response to the Zika threat reflects the high level of caution we believe is appropriate in such situations. It is worth noting that there have been very

few reported cases of Zika virus infection as the result of travellers acquiring the virus abroad. The risk of a Canadian donor transmitting the virus to a blood recipient remains extremely low.

Although the World Health Organization declared in November 2016 that Zika no longer constituted a global emergency, we will keep the 21-day waiting period. This waiting period will be effective in safeguarding against the transmission of other travel-related infectious diseases such as dengue, chikungunya and yellow fever.

We are constantly evaluating our preparedness for the next bloodborne pathogen that could put Canada's blood system at risk. In addition to monitoring risks internationally, we use our established network of provincial public health units to stay ahead of any cases of Zika and other infectious diseases across the country. The network also helps us determine whether any newly identified patients are blood donors. In consultation with the relevant government authorities, we also continue to explore and implement new pathogen inactivation technologies that will further protect the blood system.

Pathogen reduction and inactivation technologies

In the absence of testing regimes for all known pathogens, the industry has been evaluating manufacturing methods to remove or inactivate pathogens from fresh blood components. Canadian Blood Services participated in a large international clinical trial (the Pathogen Reduction Evaluation and Predictive Analytical Rating Score or PREPAREs study) for a method to produce platelet concentrates. These products were produced by Canadian Blood Services and shipped to several clinical trial sites in Atlantic Canada and Ontario. This trial has been successfully concluded and the principal investigators are in the process of publishing the results. Data from this clinical trial will be used by the medical device vendor to license its technology in Canada and other jurisdictions.

Bacterial detection

Canadian Blood Services has continued its incremental strategy to reduce the risk of bacterial contamination of blood components, specifically in platelets. Previous interventions have included advances in arm scrub methods, introduction of the sample diversion pouch and the introduction of bacterial detection for platelet concentrates. Most recently, Canadian Blood Services modified the testing algorithm for bacterial detection, which will increase the ability to detect bacteria as well as extend the expiry of a platelet concentrate to seven days. This was done by introducing a 36-hour (previously 24-hour) hold period before sampling for bacteria and then an additional six-hour hold before releasing the product for inventory. The new testing algorithm also included an inoculation of an additional anaerobic culture bottle to further increase the sensitivity of detection.

Electronic self-administered health history

In 2016, the robustness of our collection process was enhanced through the automation of several manual steps in the donation process. Most significantly, the manual process for screening donors for their health history was replaced by an electronic system (eProgesa) to introduce a self-administered health history (SAHH). The SAHH replaced manual documentation steps and reviews for accessibility with built-in electronic controls that prevent a non-conforming donation from proceeding through the process. This process was previously a source of serious errors that could have escalated to recalls of implicated

donations.

2. What are the current risks for known pathogens?

Our revised estimates for 2017 indicate that the residual risk of a potentially infectious unit of blood being released for transfusion remains extremely low:

- one in 21.4 million donations for HIV
- one in 12.6 million donations for hepatitis C
- one in 7.5 million donations for hepatitis B

Canadian Blood Services uses the most up-to-date available pathogen tests to identify potentially infected donations and prevent their release for patient use. In each of the last five years, we've published a report describing the results of our infectious disease surveillance work. This work includes:

- monitoring transmissible disease markers, including bacteria
- investigating any reports of possible transmission during transfusion
- reviewing horizon scans for new pathogens that could pose a risk now or in the future

Our 2016 surveillance report is included with this document as Appendix A. It reviews, pathogen by pathogen, the risk of potentially infectious blood units being released for transfusion.

3. What does your market research tell you about the public's confidence in the safety of the blood supply?

Our most recent public survey, conducted by Ipsos in June 2017, found that among those Canadians polled:

- 93 per cent believe Canadian Blood Services is doing a good job of managing the blood supply. *
- 85 per cent trust that Canadian Blood Services acts in the best interests of the public. *
- 87 per cent consider receiving a blood transfusion to be safe.**
- 91 per cent consider donating blood to be safe.**

*Figure includes respondents who chose 7 or higher on a 10-point scale, where 10 indicates the highest level of agreement.

**Figure includes respondents who chose 6 or higher on a 10-point scale, where 1 indicates they believe transfusions are completely unsafe and 10 indicates they believe transfusions are completely safe.

Note: The proportion of respondents expressing no opinion ranged from six per cent to 21 per cent — management of the blood system (21 per cent); trust (six per cent), safe to receive (10 per cent), safe to donate (nine per cent)

4. What challenges have you faced in the last three years regarding safety?

We continually scan the global health environment for potential new risks to the blood system. We also consult our partners across Canada and internationally regarding any emerging threats they may detect. In addition to the global Zika epidemic (see our response to Question 1 for more details), two agents of transfusion-transmitted infection have emerged as notable risks in the past few years:

- **Babesia microti** is a tick-borne parasite that can infect red blood cells. It typically results in mild flu-like symptoms, but it can have more serious consequences for people with weakened immune systems, kidney disease or other health conditions. In 2015, Canadian Blood Services and Héma-Québec conducted a study of nearly 14,000 donors. We identified no donors who tested positive for *Babesia microti*. A follow-up study is planned for 2018.
- **Hepatitis E** is a virus linked to contaminated food and water. Canadian Blood Services and Héma-Québec have completed two studies on hepatitis E in Canadian donors. The first, conducted in 2015, found that of 14,000 donors, 5.6 per cent carried the hepatitis E antibody but were not infectious — that is, they tested negative for the presence of the virus. A larger study of 50,000 donors is almost complete.

In our analysis of safety issues, we apply the internationally recognized Risk-Based Decision-Making (RBDM) Framework developed by the Alliance of Blood Operators under the leadership of Canadian Blood Services. The framework was created to support blood safety decisions in the context of emerging risks, evolving technology, societal issues, and economic realities. Blood safety is defined broadly in this framework to include product safety, process safety, sufficiency of supply, patient safety, and donor safety. As a step-wise approach to RBDM, the framework's objectives are to optimize blood safety, balanced with the recognition that the elimination of all risk is not possible; to allocate resources in proportion to the magnitude of the risk and the effectiveness of the intervention; and to assess and incorporate the social, economic, and ethical factors that may affect decisions about risk. The framework is composed of established RBDM practices, tailored to a blood safety context, and engages the perspectives of patient groups, health practitioners and other key stakeholders to whom blood operators must be responsive and accountable. Applied by blood operators around the world, the framework and related tools and resources are available at <https://riskframework.allianceofbloodoperators.org/>.

5. What are Canadian Blood Services' key strategies to maintain an adequate supply?

Collections targets are adjusted annually to meet forecasted demand for red blood cells. Canadian Blood Services has built a robust supply chain model to ensure we maintain an adequate supply of blood and plasma products. For blood products, we build an annual collection plan to collect whole blood, platelets and plasma to meet patient needs. Collection plans are adjusted annually to meet forecasted demand. Some extra collection capacity is planned during the year to allow for disruptions due to weather and other unforeseen events. Last year, we achieved 98.6 per cent of our blood collection target and maintained a sufficient supply, including ample emergency reserves, at all times.

We also have built protection into the supply chain through our business continuity plans. We have two main testing facilities in the country, either of which can test all the national collections should a disruption occur at one site. Our individual production facilities also have contingency plans to allow us to maintain operations should there be disruptions in any location. On top of these plans, we have national arrangements in place for third-party testing in the U.S., and for emergency shipments of blood products from Héma-Québec and from the American Red Cross.

For plasma products, where possible we obtain products from multiple suppliers per product category to ensure a balanced supply of product can be maintained. We also keep several weeks of product inventory in our possession at all times, and require suppliers to also keep eight weeks of safety stock.

Relationship-building with repeat donors

Repeat donors are vital to maintaining an adequate blood supply. Last year, 90 per cent of our donations came from donors who had either given recently or were returning to donate after a hiatus of 12 months or more.

We work hard to maintain strong ties with these donors, who have already demonstrated their commitment to giving blood. Recent initiatives include:

- Adoption of new technology for managing donor data — helping us stay in touch and gain better insight into donors' needs, habits and communication preferences.
- Use of multiple communications channels. We currently deliver about 1.5 million messages monthly to donors via outbound phone calls, automated voicemail, email and text messaging.
- Introduction of tools to make booking appointments more convenient. In 2011, we added a self-serve booking tool to our website (blood.ca). In 2014, we launched the GiveBlood mobile app. Appointments arranged through these two self-serve channels have grown to 30 per cent of all bookings (as of August 2017) and continue to increase.

Connecting with potential new donors

Cultivating new donors is vital to maintaining an adequate blood supply. Although most blood donations come from repeat donors, maintaining this core group can be challenging as people move, become less engaged or are no longer eligible to donate. So, in addition to strengthening our engagement with existing donors, we are using various mobile and online tools to extend our reach into key areas of the population.

Universities, colleges and high schools are important sources of new blood donors. So too are the many organizations and affiliated groups that partner with Canadian Blood Services on blood donation campaigns — a special focus of our recent efforts. Renewed outreach in all of these areas throughout 2016–2017 resulted in one of our best years ever for attracting brand-new potential donors.

Updating donor eligibility criteria

Canadian Blood Services constantly reviews eligibility criteria to enable as many people as possible to donate while protecting donors' well-being and the safety of the blood supply. In 2016–2017, we

increased the interval between donations for female donors from 56 to 84 days, and slightly raised the hemoglobin threshold for male donors. Both measures are designed to protect a donor's well-being — specifically, to ensure healthy iron levels in their blood. But these changes may also reduce the total amount of blood our active donors, especially females, can give over time.

At the same time, we made several adjustments to our eligibility criteria during the past year that will bring in donors who were previously ineligible without making the blood supply less safe. We have removed the upper age limit for donations from first-time donors, so people over 71 no longer require a physician's assessment. We have carefully adapted some of our eligibility requirements related to where people have lived, permitting donations (with specific provisions) from more people who have lived in countries where certain diseases are common. Most donors with non-blood-related cancers can now donate if they have been cancer-free for five years. And we continue to adjust waiting-period rules in response to new scientific evidence. We have eliminated most post-vaccination waiting periods, and we have cut the blood donation deferral period for men who have sex with men (MSM) from five years to one year. These changes allow us to ensure a more appropriate balance between risk and risk mitigation to avoid excluding Canadians whose donations do not pose a risk to the safety of the blood supply.

Adapting our blood collection network

As Canada becomes increasingly urban, we have slowly been moving our collections capacity to metropolitan areas. As part of our annual planning process, we shift our collection volume to larger, more cost-effective mobile collection sites to help conserve resources and better meet demand.

Deeper Connections program

Underpinning all of our work to build stronger relationships with donors — both new and repeat — is a multi-year recruitment, engagement and retention program called Deeper Connections. Combining digital communications tools with proven targeted marketing techniques, this program is transforming how we identify and keep pace with changing donor expectations and needs. Through Deeper Connections, we will be able to draw on a personally engaged community of the right donors and registrants at the right time to meet patient needs consistently and cost effectively.

6. To what degree have you been successful in maintaining an adequate supply?

Canadian Blood Services maintains a carefully managed inventory of blood and blood products, and we have an excellent track record of rapidly meeting the needs of hospitals and patients. We establish plans to ensure patients' needs are met, even if we face unusual events or spikes in demand. We maintain regular dialogue with hospitals and monitor their inventory levels. Hospitals are well served by our supply, as is evidenced by the healthy inventory of blood and plasma products that we are able to provide throughout the year. In addition to the basic products, we also maintain a supply of rare matched units. These products include very rare red blood cell units, which are kept in our frozen inventory. These products allow us to meet the unique needs of patients who require HLA-matched units or who have sickle cell disease, thalassemia or other rare conditions. Our supply of plasma protein products is also very reliable, and even temporary shortages of these products are extremely infrequent.

In 2016–2017, we filled 99.4 per cent of orders for red blood cells within one day (99.6 per cent for plasma and 98.3 per cent for platelets). We occasionally fall short of that fill rate at some locations, especially when a patient needs a rare phenotype product. However, we have received no reports of patient care being compromised as a result of these infrequent delays, as much of the overall blood inventory of the country is held in hospital blood banks.

Canadian Blood Services has a comprehensive inventory management system that tracks all products under our control, including emergency stocks. This system enables us to maintain appropriate levels of supply, and allows us to monitor the number of days that specific products will be available. To boost efficiency, we typically manage supply according to the needs of patients and hospitals close to our main production and distribution centres. In addition, one of the key advantages of our system is our ability to manage a national inventory. If sudden high demand for product or demand for highly specialized product occurs in one region, we can quickly move product from other regions to meet needs. We move product every day at Canadian Blood Services, both to meet patient needs and to ensure optimal use of product and reduce outdates.

7. Are donors responding in adequate numbers to Canadian Blood Services' invitations to donate blood and plasma?

About 406,000 blood donors visited our collection sites in 2016–2017 as we surpassed our donor growth target by just over 4,000 people. This represented an increase of about five per cent over the previous year. While this may initially appear to be modest growth, when we consider that more than 220,000 donors were either new (84,000) or reinstated (136,500) following a lapse of at least 12 months, the growth is significant. In fact, we replaced 54 per cent of the total number of blood donors in a single year.

We collect about 200,000 litres of plasma annually. Roughly one third of this plasma is used for transfusions, while the rest is sent to fractionators in the U.S. and overseas for processing into plasma protein products. The amount of plasma we collect in Canada will increase dramatically under the comprehensive national plan we've submitted to federal, provincial and territorial ministers of health (please see the response to Question 9).

The need to constantly recruit new blood donors is an ongoing challenge. Our performance against near-term donor recruitment and collection targets suggests that the tools and approaches we have adopted in recent years are beginning to yield positive results. We are actively working to manage down our donation frequency year over year, by expanding the donor base, to mitigate impacts on donor iron. We continue to explore new communications channels and data analytics capabilities as we proceed with our Deeper Connections program (discussed in the response to Question 5).

8. To what degree is Canadian Blood Services self-sufficient in collecting the plasma needed for the manufacturing of Ig, albumin, FVIII/VWF and fibrinogen?

Our system maximizes the use of collected products. For plasma in particular, all surplus plasma from collections (recovered, source and cryo supernatant plasma) that is not required for patient transfusions is sent for fractionation. Use of this plasma results in the following levels of product sufficiency:

- about 15 per cent for immune globulin (Ig)
- 70 per cent for albumin
- 100 per cent for factor VIII and von Willebrand factor (VWF)
- 100 per cent for fibrinogen.

With declining demand for red blood cells and therefore whole blood collections, our recovered plasma — the main source of plasma for fractionation — is also declining. Even with efficient use of all available plasma, we are left well short of the volume of plasma needed to manufacture sufficient Ig to meet the needs of Canadian patients, without commercial purchases. This need is the driver behind seeking investment in our plasma collection strategy.

We are working with governments and all other stakeholders to secure Canada's future supply of plasma needed to manufacture Ig and other plasma protein products. The comprehensive plan we have presented to governments recommends significantly increasing the amount of plasma we collect domestically (please see the response to Question 9). At the same time, it's important to underline that there is a risk in relying solely on Canadian sources; a sound plasma sufficiency strategy will always maintain a balance of international supply to safeguard against any potential disruption of domestic sources. We cannot put all of our eggs in one basket.

9. What are Canadian Blood Services' key strategies to increase its self-sufficiency in plasma for fractionation?

Canada is self-sufficient in plasma used for direct transfusion. But when it comes to plasma that must be processed through fractionation into Ig, we currently only collect enough to meet about 15 per cent of demand. We meet the remainder of Canada's Ig needs by purchasing finished drugs from international manufacturers, largely in the U.S. As demand for these products expands globally, we face a higher risk of supply interruptions and rising costs driven by international competition, especially from emerging markets.

In January 2017, we presented a comprehensive business plan to federal, provincial and territorial ministers of health entitled *Ensuring Security of the Canadian Plasma Supply for Immune Globulin*. We developed this proposed plan using the Alliance of Blood Operators' Risk-based Decision-Making Framework, which considers all aspects of a complex challenge and relies on extensive consultations with stakeholders (please see the response to Question 4 for more information about the framework).

A key conclusion of our in-depth analysis is that Canada must raise its domestic plasma sufficiency level to 50 per cent to ensure a secure supply of Ig for patients whose health and well-being depend on it. (Large blood operators agree that 100 per cent sufficiency is not actually desirable, as it creates an overdependence on domestic sources and opens up the risk of a pathogen infecting the supply of an entire country —as occurred in the U.K. with variant Creutzfeldt-Jakob disease.)

Our business plan sets a course for ensuring that half of all Ig products used in this country will be made from plasma donated by Canadians through the publicly funded, voluntary, non-remunerated model established by Canadian Blood Services. We envision creating as many as 40 new collection sites nationwide to increase the volume of plasma we collect each year — currently about 180,000 litres — by an additional 600,000 litres (or 866,000 units).

Our goal is to significantly boost Canada's plasma sufficiency while maintaining an appropriate balance between products made from plasma provided by our voluntary donors and those manufactured using plasma from paid donors in the U.S. This diversity of supply will mitigate the risk of disruptions or threats.

Engaging donors

Part of our strategy for increasing plasma sufficiency is captured in our overall donor recruitment and retention strategy (discussed in the response to Question 5). In working to engage more Canadians as donors of whole blood, we are also expanding our conversations to include plasma donation, as well as organ and tissue donation.

Fractionation capacity

Canadian Blood Services currently sends plasma collected in Canada to contract suppliers in the U.S. and Europe. Finished Ig and other plasma protein products are then shipped back for use by Canadian patients. Although there are no large-scale commercial fractionators operating in Canada at this point, two such facilities are under development.

Looking ahead

Next steps in our multi-year plan for building plasma sufficiency include an in-depth analysis of ideal sizes and locations for our collection sites; developing plans to recruit more voluntary, unpaid plasma donors; and collaborative development of the most appropriate and efficient operating model for collecting more plasma in Canada. We can draw on the experience and knowledge of blood operators around the world with substantial plasma collection operations, as well as the relevant expertise of commercial plasma collectors.

The plan we have proposed reflects our commitment to understanding and protecting the interests of all Canadians, and especially those who rely on plasma-based products for their health and quality of life. We will continue working with our federal, provincial and territorial government partners to ensure Canada maintains an appropriate level of independence to safeguard our future plasma supply.

10. How does Canadian Blood Services maintain and improve relations with physicians and hospitals, donor, patients and the general public?

Canadian Blood Services provides a safe, secure, reliable, cost-efficient and accessible supply of blood and blood products for Canadians. Our success depends on building strong relationships with donors, patients, and health-care professionals and institutions. Earning and retaining the confidence and trust of all our stakeholders is fundamental to our work.

Patients and the public – general communications

We are committed to communicating clearly and openly with Canadians. We regularly update the public on changes to our eligibility criteria and the latest recruitment campaigns, as well as safety, testing, recent research discoveries and other topics. Key communication channels include our main website (blood.ca), a suite of publications, a media inquiry centre and social media feeds. We also offer a comprehensive update on our progress and challenges through the Canadian Blood Services annual report, both in print and online. And via both traditional and social media, we keep Canadians informed about our activities and answer questions from donors and patients, as well as from colleagues and experts in various related fields.

Patients and the public – governance and accountability

Since 2012, Canadian Blood Services has held 12 open meetings of our board of directors, all of them widely advertised through traditional and social media. During that time, the board has received a total of 58 presentations from the public. One open meeting each year takes place in Ottawa; a second is held elsewhere in Canada, on a regional rotation. Open board meetings are also now streamed online.

Two key forums through which we seek perspectives and feedback from patients, donors and the broader public are Regional Liaison Committees and the National Liaison Committee:

Regional Liaison Committees include representatives of donor communities, patients, patient advocates, volunteers and the business community. The committees examine and provide input on a wide range of topics, including:

- Donor criteria issues, such as the evolution of the eligibility criteria for MSM
- School recruitment programs and other donor engagement initiatives
- Zika and other emerging pathogen risks
- Plasma collection challenges and long-term strategy
- Organ and tissue donation awareness
- Canadian Blood Services' communications and marketing campaigns

Since 2012, Regional Liaison Committees have held 70 meetings involving more than 140 past and present members.

According to our most recent surveys, 93 per cent of Regional Liaison Committee members express overall satisfaction with Canadian Blood Services; 15 per cent awarded the highest score on a 10-point approval scale. A full 100 per cent of committee members expressed trust in our organization, with 43 per cent indicating the maximum score.

The National Liaison Committee is a committee of the board of directors, and includes executives and senior leaders from national patient organizations and medical associations, as well as prominent medical professionals. Meeting a dozen times since 2012, the committee has helped to frame and refine Canadian Blood Services' policies across a broad spectrum of topics, including:

- stem cell collection
- our plasma business plan
- risk-based decision-making in response to pathogens such as Babesia and Zika
- eligibility criteria for MSM
- strategies to strengthen connections with our health-system partners
- corporate fundraising, branding and communications

Our most recent survey of the National Liaison Committee found that 100 per cent of members are satisfied with Canadian Blood Services; 60 per cent awarded the highest score on a 10-point approval scale. One hundred per cent of members say they trust Canadian Blood Services, with 60 per cent awarding the maximum score.

The National Liaison Committee meets annually with the full board of directors and executive management team to discuss priority items and issues of concern.

Patients and the public – strategic consultations

We are currently developing a five-year strategic plan through a consultative process that includes key thought leaders in health care and related industries. We are holding four regional executive stakeholder roundtables in the fall of 2017 and providing opportunities for the wider public to contribute insights and perspectives. We expect the plan to be completed and shared widely in the summer of 2018.

Hospitals and physicians

Canadian Blood Services has a team of seven hospital liaison specialists who work closely with primary health-care providers across the country. They are responsible for fostering effective dialogue with hospitals on both clinical and operational issues. Our specialists offer guidance to hospital leaders on optimizing the processes by which they allocate and utilize blood and blood products.

We also produce BloodNotes, a quarterly e-newsletter for hospitals that contains articles about transfusion and transplantation medicine. Published in English and French, BloodNotes is sent to 1,800 subscribers and has a high open rate by digital communications standards. We've received consistently positive feedback since its launch in early 2016.

We also publish an online report called Blood Brief that enables hospital subscribers to compare their patterns of utilization for blood and blood products to those of peer institutions. Hospitals can opt to make their data public or participate in the Blood Brief program anonymously. In either case, the report gives leaders deeper insights into how practices vary across the country, and where there may be opportunities for positive change.

For more detailed analysis of process and outcomes, we offer hospital-specific trend reports. Updated twice monthly, these reports prompt and illuminate conversations with hospital leaders about evolving utilization practices and product requirements. (Appendix B is an example of the kind of data analysis we make available to participating hospitals.)

Canadian Blood Services also provides reports upon request — from hospitals and individual physicians — on blood and blood product distribution and utilization. And we provide regular updates to the National Advisory Committee on Blood and Blood Products on emerging trends in these areas.

In addition to written reports, Canadian Blood Services is actively engaged in professional development programs. Last year, the organization led or participated in 70 such events that reached some 6,500 professionals.

Public officials

Our board of directors has made a concerted effort to increase its activities and presence across Canada, initiating more regional meetings, consultations and events involving health-care leaders.

As a result, we believe public officials have a greater awareness of the work of Canadian Blood Services and are more engaged with our organization, and vice versa. The board's efforts have also helped to increase support for our donation sites, as well as for initiatives such as National Blood Donor Week and National Organ and Tissue Donation Awareness Week. Moreover, we believe our increased engagement with community leaders across the country has helped us secure new sources of support — for example, the \$3 million in funding we received from Health Canada in 2016 to support research into further refining the eligibility criteria for MSM donors.