

# Plasma Production, Utilization, and Impacts on Sourcing of Immunoglobulin-Based Drugs

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# Disclosures

- Employee of Canadian Blood Services

# Objectives – Attendees will be able to:

- Describe basics of plasma production at Canadian Blood Services
- State plasma use and trends in Canadian Blood Services catchment
- Participate in discussions regarding the relationship between plasma production and protein-based drug acquisition
- Advocate for optimal plasma transfusion support for patients to prevent unnecessary use of plasma that could otherwise support IVIg availability



# Whole Blood Component Separation

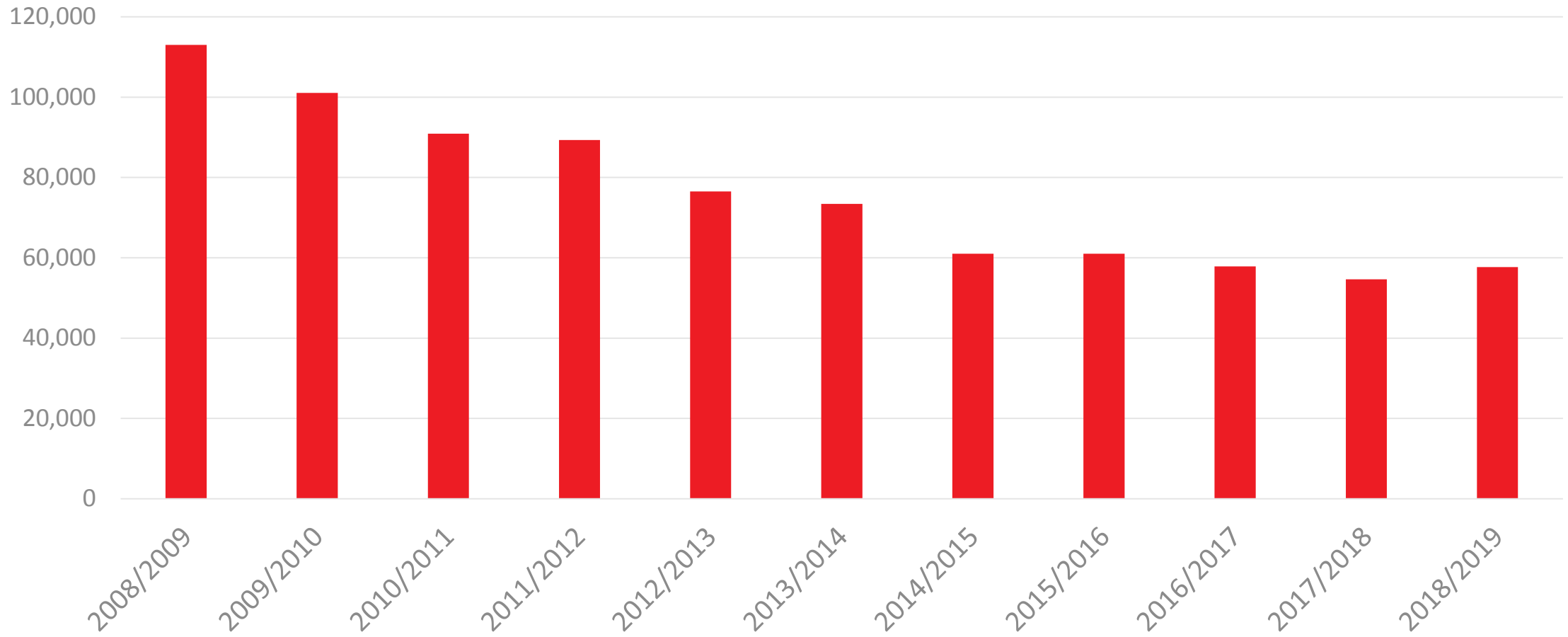


# Whole Blood Component Separation



**Plasma Also  
Collected via  
Apheresis**

# Plasma Units Distributed in ON



# Plasma Distributed Nationally

Product	Units FY 17/18	Cost / Unit FY 17/18
Whole Blood Plasma for Transfusion	75,000	\$103
Plasma for Fractionation	575,558	NA

\*173,000 liters, estimate 300mL per unit of plasma





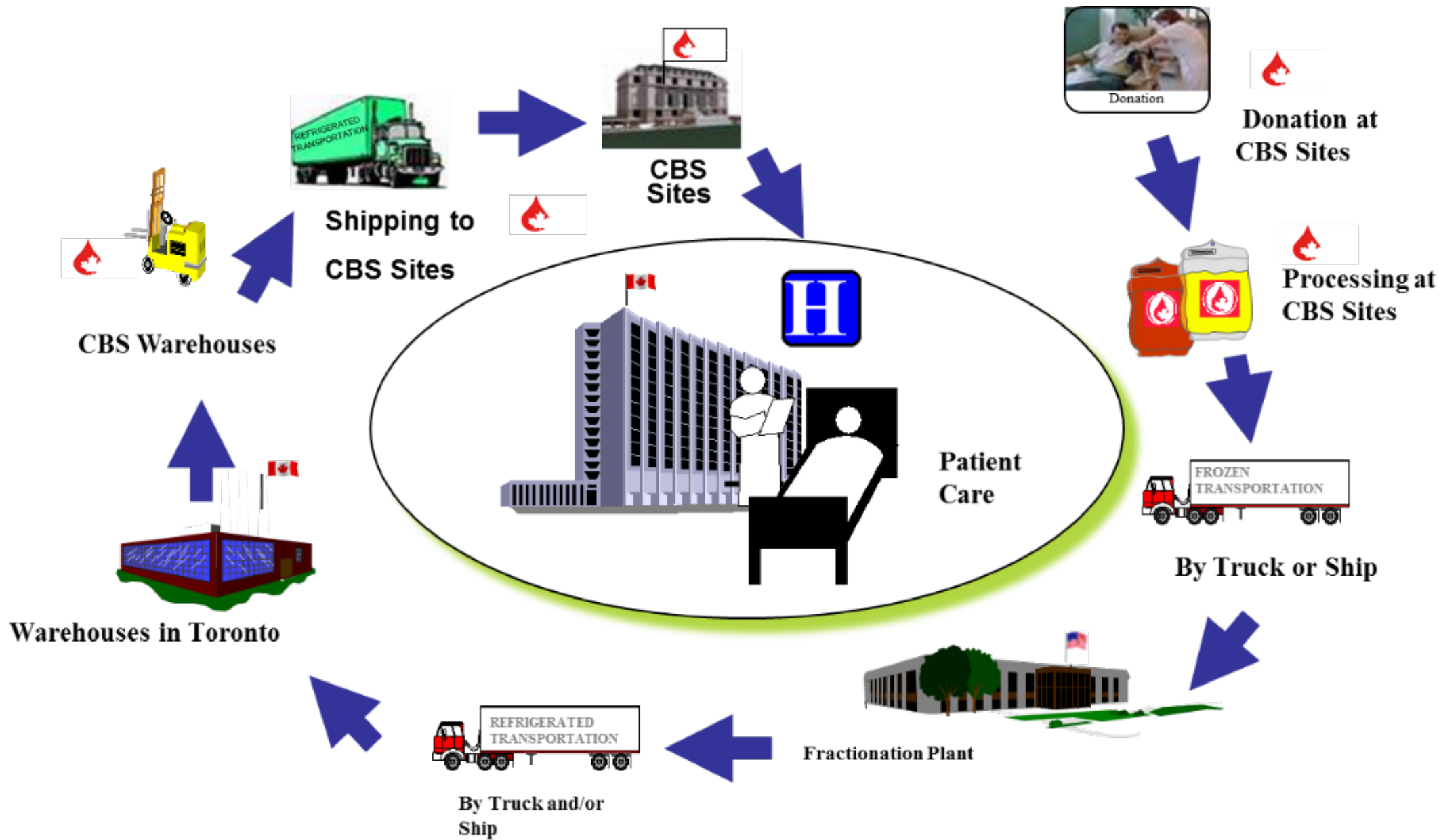
**Recovered  
Plasma going to  
the fractionator**

# Plasma from Numerous Donors Pooled



# Intermediate Pastes Are Further Manufactured





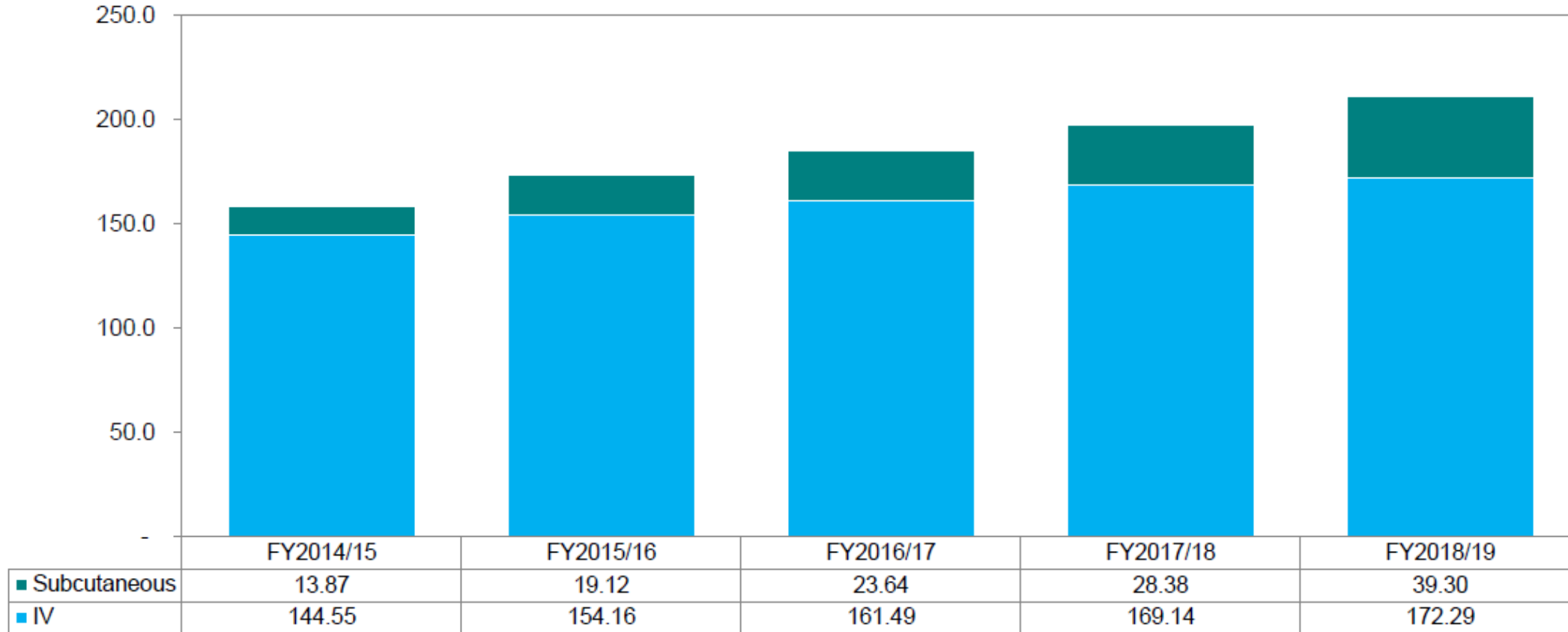
# Total Budget FY 2018/2019

<b>Total Budget</b>	<b>~ \$1.1 billion</b>
Fresh Blood Products	~ \$440 million
Plasma Protein Products	~ \$660 million

## Analysis of Immune Globulin

Immune Globulin 5 year trend by population  
Total grams per 1,000 population

\* FY2018/19 Forecast is based on Dec 31 year-to-date actuals



# Fractionated Products & Recovered Plasma

- Plasma sent to manufacturer lowers the cost of purchase for the resultant product
- Canadian plasma is used to satisfy less than 20% of the demand for IVIg in Canada
- Remainder purchased off the open market
- Sending plasma to the manufacturer rather than using it for transfusion saves: \$100-\$130 CAD per liter
- At ~ 300 mL / unit: \$30-\$39 CAD per unit

# Key Points

- Plasma use for transfusion has fallen steadily year over year since 2008, with a flattening of use in the last several years
- The majority of plasma collected goes for further manufacture into protein-based drugs
- IVIg use has increased steadily year over year
- Canadian source plasma supports less than 20% of IVIg use
- Optimal clinical plasma transfusion practices would likely result in cost savings and decreased reliance on foreign-source plasma for domestic IVIg use