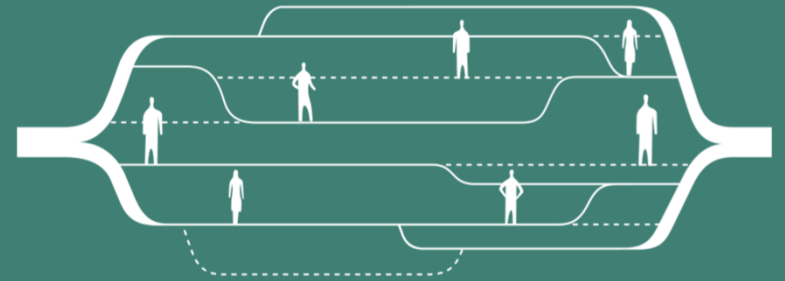


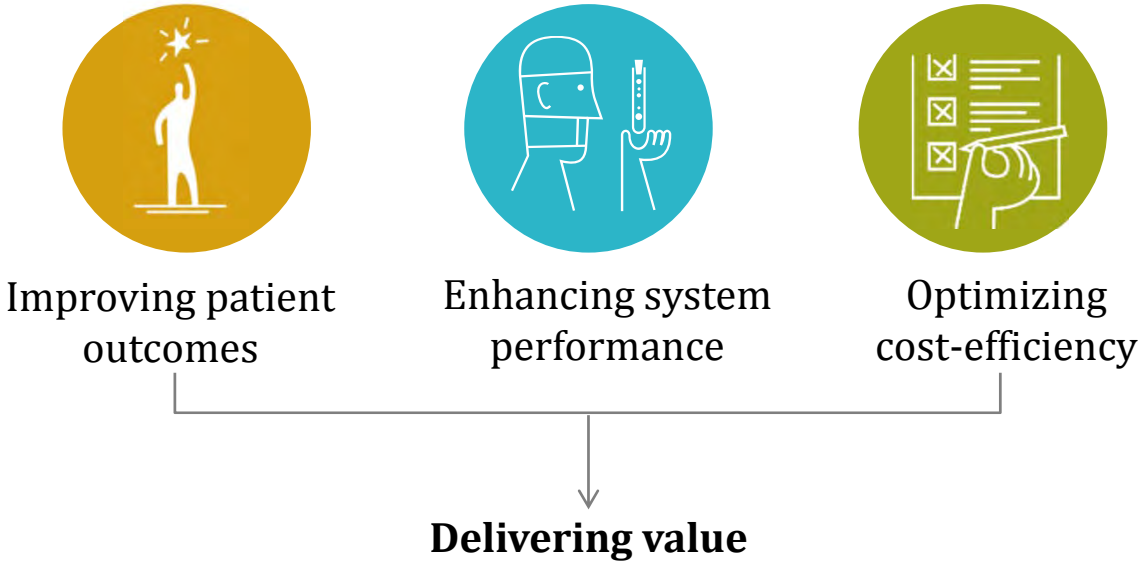
2017-2018: Year-End Review



Dr. Graham Sher
Chief Executive Officer
June 27, 2018

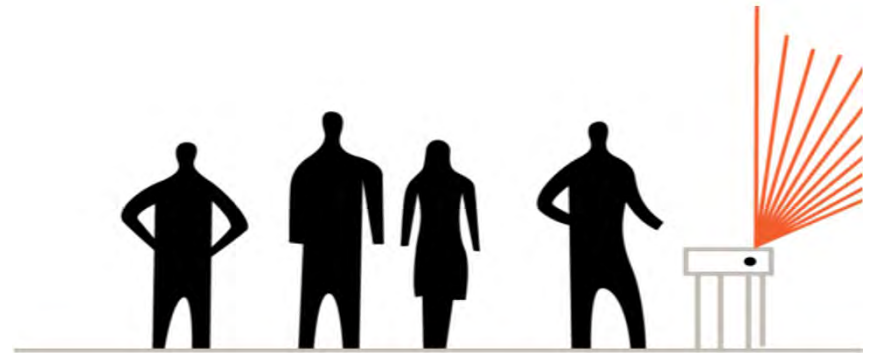


How we deliver value



Agenda

- Strategy and progress on key focus areas
- Financial performance
- Discussion



20 years of service

2.6M

Donors

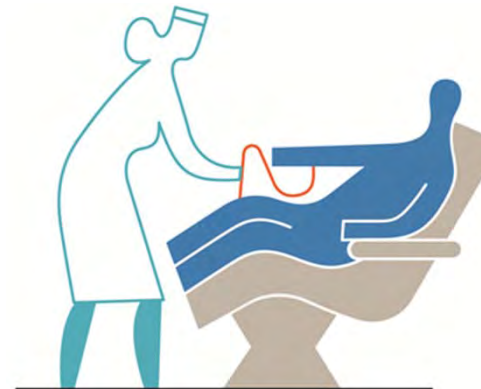
18M

Units of blood

5M+

Patients served

Transplant and transfusion recipients



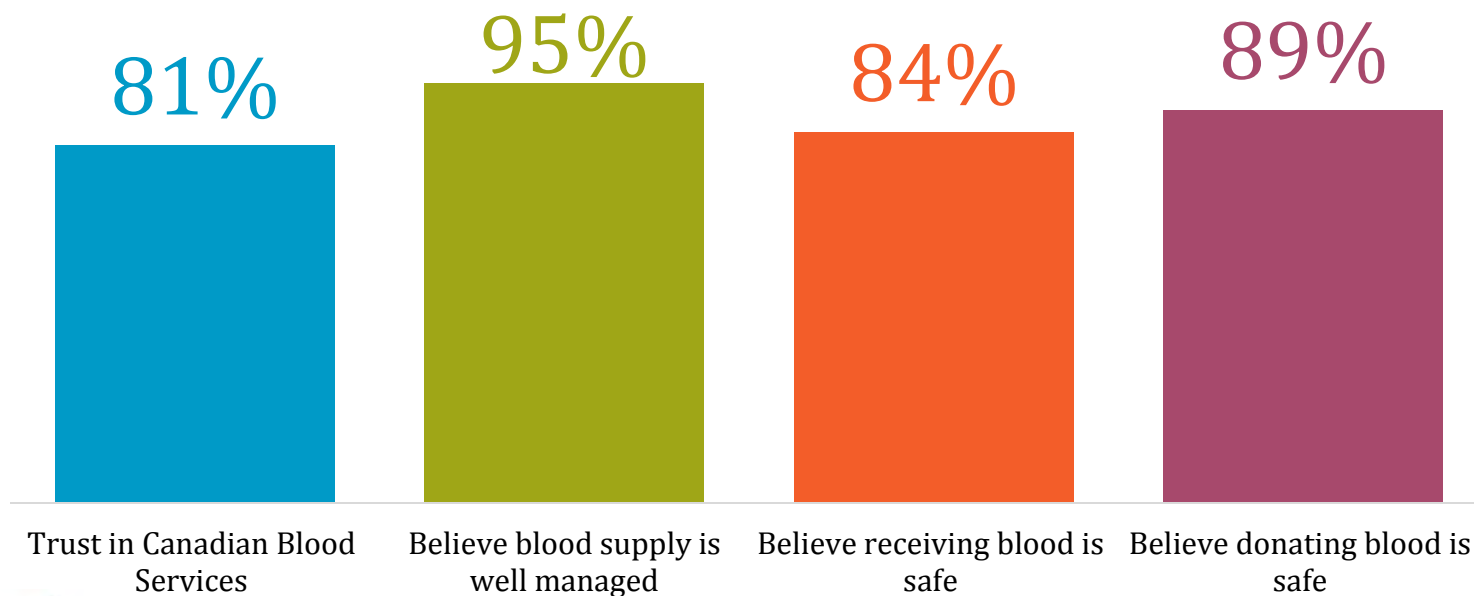
Key focus area

Earning the right to serve



Key focus area: Earning the right to serve

What do Canadians think of Canadian Blood Services?



Corporate Research Associates, spring 2018

Earning the right to serve

Public involvement in our decision-making

- **Strategic plan consultations**
 - Valuable insights from stakeholders
 - Deepened understanding of our environment
- **Men who have sex with men (MSM) and trans donors**
 - Presence at LGBTQ+ community events; engagement of post-secondary groups
 - Funding MSM and trans research projects
 - New staff training module on LGBTQ+ and inclusiveness



Earning the right to serve

Public involvement in our decision-making

- **Request for proposals (RFP) for plasma protein products**
 - Included stakeholders in decision-making
 - Selected products without substantially diminishing choice, but product switching was required
 - Continue to work with stakeholders on transitions to new products
 - Process review underway



Plasma Protein Products Transition
May 2018

NEWS	CHANGES
<p>Transition support</p> <p>Canadian Blood Services will continue to provide updates on product ordering, current national inventory levels and other relevant information in this newsletter. Please see page 2 for timelines of product availability. We continue to work closely with all internal and external stakeholders to ensure a smooth transition.</p>	<p>Timelines</p> <p>Phase-out timelines for some products have been revised. Please see page 2 for updated information.</p> <p>Products that have been or are near phase-out include:</p> <ul style="list-style-type: none">Panzyga 10 g vialsHizentra 2 g and 4 g vialsAlprolix 500 IU vialsEloctate 250 IU vials
<p>National inventory</p> <p>Please see page 5 for a detailed inventory summary, by vial size and by Canadian Blood Services site. Page 6 is included as a reminder of the previous and future portfolio of Plasma Protein Products.</p>	<p>Reminders:</p> <ul style="list-style-type: none">• If not already started, transitioning of patients to the new Plasma Protein Products may begin.• Privigen and Gamunex will continue to be available but in reduced quantities in order to meet the target percentages as per Customer Letter 2018-15. Some patients will need to be transitioned to other products.• A reduction in Gamunex utilization should have started however the issues to hospitals are higher than expected.• Cuvitru when stored at 2°C to 8°C, has a shelf life of 36 months. When stored at room temperature its shelf life is reduced to 12 months from date of manufacture.
<p>Ordering products</p> <p>If your order exceeds a typical one-month supply, please submit it at least one week before the needed delivery date. This will allow sufficient time to ensure proper levels of product by size are available where and when needed. Order forms can be found at www.blood.ca.</p>	

8

Earning the right to serve

National Accountability Agreement

- We continue to negotiate the terms of a National Accountability Agreement with governments
- Several areas of agreement; some issues still require resolution, such as financial matters and roles and responsibilities
- Aim to complete negotiations by Dec. 31, 2018



Our plasma collection plan

Hayden, regular recipient of immune globulin

Our plasma collection plan

Ensuring Canadian security of plasma supply for immune globulin

- **Our role:** Ensure safety and security of blood system in Canada on behalf of corporate members and Canadians
- Collect plasma and have it manufactured into important proteins, including immune globulin (Ig)
- Canadian sufficiency for Ig has been declining in recent years, and dependency on imported Ig has been increasing
- We have articulated the necessity of collecting significantly more source plasma from volunteer, unpaid donors

Our plasma collection plan

Federal expert panel report

- Panel created to assess plasma environment in Canada and around the world
- **Key findings:**
 - **Demand for plasma** is projected to continue to increase
 - Security of plasma supply is a **critical public health-care issue** for Canada
 - Canadian Blood Services' plan to collect more plasma is an **appropriate response**



A screenshot of a news article from The Canadian Press. The article is titled "Federal panel urging Canada to ramp up efforts to collect blood plasma". The main image shows a person in blue gloves holding a bag of blood. Below the image, there is a caption: "A bag of blood is shown at a clinic in Montreal, Thursday, November 29, 2012. (THE CANADIAN PRESS/Ryan Remorz)". The article is dated Wednesday, May 23, 2018, 1:44PM EDT. The author is Janice Dickson. The article text states: "OTTAWA — Canada needs to do more to collect and stockpile its own homegrown plasma, the blood component used to make various medical treatments including life-saving drugs known as immune globulins, a federal panel of experts recommended Wednesday."

Our plasma collection plan

Federal expert panel report

Report also notes:

- **Better Ig utilization management** in Canada is needed to address demand, recognizing utilization alone will not solve sufficiency problem
- Canada's blood systems must also **collect more plasma**
- "Crowding out" requires ongoing oversight, monitoring and vigilance



The screenshot shows a news article from The Canadian Press. The page header includes 'NEWS' and various categories like Video, Shows, Canada, World, Politics, Entertainment, Sci-Tech, Health, Autos, Business, and Sports. The main heading is 'Health'. Below the heading are navigation links for HOME, HEADLINES, DIET AND NUTRITION, FITNESS, BODY AND MIND, and LIFESTYLE. The article title is 'Federal panel urging Canada to ramp up efforts to collect blood plasma'. The main image shows a person in blue gloves holding a bag of blood. Below the image is a caption: 'A bag of blood is shown at a clinic in Montreal, Thursday, November 29, 2012. (THE CANADIAN PRESS/Ryan Remorz)'.

Advertisement

Federal panel urging Canada to ramp up efforts to collect blood plasma



A bag of blood is shown at a clinic in Montreal, Thursday, November 29, 2012. (THE CANADIAN PRESS/Ryan Remorz)

16 16

Janice Dickson, The Canadian Press
Published Wednesday, May 23, 2018 1:44PM EDT
Last Updated Wednesday, May 23, 2018 4:19PM EDT

OTTAWA — Canada needs to do more to collect and stockpile its own homegrown plasma, the blood component used to make various medical treatments including life-saving drugs known as immune globulins, a federal panel of experts recommended Wednesday.

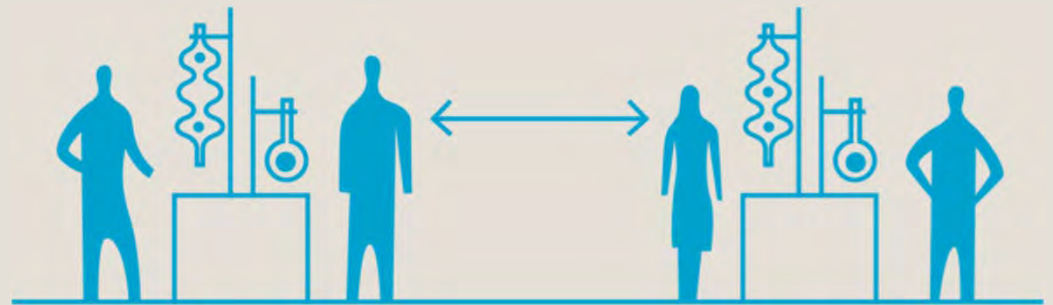
Our plasma collection plan

Next steps

- Continuing to reinforce the principles underlying the public system and to provide the evidence necessary to inform policies and mitigate risks
- Funding requested for three proof-of-concept plasma collections sites in the 2019–2022 corporate plan; planning work underway
- Ramping up collections within existing infrastructure
- Leveraging expertise and best practices from others to ensure efficient operations

Key focus area

Manufacture biological products





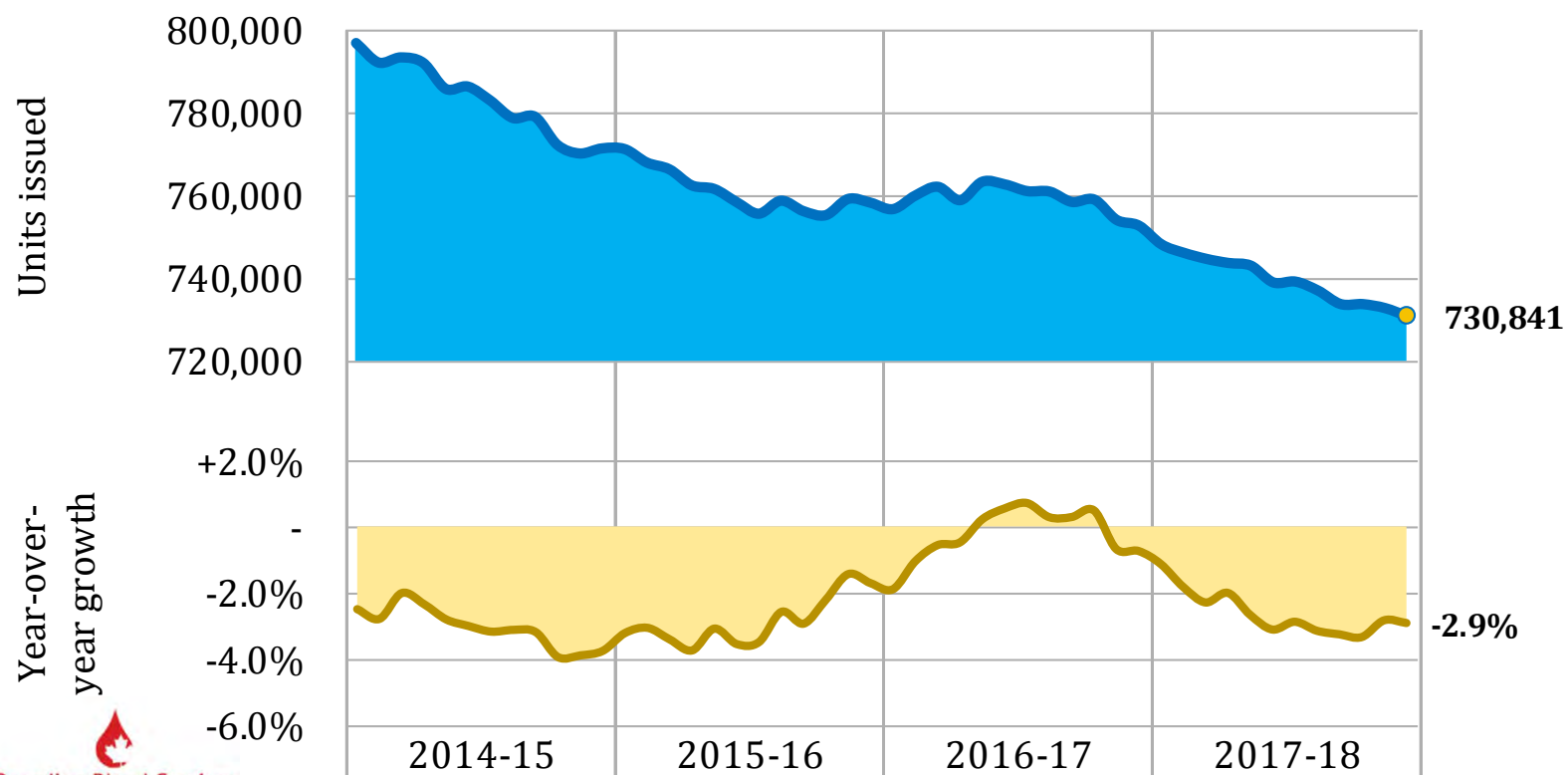
730,841 red blood cell units shipped

- 95% of target
- 12% decline in red blood cell demand over 9 years

Nicholas, blood recipient

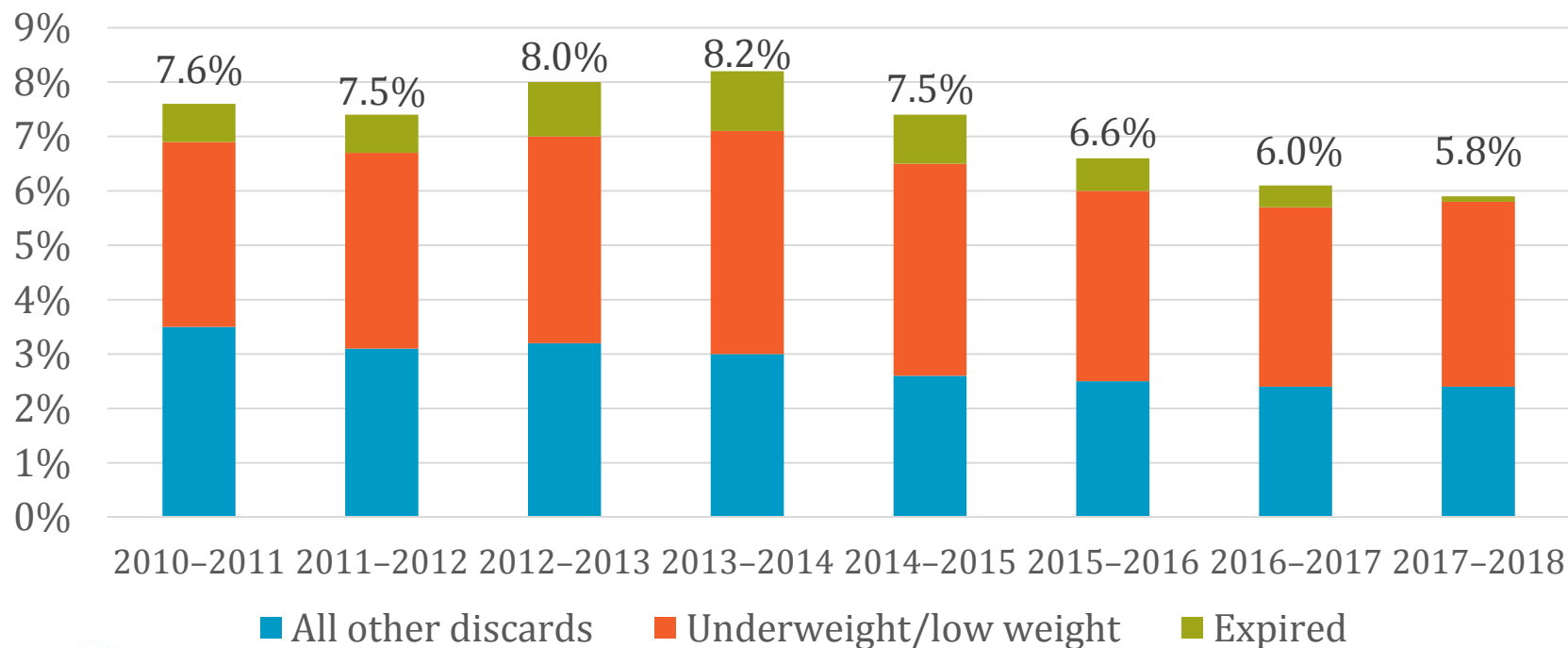
Manufacture biological products

Red blood cell shipments



Manufacture biological products

Red blood cell and whole blood discards





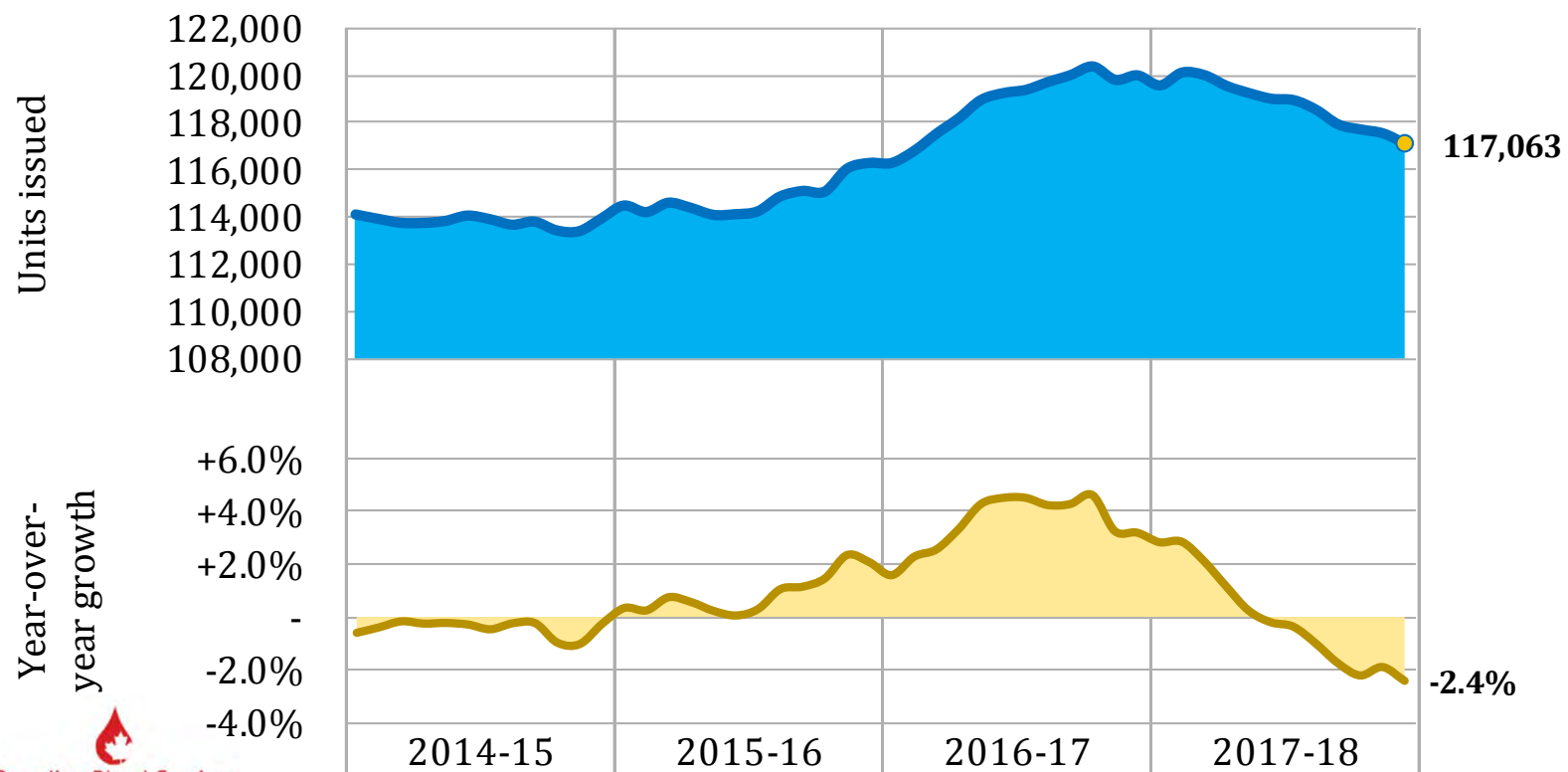
117,063 platelet
doses shipped

- 72% pooled
- 28% apheresis
- 97% of target

Elyse, red blood cell and platelet recipient

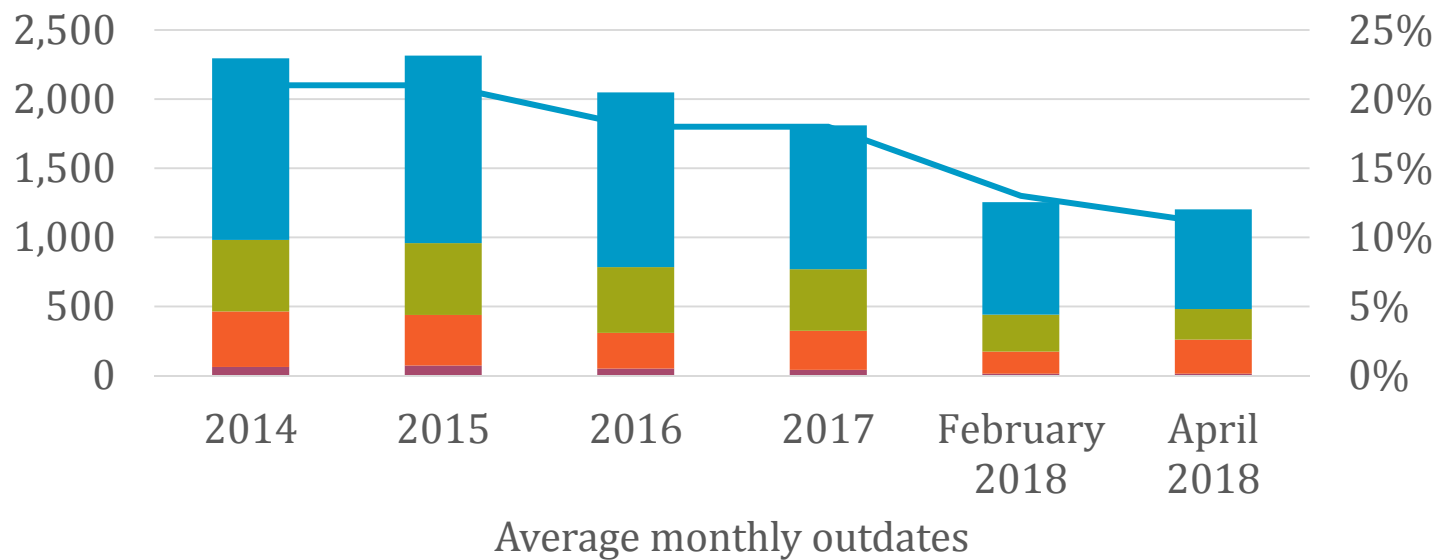
Manufacture biological products

Shipments of platelet units



Manufacture biological products

Platelet outdates and wastage



101,197 plasma units
shipped for transfusion

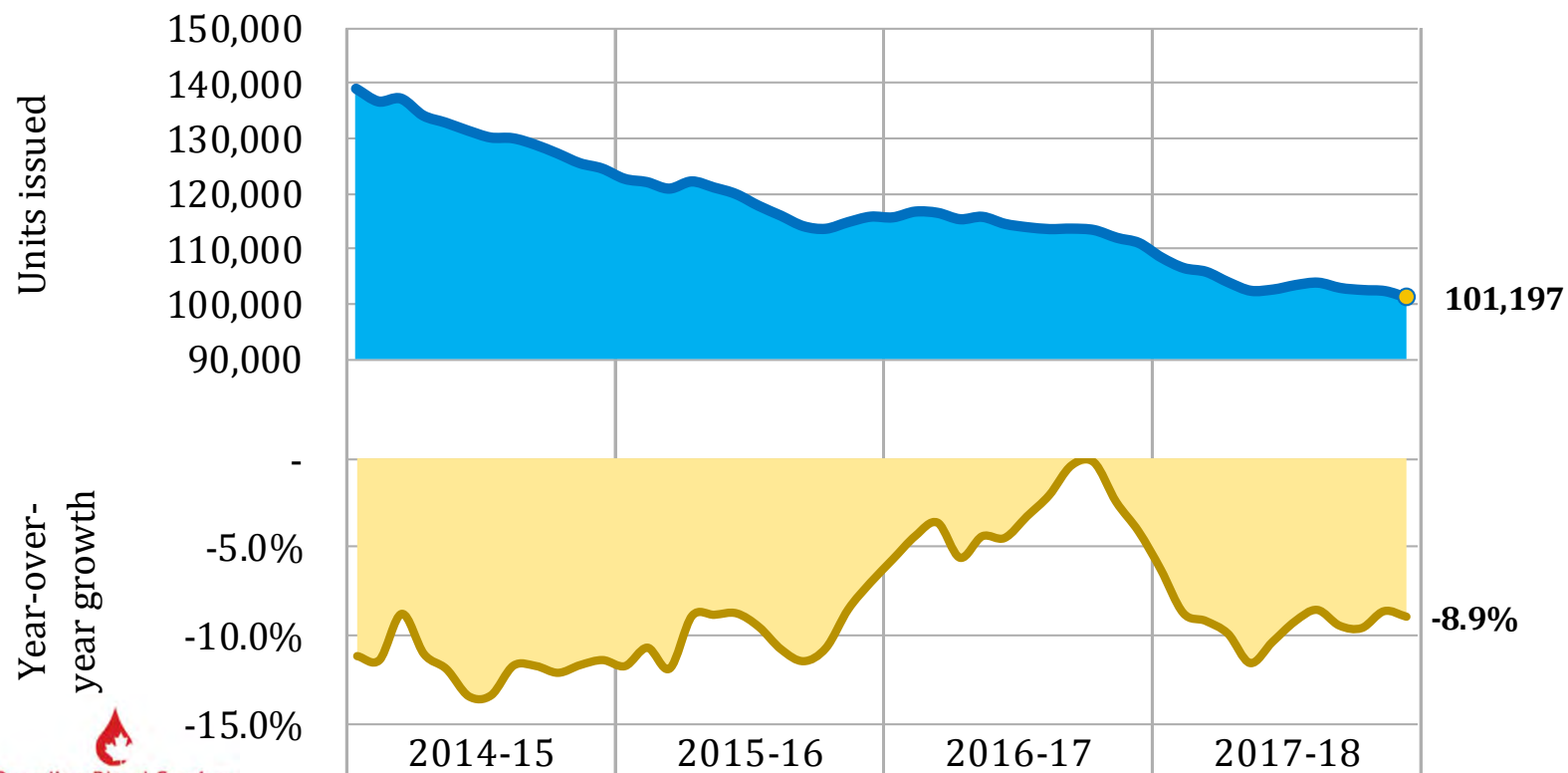
- 98% of target
- 50% decline in demand over 9 years

Jill (far left), blood and plasma recipient



Manufacture biological products

Shipments of plasma units for transfusion



170,000 litres of plasma
sent for fractionation

- 86% recovered plasma
- 9% cryo supernatant plasma
- 5% source plasma

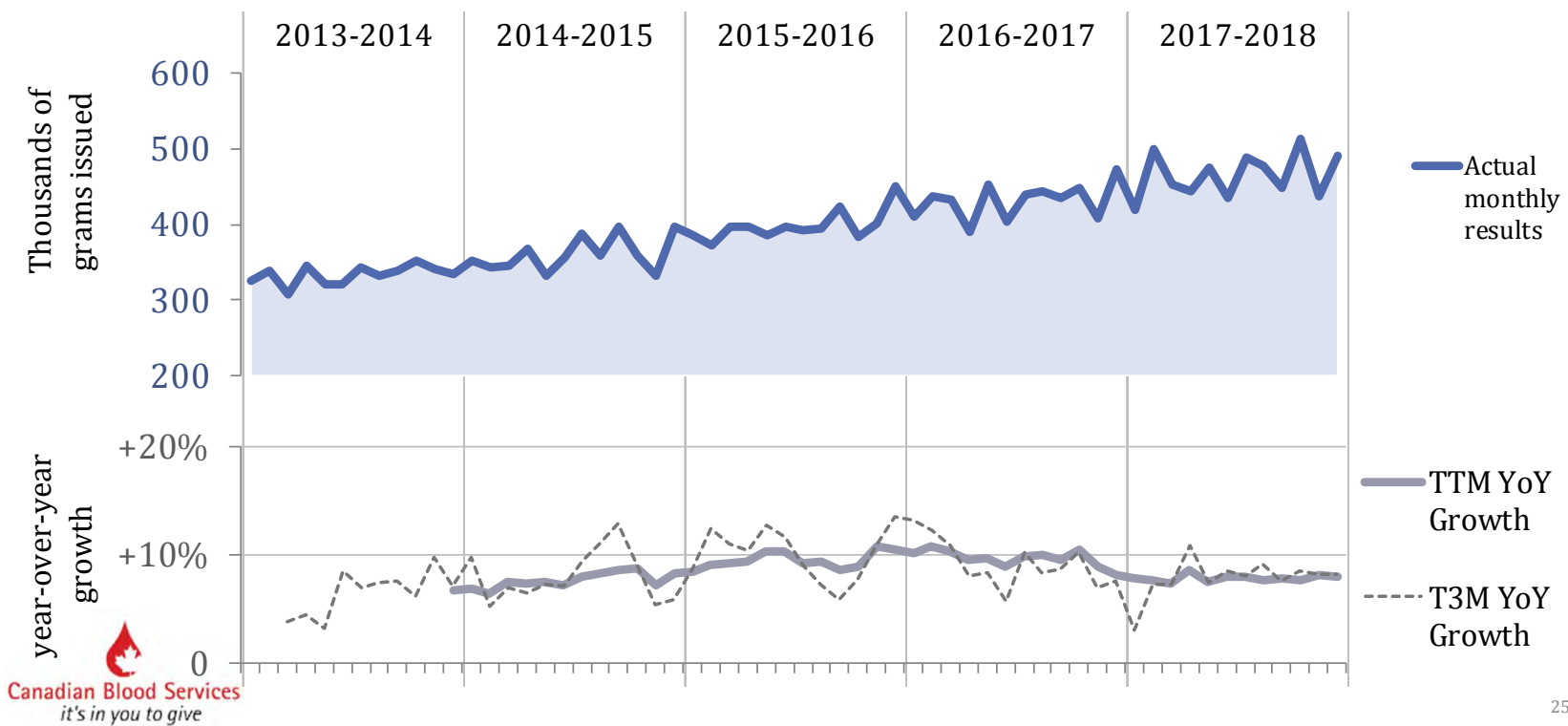
Katherine, regular albumin recipient



Manufacture biological products

Plasma protein products utilization growth

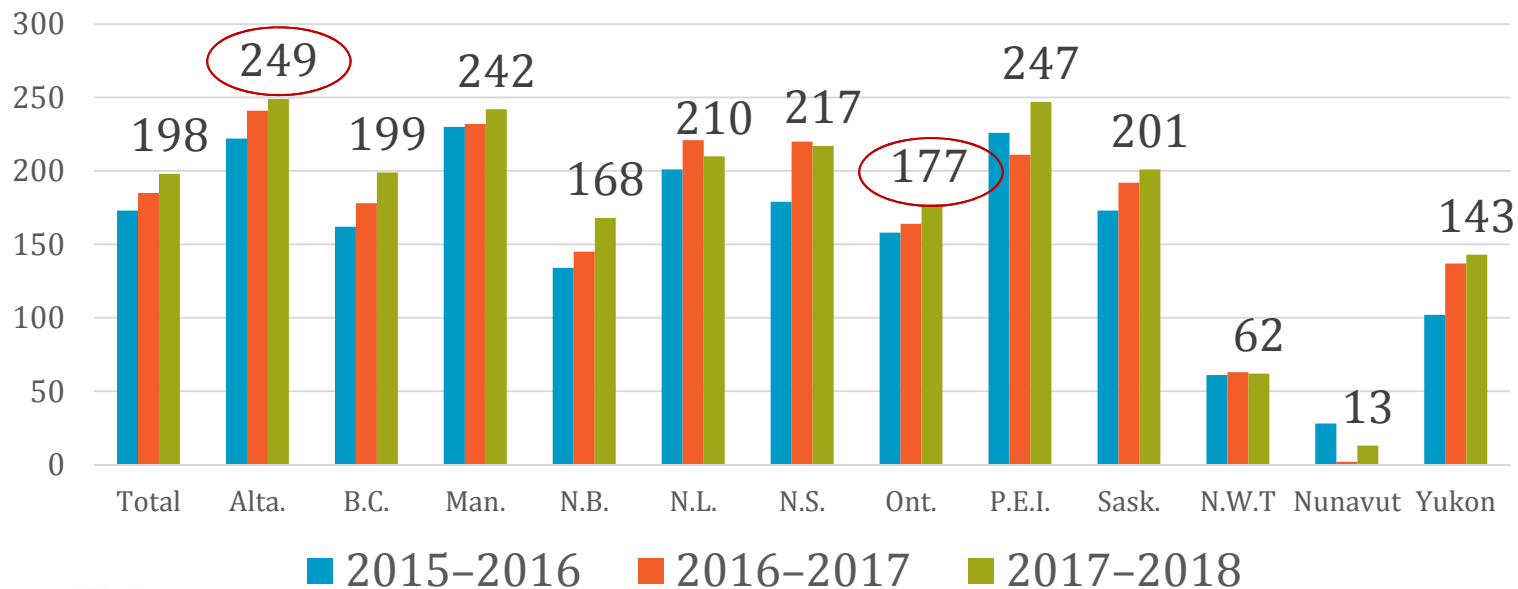
Immune globulin



Manufacture biological products

Plasma protein products utilization growth

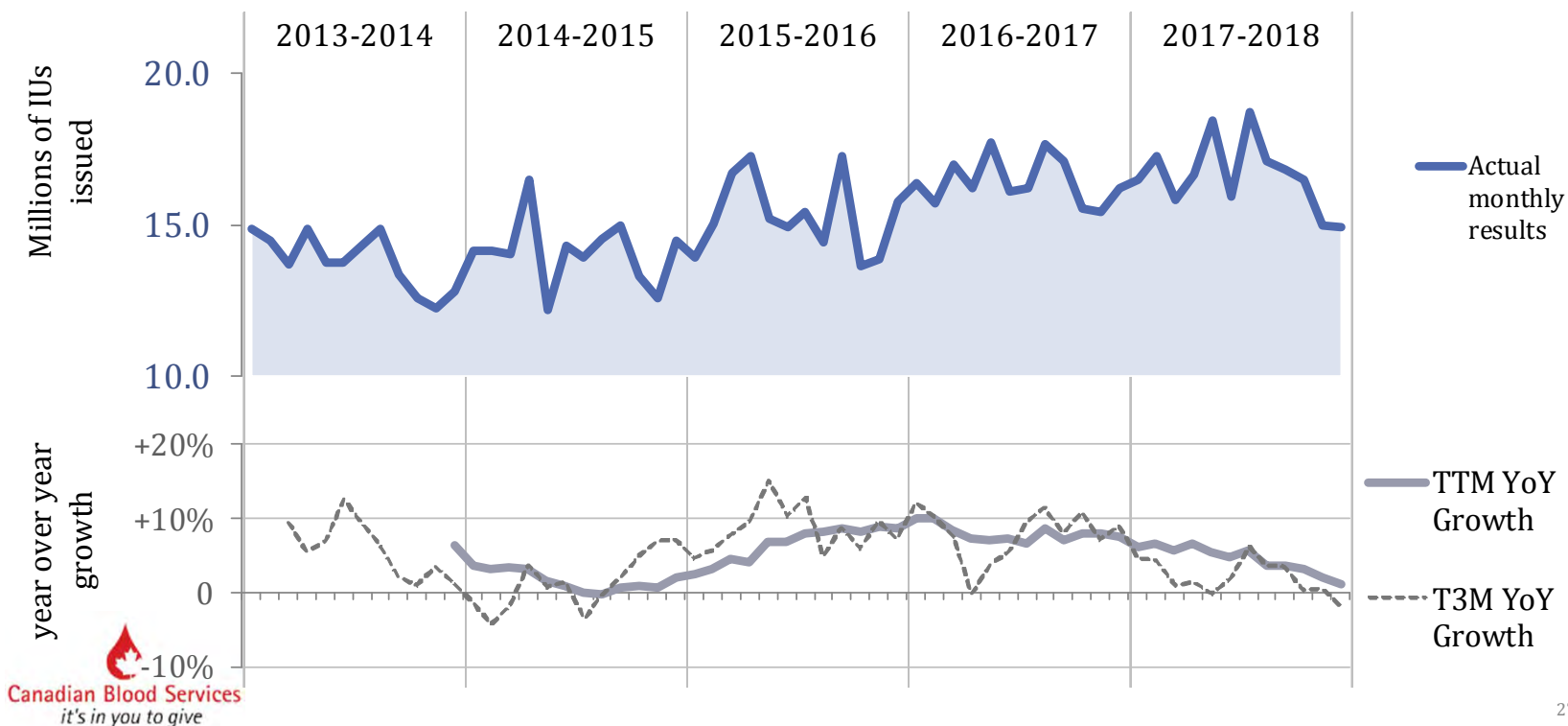
Immune globulin



Manufacture biological products

Plasma protein products utilization growth

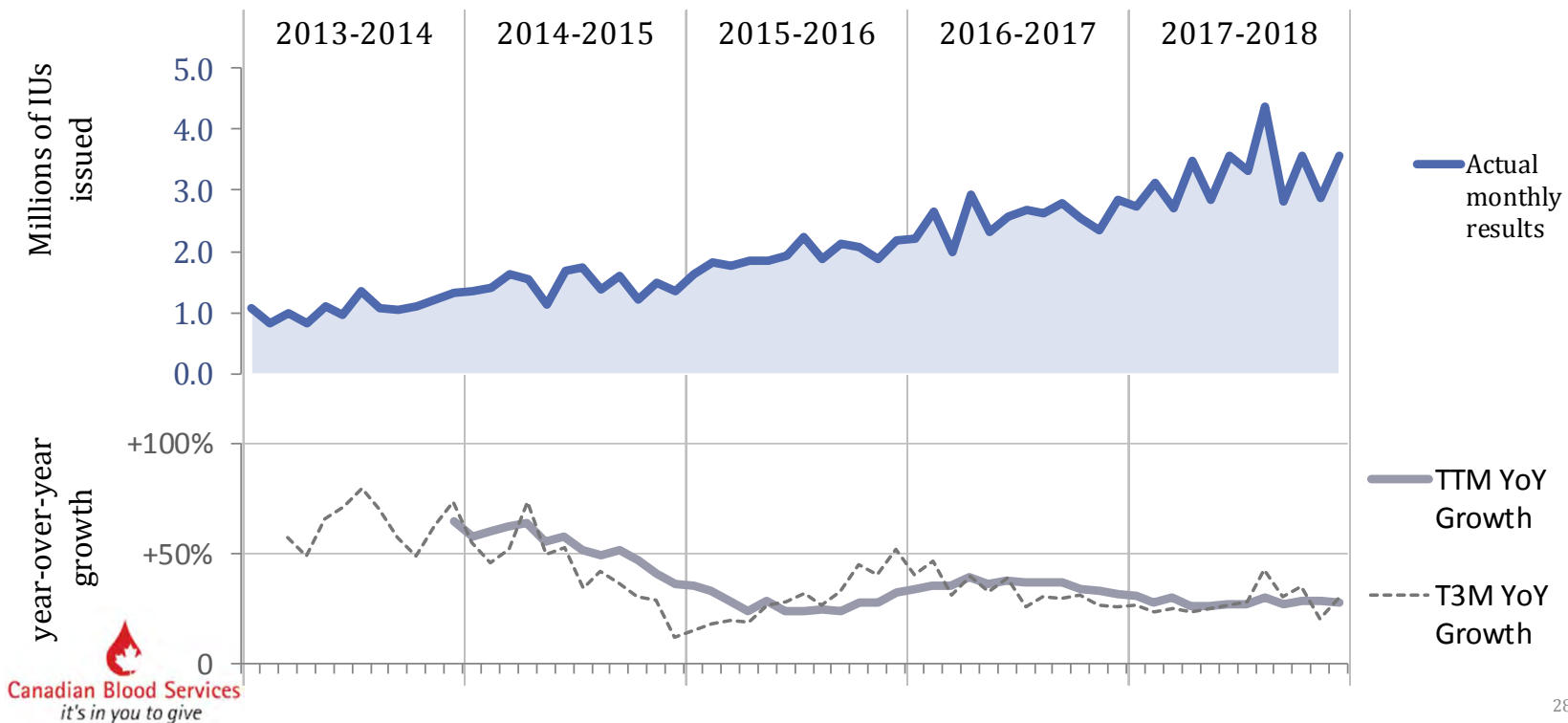
Recombinant factor VIII



Manufacture biological products

Plasma protein products utilization growth

C1 Esterase



Manufacture biological products

Renewing our infrastructure



Brampton, Ont.: Added new **testing facility**



Toronto, Ont.: Opened new **collections site** at Yonge and Bloor in downtown Toronto

Manufacture biological products

Renewing our infrastructure



2017: Broke ground in May for new operations centre in Calgary

Manufacture biological products

Our environmental footprint

- Committed to improving our impact on the environment
- Slight increase in carbon footprint over last year due to minor operational changes
- Several energy saving and waste reduction initiatives underway — **will reduce impact on environment and costs**
- New Calgary building designed to achieve LEED Gold certification

Key focus area

Provide transfusion and transplantation services



Stem cell program

Nadia, stem cell recipient



Provide transfusion and transplantation services

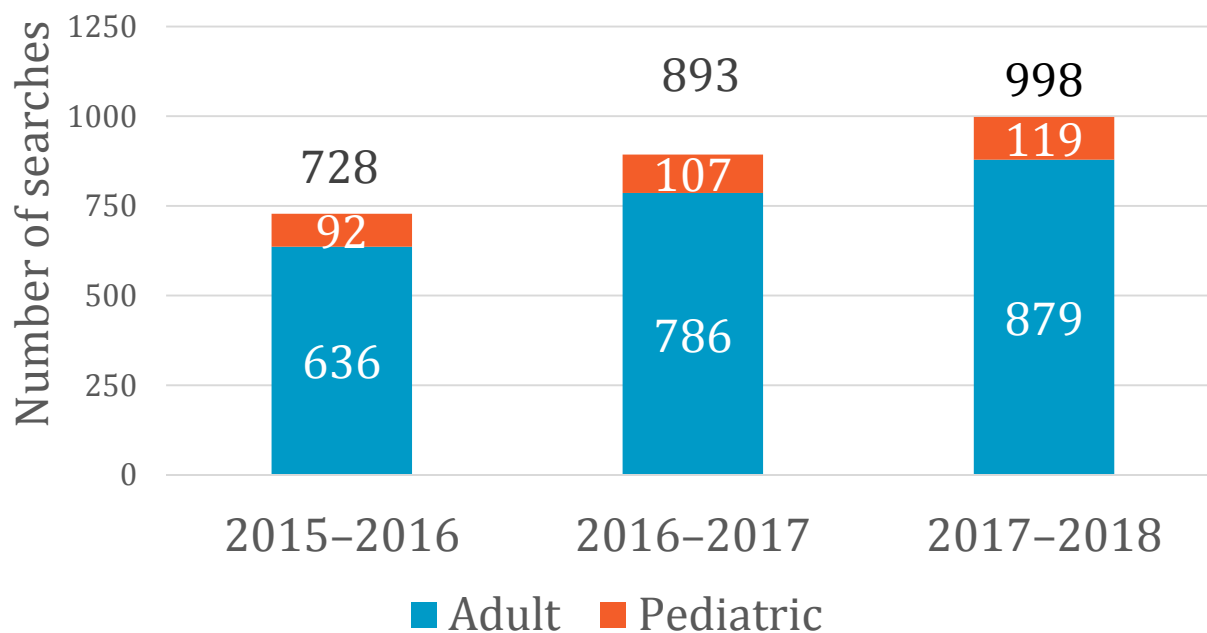
Stem cell program: Better outcomes for patients

- Operate national registry of adult donors; participate in international network of donor registries
- Collect cord blood and manufacture stem cells through cord blood bank
- Provide human leukocyte antigen (HLA) typing services to ensure the best possible match



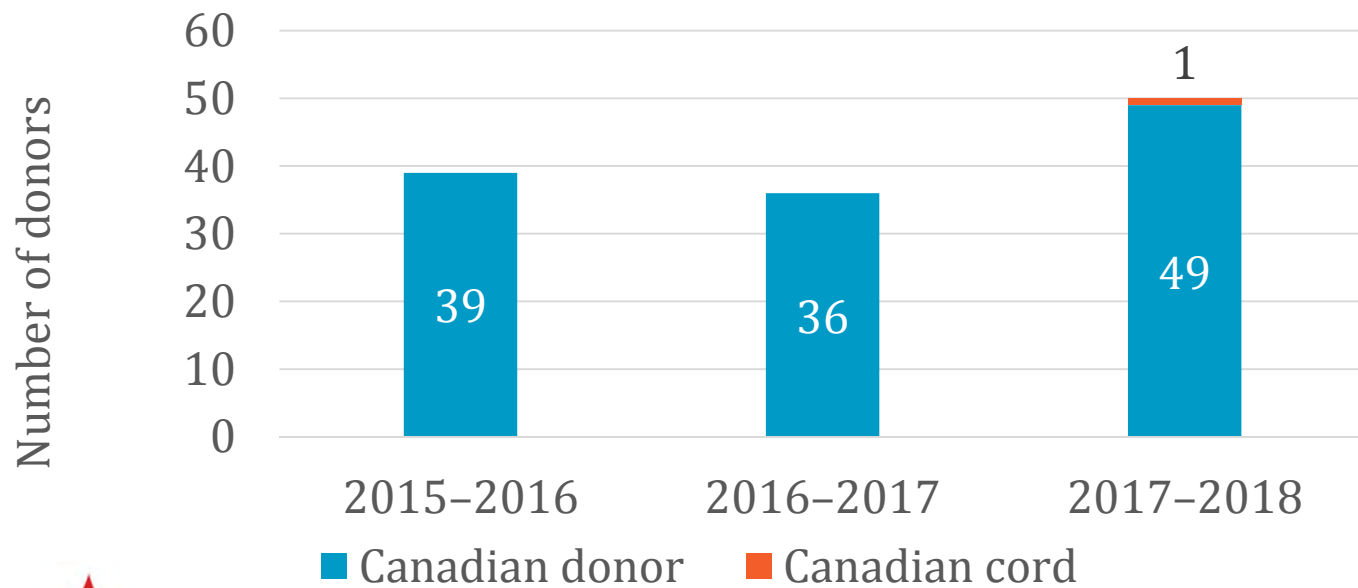
Provide transfusion and transplantation services

Adult registry



Provide transfusion and transplantation services

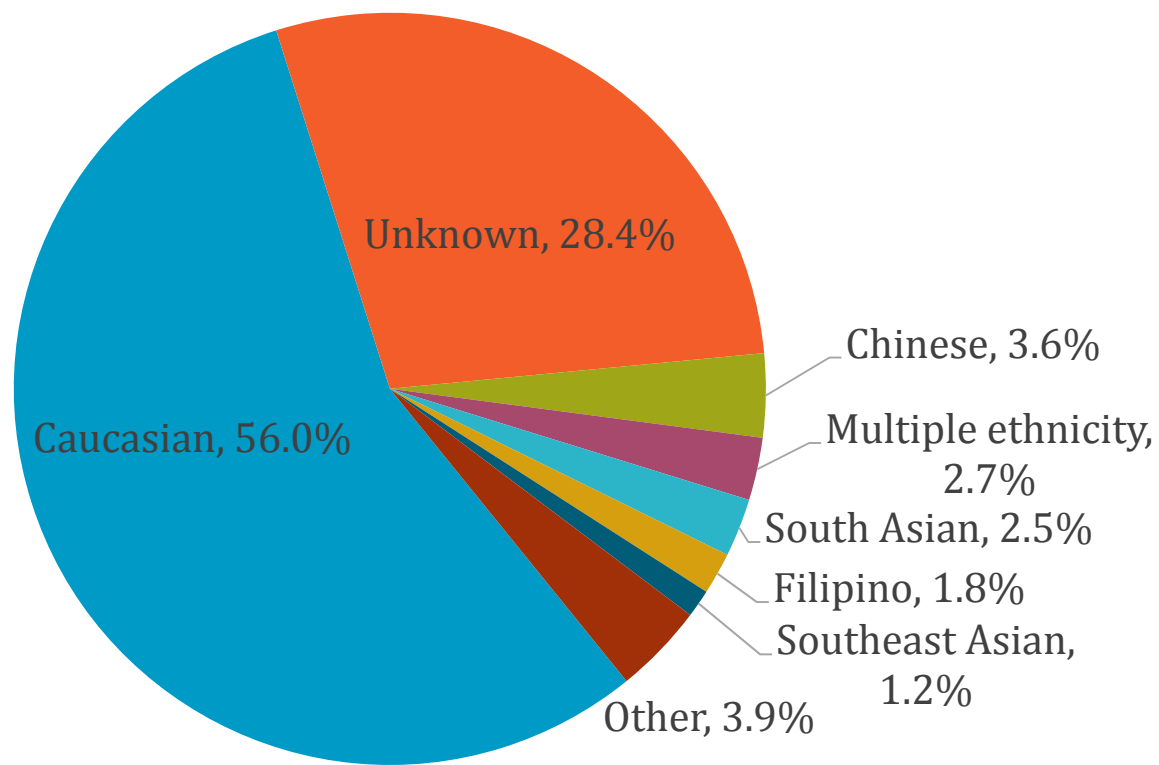
Stem cells for Canadian patients from Canadian donors



Provide transfusion and transplantation services

Adult stem cell transplants: Meeting the ethnicity challenge

Canadian patients transplanted between April 1, 2015, and March 31, 2018



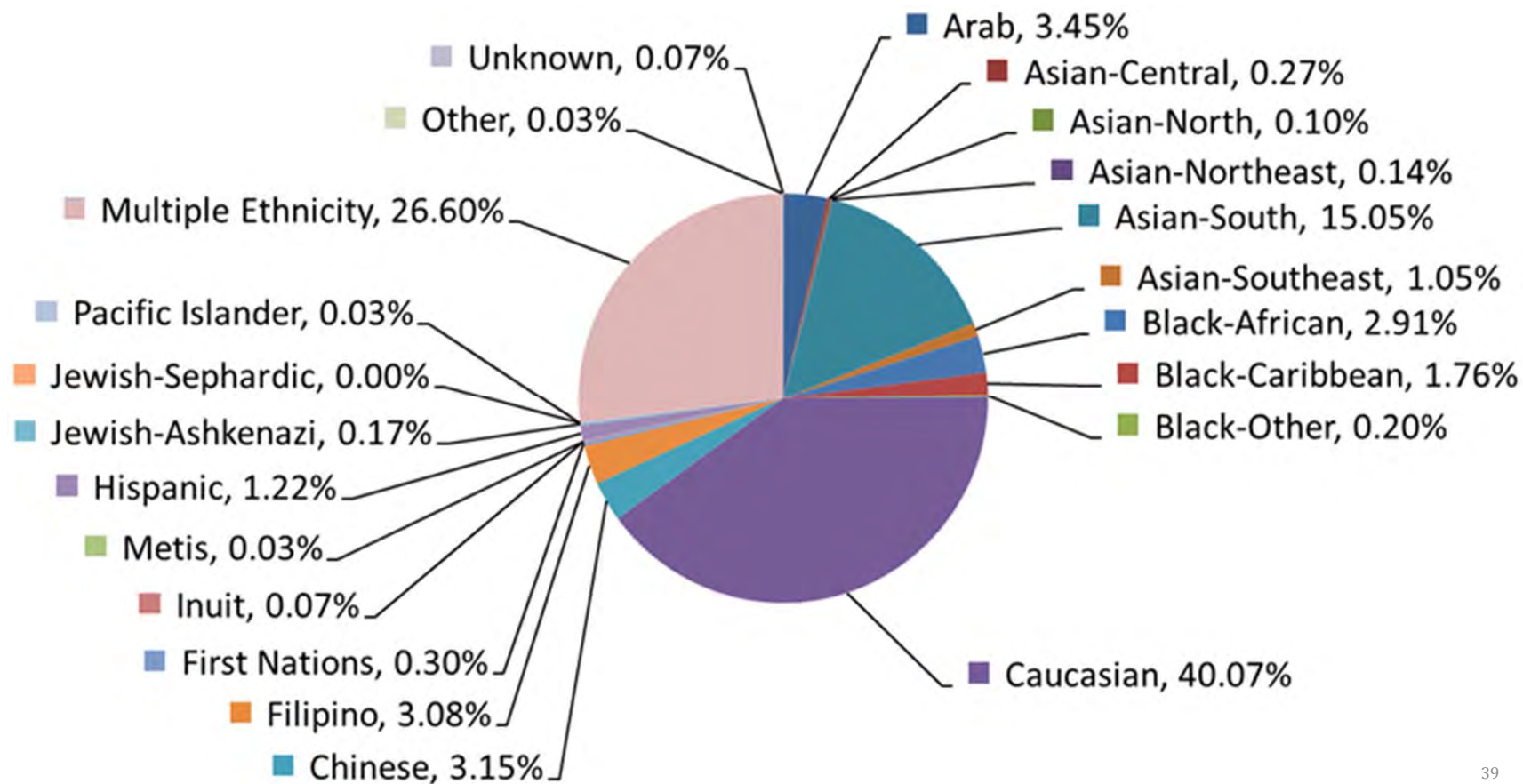
Canadian Blood Services' Cord Blood Bank

- **2,865** cord blood units listed by end of 2017–2018 (cumulative)
- **4 units** shipped in 2017–2018 (1 in Canada, 3 international)
- **13 total units** shipped to date

Cara (with Jasper) and Julia (with Kirk),
cord blood donors



Provide transfusion and transplantation services



Provide transfusion and transplantation services

- Cord blood bank is one of the **highest quality banks** in the world
- **Exceeded all quality indicators**

Cord Blood Inventory Quality Index (selected indicators)	Target	Actual 2017–2018
Average post-production total nucleated cell (TNC) count (x10 ⁹) Caucasian	≥1.39	1.50
Average post-production TNC count (x10 ⁹) non-Caucasian	≥1.28	1.32
Average post-production CD34+ cell count (x10 ⁹) Caucasian	≥5.80	6.74
Average post-production CD34+ cell count (x10 ⁹) non-Caucasian	≥5.02	5.45



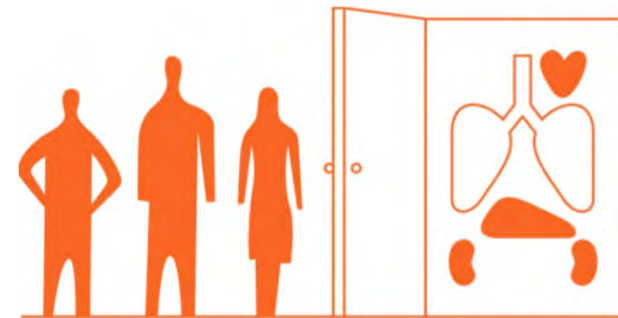
Organ and tissue donation and transplantation

Crystal, heart recipient

Provide transfusion and transplantation services

Organ donation and transplantation

- **National leadership role in all provinces and territories since 2008**
 - Canadian Transplant Registry
 - Leading practices and professional education
 - Public awareness
 - System reporting and analytics



Provide transfusion and transplantation services

Interprovincial organ sharing via patient registries

1,000+

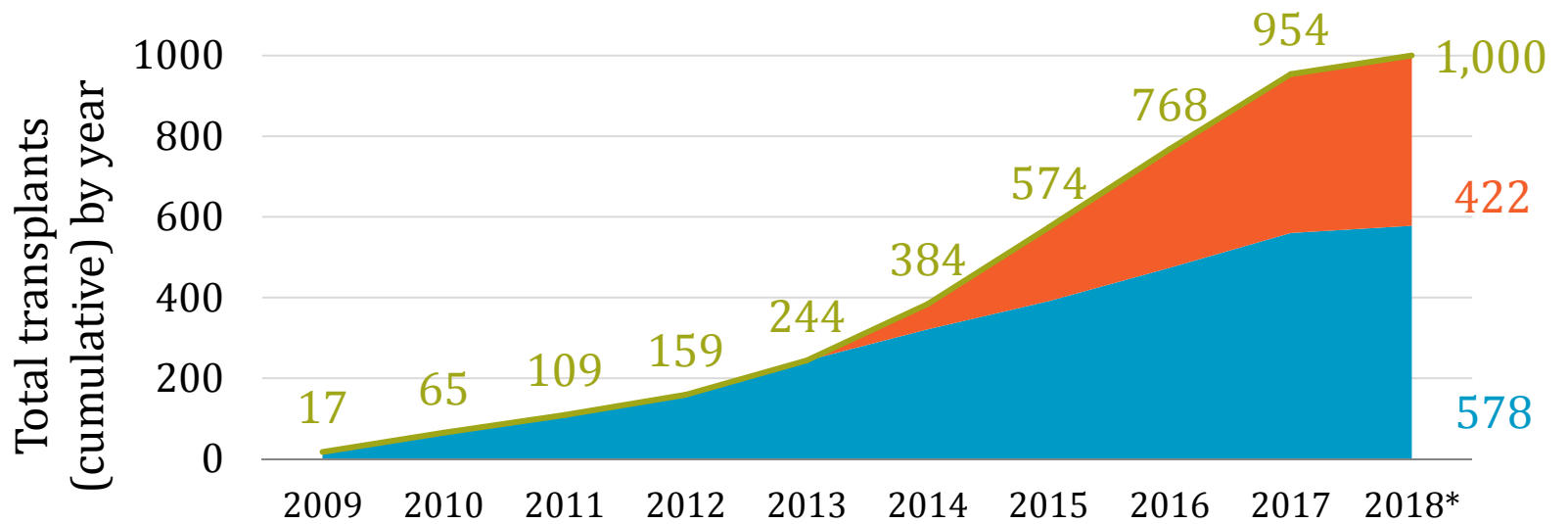
*Kidney transplants enabled by the
Kidney Paired Donation program
and the Highly Sensitized Patient
Kidney program (cumulative since
2009)*



*Gurjeet with her husband and kidney donor Shak
Photo courtesy of B.C. Transplant; data as of April 2018*

Provide transfusion and transplantation services

Interprovincial organ sharing via patient registries



*Results as of 1,000th transplant

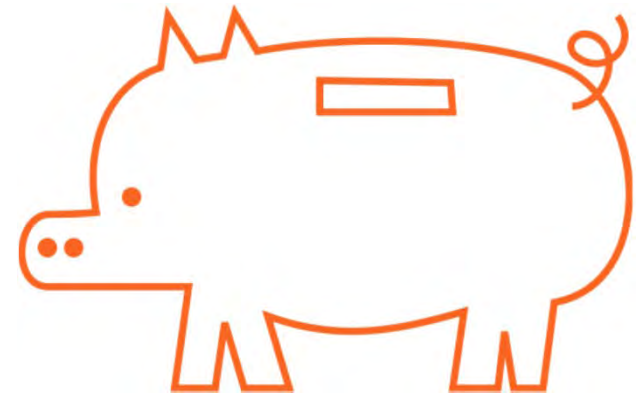
- Highly Sensitized Patient Kidney program
- Kidney Paired Donation program
- Both programs combined

Provide transfusion and transplantation services

Kidney transplants

> \$16M

Approximate cumulative dialysis costs avoided in 2017–2018 by the health-care system



Provide transfusion and transplantation services

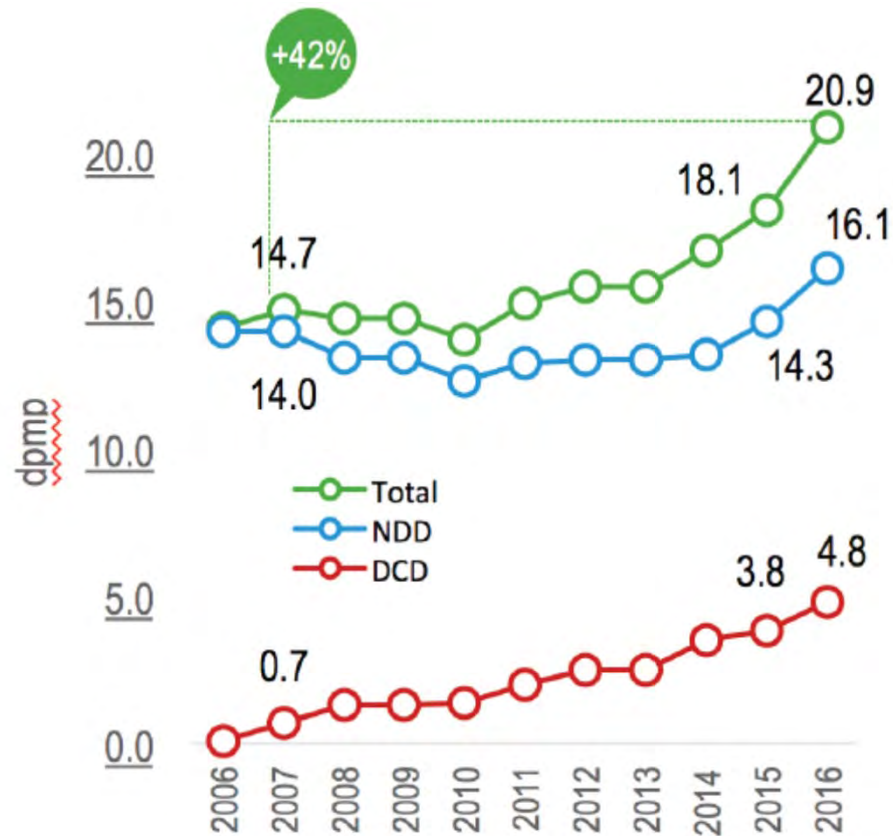
Leading practices

Vital resources for OTDT clinicians, practitioners:

- International guidelines in determination of death
- End-of-life conversations with potential donor families
- Canadian guidelines for controlled pediatric donation after circulatory determination of death
- Bioburden reduction and control in tissue banking
- Leading practices workshops in eye and tissue banking

Provide transfusion and transplantation services

Improved organ transplant performance



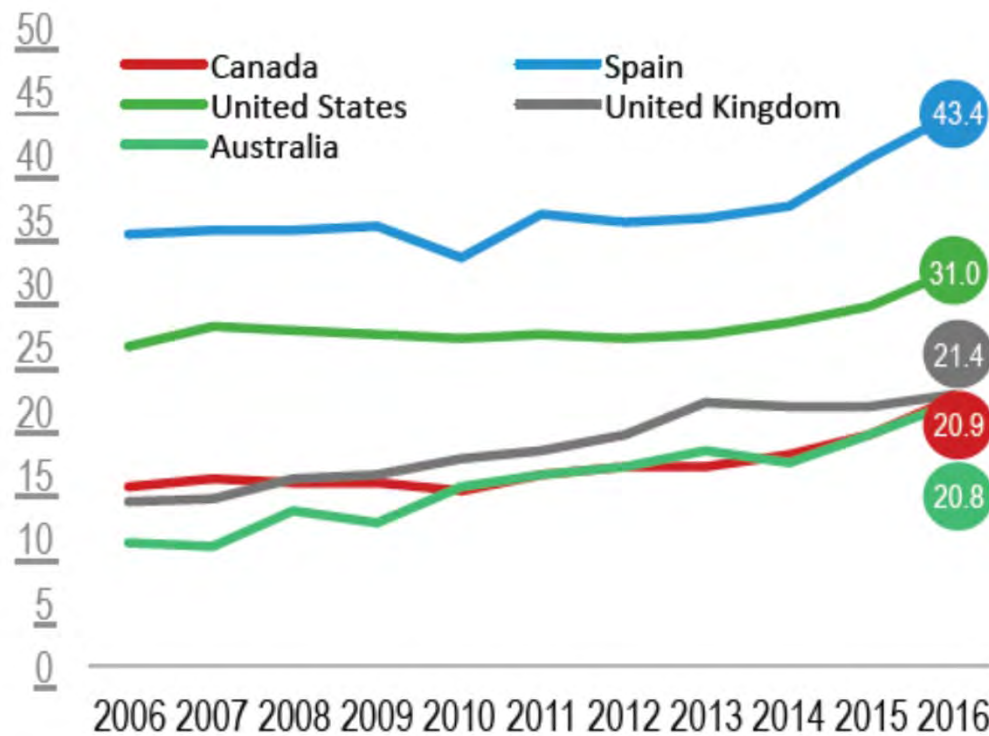
DPMP: Donation performance per million population
NDD: Neurological determination of death
DCD: Donation after circulatory determination of death



2016 System Progress Report Update

Provide transfusion and transplantation services

Improved organ transplant performance



Provide transfusion and transplantation services

Health Canada program evaluation

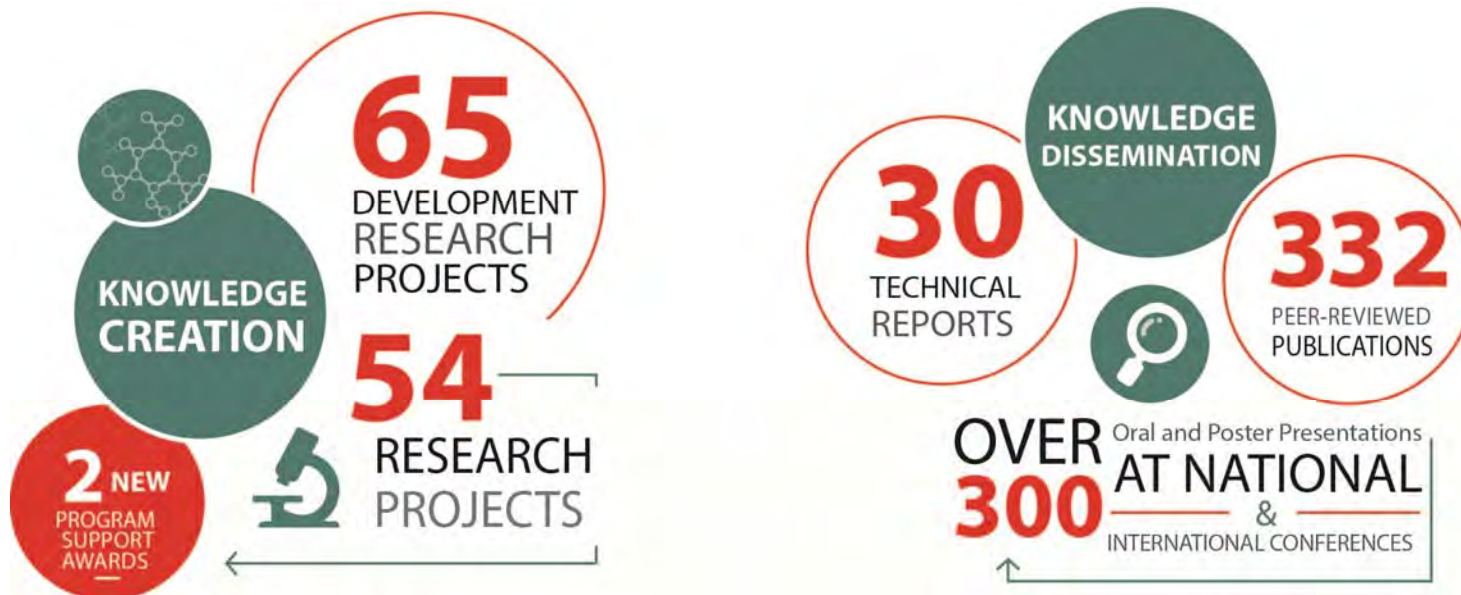
- Organ and tissue donation and transplantation (OTDT) program is:
 - **Relevant**
 - **Aligned with government priorities and federal roles**
 - **Advancing OTDT stakeholder objectives**
- Some overlap with other stakeholders' activities
- Program's performance has been impacted by operational challenges
- Continued effort needed to improve awareness and uptake of programs and services across all jurisdictions

Research, education and guidance



Provide transfusion and transplantation services

Knowledge creation, dissemination



Provide transfusion and transplantation services

Research program evaluation and funding renewal

- Blood R&D program is:
 - **Relevant**
 - **Making progress toward intended outcomes**
 - **Operating efficiently**
- Funding secured for five years



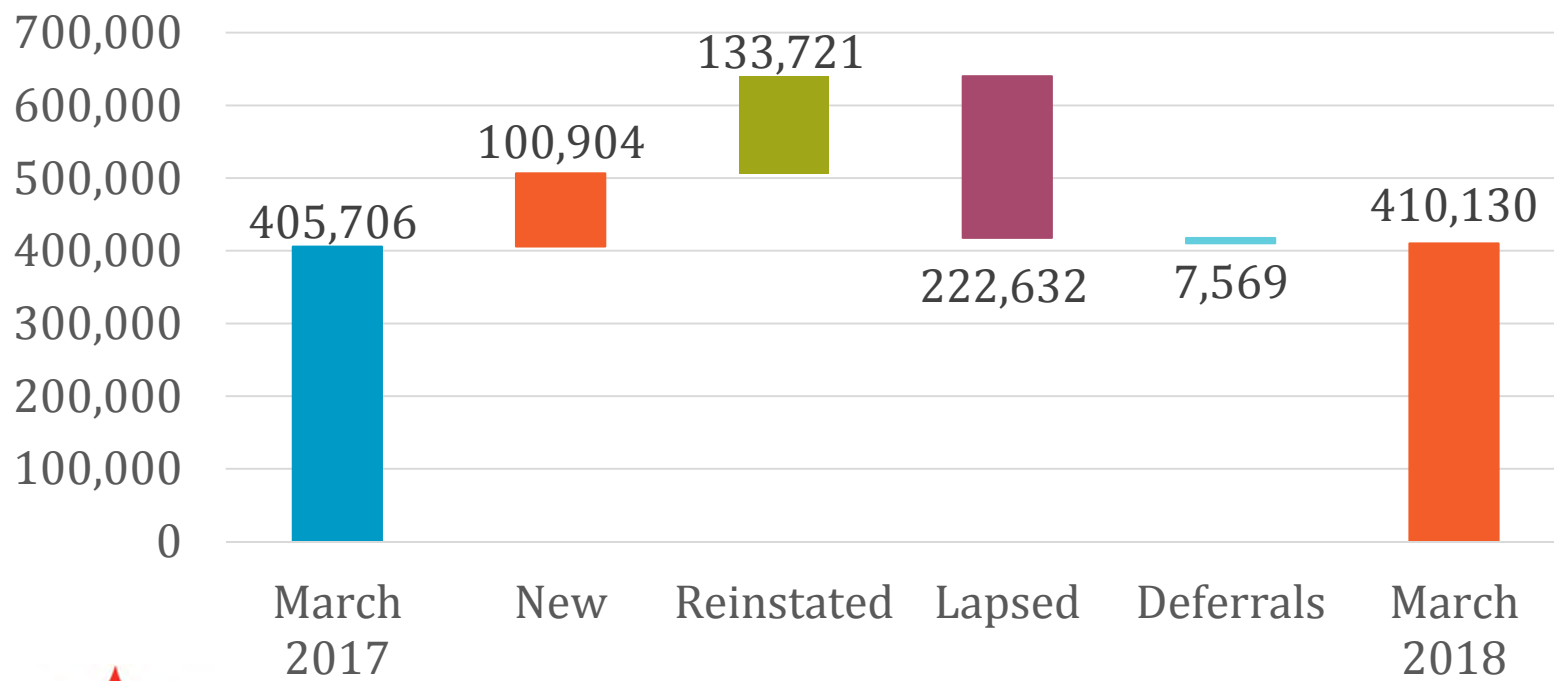
Key focus area

Transform how we attract, interact with and retain donors



Transform how we attract, interact with and retain donors

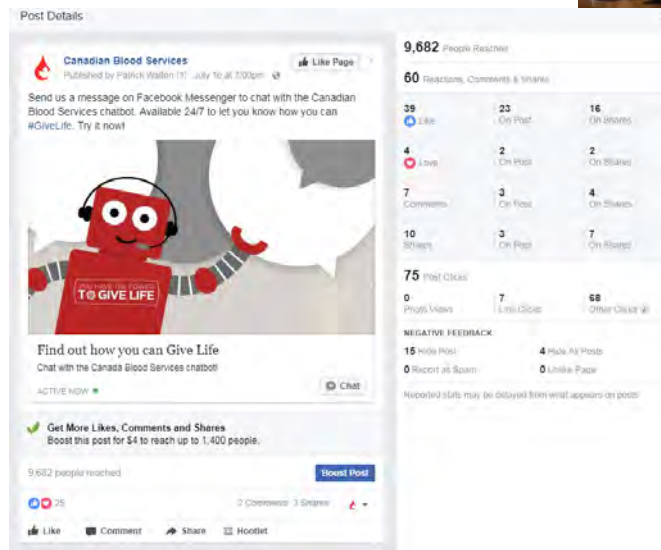
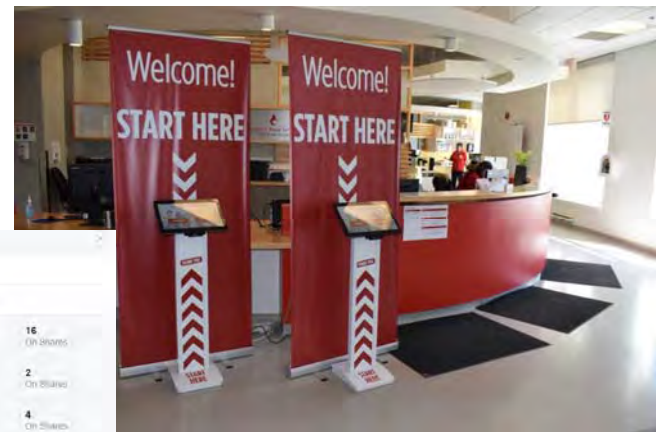
Recruiting new donors



Transform how we attract, interact with and retain donors

Connecting with donors

- Donor concierge
- App
- Chatbot



Get the GiveBlood App:

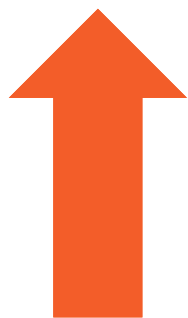
Download on the App Store

GET IT ON Google play

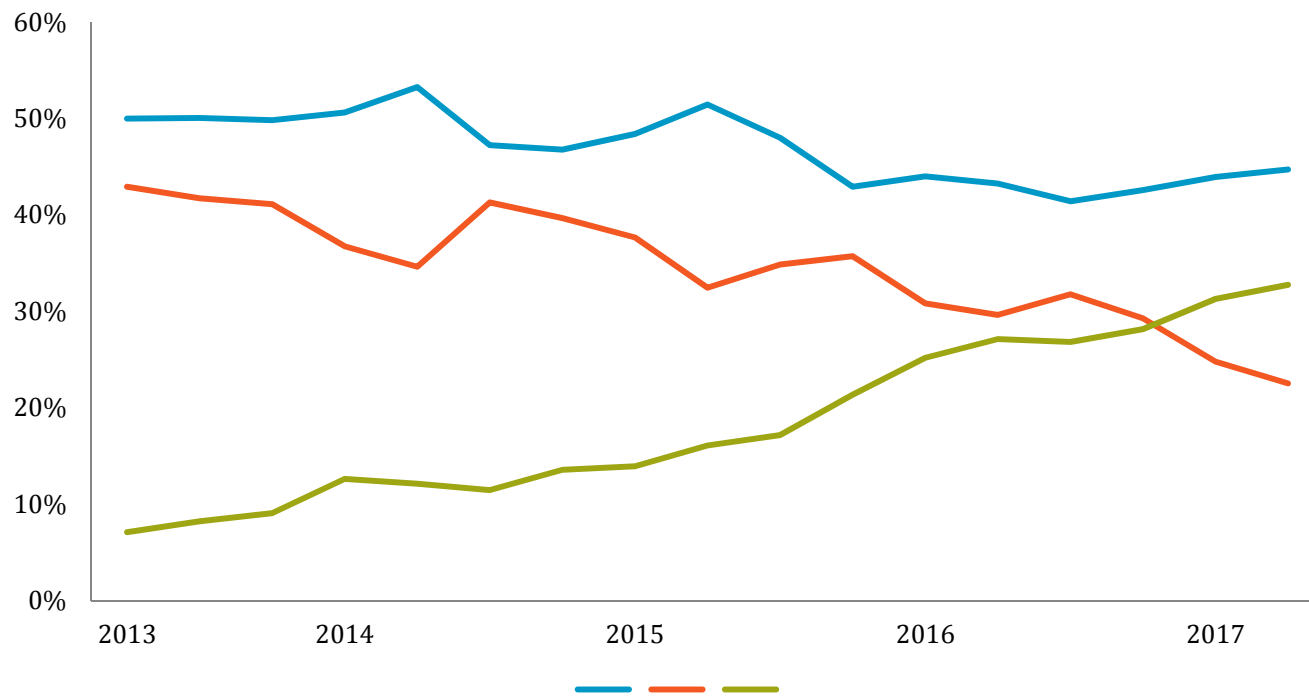


Transform how we attract, interact with and retain donors

Appointments booked by channel FY 2013-2017



Digital bookings have been trending upwards rapidly since 2014



Missing Type
campaign and
National
Blood Donor
Week



RICH
imagine change.

INTERNATIONAL
#MISSINGTYPE
MISSINGTYPE.CA

THE
Great-West Life
ASSURANCE COMPANY

GRAND RIVER
HOSPITAL
diverging Exceptional Care



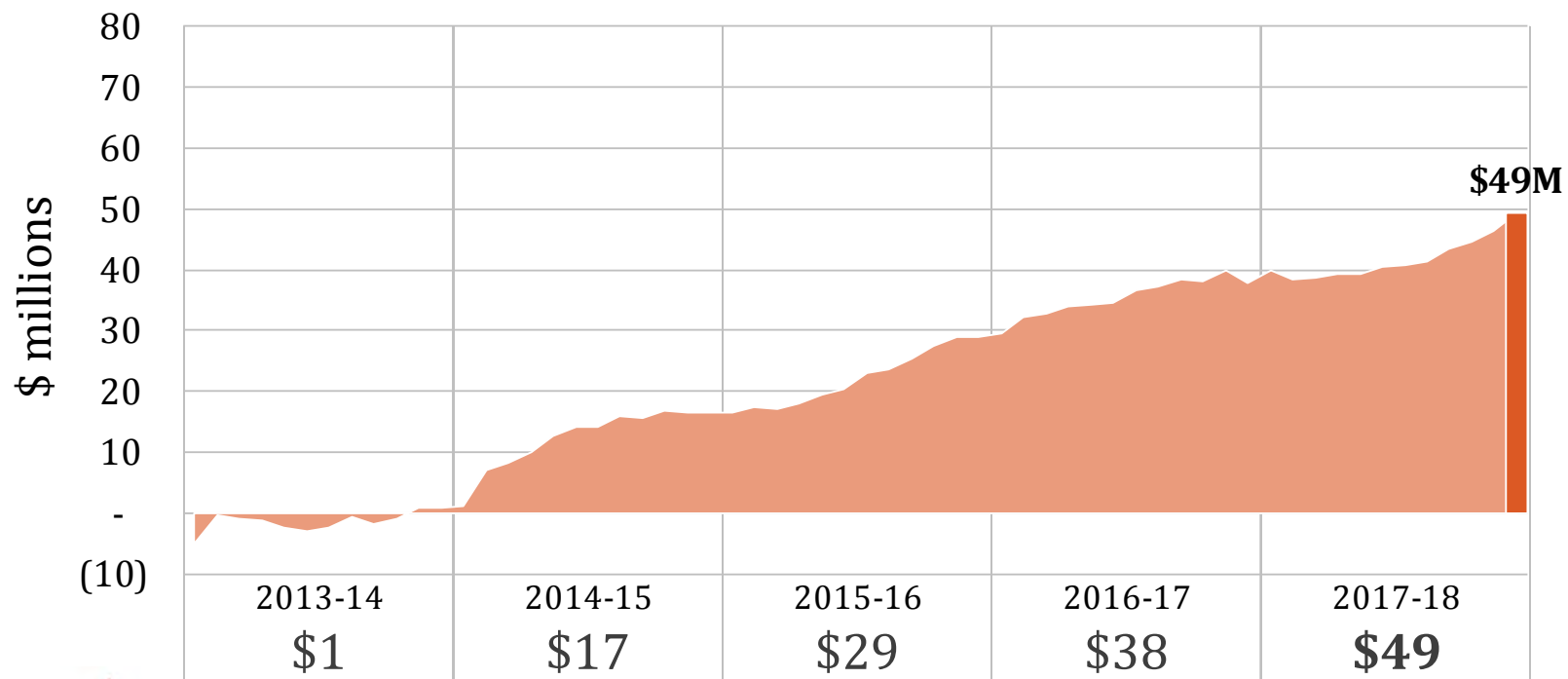

Canadian Blood Services
it's in you to give

Deliver our products and services more efficiently



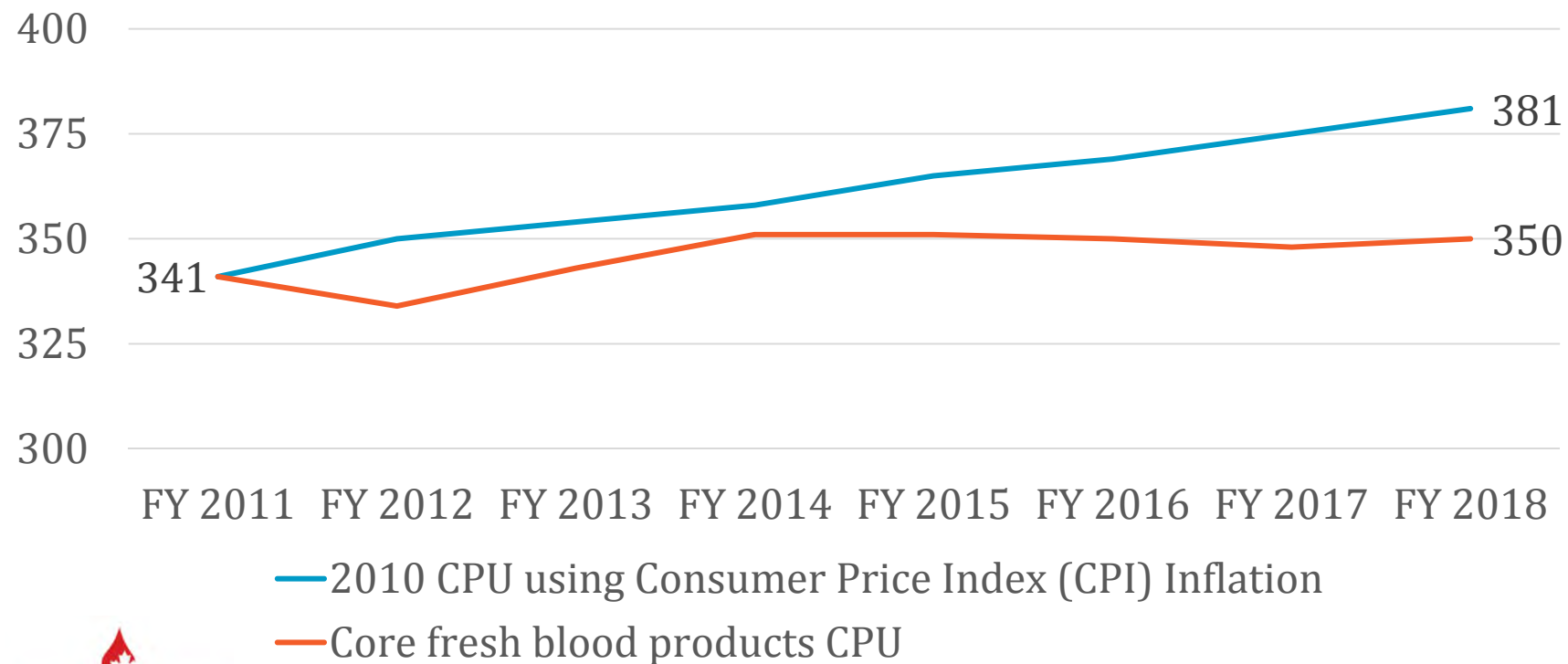
Deliver our products and services more efficiently

Efficiencies realized



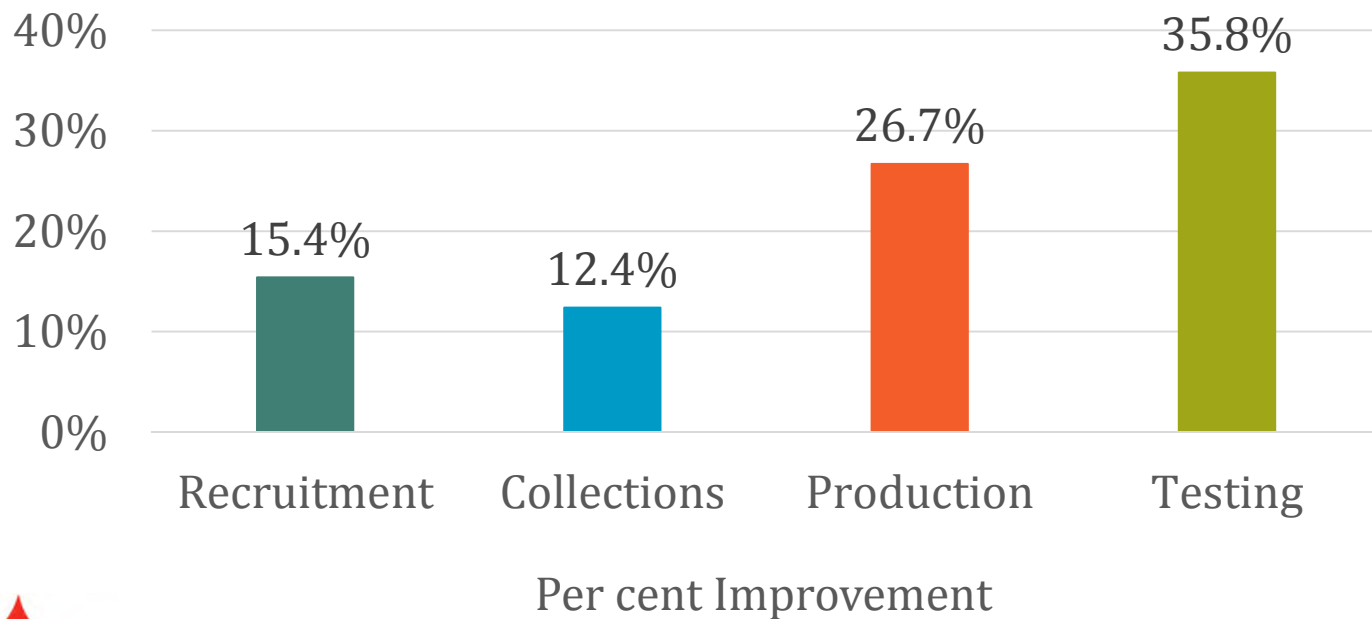
Deliver our products and services more efficiently

Core fresh blood products cost per unit



Deliver our products and services efficiently

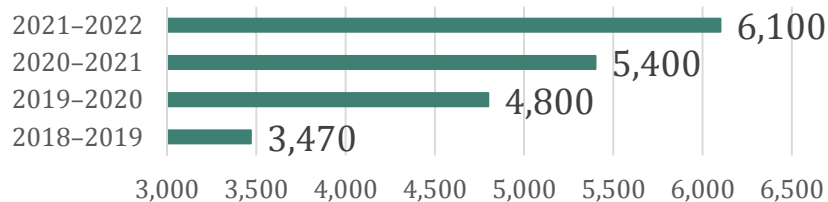
Productivity improvements 2014–2015 to 2017–2018



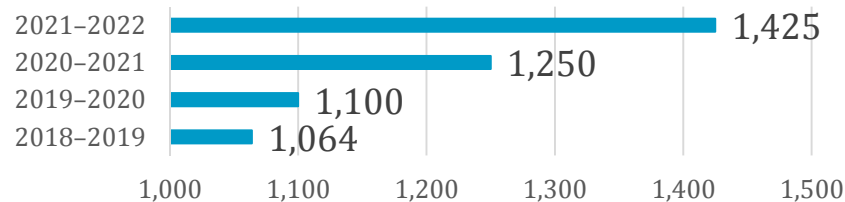
Deliver our products and services efficiently

Fresh blood products productivity targets

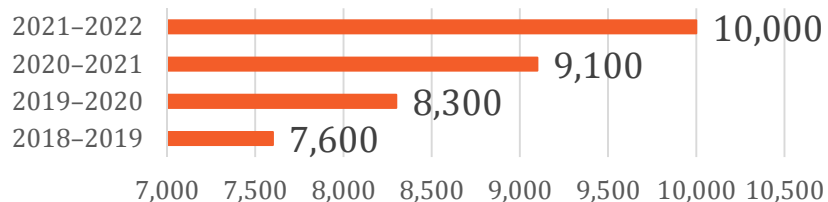
Recruitment



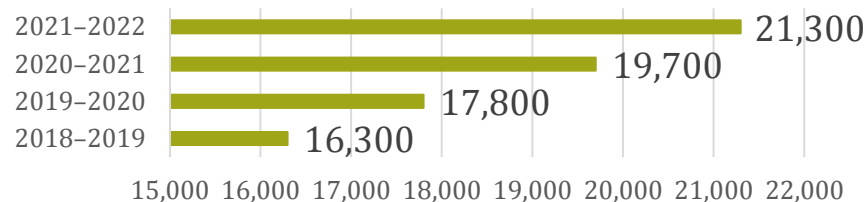
Collections



Production



Testing



Advance and mature our quality management system



Advance and mature our quality management system

Strengthening our Quality Management System

- Strengthening QMS to rival best in biologics industry
- **Link: Strengthening Our Quality Management System and Culture program**



- **Linking** our manufacturing, service delivery and QMS processes together to drive quality and customer satisfaction
- **Linking** our employees and teams together for a common purpose
- **Linking** our quality management processes together as a system

Advance and mature our quality management system

Our new quality policy

safeguard

Safety above all else
If you doubt it, shout it

engage

Each patient is your patient
To share is to care

improve

Good enough is not enough
The only constant is change

Advance and mature our quality management system

Quality index

Quality indicator	Target	Actual
Fresh blood products recalled due to E/As and PDIs	< 1,600	1,049
Extreme E/As related to fresh blood products	0	0
Adverse transfusion events	< 80	56
Health Canada critical observations	0	0
Type A errors (diagnostic services)	0	4
Serious events (stem cells)	0	0
Recalled plasma units sent for fractionation	< 600	369
Timely execution of plasma protein products recall	Same day	All but one
Fresh blood products recalled due to E/As and PDIs	< 1,600	1,049

Advance and mature our quality management system

Continuous improvements

- Established dedicated team of corrective and preventive action (CAPA) specialists
- 86% decrease in the **number of moderate and high risk quality events** compared to the previous fiscal year



Key focus area

A high-commitment, high-performance culture



A high-commitment, high-performance culture

Labour relations

- Successful ratification of a **new collective agreement** with OPSEU-support
- Legislation passed in Ontario to have Canadian Blood Services declared an **essential service**
 - Significant achievement years in the making; removed single largest risk to continuity of our work
 - Also named essential service in B.C., Alberta and Manitoba

A high-commitment, high-performance culture

Occupational health and safety

- Safety program complies with Canadian safety standards
- Strong safety rating of **91%** (provincial audit results)
- Workers' compensation costs \$50,887 lower than previous fiscal year

A high-commitment, high-performance culture

Awards

- **Annual charities report card:**
Canadian Blood Services named a charity of the year
- **Omond Solandt Award:**
Canadian Blood Services is 2018 recipient

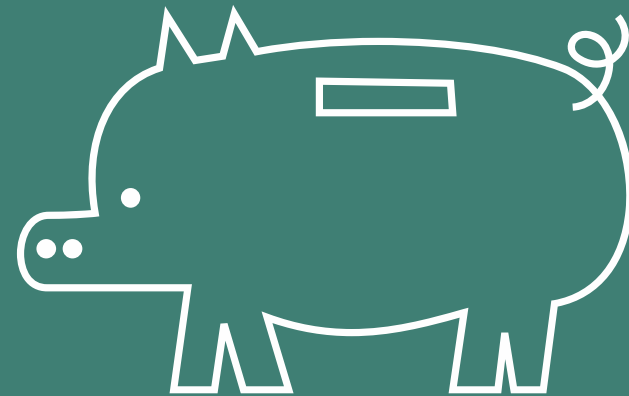


A high-commitment, high-performance culture

Diversity and inclusion

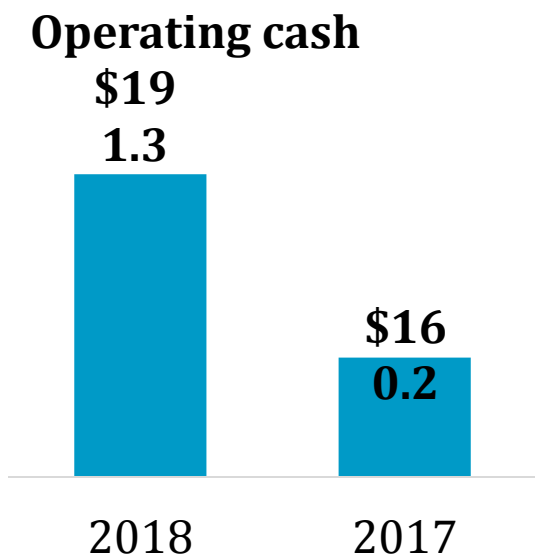
- Completed inclusivity assessment with the Canadian Centre for Diversity and Inclusion
- Diversity and inclusion resources provided to employees on internal portal
- Launched diversity and inclusion education for all employees

Financial performance

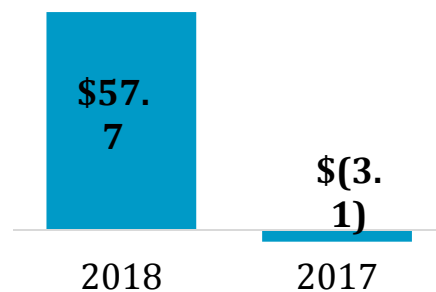


Financial performance

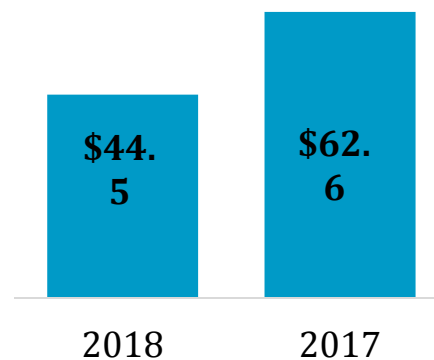
Key financial results: Working capital



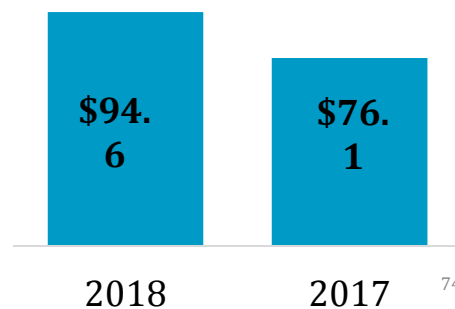
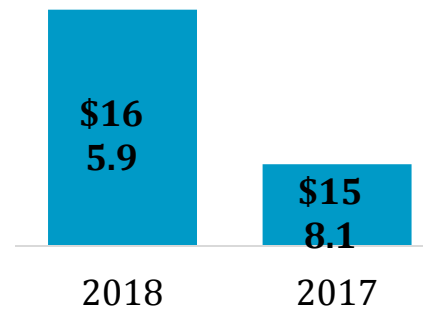
Operating cash



Member receivables



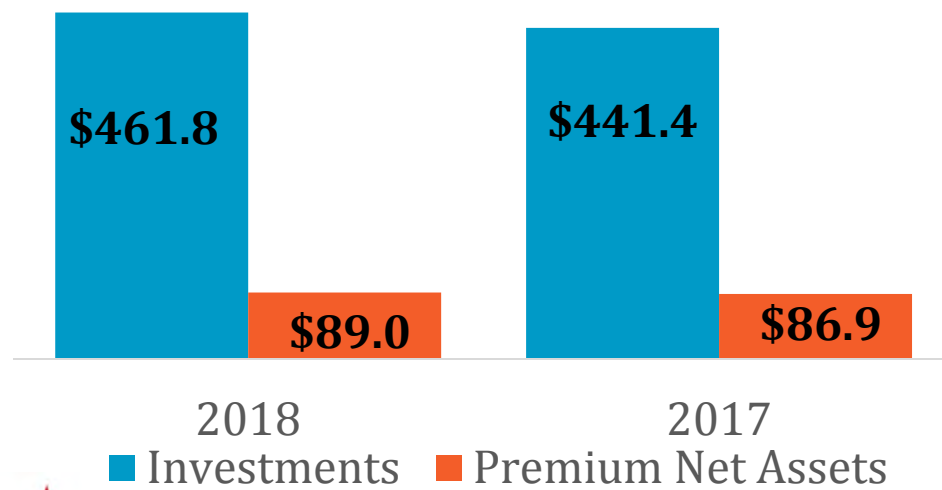
Accounts payable



Financial performance

Key financial results: Captive insurance operations

Captive investments



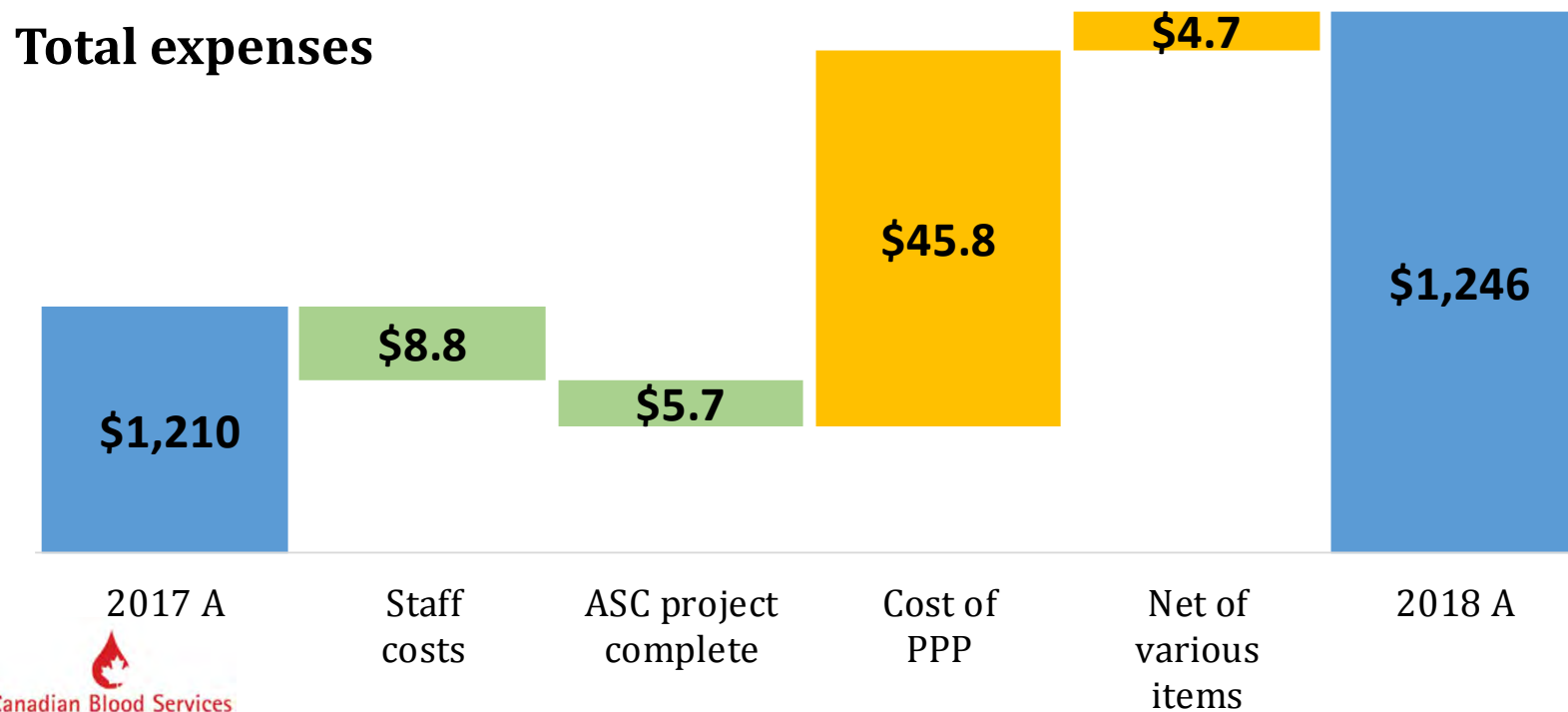
RETURN ON INVESTMENT



\$20.4 million or 4.7%

Financial performance

Key financial results: Total expenditures



Discussion





Canadian Blood Services

it's in you to give