



Bilal,
blood donor



Cara,
*blood recipient and cord blood
stem cell donor*

2021–2022: End of year review

Presentation by Dr. Graham Sher, Chief Executive Officer
Open Board Meeting
June 17, 2022



**Canadian
Blood
Services**

BLOOD
PLASMA
STEM CELLS
ORGANS
& TISSUES

Continued to ensure that Canadian patients have reliable access to safe, high-quality products in 2021–2022

We will look at strategic and operational performance in the fiscal year 2021–2022

Some highlights:

- Continued delivering safe, high-quality products and services while ensuring fiscal responsibility.
- Continued to successfully manage the impacts of COVID-19 by implementing new safety measures in response to keep employees, volunteers and donors safe.
- Product safety, the donor experience, the employee experience and a deep commitment to diversity, equity and inclusion continue to guide our actions.

We successfully managed the COVID-19 impacts in the past twelve months

Fresh blood products

- Continued to successfully manage inventory levels.

Plasma protein and related products

- Mitigated the impacts of COVID-19 on global supply of immunoglobulin and increasing Canada's plasma supply.

Stem cells

- The programs continue to adapt and implement strategies to minimize impact to operations, employees, donors and patients.

Organs and tissues

- Donation and transplantation rates have improved but have not yet returned to pre-pandemic rates.

Continuing to contribute to COVID-19 research

- Continued to support the federal COVID-19 Immunity Task Force with planned activities until March 2023.
- Monitoring the percentage of donors with vaccine-related antibodies vs. natural infection-related antibodies to support epidemiological studies as other forms of testing diminish.
- With our support, a new international trial for immunocompromised patients will start to evaluate the effectiveness of COVID-19 convalescent plasma later this year.

High-impact research and development

Introducing new products

- *Leukoreduced, cold-stored whole blood for Canadian Armed Forces.*

Advancing patient care

- *Research that examines treatment of cardiac surgery patients is improving the quality of transfusion practice.*
- *Investigating how genomics can be used to better meet the needs of chronically transfused recipients.*

Building our donor base and making it more inclusive

- *Revising eligibility criteria — thousands more Canadians may be eligible to donate.*
- *Social science research — to build a more ethnically diverse donor base.*

Timely surveillance, testing and investigations are central to the safety of the blood supply

- Canadian Blood Services conducts robust surveillance, testing and investigations to ensure the safety of the blood supply:
 - *Monitoring of pathogens (including emerging pathogens) and other threats of concern.*
 - *Testing donations for transmissible diseases.*
 - *Investigation of any reports of possible transfusion transmission including lookback/traceback investigations.*

Monitoring emerging pathogens and other threats of concern

- **Impact of climate change:** Tick borne diseases: Babesia: A recent risk-based decision-making exercise concluded the risk to the blood supply remains low. Increased testing is recommended should the level of babesiosis increase in the community.
- **Biothreat agents:** Canadian Blood Services is alert and vigilant to the possibilities of biothreat agents and how they might be used in the conflict in Ukraine/Central Europe.
- **Improving monitoring and governance:** A tabletop exercise conducted with Canadian Blood Services' board of directors assessed business continuity plans and overall preparedness.

Monitoring emerging pathogens and other threats of concern

Monkeypox virus:

- Causes a disease with symptoms similar to, but less severe than, smallpox. It is typically mild and self-limiting, however severe illness can occur.
- Unusual pattern of occurrence noted and being closely monitored.
- Although there is no known case of transfusion transmitted monkeypox and no chronic carrier state, because there is a viremic phase in acute illness, transfusion transmission is theoretically possible.
- Potentially infectious donors would be screened as ineligible through general wellness questions.

Safety and surveillance

- The Jan to Dec 2021 positivity rates per 100,000 donations for key transfusion transmitted infections remains low and in line with previous year's results.
- Positive donations are discarded and never distributed for patient care.
- No transfusion transmitted infections have been detected in transfused patients last calendar year.

Donor status	Number of donations	Percentage of donations	HIV		HCV		HBV	
			#	Rate	#	Rate	#	Rate
First time	66, 297	8.3	2	3.0	45	67.9	38	57.3
Repeat	731,193	91.7	1	0.1	12	1.6	1	0.1
# = number of confirmed positive donations; Rate = prevalence rate per 100,000 allogeneic donors;			Residual risk					
			1 in 12.9 million donations		1 in 27.1 million donations		1 in 2.0 million donations	

Notable investigations conducted in 2021–2022

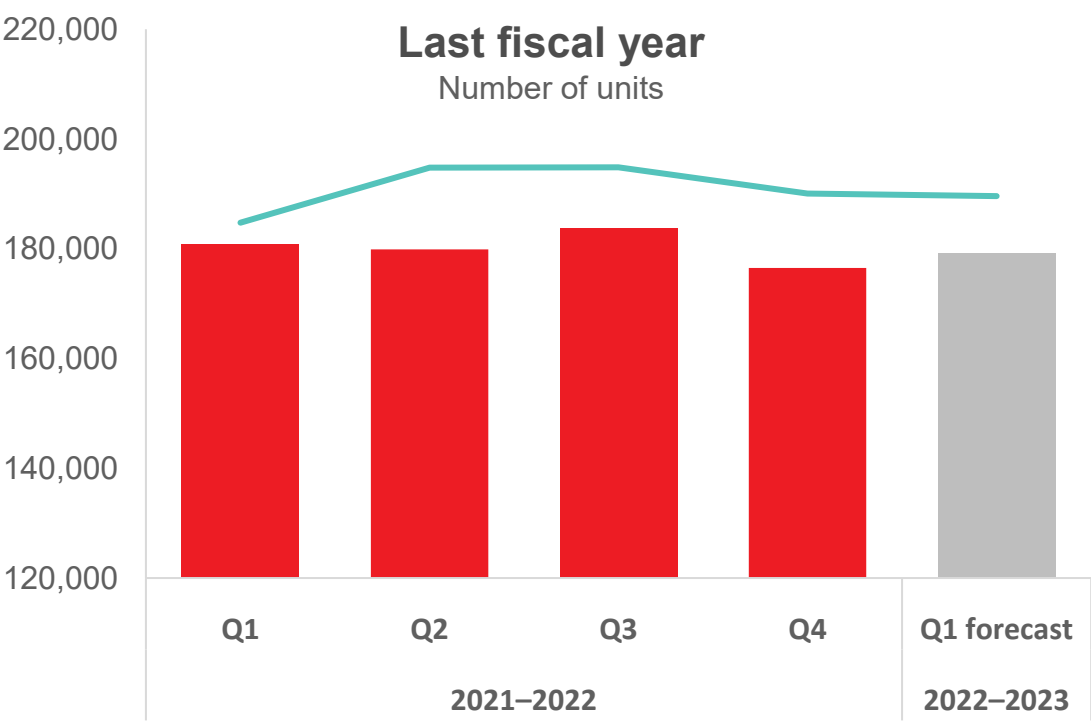
- **New Brunswick Investigation:** In March 2022, the NB Minister of Health has accepted the conclusion that no neurological syndrome of unknown cause exists in New Brunswick.
- Canadian Blood Services' investigation into individuals with a link to the blood system found no evidence of blood-based transmission.
- **Malaria:** Canadian Blood Services recently reported on a Transfusion Transmitted Malaria, a rare but known adverse event associated with blood transfusion

We continued to successfully manage the supply and demand of blood products

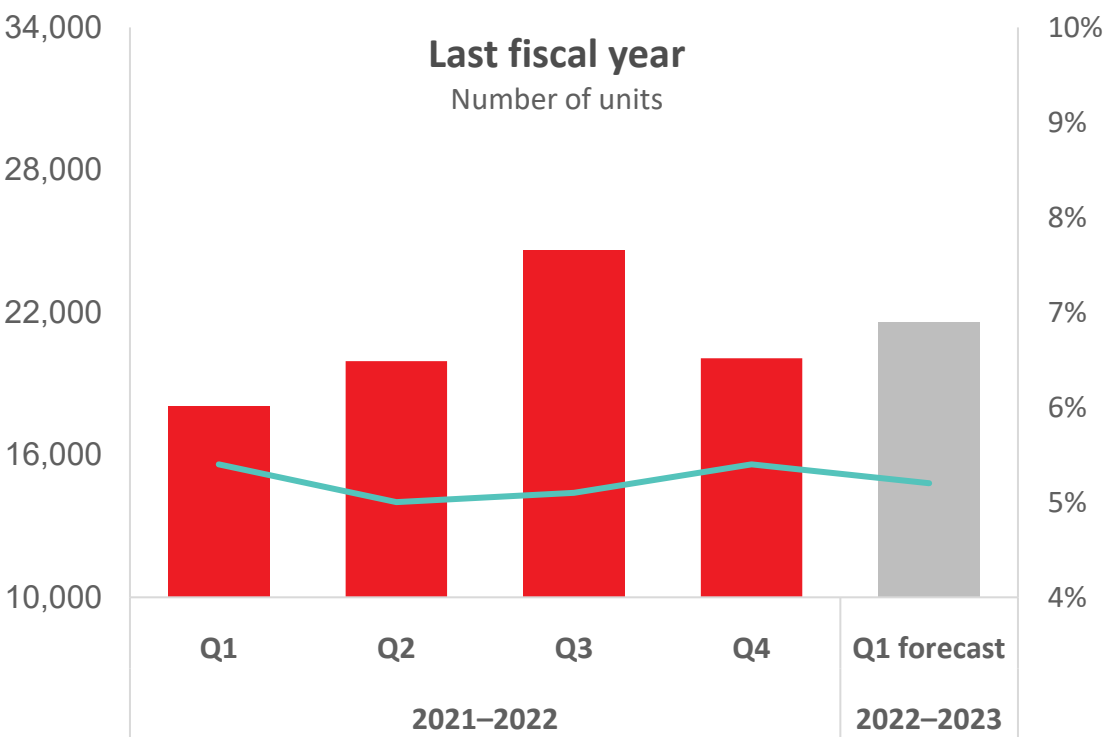
- Inventory management was ongoing through the year in response to changing provincial COVID-19 restrictions, donor behaviour and demand patterns.
- Collection and recruitment plans were increased for the second half of the year due to a sustained elevation of demand for fresh blood products.
- Recruitment optimization and inventory management practices kept the operations at green phase levels through notable weather (B.C.) and the Omicron variant impacts in the winter.

Red blood cell (RBC) shipments and collections returned to pre-pandemic levels while inventory and discard rates decreased

RBC shipments and whole blood collections



RBC opening inventory and discard rates



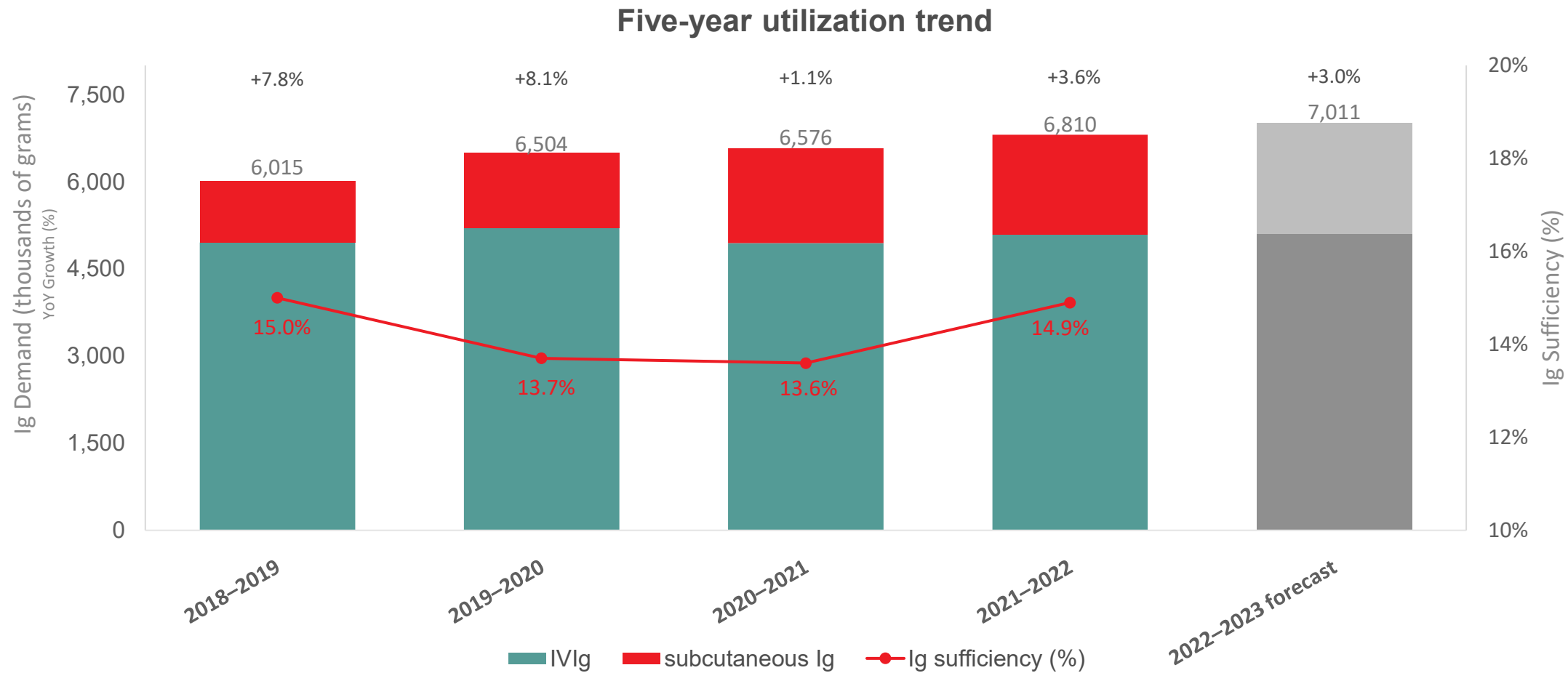
● RBC shipments — whole blood collections

● RBC inventory — discard rate (%)

Continued to mature the plasma protein and related products program to benefit patients

- Expanded use of Emicizumab (Hemlibra®) for patients with severe hemophilia A.
- New C-1 esterase inhibitor (Haegarda®) for patients with hereditary angioedema.
- Alpha-1 antitrypsin augmentation therapy (Zemaira®) under review.
- Request for proposal (RFP) for recombinant products completed, RFP for plasma-derived products underway, with process changes based on previous feedback.

Demand for immunoglobulin (Ig) continues to grow, but at a slower pace than pre-pandemic

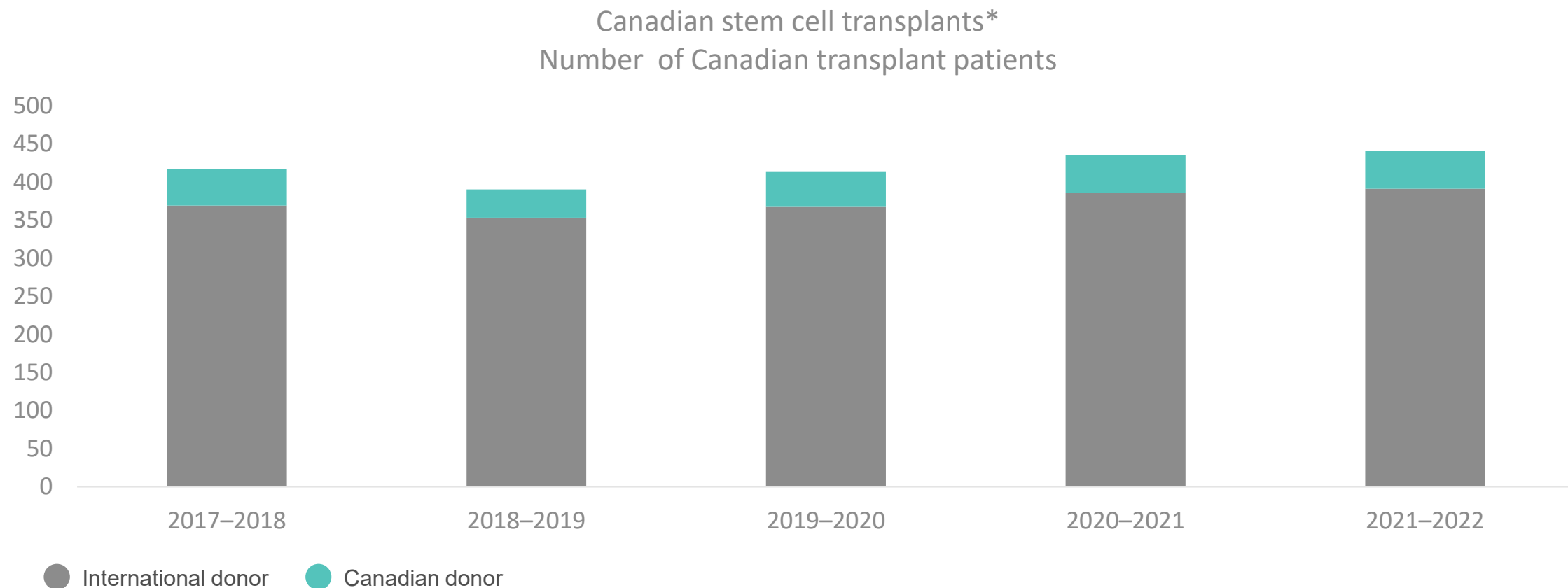


The stem cell program continues to adapt and improve to meet patient needs

- The number of stem cell transplants in 2021–2022 is consistent with numbers from previous years.
- Cord blood unit distributions remained high over the past year. **Canadian Blood Services ranked fourth internationally** for cord blood distributions.
- Stem cell manufacturing continues to support autologous patient transplants including CAR-T products.

Stem cell transplants

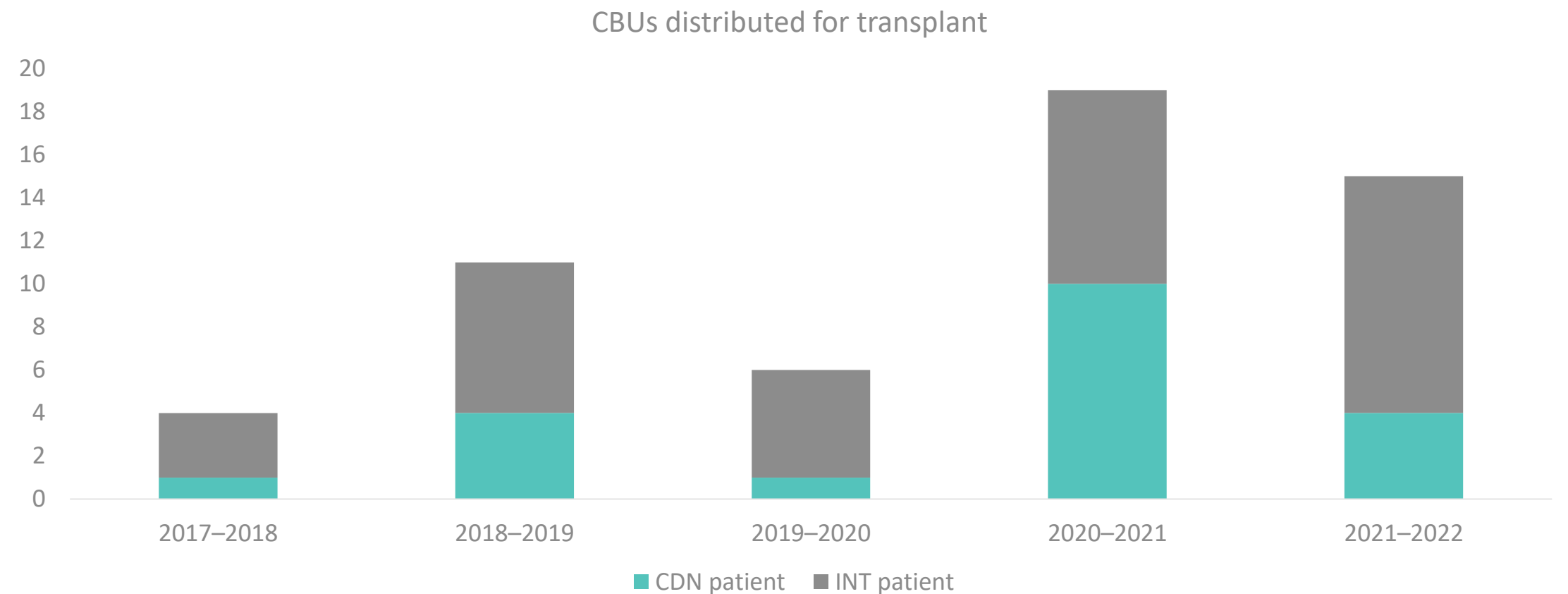
The total number of transplants as well as proportion of patients who received a transplant from a Canadian donor remains consistent with prior years.



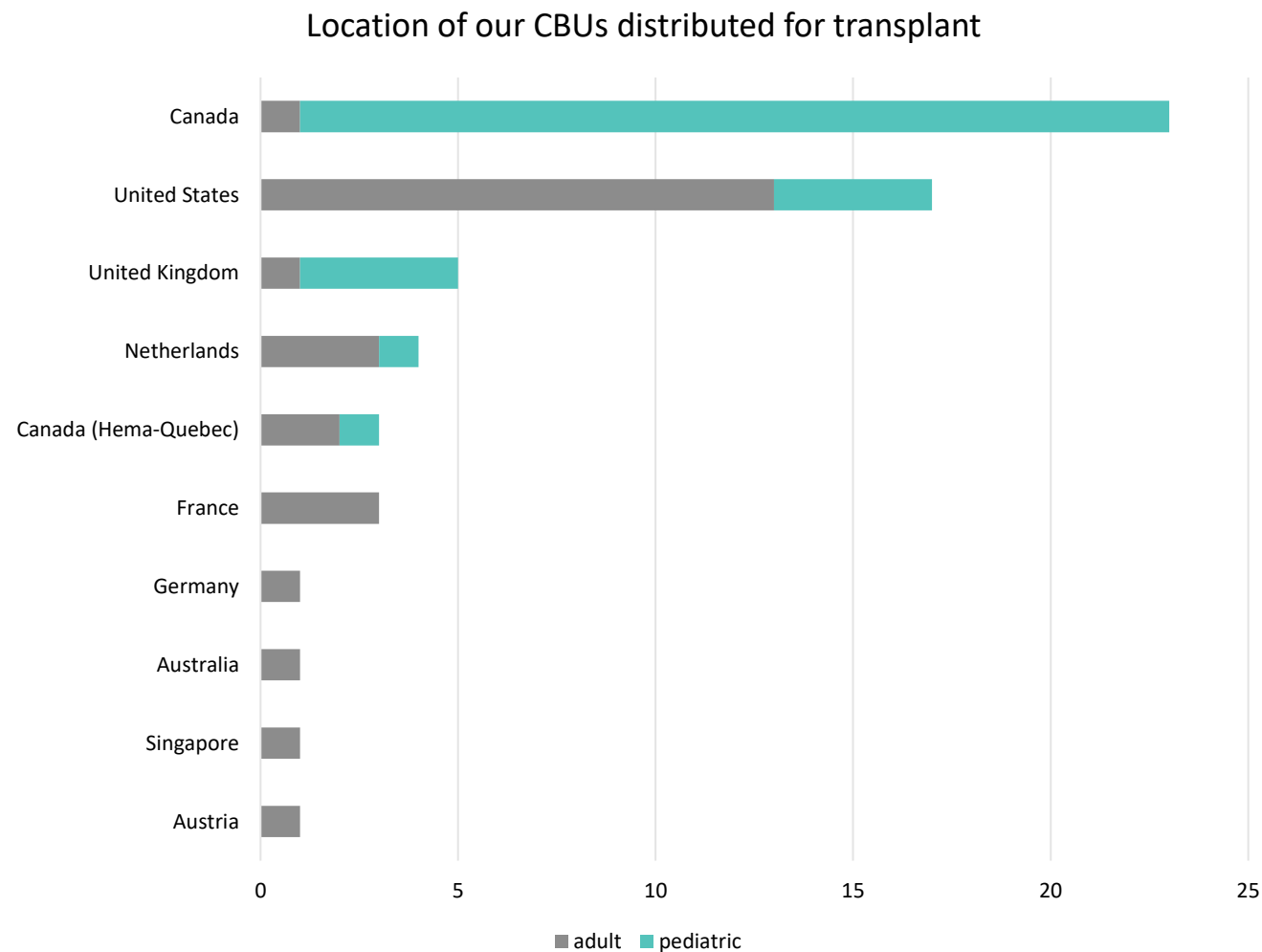
* Transplant data does not include cord blood units

Cord blood units distributed for transplant

Total cord blood units (CBUs) distributed for transplant this year accounted for 25 per cent of units shipped since bank inception.



Cord blood unit shipments by country



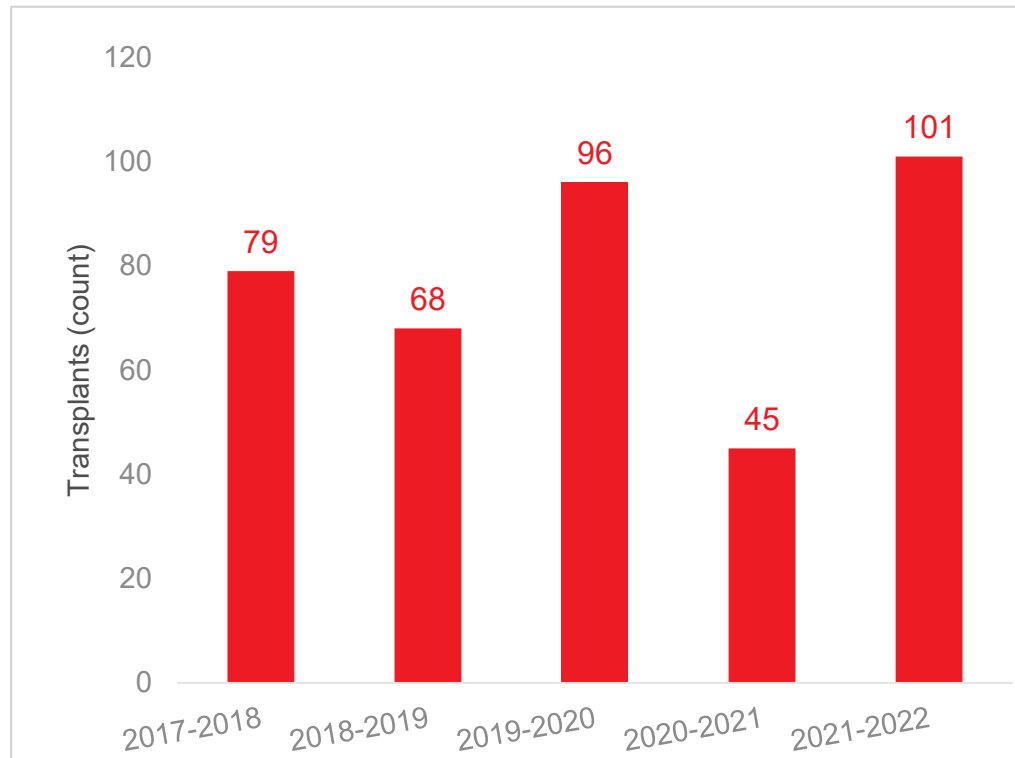
- 44 per cent of all cord blood units distributed have been to Canadian patients

The organ and tissue donation and transplantation program worked to mature national programs and improve system performance

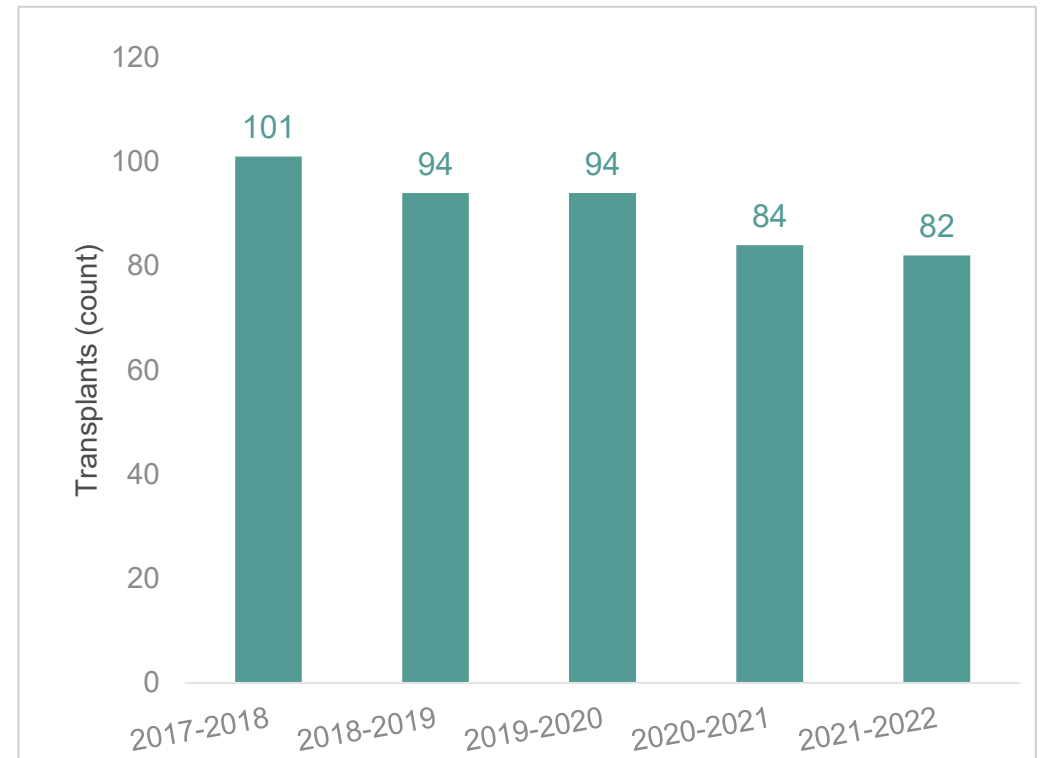
- Launched innovative public awareness and education tools to support living kidney donation and to encourage K–12 teachers, students and families to talk about organ donation.
- *Canadian Clinical Guide to Organ Donation* has over 750 active learners.
- Continued to work in partnership with Health Canada's Organ Donation and Transplantation Collaborative.

Kidney paired donation (KPD) facilitated more transplants than historical trends would predict; highly sensitized patients (HSP) facilitated slightly fewer

Kidney Paired Donation (KPD) program



Highly Sensitized Patients (HSP) program



Canadian Blood Services is an integral partner in the national Organ Donation and Transplantation Collaborative (ODTC)

- Health Canada's ODTC has three primary objectives for a national organ donation transplantation system:
 - *Improve decision-making and accountability*
 - *Enhance data system and reporting*
 - *Support improved interprovincial sharing of organs (aside from kidneys)*
- Goals to be accomplished through five core working groups and ten funded projects.

We are maintaining our strategic plan, *Keeping the Promise*, relevant through the pandemic and beyond

- Re-visited our strategic plan to respond to disruption of the pandemic.
- Amended current strategic plan to clarify areas needing greater focus:
 - *Automation and digitalization*
 - *The future of work*
 - *Enhancing products and services*
- Seized opportunities to accelerate some priorities and achieve results earlier than originally planned.



*Meet changing patient needs by
providing lifesaving products
and services*

Continued to innovate products and services to meet patient needs

- Products providing enhanced patient outcomes, or a longer shelf life are being assessed through our new capability in portfolio management.
- The first phase of a new program to include a pharmacist in a pediatric hemophilia clinic team is showing successful results.
- The stem cell program continues to meet expanding requests to support processing, storage and transportation of cells used to manufacture CAR-T cells for clinical trials.



*Meet changing patient needs by
providing lifesaving products
and services*

Continued to innovate products and services to meet patient needs

By 2024 we will provide pathogen-reduced platelets and plasma for all customers:

- January 2022: Pathogen-reduced pooled platelets available to hospitals served by our Ottawa production site.
- Gradual national roll-out starting in 2023 for all platelet components.
- In-house pathogen-reduced plasma development starting this fiscal year.
- Expanded solvent detergent plasma available for all customers by end of 2022–2023.



*Meet changing patient needs by
providing lifesaving products
and services*

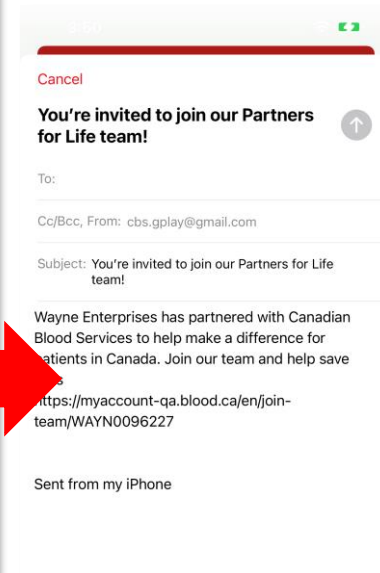
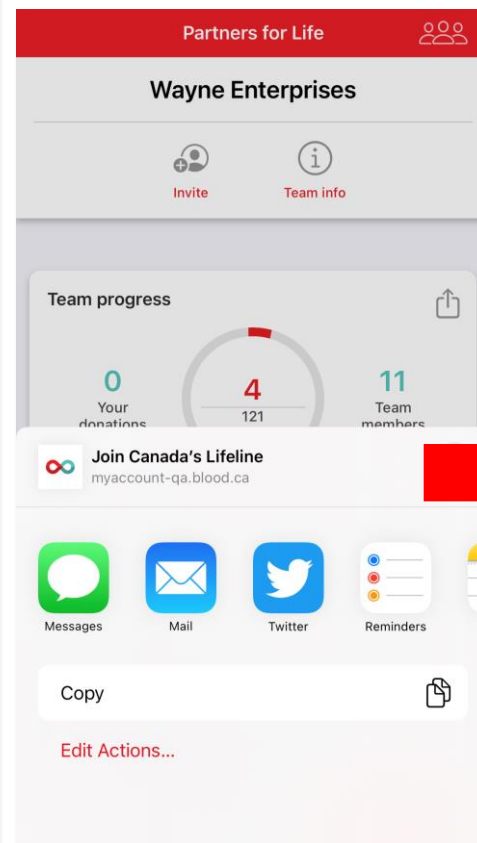
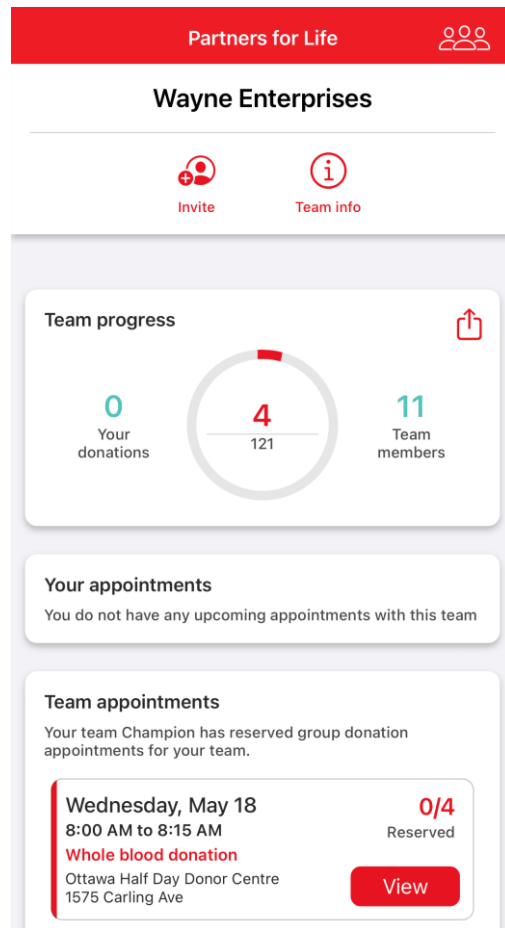
Continued to focus on the donor experience

- Donor base declined by 31,000 since start of pandemic.
- Closed the year above target on donor experience metrics:
 - *Donor net promoter score (NPS): Five points above target*
 - *Overall donor satisfaction: Eight points above target*
 - *Donor retention: Eight percent increase*
- We are now aiming to maintain NPS at 84 per cent or better and overall donor satisfaction at 81 per cent (top box score of 9–10).



*Meet changing patient needs by
providing lifesaving products
and services*

Making it easy for partners to invite other donors





*Meet changing patient needs by
providing lifesaving products
and services*

New sexual behaviour-based screening criteria will be in place no later than Sept. 30, 2022.

- Health Canada approved our request to remove eligibility criteria specific to men who have sex with men.
- Screening will instead focus on sexual behaviours associated with higher risk of infection among all donors.
- We're preparing to implement the new criteria, including system and process updates, as well as robust training for employees.
- The change supports our commitment to build a more diverse, equitable and inclusive national transfusion and transplantation system. We look forward to welcoming new donors this September.



*Ensure a secure supply of
Canadian plasma for
immunoglobulin*

Opened plasma donor centres in Brampton and Ottawa

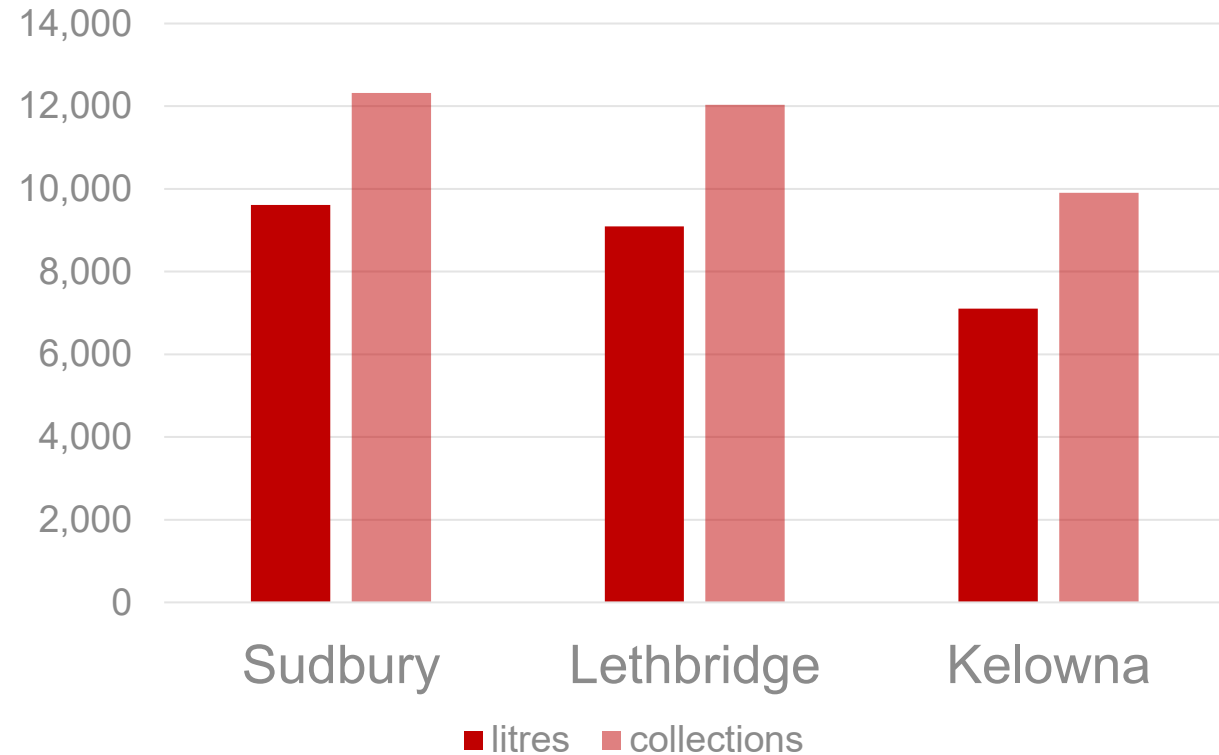


From left: team lead, Navpreet Virk; centre manager, Kevin Khan; Sikh Nation volunteer, Ranjit Panesar; business development manager, Lilet Raffinan; Canadian Blood Services board member, David Lehberg; plasma associate, Azza El-Sayed



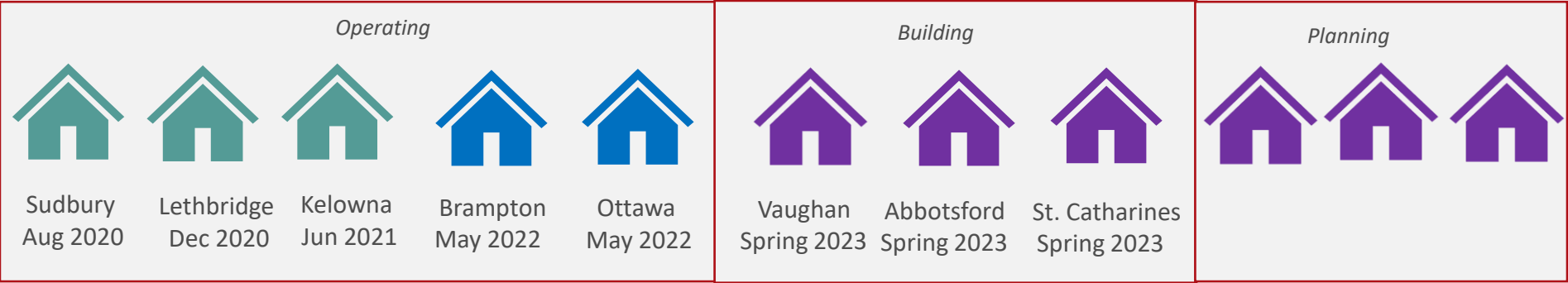
*Ensure a secure supply of
Canadian plasma for
immunoglobulin*

Growing domestic supply for Canadian patients



- 34,269 units totaling 25,802 litres of source plasma were collected in Sudbury, Lethbridge and Kelowna in 2021–2022.
- Since the first plasma donor centre began operations in August 2020, the sites combined have added 32.3K litres of source plasma to the network.

Plasma donor centre locations and schedule



Estimated plasma sufficiency for immunoglobulin when operating at capacity



Opening 11 dedicated plasma donors centres and growing pre-existing plasma donor programs will allow us to achieve 25 per cent sufficiency.



*Create an engaging and
empowering employee
experience*

Identified where to enhance the employee experience

- Deployed the employee experience and brand health surveys:
 - *71 per cent completion rate*
 - *Stable employee engagement results at 75 per cent*
 - *Increases in employee net promoter score from 12 in 2018 to 17.6 in 2022*
- Continued to deploy the Mental Well Being Strategy.
- Future of work:
 - *Implementing hybrid work arrangements*
 - *Improving the front-line experience*
 - *Digitizing to better connect all employees*



Create an engaging and empowering employee experience

Supported the mental and physical well-being of the workforce

- Deployed new mental well-being strategy with three areas of focus:
 - *Safeguard psychological safety and well-being for all employees*
 - *Engage the organization in building resilience*
 - *Improve support for employees experiencing mental well-being challenges*
- Mental health first-aid training rolled out to all people leaders.
- Launched weekly mindfulness sessions, a new meditation app and a redesigned wellness page and event calendar.
- Deployed vaccination policy to ensure a fully vaccinated workplace.



*Create an engaging and
empowering employee
experience*

Diversity, equity and inclusion (DEI)

- Established the first-ever DEI team and department at Canadian Blood Services
- Launched Reconciliation Action Plan
 - *Community engagement*
 - *Indigenous Council*
- Created DEI Council
- Advanced DEI/Indigenization communications strategy
- Developed DEI strategy and action plan:
 - *Inclusive employee experience and DEI capacity*
 - *Donor and registrant relations*
 - *Addressing systemic racism*
 - *Organizational DEI: evidence-based research and data*
- Established Centre for Inclusive Excellence



*Create an engaging and
empowering employee
experience*

Board and management governance changes

Board

- Welcomed Dr. Brian Postl as the new board chair
- New board members:
 - *Bobby Kwon (Toronto, ON)*
 - *David Morhart (North Saanich, B.C.)*
 - *Donnie Wing (Victoria, B.C.)*

Executive team

- *Jennifer Camelon, chief financial officer and vice president, corporate services*
- *Dr. Yasmin Razack, chief diversity officer*
- *Richard Smith, chief information officer*



*Create an engaging and
empowering employee
experience*

We continue to advance organizational excellence by making progress in critical bodies of work

- By the end of the year of 2021–2022 all productivity metrics exceeded targets and productivity improved year over year.
- Our operations remained in a state of control.
- The Continuous Improvement program made good progress into collections and now is gaining momentum in multiple centres.
- Several streams of work continued to advance the hospital experience, including:
 - *On-line ordering: ~330 hospitals will be onboarded by end of June*
 - *Stakeholder engagement*
 - *Model for a centralized hospital customer service*
- As part of phase two of our analytics platform modernization, we completed the data migration, which will improve our data management capabilities.



Achieve organizational excellence

Quality indicators

All indicators of the quality index met targets

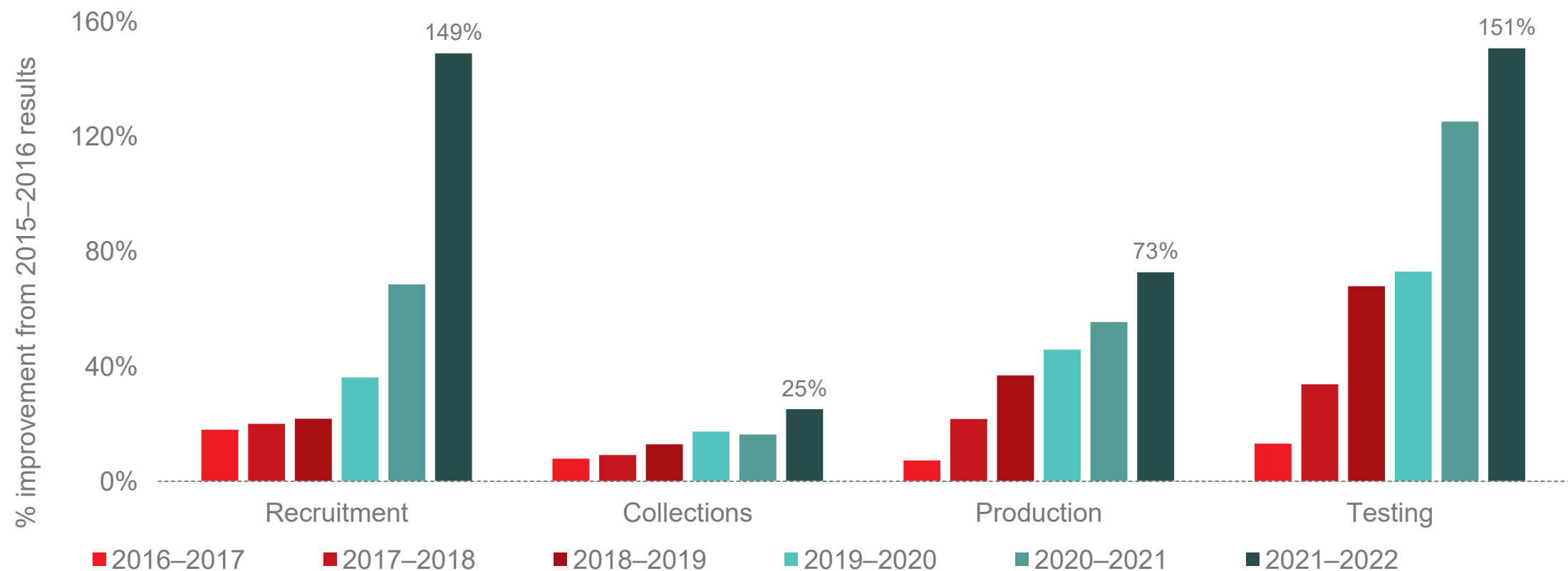
Performance indicator	Target	Quarterly average
Number of fresh blood products recalled due to errors, accidents or post-donation information	≤ 300	169
Number of serious errors or accidents related to fresh blood products	0	0.75
Number of Health Canada critical observations	0	0
Number of adverse transfusion reactions	<20	14
Number of type A non-conformance reports	≤ 2	0
Number of serious stem cell events	0	0
Number of recalled plasma units for fractionation	<150	90
Timely execution of supplier recalls	timely response	Yes
Number of quality indicators meeting target	8 out of 8	7 out of 8



Achieve organizational excellence

Productivity results: 2021–2022 fiscal year results

Productivity results strong in 2021–2022. Performance improvements expected to continue into the 2022–2023 year.



2021–2022 summary financial results

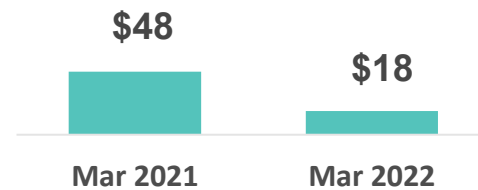
As at March 31, 2022 (charts in millions of dollars).

WORKING CAPITAL

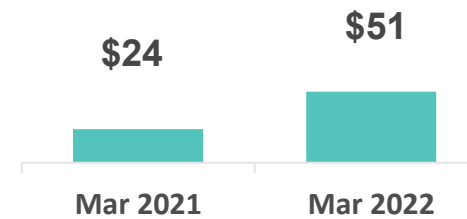


ASSETS

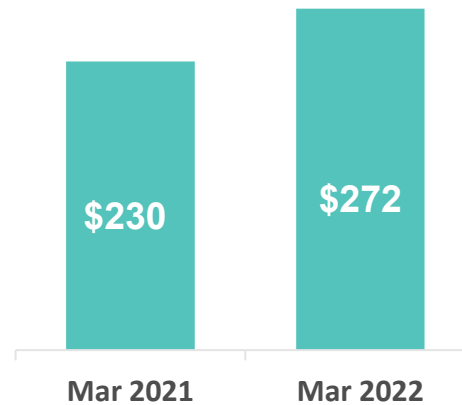
UNRESERVED CASH



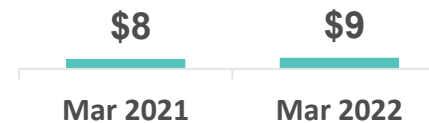
RECEIVABLES



INVENTORY



PREPAIDS



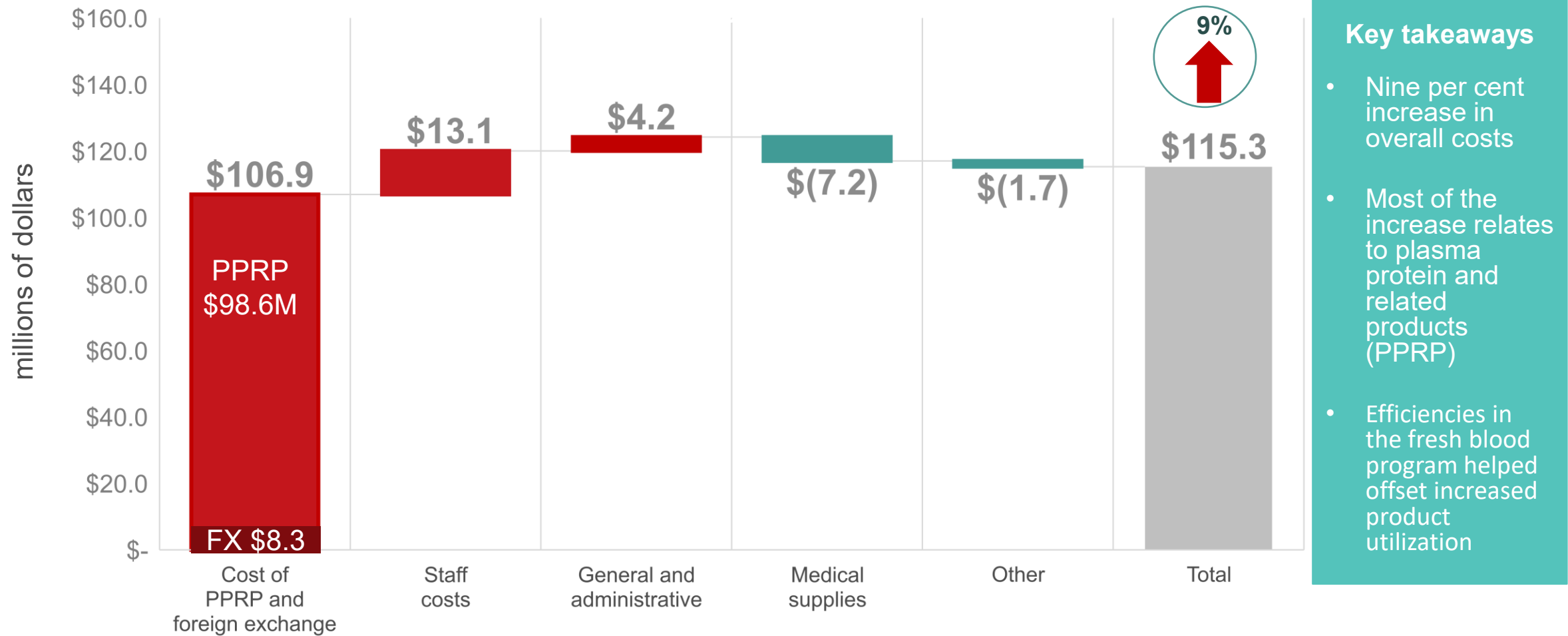
LIABILITIES

ACCOUNTS PAYABLE & OTHER



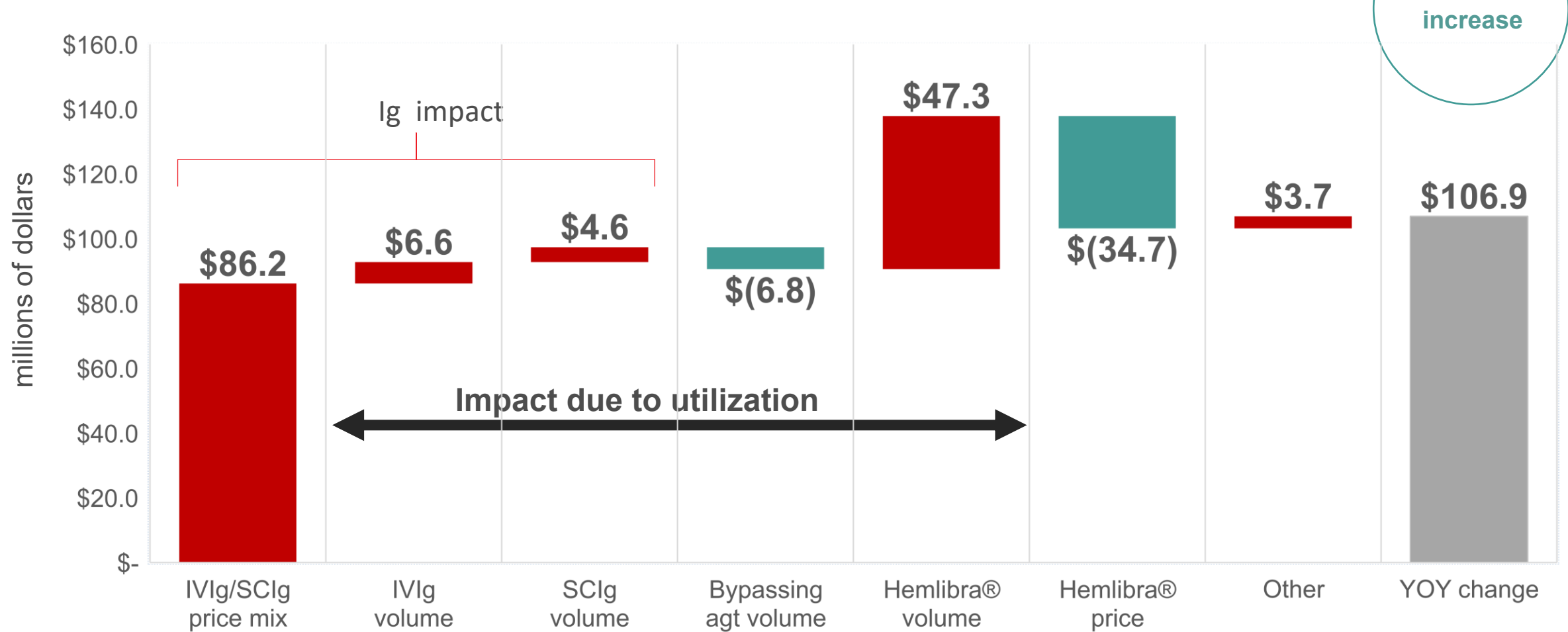
2021–2022 summary financial results

Actual costs have increased from the prior year



2021–2022 summary financial results

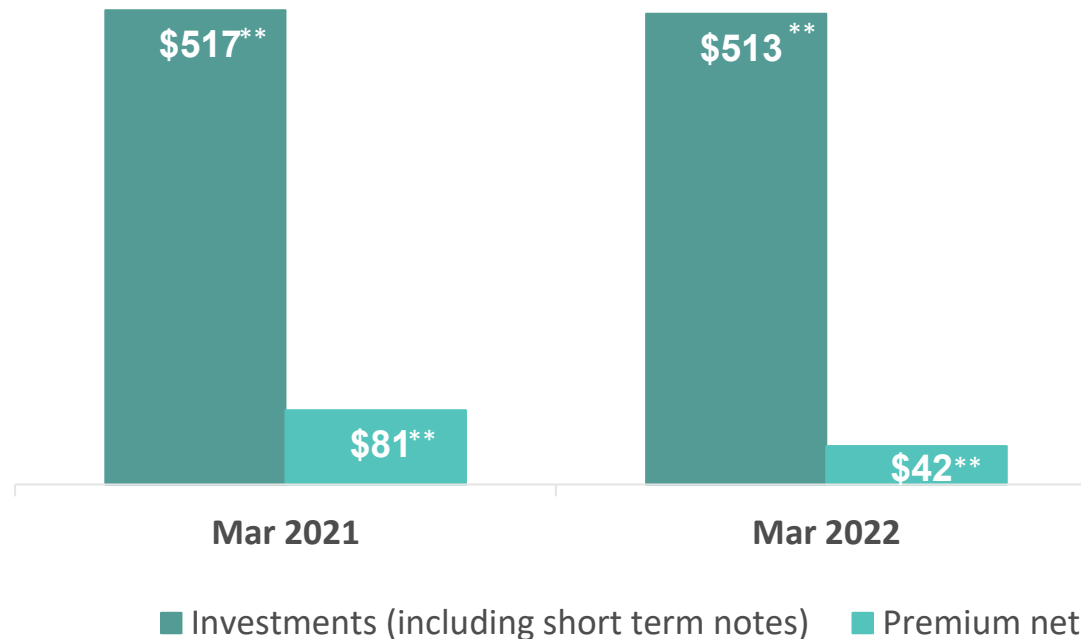
Year over year changes in costs. The main driver of the increase is PPRP costs relates to immunoglobulin price mix and utilization in various product groups



2021–2022 summary financial results

As of March 31, 2022 (charts in millions of dollars).

INVESTMENTS, CAPTIVE INSURANCE OPERATIONS



INVESTMENT RETURNS



Market returns:

\$3.3 million loss or -0.5% **

Market volatility
and rising interest
rates

** Figures reported based on IFRS accounting standards basis (fixed income measured at fair value), net of investment management fees. This differs from NPO accountings standards (fixed income measured at amortized cost).

Increasing resilience, adaptability, diversity, inclusivity and strength in Canada's Lifeline.

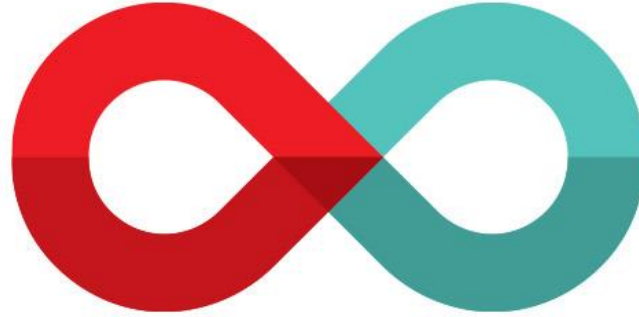
- In 2021–2022 we continued to advance our strategic priorities amidst the challenges posed by the pandemic.
- Our mission to deliver critical life-saving services has not changed but delivering on that mission — now and in the long run — required us to change as an organization in response.
- We will continue to work relentlessly to keep our promise today and tomorrow.



Together, we are Canada's Lifeline



Brenda,
blood donor



Aizad,
blood recipient