

PLASMA FLOWS ON A GLOBAL LEVEL – WHY IT TRAVELS SO FAR

Matthew Hotchko, PhD
President, Marketing Research Bureau
PPTA Presentation “Introduction to the Global Journey of Plasma”
January 2021



METHODOLOGY

The data used to develop the charts and tables shown in this presentation have been compiled from surveys conducted by the Marketing Research Bureau in over seventy countries and published in various syndicated reports.

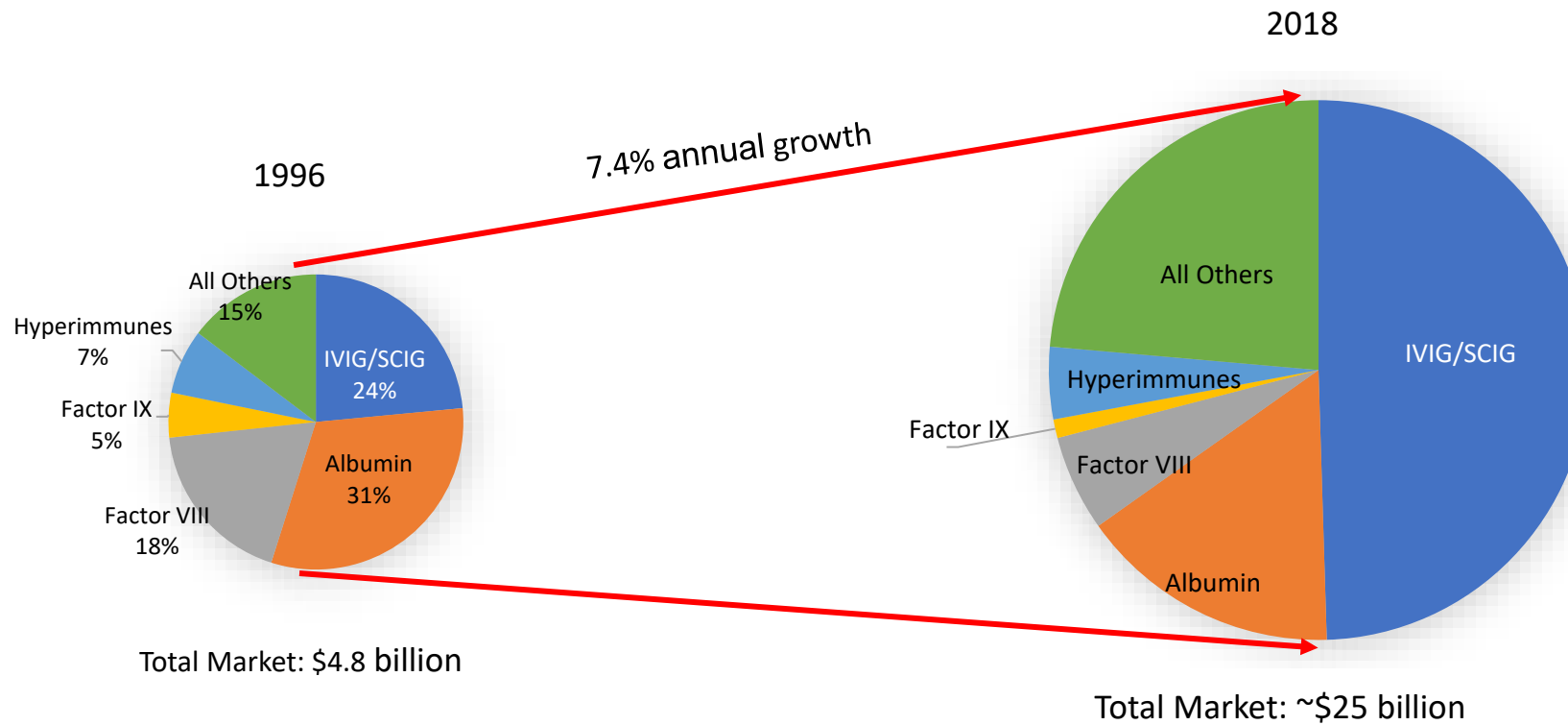
All the data and information originate from sources generally available to the public. Their accuracy is not guaranteed, and the Marketing Research Bureau assumes no liability for their use. © 2021



Overview

1. Where is plasma for fractionation collected around the world?
2. After plasma is collected, where is it sent globally?
3. Plasma products are used around the world, meaning they must travel from where they are produced to the countries where the patients use them.

22 Years of Worldwide Plasma Proteins Market Growth (Without Recombinant products)

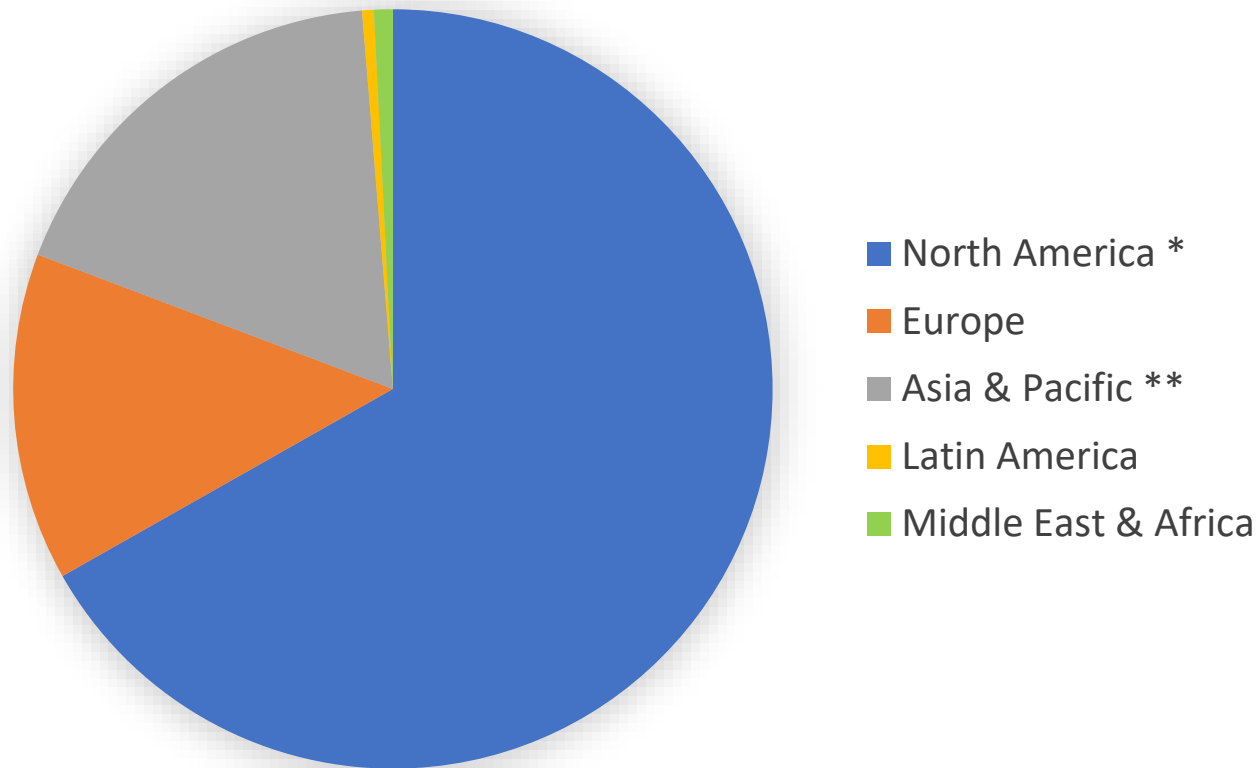


Note: Pie charts are drawn to scale



Plasma is sourced globally, but it is not equally balanced, as the United States is the dominant supplier

Origin of Plasma for Fractionation - 2019



*United States represents over 99% of the North America total

** China represents over 75% of Asia & Pacific total

Total Plasma Collection volume 2019: 69 M liters

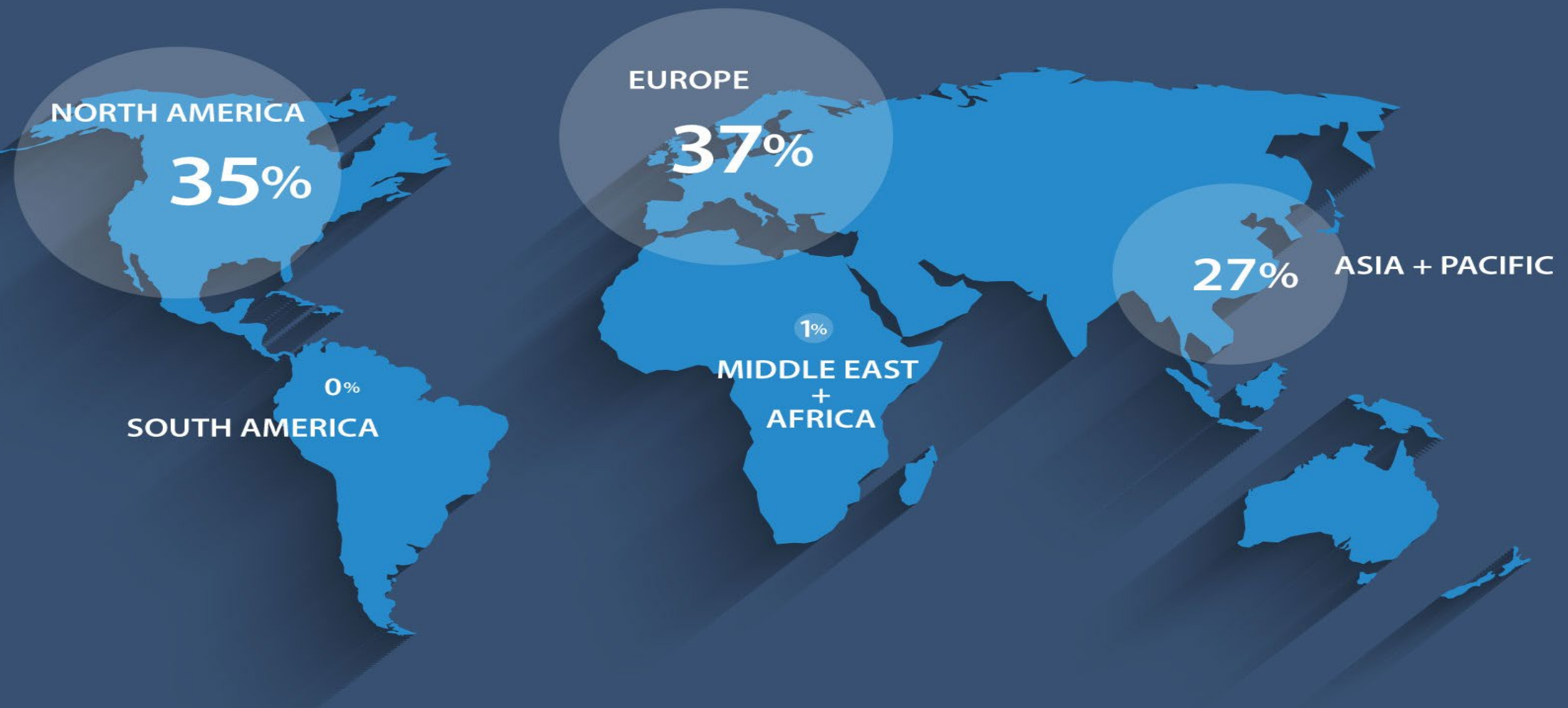
REGIONAL DISTRIBUTION OF FRACTIONATION PLANTS 2018



TOTAL NUMBER OF FRACTIONATION PLANTS: 76



REGIONAL DISTRIBUTION OF FRACTIONATION THROUGHPUT 2018

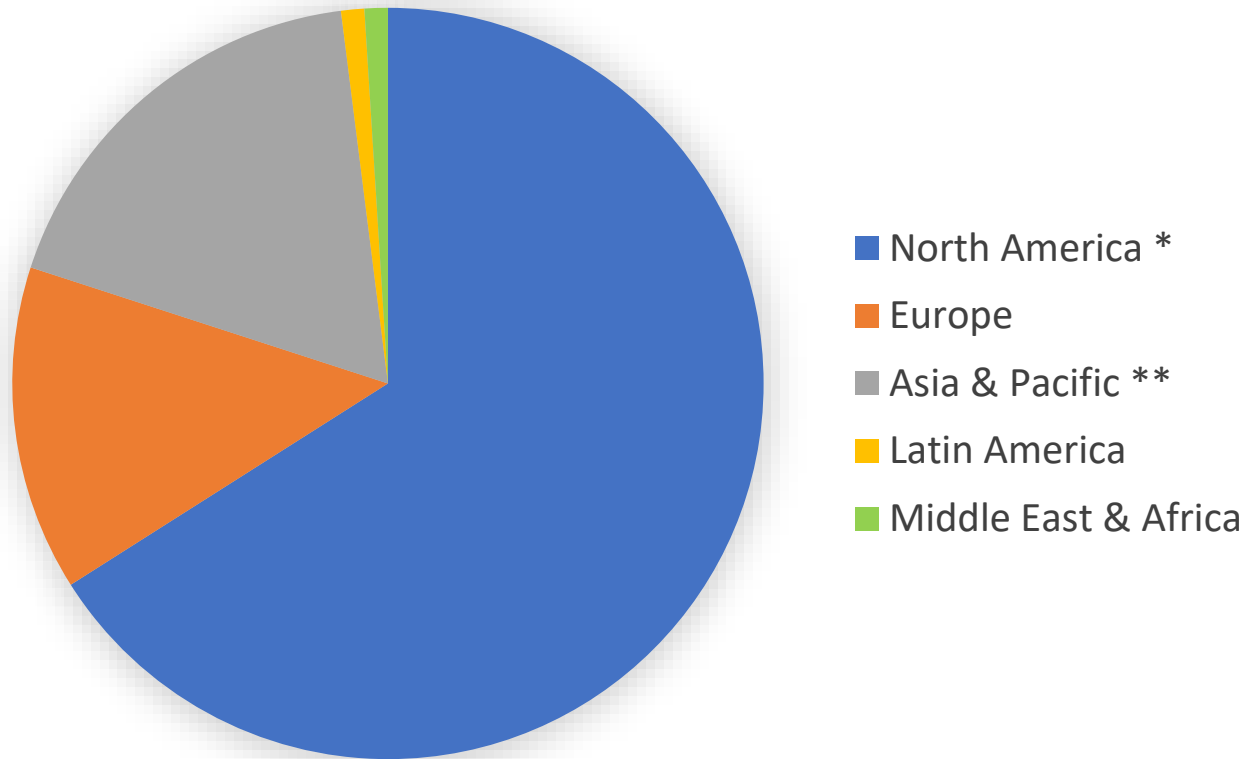


GLOBAL FRACTIONATION THROUGHPUT 2018:
>60 MILLION LITERS

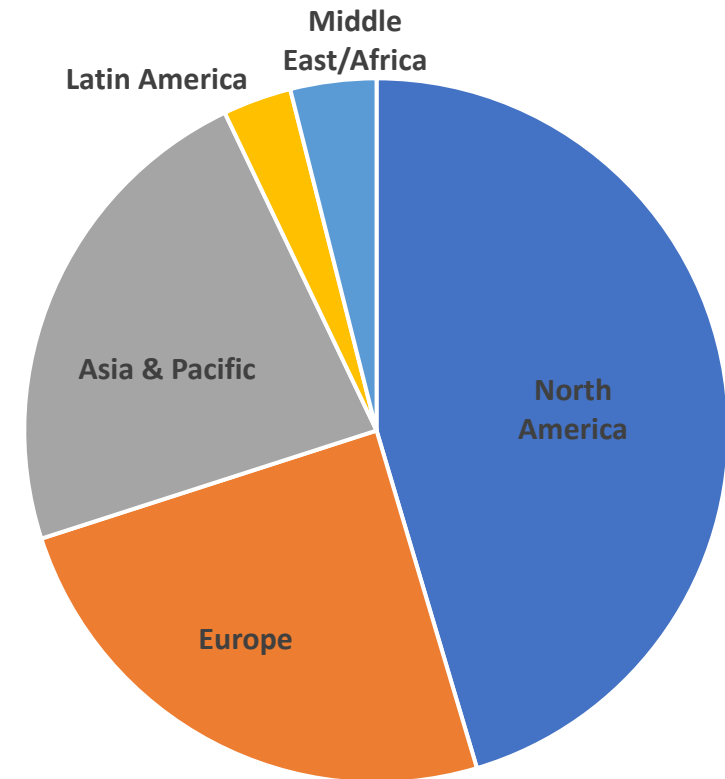


Clinical need for IG is global, with North America using more product than any other region

Origin of Plasma for Fractionation - 2018

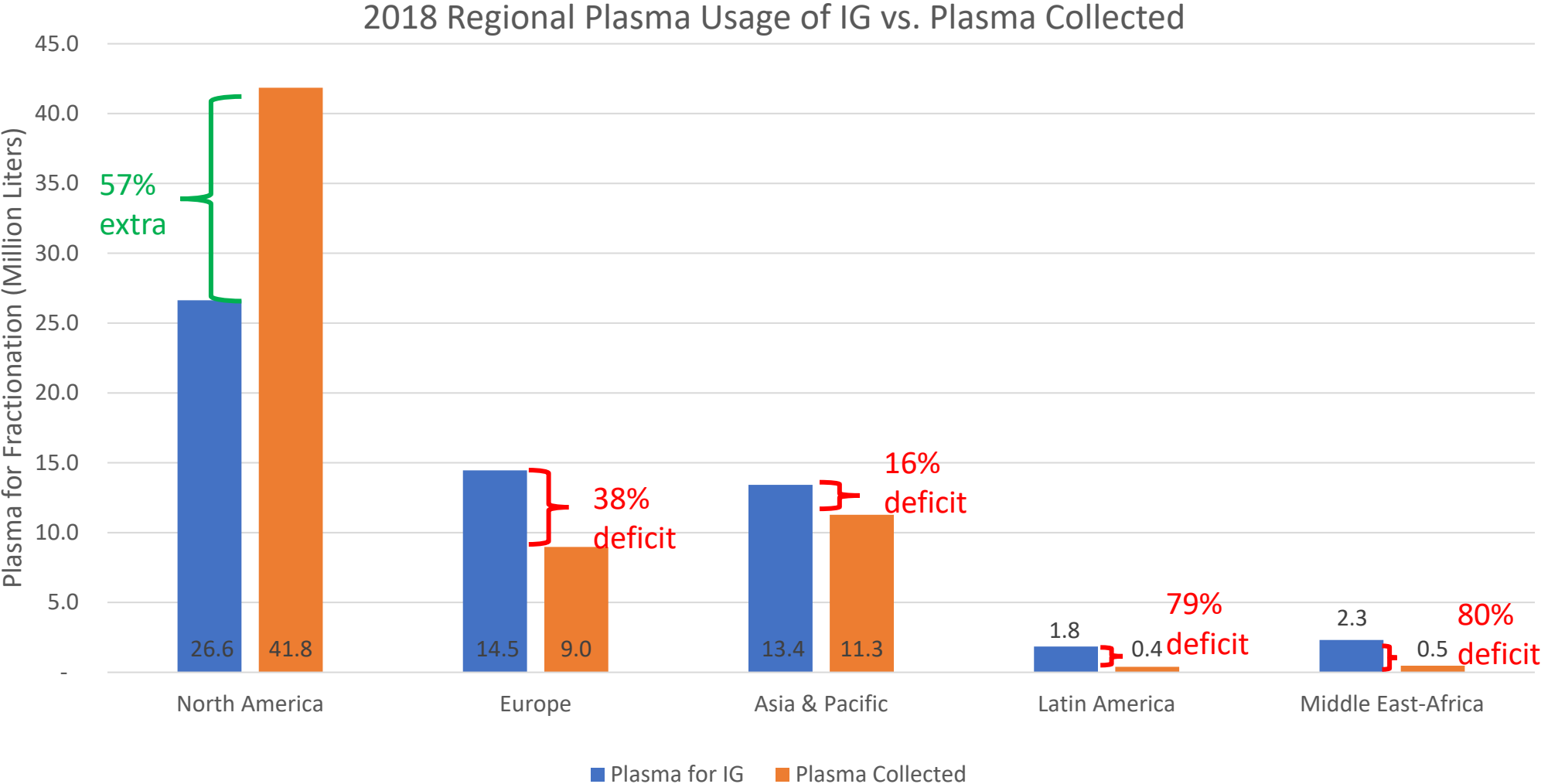


2018 IgG Usage by Region (>200 metric tons)



Most plasma is collected in the United States, but IG usage is more globally distributed than plasma collection

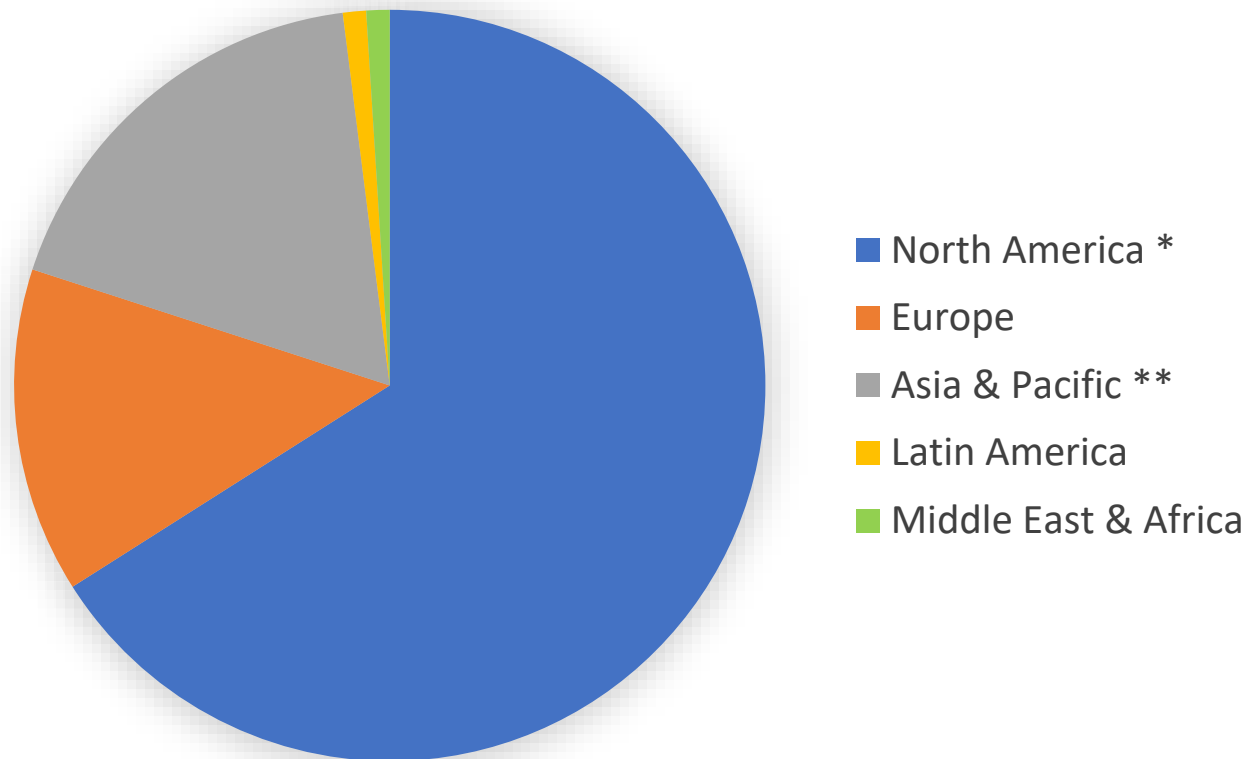
The situation in 2018 shows that the US supplies extra plasma for the rest of the world



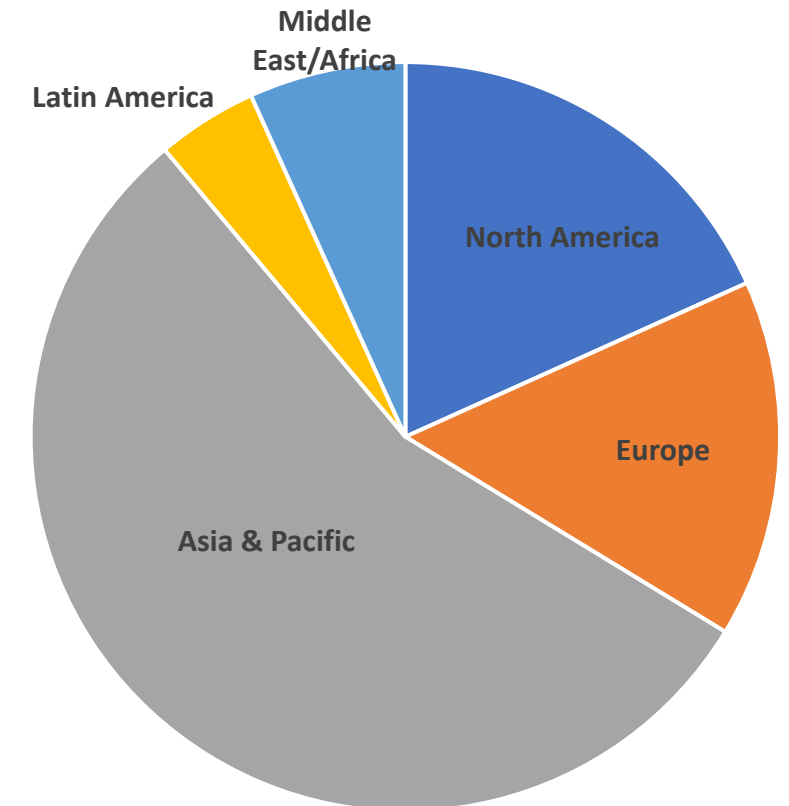
Globally, 7% extra plasma collected than IG demand due to discards, storage, unused, etc.

Clinical need for Albumin is also global, with Asia (mainly China) using more product than any other region

Origin of Plasma for Fractionation - 2018



2018 Albumin Usage by Region (~1000 metric tons)

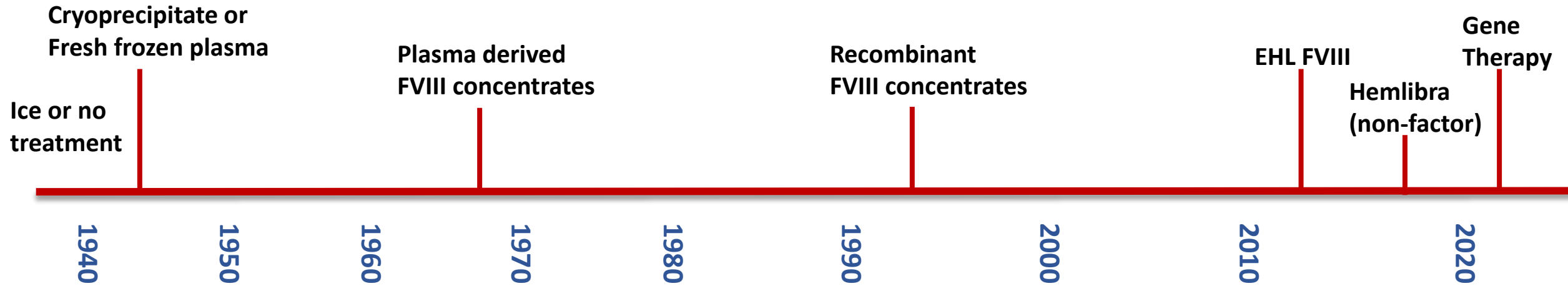


Much of the albumin fractionated from plasma collected in the United States is eventually sold in Asia (majority China)

FVIII Market and Trends

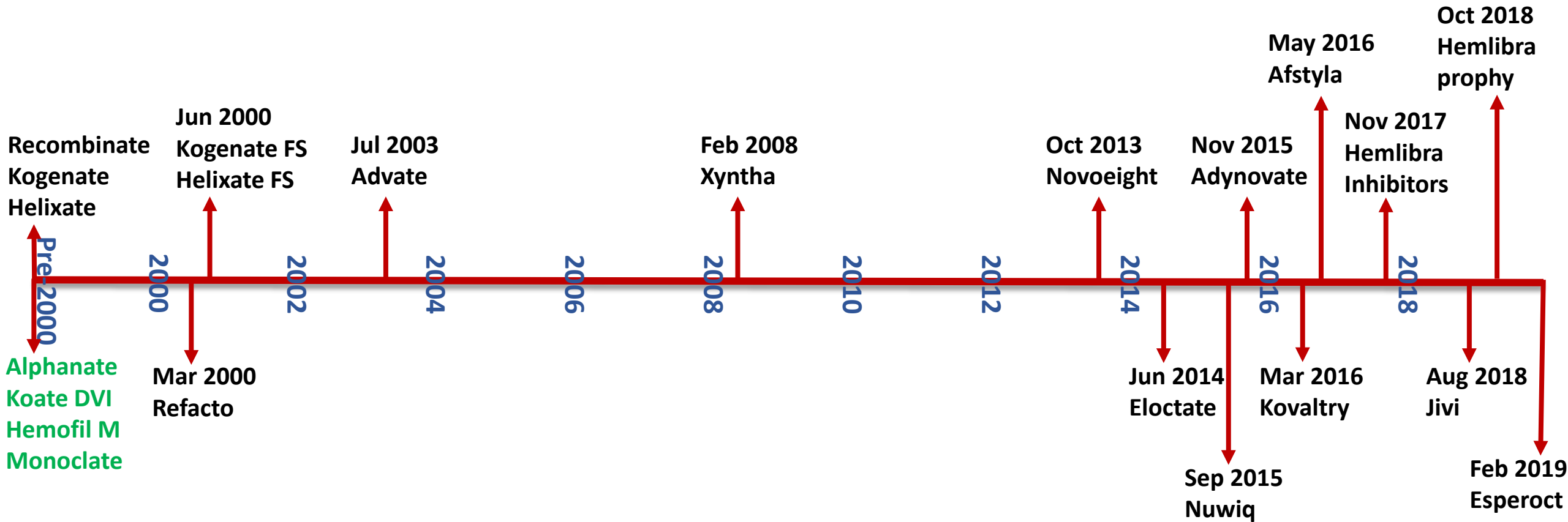


Evolution of Hemophilia A Therapies



As new treatments have been developed in the past 20+ years, the importance of plasma derived Factor VIII has decreased, meaning it is less important to fractionation companies than in the past.

Hemophilia A Products FDA Approved since 2000



*Refacto was replaced by Xyntha after the latter was commercially launched

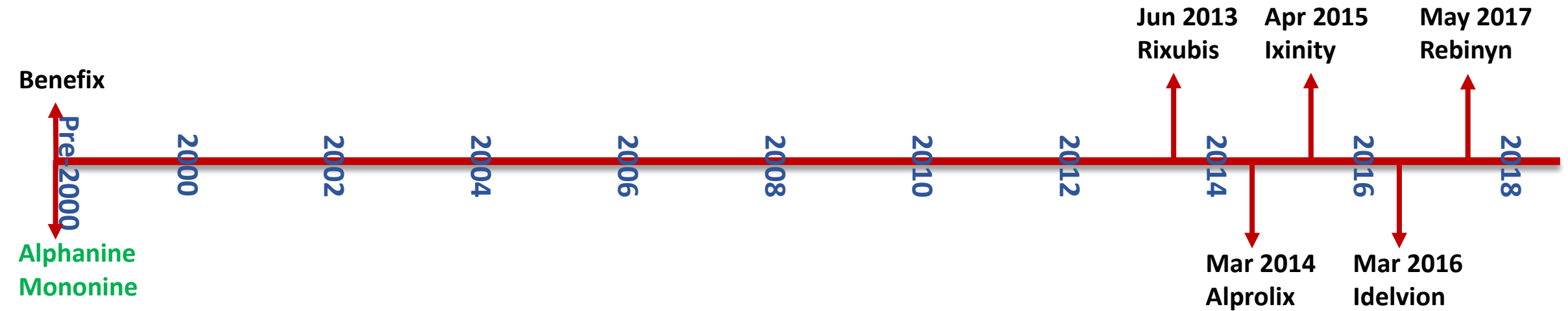


Plasma Derived FVIII Trends

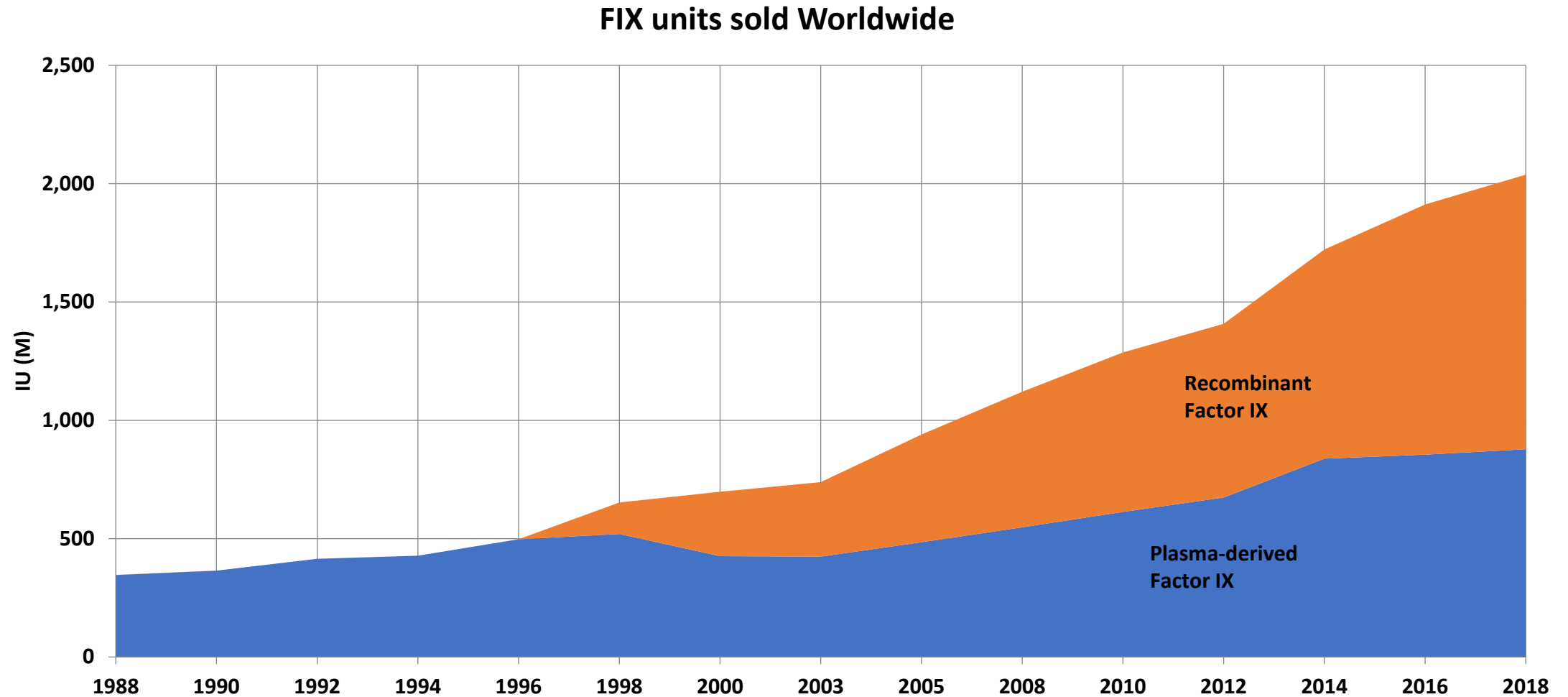
- The global consumption plasma-derived factor VIII will decline from 2019 onward as a result of the market penetration of new hemophilia A therapies, such as new recombinant factor VIII products, both standard and extended half-life, non-factor antibodies (Hemlibra) and gene therapy in the high-income countries,
- These new therapies will push the plasma-derived from the high-income countries to emerging markets, where more patients will have access to treatment,
- Due to its price attractiveness, plasma-derived factor VIII will still be the product of choice in budget-constrained countries, though recombinant products are narrowing the gap in many markets.
- In the US and Western Europe, plasma-derived factor VIII will maintain a niche in the treatment of hemophilia A patients fearful of an inhibitor. It will also remain attractive to some patient groups, such as those with moderate hemophilia A.



Hemophilia B Products FDA Approved since 2000



FIX has had a multi-decade growth since its inception



Most markets looked good in the past, with many patients undiagnosed, un or undertreated and FIX was the treatment for everyone.

Worldwide Plasma Collection and COVID-19

- In 2020, the coronavirus caused important changes in blood and plasma collections in the world.
- After a tumultuous second quarter, the plasma centers adapted to the new circumstances but the volume of source plasma collected during the whole of 2020 was lower 2019.
- Consequently, the global volume of IG available from the 4th quarter of 2020 through most of 2021 is likely to be lower than during the same period of 2019.
- However, the manufacturers are actively taking measures to mitigate the situation, but they sometimes add expenses to collection processes.

Conclusions

- Most of the plasma collected globally for fractionation comes from the United States
- Almost half of the plasma collected in the United States is sent overseas (mostly to Europe) for fractionation
- The immunoglobulin products made from plasma fractionated in the United States and Europe is sent around the world for use by patients, with much of it sold in the United States
- Much of the albumin which comes from United States plasma is sold in Asia (particularly China)

Thank you!



MARKETING RESEARCH BUREAU,

Office Phone: +1-425-502-6265

Email: info@marketingresearchbureau.com

www.marketingresearchbureau.com

