



**Canadian
Blood
Service**

BLOOD
PLASMA
STEM CELLS
ORGANS
& TISSUES

A Promise for Life



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When Canadian Blood Services opened its doors in 1998, our purpose was clear: to provide patients with lifesaving products and services that meet the highest standards of safety and quality.

In our first 20 years, we've evolved to meet the changing needs of patients and the priorities of Canada's health systems. Our responsibilities now include life essentials for transfusion and transplantation, including blood, plasma, stem cells, and organs and tissues.

As our expertise and experience have grown, we've stayed focused on delivering value in all dimensions of health care while consistently earning Canadians' confidence and trust. Our horizons continue to expand, but our commitment remains unchanged. It's a promise for life.

We're clear about our purpose.

As Canada's biological lifeline, we work to meet the needs of patients across the country.

In 2017–2018, Canadian Blood Services undertook a comprehensive review of what we stand for and how we fulfil our promise to Canadians. Patients' needs have changed over the past 20 years, and we have evolved to meet them. We've expanded and improved our products and services, and we've adopted new tools, processes and strategies to achieve the highest standards of safety and quality as cost-efficiently as possible.

Yet we cannot stand still. Canadian society is changing, data and technology are rapidly advancing,

and new scientific developments and trends in clinical practice are emerging. To continue to progress, we must quickly adapt.

We recognized that it was time to reconnect with our purpose, take a fresh look at how we communicate our goals and reaffirm what Canadians can count on us to deliver. One result has been a renewal of our corporate brand, expressions of which you will find throughout this annual report. More fundamentally, we've restated our vision, mission and values, along with the shared values that anchor everything we do:

Our vision

To help every patient.
To match every need.
To serve every Canadian.

Our mission

We are Canada's biological lifeline.
We are the connection between the sincere generosity of donors and the heartfelt appreciation of recipients, between the profound discoveries of science and the joyful restoration of health.

As such, we are nationally responsible for a secure system of life essentials for transfusion or transplantation that's reliable, accessible and sustainable.

That's why our organization must be efficient, our performance disciplined. We must work as one with our colleagues and partners at all levels.

We must be prudent yet smart, rigorous yet agile, capable yet concerned. And we must be innovative, reinventing today so we can find better answers for tomorrow.

In a very real way, what we do affects the well-being of all Canadians and every day we must earn their trust.

We make a difference and in that, we take great pride.

Our values

Integrity
Collaboration
Adaptability
Respect
Excellence

“I’ve lived a life where I wasn’t receiving donor blood, and I don’t want to go back. I don’t know of a more literal or more powerful way to give of yourself.”

Charles
Blood recipient



We know where we add value.

Everything we do is aimed at improving patient outcomes, system performance and cost-efficiency.

It is our privilege to provide all Canadians with the lifesaving products and services they need — today and into the future. Working closely with health systems across the country, we apply our expertise in transfusion and transplantation medicine to deliver value in three critical areas:

Improving patient outcomes

Patients are at the heart of everything we do. Canadians need and deserve reliable access to the life essentials — blood, plasma, stem cells, and organs and tissues — on which they depend for their health and well-being. Every product we manufacture and every service we offer is designed with one ultimate goal: to deliver the best possible patient treatment and care.

Enhancing system performance

Canadian Blood Services is only one part of Canada's broader network of health-care systems. We collaborate across provincial health systems and share innovative research, clinical guidelines, leading practices, educational resources and proven service models with health-care partners. In this way, we are contributing to the continuous improvement of health care in Canada.

Optimizing cost-efficiency

Our funders, and all Canadians, expect us to carefully manage the resources entrusted to us and achieve the most positive outcomes for patients as efficiently as possible. To do this, we constantly seek savings in our own operations while maintaining the highest standards of safety and quality. And we share what we've learned to help the health systems and networks in which we participate to become as productive as possible.

WE CONSTANTLY ANALYZE THE HEALTH-CARE ENVIRONMENT, NATIONALLY AND GLOBALLY, TO CONSIDER HOW WE MAY NEED TO ADAPT AND EVOLVE, AND TO DETERMINE WHERE WE CAN ADD EVEN MORE VALUE.

“I can't tell you how it felt to channel our grief into something positive that would benefit other families experiencing what we've gone through.”

Becky
Volunteer, financial donor



We're constantly focused on quality.

Patients and hospitals count on us to deliver our products and services efficiently, to the most rigorous standards, on time, every time.

Quality management system

We have been evolving our quality management system for several years. In 2017–2018, we continued to adopt processes and practices across our organization that align with best practices of manufacturers of biological product.

Our quality management system is a framework for delivering products and services that are safe, effective and free of defects and that meet the needs and expectations of our hospital customers. It includes:

- policies, processes and procedures governing how quality is managed
- a formal quality assurance program to ensure we meet all requirements
- the tools and resources we need to conduct these activities
- a system of quality metrics to monitor and evaluate effectiveness

As part of our work to continuously improve our operations — a key driver of quality — we refined our corrective and preventive action (CAPA) process. The CAPA process is designed to stop instances of non-conformity from happening or recurring across every area of our operations. All employees and their managers are encouraged to initiate CAPAs to address any departures from policies and procedures. Dedicated teams of CAPA investigators coordinate investigations of moderate- and high-risk events that put quality at risk, to ensure they are addressed quickly and effectively.

As a result of these and other related efforts, we saw 86 per cent fewer moderate- and high-risk quality events in 2017–2018 compared with the previous fiscal year.

Quality policy

Underpinning this work is our new quality policy, which reaffirms our commitment to delivering products and services efficiently, to the most rigorous standards, on time, every time. Introduced in the past year, the policy articulates our shared responsibility to ensure that everything we do prioritizes the health of the patient and that each of us bears the full weight of this responsibility.

Our quality policy is more than a declaration of intent. It's a set of principles designed to guide the actions of employees and volunteers in every area of our operations. These principles can be summed up this way:

Safety above all else. There can be no compromise, no exceptions. Lives depend on it.

If you doubt it, shout it. If you see a problem, don't assume someone else will fix it. It's your job to voice concern. And it's everybody's job to listen.

Each patient is your patient. Imagine it's someone you know, even someone you love, looking forward to recovery, and focus on that priority throughout your daily tasks.

To share is to care. Teamwork is important in any enterprise, but in our field, it's vital. Work together — and make it easy to help each other.

Good enough is not enough. We must always be learning, discovering and finding better ways to work, both individually and as an organization.

The only constant is change. As our environment evolves, we must constantly adapt in order to stay relevant — and to serve Canadians even better.

“With all the blood transfusions I’ve had during my blood cancer journey, the gratitude I owe my heroes is immeasurable. Their grace, strength and kindness run through my veins every day and I hope I reflect their strength of character in all that I do.”

Tom
Blood and stem cell recipient



We have a plan for the future.

Our new strategic plan will set out clear goals rooted in a continued commitment to organizational excellence.

In parallel with the publication of this annual report, we're also finalizing Keeping the Promise: Canadian Blood Services' 2019–2024 Strategic Plan. As we developed this five-year plan, we found many opportunities for innovation and improvement. But strategy begins with making choices. After extensive internal and external consultations, we arrived at the following areas of strategic focus:

- Meet changing patient needs by providing lifesaving products and services.
- Build and deepen relationships with the donors of the future.
- Ensure a secure supply of Canadian plasma for immune globulin.
- Create an engaging and empowering employee experience.
- Achieve organizational excellence.

To create this strategic plan, we consulted with stakeholders, including our employees, researched the trends shaping our operating environment and reflected on priorities and practices across our organization. We also confirmed alignment of our priorities with funding governments, ensuring we move forward in a way that's consistent with provincial and territorial health-care priorities. Keeping the Promise outlines where we will focus our efforts to deliver the best health-care outcomes for Canadians and sets out the milestones for our path forward.

IN DEVELOPING OUR FIVE-YEAR STRATEGIC PLAN, WE'VE TRIED TO STRIKE THE RIGHT BALANCE BETWEEN OPTIMIZING THE WORK WE DO TODAY AND EMBRACING OPPORTUNITIES TO BENEFIT THE PATIENTS OF THE FUTURE.

“My hope is that
by donating my
babies’ cord blood
we may help save
someone’s life.”

Nathaly
*Employee, two-time
cord blood donor*



Here are the three ways we're delivering on our promise:

Safeguard

Our processes, practices and systems are designed to ensure the quality and safety of our products and services. All departments, teams, contributors and individuals across our organization share this primary responsibility to patients.

Engage

We create and develop strong connections with the people we work with — donors, volunteers, health-system partners and physicians, scientists, stakeholders and communities.

Improve

Continuous improvement and innovative transformation of our systems and processes ultimately mean more patients helped, more lives saved and more health restored.



“Being a living donor felt like something I could do as a healthy person who really struggles with seeing the number of people who are on the transplant list.”

Heather
Organ donor

Safeguard

Operating a safe, reliable blood system

Canadians count on us to provide a secure supply of high-quality blood and blood products.

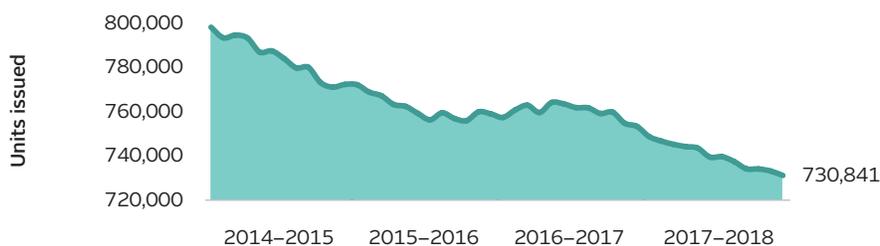
Our donor centres, supported by recruitment initiatives that encourage Canadians to donate blood, are the critical “front end” of our blood supply chain. Our team members at these centres collect the red blood cells, platelets and plasma that hospitals and clinics need to treat patients.

Red blood cells

In 2017–2018, Canadian Blood Services shipped 730,841 red blood cell units to hospitals. This figure represents a customer order fill rate of over 99 per cent, meeting customer needs without compromising patient care.

Demand for many blood products has fluctuated in recent years, which makes forecasting a challenge. Hospital orders for red blood cells have been falling steadily, declining by five per cent since 2014–2015, though we expect this trend to taper off in the future.

Shipments of red blood cells



At the same time, our continued focus on supply chain management over the past few years has led to fewer discards of whole blood and red blood cell units. This past year we saw the fourth consecutive drop in the annual discard rate, which for the first time fell below six per cent (5.8%). The number of outdated units also fell to an eight-year low of 0.1 per cent.

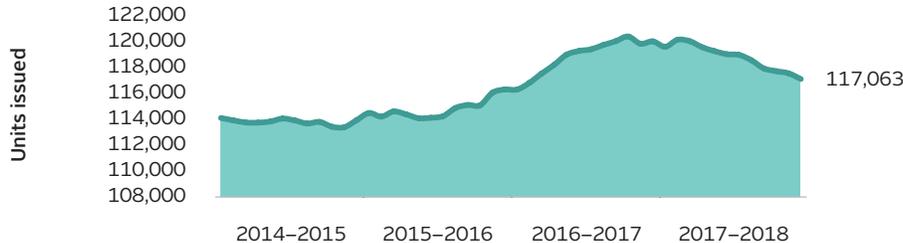
Having fewer discards enables us to meet hospital demand with thousands fewer whole blood collections each year. In addition to reducing waste, these improvements have saved or avoided millions of dollars in costs. We will continue to focus on improving the discard rate, generating further savings in the future.

Platelets

Platelets are the small, disc-shaped cell fragments in whole blood that help to form clots that stop wounds from bleeding. When patients don't have enough platelets as the result of disease, drug treatments, trauma or surgery, this can compromise the clotting process and be life-threatening.

In 2017–2018, we shipped 117,063 units of platelets to hospitals, down from 119,974 units in the previous year. Most of the platelets we supply to hospitals come from whole blood donations. We also collect platelets through apheresis, a process that mechanically separates one component of collected blood while recirculating the rest back to the donor. Although apheresis helps us to more precisely match platelets to specific patient needs, it's also more costly than deriving them from the pooled donations of many donors.

Shipments of platelets



During the past year, we decided to manufacture more platelet doses from pooled donations of whole blood rather than through apheresis collection as we have done previously. In doing so, we took into account the needs of sensitized transplant patients whose blood carries antibodies that attack foreign tissue, as these patients tend to fare better with platelets collected via apheresis. While ensuring the needs of these patients were met, we were still able to reduce the number of platelet donations needed overall, which saved health systems about \$1 million. We were also able to gain even better cost-efficiencies with a new method that safely extends the shelf life of platelets from five to seven days, provides more precise bacterial testing and reduces waste by 40 per cent.

For now, platelets will continue to be widely used in cardiac and cancer care. Looking further ahead, we expect that new approaches to patient blood management, as well as medical innovations such as chemotherapy agents that are less toxic to bone marrow, could reduce the need for platelet transfusions.

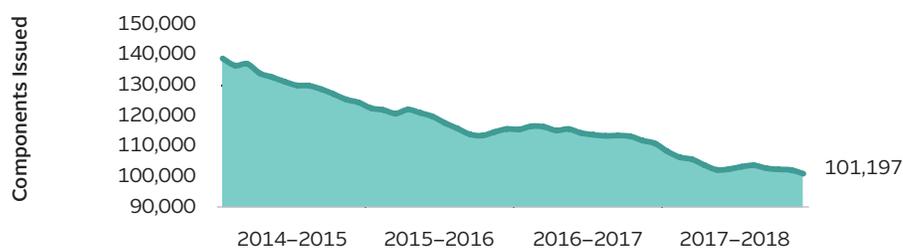
Plasma

Plasma is the protein-rich liquid in blood that helps other blood components circulate throughout the body. Some of the plasma we collect is used by hospitals to treat trauma and severe bleeding. We collect plasma either by separating it from whole blood after a whole blood donation or by collecting it on its own through apheresis.

Plasma is used both for transfusions and for fractionation into a range of specialized proteins for therapeutic use.

In 2017–2018, we shipped 30,374 litres of plasma for transfusion to hospitals (101,197 components issued), down from 32,445 litres (111,141 components issued) in the previous year.

Shipments of plasma for transfusion



Demand for plasma for transfusion has gone down by 25 per cent since 2014–2015. This decline is the result of changes in transfusion practice and the increased use of alternatives to plasma for transfusion, like prothrombin complex concentrates and, to a lesser extent, solvent detergent plasma.

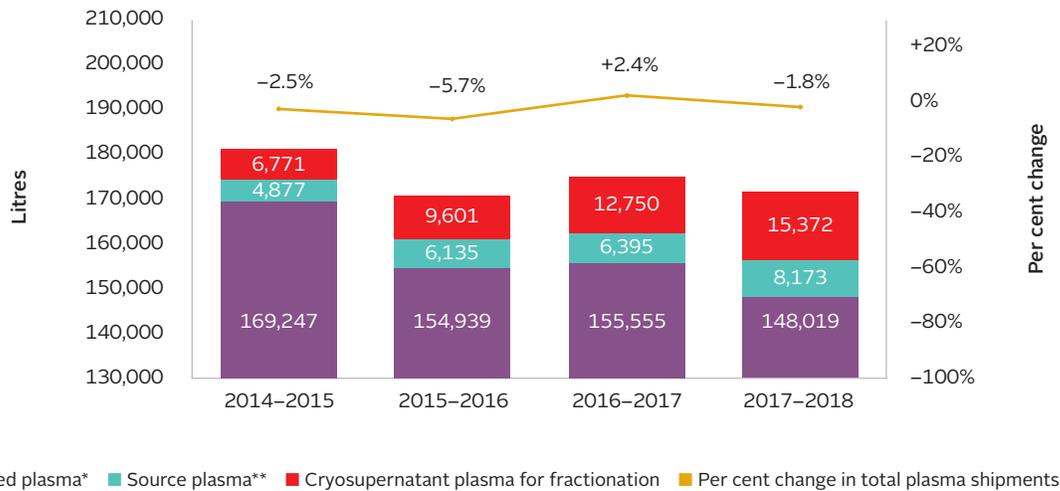
Most of the plasma we collect is used to make plasma protein products (PPPs). One of the most critical products is immune globulin (Ig), which is used to treat immunodeficiency disorders, autoimmune disorders, hematological disorders and neurological disorders.

Other PPPs include albumin, often prescribed for burns and trauma, as well as clotting factors for some bleeding disorders. (Some of the clotting factors we carry are made from plasma; others are synthesized from recombinant DNA.)

Products made from plasma are created through a process called fractionation. We ship plasma to contract suppliers in the U.S. and Europe, which manufacture products that are then shipped back for use by patients in this country.

In 2017–2018, we shipped 171,564 litres of plasma for fractionation into PPPs, down from 174,700 litres in the previous year.

Canadian plasma shipments for fractionation by source



*Recovered plasma: Plasma recovered from whole blood donations.
 **Source plasma: Plasma recovered through apheresis.

We also buy some plasma-derived products and recombinant products from manufacturers abroad that meet the stringent safety and quality standards of regulators such as Health Canada and the U.S. Food and Drug Administration.

As worldwide demand for PPPs continues to grow, ensuring there's enough plasma to manufacture into Ig for Canadian patients is a key priority. Over the next several years, we plan to collect significantly more plasma to increase Canada's plasma sufficiency for Ig.

Securing Canada's crucial plasma supply for immune globulin

Ensuring there's enough plasma to manufacture into lifesaving Ig to meet the needs of Canadian patients has been a focus and responsibility for Canadian Blood Services since the organization was created, and remains a constant concern.

Canadian Blood Services is accountable for ensuring a secure supply of plasma for manufacturing into Ig for Canadian patients. This lifesaving drug is used to treat immunodeficiency disorders, autoimmune disorders, hematological disorders and neurological disorders.

Today, we collect only enough plasma to manufacture about 15 per cent of the Ig products used by Canadian patients. We buy the remaining 85 per cent of the finished product patients need from the global, commercial market — essentially from the U.S. plasma industry.

There is a considerable gap between the volume of plasma we need to manufacture into Ig and the volume of plasma we collect today. We rely too heavily on a foreign supply of plasma to meet the Ig needs of patients in Canada. This degree of reliance is not only unsustainable, it puts patients at risk.

Federal expert panel on plasma

Canadian Blood Services has, over the past few years, alerted federal, provincial and territorial governments to these emerging risks to the security of the plasma supply for Ig. In response to this call, Health Canada, in 2017, established an expert panel to review and report on Ig supply and related issues for the country.

In May 2018, Health Canada published the Final Report of the Expert Panel on Immune Globulin Product Supply and Related Impacts in Canada: Protecting Access to Immune Globulins for Canadians.

The expert panel's report is an important addition to the ongoing dialogue about the domestic plasma supply for Ig in Canada. The panel made three critical observations:

- Security of the plasma supply for Ig is a critical public health-care issue for Canada.
- Demand for plasma will continue to increase, and Canada must reduce its reliance on a foreign market for Ig.
- Canada must collect more plasma. Canadian Blood Services' plan to increase plasma collection is an appropriate response.

The report also calls out the need for better Ig utilization management in Canada to address demand, recognizing utilization alone will not solve the sufficiency problem. Canada's blood operators must also collect more plasma.

An important topic about which we have expressed concern is the issue of commercial plasma collectors competing for the same donors and "crowding out" the voluntary, non-remunerated blood sector. The report notes that this issue requires ongoing oversight, monitoring and vigilance.

Our way forward

In collaboration with governments in Canada, we are planning to launch proof-of-concept plasma collection sites, which will help us to develop and fine-tune the processes and operating model we'll need to start collecting significantly more plasma for Ig. In the meantime, we are also looking at how best we can ramp up the amount of plasma we collect within our existing network of sites.

Significantly increasing the volume of source plasma we collect for Ig is the right thing for us to do to meet patient needs in this country. Along the way, we will leverage the expertise and advice of those with significant experience in large-scale source plasma collections to help us get there.

“As a registered nurse,
I’m the go-between
for the wonderful
people who donate
blood and the
patients in hospital
who so desperately
need it. I’m so
fortunate to have a
job where I see the
best part of people.”

Maria
Employee



Assessing and managing potential risks

As an organization founded on the rigorous management of risk, we've become increasingly systematic in seeking input from a wider range of stakeholders.

As we assessed the best way to secure Canada's plasma supply for immune globulin (Ig), we used an approach that we first developed in collaboration with the Alliance of Blood Operators: the internationally recognized Risk-Based Decision-Making Framework. The framework sets out a step-by-step process for grounding decisions in methodically collected evidence. It also helps us to redeploy resources to match any perceived threat to the blood system. And importantly, risk-based decision-making helps us to build a foundation of trust by soliciting and considering the views of all stakeholders who could be affected by an identified risk.

Through this approach, we weigh the possible benefits, disadvantages and costs of a particular course of action. We also take into account social impacts and ethical issues, which are informed at every stage by the perspectives of diverse stakeholders, including patient groups, health-care providers, industry experts, government officials and other stakeholders. Hearing from those most affected by our work to collect more plasma will help us to ensure that we meet their needs.

Other areas where we've adopted risk-based decision-making include:

- A simplified testing protocol, introduced in 2017, for detecting cytomegalovirus (CMV) antibodies in donated blood.
- More stringent eligibility criteria, adopted in 2016, to ensure blood donors maintain sufficient iron levels for their own good health.
- A new waiting period for blood donation to protect the blood supply from the potential threat of the Zika virus, implemented in 2015 in coordination with other key players.
- Proactive efforts to assess the emerging risk to Canadians from *Babesia microti*, a tick-borne parasite that infects red blood cells.
- A joint assessment by Canadian Blood Services and Héma-Québec to assess the risk of hepatitis E to the Canadian blood supply.

Underpinning all of these activities is a robust enterprise risk management program that we've integrated into our strategic planning, performance reporting and project management processes. We are working on embedding this program into the management of our day-to-day operations and continuous improvement initiatives.

Prudently managing the funds entrusted to us

We demonstrate our commitment to serving Canadians through sound and transparent financial management.

Canadian Blood Services is a not-for-profit charitable organization that operates independently from government. We receive the large majority of our funding from provincial and territorial governments; the rest of our revenue comes from federal funding, revenue from stem cells provided to international patients and charitable donations.

As partners in health care across the country, we have an obligation to ensure that every dollar entrusted to us by Canadians is invested wisely and managed effectively. Optimizing cost-efficiency is one of three critical ways we deliver value, alongside improving patient outcomes and enhancing health-system performance. While our first commitment is to safeguard the processes, practices and systems that help us ensure the quality and safety of our products and services, we constantly look for opportunities to become more productive and maximize the impact of our investments.

Our productivity and efficiency journey

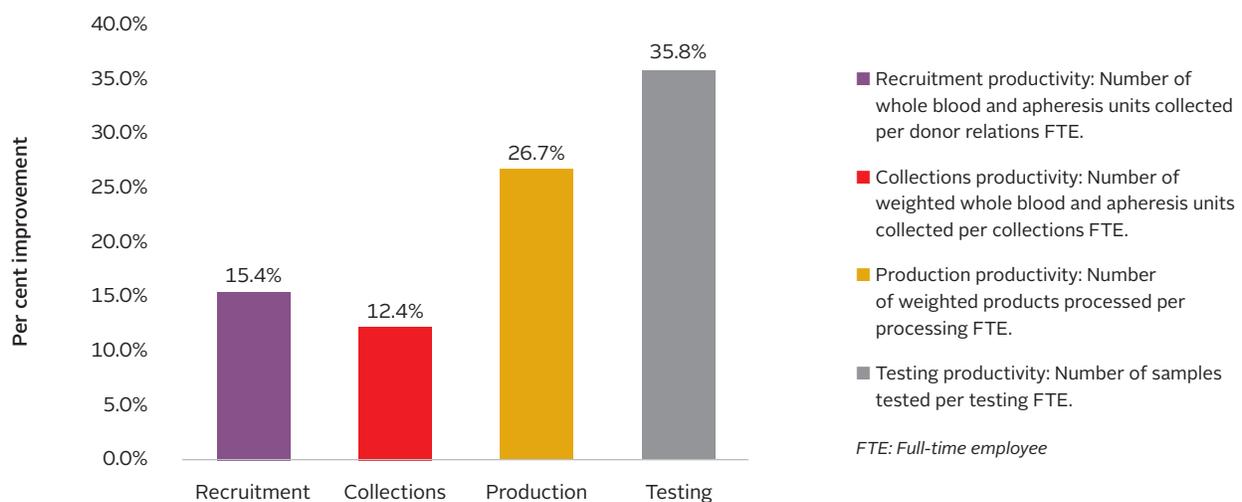
Fresh blood and other products and services

Since 2008, we've been focused on improving our productivity and efficiency. And we've made significant progress, through continuous improvement, consolidation and organizational redesign, integration of technology and digital initiatives, and successful procurement practices. Some of these initiatives are large, affecting all of our sites across the country over several years, and some are small, costing little and realizing benefits right away. While these efficiency savings are largely focused on fresh blood products, they also include diagnostic services, stem cells, and organ and tissue donation and transplantation.

We have committed to realizing a total of \$170 million in cost savings and cost avoidance. Between 2008 and 2012, we achieved \$70 million in cost savings, and we are working to achieve the other \$100 million.

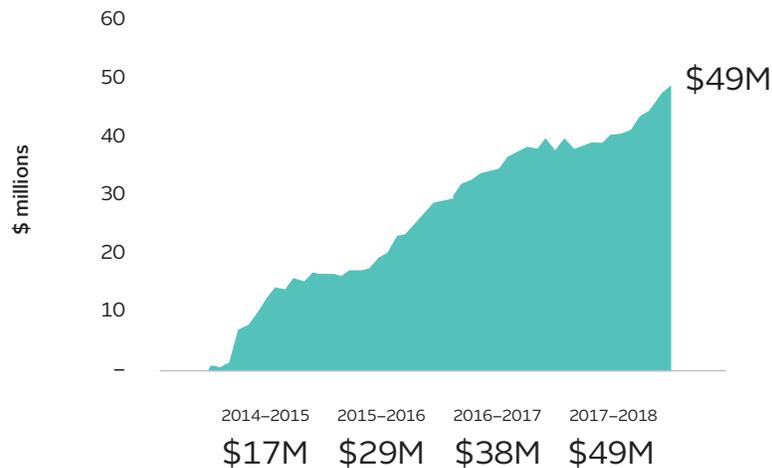
The following chart shows our productivity improvements between 2014–2015 and 2017–2018 in four key areas.

Productivity improvements



Safeguard Engage Improve

These improvements have helped us make steady progress toward our target. The chart below shows the trend of inflation and volume-adjusted savings that have been realized to date, and where we are now in relation to our goal. At the end of 2017–2018, we had achieved about \$49 million of the \$100 million target.



Our productivity journey continues. We set rigorous targets aligned with the fiscal constraints faced by health ministries across the country, and we constantly review and sharpen our own capabilities while benefiting from insights, benchmarks and best practices shared by other leading blood operators around the globe. The milestones of progress we've reached to date reflect our commitment to cost containment and give us confidence that we're on course.

Plasma protein products

Canadian Blood Services uses its pan-Canadian buying power to bulk purchase PPPs. In 2017–2018, we awarded contracts to providers with the goal of delivering a diverse portfolio of products, reasonable choice and significant cost savings to governments. We were able to continue to offer patients adequate product choice and achieve future savings and cost avoidance totalling approximately \$455 million. As a result, some patients have been required to switch to a different brand of product. We are committed to working with patients, physicians and suppliers to support the transition.

Historically, the contractual savings we've secured through procurement processes have kept the total program costs of PPPs stable, despite increasing utilization. But in recent years, even with substantial reductions in the unit cost of products achieved as a result of contract negotiations, growing utilization, coupled with a weakening Canadian dollar, have increased the total program costs, significantly outpacing these cost savings.

“My son is alive today because of Canadian Blood Services. He’s received nearly 100 lifesaving blood transfusions, the equivalent of nearly 4,000 individual donations. I will be forever grateful.”

Jenny
Mother of Aary



Engage

Connecting with current and future donors

By inviting people to connect when it's best for them, through their preferred channels, we're working to create the kind of experiences that can inspire lifelong support.

In 2017–2018, over 410,000 people visited Canadian Blood Services donor centres — up about one per cent over the previous year. What may appear to be modest growth becomes more remarkable when we consider that nearly 235,000 donors were either new (101,000) or reinstated (134,000) following a lapse of at least 12 months. We replaced 58 per cent of the total number of blood donors and, for the first time since 9/11, recruited more than 100,000 new donors in a single year.

We're encouraged by the progress we've made in attracting and retaining blood donors using a range of strategies. In September 2017, the number of donation appointments booked using digital devices was higher than those made by phone for the first time. And by the end of March 2018, we had reached our target of booking 30 per cent of appointments online.

This shift to digital technologies has helped us make our National Call Centre more efficient. With the introduction of outbound calling technology over the past year, our team members no longer have to manually call donors to remind them of their appointments. Instead, they can focus on answering donors' questions, getting to know them better and helping them feel more connected to us.

Changing channels

Our work to strengthen our relationships with donors is also reflected in our redesigned mobile app, which was launched in the fall of 2017. Using the new features of the app, donors can choose their preferred donor centres and access their personal health information such as their hemoglobin levels and — a surprisingly popular piece of information — the average time it takes them to fill a unit of blood. After the new app was launched, donors' engagement levels and the rate at which they booked their appointments online went up by 30 per cent.

Our web presence, too, is evolving. Donors who like the convenience of booking through our website appreciate being able to review their donation profiles and find more general information about transfusion and transplantation. As we learn more about donor preferences, we will continue to make improvements to our website. Social media also play a growing part in helping us to recruit more donors, largely through our national and regional Facebook and Twitter accounts.

In 2017, we launched our first chat bot on our Facebook page. Aimed at younger donors, the interactive tool is designed to answer common questions, share stories and make donors feel more comfortable with the donation process. Based on this pilot, we're now enhancing the concept and expanding our target audience to include donors between 25 and 35 years old, a key demographic for us as we work to build a more sustainable blood system.

Introducing our Donor Concierge

In 2017 we introduced a pilot project called the Donor Concierge in Ottawa, Toronto and Vancouver. On arriving at the donor centre, donors check in at a digital kiosk — similar to the ones used in many retail stores — where they can see their appointment priority on an electronic display. The Donor Concierge also prompts them to book their next appointment with options to arrange text or email reminders.

The next step in the process, health screening, is also paperless, and therefore quicker and more accurate. Meanwhile, a donor service representative is always on hand to provide support for walk-in donors who haven't booked appointments or for anyone who needs extra help.

In fact, one of the things we've learned from the Donor Concierge pilot is that however much people value the convenience and simplicity of going through some steps of the donation process digitally, they often want the human touch at certain points in the process. As we gauge the most appropriate staffing levels at our donor centres and determine when people who book digitally may still want to contact us by phone, we're aiming to find the right balance between technological efficiency and the human touch.

Boosting stem cell patients' chances for a match

Our stem cell program links donors to patients — in Canada and around the world — who need transplants to improve their health and quality of life.

Canadian Blood Services provides a range of services to support patients living with any of the more than 80 diseases and disorders that can be treated with stem cell transplants.

- We operate a national registry of adult donors. We identify potential matches for patients, ensure that registered donors are able to follow through with their donations and coordinate the process of getting stem cell products where they're needed.
- We collect umbilical cord blood and manufacture stem cells through Canadian Blood Services' Cord Blood Bank. By the end of 2017–2018, the bank had listed 2,865 cord blood units. The bank is recognized globally for its donor diversity and high-quality inventory, which exceeds all key international quality indicators.
- We provide human leukocyte antigen (HLA) typing services that ensure the best possible matches between patients who need stem cells and generous donors. We also provide autologous, or self-donation, services for eligible patients.
- Internationally, we're part of a network of donor registries that gives stem cell clinicians and patients in 52 countries access to more than 32 million potential unrelated adult donors and over 752,000 cord blood units.

In 2017–2018, we supported 451 stem cell transplants for Canadian patients and 76 stem cell transplants for international patients. These excellent results were the highest we've seen over the past several years and 36 per cent higher than the previous year. We can attribute this growth, in part, to an increase in the number of conditions now treated with stem cell transplantation and an increase in transplants in older patients as a result of medical advances.

We're also encouraged that our focus on promoting stem cell donation among young males and people of ethnically diverse ancestry has yielded promising results for the patients who count on them. Stem cells from young male donors are preferred because they decrease the possibility of post-transplant complications. And increasing the ethnic diversity of the registry is critical for patients since the best chance of finding a match is within their own ethnic group.

Going forward, we'll continue to seek deeper insights into the patient and donor attributes that drive successful transplants. We're constantly looking for new ways to recruit unrelated donors who offer the greatest probability of success, particularly for hard-to-match patients. We work with our health-system partners to minimize the time needed to acquire and distribute stem cell products for patients in need. And collectively, we're exploring the potential of cellular therapies — in which cells are transplanted into patients to help treat specific diseases — so we can coordinate our efforts and future investments in the development of specialized products.



16

Through our cord blood bank, Canadian Blood Services has provided 16 stem cell units to patients around the globe since the first shipment in June 2016 — hitting our target shipment rate of 0.5 per cent. Four units were shipped in 2017–2018: one within Canada and three abroad.

427,701

At the end of 2017–2018, there were 427,701 adult donors on our national stem cell registry, up about 5.3% from last year.

Collaborating with researchers and blood donor groups on donation criteria

As we continue to protect the safety of Canada's blood supply, we also work with researchers and stakeholders to keep our donation criteria up to date.

We continuously assess our blood donor eligibility criteria against the latest available medical and scientific evidence while also considering our evolving social environment. As a publicly funded organization serving all Canadians, we need to maintain a critical balance between protecting the safety of the blood supply and collaborating with diverse groups whose views deserve to be treated with respect and sensitivity.

In recent years, we've focused on two communities in which blood donation eligibility criteria have created a high level of concern: men who have sex with men (MSM) and people who identify as trans or gender non-binary.

We have added to our public information resources on this subject, including an FAQ video on our website, and a research article that provides more information about MSM donation eligibility criteria around the world.

Eligibility of men who have sex with men

In the summer of 2016, Health Canada approved a proposal from Canadian Blood Services and Héma-Québec to reduce the blood donation ineligibility period for MSM from five years to one year.

The following January, again in partnership with Héma-Québec, we hosted a meeting of national and international stakeholders to identify research priorities that would help close critical knowledge gaps in this area of donor eligibility. Participants included researchers, blood operators and government officials, as well as members of the LGBTQ+ community and representatives of patients who depend on and bear the risk related to blood products.

Leveraging the promising ideas and investigative priorities brought forward in this meeting, our Centre for Innovation launched a new national research program funded through Health Canada. During our competitive review process, 11 projects were approved. These projects are led by investigators representing various disciplines and academic institutions and engage multiple health-care organizations. They are examining various aspects of the donor eligibility criteria for MSM and will provide data that is critical to develop a more inclusive alternative donor screening approach that maintains the safety of the blood supply. To complement our research in this area, we facilitated a knowledge-exchange webinar in December 2017 to support greater collaboration among research groups.

A second research funding competition was launched in 2018, and proposals are being evaluated as this annual report goes to press. We believe the findings from these studies will help us come to a long-term solution that allows us to maintain patient safety while welcoming the generous donations of as many Canadians as possible — and minimizing the impact of these eligibility criteria on the LGBTQ+ community, or indeed any prospective MSM donors. We continue to evaluate donor criteria and have committed to further evolution as evidence permits.

Eligibility of donors identifying as trans

Our 2016 submission to Health Canada to reduce the ineligibility period for MSM donors also included a proposed new screening process and eligibility criteria for trans donors. When we shared our proposal publicly, members of the trans and gender non-binary communities vigorously challenged what they saw as a lack of insight into the nuances of gender and identity, and the diversity and complexity of individual experiences.

We then conducted extensive consultations with community representatives and, in a May 2017 report, summarized the key points we heard:

- Donor criteria based on behaviours that pose a risk to the blood system, rather than assumptions about gender and identity, are essential for a screening process that respects trans and gender non-binary individuals.
- A clear and consistent process will help to reduce the sense of discrimination that many trans and gender non-binary individuals have reported experiencing.
- Better training of Canadian Blood Services staff — including sensitivity training, as well as education on accepted terminology — would create a more respectful and comfortable donor experience.

We took these and many other points of feedback to heart. Working with consultants from the trans community, we have implemented a staff training program to raise our collective understanding and foster greater respect for trans and gender non-binary individuals.

Engaging and empowering our diverse workforce

Our energy comes from our team — people with unique skills, broad experience and a deep commitment to improving and saving lives.

About 3,800 people work for Canadian Blood Services, and each plays a vital role in achieving our mission — as do the roughly 17,000 dedicated volunteers who work alongside them. Our employees have many areas of expertise: from collecting blood, inspiring people to donate and building our donor registries to testing, manufacturing and delivering safe, effective products across the country. Together, our team members are the key to our continued success.

We understand how important it is for our employees to have a workplace that is safe, respectful and fulfilling, where they are supported by their peers, accountable for their efforts and valued for the positive outcomes they achieve together. As our organization evolves to meet the challenges ahead, we're creating opportunities for our team members to develop their talents, expand their knowledge and contribute in new ways.

Growing our potential

We've always believed in the value of developing our organization from within. In the past year, that conviction has only deepened. Our new strategic plan will include a commitment to strengthen our existing capabilities while developing new ones in areas ranging from customer analytics and experience design to product management and continuous improvement.

Who better to lead and deliver this evolution than the team we have today — the highly capable people who are already building their careers at Canadian Blood Services? Our priority is to nurture and improve their diverse talents in everything from science and medicine, to donor recruiting and engagement, to biologics manufacturing and quality management, and to all other areas of our expertise. By growing the wealth of potential within our organization, we're creating a better future for our employees — and for the health systems they work to support and improve.

Diversity and inclusion

During the past year, we formalized our diversity and inclusion strategy following a thorough assessment of our policies and practices in this area by the Canadian Centre for Diversity and Inclusion. In clearly articulating a set of guiding principles, our new strategy helps us to more closely reflect the communities we serve and the donor populations we seek to attract.

In addition to the strategy, we've also introduced an education program on diversity and inclusion. The program includes e-learning modules on accessibility and inclusion priorities in the LGBTQ+ communities, including a specific module related to individuals who identify as trans. All of our processes and documentation for recruiting new employees have been reviewed to ensure they align with our strategy and training practices. And we've begun work on a new demographic assessment of our organization based on how employees self-identify.

Our diversity and inclusion strategy supports our wider efforts to promote flexibility and collaboration. That's only possible when everyone at Canadian Blood Services — and everyone with whom we interact, from donors, registrants and patients to hospital staff, physicians and our various health-system partners — feels fully represented and accepted.

Seeking stakeholders' input on key initiatives

In keeping with our founding principles, we incorporate the ideas, questions, concerns and advice of thousands of Canadians into our decision-making processes.

Since we opened our doors in 1998, those most closely affected by the transfusion and transplantation system in Canada have played an important part in our decision-making. In 2017–2018, we once again invited individuals and organizations across the country to share their perspectives on issues that matter to them. Stakeholders provided valuable input into three key initiatives:

Evolving blood donor eligibility criteria for MSM and trans donors

In 2017–2018 we continued to engage with the LGBTQ+ community on sensitive questions surrounding blood donor eligibility criteria for MSM and individuals who identify as trans or gender non-binary.

We participated in LGBTQ+ events across Canada, including conferences and Pride celebrations, and met regularly with the leaders of student groups at colleges and universities to discuss screening criteria for MSM and trans donors. These events and meetings gave us the chance to have frank, sometimes difficult conversations about how we're working to change eligibility criteria. We also launched a new research program focused on blood donation by MSM.

Sourcing plasma protein products

Canadian Blood Services is responsible for bulk purchasing and management of PPPs across Canada, except Quebec. Every few years, we implement a competitive sourcing process through which we strive to achieve an appropriate balance between product diversity, patient and prescriber choice, innovative therapies and optimal costs.

In our most recent process, groups representing patients, nurses and physicians worked alongside Canadian Blood Services employees to prepare the request-for-proposal requirements, evaluate the submissions and provide input into the final recommendation. While we acquired newly available products as a result of this process, some patients were required to switch products. We continue to work with stakeholders on transitions to new products and to keep them informed in various ways, including a monthly newsletter.

Crafting our new five-year strategic plan

To develop Keeping the Promise: Canadian Blood Services' 2019–2024 Strategic Plan, we held roundtable meetings across the country to examine the emerging concerns and day-to-day realities of our diverse stakeholders — including patient groups, health-system leaders, medical practitioners and clinical researchers, among many others.

Participants provided us with valuable insights into how our work intersects with the wider network of people and organizations connected to transfusion and transplantation in Canada. That feedback in turn guided our thinking around what more we can do to help patients and support the delivery of excellent health care.

Improve

Introducing smart, convenient digital tools

We're investing in new technologies to better serve patients, donors, hospitals and our own team members.

Digital systems are increasingly vital to every aspect of our operations: recruiting and engaging with donors; collecting and distributing blood; manufacturing blood products; operating organ and stem cell registries; conducting research and sharing knowledge; and managing core administrative functions such as human resources and finance.

Like most organizations, we are working to keep pace with technological change and exploring possible applications of everything from robotics to artificial intelligence. Yet even as we become more innovative and agile, we adhere to a set of fundamental risk management principles. Our approach to change is judiciously incremental, as we integrate new technologies into our operations at the right time, in the right way and at the right scale.

Workplace productivity

In 2017–2018, we continued to roll out our digital workplace program, providing tools to help everyone across Canadian Blood Services work more efficiently and effectively. Employees who are on the move can access files and collaborate with colleagues from anywhere, minimizing the risk of duplicated effort or getting out of sync with the team. By making information and applications instantly accessible in the cloud (with robust security measures in place), we are also able to reduce our data storage and other infrastructure costs.

Our supply chain, from end to end

With the introduction of online and mobile appointment booking, and now our piloting of Donor Concierge kiosks at donor centres, the whole process of attracting and interacting with donors is increasingly supported by digital technology. Once donors enter the health screening process at our sites, we gather information on tablets rather than paper forms, using the automated system introduced in July 2016. The result is a smoother experience for donors, backed by more efficient, accurate data collection and management.

As blood and its components move along the supply chain, the information captured on each unit is used by other systems we've implemented to track and manage production and logistics.

Over the past year, we've been working with some of our larger hospital customers to determine how we can move from paper order forms — typically sent via fax — to an online ordering system. The advantages of going fully digital are clear: higher efficiency, fewer errors, greater flexibility and the ability to precisely track and analyze usage up to the minute. We're collaborating closely with hospital staff to ensure we develop an application and user experience that fit their needs. By testing and learning together, applying the principles of human-centred design, we're co-creating a solution that will be trusted, effective and used to its full advantage.

Data protection

Another benefit of moving from recording donor information on paper forms to capturing it digitally is that this data can be stored more securely. We manage and regularly test our systems to ensure that any personal information provided by our donors is not accessible to any unauthorized parties. In all other areas of our operations where confidential information is entrusted to us — whether by website visitors, users of our mobile app or health professionals sharing relevant medical data — rigorously protecting privacy and security remains our top priority. We have always been, and will continue to be, proactive in safeguarding the confidential data of everyone connected with us.



“Working for an organization that contributes so much to society is very meaningful to me. I feel inspired every day by the great work we do in serving Canadian patients.”

Devi
Employee

Providing safe, effective, cost-efficient products

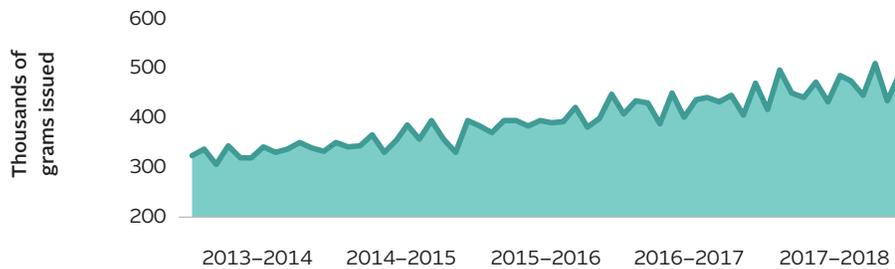
We constantly revisit every area of our operations to see what more we can do to improve patient outcomes and optimize cost-efficiency.

Providing the biological drugs Canadians need

Canadian Blood Services is responsible for purchasing and managing the distribution of plasma protein products (PPPs) across Canada. We manage a formulary of about 45 brands on behalf of all provincial and territorial governments except Quebec and distribute these essential medicines to Canadian hospitals. Together, the country's health systems invest over \$750 million annually to provide these essential drugs to patients with hemophilia and other bleeding disorders. Other recipients include people with inherited and acquired immune conditions, as well as burn and trauma victims.

Demand for some PPPs is growing rapidly, as are the complexities of managing the supply of some products. In 2017–2018, the Canadian Blood Services team of medical, financial and supply chain experts continued to collaborate closely with patient groups, prescribing physicians, ministries of health, hospitals and health authorities. Our collective goal is clear: to ensure patients receive consistent, appropriate care while balancing changing utilization patterns against fiscal realities.

Immune Globulin Utilization Growth



In the past year we once again leveraged our market clout, as a major bulk purchaser of biological drugs, to negotiate favourable contracts with suppliers of PPPs. In the coming years, we'll continue working with stakeholders and our government and health-system partners to gain deeper insights into utilization patterns for PPPs, sharpening our collective capacity to anticipate and meet demand.

Extending the shelf life of platelets

During storage in our facilities and at hospitals, platelets must be constantly subject to gentle agitation to prevent them from clumping together and becoming ineffective in medical treatment. They must also be stored at room temperature, making them susceptible to bacterial growth, which in turn could be harmful or even life-threatening to patients receiving transfusions. Our maximum shelf life for platelets has therefore traditionally been five days.

The challenge of how we might make platelets last longer was taken up by Canadian Blood Services researchers working in our Centre for Innovation. A new bacteria-testing process now allows us to extend shelf life by two more days. The new process makes it easier to manage platelet inventories and reduces the number of products that expire before they can be used.

When the solution was introduced during 2017–2018, the number of discarded platelet units went down at our facilities, and hospital re-orders dropped. Demand for platelets decreased, which enabled us to reduce the number of platelet units we collect through apheresis by 5,000 collections. We have begun to see some savings as a result, and we expect to realize even greater savings through the coming year and beyond.

Limiting CMV testing

CMV is a genus of viruses in the herpes family associated with illnesses such as mononucleosis and pneumonia. The virus resides in white blood cells, which Canadian Blood Services removes from whole blood using leukoreduction, a process that is part of how we manufacture red blood cells, plasma and platelets.

Many studies have shown that the residual risk of CMV in leukoreduced blood components is virtually nil. In October 2017, after performing a risk-based decision-making analysis that considered relevant research, Canadian Blood Services implemented a new CMV testing approach, bringing our practices in line with expert recommendations from the National Advisory Committee on Blood and Blood Products. We stopped testing donor blood for anti-CMV antibodies except for a small inventory of blood components that are tested for the sole purpose of intrauterine transfusion. This change will not have an impact on patient safety and will save Canadian health systems an estimated \$600,000 a year.

Maintaining progress in organs and tissues

We have two interrelated priorities: to increase donations and transplants, and to expedite the sharing of leading practices and professional education.

Canadian Blood Services has played a national leadership role in organ and tissue donation and transplantation (OTDT) since 2008. Our work in OTDT reflects our 20-year evolution from a blood system operator to a broader strategic partner in various dimensions of health-care delivery.

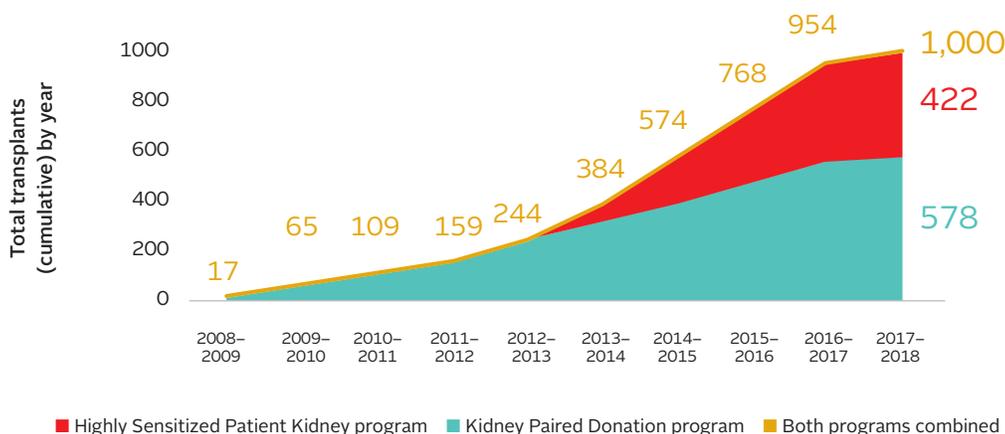
The needs of OTDT patients transcend geographical boundaries, and so too must the services that support them. By coordinating our collective efforts nationally, we're helping to ensure a more accountable and transparent system that operates safely, equitably, efficiently and effectively. In some cases, we lead the development of specific programs; more often, we help to leverage existing provincial capabilities and make them accessible to others nationally.

We deliver value to Canadians in two fundamental ways: by working to improve donation rates and access to organ and tissue transplants and by creating opportunities for OTDT professionals to share best practices and educate one another.

Connecting donors to patients

In 2017–2018, Canada's OTDT community marked a milestone: the 1,000th kidney transplant made possible through interprovincial organ sharing. The donor and patient registries maintained by Canadian Blood Services have played an important role in this success:

- The Kidney Paired Donation program links living donors to compatible patients across the country, often helping to create “domino chains” of multiple paired-exchange transplant surgeries. With a total of 578 transplants since its launch in 2009, the Kidney Paired Donation program is a great example of what can be achieved when provincial health systems work together to improve patient outcomes across the country.
- The Highly Sensitized Patient Kidney program, also a collaborative effort with our provincial OTDT partners, finds matches for immune-sensitive patients with a higher risk of rejecting new organs. Before this program was launched in 2013, these patients made up about 20 per cent of provincial transplant wait lists but received less than one per cent of available kidneys. As of March 2018, thanks to our collective efforts to simplify the necessary research, modelling and organ-sharing protocols, the program — the only one of its kind worldwide — has facilitated 422 kidney transplants.



Underpinning these two programs, as well as our National Organ Waitlist, is a web-based repository of donation and transplantation data developed and managed by Canadian Blood Services: the Canadian Transplant Registry. Since bringing the next-generation version online in 2017, we've been able to support better information-sharing among provincial programs, as well as sophisticated data analytics and reporting. Health systems across the country now have faster, easier access to information linking both living and deceased organ donors with potential recipients. They can gain deeper insights into how the system is performing as all stakeholders work to achieve better transplant outcomes for patients.

Our OTDT registry work has helped to save and improve hundreds of patients' lives — our number one priority. It is also cost-effective. To take just one metric, we estimate that the kidney transplants facilitated by our programs avoided more than \$16 million in cumulative dialysis costs to Canada's health systems in 2017–2018.

Sharing advice and insights

It takes years of rigorous research to develop leading clinical practices in OTDT, with an investment that's beyond what most provincial health budgets can afford. This is another key area where Canadian Blood Services supports health-care providers across the country: we serve as a hub for collaborative OTDT research and an engine for knowledge dissemination. As a result, we're able to develop clinical guidelines for bedside practitioners that translate into operating policies for institutions.

Our work to develop leading practices includes:

- Internationally recognized guidelines for the determination of death.
- Canadian guidelines for pediatric donation after circulatory determination of death.
- Guidance for initiating end-of-life conversations with the families of potential donors.
- New strategies in multiple-organ transplantation.
- Methods to control and reduce microbial bioburden in tissue banking.

Our regular professional forums on clinical practice contribute to better patient outcomes, equity of access to care, greater interprovincial sharing of organs, and overall transparency and trust in the OTDT system. Our work informs national policies and processes designed to address regional variations in practice. We also provide tools and resources for jurisdictions that have not yet implemented proven practices.

Complementing our leading-practice work is a wide-ranging professional education program for clinical practitioners, delivered by Canadian and international experts. We also play a national role in boosting public awareness and education around OTDT issues, developing system-wide messaging with our network of provincial partners, clinicians and other stakeholders.

These interconnected efforts are all aimed at the same outcome: increasing donation rates and access to transplants — and minimizing missed opportunities.

42%
more donors

Canada's organ donation rate in 2016 was 20.9 per million population (pmp). Although this is 42% higher than in the previous decade, it's still well short of the U.S. rate of 31.0 pmp, let alone the leading benchmark internationally, set by Spain: 43.4 pmp.

Health Canada evaluation and renewed funding for OTDT

In 2017–2018, Health Canada evaluated the OTDT program managed by Canadian Blood Services. A standard requirement of the contribution agreement between the two parties, this evaluation is conducted to assess the performance of the program, its continued relevance and, ultimately, its impact on patients across the country.

The evaluation included document and data reviews and interviews with key participants. It concluded that the program continues to be relevant, aligned with government priorities and federal roles, and effective in advancing OTDT system objectives.

The evaluation noted that some aspects of the program overlap with other stakeholders' activities. At the same time, it recognized these are complementary and essential to support smaller jurisdictions with limited capacity to expand their own programs and services. The evaluation also observed that the program's performance has been affected by certain operational barriers, and that continued effort is needed to improve awareness and uptake of programs and services across all jurisdictions.

To help address barriers and support the federal health minister's mandate to strengthen and improve the OTDT system in Canada, Health Canada is coordinating with Canadian Blood Services and the provinces and territories to identify the challenges and opportunities for improved collaboration.

Federal funding has been renewed for three years to support Canadian Blood Services' ongoing work in this important field and to complement funds received from provincial and territorial ministries of health.

Building more efficient, sustainable facilities

For over a decade, we've been evolving our infrastructure to keep pace with Canadians' health-care needs while helping to protect the environment.

In 2005–2006, Canadian Blood Services launched the National Facilities Redevelopment Program with special funding from provincial and territorial governments. The first phase concentrated largely on Atlantic Canada and South-Central Ontario. The program's second phase, now underway, is focused on our operations in Alberta and Saskatchewan.

There were several important changes to our nationwide infrastructure in 2017–2018, including the opening of a new blood donor centre in Calgary's Eau Claire Market as part of our National Facilities Redevelopment Program, and another at Yonge and Bloor in downtown Toronto (the latter officially opened in May 2018). Two projects are particularly emblematic of our overall redevelopment strategy: a new testing facility in Brampton, just west of Toronto, and a new Western Canada operations hub now under construction in Calgary.

Brampton testing facility

In 2012, we consolidated production and distribution functions from our Toronto, Hamilton and London locations at a new 127,000-square-foot facility in Brampton. We've made further enhancements in the years since, and in March 2018 we completed the project with the opening of a global-standard testing laboratory. Fully integrated with our production and distribution operations, the new lab will test all blood and blood products for Central and Eastern Canada.

New Calgary facility

After a May 2017 groundbreaking event, construction began on our new Calgary operations centre. Expected to be fully operational by 2020, this advanced manufacturing facility will process about a quarter of the whole blood we collect nationally. It is designed to achieve the best possible levels of quality, service and productivity while meeting the highest global standards for employee safety and engagement. It's also being built to the sustainability criteria of Gold-level LEED (Leadership in Energy and Environmental Design) certification. The facility's solar-panel array — the largest in the city — will meet up to 25 per cent of the building's energy needs.

Managing environmental impact

The sustainable design of our new Calgary facility reflects our more intense focus on reducing and mitigating our impact on the environment. Here are a few highlights from the past two years:

- After reducing our carbon emissions by six per cent in 2016–2017, we saw a slight increase in emissions this past year. Several factors contributed, including the impact of a colder winter on energy consumption in our buildings, which account for 69 per cent of our carbon footprint, as well as increased emissions from adjustments to product transportation needs. While our emissions were up slightly overall, we also saw that the impact of business-related travel was down by more than 14 per cent, and transportation of biomedical waste by 12 per cent.
- While our electricity use was up slightly (0.37 per cent) year over year, several energy-saving initiatives are underway. For example, we've upgraded to LED lighting at several sites, cutting energy use while creating more comfortable work environments. We will continue to increase our use of LED lighting in the year ahead.
- We introduced centralized waste collection at our Brampton, Vancouver and Edmonton facilities. Research shows that when employees are responsible for carrying garbage and recycling from their workstations to a central point, more waste is diverted from landfill. Like many green measures, it's also more cost-effective.
- After collecting organic food waste for many years at our Ottawa headquarters, we've now extended the practice to Brampton, Calgary and Vancouver, and we're studying the feasibility at other locations.

These are just some of the areas on which we're focusing within a broader commitment to sustainability that informs all of our decision-making. Our work to reduce our environmental impact is also part of our continuous improvement efforts across Canadian Blood Services.

Generating valuable research insights

We conduct and support a wide range of fundamental, applied and clinical research to advance transfusion and transplantation medicine in Canada and around the world.

Our Centre for Innovation supports the creation of new knowledge through research, and we facilitate the implementation of research findings through knowledge mobilization. Our fundamental research fuels innovation. Our product and process development work supports problem-solving in the blood supply chain, contributing to improvements in safety, quality and efficiency. The clinical guidelines we develop and the professional education and public awareness activities we undertake inform and strengthen the transfusion and transplantation health-care community.

The products and services we help to develop don't emerge suddenly, through a flash of invention or a discovery in the lab. Each is the result of thousands of interactions among researchers, physicians and the Canadian Blood Services team. Moving forward, we're committed to working even more closely with academic researchers and medical professionals to bring effective products and services from the laboratory bench to patients' bedsides.

KNOWLEDGE CREATION

65 Development research projects

54 Research projects

2 Program support awards



KNOWLEDGE DISSEMINATION

30 Technical reports

332 Peer-reviewed publications

300+ Oral and poster presentations at national and international conferences

Health Canada evaluation and renewed funding for our research program

Our Centre for Innovation receives funding from multiple partners, including Health Canada, which follows a rigorous performance management process.

In 2017–2018, Health Canada reviewed our research program to assess its performance and continued relevance to the blood system — and ultimately its impact on patients across the country.

The evaluation covered the past five years and included a literature review, document and data review, and interviews with key participants. The evaluation process concluded that our research efforts are relevant, effective and efficient. It acknowledged their progress toward identified outcomes, and praised their cost-efficient and effective operation.

- *Relevance:* There is a continuing need to address emerging threats to the safety of Canada's blood system.
- *Effectiveness:* We're making tangible progress toward defined outcomes:
 - Stakeholders are applying the knowledge generated from research.
 - Training highly qualified personnel is expanding health-system capacity.
 - Surveillance data continues to show low prevalence of blood-borne pathogens.
- *Efficiency:* Our blood research and development program is operating smoothly and cost-effectively.

Following this successful evaluation, we submitted a proposal to Health Canada and secured funding for another five years. This funding complements the support we receive from provincial and territorial ministries of health, from other research finance partners and through our own fundraising efforts.

A message from our chair



It is a privilege to deliver my first message to readers of Canadian Blood Services' annual report on behalf of the board of directors.

Prior to assuming the role of chair in January 2018, I had watched this organization evolve over two decades into a respected leader among blood operators worldwide and a vital player within Canada's network of health systems. Created in response to one of the gravest public health crises in our history, Canadian Blood Services was committed from the outset to being a safe, reliable source of high-quality blood and blood products for patients across the country. Our role in Canadian health care has since grown beyond blood: today, we focus on life essentials for transfusion and transplantation, including blood, plasma, stem cells, and organs and tissues.

All Canadians can take pride in an organization that strives to help every patient, to match every need, and to serve every Canadian. Like my fellow board members and more than 3,800 dedicated Canadian Blood Services employees — along with some 17,000 volunteers who generously share their time in our donation centres and at recruitment events — I am proud to play a part in extending that impact.

A foundation of trust

The vast majority of Canadians — 95 per cent, according our latest survey — believe the country's blood supply is well managed. Canadian Blood Services strives every day to strengthen public confidence, working to be more agile and responsive to patients' changing needs while prudently managing the resources entrusted to us.

Our approach is fundamentally collaborative, drawing on the knowledge and experience of patients, physicians, hospital staff, health-system leaders and other stakeholders across Canada. This annual report details our progress over the past year on a wide range of fronts, from our efforts to build deeper relationships with current and future donors, to our comprehensive plan for securing a more robust domestic supply of plasma. In welcoming Canadians' input on these and other facets of our work, we fulfil a key recommendation of Justice Horace Krever, whose Royal Commission of Inquiry led to our founding: "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."

For Canadian Blood Services, the guiding principles set out by Justice Krever remain as relevant today as they were 20 years ago.

A message from our chair

A legacy of sound governance

Our founding governments astutely recognized the need for a governance structure that ensures vigilant oversight of our management and operations while protecting the independence of the system; we are empowered to make decisions based on the best available medical and scientific evidence. Most of the funding for our not-for-profit organization is provided by provincial and territorial ministers of health, who also elect our board of directors. The board in turn is responsible for setting strategy and confirming that all day-to-day operational decisions are consistent with that overall strategic direction.

During 2017–2018, the board worked with senior management to develop a detailed strategic road map for the next five years. Keeping the Promise: Canadian Blood Services' 2019–2024 Strategic Plan will identify the key priorities we will pursue in responding to a rapidly changing health-care environment and a social, political and economic context that is constantly evolving.

The board's strategic guidance is informed by the unique experiences and perspectives all members bring to their roles. Critical to our governance model, however, is the understanding that directors do not serve the specific interests of the constituencies that nominate them. We share a collective responsibility to advance the mission of Canadian Blood Services, taking into account the expectations of our diverse stakeholders. We serve all Canadians by providing a reliable, accessible and sustainable system for delivering the life essentials for transfusion and transplantation.

In closing, I wish to express the board's gratitude to my predecessor as chair, Leah Hollins, for the eight years of hard work and wise counsel she contributed to Canadian Blood Services. I would also like to express our appreciation to our deputy chair, Glenda Yeates, who helped to maintain continuity during our recent transition in governance. Lastly, I want to underline the board's continued support for our chief executive officer, Dr. Graham Sher, and the entire senior management team as they work to make this organization increasingly nimble and responsive.

The issues we face each day are complex, and there are further challenges ahead. But for everyone at Canadian Blood Services, the ultimate goal remains clear: to improve and save the lives of patients across the country who count on us to deliver our best.



Mel Cappe
Chair, Board of Directors

A message from our chief executive officer



In 2018, Canadian Blood Services celebrates 20 years of dedicated service to Canadians. As the theme of this annual report suggests, our organization was founded on a promise. We committed to provide all Canadians with safe, secure access to high-quality blood and blood products, and we pledged to work with our health-system partners across the country to constantly advance patient treatment and care. Those intertwined commitments have guided every decision we have made over the past two decades, and they continue to do so today.

While a devotion to continuous improvement has shaped Canadian Blood Services from the beginning, as we approached our 20-year milestone we were inspired to take a more in-depth look at the building blocks of our promise. We re-examined our purpose, our mission and how we talk about the value Canadians receive from the systems we connect and manage. We also began the next chapter in the governance of Canadian Blood Services by welcoming several new board members, including a highly accomplished chair, Mel Cappe.

The cumulative effect of these various initiatives is a sense of renewed energy and focus, as we harness the momentum we have built over the past several years and direct it toward specific goals. To illustrate this transformative process in action, I will highlight just two of the many achievements showcased in this annual report.

Restating our purpose

Over the course of two decades, we have leveraged our experience in the production and distribution of blood and blood products to expand the value we provide. Our scope of impact has grown to include the donation and transplantation of stem cells, and organs and tissues, along with many areas of groundbreaking clinical research. Many Canadians, however, are unaware of the scale and full value of our contribution to Canada's health-care systems.

At the same time, we have seen significant changes in clinical practice, new medical technologies, increased competition for hearts and minds, and shifting demand patterns, all of which affect the transfusion and transplantation system every day. We know that to continue meeting patient needs, we must increase and diversify our donor base in all of the areas in which we work — not only for blood and plasma, but also for stem cells, organs and tissues, and financial donations, and all in a very competitive market.

A message from our chief executive officer

In 2017–2018, we embarked on a systematic rethinking of what Canadian Blood Services stands for and how we convey the benefits we provide to patients, donors and health systems across the country. In undertaking this renewal process, we consulted many stakeholders, as well as our own employees. While we referred to this process as a renewal of our brand, the focus was not on our logo or tagline (although both have been refreshed) but, more importantly, on what drives us as an organization and the values that underpin all of our decision-making. The result is a fundamental restatement of purpose, including a new mission — *We are Canada's biological lifeline* — which reflects our evolution beyond the legacy retained in our name.

As part of our strategy for the future, we strongly believe the renewal of our brand is essential to our ability to stay relevant. The work accomplished during the past year will provide a solid platform for future success, and is a critical step in broadening our appeal to the next generation of Canadians and to a more diverse community of donors.

Evolving our strategy

Canadian Blood Services, guided by our board of directors, has always operated according to a clear, multi-year plan with well-defined priorities. However, as the pace of change continues to accelerate – in health care and in society generally – we have recognized a need to update and refine our strategy to ensure it remains relevant to the needs of Canadians.

Over the past year, we consulted a diverse array of stakeholders, researched the key trends shaping our environment and examined the current practices and long-term goals of our organization. We also studied trends in the practice of medicine, as well as emerging scientific research that is pointing the way to new forms of patient treatment and care.

The outcome of our consultations and information-gathering is Keeping the Promise: Canadian Blood Services' 2019–2024 Strategic Plan, a detailed road map identifying our key areas of focus for the next five years and beyond. It will set out the following strategic priorities:

- Meet changing patient needs by providing lifesaving products and services.
- Build and deepen relationships with the donors of the future.
- Ensure a secure supply of Canadian plasma for immune globulin.
- Create an engaging and empowering employee experience.
- Achieve organizational excellence.

Keeping the Promise also recognizes the critical importance of engaging and empowering our employees as we strive to set even higher standards of quality across our operations. Underpinning all of these efforts is our continued commitment to achieving and sustaining organizational excellence.

As important as this new plan is, however, it does not break new ground, nor should it. For Canadian Blood Services, progress will always be evolutionary, not revolutionary. We embrace promising products and manufacturing techniques, we adapt to improvements in medical practice, we pursue new and better ways of working as an organization, but always within the scope of our founding commitment: to provide Canadians with safe, dependable access to the highest-quality treatment and care.

A message from our chief executive officer

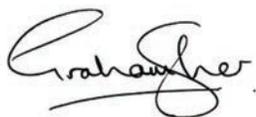
Our promise remains

We have tackled many challenges in our 20-year journey, and more lie ahead. Canada's plasma sufficiency, for example, declined further during the past year, and we see a widening gap between worldwide demand for plasma protein products and global manufacturing capacity. In response, we have been increasing the amount of plasma we collect through our existing infrastructure, and we will be expanding our plasma collections into the future. These efforts are not optional for us; ensuring an adequate percentage of plasma sufficiency for lifesaving immune globulin for Canada and Canadian patients is a core responsibility for Canadian Blood Services. We will also seek opportunities to deepen the ongoing dialogue around utilization, contributing our research data and expertise.

As we search for better solutions to increasingly complex problems, one thing is certain: it is people who will provide the answers. Within Canadian Blood Services, we know we can rely on our talented, dedicated employees to identify opportunities for improvement, to uncover valuable research insights and to find that perfect balance between helpful technology and the equally vital human touch.

Similarly, it is people in communities across Canada who encourage our efforts and inspire us to do our best. When catastrophe strikes — as it did this past year in the tragic bus accident near Humboldt, Saskatchewan, and in the horrific attacks on innocent people on the streets of Toronto — thousands of blood donors immediately booked appointments and began walking into our donor centres. Others registered to become organ and tissue donors. Still others made financial contributions to help the patients we serve.

These outpourings of support reinforce the impact of what Canadian Blood Services pledges to do every day: connect generous donors with grateful recipients. For the next 20 years, and for many more decades to come, we will carry on our commitment to improving and saving the lives of patients across the country. And we will succeed, thanks to the contributions of all those who make up Canada's lifeline — employees and volunteers, medical and research professionals, donors and patients, hospitals and provincial health care, and all Canadians. Together, we have made a promise for life.



Dr. Graham D. Sher
Chief Executive Officer



"I have saved people's lives and doing so feels amazing. It's a win-win."

Emily
Blood donor

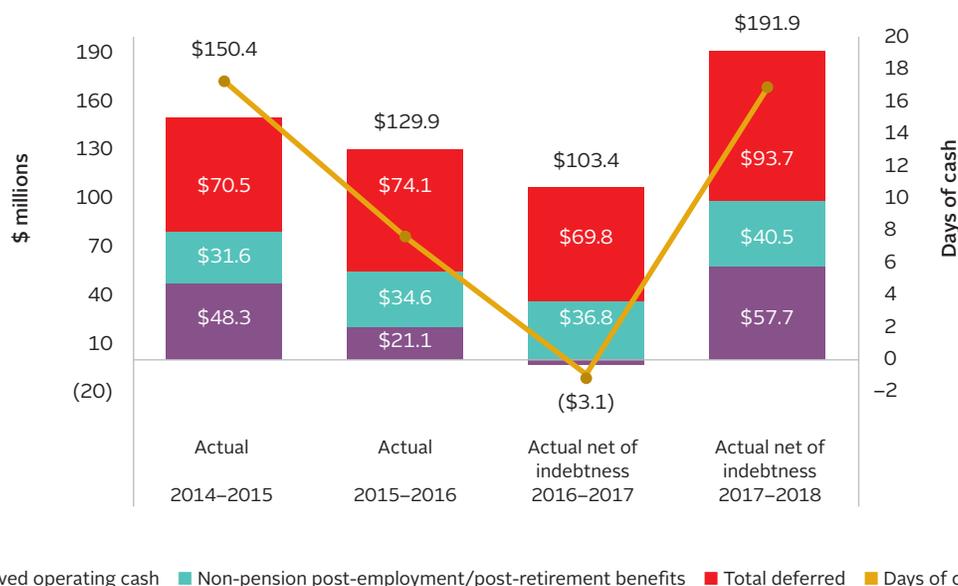
Management analysis

This management analysis outlines Canadian Blood Services' financial results for the year ended March 31, 2018. It should be read in conjunction with Canadian Blood Services' audited consolidated financial statements and accompanying notes for the year ended March 31, 2018. The financial statements have been prepared in accordance with Canadian accounting standards for not-for-profit organizations. This management analysis should also be read together with the complete annual report for context on the programs and operations of Canadian Blood Services. The information in this analysis is current to July 30, 2018, unless otherwise indicated.

Readers are cautioned that this financial report includes forward-looking information and statements. By their nature, forward-looking statements require management to make assumptions and are subject to important known and unknown risks and uncertainties that may cause actual results to differ materially from those disclosed. While we consider our assumptions to be reasonable and appropriate based on current information, actual results may vary from those predicted in the forward-looking information or statements.

ANALYSIS OF FINANCIAL RESULTS – FINANCIAL POSITION

Cash position (net of bank indebtedness)

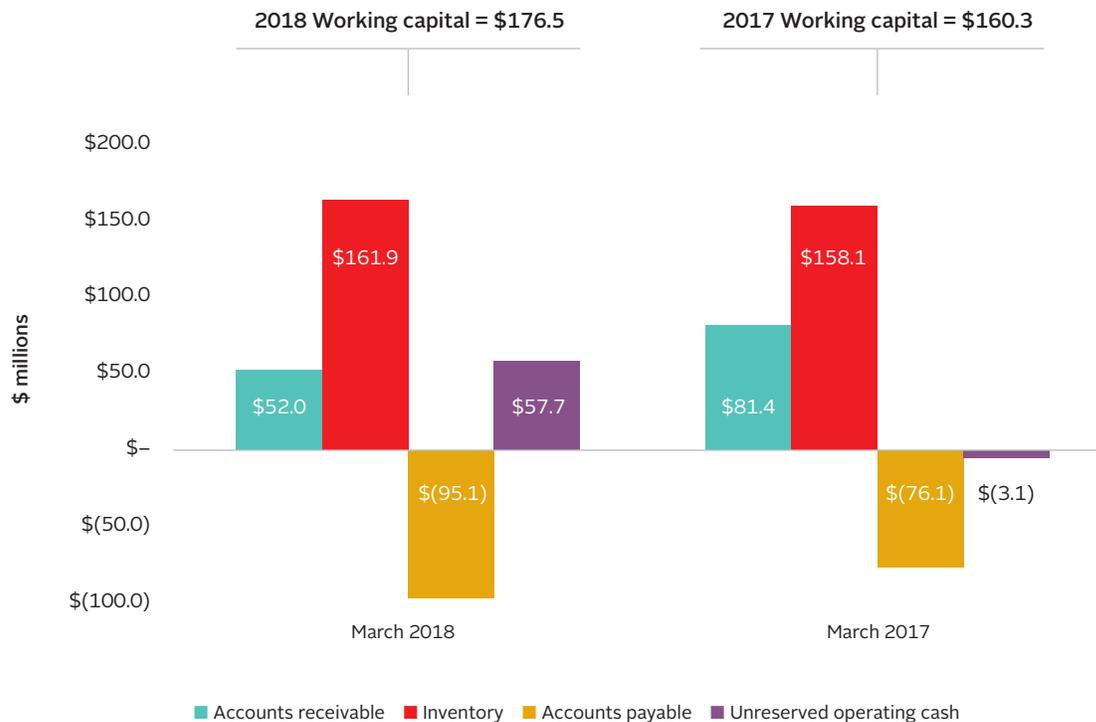


Provincial and territorial ministers of health (except Quebec) serve as the members of the corporation under the *Canada Not-for-profit Corporations Act*. Canadian Blood Services' liquidity is largely influenced by the timing of funds received from members, the volume of inventory held, foreign exchange fluctuations, the demand for plasma protein products, the amount of deferred contributions and the number of large capital-intensive projects, such as those included in the National Facilities Redevelopment Program (NFRP). Running a national system, we are also exposed to varying payment terms on balances owed to and owed by Canadian Blood Services in each jurisdiction.

The unreserved operating cash balance, which represents the cash balance after removal of internally reserved cash balances for deferrals and non-pension post-employment/post-retirement benefit liabilities, has been steadily declining over the past few years. This trend continued through to the end of the third quarter of 2017-2018 due to delays in receiving member funding. Delayed funds put a strain on our cash position and required that we remain drawn on our line of credit to support operations. However, significant payments were made by members, particularly by the Province of Ontario, during the fourth quarter. With these payments, the unreserved operating cash balance net of bank indebtedness at March 31, 2018, has improved, with balances increasing by \$60.8 million over March 31, 2017, to \$57.7 million. These funds also allowed us to pay down \$10.0 million on the line of credit, bringing the bank indebtedness balance down from \$24.0 million to \$14.0 million at March 31, 2018. Subsequent to year-end, the remaining outstanding debt of \$14.0 million was repaid.

As stated above the unreserved cash balance net of bank indebtedness at March 31, 2018, was \$57.7 million or approximately 16.8 days of cash on hand. This balance is a substantial improvement over the unreserved cash balances at March 31, 2017, as shown in the graph above.

Working capital



Net working capital increased to \$176.5 million at March 31, 2018, from \$160.3 million at March 31, 2017. Total accounts receivable (members' contributions receivable and other amounts receivable) decreased by \$29.4 million primarily due to the decrease in the balances owed by members of \$28.9 million. This decrease was driven by significant payments made by the Province of Ontario during the fourth quarter of 2017–2018, as previously noted. At March 31, 2018, the Province of Ontario's receivable balance was \$31.2 million or 93 per cent of the total members' contributions receivable.

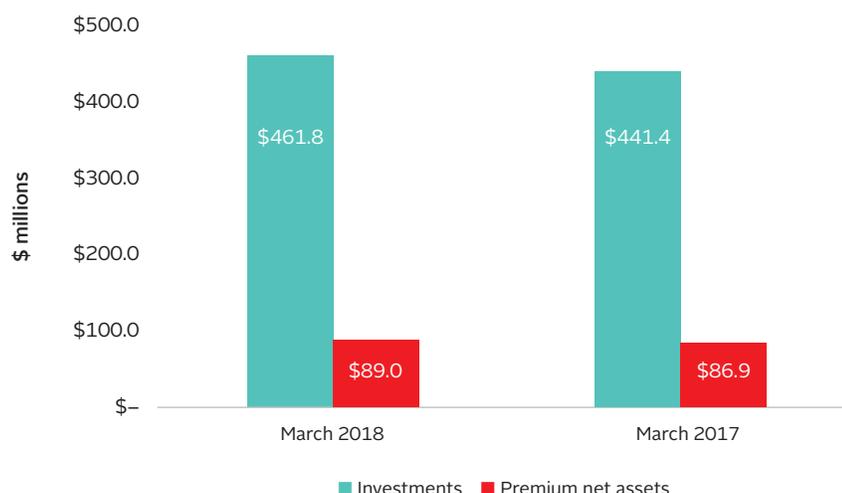
Inventory increased by \$3.8 million due to increases in the inventory of plasma protein products. These increases were largely driven by continued growth in product utilization. Although the number of weeks of inventory on hand has remained relatively flat compared with the previous year, at approximately 9 weeks, the number of weeks on hand has been higher than the target for our major product categories. In 2017, large year-end purchases were made to take advantage of significant volume discounts. In 2018, Canadian Blood Services increased its inventory to prepare for product transitions resulting from the new contracts awarded in the request for proposals for plasma protein products. Reducing inventory levels is a key objective for 2018–2019, and we are developing a plan to achieve this goal. At June 30, 2018, inventory balances amounted to \$146.9 million, representing a nine per cent reduction as compared with March 31, 2018.

Captive insurance program — investments and provision for future claims

Canadian Blood Services has two wholly owned captive insurance corporations: CBS Insurance Company Limited (CBSI) and Canadian Blood Services Captive Insurance Company (CBSE). Together these captive insurance companies provide Canadian Blood Services with comprehensive blood risk insurance covering losses up to \$1.0 billion. The primary policy held by CBSI provides coverage up to \$250.0 million, and the secondary policy held by CBSE provides coverage up to \$750.0 million. The policy held by CBSI is fully funded through investment assets, whereas the policy held by CBSE is covered by an indemnification from members. CBSI also provides coverage to Canadian Blood Services for transit risks, consequential loss to blood inventory, certain contingent risks in the event of an emergency event related to the safety of the blood supply, and cyber damage and expense.

Between 1998 and 2003, members contributed \$190.0 million to the development of the captive insurance programs. These funds have grown over the years, culminating in an investment balance of \$461.8 million at March 31, 2018. The investments have increased by \$20.4 million over the previous year, which is attributed to a return of 4.7 per cent on investments. Net investment income for 2017–2018 was \$13.4 million, compared with \$11.9 million for 2016–2017. The change in fair value of investments measured at fair value was \$6.9 million for 2017–2018, compared with \$17.0 million for 2016–2017.

Captive investments



Premium net assets comprise investments held by CBSI measured in accordance with International Financial Reporting Standards, less the aggregate limits of insurance policies held by CBSI less statutory and market volatility reserves. Premium net assets increased to \$89.0 million at March 31, 2018, from \$86.9 million at March 31, 2017, due to positive investment returns.

Canadian Blood Services records a reserve for the estimated future catastrophic and normal blood liability exposure for CBSI. At March 31, 2018, and again at March 31, 2017, the provision for future claims was \$250.0 million.

Canadian Blood Services is working on a project to increase the aggregate limit of the comprehensive blood risk insurance policy held with CBSI from \$250.0 million to \$300.0 million, with a corresponding reduction in the limit covered by CBSE from \$750.0 million to \$700.0 million. This change is targeted for April 1, 2019, and will result in a \$50.0 million reduction to premium net assets in CBSI.

New Calgary facility



Capital assets

Capital and intangible assets increased by \$12.8 million. This increase was primarily due to capital additions of \$31.0 million, partially offset by depreciation and amortization of \$18.2 million. The significant capital additions related to the construction of the new Calgary facility for \$16.9 million, and the information technology (IT) equipment and generators for the whole organization for \$6.6 million.

Employee future benefits

Canadian Blood Services sponsors two defined benefit pension plans, one for employees and the other for executive employees. We also maintain a defined contribution pension plan and provide other non-pension post-retirement and post-employment benefits to eligible employees. The board of trustees and the Finance and Audit Committee of the board are responsible for the governance of the pension plans.

Canadian Blood Services' independent actuary determines each plan's net position for accounting purposes as at March 31 of each year. The net position fluctuates annually due to a combination of variables, including the discount rate, inflation rate, expected average rate of salary increases, expected average remaining life expectancies, returns on plan assets and contributions. The slight increase in the net liability for employee future benefits to \$84.0 million at March 31, 2018, from \$82.8 million at the previous year-end, was primarily driven by the cost of benefits earned during the year offset by strong investment returns.

Our independent actuary reviews the defined benefit pension plans' funded position to inform members of the board of trustees and the Finance and Audit Committee of the board of how these plans are performing. Funding valuations for the defined benefit pension plan for employees and the pension plan for executives were completed as at Dec. 31, 2016, and Jan. 1, 2017, respectively. The valuations revealed that the pension plans were funded at 107 per cent and 99 per cent on a going concern basis, and 75 per cent and 84 per cent on a solvency basis, respectively.

Forward currency contracts

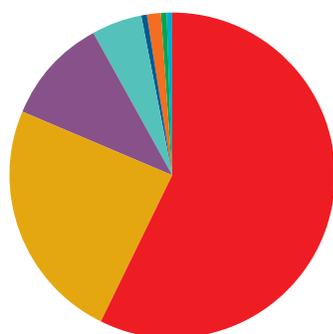
Canadian Blood Services enters into forward currency contracts to mitigate foreign exchange on our U.S. dollar purchases of PPPs. Canadian Blood Services designates 70 per cent of the forward currency contracts as being in a hedging relationship with the equivalent forecasted purchases of PPPs. Accordingly, hedge accounting is applied, and these transactions are only recorded in the cost of PPPs upon maturity. The remaining 30 per cent are non-designated forward currency contracts and are recorded at fair value at the end of each period. When these contracts mature, the realized gain or loss is recorded as foreign exchange gain or loss.

At March 31, 2018, the outstanding forward currency contracts were in a favourable position relative to the U.S. dollar exchange rate, resulting in a financial asset of \$4.3 million. Comparatively, at March 31, 2017, the contracts were in an unfavourable position relative to the U.S. dollar exchange rate, resulting in a financial liability of \$1.6 million.

ANALYSIS OF FINANCIAL RESULTS – OPERATIONS

Total consolidated costs by expenditure type

In thousands of dollars



	2017–2018	2016–2017	Var \$	Var %
■ Cost of plasma protein products	728,086	678,368	49,718	7%
■ Staff costs	306,161	321,088	(14,927)	-5%
■ General and administrative	134,552	130,135	4,417	3%
■ Medical supplies	63,086	65,375	(2,289)	-4%
■ Foreign exchange loss	6,146	20,529	(14,383)	-70%
■ Depreciation and amortization	18,232	17,933	299	2%
	1,256,263	1,233,428	22,835	1%
■ Change in fair value of forward currency contracts	(5,860)	(23,415)	17,555	75%
■ Change in fair value of investments measured at fair value	(6,860)	(17,009)	10,149	60%
	1,243,543	1,193,004	50,539	4%

Chart is based on 2017–2018 costs

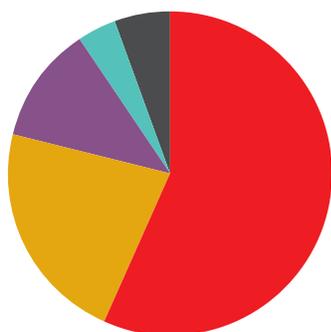
Plasma protein products continue to represent our largest cost, increasing by seven per cent in 2017–2018. The key variables that influence these costs are product demand, product mix, the per-unit cost of the products and foreign exchange. Staff costs incurred to deliver our products and services represent our second-largest cost. Our remaining costs are for general and administrative expenses, depreciation and medical supplies (e.g., blood bags used in collection). Details of expenses by program are outlined in the following pages.

The change in the cumulative fair value of foreign currency contracts reflects the difference between the actual versus the contractual foreign exchange rate resulting in unrealized gains or losses on the unmatured, non-designated forward contracts, as well as the release of the previous year's unrealized gains or losses for such contracts that have matured. The spread between the actual and contract foreign exchange rate was greater in 2016–2017 than in 2017–2018. The change in the fair value of forward currency contracts represents non-cash items.

The \$6.9 million change in the fair value of investments represents the increase in the unrealized gains on the investments measured at fair value held in the captive insurance programs in 2017–2018, reflecting current market conditions.

Cost breakdown for fresh blood products and NFRP

In thousands of dollars



	2017–2018	2016–2017	Var \$	Var %
■ Staff costs	273,704	288,722	(15,018)	-5%
■ General and administrative	107,054	104,894	2,160	2%
■ Medical supplies	56,503	57,765	(1,262)	-2%
■ Foreign exchange gain	(54)	(57)	3	-5%
■ Depreciation and amortization	18,232	17,933	299	2%
■ Transfer of recovered plasma costs	(26,400)	–	(26,400)	–
	429,039	469,257	(40,218)	-9%

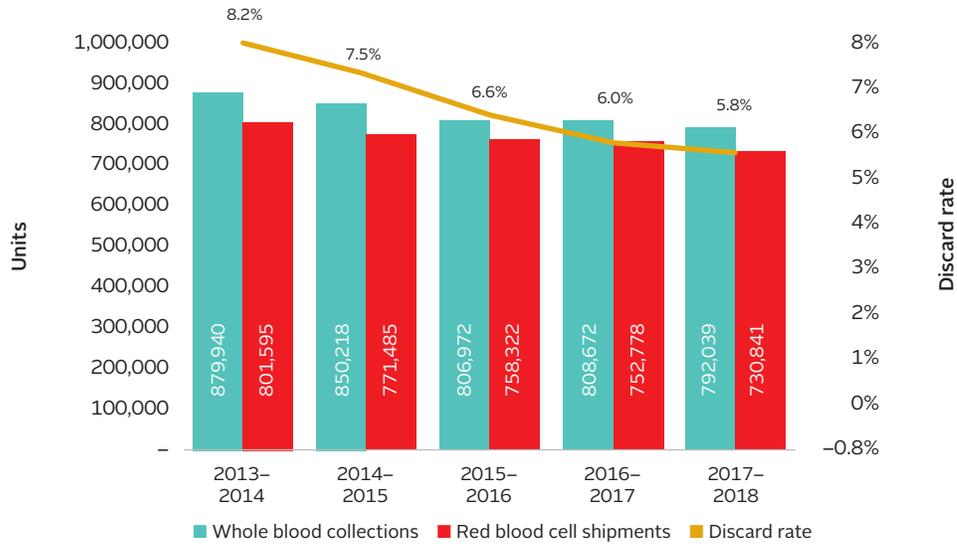
Demand for red blood cells, platelets and plasma and the associated number of whole blood collections have the greatest influence on activities associated with fresh blood products. The main factors affecting costs are labour and materials needed to recruit donors and collect, produce, test and ship each unit of product. Staff costs and medical supplies account for over 70 per cent of the total costs of fresh blood products. Additional expenses, such as fuel, utilities, IT, facilities and support functions, also influence these costs.

Costs for fresh blood products

Staff costs have declined due to several corporate initiatives in recent years. With the implementation of several projects aimed at improving processes and realizing efficiencies — from the automation of our supply chain to the lean manufacturing initiatives — overall staffing requirements have been reduced. As part of these projects, additional training and severance costs of close to \$8 million were recognized during 2016–2017, which also contributed to the reduction of \$15.0 million in 2017–2018.

The demand for red blood cells continues to show a long-term declining trend. We anticipate that this trend will moderate in future years. This is reflected in the overall reduction in medical supply costs in 2017–2018. Although patient blood management activities are continuing across the country, we expect the demands of a growing and aging population to cause this trend to flatten over time. We also anticipate improved inventory management and hospital redistribution programs reducing the number of discards and therefore overall demand. Based on current modelling, the demand for red blood cells is forecasted to decrease by 1.3 per cent in 2018–2019.

Whole blood collections, red blood cell shipments and discard rate



Our continued focus on supply chain management over the past few years has considerably improved our whole blood and red blood cell discard rate. In fact, 2017-2018 was the fourth consecutive year with a rate decrease since the rate topped out at 8.2 per cent in 2013-2014.

The transfer price represents the cost of plasma that is recovered from whole blood donations (known as recovered plasma) from the fresh blood products program to the PPPs program. The transfer represents the approximate cost of recovered plasma from Canadian donors and subsequently shipped to commercial fractionators in the U.S. and processed into products for redistribution back to Canada.

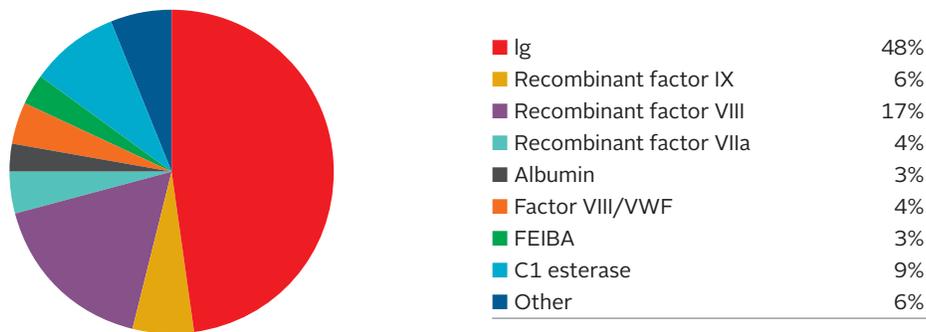
General and administrative costs increased due to the implementation of a number of projects aimed at improving internal processes, including procurement and invoice processing, and the donor appointment bookings.

Plasma protein products

Plasma can be collected through whole blood donations or through apheresis, a process that mechanically separates one component of collected blood while recirculating the rest back to the donor. Plasma can either be transfused or be sent to our commercial fractionators for further manufacturing into PPPs. These products are used to treat patients with diseases such as hemophilia and immune disorders.

We manage a formulary of over 45 brands of PPPs from Canadian and international suppliers, as well as products available under the Health Canada Special Access Program. The graph below shows the distribution of all PPPs offered. Immune globulin and all recombinant coagulation products account for approximately 75 per cent of the total cost of PPPs.

Per cent of plasma protein product costs in 2017–2018



Cost breakdown of the plasma protein products program

In thousands of dollars

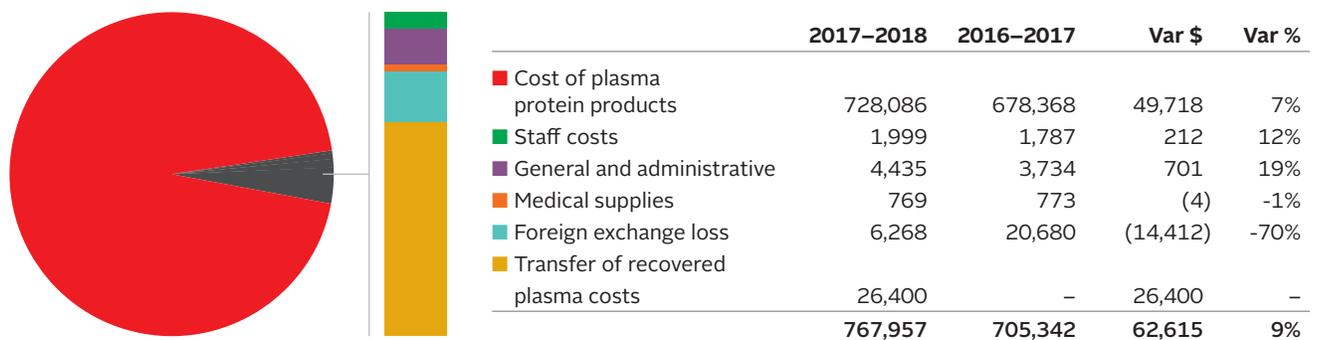


Chart is based on 2017–2018 costs

In 2017–2018, the total cost of the PPPs program increased by \$36.2 million, excluding the \$26.4 million transfer of the cost of recovered plasma from the fresh blood program. Overall demand for PPPs continues to be the main driver for cost increases. Since 2009–2010, utilization of Ig has grown by 80 per cent (average of 10 per cent per year), while utilization of recombinant factor VIII (rFVIII) has increased by 50 per cent (average of six per cent per year). Together, Ig and rFVIII consume more than 65 per cent of the budget for PPPs. Utilization of C1 esterase has increased the fastest since 2009–2010, growing 1,265 per cent (average of 158 per cent per year). C1 esterase now consumes approximately 16 per cent of the PPPs budget. It is clear from this trending that utilization continues to increase and is an ongoing material contributor to increases in the overall budget.

Stems cells, diagnostic services and organ and tissue donation and transplantation

Stem cells

We continue to grow and maintain a national registry of adult stem cell donors and a bank of cord blood units that reflect the ethnic diversity of the Canadian population and meet the needs of clinical practitioners to ensure successful transplant outcomes. Overall expenses have remained comparable to those in the previous year, with a 2.9 per cent increase.

Diagnostic services

We offer prenatal testing, patient reference red blood cell serology (antibody investigations), human platelet antibody (HPA) testing and human leukocyte antibody (HLA) testing to patients and hospitals across Western Canada and in some parts of Ontario. Overall demand for these services has remained relatively flat compared with the previous year, reducing total expenses by 2.5 per cent.

Organ and tissue donation and transplantation

We manage a national transplant registry for interprovincial organ sharing and related programs for organ donation and transplantation. Working with partners across the organ and tissue donation and transplantation (OTDT) community, we develop and share leading practices, provide education resources and collaborate on new ways to share data on the performance of the OTDT system in Canada. Overall expenses are comparable to those in the previous year with a 1.0 per cent decrease.

Governance

Canadian Blood Services is a not-for-profit charitable organization that operates independently from government. It was created through a memorandum of understanding between the federal, provincial and territorial governments. Our funding comes primarily from our members.

Canadian Blood Services is regulated by Health Canada, through the federal *Food and Drugs Act*. We receive federal funding for our role in organ and tissue donation and transplantation (OTDT), which includes management of national registries for patients awaiting transplants, development of leading national practices, and professional education, public awareness and system performance activities. Federal funding also supports our research and development activities aimed at improving patient outcomes and the health and safety of donors.

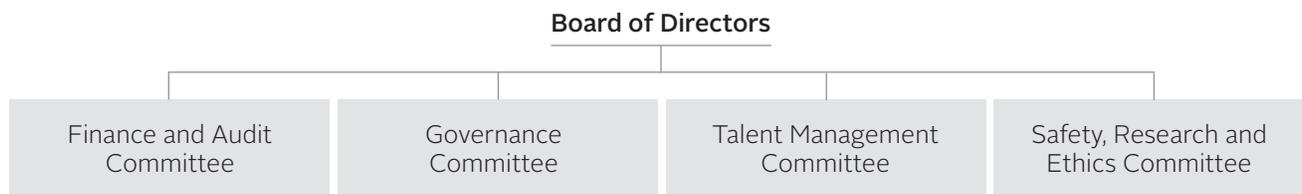
Members

Provincial and territorial ministers of health serve as the members of the corporation under the *Canada Not-for-profit Corporations Act* and appoint the board of directors.

The board of directors is accountable to the members. The ministers also collectively approve Canadian Blood Services' three-year corporate plan and annual budget.

Board of directors and committees

The board of directors is responsible for the organization's governance, overall affairs, strategic plan, budget and reporting on Canadian Blood Services' performance to the members. A lead province is designated every two years; the current lead province is Saskatchewan.



	Number of meetings held in 2017–2018
Board of Directors	8
Finance and Audit Committee	5
Governance Committee	4
Talent Management Committee	6
Safety, Research and Ethics Committee	4

Board members' attendance at meetings and honorariums paid this year

Director	Chair	Number of board meetings attended	Number of committee meetings attended	Honorariums paid
Mel Cappe	Board	1/1	2/2	\$17,000
Leah Hollins	Board	6/7	9/9	\$47,750
Kelly Butt		8/8	8/8	\$23,375
R. Wayne Gladstone	Finance and Audit Committee	8/8	9/9	\$26,000
Dr. Kevin W. Glasgow	Safety, Research and Ethics Committee (Acting)	7/8	10/10	\$26,938
Dr. Gary Glavin		5/5	6/6	\$19,000
Craig Knight	Talent Management Committee	8/8	10/10	\$28,875
Henry J. Pankratz		4/5	5/5	\$12,125
Dunbar Russel	Governance Committee (Acting)	8/8	9/9	\$24,625
Suromitra Sanatani		7/8	9/10	\$23,625
Dr. Jeff Scott		8/8	10/10	\$24,000
Mike Shaw		8/8	9/9	\$23,500
Elaine Sibson		4/5	7/7	\$7,625
Robert H. Teskey		5/5	5/5	\$14,125
Glenda Yeates		3/3	3/4	\$8,625
David Lehberg		3/3	4/4	\$10,625
Anne McFarlane		3/3	4/4	\$11,375
Elizabeth A. Martin		2/3	4/4	\$10,000

Mel Cappe was announced as the new chair of the board of directors effective Jan. 8, 2018. On Oct. 19, 2017, a number of new directors were announced, including David Lehberg, Elizabeth A. Martin, Anne McFarlane and Glenda Yeates, replacing members Dr. Gary Glavin, Henry J. Pankratz, Elaine Sibson and Robert H. Teskey. Elizabeth A. Martin subsequently resigned and was replaced by Judy Steele effective Mar. 12, 2018.

Board compensation

Canadian Blood Services' bylaws provide that directors be remunerated for attendance and participation at meetings of the board of directors and committees as set by the members. The chair receives an annual retainer, other directors receive meeting honorariums, and all directors are reimbursed for their travel expenses. Directors are also entitled to per diems when they are required to conduct business on behalf of the board.

The table below shows the structure of honorariums paid to the directors of the board.

Board of directors' retainer and honorariums

Annual retainer for the chair	\$15,000 per annum
Meeting honorarium for each board member	\$750 per diem
Meeting preparation honorarium	Two days for chair @ \$750 per day One day for committee chairs @ \$750 per day One day for directors @ \$750 per day
Travel to meetings	Up to two days (depending on origin and destination) per meeting @ \$500 per day
Days on business honorarium	\$750 per diem (for events such as meetings on behalf of Canadian Blood Services)
Travel	Travel costs according to Canadian Blood Services' expense policy. Details of these travel costs can be found on our website at https://blood.ca/en/about-us/our-board-directors .

Executive management team compensation

Canadian Blood Services is founded on the principles of safety, openness and transparency — traits deeply rooted in our culture. The manner in which we compensate executives reflects these principles. As such, Canadian Blood Services has a comprehensive and rigorous executive performance management and compensation program, following best-practice principles in corporate governance.

The CEO, who reports to the board of directors, oversees the vice-presidents and our internal auditor. Each year, the performance of members of the executive management team, including the CEO, is measured through the use of executive performance agreements. These agreements contain goals linked directly to achieving collective corporate performance goals, as well as specific and measurable individual goals. Performance against these goals is used to derive the specific calculations for either merit increases or performance awards.

The CEO's performance is overseen by the Talent Management Committee of the board and validated by the full board of directors. Every two years, the Talent Management Committee commissions an independent study to gather comparative compensation data for the CEO and conducts a detailed review of the CEO's performance against objectives. Every third year, the committee independently commissions outside expertise to lead a 360° performance review of the CEO. The committee's review is validated by the full board, which ultimately decides whether to make any compensation adjustments.

Members of the executive management team are reviewed through a similar process. The CEO meets with all of the executive management team members, and reviews their performance based on the corporate performance indicators contained in their performance agreements. The CEO's recommendations for compensation adjustments are presented to the Talent Management Committee of the board for approval and subsequent validation by the full board.

Components of the compensation program

The compensation program for executives comprises several elements, referred to as “total compensation.” Total compensation includes:

- base salary
- annual pay at risk
- pension plan
- benefits and perquisites

Canadian Blood Services aims to align our total compensation for executives with the market median for comparator groups.

Total compensation for executives

	Fiscal Year	Base salary	Compensation at risk as a percentage of base salary
Dr. Graham D. Sher <i>Chief Executive Officer</i>	2017–2018	\$591,220	30%
	2016–2017	\$576,800	30%
Rick Prinzen <i>Chief Supply Chain Officer and Vice President, Donor Relations</i>	2017–2018	\$288,915	25%
	2016–2017	\$283,250	25%
Judie Leach Bennett <i>Vice-President, General Counsel and Corporate Secretary</i>	2017–2018 ⁽¹⁾	\$230,000	22.5%
Pauline Port <i>Chief Financial Officer and Vice-President, Corporate Services</i>	2017–2018	\$369,448	25%
	2016–2017	\$361,318	25%
Dr. Christian Choquet <i>Vice-President, Quality and Regulatory Affairs</i>	2017–2018	\$270,177	22.5%
	2016–2017	\$264,232	22.5%
Andrew Pateman <i>Vice-President, People, Culture and Performance</i>	2017–2018	\$319,054	22.5%
	2016–2017	\$311,272	22.5%
Jean-Paul Bédard <i>Vice-President, Public Affairs</i>	2017–2018	\$290,685	22.5%
	2016–2017	\$286,390	22.5%
Ralph Michaelis <i>Chief Information Officer</i>	2017–2018	\$239,212	22.5%
	2016–2017	\$234,522	22.5%
Dr. Isra Levy <i>Vice-President, Medical Affairs and Innovation</i>	2017–2018 ⁽²⁾	\$455,000	22.5%
Dr. Dana Devine <i>Vice-President, Medical, Scientific and Research Affairs</i>	2017–2018 ⁽³⁾	\$343,489	22.5%
	2016–2017	\$340,088	22.5%
Watson Gale <i>Vice-President, General Counsel and Corporate Secretary</i>	2017–2018 ⁽⁴⁾	\$296,753	22.5%
	2016–2017	\$293,815	22.5%
Mark Donnison <i>Vice-President, Donor Relations</i>	2017–2018 ⁽⁴⁾	\$237,375	22.5%
	2016–2017	\$237,375	22.5%

(1) Judie Leach Bennett started Sept. 18, 2017. Her base salary and annual allowance were prorated and paid out starting on this date.

(2) Dr. Isra Levy started Jan. 22, 2018. His base salary and annual allowance were prorated and paid out starting on this date.

(3) Dr. Dana Devine left her executive position effective Dec. 31, 2017. Her base salary and annual allowance were prorated and paid up to that date.

(4) Watson Gale and Mark Donnison left the corporation effective Nov. 10, 2017. Their base salaries and annual allowances were prorated and paid up to that date.

Compensation also includes:

- A \$10,000 annual vehicle allowance, with the exception of the chief executive officer, who receives an annual allowance of \$18,000.
- Vacation entitlement: Year 1 — four weeks; Year 2 — five weeks; Year 3 — six weeks.
- Standard benefits package: Executive benefit package covering health, dental, life insurance, long-term disability, defined benefit pension and health-care spending account.

Consolidated Financial Statements of



Year ended March 31, 2018



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INDEPENDENT AUDITORS' REPORT

To the Members of Canadian Blood Services

We have audited the accompanying consolidated financial statements of Canadian Blood Services, which comprise the consolidated statement of financial position as at March 31, 2018, the consolidated statements of operations, changes in net assets and cash flows for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

KPMG LLP is a Canadian limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity. KPMG Canada provides services to KPMG LLP.



We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of Canadian Blood Services as at March 31, 2018 and its consolidated results of operations, consolidated changes in net assets and its consolidated cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

A handwritten signature in black ink that reads 'KPMG LLP' with a horizontal line underneath.

Chartered Professional Accountants, Licensed Public Accountants

Ottawa, Canada

July 30, 2018

Consolidated Statement of Financial Position

As at March 31, 2018, with comparative information for 2017
(In thousands of dollars)

	2018	2017
Assets		
Current assets:		
Cash and cash equivalents (note 3)	\$ 205,856	\$ 127,389
Members' contributions receivable	33,681	62,608
Other amounts receivable	18,336	18,784
Inventory (note 4)	161,948	158,115
Forward currency contracts (note 15)	4,252	–
Prepaid expenses	8,138	9,908
	432,211	376,804
Investments, captive insurance operations (note 5)	461,754	441,419
Capital assets (note 6):		
Land, buildings, software and equipment	229,341	215,650
Right to the blood supply system	18,042	18,922
	247,383	234,572
	\$ 1,141,348	\$ 1,052,795
Liabilities, Deferred Contributions and Net Assets		
Current liabilities:		
Bank indebtedness (note 9)	\$ 14,000	\$ 24,000
Accounts payable and accrued liabilities (note 7)	95,058	76,116
Forward currency contracts (note 15)	–	1,608
Current portion of obligations under capital leases	397	389
	109,455	102,113
Provision for future claims (note 16)	250,000	250,000
Employee future benefit liabilities (note 8)	83,994	82,767
Obligations under capital leases	749	1,108
Deferred contributions (note 10):		
Expenses of future periods	216,743	181,728
Capital assets	223,849	210,686
	440,592	392,414
Net assets (note 11):		
Invested in capital assets	24,171	24,171
Restricted for captive insurance purposes	211,718	191,653
Restricted for fair value of forward currency contracts	4,252	(1,608)
Unrestricted net accumulated surplus	16,417	10,177
	256,558	224,393
Guarantees and contingencies (note 17)		
Commitments (note 18)		
	\$ 1,141,348	\$ 1,052,795

See accompanying notes to the consolidated financial statements.

On behalf of the Board



Mel Cappe, Director and Chair



Wayne Gladstone, Director

Consolidated Statement of Operations

Year ended March 31, 2018, with comparative information for 2017
(In thousands of dollars)

	2018	2017
Revenue:		
Members' contributions	\$ 1,272,406	\$ 1,220,818
Federal contributions	9,830	8,580
Less amounts deferred	(75,869)	(46,609)
	1,206,367	1,182,789
Amortization of previously deferred contributions:		
Relating to capital assets	18,379	18,184
Relating to operations	12,350	17,062
Total contributions recognized as revenue	1,237,096	1,218,035
Stem cells revenue	15,387	12,614
Net investment income (note 12)	15,097	12,760
Other income	1,888	1,671
Total revenue	1,269,468	1,245,080
Expenses:		
Cost of plasma protein products	728,086	678,368
Staff costs	306,161	321,088
General and administrative (note 19)	134,552	130,135
Medical supplies	63,086	65,375
Depreciation and amortization	18,232	17,933
Foreign exchange loss	6,146	20,529
Total expenses	1,256,263	1,233,428
Excess of revenue over expenses before the undernoted	13,205	11,652
Change in fair value of forward currency contracts	5,860	23,415
Change in fair value of investments measured at fair value	6,860	17,009
Excess of revenue over expenses	\$ 25,925	\$ 52,076

See accompanying notes to the consolidated financial statements.

Consolidated Statements of Changes in Net Assets

Year ended March 31, 2018, with comparative information for 2017
(In thousands of dollars)

March 31, 2018	Invested in capital assets	Restricted for fair value of forward currency contracts	Restricted for captive insurance	Unrestricted	Total
Balance, beginning of year (note 11)	\$ 24,171	\$ (1,608)	\$ 191,653	\$ 10,177	\$ 224,393
Excess of revenue over expenses	–	–	20,065	5,860	25,925
Remeasurements and other items related to employee future benefits	–	–	–	6,240	6,240
Release of net asset restriction for realized loss	–	6,268	–	(6,268)	–
Change in fair value of forward currency contracts	–	(408)	–	408	–
Balance, end of year (note 11)	\$ 24,171	\$ 4,252	\$ 211,718	\$ 16,417	\$ 256,558
March 31, 2017	Invested in capital assets	Restricted for fair value of forward currency contracts	Restricted for captive insurance	Unrestricted	Total
Balance, beginning of year (note 11)	\$ 15,281	\$ (25,023)	\$ 162,992	\$ (11,504)	\$ 141,746
Excess of revenue over expenses	–	–	28,661	23,415	52,076
Remeasurements and other items related to employee future benefits	–	–	–	21,681	21,681
Change in investment in capital assets	8,890	–	–	–	8,890
Release of net asset restriction for realized loss	–	20,855	–	(20,855)	–
Change in fair value of forward currency contracts	–	2,560	–	(2,560)	–
Balance, end of year (note 11)	\$ 24,171	\$ (1,608)	\$ 191,653	\$ 10,177	\$ 224,393

See accompanying notes to the consolidated financial statements.

Consolidated Statement of Cash Flows

Year ended March 31, 2018, with comparative information for 2017
(In thousands of dollars)

	2018	2017
Cash and cash equivalents provided by (used for):		
Operating activities:		
Excess of revenue over expenses	\$ 25,925	\$ 52,076
Items not involving cash and cash equivalents:		
Depreciation and amortization of capital assets	18,232	17,933
Amortization of deferred contributions	(30,729)	(35,246)
Loss on sale of capital assets	5	119
Net realized gains on sales of investments, captive insurance operations	(1,497)	(3,381)
Change in fair value of equity investments, captive insurance operations	(6,860)	(17,009)
Interest amortization of bonds, captive insurance operations	(1,790)	1,677
Employee future benefit expenses in excess of cash payments	7,467	9,467
Change in fair value of forward currency contracts	(5,860)	(23,415)
	4,893	2,221
Change in non-cash operating working capital:		
Decrease in Members' contributions receivable	28,927	9,955
Decrease in other amounts receivable	448	287
Increase in inventory	(3,833)	(21,055)
Decrease (increase) in prepaid expenses	1,770	(785)
Increase (decrease) in accounts payable and accrued liabilities	14,958	(22,793)
Deferred contributions received for expenses of future periods	47,365	12,838
Total operating activities	94,528	(19,332)
Investing activities:		
Proceeds on sale of investments, captive insurance operations	165,244	142,786
Purchases of investments, captive insurance operations	(175,432)	(151,830)
Proceeds on sale of capital assets	142	132
Purchases of capital assets	(27,206)	(32,121)
Total investing activities	(37,252)	(41,033)
Financing activities:		
(Repayment) proceeds from bank indebtedness	(10,000)	24,000
Contribution received for the purchase of land	-	8,890
Deferred contributions received related to capital assets	31,542	25,316
Repayment of obligations under capital leases	(351)	(336)
Total financing activities	21,191	57,870
Increase (decrease) in cash and cash equivalents	78,467	(2,495)
Cash and cash equivalents, beginning of year	127,389	129,884
Cash and cash equivalents, end of year	\$ 205,856	\$ 127,389
<i>Cash and cash equivalents are comprised of:</i>		
Cash on deposit	\$ 205,670	\$ 127,173
Butterfield Asset Management Money Market Fund	-	32
HSBC Money Market Pooled Fund	186	184
	\$ 205,856	\$ 127,389

See accompanying notes to the consolidated financial statements.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

1. Nature of the organization and operations:

Canadian Blood Services/Société canadienne du sang (Canadian Blood Services) owns and operates the national blood supply system for Canada, except Québec, and is responsible for the collection, testing, processing and distribution of blood and blood products, including red blood cells, platelets, cord blood, and plasma protein products, as well as the recruitment and management of blood donors. In addition the Corporation provides the following services: (i) developing and managing donor registries for stem cells, cord blood stem cells and organs, (ii) providing diagnostic services for patients and hospitals across Western Canada and some parts of Ontario, (iii) supporting policy and leading practice development, professional education and public awareness over transfusion practices and organ and tissue donation and transplantation, and (iv) conducting and supporting research in transfusion science, medicine, cellular therapies and organ and tissue transplantations.

The Corporation was incorporated on February 16, 1998, under Part II of the Canada Corporations Act. Effective May 7, 2014, the Corporation transitioned its incorporation to the Canada Not-for-Profit Corporations Act. It is a corporation without share capital and qualifies for tax-exempt status as a registered charity under the Income Tax Act (Canada). The Members of the Corporation are the Ministers of Health of the Provinces and Territories of Canada, except Québec. The Members, as well as the Federal and Quebec governments provide contributions to fund the operations of the Corporation. The Corporation operates in a regulated environment, pursuant to the requirements of Health Canada.

The Corporation has established two wholly-owned captive insurance corporations; CBS Insurance Company Limited (CBSI) and Canadian Blood Services Captive Insurance Company Limited/Compagnie d'assurance captive de la société canadienne du sang limitée (CBSE). CBSI was incorporated under the laws of Bermuda on September 15, 1998, and is licensed as a Class 3 reinsurer under the Insurance Act, 1978 of Bermuda and related regulations. CBSE was incorporated under the laws of British Columbia on May 4, 2006, and is registered under the Insurance (Captive Company) Act of British Columbia.

2. Basis of presentation and significant accounting policies:

Significant accounting policies:

The consolidated financial statements have been prepared by management in accordance with Canadian accounting standards for not-for-profit organizations in Part III of the CPA Canada Handbook – Accounting.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018

(In thousands of dollars)

2. Basis of presentation and significant accounting policies (continued):

Significant accounting policies (continued):

A summary of the significant accounting policies used in these consolidated financial statements are set out below. The accounting policies have been applied consistently to all periods presented.

(a) Consolidation:

The consolidated financial statements include the results of the operations of Canadian Blood Services and the accounts of its wholly-owned captive insurance subsidiaries (the Corporation).

(b) Use of estimates:

The preparation of the consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses in the consolidated financial statements. Estimates and assumptions may also affect disclosure of contingent assets and liabilities at the date of the consolidated financial statements. Actual results could differ from these estimates. Significant estimates include assumptions used in measuring pension and other post-employment benefits and the provision for future insurance claims, which are described in more detail in notes 8 and 16, respectively.

(c) Revenue recognition:

The Corporation follows the deferral method of accounting for contributions for not-for-profit organizations.

Members' and Federal contributions are recorded as revenue in the period to which they relate. Amounts approved but not received by the end of an accounting period are accrued. Where a portion of a contribution relates to a future period, it is deferred and recognized in the subsequent period.

Externally restricted contributions are recognized as revenue in the year in which the related expenses are recognized. Contributions restricted for the purchase of capital assets other than land are initially deferred and then amortized to revenue on a straight-line basis, at a rate corresponding with the depreciation rate for the related capital asset. Contributions restricted for the purchase of land are recognized as direct increases in net assets invested in capital assets.

Unrestricted funding is recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.

Restricted investment income is recognized as revenue in the year in which the related expenses are recognized. Unrestricted investment income is recognized as revenue when earned.

Revenue from fees and contracts is recognized when the services are provided or the goods are distributed.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

2. Basis of presentation and significant accounting policies (continued):

Significant accounting policies (continued):

(c) Revenue recognition (continued):

Restricted donations are recognized as revenue in the year in which the related expenses are recognized. Unrestricted donations are recognized as revenue in the year received.

(d) Donated goods and services:

The Corporation does not pay donors for whole blood, plasma, platelets or cord donations. Additionally, a substantial number of volunteers contribute a significant amount of time each year in support of the activities of the Corporation. The value of such contributed goods and services is not quantified in the financial statements.

(e) Inventory:

Inventory of the Corporation consists of plasma protein products, fresh blood components, cord blood and supplies related to the collection, manufacturing and testing of fresh blood components.

Inventory is measured at the lower of cost and current replacement cost. Cost for plasma protein products and supplies inventories is measured at average cost. Cost for fresh blood components and cord blood inventory includes an appropriate portion of direct costs and overhead incurred in the collection, manufacturing, testing and distribution processes.

Plasma protein products, cord blood and fresh blood components inventory is charged to the statement of operations upon distribution to hospitals.

Management regularly performs reviews and when necessary, writes off slow moving or obsolete inventory.

(f) Capital assets:

Purchased capital assets are recorded at cost. Contributed capital assets are recorded at fair value at the date of contribution. Assets acquired under capital leases are amortized over the estimated life of the assets or over the lease term, as appropriate. Repairs and maintenance costs are expensed. Betterments, which extend the estimated life of an asset, are capitalized. When capital assets no longer contribute to the Corporation's ability to provide services, their carrying amount is written down to their residual value.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

2. Basis of presentation and significant accounting policies (continued):

Significant accounting policies (continued):

(f) Capital assets (continued):

Capital assets are reviewed for impairment whenever events or changes in circumstances indicate that the asset no longer has any long-term service potential to the Corporation. In this event, recoverability of assets held and used is measured by reviewing the estimated residual value of the asset. If the carrying amount of an asset exceeds its estimated residual value, an impairment charge is recognized by the amount by which the carrying amount of the asset exceeds the residual value of the asset. When a capital asset is written down, the corresponding amount of any unamortized deferred contributions related to the capital asset would be recognized as revenue, provided that the Corporation is in compliance with all restrictions.

Depreciation is recorded on a straight-line basis over the estimated useful lives of the assets at the rates indicated below:

Asset	Useful life
Buildings	40 to 65 years
Machinery and equipment	8 to 25 years
Furniture and office equipment	5 to 10 years
Motor vehicles	8 years
Computer equipment	3 years
Computer software	2 to 5 years

Leasehold improvements are depreciated on a straight-line basis over the shorter of the lease term or their estimated useful lives. Assets under construction are not depreciated until they are available for use by the Corporation.

The right to the blood supply system represents the excess of the purchase price of the system over the fair value of the tangible net assets acquired in 1998, and is being amortized on a straight-line basis over 40 years.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

2. Basis of presentation and significant accounting policies (continued):

Significant accounting policies (continued):

(g) Foreign currency transactions:

Foreign currency transactions of the Corporation are translated using the temporal method. Under this method, transactions are initially recorded at the rate of exchange prevailing at the date of the transaction. Thereafter, monetary assets and liabilities are adjusted to reflect the exchange rates in effect at the consolidated statement of financial position date. Gains and losses resulting from the adjustment are included in the consolidated statement of operations.

(h) Employee future benefits:

The Corporation sponsors two defined benefit plans, one for employees and the other for executives. In addition, the Corporation sponsors a defined contribution pension plan and provides other retirement and post-employment benefits to eligible employees. Benefits provided under the defined benefit pension plans are based on a member's term of service and average earnings over a member's five highest consecutive annualized earnings.

The Corporation accrues its obligations under employee benefit plans as the employees render the services necessary to earn pension and other retirement and post-employment benefits

The defined benefit obligations for pensions and other retirement and post-employment benefits earned by employees is actuarially determined using the projected benefit method pro-rated on service and management's best estimate assumptions including discount rate, inflation rate, salary escalation, retirement ages and expected health care costs. The measurement date of the plan assets and defined benefit obligation coincides with the Corporation's fiscal year. The most recent actuarial valuations for the two benefit pension plans for funding purposes were as of December 31, 2016 and January 1, 2017. The next required valuation for the employee benefit plan is in progress and will be dated as of December 31, 2017. The next required valuation for the executives will be dated as of January 1, 2020 respectively. The most recent actuarial valuation of the other retirement and post-employment benefits was as of April 1, 2015 and the next valuation will be as of April 1, 2018.

Plan assets are measured at fair value as at year end.

The defined benefit pension plan for employees is jointly sponsored by the employer and participating unions. To reflect the risk-sharing provisions of this plan, the Corporation recognizes the 50 percent of the defined benefit liability or asset that accrues to the employer.

The Corporation also has a defined contribution plan providing pension benefits. The cost of the defined contribution plan is recognized based on the contributions required to be made during each period.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

2. Basis of presentation and significant accounting policies (continued):

Significant accounting policies (continued):

(i) Financial Instruments:

Upon initial recognition, financial instruments are measured at their fair value. Financial assets and financial liabilities are recognized initially on the trade date, which is the date that the Corporation becomes a party to the contractual provisions of the instrument.

Fixed income securities and short-term notes are measured on the consolidated statement of financial position at amortized cost. Interest income is recognized on the accrual basis and includes the amortization of premiums or discounts on fixed interest securities purchased at amounts different from their par value.

Mortgage funds and pooled funds are measured at fair value with changes in fair value recorded directly in the consolidated statement of operations. Dividends and distributions are recorded as income when declared.

Forward currency contracts not in a qualifying hedging relationship are measured at fair value with changes in fair value recorded directly in the consolidated statement of operations. A forward currency contract designated in a hedging relationship is not recognized until the earlier of the date it matures and the date of the anticipated transaction (the hedged item). The hedged item is recognized initially at the amount of consideration payable based on the prevailing foreign exchange rate on the date of goods or service receipts. At this time, any gain or loss on the forward currency contract is recognized as an adjustment of the carrying value amount of the hedged item when the anticipated transaction results in the recognition of an asset or a liability. When the hedged items are recognized directly in the consolidated statement of operations, the gain or loss on the forward currency contract is included in the same expense or revenue category.

All other financial instruments are subsequently measured at cost or amortized cost.

Transaction costs incurred on the acquisition of financial instruments measured subsequently at fair value are expensed as incurred. All other financial instruments are adjusted by transaction costs incurred on acquisition and financing cost, which are amortized using the effective interest rate method.

Transaction costs are comprised primarily of legal, accounting, underwriters' fees and other costs directly attributable to the acquisition, issuance or disposal of a financial asset or financial liability.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018

(In thousands of dollars)

2. Basis of presentation and significant accounting policies (continued):

Significant accounting policies (continued):

(i) Financial Instruments (*continued*):

Financial assets measured at cost or amortized cost are assessed for indicators of impairment on an annual basis at the end of the fiscal year. If there is an indicator of impairment, the Corporation determines if there is a significant adverse change in the expected amount or timing of future cash flows from the financial asset. If there is a significant adverse change in the expected cash flows, the carrying value of the financial asset is reduced to the higher of the present value of the expected cash flows, the amount that could be realized from selling the financial asset or the amount the Corporation expects to realize by exercising its right to any collateral. If events and circumstances reverse in a future period, an impairment loss will be reversed to the extent of the improvement, not exceeding the initial carrying value.

3. Cash and cash equivalents:

Cash and cash equivalents include deposits with financial institutions that can be withdrawn without prior notice or penalty and units held in money market funds.

Cash and cash equivalents include \$361 (2017 - \$621) that is restricted for captive insurance operations. Cash and cash equivalents also includes Members' contributions received in advance for expenses of future periods (note 10(a)).

4. Inventory:

Inventory consists of raw materials, work in process and finished goods. Raw materials include supplies available for use in the collection, manufacturing and testing of fresh blood components. Work in process consists of plasma for fractionation. Finished goods include plasma protein products, red blood cells, platelets and plasma for transfusion and cord blood inventory that are available for distribution to hospitals. Work in process and finished goods inventories include direct costs and overhead incurred in the collection, manufacturing, testing and distribution process.

Inventory comprises:

	2018	2017
Raw materials	\$ 6,122	\$ 5,739
Work-in-process	20,352	24,266
Finished goods	135,474	128,110
	\$ 161,948	\$ 158,115

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

5. Investments, captive insurance operations:

All investments are restricted for captive insurance operations. The amortized cost and fair value of investments are as follows:

	2018	2017
<i>Measured at amortized cost:</i>		
Short-term notes	\$ 1,921	\$ 2,648
Fixed income securities	263,548	251,858
<i>Measured at fair value:</i>		
Mortgage funds	28,602	26,114
Pooled funds	167,683	160,799
	\$ 461,754	\$ 441,419

6. Capital assets:

			2018	2017
	Cost	Accumulated depreciation	Net book value	Net book value
Buildings	\$ 182,200	\$ 54,393	\$ 127,807	\$ 117,020
Machinery and equipment	100,663	76,488	24,175	24,396
Land	24,171	–	24,171	24,171
Furniture and office equipment	29,450	21,503	7,947	8,295
Leasehold improvements	26,387	18,640	7,747	6,260
Computer equipment	51,503	47,141	4,362	3,913
Motor vehicles	17,346	10,005	7,341	7,735
Computer software	36,005	34,194	1,811	1,331
Equipment under capital leases	5,092	3,792	1,300	1,605
Assets under construction	22,680	–	22,680	20,924
	495,497	266,156	229,341	215,650
Right to the blood supply system	35,203	17,161	18,042	18,922
	\$ 530,700	\$ 283,317	\$ 247,383	\$ 234,572

During the current year, capital assets of \$Nil (2017 - \$1,220) were acquired by means of capital leases. Cash payments of \$27,206 (2017 - \$32,121) were made to acquire capital assets.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018

(In thousands of dollars)

7. Accounts payable and accrued liabilities:

Included in accounts payable and accrued liabilities are government remittances payable of \$3,296 (2017 - \$3,369) which include amounts payable for sales and payroll taxes.

8. Employee future benefits:

The Corporation sponsors two defined benefit pension plans, one for employees and the other for executives. In addition, the Corporation sponsors a defined contribution pension plan and provides other retirement and post-employment benefits to eligible employees.

(a) Defined benefit pension plans:

Information about the Corporation's defined benefit plans are combined and summarized as follows:

	2018	2017
Defined benefit obligation	\$ 500,735	\$ 470,901
Fair value of plan assets	417,056	381,761
Defined benefit liability before adjustment for risk sharing provisions	83,679	89,140
Adjustment for risk sharing provisions	40,170	43,123
Defined benefit liability	\$ 43,509	\$ 46,017

The defined pension benefit liability is included in the employee future benefit liability in the consolidated statement of financial position

The significant actuarial assumptions adopted in measuring the Corporation's defined benefit plans, defined benefit obligation and benefit cost are summarized as follows:

	2018	2017
<i>Defined benefit obligation:</i>		
Discount rate	3.60%	3.80%
Inflation rate	2.00%	2.00%
Rate of compensation increases	2.00% - 3.25%	2.00 - 3.50%
Mortality Table	CPM 2014-B, CPM 2014Publ-B	CPM 2014-B
<i>Benefit cost:</i>		
Discount rate	3.80%	3.90%
Rate of compensation increases	2.00% - 3.50%	3.50 - 3.75%

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

8. Employee future benefits (continued):

(a) Defined benefit pension plans (continued):

Other information about the Corporation's defined benefit plans is combined and summarized as follows:

	2018	2017
Employer contributions	\$ 13,091	\$ 13,454
Employee contributions	8,341	8,928
Benefits paid	16,062	16,337
Net expense	17,986	20,389
Remeasurement gain	(7,403)	(21,258)

(b) Defined contribution plan:

The expense for the Corporation's defined contribution pension plan was \$4,048 (2017 - \$4,240).

(c) Other retirement and post-employment benefits:

Information about the Corporation's other retirement and post-employment benefits is as follows:

	2018	2017
Benefits paid	\$ 1,471	\$ 1,418
Net expense	4,043	3,950
Remeasurement loss (gain)	1,562	(423)
Past service cost (credit)	(399)	-
Defined benefit liability	40,485	36,750

The defined benefit liability is included in the employee future benefits liability in the consolidated statement of financial position.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

8. Employee future benefits (continued):

(c) Other retirement and post-employment benefits (continued):

The significant actuarial assumptions adopted in measuring the Corporation's other retirement and post-employment defined benefit obligation and benefit cost are as follows:

	2018	2017
<i>Defined benefit obligation:</i>		
Discount rate	3.30% - 3.70%	3.20 - 3.90%
Rate of compensation increases	2.00% - 3.25%	3.50%
Mortality Table	CPM 2014-B, CPM 2014Publ-B	CPM 2014-B
<i>Benefit cost:</i>		
Discount rate	3.20% - 3.90%	3.50 - 4.00%
Rate of compensation increases	3.50%	3.75%

Hospital costs - 4.50% per annum;

Drug costs - 6.87% per annum in 2018, grading down to 4.50% per annum in and after 2029;

Other health costs - 4.50% per annum.

Termination benefits have been recognized in accounts payable and accrued liabilities on the consolidated statement of financial position and in staff costs in the consolidated statement of operations. At March 31, 2018, \$6,572 (2017 - \$9,046) is accrued for termination benefits on the consolidated statement of financial position. During the year ended March 31, 2018, movements relating to the accrual included payments of \$5,481 (2017 - \$5,923), a reversal to opening accrual of \$1,684 (2017 - \$30) and the establishment of new termination benefits of \$4,691 (2017 - \$8,166).

9. Credit facilities:

(a) Demand operating credit:

This facility has been arranged as an operating line of credit in the amount of \$100,000, and is secured by the plasma protein products inventory. At March 31, 2018, \$14,000 (2017 - \$24,000) was outstanding under the facility.

(b) Demand installment loan:

A demand installment loan in the amount of \$25,000 (2017 - \$25,000) was arranged to cover contingencies or events not anticipated in the annual budget. Through March 31, 2018, no amounts had been borrowed under this facility.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018

(In thousands of dollars)

9. Credit facilities (continued):

(c) Standby letter of credit:

Standby letters of credit in the amount of \$2,000 (2017 - \$2,000) were arranged to cover municipal requirements with regard to the redevelopment of the Corporation's facilities. At March 31, 2018, \$82 (2017 - \$82) had been issued under the facility.

Pursuant to the arrangements above, the Corporation has provided a general security agreement in favour of the bank over receivables, inventory, equipment and machinery, a floating charge debenture over all present and future assets and property. Amounts deferred for contingency purposes are excluded from the general security agreement and debenture.

(d) Operating loan:

The Corporation has entered into two credit facilities to finance a portion of the national facilities redevelopment program phase IIa (NFRP IIa) focused in Alberta and Saskatchewan. The first facility is an \$85,000 term loan that converts to a second facility at the completion of the project. The second facility is a committed term loan to a maximum of \$55,300. The credit facilities are secured by first ranking on the NFRP IIa assets and any member funding received under the NFRP IIa program. Through March 31, 2018, no amounts had been borrowed under these credit facilities.

10. Deferred contributions:

(a) Expenses of future periods:

Deferred contributions represent externally restricted contributions to fund expenses of future periods.

	2018	2017
Balance, beginning of year	\$ 181,728	\$ 185,951
Increase in amounts received related to future periods	64,329	34,766
Less amounts recognized as revenue in the year	(12,350)	(17,062)
Less capital assets purchased from deferred contributions	(17,547)	(22,508)
Add income earned on resources restricted for contingency	302	223
Add income earned on other restricted resources	281	358
	\$ 216,743	\$ 181,728

Notes to the Consolidated Financial Statements

Year ended March 31, 2018

(In thousands of dollars)

10. Deferred contributions (continued):

(a) Expenses of future periods (continued):

The capital assets purchased represent purchases from contributions that were deferred at March 31, 2017, as well as contributions received and deferred in the year ending March 31, 2018.

At March 31, deferred contributions comprise:

	2018	2017
Members' funding received in advance	\$ 44,661	\$ 32,858
Deferred contributions restricted for specific projects or programs:		
<i>Fundraising:</i>		
Campaign for all Canadians	204	617
Other	523	1,397
<i>Programs - Members funding:</i>		
National facilities redevelopment program	49,100	23,760
Diagnostic services - Manitoba	751	753
<i>Inventory:</i>		
Plasma protein products inventory working capital	47,653	47,653
Medical supplies	6,123	5,740
Fresh blood components inventory	22,666	23,242
<i>Projects:</i>		
Digitization	8,134	8,160
Laboratory Information System - Manitoba	1,345	1,483
<i>Other:</i>		
Prepaid rent	2,306	3,075
Research and development	12,570	12,585
Contingency	20,707	20,405
	\$ 216,743	\$ 181,728

Notes to the Consolidated Financial Statements

Year ended March 31, 2018

(In thousands of dollars)

10. Deferred contributions (continued):

(b) Capital assets:

Funds received to acquire capital assets are recorded as deferred contributions - capital assets on the consolidated statement of financial position. They are amortized to revenue in the consolidated statement of operations at the same rate as capital assets are depreciated to expenses.

	2018	2017
Balance, beginning of year	\$ 210,686	\$ 203,555
Deferred contributions received	31,191	24,979
Capital funding received for leased assets	351	336
Less capital assets sold	(147)	(251)
Less amounts amortized to revenue	(18,232)	(17,933)
	<u>\$ 223,849</u>	<u>\$ 210,686</u>

11. Net assets:

Net assets restricted for captive insurance purposes are subject to externally imposed restrictions stipulating that they be used to provide insurance coverage with respect to risks associated with the operations of the Corporation.

Net assets restricted for forward contracts are subject to internally imposed restrictions on the unrealized fair value of the forward currency contracts not in a qualifying hedging relationship. This restriction will be released once the forward currency contracts mature.

12. Net investment income:

	2018	2017
Interest income on unrestricted funds	\$ 1,672	\$ 874
Net investment income earned on investments restricted for captive insurance	13,425	11,886
Interest income on restricted resources	330	510
	<u>15,427</u>	<u>13,270</u>
Less amounts deferred	(330)	(510)
	<u>\$ 15,097</u>	<u>\$ 12,760</u>

Included in net investment income earned on investments restricted for captive insurance is \$12,714 (2017 - \$9,259) of investment income, \$1,496 (2017 - \$3,381) of realized gains on sales of investments, and \$785 (2017 - \$754) of investment management fees.



Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

13. Canadian Blood Services revenue and expenditures detail:

	Fresh Blood Products and NFRP ⁽¹⁾		Plasma Protein Products		Diagnostic Services		Stem Cells		Organs and Tissues		Total Canadian Blood Services		Captive Insurance Operations		Intercompany Transactions		Total Consolidated		
	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	
Revenue:																			
Members' contributions	\$ 465,431	\$ 475,480	\$ 767,744	\$ 705,150	\$ 17,448	\$ 17,774	\$ 18,203	\$ 18,824	\$ 3,580	\$ 3,580	\$ 1,272,406	\$ 1,220,818	\$ -	\$ -	\$ -	\$ -	\$ 1,272,406	\$ 1,220,818	
Federal contributions	6,250	5,000	-	-	-	-	-	-	3,580	3,580	9,830	8,580	-	-	-	-	9,830	8,580	
Less amounts deferred	(70,819)	(41,894)	-	-	(293)	(165)	(1,131)	(970)	(3,027)	(3,580)	(75,869)	(46,609)	-	-	-	-	(75,869)	(46,609)	
Amortization of previously deferred contributions:	400,863	438,596	767,744	705,150	17,155	17,609	17,072	17,854	3,533	3,580	1,206,367	1,182,789	-	-	-	-	1,206,367	1,182,789	
Relating to capital assets	18,379	18,184	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Relating to operations	7,310	10,976	-	-	-	-	1,470	2,466	3,570	3,650	18,379	18,184	-	-	-	-	18,379	18,184	
Total contributions recognized as revenue	426,552	467,756	767,744	705,150	17,155	17,609	18,542	20,320	7,103	7,200	1,237,096	1,218,035	-	-	-	-	1,237,096	1,218,035	
Gross premiums written and earned	-	-	-	-	-	-	-	-	-	-	-	-	-	947	856	-	-	-	-
Stem cells revenue	-	-	-	-	-	-	15,387	12,614	-	-	15,387	12,614	-	-	-	(947)	15,387	12,614	
Net investment income (note 12)	1,672	874	-	-	-	-	-	-	-	-	1,672	874	-	-	-	-	1,672	874	
Other income (loss)	815	627	213	192	-	-	(5)	7	865	845	1,888	1,671	-	-	-	-	1,888	1,671	
Total revenue	429,039	468,257	767,957	705,342	17,155	17,609	33,924	32,941	7,968	8,045	1,256,043	1,233,194	14,372	12,742	(947)	1,269,468	1,245,080		
Expenses:																			
Cost of plasma protein products	-	-	728,066	678,368	-	-	-	-	-	-	728,066	678,368	-	-	-	-	728,066	678,368	
Staff costs	273,704	288,722	1,999	1,787	13,509	13,910	11,404	11,753	5,545	4,916	306,161	321,088	-	-	-	306,161	321,088		
General and administrative (note 19)	107,054	104,894	4,435	3,734	696	617	19,724	17,527	2,423	3,129	134,332	129,901	1,167	1,090	(947)	134,552	130,135		
Transfer of recovered plasma costs	(26,400)	-	26,400	-	-	-	2,864	3,755	-	-	63,086	65,375	-	-	-	63,086	65,375		
Medical supplies	56,503	57,765	769	773	2,950	3,062	-	-	-	-	18,232	17,933	-	-	-	18,232	17,933		
Depreciation and amortization	18,232	17,933	6,268	20,680	-	-	(68)	(94)	-	-	6,146	20,529	-	-	-	6,146	20,529		
Foreign exchange loss (gain)	(54)	(57)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total expenses	429,039	468,257	767,957	705,342	17,155	17,609	33,924	32,941	7,968	8,045	1,256,043	1,233,194	1,167	1,090	(947)	1,256,263	1,233,428		
Excess of revenue over expenses before the undernoted	-	-	-	-	-	-	-	-	-	-	-	-	13,205	11,652	-	-	13,205	11,652	
Change in cumulative fair value of forward currency contracts	-	-	5,860	23,415	-	-	-	-	-	-	5,860	23,415	-	-	-	-	5,860	23,415	
Change in fair value of investments measured at fair value	-	-	-	-	-	-	-	-	-	-	-	-	6,860	17,009	-	-	6,860	17,009	
Excess of revenue over expenses	-	-	5,860	23,415	-	-	-	-	-	-	5,860	23,415	20,065	28,661	-	-	25,925	52,076	

(1) National facilities redevelopment program

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

14. Fresh blood products and national facilities redevelopment program details:

	Fresh Blood Products		National Facilities Redevelopment Program		Total	
	2018	2017	2018	2017	2018	2017
Revenue:						
Members' contributions	\$ 418,407	\$ 447,357	\$ 47,024	\$ 28,133	\$ 465,431	\$ 475,490
Federal contributions	6,250	5,000	–	–	6,250	5,000
Less amounts deferred	(23,794)	(13,761)	(47,024)	(28,133)	(70,818)	(41,894)
	400,863	438,596	–	–	400,863	438,596
Amortization of previously deferred contributions						
Relating to capital assets	18,379	18,184	–	–	18,379	18,184
Relating to operations	3,008	8,310	4,302	2,666	7,310	10,976
Total contributions recognized as revenue	422,250	465,090	4,302	2,666	426,552	467,756
Net investment income (note 12)	1,224	657	448	217	1,672	874
Other income	815	627	–	–	815	627
Total revenue	424,289	466,374	4,750	2,883	429,039	469,257
Expenses:						
Staff costs	271,365	287,161	2,339	1,561	273,704	288,722
General and administrative (note 19)	104,644	103,573	2,410	1,321	107,054	104,894
Transfer of recovered plasma costs	(26,400)	–	–	–	(26,400)	–
Medical supplies	56,502	57,764	1	1	56,503	57,765
Depreciation and amortization	18,232	17,933	–	–	18,232	17,933
Foreign exchange gain	(54)	(57)	–	–	(54)	(57)
Total expenses	424,289	466,374	4,750	2,883	429,039	469,257
Excess of revenue over expenses	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –

15. Financial instruments:

Risk management:

The Board of Directors has responsibility for the review and oversight of the Corporation's risk management framework and general corporate risk profile. Through its committees, the Board oversees analysis of various risks facing the organization that evolve in response to economic conditions and industry circumstances.

The Corporation's financial instruments consist of cash and cash equivalents, members' contributions receivable, other amounts receivable, investments, bank indebtedness, accounts payable and accrued liabilities, and forward currency contracts.

The Corporation is exposed to risks as a result of holding financial instruments. The Corporation does not enter into transactions involving financial instruments, including derivative financial instruments such as forward currency contracts, for speculative purposes. The following is a description of those risks and how they are managed.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018

(In thousands of dollars)

15. Financial instruments (continued):

Risk management (continued):

(i) *Market risk:*

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises three types of risk: interest rate risk, foreign exchange risk and other price risk. These risks are discussed below:

Interest rate risk:

Interest rate risk pertains to the effect of changes in market interest rates on the future cash flows related to the Corporation's existing financial assets and liabilities.

The Corporation is exposed to interest rate risk on its cash and cash equivalents and investments. At March 31, 2018, this exposure was minimal due to low prevailing rates of return and due to majority of fixed income investments having fixed rates.

Foreign exchange risk:

Foreign exchange risk is the risk that the value or future cash flows of financial instruments will fluctuate as a result of changes in foreign exchange rates. The Corporation is exposed to foreign exchange risk on purchases that are denominated in currencies other than the functional currency of the Corporation. To mitigate this risk, the Corporation has a formal foreign currency policy in place. The objective of this policy is to monitor the marketplace and, when considered appropriate, fix exchange rates using forward contracts to reduce the risk exposures related to purchases made in foreign currencies. Generally, forward currency contracts are for periods not in excess of eighteen months.

At March 31, the Corporation had the following instruments denominated in U.S. dollar (USD):

	2018 CDN		2017 CDN	
	Carrying value	Fair value	Carrying value	Fair value
Financial assets:				
Cash	\$ 4,995	\$ 4,995	\$ 1,443	\$ 1,443
Accounts receivable	53	53	53	53
Financial liabilities:				
Accounts payable and accrued liabilities	(13,815)	(13,815)	(6,645)	(6,645)
Forward currency contract assets (liabilities):				
Designated as hedges	–	10,084	–	(3,766)
Not designated as hedges	4,252	4,252	(1,608)	(1,608)

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

15. Financial instruments (continued):

(i) *Market risk (continued):*

Foreign exchange risk (continued):

During the years ended March 31, 2018 and 2017, the Corporation entered into forward currency contracts to hedge its foreign exchange exposure on a substantial portion of its USD purchases of plasma protein products. The contracts are intended to match the timing of the anticipated future payments in foreign currencies.

The Corporation designated USD \$228,912 of the 2018-2019 forward currency contracts as being in a hedging relationship with the equivalent amount of the 2018-2019 future forecasted plasma protein product payments. Hedge accounting has been applied in accordance with CPA Canada Handbook – Accounting, Section 3856, as these hedges are considered to be effective. The forward currency contracts designated as hedges mature monthly from April 2018 through to March 2019, at an average rate of 1.24. The USD purchased under the hedging forward currency contracts will be used to pay USD \$19,076 per month of USD plasma protein product purchases, creating a net cost for these products that fixes the foreign exchange rate to 1.24.

The remaining forward currency contracts were not designated as hedges of anticipated transactions and, accordingly, hedge accounting was not applied.

The forward currency contracts included on the consolidated statement of financial position represent forward currency contracts that have not been designated in a hedging relationship. These forward currency contracts are recorded at fair value. The fair value of the forward currency contracts is determined using a quote from its forward exchange dealers. At March 31, 2018, the contracts fix the currency rate at 1.24 (2017 - 1.34) on USD \$98,100 (2017 - USD \$116,100) notional amount and one twelfth of the forward currency contracts mature monthly from April 2018 through March 2019.

In addition to operational foreign exchange risk, investments held by CBS Insurance Company Limited denominated in currencies other than the Canadian dollar expose the Corporation to fluctuations in foreign exchange rates. Fluctuations in the relative value of foreign currencies against the Canadian dollar can result in a significant impact on the fair value of investments. The Corporation's exposure to foreign currency arises from its investment of \$111,063 in pooled funds which hold international equities and global fixed income of which \$105,978 is denominated in foreign currencies.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

15. Financial instruments (continued):

Risk management (continued):

(i) *Market risk (continued):*

Other price risk:

Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk or foreign exchange risk), whether those changes are caused by factors specific to the individual financial instrument or its issues, or factors affecting similar financial instruments traded in the market.

The Corporation is exposed to other price risk on its mortgage funds and pooled funds due to changes in general economic or stock market conditions, and specific price risk which refers to equity price volatility that is determined by entity specific characteristics. These risks affect the carrying value of these securities and the level and timing of recognition of gains and losses on securities held, causing changes in realized and unrealized gains and losses. The Corporation mitigates price risk by holding a diversified portfolio. The portfolio is managed through the use of third party investment managers and their performance is monitored by management and the Board of Directors of the captive insurance operations.

(ii) *Credit risk:*

The Corporation is exposed to the risk of financial loss resulting from the potential inability of a counterparty to a financial instrument to meet its contractual obligations. The carrying amount of cash and cash equivalents, Members' contributions receivable and other amounts receivable, and investments, captive insurance operations represent the maximum exposure of the Corporation to credit risk.

Cash and cash equivalents are held with a Canadian financial institution rated by Standard & Poor's credit rating as A+ with a negative outlook. All foreign exchange contracts must be transacted with Schedule I or Schedule II financial institutions as per the Corporation's foreign currency policy.

The Corporation is also exposed to credit risk on fixed income securities investments. The investment policy requires an average credit rating of 'A' on the credit quality of its fixed income portfolio, related to captive insurance operations.

Members' contributions receivable are current in nature and management considers there to be minimal exposure to credit risk from Members due to funding agreements in place and third party Member credit ratings. Standard & Poor's available credit ratings for Members range from A credit watch stable to AAA credit watch stable.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018

(In thousands of dollars)

15. Financial instruments (continued):

Risk management (continued):

(ii) Credit risk (continued):

Credit risk associated with other amounts receivable is considered to be minimal, based on past experience with bad debts, as these accounts represent a small portion of the total amounts receivable by the Corporation. The carrying amount of amounts receivable for these parties represents the Corporation's maximum exposure to credit risk.

(iii) Liquidity risk:

Liquidity risk is the risk that the Corporation will not be able to meet its financial obligations as they fall due. The Corporation's approach to managing liquidity is to evaluate current and expected liquidity requirements to ensure that it maintains sufficient reserves of cash and cash equivalents. In addition, the Corporation has credit facilities described in note 9 that it can draw on as required.

At March 31, 2018, the Corporation's accounts payable and accrued liabilities and forward currency contracts are all due within one year.

The provision for future claims has no contractual maturity and the timing of settlement will depend on actual claims experience in the future.

The liabilities for employee future benefits are generally long-term in nature and fall due as eligible employees in the Corporation's defined benefit pension plans retire or terminate employment with the Corporation.

16. Captive insurance operations:

The Corporation has established two wholly-owned captive insurance subsidiaries, CBS Insurance Company Limited (CBSI) and Canadian Blood Services Captive Insurance Company Limited/ Compagnie d'assurance captive de la société canadienne du sang limitée (CBSE). CBSI provides insurance coverage up to \$250,000 with respect to risks associated with the operation of the blood system. CBSE has entered into an arrangement whereby the Members have agreed to indemnify CBSE for all amounts payable by CBSE under the terms of the excess policy up to \$750,000, which is in excess of the \$250,000 provided by CBSI. No payment shall be made under CBSE until the limit of the liability under the primary policy in CBSI, in the amount of \$250,000, has been exhausted. As a result, Canadian Blood Services has \$1,000,000 total in coverage.

The provision for future claims is an actuarially based estimate of the cost to the Corporation of settling claims relating to insured events (both reported and unreported) that have occurred to March 31, 2018.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

16. Captive insurance operations (continued):

A significant proportion of both the future claims expense for the period and the related cumulative estimated liability of the Corporation for these future claims at March 31, 2018, of \$250,000 (2017 - \$250,000) covers the manifestation of blood diseases, which is inherently difficult to assess and quantify. There is a variance between these recorded amounts and other reasonably possible estimates.

17. Guarantees and contingencies:

(a) Guarantees:

In the normal course of business, the Corporation enters into lease agreements for facilities and assets acquired under capital leases. In the Corporation's standard commercial lease for facilities the Corporation, as the lessee, agrees to indemnify the lessor and other related third parties for liabilities that may arise from the use of the leased premises where the event triggering liability results from a breach of a covenant, any wrongful act, neglect or default on the part of the tenant or related third parties. However, this clause may be altered through negotiation. In the Corporation's assets acquired under capital leases both the lessee and the lessor agree to indemnify each other for death or injury to the employees or agents of either party, where the event triggering liability results from negligent acts, omissions or willful misconduct.

The maximum amount potentially payable under any such indemnities cannot be reasonably estimated. The Corporation has liability insurance that relates to the indemnifications described above.

Historically, the Corporation has not made significant payments related to the above-noted indemnities and, accordingly, no liabilities have been accrued in the consolidated financial statements.

(b) Contingencies:

The Corporation is party to legal proceedings in the ordinary course of its operations. In the opinion of management, the outcome of such proceedings will not have a material adverse effect on the Corporation's financial statements or its activities. Claims and obligations related to the operation of the blood supply system prior to September 28, 1998, and the Canadian Council for Donation and Transplantation prior to April 1, 2008, are not the responsibility of the Corporation.

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

18. Commitments:

At March 31, 2018, the Corporation had the following contractual commitments:

	Vendor commitments	Research and development grants	Operating leases	Total
2018-2019	\$ 155,790	\$ 2,900	\$ 7,396	\$ 166,086
2019-2020	72,023	1,358	5,687	79,068
2020-2021	70,901	668	3,484	75,053
2021-2022	1,831	457	2,623	4,911
2022-2023	650	152	2,058	2,860
Thereafter	–	–	2,490	2,490
Total	\$ 301,195	\$ 5,535	\$ 23,738	\$ 330,468

The research and development grants are funded by contributions included in deferred contributions for future expenses.

19. Research and development:

For the year ended March 31, 2018, the Corporation incurred \$12,968 (2017 - \$12,961) of expenses related to research and development. These costs are reported in note 13 under Fresh Blood Products and National Facilities Redevelopment Program.

20. Related party transactions:

The Members provide funding for the operating budgets of the Corporation. The Corporation enters into other transactions with these related parties in the normal course of business.

Transactions with the defined contribution plan, the two defined benefit plans, and the other defined retirement and post-employment benefits plan are conducted in the normal course of business. The transactions with these plans consist of contributions as disclosed in note 8, and inter-company administrative charges. At March 31, 2018, the net amount due from the Corporation's pension plans is \$285 (2017 - \$529).

Notes to the Consolidated Financial Statements

Year ended March 31, 2018
(In thousands of dollars)

21. Capital disclosures:

The Corporation is a non-share capital corporation and plans its operations to essentially result in an annual financial breakeven position. The Corporation considers its capital to be the sum of its net assets. This definition is used by management and may not be comparable to measures presented by other entities. The Corporation manages capital through a formal and approved budgetary process where funds are allocated following the underlying objectives below:

- (a) to provide a safe, secure, cost-effective and accessible supply of blood and blood products, including red blood cells, platelets, cord blood, and plasma protein products, to all Canadians. The Corporation also provides the management of donor registries for stem cells, cord blood stem cells and organs, diagnostic services in certain parts of Canada, and research and development;
- (b) to support the Corporation's ability to continue as a going concern;
- (c) to meet regulatory and statutory capital requirements related to captive insurance operations; and
- (d) to ensure the funding of working capital requirements.

The Corporation evaluates its accomplishment against its objectives annually. The Corporation has complied with all externally imposed capital requirements and there were no changes in the approach to capital management during the period.

The Corporation's captive insurance operations are required to maintain statutory capital and surplus greater than a minimum amount determined as the greater of a percentage of outstanding losses or a given fraction of net written premiums. At March 31, 2018, the Corporation's captive insurance operations were required to maintain a minimum statutory capital and surplus of \$37,500 (2017 - \$37,500). The actual statutory capital and surplus was \$216,807 (2017 - \$201,650) and the minimum margin of solvency was therefore met. The Corporation's captive insurance operations were also required to maintain a minimum liquidity ratio whereby the value of its relevant assets is not less than 75% of the amount of its relevant liabilities. At March 31, 2018, the Corporation's captive insurance operations were required to maintain regulatory assets of at least \$188,110 (2017 - \$187,976). At that date, regulatory assets were \$467,620 (2017 - \$452,285) and the minimum liquidity ratio was therefore met. The value of regulatory assets differs from that reported on the consolidated statement of financial position as it is determined under a different accounting framework, *International Financial Reporting Standards*.

22. Statutory disclosures:

As required under the Charitable Fundraising Act of Alberta, included in staff costs is \$867 (2017 - \$530) paid as remuneration to employees whose principal duties involve fundraising.

23. Reclassification:

Certain comparative information has been reclassified to conform with the consolidated financial statements presentation adopted in the current year.



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