



ANNUAL GLOBAL SURVEY

World Federation of Hemophilia Report on the **Annual Global Survey 2023**



WFH

WORLD FEDERATION OF HEMOPHILIA
FÉDÉRATION MONDIALE DE L'HÉMOFILIE
FEDERACIÓN MUNDIAL DE HEMOFILIA

October 2024

Report on the Annual Global Survey 2023 is published by the World Federation of Hemophilia.

All data are provisional.

© World Federation of Hemophilia, 2024

To obtain permission to reprint, redistribute, or translate this publication, please contact the Research and Education Department at the address below.

Please credit the WFH when Annual Global Survey data are used in presentations, publications, or other research material. We encourage researchers to contact us at globalsurvey@wfh.org when they use WFH Annual Global Survey data.

Please note: This material is intended for general information only. The World Federation of Hemophilia does not endorse particular treatment products or manufacturers; any reference to a product name is not an endorsement by the World Federation of Hemophilia. The World Federation of Hemophilia is not a regulatory agency and cannot make recommendations relating to safety of manufacturing of specific blood products. For recommendations of a particular product, the regulatory authority in a particular country must make these judgments based on domestic legislation, national health policies and clinical best-practices.

World Federation of Hemophilia

1425, boul. René-Lévesque Ouest, bureau 1200

Montréal, Québec H3G 1T7

Canada

Tel. (514) 875-7944

Fax: (514) 875-8916

E-mail: wfh@wfh.org

Website: www.wfh.org

TABLE OF CONTENTS

Introduction	2
Part 1: Global data 1999–2023	
Global representation over time	6
Identified patients over time	7
National member organizations	9
Part 2: 2023 data	
Key numbers from the Report on the Annual Global Survey 2023	12
Map of country representation	14
Country representation by region and GNI	15
Summary demographics	16
Number of identified vs. expected hemophilia patients	17
Factor usage summary	18
Global distribution of factor VIII use	20
Factor per capita and per patient	21
Severity of hemophilia	46
Population statistics	48
Distribution of reported bleeding disorders by country	52
Sex distribution	56
Patients with inhibitors	57
Age distribution	60
Patients on prophylaxis	70
Factor use by country	73
Emicizumab usage by country	80
Factor VIIa and FEIBA use by country	83
VWD product use by country	86
Glossary	88
References	89

INTRODUCTION TO THE REPORT ON THE ANNUAL GLOBAL SURVEY 2023

The Report on the Annual Global Survey (AGS) 2023 shows an international snapshot of hemophilia patient identification and access to care. This report includes selected demographic and treatment data on people with hemophilia (PWH), von Willebrand disease (VWD), other rare factor deficiencies, and inherited platelet disorders throughout the world. Over the years this report has given the national member organizations (NMOs) affiliated with World Federation of Hemophilia (WFH), healthcare providers and policy makers an overview of the patterns and trends in hemophilia and its treatment. The annual report offers useful information to support efforts in improving or sustaining the care of people with bleeding disorders, and to assist with advocacy and program planning. The WFH strives for continuous improvement every year and is appreciative of all the effort and support put forth by the NMOs.

Supplementary charts and graphs using 2023 data can be found on the website at:
<https://wfh.org/research-and-data-collection/annual-global-survey/>.

Methodology

In 1998, the WFH began collecting information on bleeding disorders throughout the world. This survey, called the WFH AGS, collects basic demographic information, data on access to care and treatment products, and information on the prevalence (the percentage of the population affected). The WFH compiled the first survey report in 1999.

Each year questionnaire is sent to NMOs affiliated with the WFH with the request that they in turn work with physicians or health officials, as necessary, to complete the survey. The WFH reviews completed questionnaires for inconsistencies, which are clarified where possible by communicating directly with the participating organization.



To access the questionnaire,
please scan the following QR code

Annual Global Survey 2023

This report has been divided into two parts: Part one shows the total number of identified people with bleeding disorders (PWBD) reported globally since 1999. It includes the last reported number of PWBD by a country, regardless of the year reported, under the assumption that the number of people with bleeding disorders did not change substantially from one year to the next. Part two shows only the data that was reported by a country in this specific year. A list of participating countries and the last year they provided data can be found on page 9.

Data from the WFH questionnaire are supplemented with data from other sources in order to provide a general socio-economic picture of each country surveyed. Total population numbers

from The World Bank Group are used in population statistics and in the calculation for factor VIII and IX per capita. The regional classification used in the AGS is based on the WHO regional classification.¹

Comments on data collection

Participation in the AGS is voluntary and some countries are only able to provide detailed data on sex, age, and inhibitors for a limited subset of patients. In some cases the numbers reported may be based on an estimate or from one region or certain treatment centres only.

Not all NMOs are able to report on all treatment products purchased and used in their country. The amounts reported may only be treatment bought through government and not through other sources. Quantities reported are not independently verified except when the WFH has data on humanitarian donations it provided in 2023. Although factor use per capita is a useful way to compare the availability of treatment products between countries, it is not a reflection of how individual patients are treated. For example, in a country with a lower than expected number of identified patients, the amount of treatment product available per patient is higher than the per capita number would suggest.

Calculating prevalence of hemophilia

In 2019, the prevalence and prevalence at birth of hemophilia, separately for severe and all hemophilia and for patients with hemophilia A and hemophilia B, were estimated using robust epidemiologic data from established national patient registries.²

MEAN ESTIMATED PREVALENCE

17.1/100,000 males for ALL hemophilia A	6.0/100,000 males for severe hemophilia A
3.8/100,000 males for ALL hemophilia B	1.1/100,000 males for severe hemophilia B

Using these estimates and the current world population of 8 billion (4 billion males), the expected number of patients with hemophilia worldwide is 836,000, of which about 284,000 are severe.

In this report, the prevalence rate is used to calculate the expected number of patients per region (Figure C). This number is sequentially compared to the identified number of patients reported in this survey to illustrate the progress in patient outreach, identification, and diagnostic capabilities globally and to identify areas for improvement.

Please consider the following caveats about the data in this report:

- a) Founder effects can create pockets of patients concentrated geographically. The founder effect occurs when a small population grows in isolation and there is little genetic dilution. This can increase the local frequency of genetic disease compared to the general population. This may occur with hemophilia and all the rare bleeding disorders. In the extremely rare bleeding disorders, consanguinity may lead to an increased incidence in some countries.

- b) Countries with small populations can appear to have too many identified patients. Countries submitting data to the WFH range in population from 281,635 to over a billion. With a small denominator (total population), just a few extra identified patients (the numerator) can create the appearance of huge percentage differences between expected and identified patients when really there are only a few more patients than expected.
- c) The health care infrastructure in a country can influence data quality. A country with universal health care may be more likely to identify patients with hemophilia even if they do not require treatment. In low resource settings, it is likely that patients who do not require treatment will not be identified.
- d) Definitions may vary from country to country. Countries may use different definitions to diagnose mild hemophilia and other disorders. In the case of rare bleeding disorders, some countries may report heterozygous patients while other countries report only patients with bleeding symptoms.
- e) Some countries are reporting every patient who seeks treatment while other countries are using methods such as laboratory screening or follow up with family members to identify additional patients who do not require treatment.
- f) Methods of data collection and the state of registries can vary. Maintaining accurate registries can be time consuming and expensive. Some patients may be registered in more than one treatment centre and validation of registry data is more difficult.

The Report on the AGS is collected under the supervision of the WFH Data & Demographics Committee, including:

Chair: Jeff Stonebraker

Members: Ana Boban
Magdy El Ekiaby
Emna Gouider
Alfonso Iorio
Joseph John
Mike Makris
Glenn Pierce

Annual Global Survey Reviewers:

Paula Bolton-Maggs
Randall Curtis
Brian O'Mahony
Suely Rezende
Alok Srivastava



PART 1

Global Data 1999–2023

GLOBAL REPRESENTATION OVER TIME (1999–2023)

Since 1999, there have been 152 different countries that have reported data to the Annual Global Survey. This infographic contains historical data from the Annual Global Survey. That is, if a country reported data one year and not the next, the older data were used under the assumption that the number of patients did not change substantially from one year to the next. This section provides a more complete representation of the current state of patient identification globally.

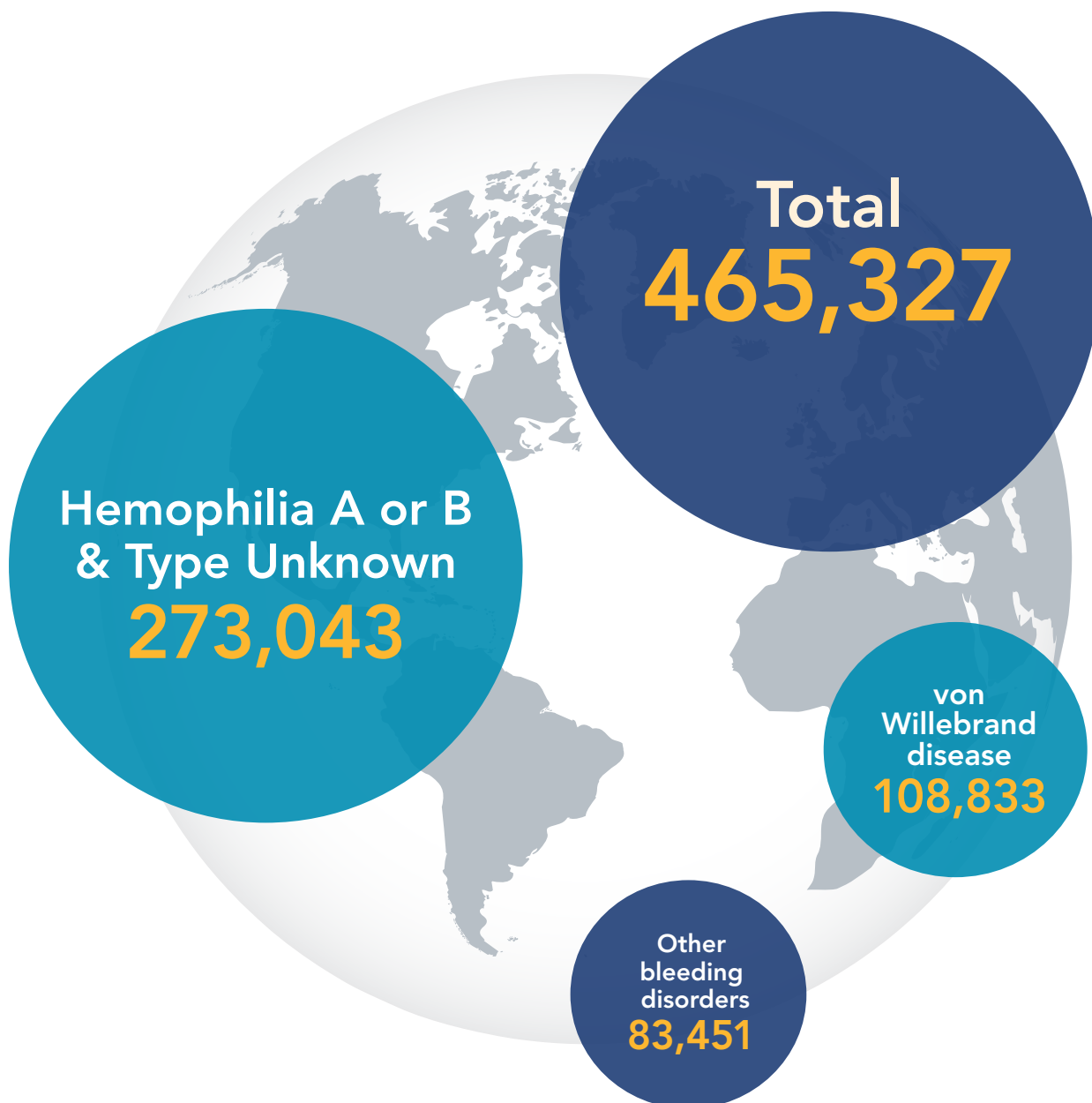


FIGURE A1. Identified patients over time – all bleeding disorders

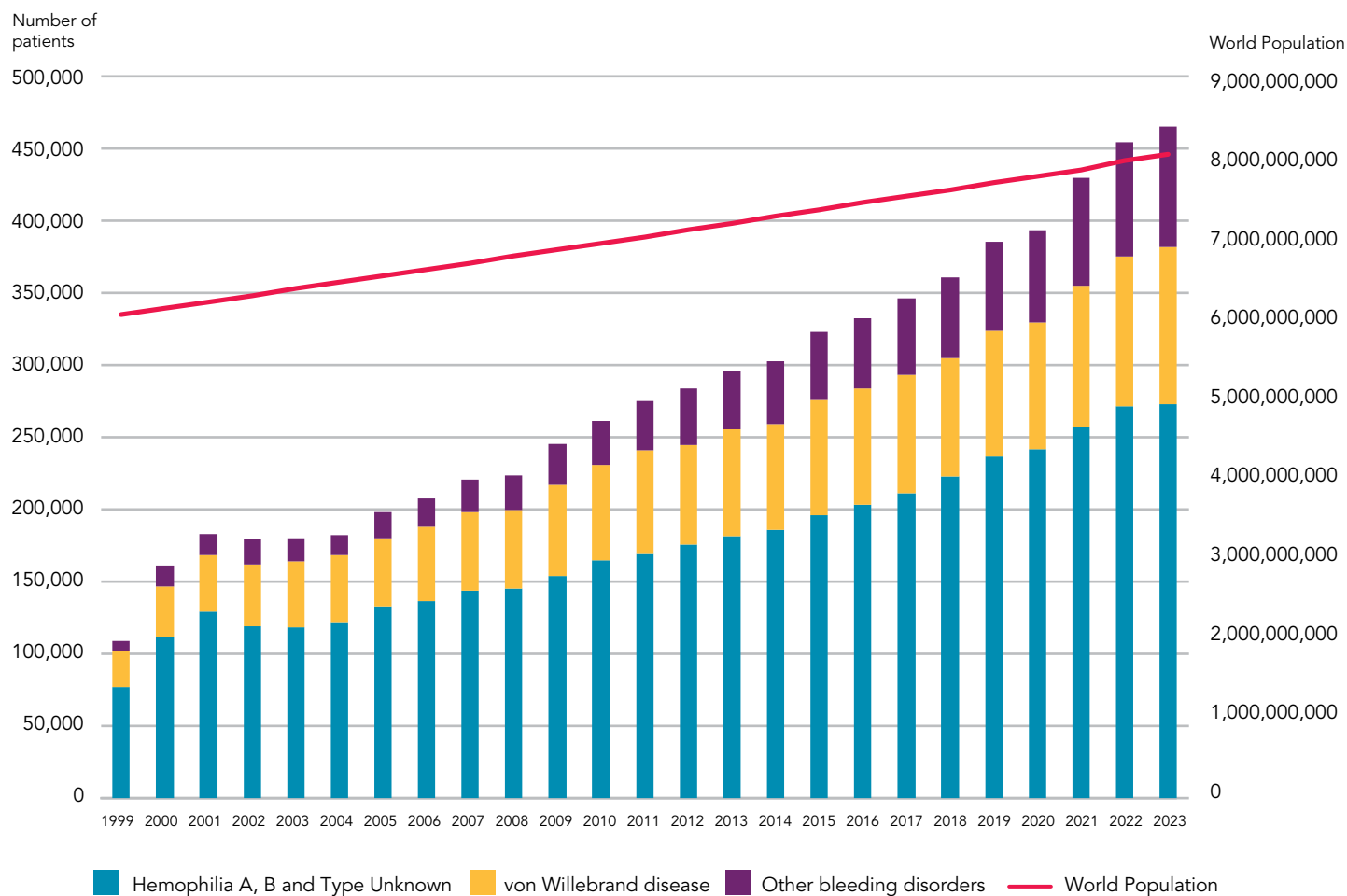


FIGURE A2. Identified patients over time – other rare bleeding disorders

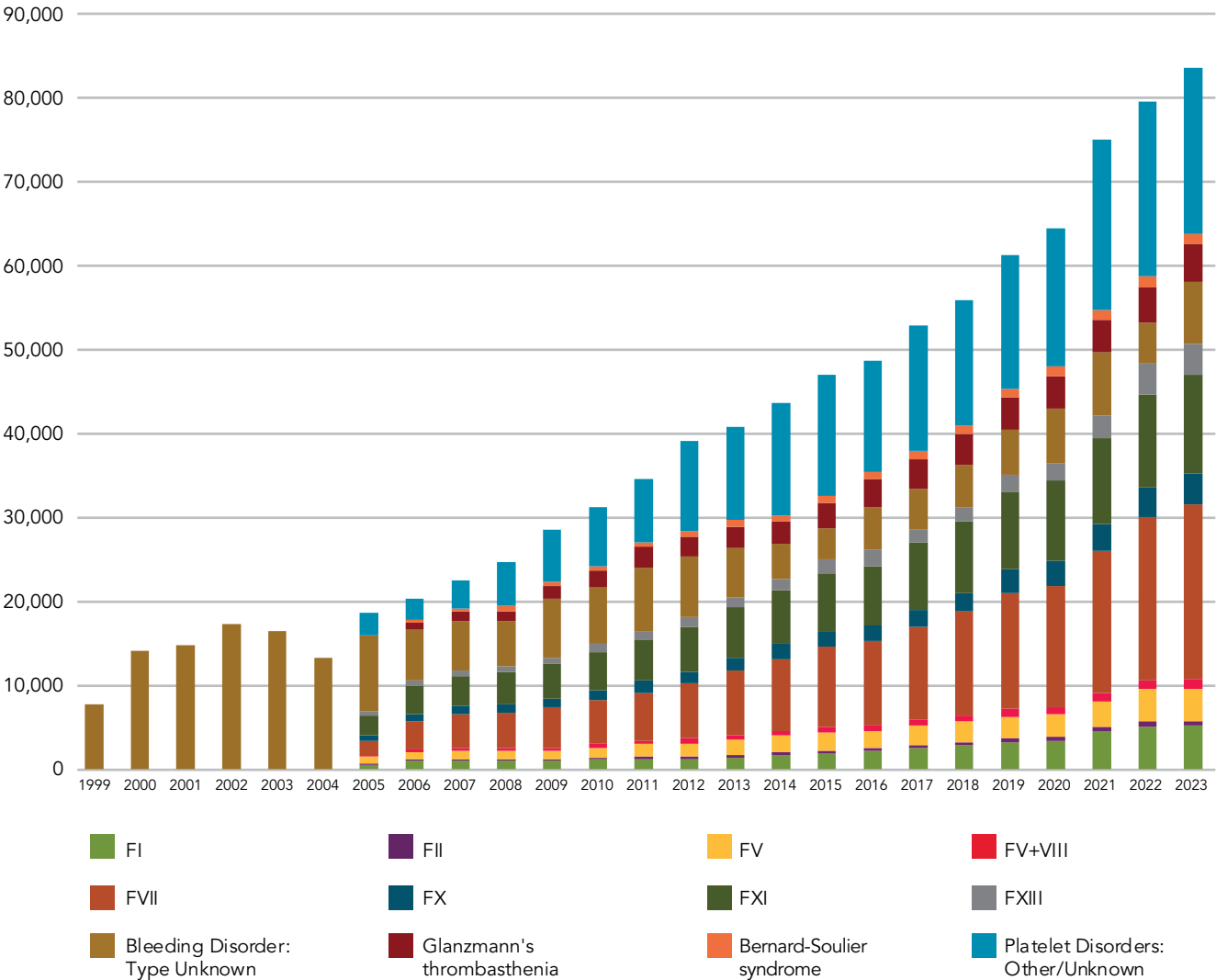


TABLE 1. National member organizations and their latest year of reporting

Please note: Not all of our members are able to submit data every year. The year indicates the latest year the data was submitted. For the 2023 survey report, 119 countries submitted data and can be found in **BOLD** in the table below.

Country	Last year of submission	Total number of submissions	Country	Last year of submission	Total number of submissions
Afghanistan	2022	7	Cyprus	2013	7
Albania	2023	20	Czechia	2023	18
Algeria	2023	20	Denmark	2023	15
Angola	2022	3	Djibouti	2023	3
Argentina	2023	24	Dominican Republic	2023	22
Armenia	2023	14	Ecuador	2020	15
Australia	2023	25	Egypt	2023	22
Austria	2023	19	El Salvador	2023	11
Azerbaijan	2022	15	Eritrea	2023	16
Bahamas	2023	6	Estonia	2022	14
Bahrain	2023	8	Ethiopia	2023	13
Bangladesh	2023	23	Fiji	2022	1
Barbados	2022	6	Finland	2023	19
Belarus	2023	16	France	2023	21
Belgium	2023	23	Georgia	2023	22
Belize	2023	16	Germany	2023	25
Benin	2022	3	Ghana	2023	13
Bolivia	2023	11	Greece	2023	23
Bosnia and Herzegovina	2023	7	Guatemala	2019	10
Botswana	2023	7	Guinea	2023	1
Brazil	2023	24	Guyana	2023	7
Bulgaria	2018	10	Honduras	2023	22
Burkina Faso	2022	7	Hong Kong	2023	6
Burundi	2023	1	Hungary	2023	22
Cambodia	2023	17	Iceland	2007	6
Cameroon	2023	17	India	2023	23
Canada	2023	24	Indonesia	2023	20
Chile	2023	16	Iran	2023	24
China	2022	14	Iraq	2023	20
Colombia	2023	24	Ireland	2023	25
Congo, Democratic republic of	2023	1	Israel	2023	18
Congo, Republic of the	2021	1	Italy	2022	14
Costa Rica	2022	23	Jamaica	2021	11
Côte d'Ivoire	2023	16	Japan	2023	24
Croatia	2023	9	Jordan	2023	18
Cuba	2023	21	Kazakhstan	2008	1
			Kenya	2023	22

Country	Last year of submission	Total number of submissions
Korea, Republic of	2023	25
Kosovo	2022	1
Kuwait	2023	4
Kyrgyzstan	2023	10
Latvia	2023	25
Lebanon	2023	14
Lesotho	2023	17
Libya	2023	2
Lithuania	2023	24
Luxembourg	2022	5
Macedonia	2023	10
Madagascar	2023	8
Malawi	2023	8
Malaysia	2023	23
Maldives	2022	9
Mali	2023	8
Malta	2023	8
Mauritania	2023	5
Mauritius	2023	13
Mexico	2023	22
Moldova	2022	12
Mongolia	2023	17
Montenegro	2021	7
Morocco	2023	11
Mozambique	2022	5
Myanmar	2023	5
Namibia	2022	3
Nepal	2023	24
Netherlands	2023	19
New Zealand	2023	25
Nicaragua	2020	16
Nigeria	2023	16
Norway	2023	19
Oman	2016	6
Pakistan	2023	23
Palestine	2023	13
Panama	2023	22
Paraguay	2023	11
Peru	2023	13
Philippines	2023	21
Poland	2023	25

Country	Last year of submission	Total number of submissions
Portugal	2023	25
Qatar	2023	13
Romania	2023	20
Russia	2023	24
Rwanda	2023	1
Saudi Arabia	2023	16
Senegal	2023	19
Serbia	2023	17
Serbia and Montenegro	2005	3
Sierra Leone	2023	2
Singapore	2023	15
Slovakia	2023	22
Slovenia	2023	18
South Africa	2023	24
Spain	2023	17
Sri Lanka	2023	15
Sudan	2023	19
Suriname	2023	7
Sweden	2023	19
Switzerland	2023	19
Syria	2023	13
Tajikistan	2020	3
Tanzania	2022	11
Thailand	2023	23
The Gambia	2023	2
Togo	2023	12
Trinidad and Tobago	2023	4
Tunisia	2023	18
Turkey	2014	16
Uganda	2023	13
Ukraine	2022	15
United Arab Emirates	2022	2
United Kingdom	2023	24
United States of America	2023	24
Uruguay	2023	16
Uzbekistan	2023	21
Venezuela	2023	25
Vietnam	2023	21
Zambia	2023	9
Zimbabwe	2022	18



PART 2

2023 Data

KEY NUMBERS FROM THE REPORT ON THE ANNUAL GLOBAL SURVEY 2023

For all tables and graphs from this point onwards, the analyses were done using only data from countries that responded in 2023.

NUMBER OF COUNTRIES
in this survey

119



RESPONSE RATE

from WFH National
Member Organizations



78% (119/152)

NUMBER OF IDENTIFIED PATIENTS

390,630



218,804 People with hemophilia

179,703 Hemophilia A

37,385 Hemophilia B

1,716 Hemophilia type unknown

101,128 von Willebrand disease

70,698 Other bleeding disorders



FACTOR VIII USAGE PER CAPITA

1.30 IU

(0.13-4.22) Median (IQR)
103 countries

FACTOR IX USAGE PER CAPITA

0.22 IU

(0.03-0.81) Median (IQR)
92 countries

WOMEN AND GIRLS WITH BLEEDING DISORDERS

COUNTRIES RESPONDING

109 

NUMBER OF IDENTIFIED FEMALE PATIENTS



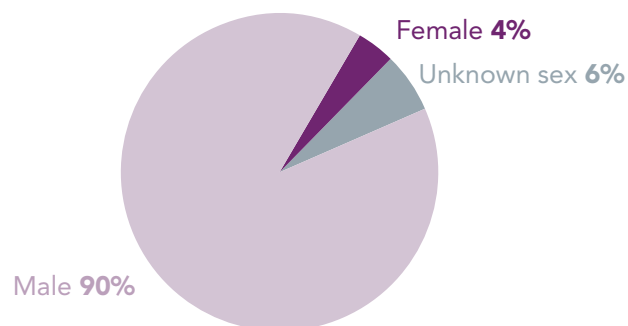
102,133

9,416 Hemophilia

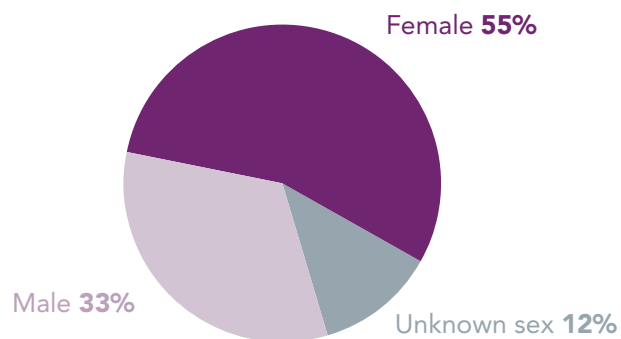
55,968 von Willebrand disease

36,749 Other bleeding disorders

DISTRIBUTION OF HEMOPHILIA BY SEX



DISTRIBUTION OF VWD BY SEX



DISTRIBUTION OF OTHER BLEEDING DISORDERS IN FEMALES

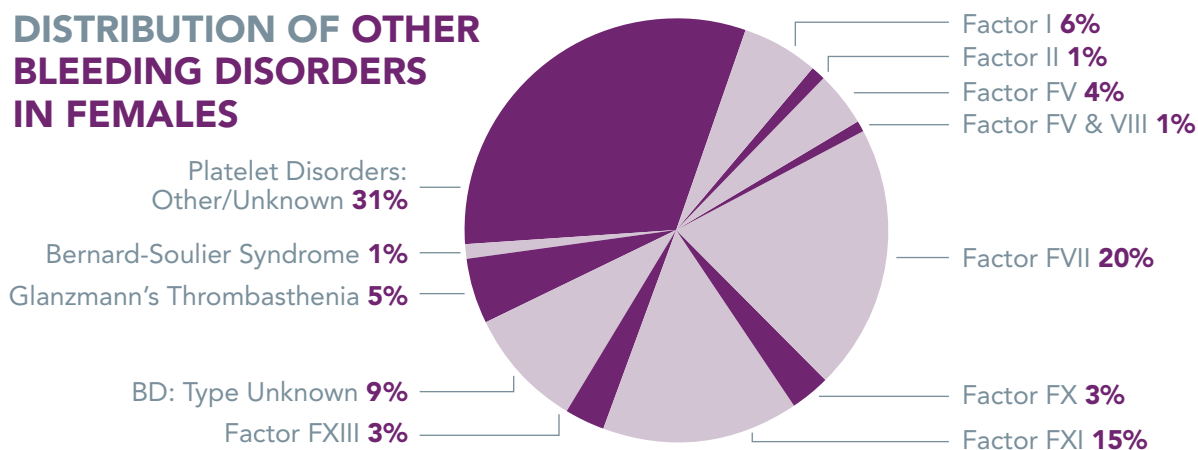


FIGURE B1. Country representation by region

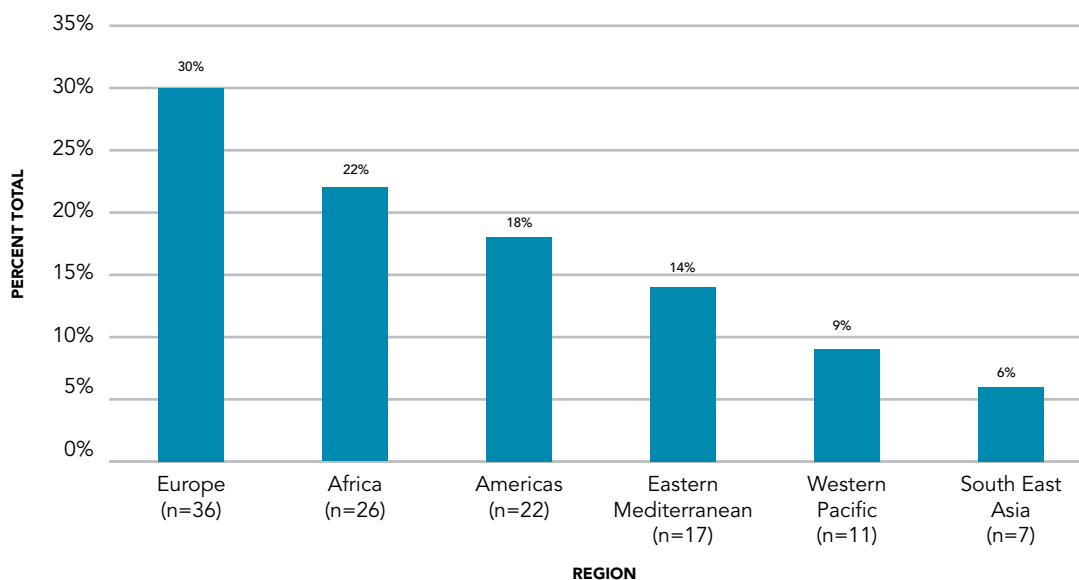
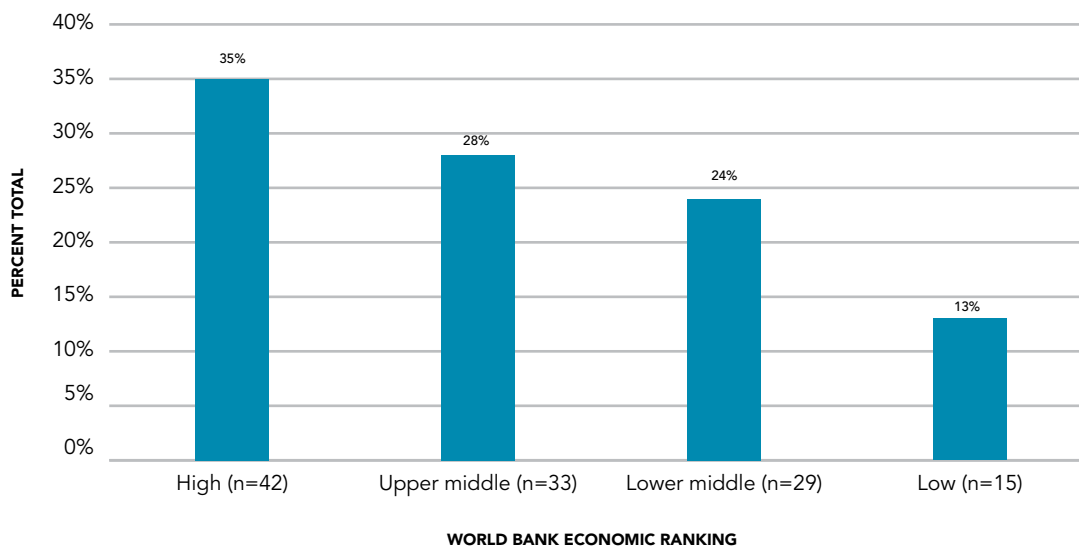


FIGURE B2. Country representation by gross national income



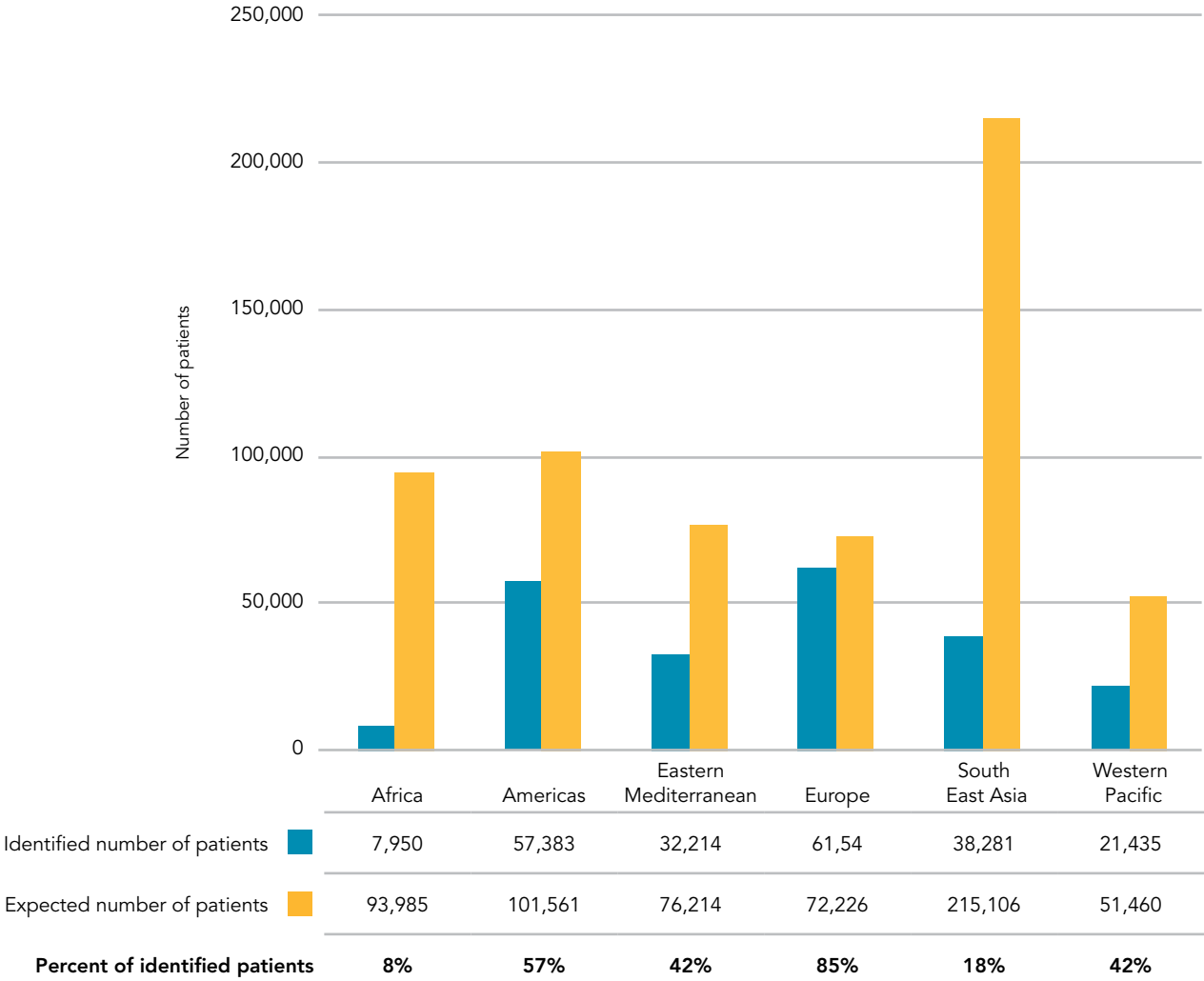
Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

REPORT ON THE ANNUAL GLOBAL SURVEY 2023 SUMMARY DEMOGRAPHICS

TABLE 2. **Demographics**

	2023 Total
Number of countries in this survey	119
World population covered by countries in this survey report	5,842,599,408
Total number of people with bleeding disorders identified	390,630
Number of people identified with Hemophilia	218,804
Number of people with hemophilia A	179,703
Number of people with hemophilia B	37,385
Number of people with hemophilia type unknown or type not reported	1,716
Number of people identified with VWD	101,128
Number of people identified with Other Bleeding Disorders	70,698
Number of hemophilia A patients with clinically identified inhibitors	6,368
Number of hemophilia B patients with clinically identified inhibitors	326

FIGURE C. Number of identified vs. expected hemophilia patients by region



This graph was created by calculating expected number of patients using the prevalence of 20.9 per 100,000 males in hemophilia.¹

FACTOR USAGE SUMMARY

TABLE 3. Factor VIII usage 2023

(103 countries reported FVIII data)

	FACTOR USAGE
Mean (SD) global per capita factor VIII usage	2.69 IU (3.29)
Median global per capita factor VIII usage	1.30 IU
Interquartile range (IQR) global per capita factor VIII usage	4.09 IU (0.13-4.22)
Total consumption of factor VIII concentrates	9,444,899,663 IU

TABLE 4. Factor IX usage 2023

(92 countries reported FIX data)

	FACTOR USAGE
Mean (SD) global per capita factor IX usage	0.53 IU (0.79)
Median global per capita factor IX usage	0.22 IU
Interquartile range (IQR) global per capita factor IX usage	0.78 IU (0.03-0.81)
Total consumption of factor IX concentrates	1,716,125,572 IU

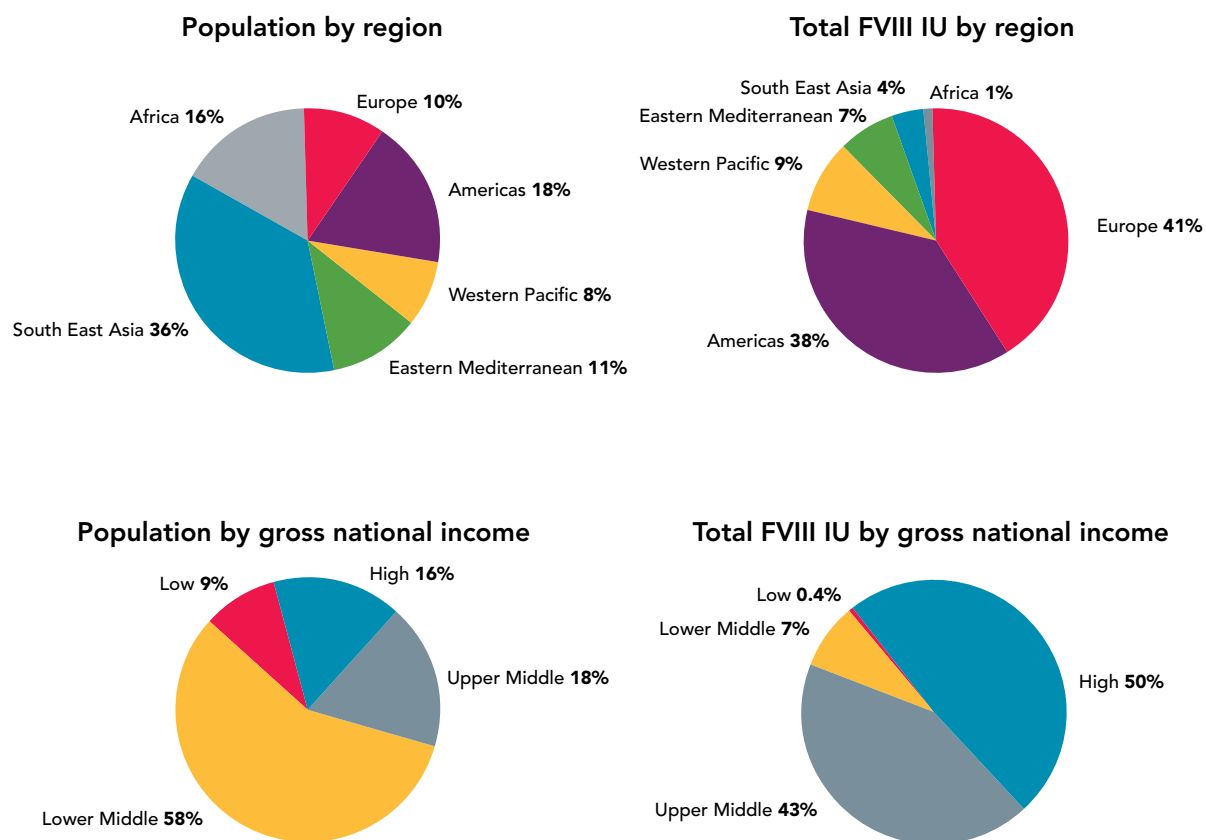
The average per capita and total consumption figures reported this year cannot be directly compared to the figures from other survey years as the group of countries reporting factor usage changes from year to year. To illustrate, if a large country using large amounts of factor or a large country using very little factor, reports one year and not the next, then this will have a significant effect on the mean and median from year to year. The standard deviation (SD) describes the amount of variation or dispersion from the mean. The interquartile range (IQR) describes the middle 50% of reported numbers and is less likely to be distorted by outliers (extreme values).

TABLE 5. Factor use in 2022 and 2023

	2022	2023
FACTOR VIII		
(88 countries reported FVIII data in both 2022 and 2023)		
Mean (SD) global per capita factor VIII usage	2.87 IU (3.21)	3.00 IU (3.40)
Median global per capita factor VIII usage	1.62 IU	1.82 IU
Interquartile range (IQR) global per capita factor VIII usage	4.35 IU (0.22–4.57)	4.40 IU (0.26–4.65)
FACTOR IX		
(78 countries reported factor IX data in both 2022 and 2023)		
Mean (SD) global per capita factor IX usage	0.53 IU (0.69)	0.59 IU (0.83)
Median global per capita factor IX usage	0.24	0.28
Interquartile range (IQR) global per capita factor IX usage	0.77 IU (0.02–0.79)	0.79 IU (0.03–0.82)

This table show the mean, median and interquartile range (IQR) of per capita factor usage for the countries that reported in both years indicated. The standard deviation (SD) describes the amount of variation of dispersion from the mean. The interquartile range (IQR) describes the middle 50% of reported numbers and is less likely to be distorted by outliers (extreme values).

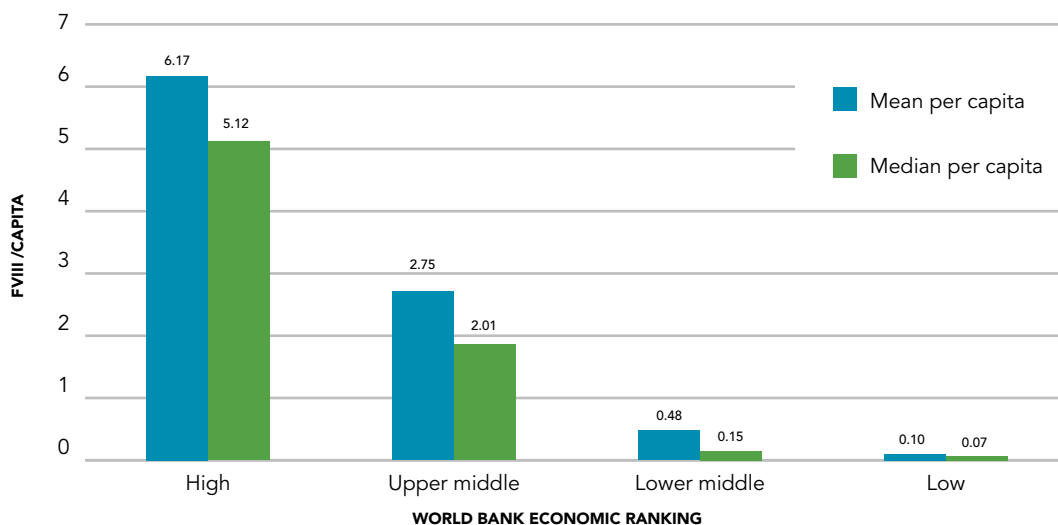
FIGURE D. Global distribution of factor VIII use



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

FIGURE E. Mean and median global factor FVIII per capita 2023

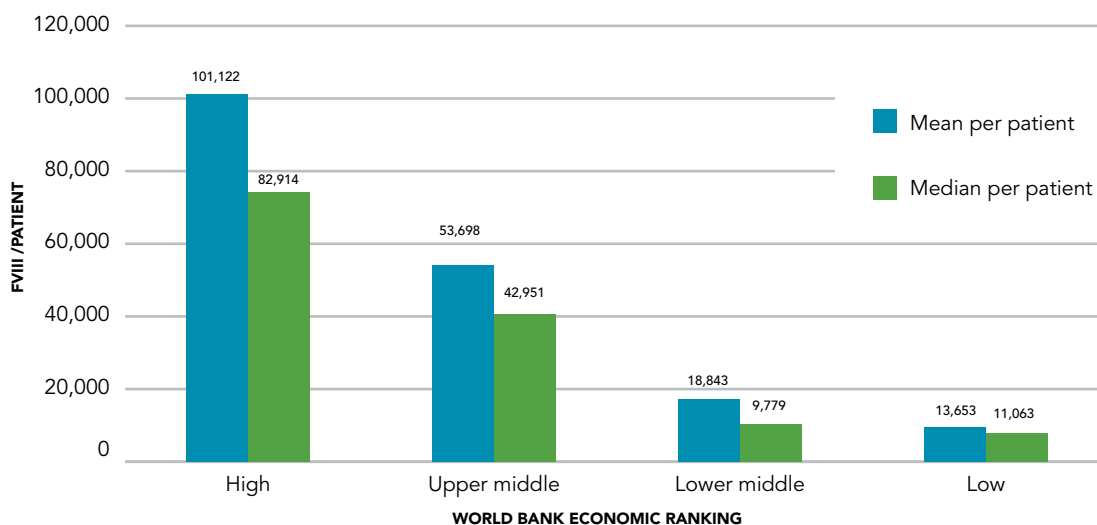
(Data from 103 countries.)



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

FIGURE F. Mean and median global factor FVIII per patient 2023

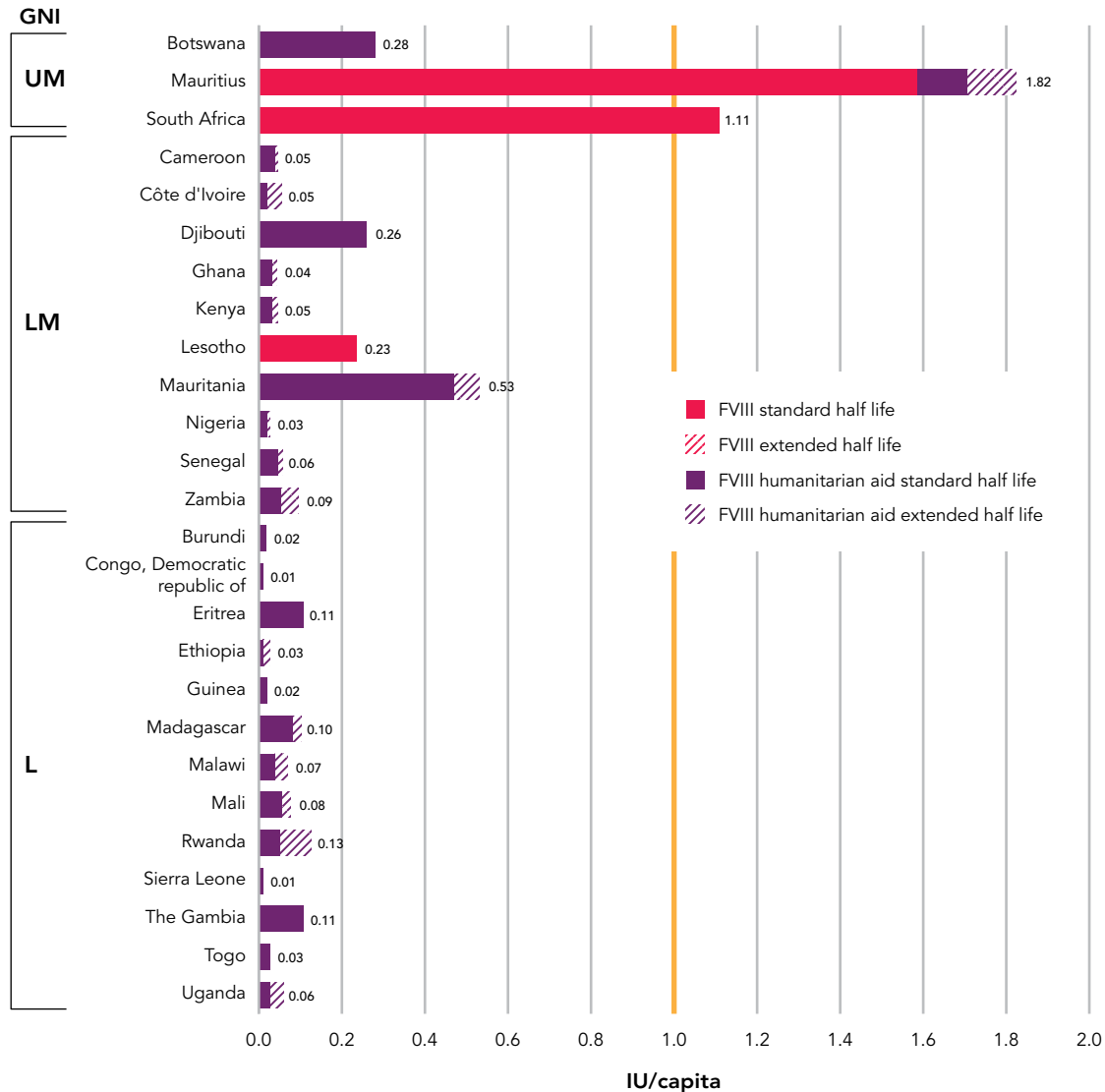
(Data from 103 countries.)



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

Numbers in Figure F are calculated based on reported factor VIII use and the number of identified hemophilia A patients. We do not have data on individual treatment. WFH humanitarian aid donations are included.

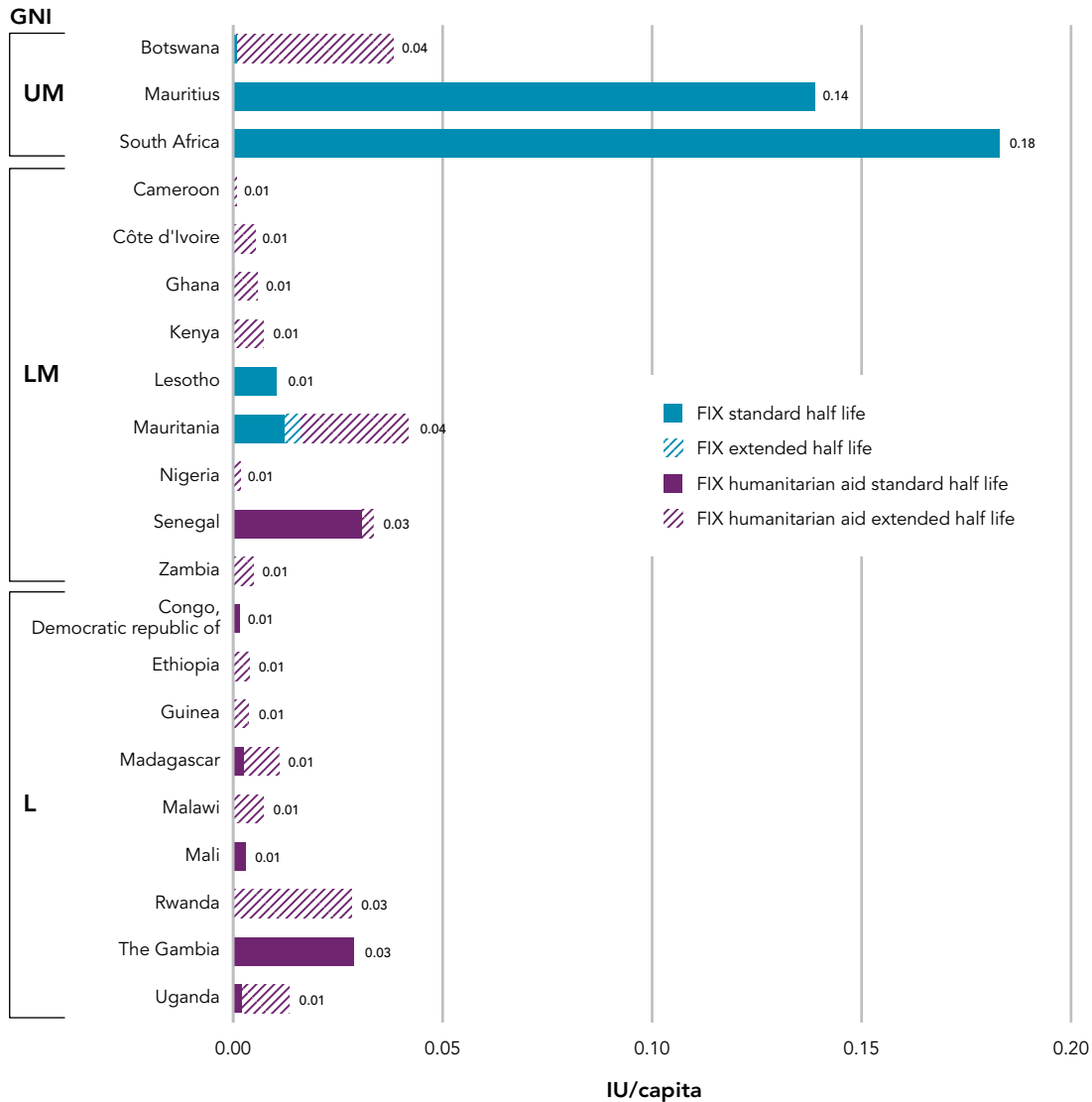
FIGURE G1a. Factor VIII per capita in 2023 – regional and GNI comparisons of IU/total population: Africa



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. The orange line indicates 1 international unit (IU) per capita of factor VIII. The WFH has established that one IU of FVIII clotting factor concentrate per capita should be the target minimum for countries wishing to achieve survival for the hemophilia population. Higher levels would be required to preserve joint function or achieve a quality of life equivalent to an individual without hemophilia. Please note the orange line does not apply to factor IX. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

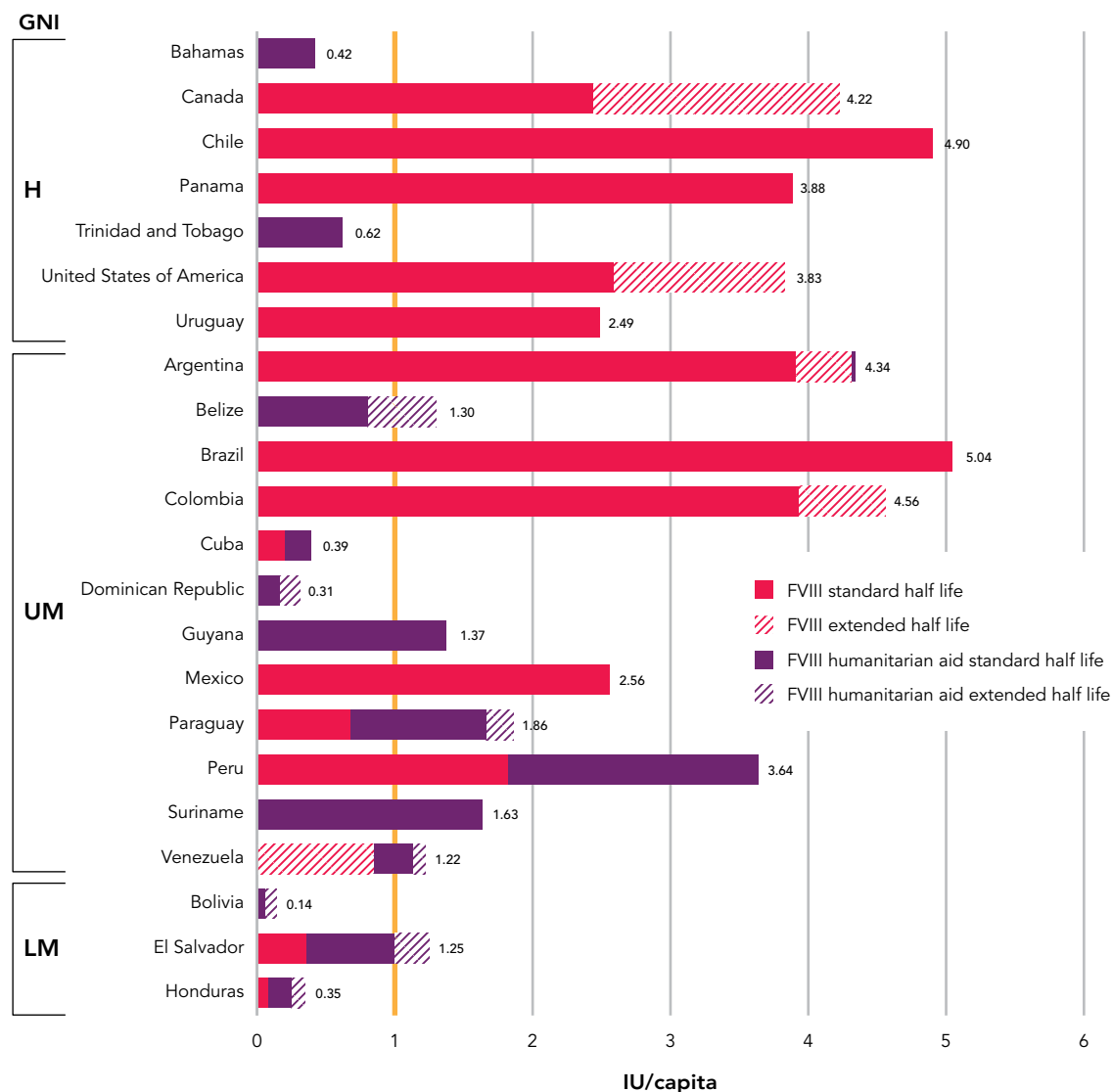
FIGURE G1b. Factor IX per capita in 2023 – regional and GNI comparisons of IU/total population: Africa



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

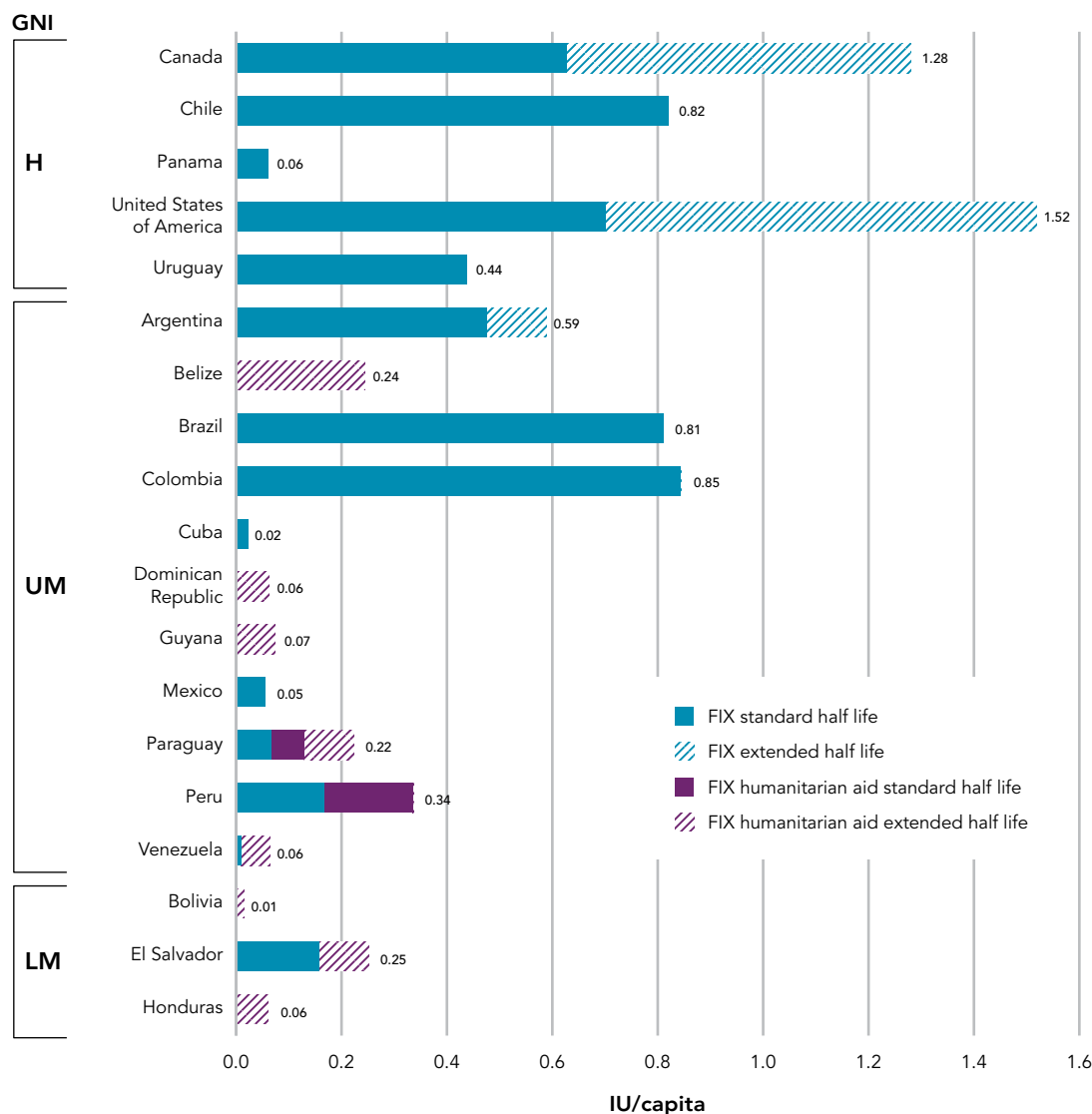
FIGURE G2a. Factor VIII per capita in 2023 – regional and GNI comparisons of IU/total population: Americas



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. The orange line indicates 1 international unit (IU) per capita of factor VIII. The WFH has established that one IU of FVIII clotting factor concentrate per capita should be the target minimum for countries wishing to achieve survival for the hemophilia population. Higher levels would be required to preserve joint function or achieve a quality of life equivalent to an individual without hemophilia. Please note the orange line does not apply to factor IX. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

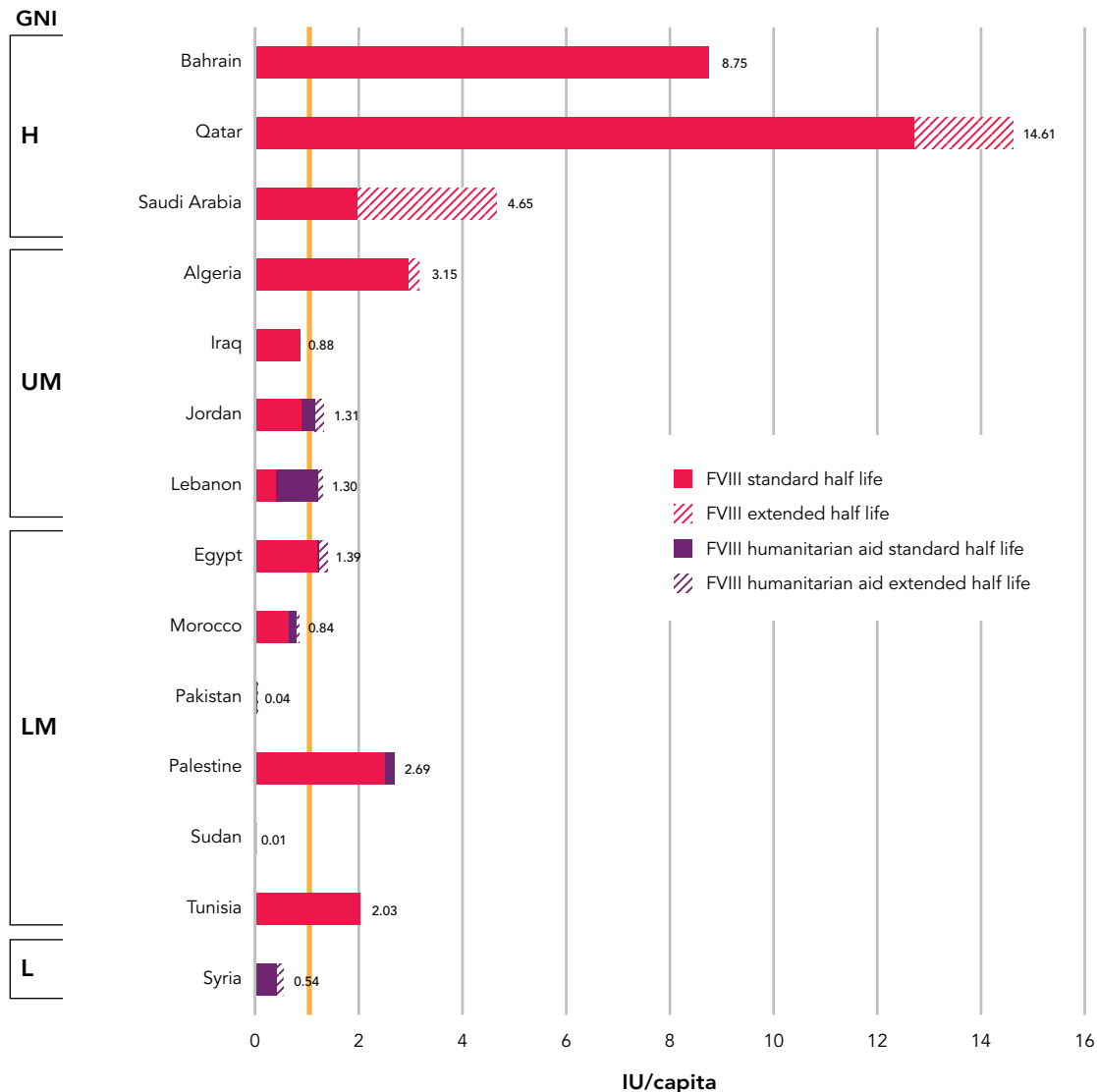
FIGURE G2b. Factor IX per capita in 2023 – regional and GNI comparisons of IU/total population: Americas



Economic category based on The World Bank Group 2023 rankings for “Gross national income (GNI) per capita, Atlas method (current US\$)”. GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

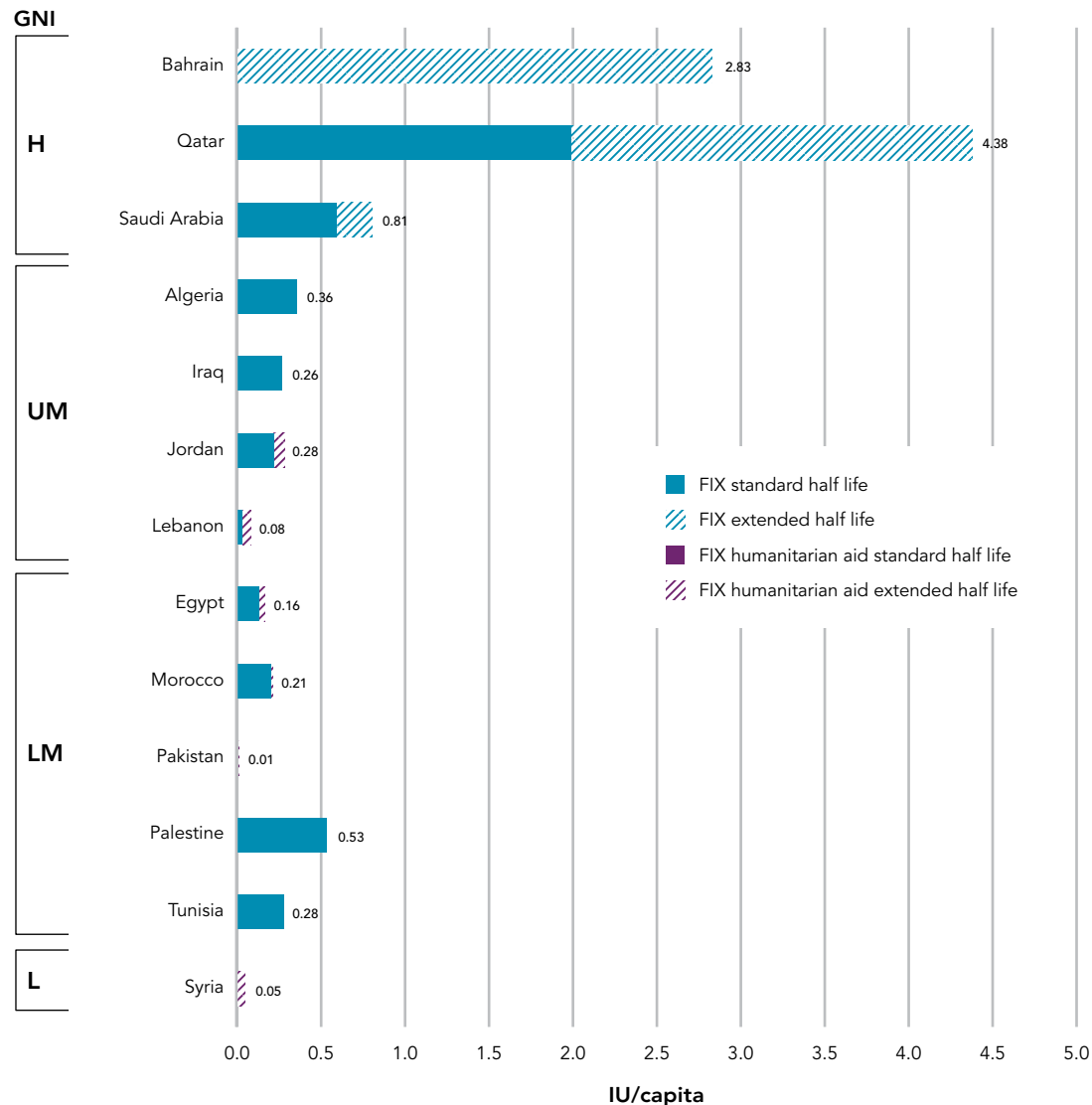
FIGURE G3a. Factor VIII per capita in 2023 – regional and GNI comparisons of IU/total population: Eastern Mediterranean



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. The orange line indicates 1 international unit (IU) per capita of factor VIII. The WFH has established that one IU of FVIII clotting factor concentrate per capita should be the target minimum for countries wishing to achieve survival for the hemophilia population. Higher levels would be required to preserve joint function or achieve a quality of life equivalent to an individual without hemophilia. Please note the orange line does not apply to factor IX. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

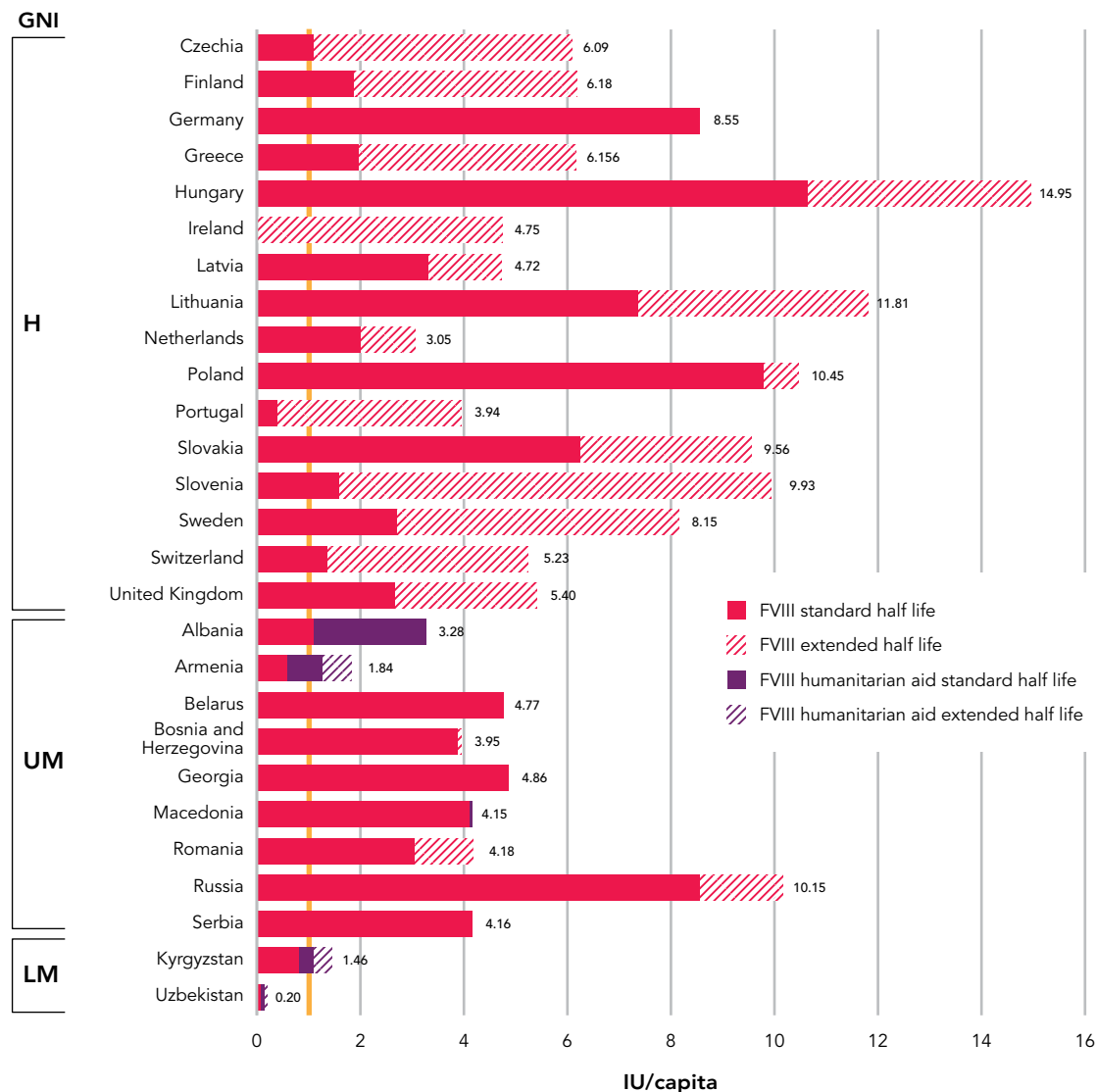
FIGURE G3b. Factor IX per capita in 2023 – regional and GNI comparisons of IU/total population: Eastern Mediterranean



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

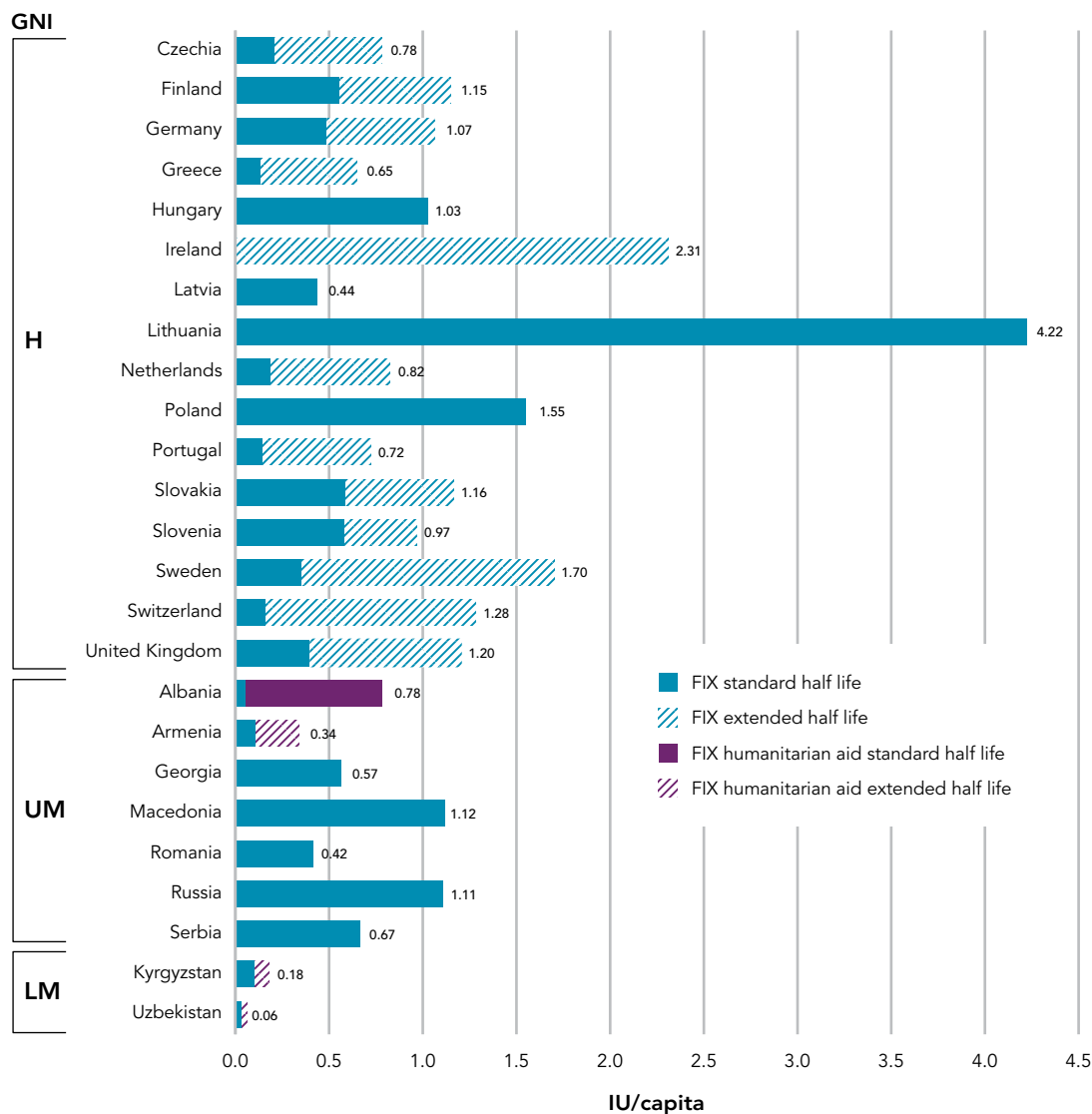
FIGURE G4a. Factor VIII per capita in 2023 – regional and GNI comparisons of IU/total population: Europe



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. The orange line indicates 1 international unit (IU) per capita of factor VIII. The WFH has established that one IU of FVIII clotting factor concentrate per capita should be the target minimum for countries wishing to achieve survival for the hemophilia population. Higher levels would be required to preserve joint function or achieve a quality of life equivalent to an individual without hemophilia. The European Department for the Quality of Medicines and Healthcare (EDQM) recommends the minimum consumption of factor VIII and IX concentrate in any country should be 4 IU and 0.5 IU per capita of general population respectively. Please note the orange line does not apply to factor IX. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

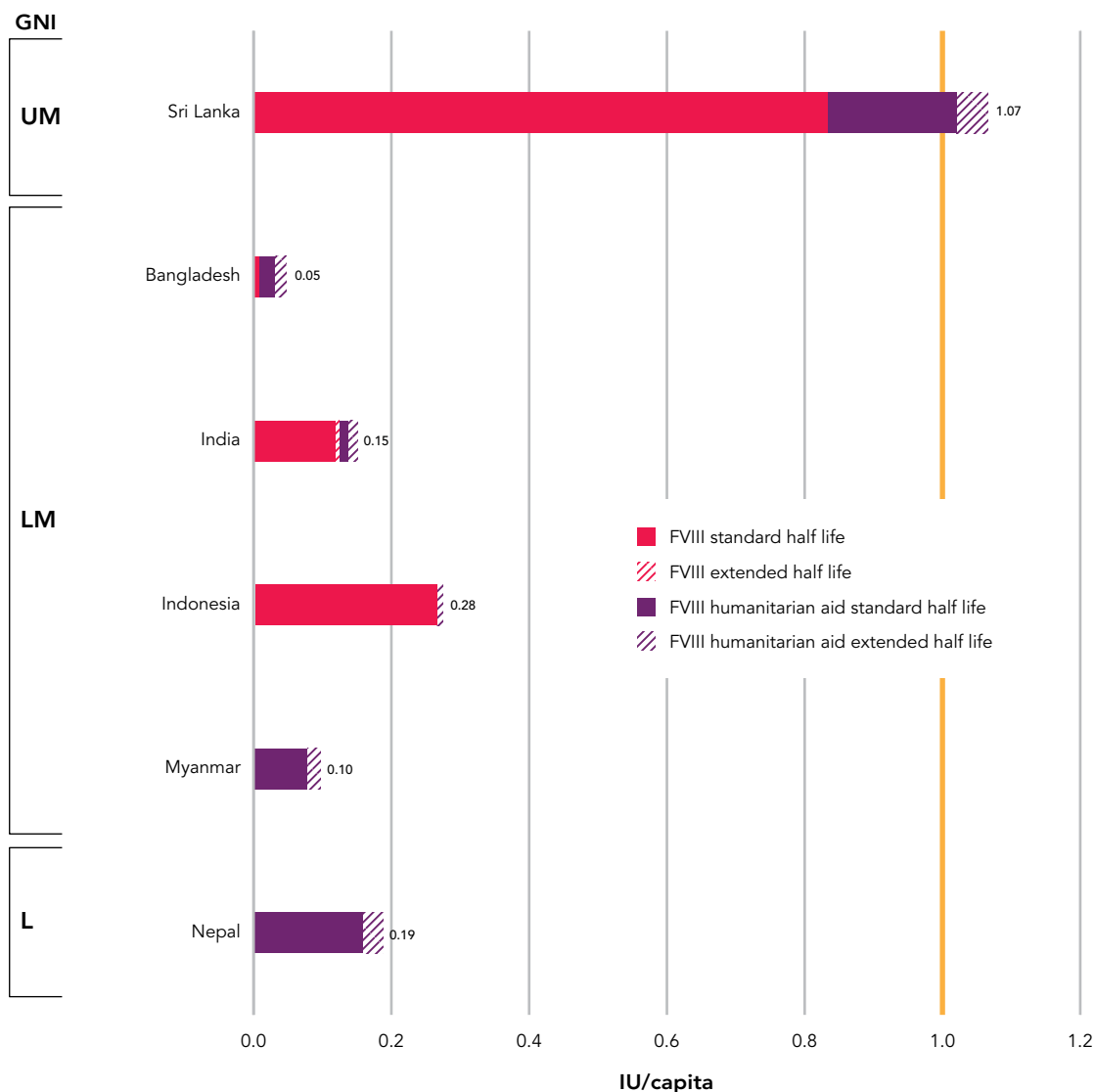
FIGURE G4b. Factor IX per capita in 2023 – regional and GNI comparisons of IU/total population: Europe



Economic category based on The World Bank Group 2023 rankings for “Gross national income (GNI) per capita, Atlas method (current US\$)”. GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products. The European Department for the Quality of Medicines and Healthcare (EDQM) recommends the minimum consumption of factor VIII and IX concentrate in any country should be 4 IU and 0.5 IU per capita of general population respectively.

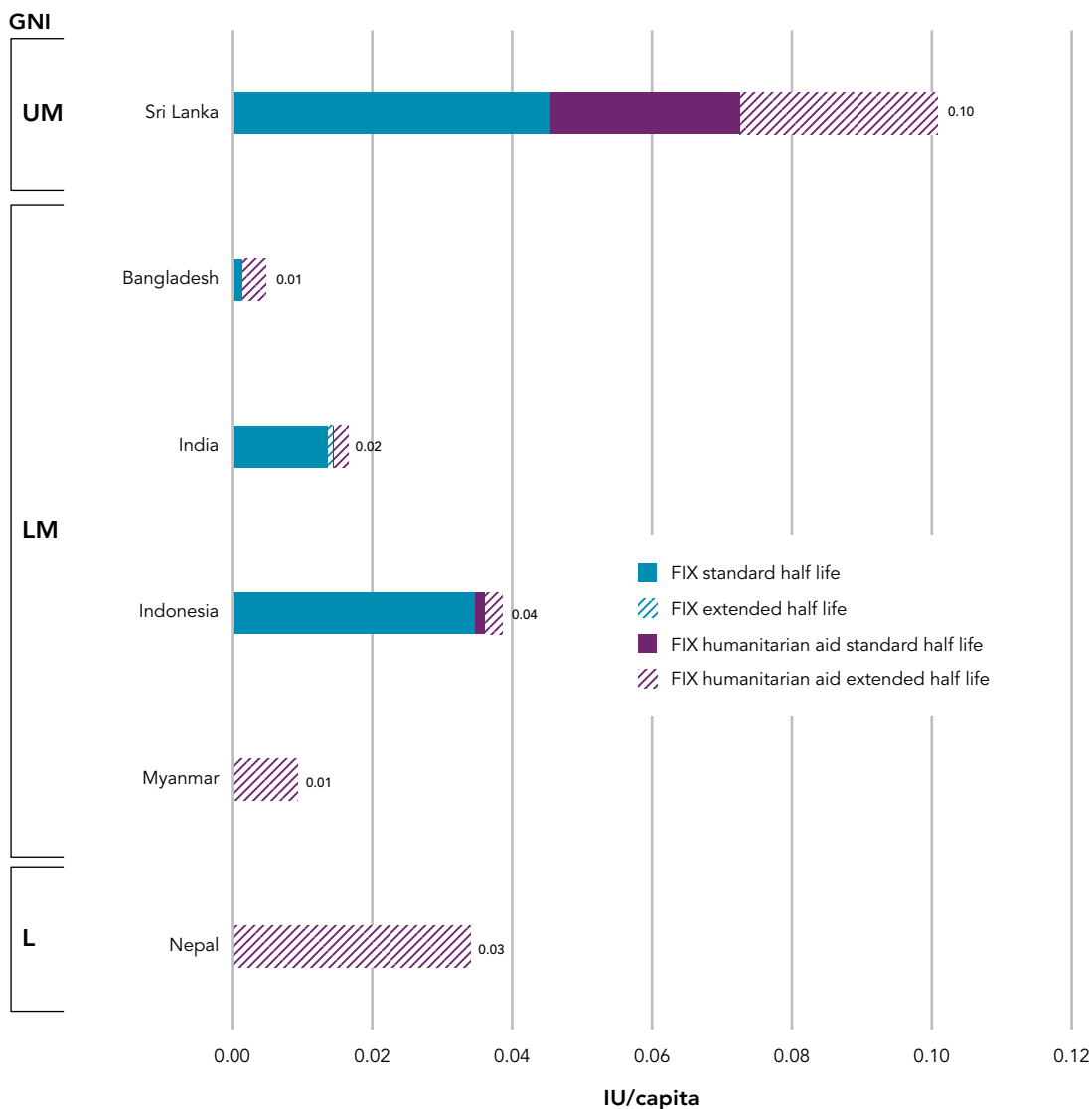
FIGURE G5a. Factor VIII per capita in 2023 – regional and GNI comparisons of IU/total population: South-East Asia



Economic category based on The World Bank Group 2023 rankings for “Gross national income (GNI) per capita, Atlas method (current US\$)”. GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. The orange line indicates 1 international unit (IU) per capita of factor VIII. The WFH has established that one IU of FVIII clotting factor concentrate per capita should be the target minimum for countries wishing to achieve survival for the hemophilia population. Higher levels would be required to preserve joint function or achieve a quality of life equivalent to an individual without hemophilia. Please note the orange line does not apply to factor IX. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

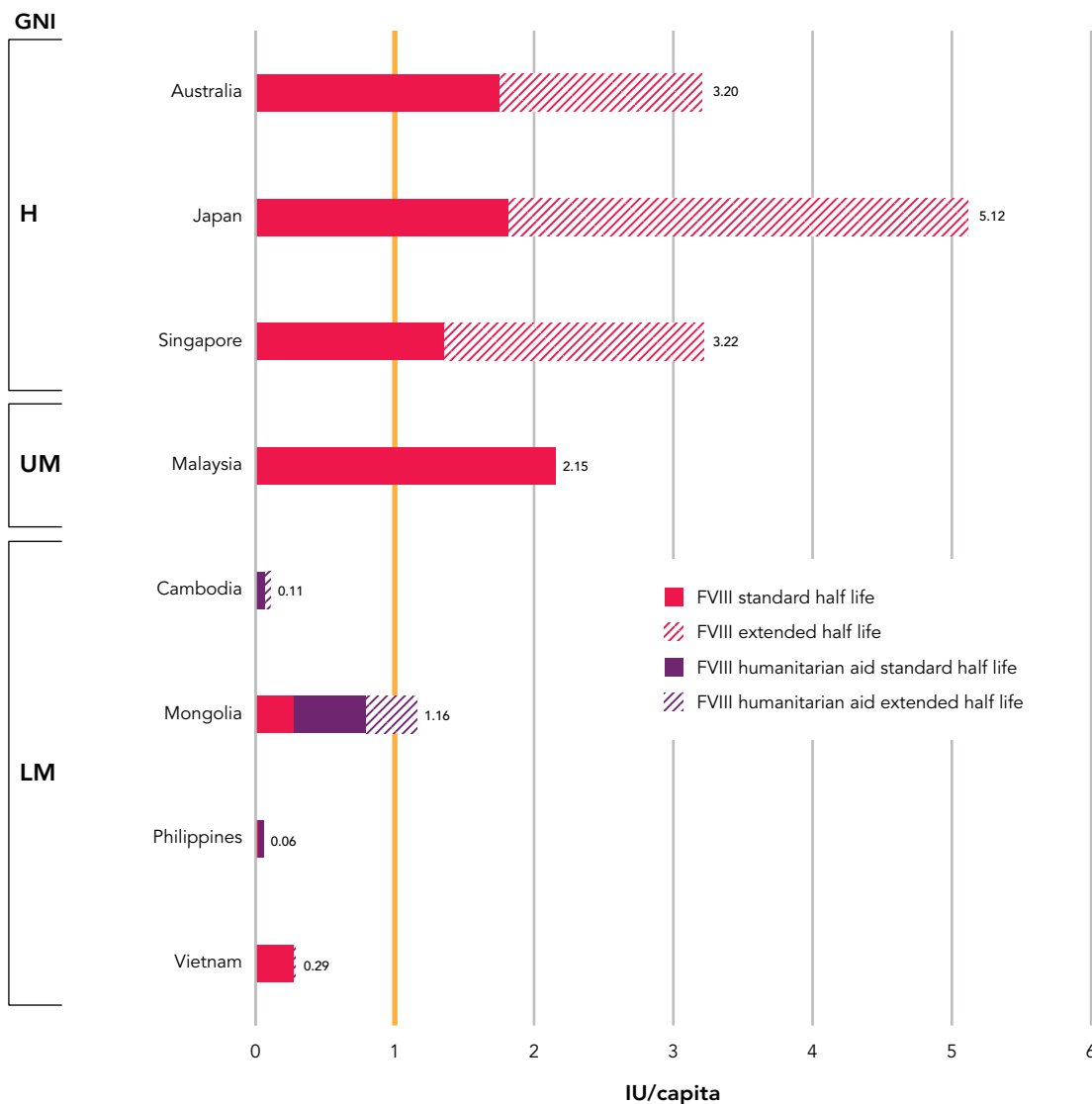
FIGURE G5b. Factor IX per capita in 2023 – regional and GNI comparisons of IU/total population: South-East Asia



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

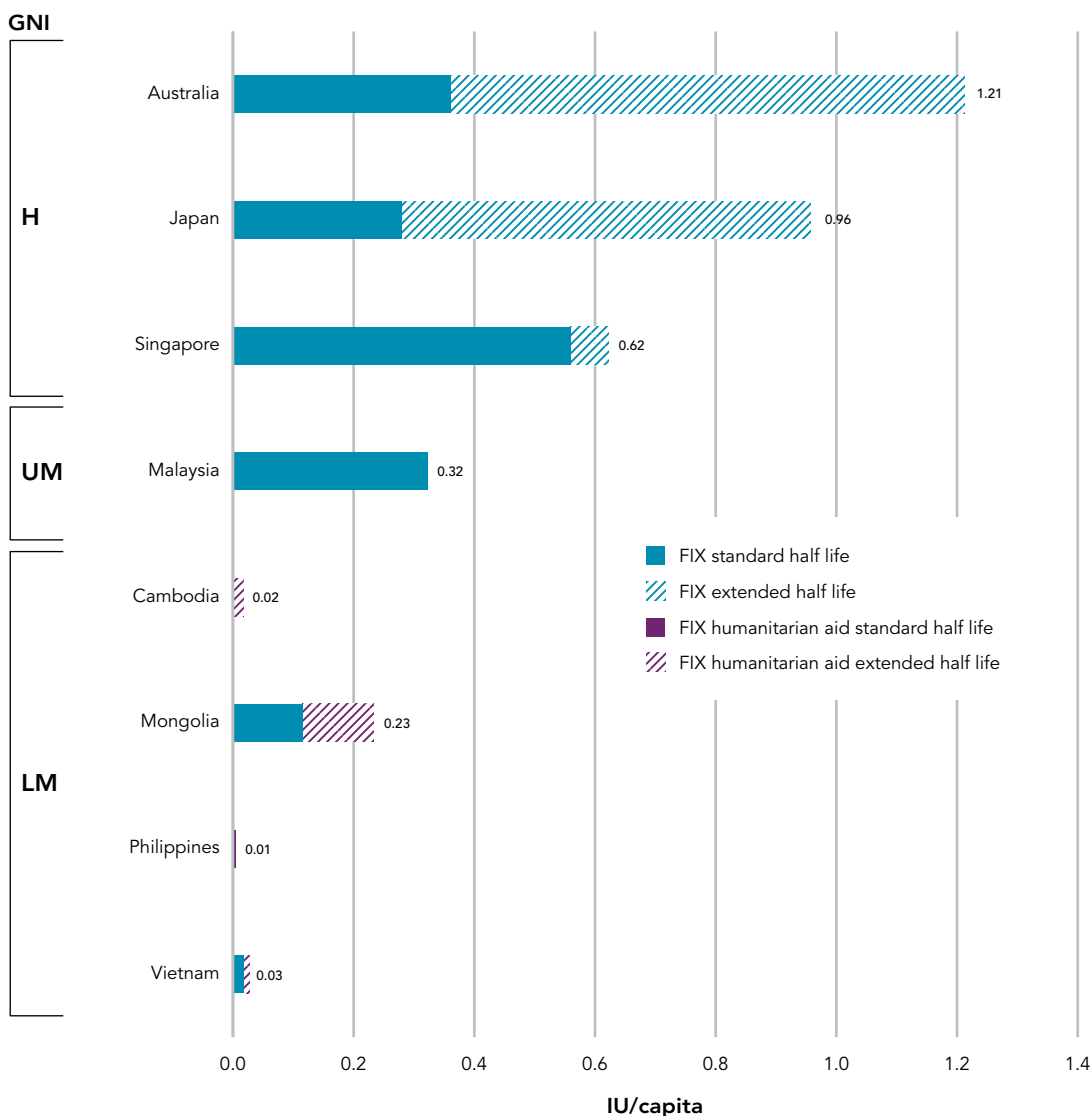
FIGURE G6a. Factor VIII per capita in 2023 – regional and GNI comparisons of IU/total population: Western Pacific



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. The orange line indicates 1 international unit (IU) per capita of factor VIII. The WFH has established that one IU of FVIII clotting factor concentrate per capita should be the target minimum for countries wishing to achieve survival for the hemophilia population. Higher levels would be required to preserve joint function or achieve a quality of life equivalent to an individual without hemophilia. Please note the orange line does not apply to factor IX. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

FIGURE G6b. Factor IX per capita in 2023 – regional and GNI comparisons of IU/total population: Western Pacific



Economic category based on The World Bank Group 2023 rankings for “Gross national income (GNI) per capita, Atlas method (current US\$)”. GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

PLEASE NOTE: The x-axis showing the number of IU/capita is different in each graph of Figure G. Only countries that provided product use data in the 2023 questionnaire are included in Figure G graphs. It may be that countries used extended half-life products but did not report the amount. These will be shown as part of the standard half-life products.

Converting factor and non-factor usage into a single metric

Factor usage (international units or IU) per capita has been used for decades to compare hemophilia care resources across countries. However, the introduction of extended half-life (EHL) clotting factor concentrates for hemophilia A and B, and emicizumab prophylaxis for hemophilia A has complicated the tracking and comparison of factor usage trends. To assess trends in care and the impact of EHL products and emicizumab prophylaxis, a conversion factor was established.³ These conversion factors were applied and displayed in the figures below, showing the IU per capita with SHL, EHL and emicizumab in a single, harmonized metric. The conversions used for FVIII are: 1.04 IU SHL = 1 IU EHL and 70 IU SHL = 1 mg emicizumab. The conversion factors used for FIX are: 1.87 IU SHL = 1 IU EHL. The aim of these figures is to facilitate analysis of treatment progression across different countries, regions and economic categories.

FIGURE H1a. Factor VIII per capita in 2023 – regional and GNI comparisons with and without conversion factor: Africa

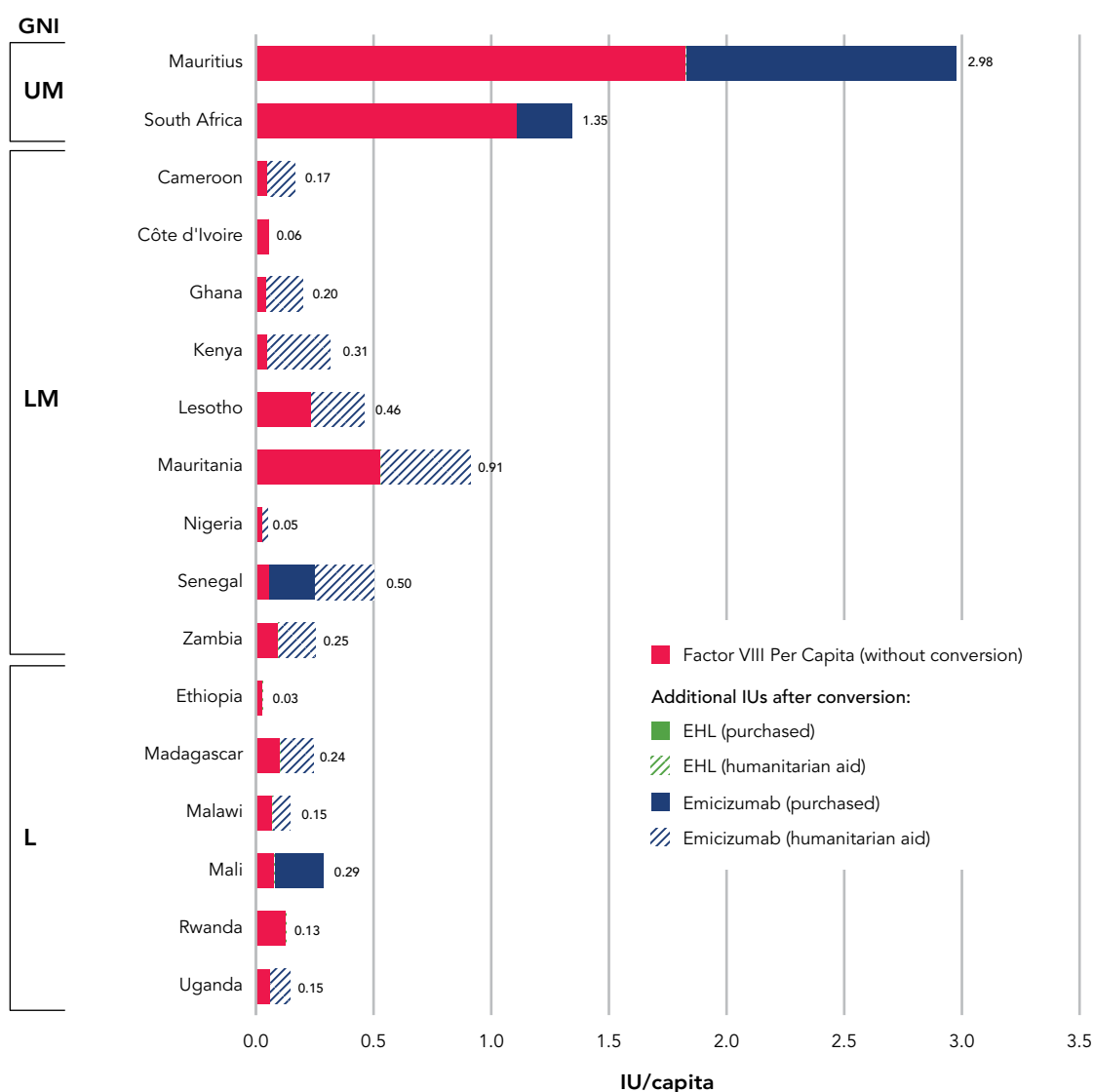


FIGURE H1b. Factor IX per capita in 2023 – regional and GNI comparisons with and without conversion factor: Africa

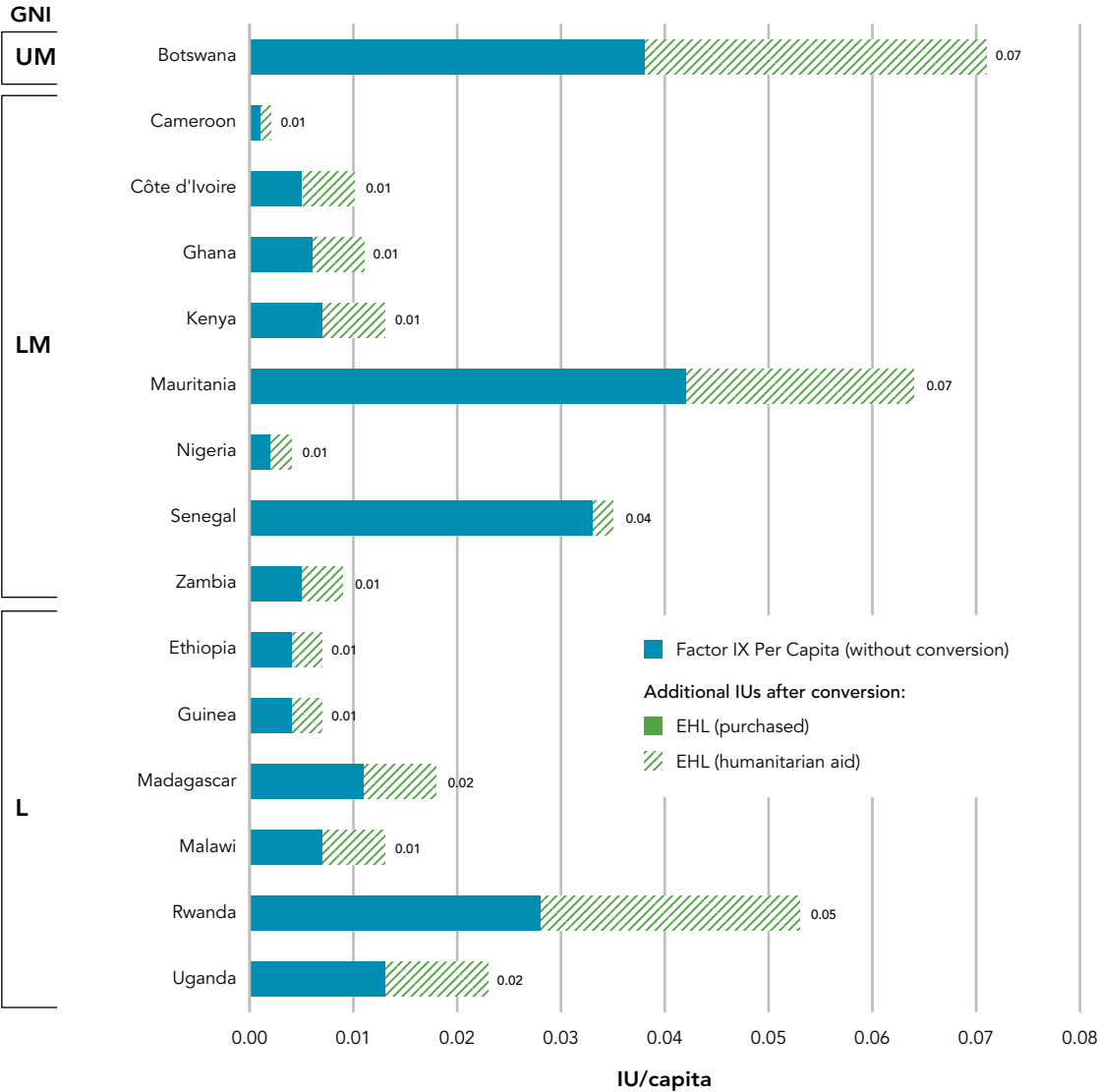


FIGURE H2a. Factor VIII per capita in 2023 – regional and GNI comparisons with and without conversion factor: Americas

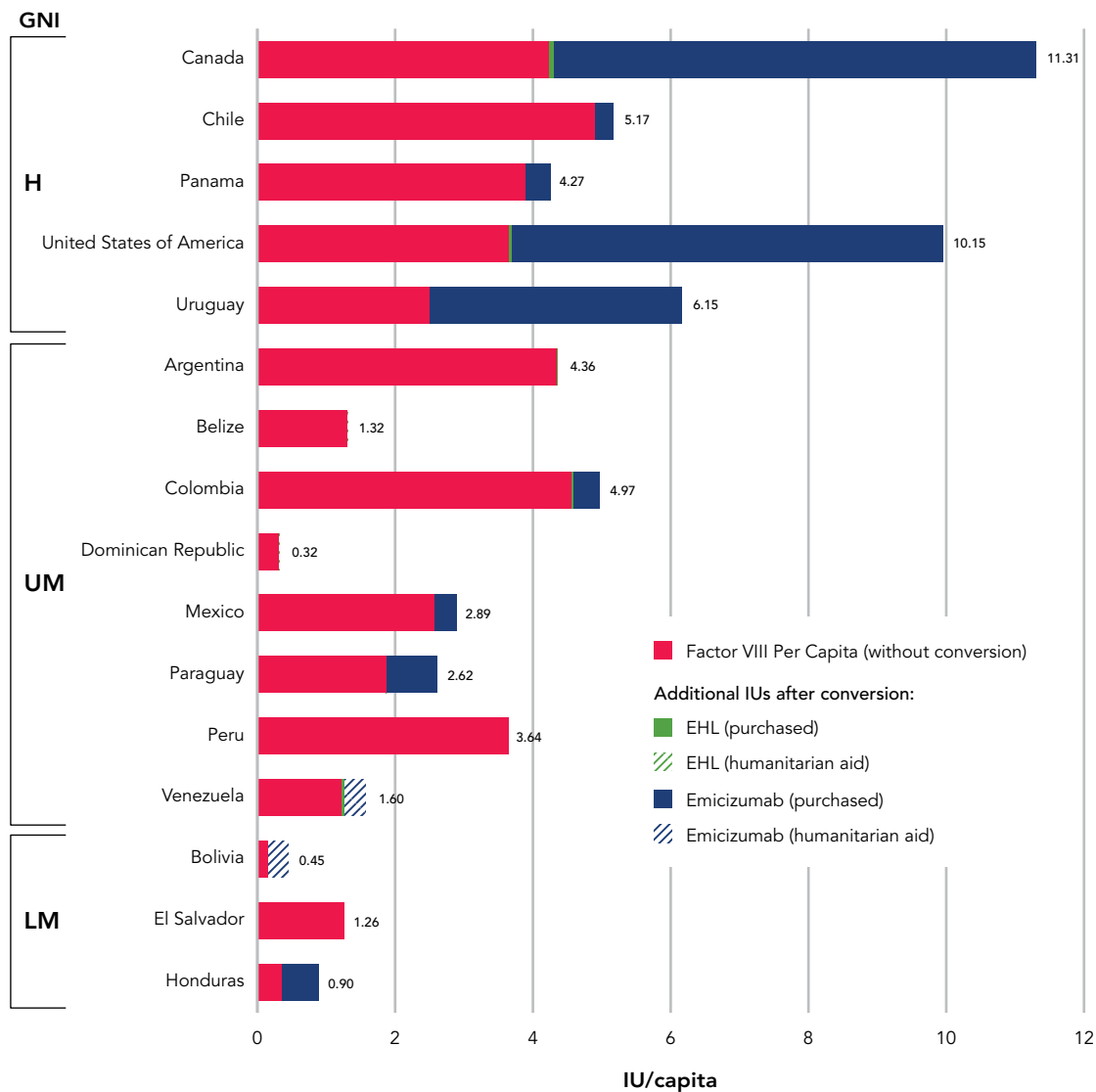


FIGURE H2b. Factor IX per capita in 2023 – regional and GNI comparisons with and without conversion factor: Americas

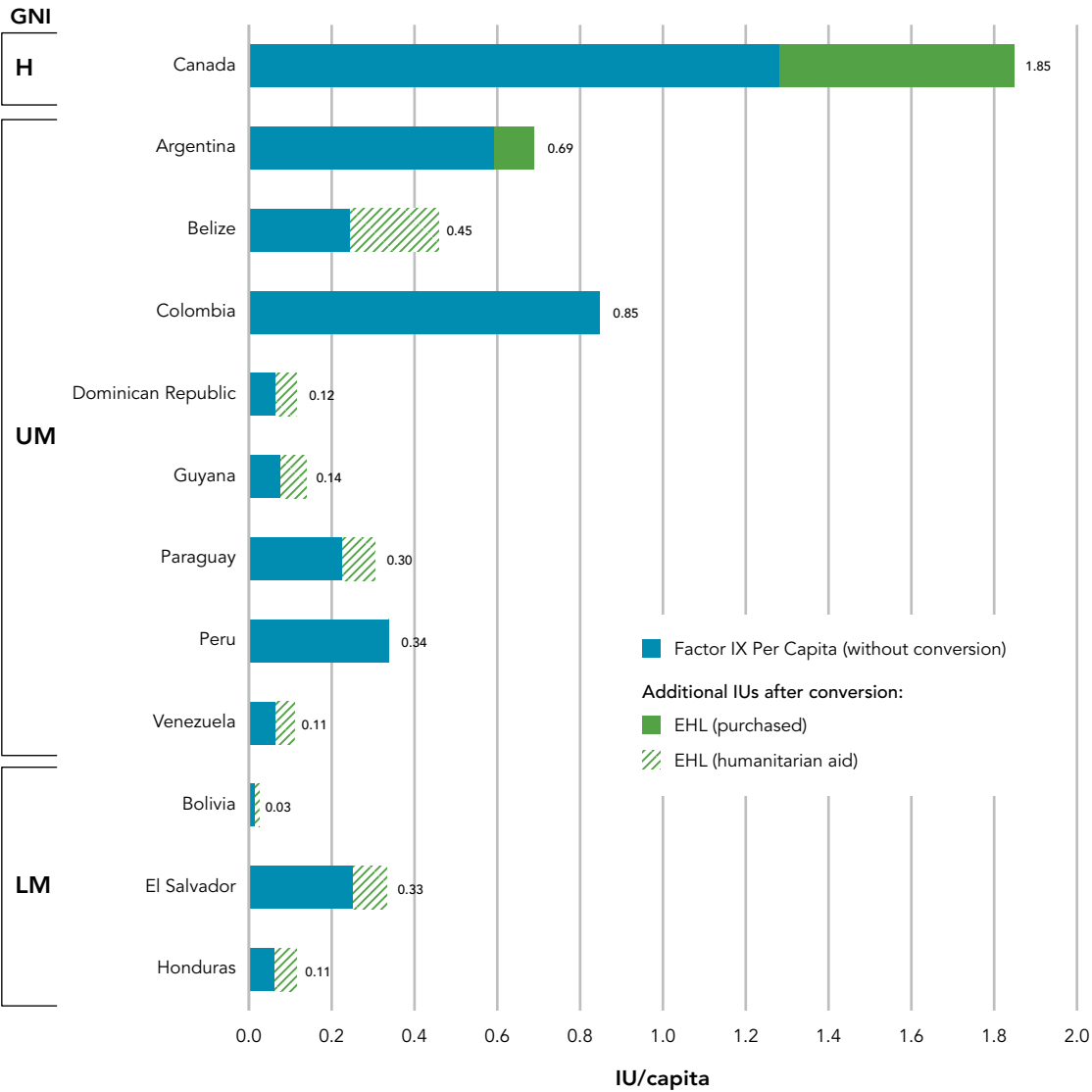


FIGURE H3a. Factor VIII per capita in 2023 – regional and GNI comparisons with and without conversion factor: Eastern Mediterranean

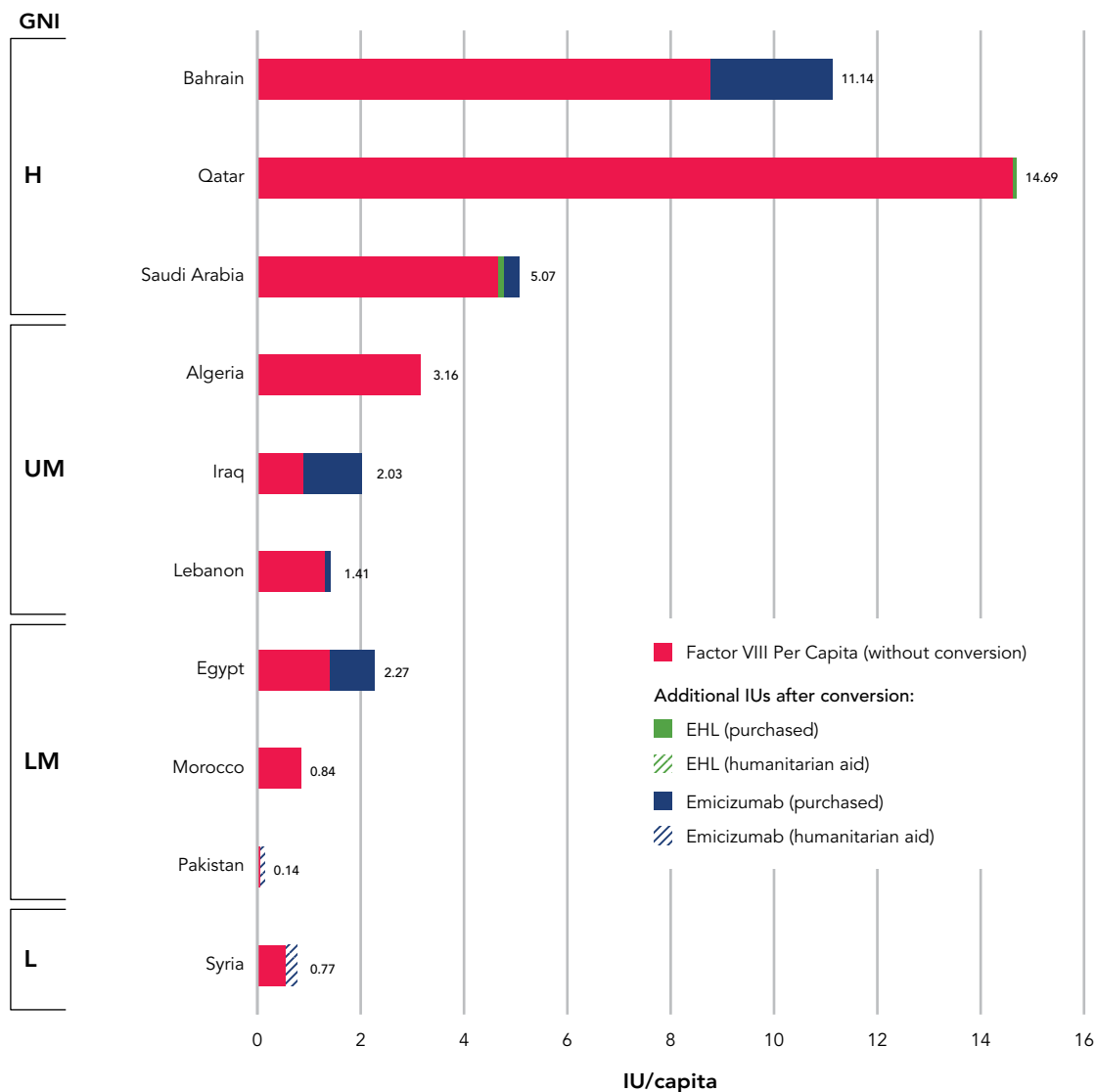


FIGURE H3b. Factor IX per capita in 2023 – regional and GNI comparisons with and without conversion factor: Eastern Mediterranean

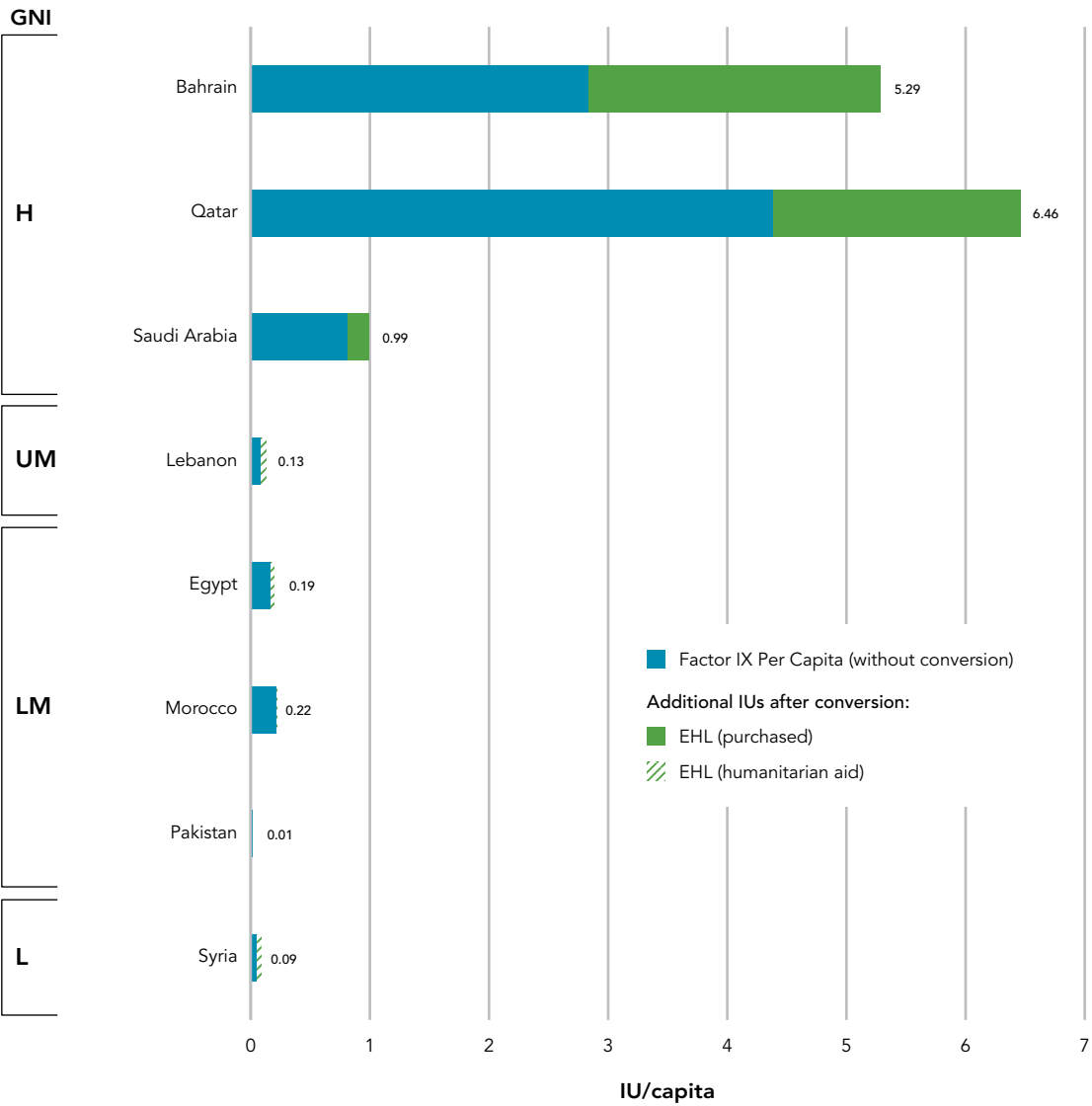


FIGURE H4a. Factor VIII per capita in 2023 – regional and GNI comparisons with and without conversion factor: Europe

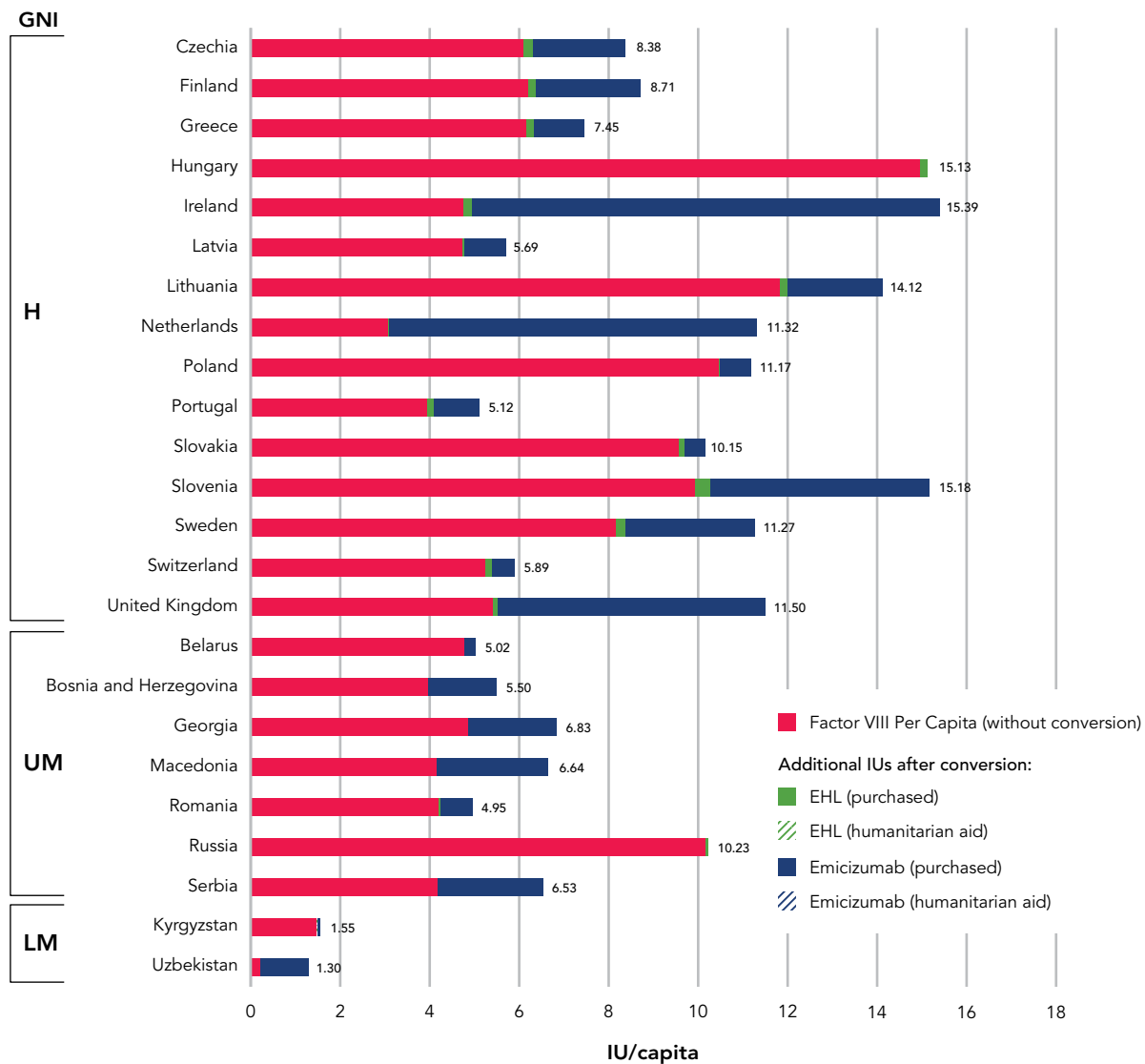


FIGURE H4b. Factor IX per capita in 2023 – regional and GNI comparisons with and without conversion factor: Europe

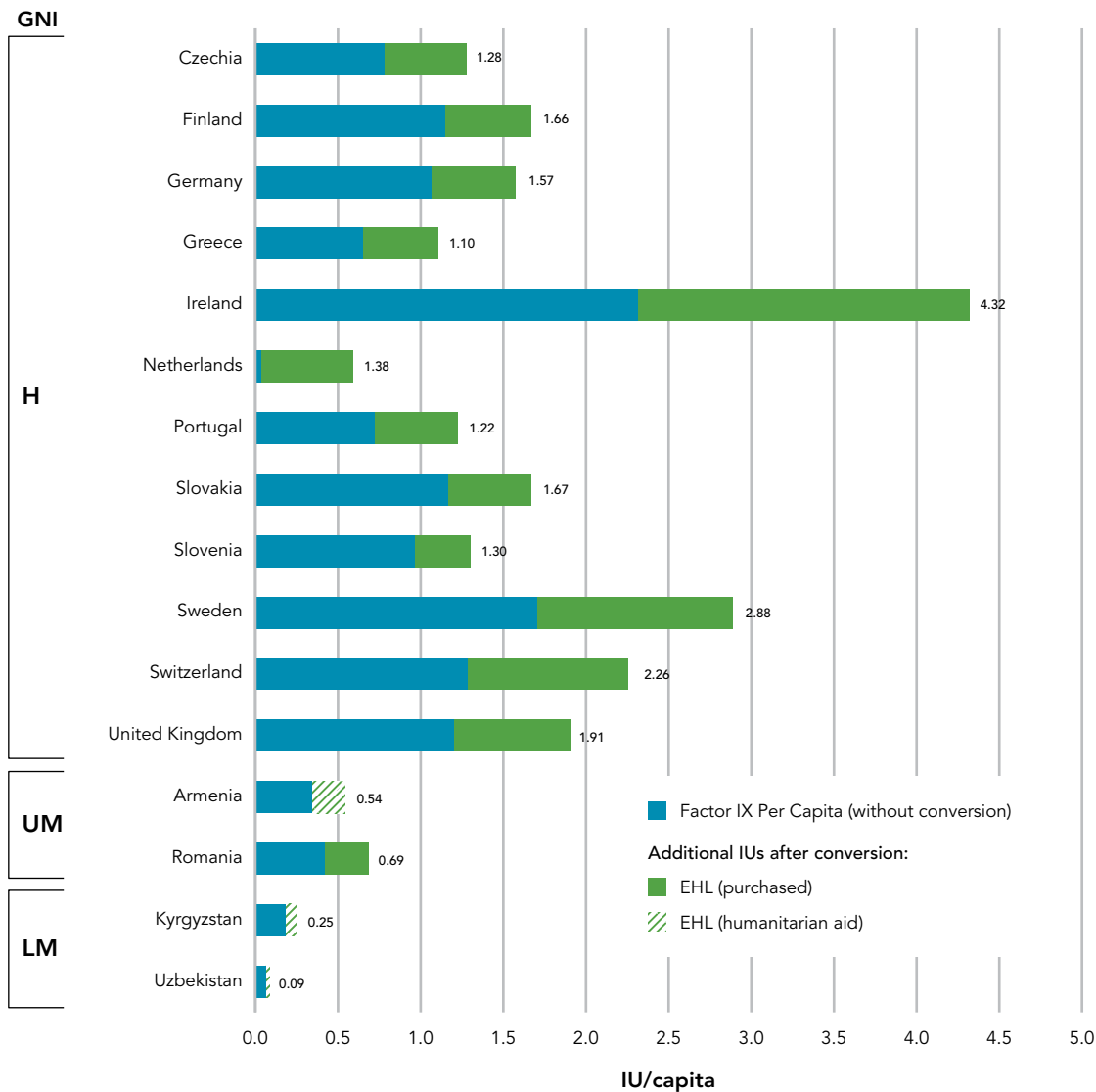


FIGURE H5a. Factor VIII per capita in 2023 – regional and GNI comparisons with and without conversion factor: South-East Asia

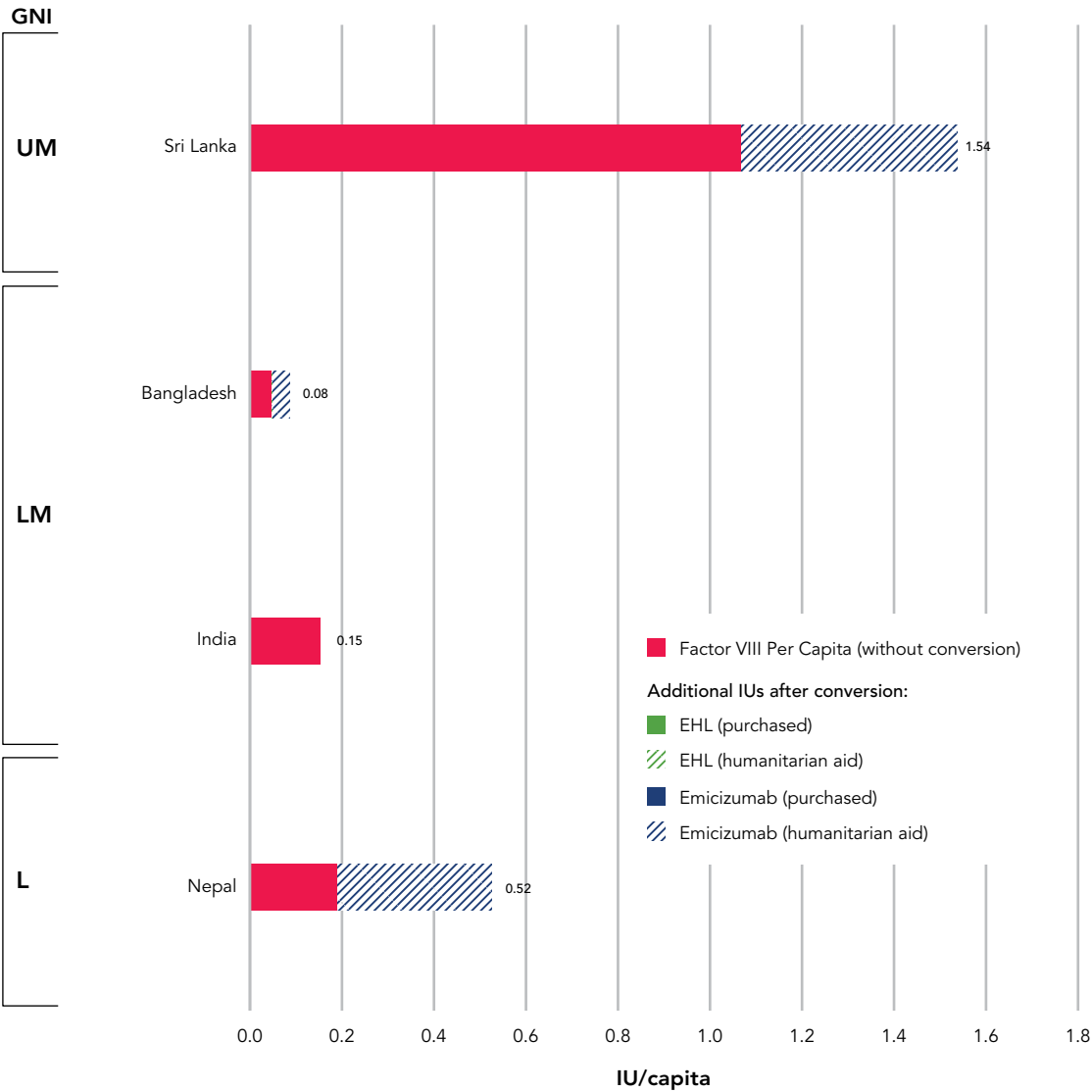


FIGURE H5b. Factor IX per capita in 2023 – regional and GNI comparisons with and without conversion factor: South-East Asia

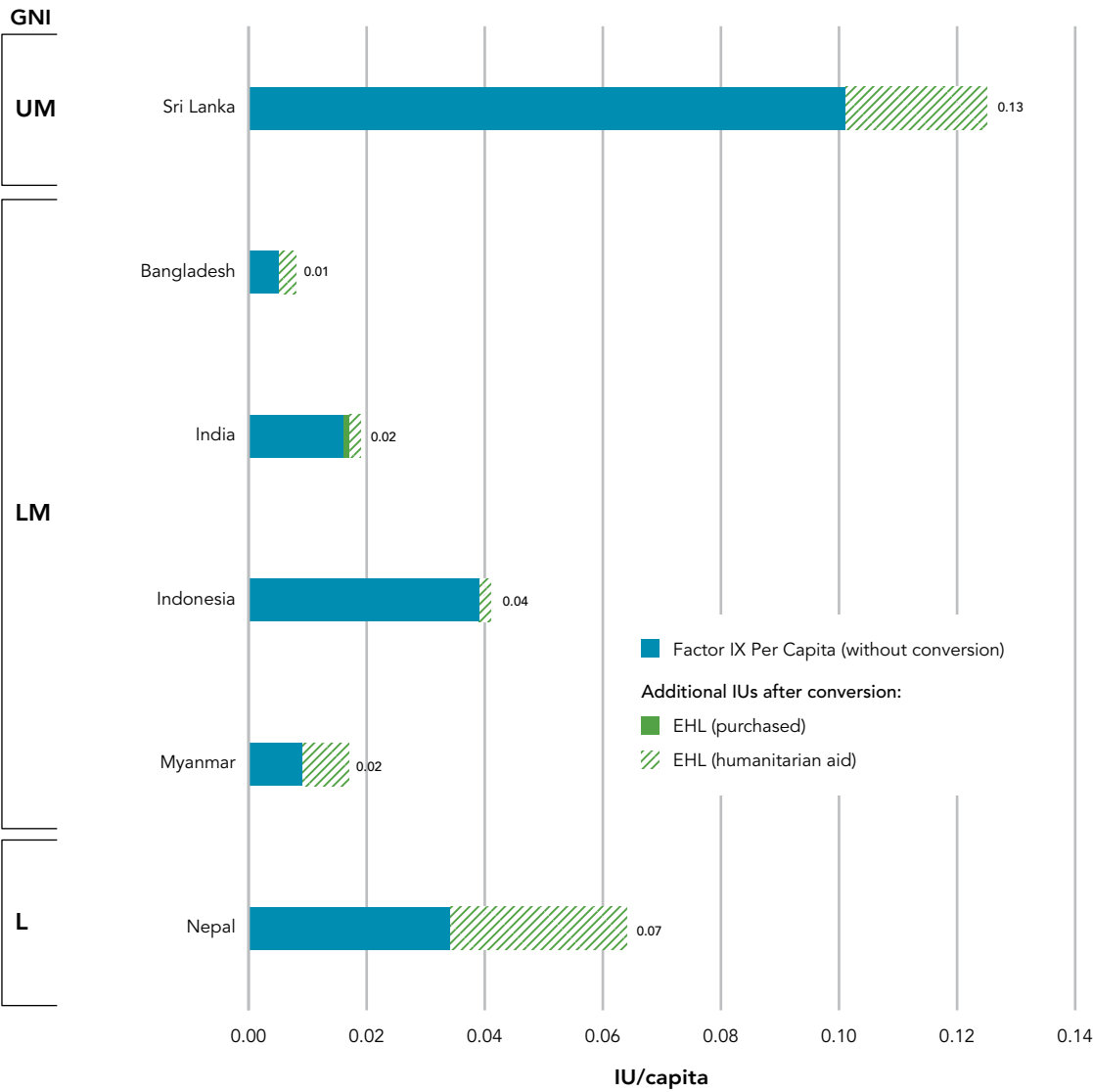


FIGURE H6a. Factor VIII per capita in 2023 – regional and GNI comparisons with and without conversion factor: Western Pacific

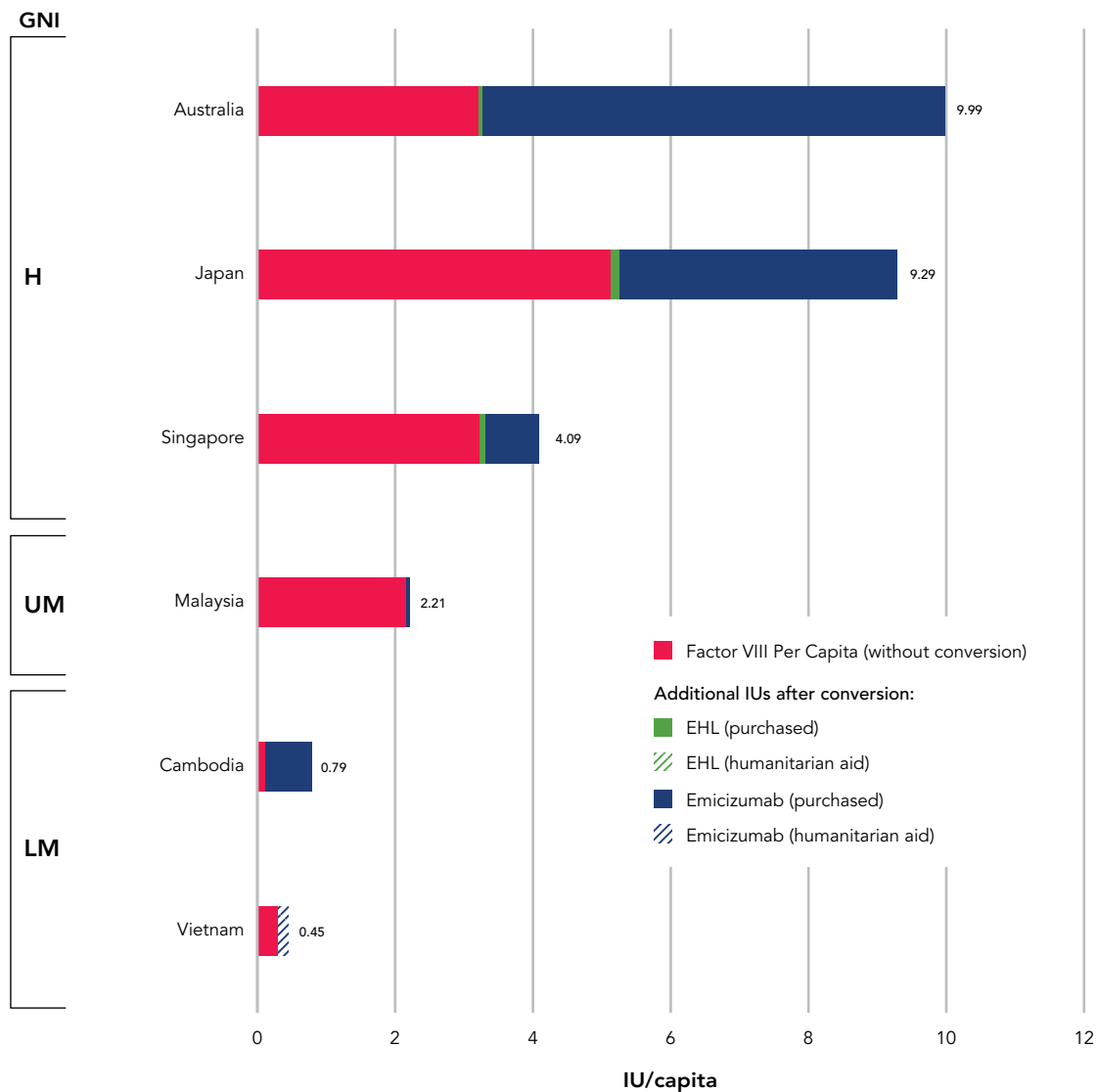


FIGURE H6b. Factor IX per capita in 2023 – regional and GNI comparisons with and without conversion factor: Western Pacific

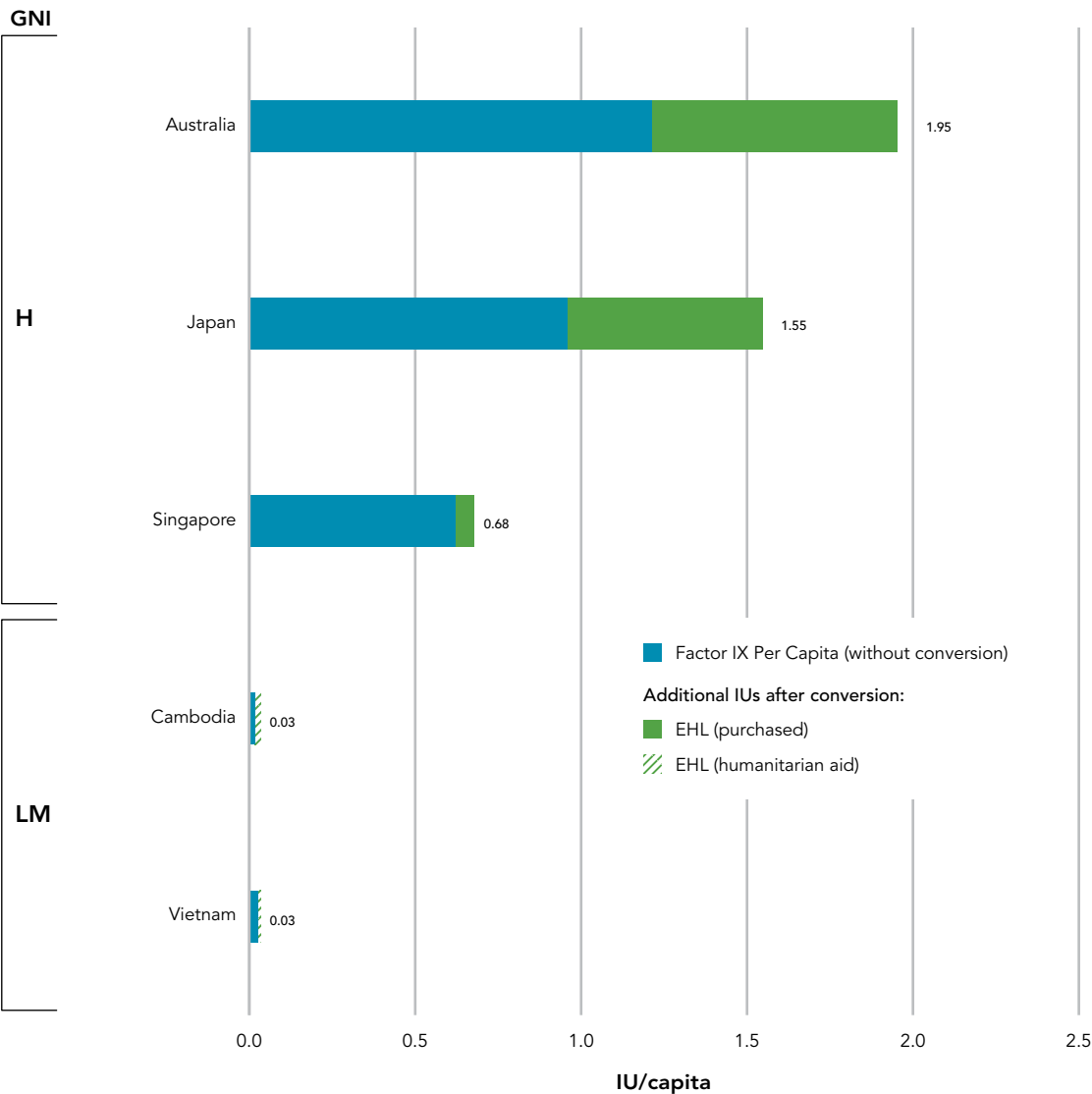
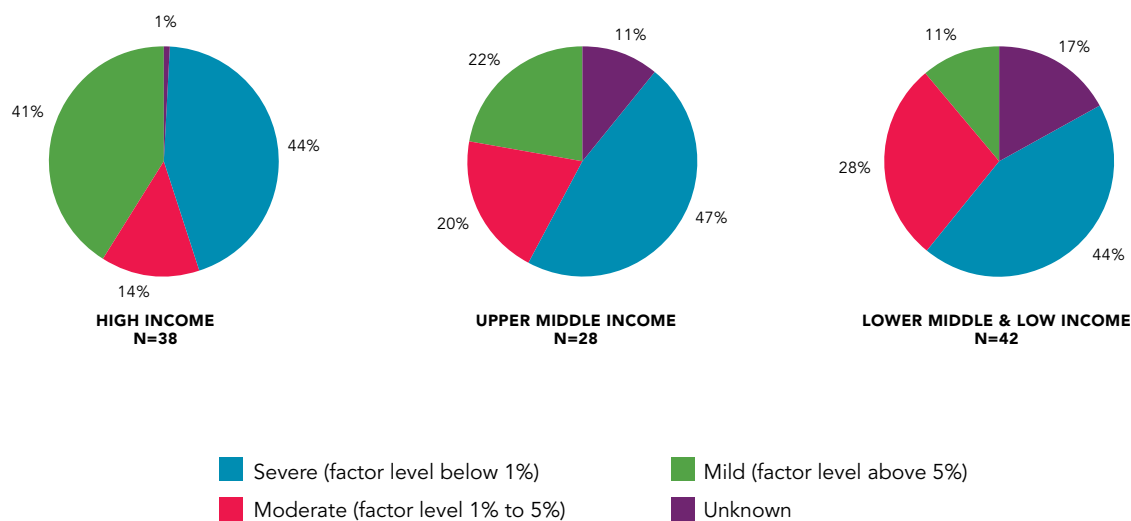


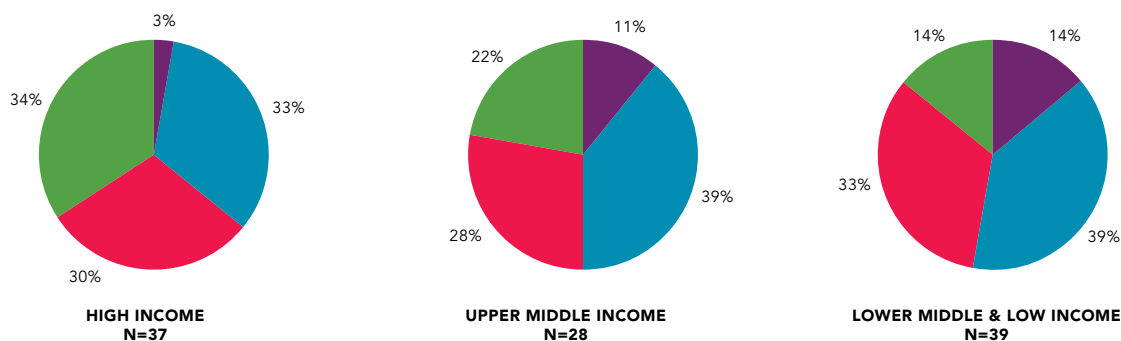
FIGURE I1. Severity of hemophilia in males by GNI

There are three levels of severity of hemophilia: mild, moderate and severe. The severity of hemophilia depends on the amount of clotting factor in the person's blood.

Hemophilia A



Hemophilia B

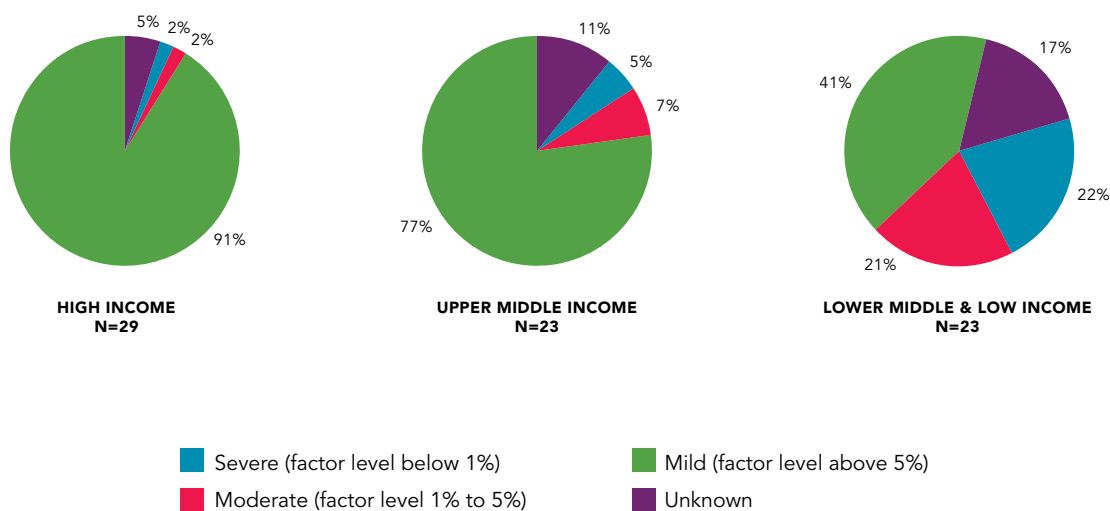


Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

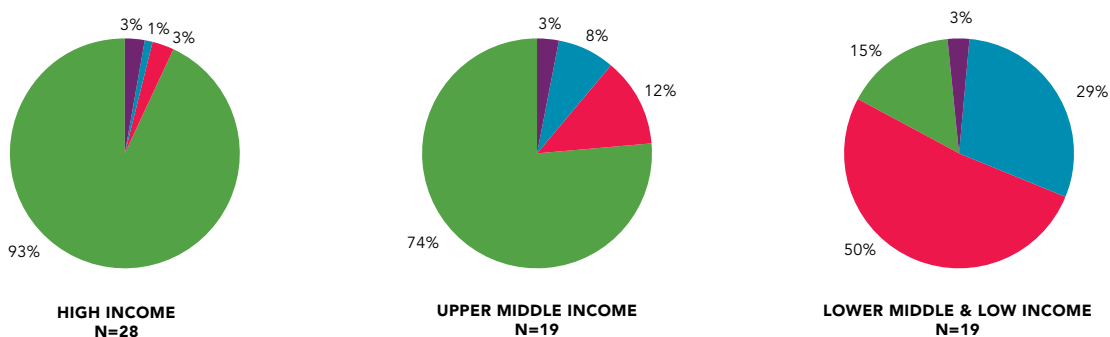
FIGURE I2. Severity of hemophilia in females—by GNI

There are three levels of severity of hemophilia: mild, moderate and severe. The severity of hemophilia depends on the amount of clotting factor in the person's blood.

Hemophilia A



Hemophilia B



Economic category based on The World Bank Group 2023 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: L low income, \$0–\$1,145; LM lower middle income, \$1,146–\$4,515; UM upper middle income, \$4,516–\$14,005; and H high income, \$14,006 or more.

TABLE 6. Population statistics

Please note: in all of the population charts a 0 indicates that the member organization reported the number zero and “Not Known” means that the member organization reported that they do not know the answer.

The population data is sourced from The World Bank Group.

Country	Population	People with hemophilia	People with von Willebrand Disease	People with other bleeding disorders
Albania	2,745,972	260	9	12
Algeria	45,606,480	2,689	539	923
Argentina	46,654,581	2,858	405	11
Armenia	2,777,970	252	22	187
Australia	26,638,544	3,075	2,669	1,219
Austria	9,132,383	884	Not Known	Not Known
Bahamas	412,623	11	2	Not Known
Bahrain	1,485,509	117	496	123
Bangladesh	172,954,319	3,227	6	5
Belarus	9,178,298	641	245	58
Belgium	11,822,592	1,360	2,359	740
Belize	410,825	19	Not Known	Not Known
Bolivia	12,388,571	210	15	Not Known
Bosnia and Herzegovina	3,210,847	179	94	11
Botswana	2,675,352	60	9	0
Brazil	216,422,446	13,895	11,370	4,641
Burundi	13,238,559	11	Not Known	13
Cambodia	16,944,826	309	7	1
Cameroon	28,647,293	249	6	Not Known
Canada	40,097,761	4,328	5,352	3,049
Chile	19,629,590	1,939	Not Known	771
Colombia	52,085,168	4,167	4,258	922
Congo, Democratic republic of	102,262,808	88	2	Not Known
Côte d'Ivoire	28,873,034	154	4	5
Croatia	3,853,200	332	158	Not Known
Cuba	11,194,449	488	541	3,923
Czechia	10,873,689	1,050	840	188
Denmark	5,946,952	558	307	116
Djibouti	1,136,455	16	Not Known	Not Known

Country	Population	People with hemophilia	People with von Willebrand Disease	People with other bleeding disorders
Dominican Republic	11,332,972	495	48	64
Egypt	112,716,598	7,099	720	1,598
El Salvador	6,364,943	94	12	17
Eritrea	3,748,901	85	Not Known	Not Known
Ethiopia	126,527,060	443	Not Known	0
Finland	5,584,264	225	571	344
France	68,170,228	9,971	3,724	1,695
Georgia	3,760,365	362	85	119
Germany	84,482,267	6,136	6,870	4,239
Ghana	34,121,985	503	11	Not Known
Greece	10,361,295	1,042	1,349	707
Guinea	14,190,612	89	3	2
Guyana	813,834	30	2	Not Known
Honduras	10,593,798	359	18	5
Hong Kong	7,536,100	158	6	6
Hungary	9,589,872	1,178	1,488	748
India	1,428,627,663	26,352	1,005	695
Indonesia	277,534,122	3,589	20	Not Known
Iran	89,172,767	7,196	2,135	4,521
Iraq	45,504,560	3,473	757	557
Ireland	5,262,382	965	1,968	1,659
Israel	9,756,700	768	224	745
Japan	124,516,650	7,187	1,665	541
Jordan	11,337,052	546	281	336
Kenya	55,100,586	1,005	30	4
Korea, Republic of	51,712,619	2,300	171	193
Kuwait	4,310,108	133	29	70
Kyrgyzstan	7,100,800	420	16	7
Latvia	1,881,750	114	91	22
Lebanon	5,353,930	265	196	86
Lesotho	2,330,318	15	1	Not Known
Libya	6,888,388	384	55	45
Lithuania	2,871,897	211	320	27
Macedonia	1,811,980	399	192	17
Madagascar	30,325,732	175	3	16

Country	Population	People with hemophilia	People with von Willebrand Disease	People with other bleeding disorders
Malawi	20,931,751	96	0	Not Known
Malaysia	34,308,525	1,179	177	109
Mali	23,293,698	224	15	17
Malta	553,214	41	45	22
Mauritania	4,862,989	118	3	4
Mauritius	1,261,041	92	1	8
Mexico	128,455,567	6,188	385	73
Mongolia	3,447,157	144	18	Not Known
Morocco	37,840,044	1,072	208	181
Myanmar	54,577,997	946	36	21
Nepal	30,896,590	809	14	43
Netherlands	17,879,488	1,759	767	189
New Zealand	5,223,100	815	980	593
Nigeria	223,804,632	765	16	Not Known
Norway	5,519,594	478	611	92
Pakistan	240,485,658	3,693	821	330
Palestine	5,165,775	356	66	138
Panama	4,468,087	329	552	127
Paraguay	6,861,524	320	7	23
Peru	34,352,719	1,138	Not Known	9
Philippines	117,337,368	1,545	31	3
Poland	36,685,849	3,424	3,096	1,244
Portugal	10,525,347	1,117	1,089	1,175
Qatar	2,716,391	84	61	13
Romania	19,056,116	1,825	325	18
Russia	143,826,130	8,591	3,499	Not Known
Rwanda	14,094,683	188	2	Not Known
Saudi Arabia	36,947,025	1,595	651	997
Senegal	17,763,163	384	18	22
Serbia	6,618,026	587	339	96
Sierra Leone	8,791,092	21	Not Known	2
Singapore	5,917,648	280	102	81
Slovakia	5,426,740	729	804	1,779
Slovenia	2,120,937	279	230	105
South Africa	60,414,495	2,435	673	216
Spain	48,373,336	2,156	728	184

Country	Population	People with hemophilia	People with von Willebrand Disease	People with other bleeding disorders
Sri Lanka	22,037,000	1,296	97	73
Sudan	48,109,006	1,502	486	563
Suriname	623,236	23	4	2
Sweden	10,536,632	1,121	1,094	Not Known
Switzerland	8,849,852	576	181	91
Syria	23,227,014	1,260	218	278
Thailand	71,801,279	2,062	201	117
The Gambia	2,773,168	28	0	Not Known
Togo	9,053,799	49	Not Known	Not Known
Trinidad and Tobago	1,534,937	72	10	2
Tunisia	12,458,223	750	297	302
Uganda	48,582,334	369	3	Not Known
United Kingdom	68,350,000	9,612	12,077	15,265
United States of America	334,914,895	17,178	14,272	8,095
Uruguay	3,423,108	279	263	24
Uzbekistan	36,412,350	1,939	332	161
Venezuela	28,838,499	2,963	1,217	1,098
Vietnam	98,858,950	4,443	211	709
Zambia	20,569,737	288	14	1

TABLE 7. Distribution of reported bleeding disorders by country

Please note: a 0 indicates that the member organization reported the number zero, a blank space indicates that no number was reported.

Country	Hemophilia A	Hemophilia B	Hemophilia type unknown	VWD	FI	FII	FV	FV+VIII	FVII	FX	FXI	FXIII	Bleeding Disorder: type unknown	Glanzmann's thrombasthenia	Bernard-Soulier syndrome	Platelet disorders: other/unknown
Albania	220	40		9					7	2		2		1		
Algeria	2,124	565		539	69	12	99	32	531	40	24	32	32	35	17	
Argentina	2,468	390	0	405	0	0	0	2	2	0	1	1	0	2	0	3
Armenia	218	34		22	2		6	3	101	2	10	1	47	4	6	5
Australia	2,504	571		2,669	196		26		128	28	372	47		32	21	369
Austria	733	151	0													
Bahamas	9	1	1	2												
Bahrain	105	12	0	496	0	14	17	9	13	16	4	9	0	34	7	0
Bangladesh	2,692	499	36	6			2		2	1						
Belarus	516	125		245					28	3	27	0				
Belgium	1,085	268	7	2,359	5	2	26	0	215	12	180	5	32	21	12	230
Belize	14	5														
Bolivia	173	37		15												
Bosnia and Herzegovina	152	27		94					4			2			2	3
Botswana	52	8	0	9	0	0	0	0	0	0	0	0	0	0	0	0
Brazil	11,618	2,277		11,370	69	26	320	58	2,171	190	467	101	0	467	123	649
Burundi	11											11				2
Cambodia	259	50	0	7								1				
Cameroon	214	35	0	6												
Canada	3,570	758	0	5,352	230	25	109	0	683	70	625	70	0	77	45	1,115
Chile	1,732	207			1	0	18	7	445	22	20	8	3	10	8	229
Colombia	3,417	750	0	4,258	89	19	102	59	269	44	164	112	0	16	2	46
Congo, Democratic republic of	73	15		2												
Côte d'Ivoire	136	18	0	4	0	0	0	0	3	2	0	0	0	0	0	0
Croatia	265	67	0	158												
Cuba	406	82		541	3	1	4		2		10	2		2		3,899
Czechia	906	144	0	840	0	4	18	1	99	7	35	1	23			
Denmark	441	117	0	307	3	3	3	1	39	9	15	9	1	16	13	4
Djibouti	16															

Country	Hemophilia A	Hemophilia B	Hemophilia type unknown	VWD	FI	FII	FV	FV+VIII	FVII	FX	FXI	FXIII	Bleeding Disorder: type unknown	Glanzmann's thrombasthenia	Bernard-Soulier syndrome	Platelet disorders: other/unknown
Dominican Republic	425	41	29	48					10	45		6		3		
Egypt	5,769	1,330		720	227	10	188	6	291	127	90	58	4	535	62	
El Salvador	82	12		12	5				3	1	6	2				
Eritrea	77	8	0													
Ethiopia	228	50	165		0	0	0	0	0	0	0	0	0	0	0	0
Finland	189	36		571							2		340			2
France	8,031	1,940	0	3,724	52	2	68	27	249	43	292	40	0	276	78	568
Georgia	300	62		85	1		3		93	2		3		10		7
Germany	5,147	989	0	6,870	496	111	397		2,096	207	201	731				
Ghana	413	33	57	11												
Greece	848	194	0	1,349	50	2	48	1	230	13	108	11	0	21	10	213
Guinea	81	8		3										1	1	
Guyana	28	2		2												
Honduras	325	33	1	18					3			2				
Hong Kong	133	25	0	6					4	2						
Hungary	923	255		1,488	24	2	30	0	471	26		7		3	1	83
India	22,133	3,687	532	1,005	29	11	60	6	110	67	40	170	60	118		24
Indonesia	3,034	476	79	20												
Iran	5,914	1,282		2,135	205	39	339	294	1,158	296	388	843		826	133	
Iraq	2,787	686		757	61	2	15	5	145	30	14	65		120	23	77
Ireland	720	245	0	1,968	116	3	206	1	353	182	323	21	0	14	4	436
Israel	654	114		224	5	0	9	15	95	9	385	8		47	5	167
Japan	5,869	1,318		1,665	131	9	70	9	133	28	63	98				
Jordan	390	118	38	281	6	4	18	0	107	27	48	13		113		
Kenya	826	179	0	30	0	0	0	0	1	1	0	0	1	0	0	1
Korea, Republic of	1,824	472	4	171	12	0	9	0	57	3	45	4	63	0	0	0
Kuwait	99	34	0	29	8	0	5	0	18	3	2	10		11	13	
Kyrgyzstan	337	83		16	1	1								5		
Latvia	93	21	0	91	0	0	2	2	13	3	0	0	0	1	1	0
Lebanon	209	56	0	196	38	0	9	1	13	7	5	6	0	1	1	5
Lesotho	14	1		1												
Libya	352	32		55	2	1			18	0	1	20		3		
Lithuania	180	30	1	320					19	2				3		3
Macedonia	196	203		192	5		1		2		2	7				

Country	Hemophilia A	Hemophilia B	Hemophilia type unknown	VWD	FI	FII	FV	FV+VIII	FVII	FX	FXI	FXIII	Bleeding Disorder: type unknown	Glanzmann's thrombasthenia	Bernard-Soulier syndrome	Platelet disorders: other/unknown
Madagascar	95	80	0	3	16											
Malawi	86	6	4	0												
Malaysia	973	206	0	177	2	1	2	0	34	17	15	14	0	24	0	0
Mali	177	19	28	15	6	0	0	0	1	2	0	1	0	0	0	7
Malta			41	45									22			
Mauritania	89	29	0	3			1		2					1		
Mauritius	82	10	0	1	0	0	0	0	4	1	0	0	1	2	0	0
Mexico	5,096	792	300	385	3	2	3	0	31	10	6	5	2	7	0	4
Mongolia	108	36		18												
Morocco	810	151	111	208	17	12	14	5	77	7	5	7		31	3	3
Myanmar	792	145	9	36	0	0	0	0	3	3	1	9	5	0	0	0
Nepal	686	123		14	0	0	2	1	9	28	0	3	0	0	0	0
Netherlands	1,527	232	0	767	16	5	10	1	31	4	27	15	0	21	3	56
New Zealand	670	144	1	980	15	2	12	0	26	3	34	8	6	9	2	476
Nigeria	708	34	23	16												
Norway	362	116	0	611	3	2	5		39	6	2	5		15	6	9
Pakistan	3,144	549		821	32	4	28	12	70	44	2	71	7	43	6	11
Palestine	292	64		66		7	4	1	2	16		2	96	10		
Panama	290	39	0	552	0	0	0	0	13	16	0	0	0	11	1	86
Paraguay	284	36	0	7	4				18	1						
Peru	973	165	0				2		4	1				2		
Philippines	1,212	217	116	31			1	1				1				
Poland	2,925	499	0	3,096	181	2	44	6	464	40	114	17	4	34	10	328
Portugal	877	240		1,089	38	2	35	6	484	27	204	12	25	37	32	273
Qatar	73	11	0	61	0	0	1	0	4	1	0	2	0	3	2	0
Romania	1,615	210		325	2			1	10		2	1	2			
Russia	7,237	1,354		3,499												
Rwanda	66	28	94	2												
Saudi Arabia	1,281	306	8	651	16	34	60	19	129	84	34	154	6	356	43	62
Senegal	326	58		18	1		1		6	1		1		5	1	6
Serbia	490	97	0	339	12	0	4	2	53	2	15	5	1	0	2	0
Sierra Leone	19	0	2										2			
Singapore	230	50	0	102	0	0	13	0	9	1	53	5	0	0	0	0
Slovakia	634	95	0	804	450	0	90	2	1,029	45	92	11	0	10	15	35
Slovenia	245	34		230	4	0	14	5	26	5	29	0	0	6	0	16

Country	Hemophilia A	Hemophilia B	Hemophilia type unknown	VWD	FI	FII	FV	FV+VIII	FVII	FX	FXI	FXIII	Bleeding Disorder: type unknown	Glanzmann's thrombasthenia	Bernard-Soulier syndrome	Platelet disorders: other/unknown
South Africa	2,037	398	0	673	7	0	42	5	16	9	28	8	0	22	26	53
Spain	1,862	294		728	20	3	12		30	8	30	17		1		63
Sri Lanka	1,043	253		97	3	2	11	1	6	2	13	13		12		10
Sudan	1,205	294	3	486	65	4	71	4	57	32	9	36	28	20	17	220
Suriname	21	2	0	4	0	0	0	0	1	1	0	0	0	0	0	0
Sweden	889	232	0	1,094												
Switzerland	458	118	0	181	20		4		20	4	22	14		7		
Syria	1,128	132	0	218	38	0	21	35	70	5	0	2	1	62	12	32
Thailand	1,815	247		201	1	1	10	5	30	3	3	13		13	12	26
The Gambia	15	13	0	0												
Togo	45	2	2													
Trinidad and Tobago	59	13	0	10			1			1						
Tunisia	616	134	0	297	38	1	15	11	83	7	36	13	5	71	9	13
Uganda	314	55	0	3												
Ukraine																
United Kingdom	7,833	1,779	0	12,077	1,239	27	324	34	2,437	407	4,486	102	1,930	141	101	4,037
United States of America	12,983	4,195	0	14,272	274	47	146	13	1,360	174	759	158	2,032	188	56	2,888
Uruguay	238	41	0	263	0	0	2	0	6	1	0	1	0	1	0	4
Uzbekistan	1,714	215	10	332	15	2	4	8	33	13	20	0	11	41	6	8
Venezuela	2,334	629		1,217	21	65	42	30	176	111	402	15	23	28	6	179
Vietnam	3,648	795	0	211	47	8	23	24	115	28	40	31	3	134	3	253
Zambia	213	61	14	14	0	0	0	0	1	0	0	0	0	0	0	0

TABLE 8. Sex distribution

This table provides the number of males and females with each bleeding disorder from the countries that have reported sex data. Total percentages may not add up to 100% as some countries have not provided complete information on sex distribution of their patients.

Disorders	Countries reporting	Total Patients	Male	Percent male	Female	Percent Female	Sex not known	Percent not known
Hemophilia A	118	179,703	162,040	90%	6,990	4%	10,673	6%
Hemophilia B	116	37,385	32,946	88%	2,330	6%	2,058	6%
Hemophilia type unknown	78	1,716	1,533	89%	96	6%	87	5%
VWD	109	101,128	32,903	33%	55,968	55%	12,160	12%
FI Deficiency	78	4,747	1,835	39%	2,357	50%	549	12%
FII Deficiency	69	536	207	39%	203	38%	123	23%
FV Deficiency	78	3,301	1,311	40%	1,490	45%	476	14%
FV+VIII Deficiency	66	771	379	49%	328	43%	56	7%
FVII Deficiency	87	17,453	7,389	42%	7,644	44%	2,370	14%
FX Deficiency	82	2,743	1,254	46%	1,187	43%	296	11%
FXI Deficiency	75	10,562	4,233	40%	5,577	53%	743	7%
FXIII Deficiency	84	3,311	1,169	35%	929	28%	1,185	36%
BD: Type Unknown	58	4,818	1,476	31%	3,318	69%	22	0%
Glanzmanns Thombasthenia	77	4,196	1,966	47%	1,917	46%	216	5%
Bernard-Soulier Syndrome	63	962	402	42%	491	51%	57	6%
Platelet Disorders: Other/Unknown	66	17,298	5,411	31%	11,308	65%	314	2%

TABLE 9. Number of inhibitor cases in Hemophilia A and B

(100 countries reported number of inhibitors)

Patients with current clinically significant inhibitors refers to patients who do not respond to standard treatment.

Please note: a 0 indicates that the member organization reported the number zero, a blank space indicates that no number was reported.

Country	Hemophilia A active inhibitors	Hemophilia A new cases inhibitors	Hemophilia B active inhibitors	Hemophilia B new cases inhibitors
Albania	12	1	1	0
Algeria	182	8	0	
Argentina	71	3	9	1
Armenia	16	3	3	2
Australia	62	4	2	0
Austria	15		0	
Bahamas	2	0	0	0
Bahrain	3	3	0	0
Bangladesh	12	3	2	
Belarus	44		4	
Bolivia	17	8		
Bosnia and Herzegovina	6	1	0	
Botswana	4	0	0	0
Brazil	387		19	
Cambodia	9	0		
Cameroon	12	0	0	0
Canada	23	7	1	1
Chile	41	10	3	0
Colombia	171	3	20	1
Congo, Democratic republic of	0		0	
Côte d'Ivoire	3	0	1	0
Croatia	11	0	4	0
Cuba	22	0	0	0
Czechia	21	2	2	0
Denmark	7	1	0	
Djibouti	0	0		
Dominican Republic	18		6	
Egypt	626	53		
El Salvador	5	1	0	0
Eritrea	0	0	0	0
Ethiopia	4	1	0	0

Country	Hemophilia A active inhibitors	Hemophilia A new cases inhibitors	Hemophilia B active inhibitors	Hemophilia B new cases inhibitors
Finland	13		1	
France	234	6	14	0
Georgia	12			
Germany	126		10	
Ghana	0	0	0	0
Greece	12	1	2	0
Guinea	5		0	
Honduras	17	2		
Hong Kong	8		1	
Hungary	30			
India	640		25	
Indonesia	73	1	0	0
Iran	142			
Iraq	225	5	8	
Ireland	13	3	2	0
Israel	17	2	2	0
Japan	98		14	
Jordan	25		1	
Kenya	25	2	2	0
Korea, Republic of	44	0	7	0
Kyrgyzstan	9	3		
Lebanon	12	0	1	0
Lesotho	2			
Lithuania	9			
Macedonia	3	0	1	0
Madagascar	3	0	2	0
Malaysia	87	5	8	0
Mali	0	0	0	0
Mauritius	0	0	0	0
Mexico	280		14	
Morocco	102	28	6	0
Myanmar	67	7	0	0
Nepal	23	5	0	0
Netherlands	47	3	1	0
New Zealand	20	1	0	0
Nigeria	23	2	0	0
Norway	10	0	0	0
Pakistan	51	4	4	
Panama	20	1	0	0

Country	Hemophilia A active inhibitors	Hemophilia A new cases inhibitors	Hemophilia B active inhibitors	Hemophilia B new cases inhibitors
Paraguay	48	4		
Peru	12		2	
Philippines	33		4	
Portugal	34	0	1	0
Qatar	5	5	0	0
Romania	70		2	
Saudi Arabia	137	2		
Senegal	13	4		
Serbia	15	0	0	0
Singapore	9	0	0	0
Slovakia	9	1	1	0
Slovenia	4	0	1	0
South Africa	70	3	5	0
Sri Lanka	43	9		
Sudan	24		0	
Suriname	0	0	0	0
Sweden	32	0	3	0
Switzerland	7		0	
Syria	78	6	1	0
Thailand	60	3	1	0
Togo	1		0	
Trinidad and Tobago	6	1	2	0
Tunisia	33		4	
Uganda	15		0	
United Kingdom	234	15	12	1
United States of America	730		74	
Uruguay	9	1	2	1
Uzbekistan	30	1	5	2
Venezuela	98	1	3	1
Vietnam	173	17	0	0
Zambia	3	0	0	0

TABLE 10. Age distribution: Hemophilia A

(106 countries reported age data for hemophilia A)

Country	Total number of hemophilia A patients	0-4	5-13	14-18	19-44	45+	Age not known
Albania	220	0%	10%	5%	58%	27%	0%
Algeria	2,124	4%	14%	15%	57%	11%	0%
Argentina	2,468	2%	11%	10%	46%	29%	2%
Armenia	218	14%	22%	7%	36%	21%	0%
Australia	2,504	6%	13%	8%	38%	35%	0%
Austria	733	6%	10%	8%	44%	32%	0%
Bahamas	9	0%	0%	11%	67%	22%	0%
Bahrain	105	11%	26%	31%	22%	10%	0%
Bangladesh	2,692	14%	32%	18%	33%	3%	0%
Belarus	513	5%	12%	4%	79%	0%	0%
Belgium	1,085	2%	9%	7%	35%	47%	0%
Belize	15	0%	7%	13%	80%	0%	0%
Bolivia	173	12%	31%	17%	32%	8%	0%
Botswana	52	12%	33%	13%	40%	2%	0%
Brazil	11,618	4%	14%	9%	49%	24%	0%
Burundi	11	36%	9%	36%	18%	0%	0%
Cambodia	259	7%	37%	22%	33%	0%	0%
Cameroon	214	23%	41%	31%	3%	2%	0%
Canada	3,570	4%	11%	7%	42%	36%	0%
Chile	1,732	4%	12%	10%	50%	23%	0%
Colombia	3,417	7%	13%	12%	58%	11%	0%
Congo, Democratic republic of	73	26%	33%	18%	21%	3%	0%
Côte d'Ivoire	136	15%	31%	21%	29%	4%	0%
Croatia	265	4%	10%	8%	44%	34%	0%
Cuba	406	3%	10%	9%	48%	30%	0%
Czechia	906	5%	15%	7%	38%	35%	0%
Denmark	441	3%	5%	2%	39%	40%	10%
Djibouti	16	0%	63%	25%	6%	6%	0%
Dominican Republic	425	4%	19%	9%	46%	10%	12%
Egypt	5,769	6%	22%	11%	51%	10%	0%
El Salvador	82	15%	59%	27%	0%	0%	0%
Eritrea	77	12%	30%	18%	36%	1%	3%
Ethiopia	228	5%	34%	20%	39%	2%	0%
France	8,031	4%	13%	9%	40%	34%	0%

Country	Total number of hemophilia A patients	0-4	5-13	14-18	19-44	45+	Age not known
Georgia	300	4%	17%	11%	44%	24%	0%
Ghana	413	23%	48%	15%	5%	2%	7%
Greece	848	4%	8%	5%	36%	48%	0%
Guyana	28	0%	21%	14%	46%	18%	0%
Honduras	325	9%	19%	13%	41%	5%	13%
Hong Kong	131	5%	11%	13%	59%	11%	1%
Hungary	927	4%	7%	5%	31%	53%	0%
India	22,133	2%	13%	11%	46%	12%	16%
Indonesia	3,034	6%	30%	20%	39%	4%	2%
Iran	5,914	1%	12%	7%	37%	19%	24%
Iraq	2,787	17%	36%	25%	20%	3%	0%
Ireland	720	6%	16%	9%	37%	32%	0%
Israel	654	14%	17%	9%	37%	22%	0%
Japan	5,869	4%	12%	6%	37%	40%	1%
Kenya	826	12%	31%	22%	31%	4%	0%
Korea, Republic of	1,824	2%	11%	6%	51%	30%	0%
Kyrgyzstan	337	16%	27%	23%	29%	5%	0%
Latvia	93	1%	20%	0%	0%	23%	56%
Lebanon	209	5%	22%	10%	43%	20%	1%
Lesotho	16	0%	13%	6%	75%	6%	0%
Libya	352	9%	33%	15%	30%	7%	6%
Lithuania	180	0%	0%	0%	0%	0%	100%
Macedonia	196	2%	3%	5%	31%	44%	15%
Madagascar	95	9%	34%	18%	34%	5%	0%
Malawi	86	6%	45%	19%	30%	0%	0%
Malaysia	973	8%	25%	9%	43%	13%	1%
Mali	177	8%	49%	20%	19%	2%	2%
Mauritania	89	6%	45%	15%	31%	3%	0%
Mauritius	82	2%	4%	9%	45%	34%	6%
Mexico	5,096	1%	9%	11%	52%	19%	9%
Mongolia	108	15%	22%	13%	15%	35%	0%
Morocco	810	7%	26%	14%	41%	5%	7%
Myanmar	792	12%	33%	16%	32%	4%	4%
Nepal	686	6%	20%	14%	44%	12%	4%
Netherlands	1,527	3%	12%	6%	36%	43%	0%
New Zealand	670	1%	6%	3%	12%	12%	66%
Nigeria	708	3%	36%	15%	30%	3%	13%

Country	Total number of hemophilia A patients	0-4	5-13	14-18	19-44	45+	Age not known
Norway	362	4%	15%	10%	38%	33%	0%
Pakistan	3,144	9%	30%	14%	42%	6%	0%
Palestine	292	4%	16%	8%	36%	13%	23%
Panama	290	3%	14%	9%	50%	23%	0%
Paraguay	284	6%	17%	10%	49%	14%	4%
Philippines	1,212	1%	11%	10%	55%	11%	11%
Portugal	804	3%	10%	5%	42%	36%	4%
Qatar	73	15%	26%	30%	25%	4%	0%
Rwanda	66	6%	35%	32%	27%	0%	0%
Saudi Arabia	1,281	22%	36%	19%	21%	2%	0%
Senegal	326	15%	35%	16%	30%	3%	0%
Serbia	490	3%	13%	6%	45%	33%	0%
Sierra Leone	19	11%	11%	32%	42%	5%	0%
Singapore	230	3%	12%	3%	39%	42%	0%
Slovakia	634	4%	9%	5%	34%	48%	0%
Slovenia	245	3%	10%	8%	29%	49%	0%
South Africa	2,037	2%	13%	10%	43%	29%	2%
Spain	1,862	2%	8%	6%	42%	43%	0%
Sri Lanka	1,043	21%	8%	6%	21%	5%	40%
Sudan	1,205	24%	34%	12%	26%	4%	0%
Suriname	21	0%	19%	19%	48%	14%	0%
Sweden	889	5%	13%	7%	42%	32%	0%
Syria	1,128	7%	29%	17%	41%	5%	2%
Thailand	1,815	9%	25%	15%	37%	14%	0%
The Gambia	15	13%	60%	20%	7%	0%	0%
Togo	45	7%	38%	16%	33%	7%	0%
Trinidad and Tobago	59	3%	15%	14%	34%	15%	19%
Uganda	314	10%	49%	17%	22%	3%	0%
United Kingdom	7,833	5%	12%	8%	39%	36%	0%
United States of America	12,983	7%	22%	12%	38%	20%	0%
Uruguay	238	2%	18%	11%	38%	20%	0%
Uzbekistan	1,714	13%	23%	9%	45%	9%	0%
Venezuela	2,334	2%	9%	7%	44%	23%	15%
Vietnam	3,648	6%	17%	11%	53%	12%	0%
Zambia	213	16%	31%	23%	15%	4%	10%

TABLE 11. Age distribution: Hemophilia B

(103 countries reported age data for hemophilia B)

Country	Total number of hemophilia B patients	0-4	5-13	14-18	19-44	45+	Age not known
Albania	40	0%	10%	5%	65%	20%	0%
Algeria	565	4%	19%	17%	41%	19%	0%
Argentina	390	2%	13%	11%	49%	23%	2%
Armenia	34	32%	21%	6%	21%	21%	0%
Australia	571	5%	9%	9%	36%	41%	0%
Austria	151	6%	13%	11%	40%	29%	0%
Bahamas	1	0%	0%	0%	100%	0%	0%
Bahrain	12	8%	33%	17%	8%	33%	0%
Bangladesh	499	16%	35%	22%	23%	4%	0%
Belarus	126	4%	13%	5%	79%	0%	0%
Belgium	268	1%	9%	7%	31%	51%	0%
Belize	5	0%	0%	0%	100%	0%	0%
Bolivia	37	24%	32%	5%	35%	3%	0%
Botswana	8	0%	25%	38%	25%	13%	0%
Brazil	2,277	4%	13%	9%	50%	25%	0%
Cambodia	50	14%	32%	22%	26%	6%	0%
Cameroon	35	23%	37%	14%	26%	0%	0%
Canada	758	3%	10%	6%	41%	40%	0%
Chile	207	6%	14%	9%	50%	22%	0%
Colombia	750	5%	15%	9%	55%	16%	0%
Congo, Democratic republic of	15	27%	33%	20%	13%	7%	0%
Côte d'Ivoire	18	11%	39%	28%	22%	0%	0%
Croatia	67	0%	15%	9%	48%	24%	4%
Cuba	82	5%	16%	10%	41%	28%	0%
Czechia	144	4%	11%	10%	32%	42%	0%
Denmark	117	2%	8%	4%	40%	39%	7%
Dominican Republic	41	0%	5%	5%	73%	15%	2%
Egypt	1,330	6%	18%	13%	54%	10%	0%
El Salvador	12	17%	58%	25%	0%	0%	0%
Eritrea	8	13%	38%	0%	50%	0%	0%
Ethiopia	50	8%	28%	16%	46%	2%	0%
France	1,940	5%	14%	10%	36%	35%	0%
Georgia	62	8%	19%	8%	37%	27%	0%
Ghana	33	30%	42%	18%	9%	0%	0%

Country	Total number of hemophilia B patients	0-4	5-13	14-18	19-44	45+	Age not known
Greece	194	3%	9%	6%	32%	51%	0%
Guyana	2	0%	50%	0%	0%	50%	0%
Honduras	33	9%	27%	15%	42%	3%	3%
Hong Kong	109	1%	3%	3%	8%	85%	0%
Hungary	255	3%	9%	3%	36%	49%	0%
India	3,687	2%	13%	10%	50%	14%	11%
Indonesia	476	10%	33%	20%	33%	2%	3%
Iran	1,282	2%	10%	6%	39%	19%	26%
Iraq	686	18%	35%	24%	17%	6%	0%
Ireland	245	5%	10%	8%	43%	33%	0%
Israel	114	19%	15%	15%	34%	17%	0%
Japan	1,318	4%	12%	5%	38%	40%	1%
Kenya	179	11%	39%	25%	23%	2%	0%
Korea, Republic of	472	1%	11%	8%	50%	31%	0%
Kyrgyzstan	83	22%	29%	13%	30%	6%	0%
Latvia	21	0%	14%	0%	0%	19%	67%
Lebanon	56	4%	23%	4%	55%	14%	0%
Lesotho	1	0%	0%	0%	100%	0%	0%
Libya	32	13%	34%	16%	28%	9%	0%
Lithuania	30	0%	0%	0%	0%	0%	100%
Macedonia	203	1%	2%	5%	42%	39%	11%
Madagascar	80	10%	39%	20%	26%	5%	0%
Malawi	6	0%	17%	33%	50%	0%	0%
Malaysia	206	11%	25%	11%	39%	13%	1%
Mali	19	21%	53%	11%	16%	0%	0%
Mauritania	29	14%	48%	14%	21%	3%	0%
Mauritius	10	10%	20%	0%	60%	10%	0%
Mexico	792	1%	9%	10%	53%	20%	7%
Mongolia	36	14%	31%	11%	39%	0%	6%
Morocco	151	8%	26%	15%	39%	5%	7%
Myanmar	145	28%	30%	14%	21%	4%	3%
Nepal	123	10%	32%	13%	31%	4%	11%
Netherlands	232	3%	13%	5%	38%	40%	0%
New Zealand	144	2%	3%	0%	6%	12%	77%
Nigeria	34	9%	50%	18%	12%	3%	9%
Norway	116	4%	13%	9%	41%	34%	0%
Pakistan	549	8%	27%	13%	45%	7%	0%

Country	Total number of hemophilia B patients	0-4	5-13	14-18	19-44	45+	Age not known
Palestine	64	8%	20%	3%	38%	14%	17%
Panama	39	10%	15%	8%	51%	15%	0%
Paraguay	36	8%	19%	11%	44%	14%	3%
Philippines	217	3%	15%	9%	55%	9%	10%
Portugal	240	1%	8%	4%	39%	30%	18%
Qatar	11	27%	9%	27%	27%	9%	0%
Rwanda	28	11%	54%	21%	14%	0%	0%
Saudi Arabia	306	22%	36%	14%	27%	1%	0%
Senegal	58	7%	45%	29%	16%	3%	0%
Serbia	97	6%	12%	8%	47%	26%	0%
Singapore	50	2%	10%	14%	40%	34%	0%
Slovakia	95	2%	18%	9%	39%	32%	0%
Slovenia	34	3%	3%	12%	35%	47%	0%
South Africa	398	4%	14%	12%	42%	27%	2%
Spain	296	2%	9%	4%	36%	35%	14%
Sri Lanka	253	22%	19%	7%	7%	8%	38%
Sudan	294	20%	39%	16%	22%	2%	0%
Suriname	2	0%	0%	0%	50%	50%	0%
Sweden	232	2%	11%	9%	39%	39%	0%
Syria	132	13%	30%	19%	32%	5%	2%
Thailand	247	12%	24%	17%	28%	18%	0%
The Gambia	13	0%	46%	31%	23%	0%	0%
Togo	2	0%	0%	0%	100%	0%	0%
Trinidad and Tobago	13	0%	23%	8%	46%	23%	0%
Uganda	55	7%	33%	27%	33%	0%	0%
United Kingdom	1,779	5%	14%	7%	36%	38%	0%
United States of America	4,195	10%	22%	10%	34%	25%	0%
Uruguay	42	7%	24%	12%	45%	12%	0%
Uzbekistan	215	26%	21%	9%	39%	5%	0%
Venezuela	629	2%	8%	8%	40%	28%	14%
Vietnam	795	5%	20%	11%	50%	14%	0%
Zambia	61	16%	21%	43%	20%	0%	0%

TABLE 12. Age distribution: Hemophilia Type Unknown

(23 countries reported age data)

Country	Total number of hemophilia type unknown patients	0-4	5-13	14-18	19-44	45+	Age not known
Bahamas	1	0%	0%	100%	0%	0%	0%
Bangladesh	36	14%	25%	42%	14%	6%	0%
Belgium	7	0%	0%	0%	0%	86%	14%
Dominican Republic	29	0%	10%	21%	45%	14%	10%
Ethiopia	165	2%	35%	19%	44%	0%	0%
Ghana	57	42%	23%	19%	16%	0%	0%
Honduras	1	0%	0%	0%	100%	0%	0%
India	532	0%	2%	3%	29%	8%	58%
Indonesia	79	25%	15%	5%	48%	3%	4%
Korea, Republic of	4	0%	0%	25%	50%	25%	0%
Lithuania	1	0%	0%	0%	0%	0%	100%
Malawi	4	0%	100%	0%	0%	0%	0%
Mali	28	0%	54%	25%	11%	0%	11%
Mexico	300	0%	3%	4%	27%	17%	49%
Myanmar	9	0%	33%	56%	0%	0%	11%
New Zealand	1	0%	0%	100%	0%	0%	0%
Nigeria	23	17%	35%	9%	4%	0%	35%
Philippines	116	0%	2%	9%	41%	9%	40%
Sierra Leone	2	0%	0%	0%	100%	0%	0%
Sudan	3	0%	0%	0%	0%	0%	100%
Togo	2	0%	100%	0%	0%	0%	0%
Uzbekistan	10	40%	30%	30%	0%	0%	0%
Zambia	14	7%	29%	0%	0%	0%	64%

TABLE 13. Age distribution: VWD

(90 countries reported age data)

Country	Total number of VWD patients	0-4	5-13	14-18	19-44	45+	Age not known
Albania	9	0%	0%	11%	56%	33%	0%
Argentina	405	0%	0%	2%	37%	47%	14%
Armenia	22	5%	14%	45%	32%	5%	0%
Australia	2,669	1%	7%	7%	43%	41%	0%
Bahamas	2	0%	0%	0%	100%	0%	0%
Bahrain	496	4%	13%	23%	42%	18%	0%
Bangladesh	6	0%	33%	33%	17%	17%	0%
Belarus	40	8%	53%	40%	0%	0%	0%
Belgium	2,359	0%	7%	10%	41%	40%	1%
Bolivia	15	13%	40%	7%	40%	0%	0%
Botswana	9	0%	22%	44%	33%	0%	0%
Brazil	11,370	1%	7%	8%	53%	31%	0%
Cambodia	7	0%	43%	43%	14%	0%	0%
Cameroon	6	0%	0%	17%	67%	17%	0%
Canada	5,352	1%	7%	7%	47%	39%	0%
Chile	691	0%	0%	0%	0%	0%	100%
Colombia	4,258	4%	11%	16%	53%	16%	0%
Congo, Democratic republic of	2	0%	0%	0%	100%	0%	0%
Côte d'Ivoire	4	0%	50%	0%	25%	25%	0%
Croatia	158	2%	5%	15%	42%	35%	0%
Cuba	541	2%	12%	30%	40%	16%	0%
Czechia	840	2%	9%	5%	41%	42%	0%
Denmark	307	0%	0%	0%	53%	47%	0%
Dominican Republic	48	0%	6%	4%	73%	10%	6%
Egypt	720	4%	22%	11%	57%	7%	0%
El Salvador	12	8%	50%	42%	0%	0%	0%
France	3,724	3%	12%	10%	37%	37%	0%
Georgia	85	1%	18%	19%	45%	18%	0%
Greece	1,349	3%	13%	13%	29%	42%	0%
Guyana	2	0%	0%	0%	100%	0%	0%
Honduras	18	6%	11%	17%	56%	0%	11%
Hong Kong	6	0%	0%	17%	50%	33%	0%

Country	Total number of VWD patients	0-4	5-13	14-18	19-44	45+	Age not known
Hungary	283	4%	8%	5%	31%	51%	0%
India	1,005	2%	15%	12%	50%	12%	8%
Indonesia	20	5%	20%	5%	30%	5%	35%
Iran	2,135	1%	13%	10%	46%	14%	16%
Iraq	757	0%	0%	0%	0%	0%	100%
Ireland	1,968	3%	18%	10%	40%	29%	0%
Japan	1,665	2%	10%	6%	43%	39%	1%
Kenya	30	3%	27%	30%	40%	0%	0%
Korea, Republic of	171	2%	9%	6%	57%	26%	0%
Latvia	91	0%	23%	0%	0%	12%	65%
Lebanon	196	2%	18%	11%	51%	15%	4%
Lesotho	1	0%	0%	0%	100%	0%	0%
Libya	55	4%	27%	7%	42%	5%	15%
Lithuania	320	0%	0%	0%	0%	0%	100%
Macedonia	192	0%	1%	4%	54%	39%	3%
Madagascar	3	0%	0%	33%	33%	33%	0%
Malaysia	177	0%	0%	0%	0%	0%	100%
Mali	15	7%	33%	13%	27%	20%	0%
Mauritania	3	33%	0%	33%	33%	0%	0%
Mauritius	1	0%	100%	0%	0%	0%	0%
Mexico	385	1%	6%	12%	43%	18%	19%
Mongolia	18	0%	6%	0%	83%	0%	11%
Morocco	208	6%	14%	8%	55%	16%	0%
Myanmar	36	3%	47%	19%	17%	3%	11%
Nepal	14	0%	29%	21%	36%	7%	7%
Netherlands	767	3%	14%	10%	34%	39%	0%
New Zealand	980	0%	0%	1%	5%	6%	87%
Nigeria	16	6%	13%	6%	50%	0%	25%
Pakistan	821	10%	29%	15%	41%	5%	0%
Palestine	66	3%	24%	14%	42%	2%	15%
Panama	552	1%	8%	13%	62%	16%	0%
Paraguay	7	0%	29%	14%	14%	43%	0%
Philippines	31	0%	3%	10%	65%	6%	16%
Portugal	977	1%	8%	9%	16%	20%	46%

Country	Total number of VWD patients	0-4	5-13	14-18	19-44	45+	Age not known
Qatar	61	8%	7%	30%	43%	13%	0%
Rwanda	2	0%	50%	0%	50%	0%	0%
Saudi Arabia	651	6%	8%	40%	35%	12%	0%
Senegal	18	28%	28%	22%	22%	0%	0%
Serbia	339	1%	10%	4%	47%	38%	0%
Singapore	102	1%	6%	10%	28%	55%	0%
Slovakia	804	1%	5%	5%	50%	40%	0%
Slovenia	230	3%	8%	4%	51%	34%	0%
South Africa	673	0%	3%	5%	41%	46%	4%
Spain	728	0%	2%	2%	28%	49%	19%
Sudan	486	24%	34%	13%	21%	3%	4%
Suriname	4	0%	0%	0%	75%	25%	0%
Sweden	1,094	3%	9%	5%	39%	45%	0%
Syria	218	4%	18%	16%	52%	10%	0%
Thailand	201	3%	10%	22%	28%	18%	17%
Trinidad and Tobago	10	0%	0%	0%	10%	10%	80%
Uganda	3	33%	0%	0%	67%	0%	0%
United Kingdom	12,077	2%	10%	7%	40%	41%	0%
United States of America	14,272	6%	27%	25%	29%	14%	0%
Uruguay	263	0%	0%	2%	2%	2%	95%
Uzbekistan	332	13%	43%	20%	15%	8%	0%
Venezuela	1,217	0%	5%	8%	52%	31%	3%
Vietnam	211	3%	21%	15%	46%	15%	0%
Zambia	14	0%	21%	71%	0%	7%	0%

TABLE 14. Percentage of severe patients on prophylaxis

(88 countries reported prophylaxis data)

Country	Percent 18 and under on prophylaxis	Precise or Estimate	Percent 19 and over on prophylaxis	Precise or Estimate
Albania	99	Estimate	48	Estimate
Algeria	95	Estimate	80	Estimate
Argentina	90	Estimate	20	Estimate
Armenia	99	Precise	80	Precise
Australia	96	Estimate	89	Estimate
Austria	90	Precise	85	Precise
Bahamas	0	Precise	10	Estimate
Bahrain	100	Precise	70	Precise
Belgium	99	Estimate	85	Estimate
Bosnia and Herzegovina	100	Precise	100	Precise
Botswana	100	Precise	100	Precise
Brazil	67	Precise		Estimate
Cambodia	50	Estimate	20	Estimate
Cameroon	47	Estimate	53	Estimate
Canada	95	Estimate	89	Estimate
Chile	100	Estimate	95	Estimate
Colombia	98	Precise	94	Precise
Congo, Democratic republic of	14	Estimate	5	Estimate
Côte d'Ivoire	63	Precise	3	Precise
Croatia	100	Precise	96	Precise
Cuba	59	Precise	3	Precise
Czechia	96	Precise	80	Precise
Denmark	100	Precise	97	Precise
Djibouti	37	Precise	0	Precise
Dominican Republic	50	Estimate	0	Precise
Egypt	80	Estimate		Estimate
El Salvador	100	Precise		Estimate
Eritrea	89	Estimate	50	Estimate
Finland	95	Estimate		Estimate
France	91	Precise	74	Precise
Georgia	63	Estimate	20	Estimate
Ghana	23	Estimate	0	Precise
Greece	96	Precise	76	Estimate
Guinea	56	Precise	12	Precise

Country	Percent 18 and under on prophylaxis	Precise or Estimate	Percent 19 and over on prophylaxis	Precise or Estimate
Guyana	100	Precise	100	Precise
Honduras	0	Precise	0	Precise
Hong Kong	75	Estimate	67	Estimate
Iraq	100	Precise	20	Estimate
Ireland	99	Estimate	96	Estimate
Japan	95	Estimate	80	Estimate
Jordan	20	Estimate	10	Estimate
Kenya	73	Estimate	20	Estimate
Korea, Republic of	56	Precise	64	Precise
Kuwait	0	Estimate		Estimate
Latvia	100	Estimate	100	Estimate
Lebanon	20	Estimate	0	Precise
Lesotho	100	Precise	100	Precise
Lithuania	100	Precise	70	Precise
Macedonia	100	Precise	69	Precise
Madagascar	33	Precise	26	Precise
Malawi	44	Precise	36	Precise
Malaysia	80	Estimate	80	Estimate
Mali	80	Estimate	35	Estimate
Malta	100	Precise	94	Precise
Mauritania	64	Precise	63	Precise
Mauritius	100	Precise		Precise
Myanmar	58	Precise	42	Precise
Netherlands	99	Estimate	93	Estimate
New Zealand	99	Estimate	95	Estimate
Nigeria	2	Precise	1	Estimate
Norway	90	Estimate	100	Estimate
Pakistan	2	Precise	0	Precise
Panama	98	Precise	84	Precise
Paraguay	100	Precise	100	Precise
Peru	100	Estimate	80	Estimate
Poland	100	Precise	79	Precise
Qatar	80	Precise	80	Precise
Romania	90	Precise		Precise
Russia	90	Estimate	75	Estimate
Rwanda	0	Precise	0	Precise
Saudi Arabia	0	Estimate	0	Estimate
Senegal	30	Estimate	20	Estimate

Country	Percent 18 and under on prophylaxis	Precise or Estimate	Percent 19 and over on prophylaxis	Precise or Estimate
Serbia	95	Precise	90	Precise
Sierra Leone		Estimate	0	Estimate
Singapore	100	Precise	74	Precise
Slovakia	99	Precise	76	Precise
South Africa	50	Estimate	30	Estimate
Suriname	40	Precise	50	Precise
Sweden	95	Estimate	90	Estimate
Switzerland	93	Precise	90	Precise
Syria	37	Precise	2	Precise
The Gambia	0	Precise	0	Precise
Trinidad and Tobago	90	Precise	32	Estimate
Uganda	0	Precise	0	Precise
United Kingdom	93	Estimate	88	Estimate
Uruguay	86	Estimate	40	Estimate
Uzbekistan	95	Precise	90	Precise
Venezuela	80	Estimate	80	Estimate
Zambia	29	Estimate	29	Estimate

TABLE 15. Use of Factor Concentrates in 2023: Factor VIII

(103 countries reported Factor VIII data)

The quantities of factor VIII in this chart are as reported to the WFH and are not independently verified except when the WFH provided humanitarian aid products. In some cases the numbers reported may be based on an estimate or from one region or certain treatment centres. Some countries report the amount of factor concentrate consumed in the year 2023 while others report the amount purchased. Factor VIII IU calculated includes plasma derived, recombinant, extended half life products and humanitarian aid. The per capita number divides the total IUs used by the total population of the country. This gives an indication of the amount of product being used in a country but cannot be used to determine the level of care for individual patients. Please note that some FVIII products are used in the treatment of von Willebrand disease and not for hemophilia A.

Country	Factor VIII total IU	Factor VIII plasma derived	Factor VIII recombinant	Factor VIII recombinant – extended half life	Total percent plasma derived	Total percent recombinant	Total percent extended half life	Factor VIII humanitarian aid total	Factor VIII WFH humanitarian aid – standard half life	Factor VIII WFH humanitarian aid – extended half life	Factor VIII per capita	Factor VIII per capita without humanitarian aid
Albania	9,000,000							6,000,000			3.28	1.09
Algeria	143,795,000	63,100,000	71,695,000	9,000,000	44	50	6				3.15	3.15
Argentina	202,549,250	83,728,500	98,673,250	18,811,000	41	49	9	1,336,500			4.34	4.31
Armenia	5,100,000	800,000	0	0	16	0	0	3,500,000	1,250,000	1,586,000	1.84	0.58
Australia	85,317,156	12,896,750	33,719,000	38,701,406	15	40	45	0			3.20	3.20
Bahamas	175,500	0	0	0	0	0	0	175,500	166,000		0.43	0.00
Bahrain	13,000,000	0	13,000,000	0	0	100	0	0			8.75	8.75
Bangladesh	7,961,200	1,311,200			16			6,650,000	3,900,000	2,750,000	0.05	0.01
Belarus	43,747,000	43,567,000	180,000		100	0					4.77	4.77
Belize	533,250							533,250	330,000	203,250	1.30	0.00
Bolivia	1,789,500							1,789,500	770,000	1,019,500	0.14	0.00
Bosnia and Herzegovina	12,683,000	3,322,000	9,093,000	268,000	26	72	2	0			3.95	3.95
Botswana	762,000	12,000			2			750,000	750,000		0.28	0.00
Brazil	1,091,537,500	237,599,250	853,938,250		22	78					5.04	5.04
Burundi	225,000	0	0	0	0	0	0	225,000	225,000		0.02	0.00
Cambodia	1,815,000							1,815,000	1,140,000	675,000	0.11	0.00
Cameroon	1,330,000	0	0	0	0	0	0	1,330,000	1,130,000	200,000	0.05	0.00
Canada	169,375,237	36,884,534	60,861,284	71,629,419	22	36	42				4.22	4.22
Chile	96,189,250	96,189,250			100						4.90	4.90
Colombia	237,438,000	29,187,000	175,429,000	32,772,000	12	74	14	50,000			4.56	4.56

Country	Factor VIII total IU	Factor VIII plasma derived	Factor VIII recombinant	Factor VIII recombinant – extended half life	Total percent plasma derived	Total percent recombinant	Total percent extended half life	Factor VIII humanitarian aid total	Factor VIII WFH humanitarian aid – standard half life	Factor VIII WFH humanitarian aid – extended half life	Factor VIII per capita	Factor VIII per capita without humanitarian aid
Congo, Democratic republic of	1,045,250							1,045,250			0.01	0.00
Côte d'Ivoire	1,582,000	0	0	0	0	0	0	1,582,000	560,000	1,022,000	0.05	0.00
Cuba	4,408,000							2,140,000	2,009,000		0.39	0.20
Czechia	66,244,107	2,651,863	9,187,179	54,405,065	4	14	82	0			6.09	6.09
Djibouti	294,500							294,500	294,500		0.26	0.00
Dominican Republic	3,521,000							3,521,000	1,850,000	1,671,000	0.31	0.00
Egypt	156,386,250	99,642,500	35,000,000	0	64	22	0	21,743,750	4,356,750	17,387,000	1.39	1.19
El Salvador	7,969,500	2,258,000	0	0	28	0	0	5,711,500	1,362,000	1,618,000	1.25	0.35
Eritrea	400,000	0	0	0	0	0	0	400,000	400,000		0.11	0.00
Ethiopia	3,400,000	0	0	0	0	0	0	3,400,000	980,000	2,050,000	0.03	0.00
Finland	34,530,750	1,599,000	8,817,750	24,114,000	5	26	70	0			6.18	6.18
Georgia	18,267,260	15,128,500	3,138,760	0	83	17	0	0			4.86	4.86
Germany	722,520,134	156,026,100			22			0			8.55	8.55
Ghana	1,455,600	0	0	0	0	0	0	1,455,600	980,000	400,000	0.04	0.00
Greece	63,783,050	2,163,500	18,110,550	43,509,000	3	28	68	0			6.16	6.16
Guinea	300,000							300,000	300,000		0.02	0.00
Guyana	1,117,000							1,117,000	1,117,000		1.37	0.00
Honduras	3,720,000	860,000	0		23	0		2,860,000	1,760,000	1,100,000	0.35	0.08
Hungary	143,393,000	35,494,500	66,410,500	41,488,000	25	46	29				14.95	14.95
India	216,437,000	88,704,000	79,833,600	8,870,400	41	37	4	39,029,000	18,806,500	20,222,500	0.15	0.12
Indonesia	76,837,900	66,679,650	6,630,250		87	9		3,528,000	628,000	2,900,000	0.28	0.26
Iraq	40,000,000	0	40,000,000		0	100		0			0.88	0.88
Ireland	24,989,500	0	1,000	24,988,500	0	0	100	0			4.75	4.75
Japan	637,347,000	43,670,000	182,224,000	411,453,000	7	29	65	0			5.12	5.12
Jordan	14,900,000							4,900,000	3,100,000	1,800,000	1.31	0.88
Kenya	2,528,500	0	0	0	0	0	0	2,528,500	1,728,500	800,000	0.05	0.00
Kyrgyzstan	10,367,650	3,689,900	2,026,000		36	20		4,651,750	2,070,000	2,581,750	1.46	0.80
Latvia	8,877,000	595,000	5,614,000	2,668,000	7	63	30	0			4.72	4.72
Lebanon	6,950,000	0	2,136,000	0	0	31	0	4,814,000	4,314,000	500,000	1.30	0.40
Lesotho	548,500	548,500	0	0	100	0	0				0.24	0.24
Lithuania	33,911,000	3,773,000	17,345,000	12,793,000	11	51	38				11.81	11.81

Country	Factor VIII total IU	Factor VIII plasma derived	Factor VIII recombinant	Factor VIII recombinant – extended half life	Total percent plasma derived	Total percent recombinant	Total percent extended half life	Factor VIII humanitarian aid total	Factor VIII WFH humanitarian aid – standard half life	Factor VIII WFH humanitarian aid – extended half life	Factor VIII per capita	Factor VIII per capita without humanitarian aid
Macedonia	7,514,250	1,215,500	6,228,250	0	16	83	0	70,500			4.15	4.11
Madagascar	3,105,000	0	0	0	0	0	0	3,105,000	2,480,000	625,000	0.10	0.00
Malawi	1,470,000	0	0	0	0	0	0	1,470,000	820,000	650,000	0.07	0.00
Malaysia	73,945,000	66,227,000	7,718,000		90	10		0			2.16	2.16
Mali	1,800,000	0	0	0	0	0	0	1,800,000	900,000	500,000	0.08	0.00
Mauritania	2,579,500	0	0	0	0	0	0	2,579,500	2,279,500	300,000	0.53	0.00
Mauritius	2,300,000	2,000,000	0	0	87	0	0	300,000	150,000	150,000	1.82	1.59
Mexico	328,604,500	26,545,000	302,059,500		8	92					2.56	2.56
Mongolia	3,987,000							3,044,500	1,794,500	1,250,000	1.16	0.27
Morocco	31,710,636	4,600,000	20,100,636	0	15	63	0	7,010,000	5,610,000	1,400,000	0.84	0.65
Myanmar	5,357,000							5,307,000	3,300,000	1,050,000	0.10	0.00
Nepal	5,826,000							5,826,000	4,926,000	900,000	0.19	0.00
Netherlands	54,621,750	0	35,777,500	18,844,250	0	66	35				3.05	3.05
Nigeria	6,173,000	0	0	0	0	0	0	6,173,000	3,441,000	1,624,000	0.03	0.00
Pakistan	9,971,000	620,000	0	0	6	0	0	9,351,000	5,003,000	4,348,000	0.04	0.00
Palestine	13,881,500							950,000	950,000		2.69	2.50
Panama	17,359,750	16,095,000	1,264,750	0	93	7	0	0			3.89	3.89
Paraguay	12,778,000	2,263,000	2,388,000	0	18	19	0	8,127,000	1,380,000	1,383,000	1.86	0.68
Peru	125,125,500	62,562,750	0	0	50	0	0	62,562,750	100,000	150,000	3.64	1.82
Philippines	6,748,669	2,312,750	0	0	34	0	0	4,435,919			0.06	0.02
Poland	383,666,100	310,555,350	48,137,250	24,973,500	81	13	7				10.46	10.46
Portugal	41,469,200		4,169,700	37,299,500		10	90				3.94	3.94
Qatar	39,700,000	0	34,500,000	5,200,000	0	87	13				14.61	14.61
Romania	79,604,500	28,818,000	29,210,250	21,576,250	36	37	27				4.18	4.18
Russia	1,460,361,984	487,903,628	743,057,856	229,400,500	33	51	16				10.15	10.15
Rwanda	1,770,000							1,770,000	720,000	1,050,000	0.13	0.00
Saudi Arabia	171,964,000	48,572,000	24,000,000	99,392,000	28	14	58	0			4.65	4.65
Senegal	1,015,000							1,015,000	1,367,000	200,000	0.06	0.00
Serbia	27,528,000	2,200,000	25,328,000	0	8	92	0	0			4.16	4.16
Sierra Leone	100,000							100,000	100,000		0.01	0.00
Singapore	19,070,200	2,673,500	5,340,700	11,056,000	14	28	58	0			3.22	3.22
Slovakia	51,900,000	17,900,000	16,000,000	18,000,000	34	31	35	0			9.56	9.56
Slovenia	21,055,500	1,920,000	1,441,500	17,694,000	9	7	84	0			9.93	9.93

Country	Factor VIII total IU	Factor VIII plasma derived	Factor VIII recombinant	Factor VIII recombinant – extended half life	Total percent plasma derived	Total percent recombinant	Total percent extended half life	Factor VIII humanitarian aid total	Factor VIII WFH humanitarian aid – standard half life	Factor VIII WFH humanitarian aid – extended half life	Factor VIII per capita	Factor VIII per capita without humanitarian aid
South Africa	67,023,700	67,023,700		0	100		0	0			1.11	1.11
Sri Lanka	23,505,000	18,357,000			78			5,148,000	1,628,000	1,000,000	1.07	0.83
Sudan	400,000							400,000	400,000		0.01	0.00
Suriname	1,018,250	0	0	0	0	0	0	1,018,250	1,018,250		1.63	0.00
Sweden	85,841,000	0	28,436,000	57,405,000	0	33	67	0			8.15	8.15
Switzerland	46,296,789	1,489,000	10,525,744	34,282,045	3	23	74				5.23	5.23
Syria	12,478,500		0	0		0	0	12,478,500	9,620,500	2,858,000	0.54	0.00
The Gambia	300,000							300,000			0.11	0.00
Togo	250,000							250,000	250,000		0.03	0.00
Trinidad and Tobago	950,000							950,000	950,000		0.62	0.00
Tunisia	25,301,000	12,437,000	12,864,000	0	49	51	0	0			2.03	2.03
Uganda	2,847,500	0	0	0	0	0	0	2,847,500	1,290,000	1,557,500	0.06	0.00
United Kingdom	369,018,841	2,488,330	179,896,723	186,633,788	1	49	51	0			5.40	5.40
United States of America	1,282,000,000	80,000,000	787,000,000	415,000,000	6	61	32				3.83	3.83
Uruguay	8,514,000	8,500,000	14,000	0	100	0	0	0			2.49	2.49
Uzbekistan	7,321,750	2,349,000	0	0	32	0	0	4,972,750	3,072,750	1,900,000	0.20	0.06
Venezuela	35,222,000	800,000		24,320,000	2		69	10,880,000	8,280,000	2,600,000	1.22	0.84
Vietnam	28,244,500	12,830,250	14,164,250	0	45	50	0	1,250,000	0	1,250,000	0.29	0.27
Zambia	1,950,000	0	0	0	0	0	0	1,950,000	1,100,000	850,000	0.09	0.00
TOTAL	9,364,714,813	2,343,154,405	4,132,685,982	1,996,547,623				296,618,769	119,207,750	88,081,500		

TABLE 16. Use of Factor Concentrates in 2023: Factor IX

(92 countries reported Factor IX data.)

The quantities of factor IX in this chart are as reported to the WFH and are not independently verified except when the WFH provided humanitarian aid products. In some cases the numbers reported may be based on an estimate or from one region or certain treatment centres. Some countries report the amount of factor concentrate consumed in the year 2023 while others report the amount purchased. Factor IX Total IU calculated includes plasma derived, recombinant, extended half life products and humanitarian aid. The factor IX per capita divides the total IUs used by the total population of the country. This gives an indication of the amount of product being used in a country but cannot be used to determine the level of care for individual patients.

Country	Factor IX total IU	Factor IX plasma derived	Factor IX recombinant	Factor IX recombinant, extended half life	Total percent plasma derived	Total percent recombinant	Total percent extended half life	Factor IX humanitarian aid total	Factor IX WFH humanitarian aid – standard half life	Factor IX WFH humanitarian aid – extended half life	Factor IX per capita	Factor IX per capital without humanitarian aid
Albania	2,150,000							2,000,000			0.78	0.05
Algeria	16,325,000	16,325,000			100						0.36	0.36
Argentina	27,510,000	17,760,000	4,426,000	5,260,000	65	16	19	64,000			0.59	0.59
Armenia	948,500	300,000	0	0	32	0	0	648,500		648,500	0.34	0.11
Australia	32,280,750	487,000	9,125,000	22,668,750	2	28	70	0			1.21	1.21
Bahrain	4,200,000	0	0	4,200,000	0	0	100	0			2.83	2.83
Bangladesh	831,500	231,500			28			600,000		600,000	0.00	0.00
Belize	100,000							100,000		100,000	0.24	
Bolivia	175,000							175,000		175,000	0.01	
Botswana	102,400	2,400			2			100,000		100,000	0.04	0.00
Brazil	175,548,700	175,548,700			100						0.81	0.81
Cambodia	300,000							300,000		300,000	0.02	
Cameroon	25,000	0	0	0	0	0	0	25,000		25,000	0.00	0.00
Canada	51,337,102	2,812,585	22,368,201	26,156,316	5	44	51				1.28	1.28
Chile	16,004,400	16,004,400			100						0.82	0.82
Colombia	44,039,000	15,733,000	28,232,000	74,000	36	64	0	0			0.85	0.85
Congo, Democratic republic of	150,000							150,000			0.00	
Côte d'Ivoire	150,000	0	0	0	0	0	0	150,000		150,000	0.01	0.00
Cuba	267,500							0			0.02	0.02
Czechia	8,477,079	775,191	1,499,437	6,202,451	9	18	73	0			0.78	0.78
Dominican Republic	704,000							704,000		704,000	0.06	
Egypt	18,321,750		14,430,500			79		3,891,250		3,891,250	0.16	0.13
El Salvador	1,600,000	1,000,000	0	0	63	0	0	600,000		600,000	0.25	0.16
Ethiopia	500,000	0	0	0	0	0	0	500,000		500,000	0.00	0.00

Country	Factor IX total IU	Factor IX plasma derived	Factor IX recombinant	Factor IX recombinant, extended half life	Total percent plasma derived	Total percent recombinant	Total percent extended half life	Factor IX humanitarian aid total	Factor IX WFH humanitarian aid – standard half life	Factor IX WFH humanitarian aid – extended half life	Factor IX per capita	Factor IX per capital without humanitarian aid
Finland	6,414,000	130,000	2,967,500	3,316,500	2	46	52	0			1.12	1.12
Georgia	2,130,000	1,917,000	213,000	0	90	10	0	0			0.57	0.57
Germany	90,077,120	12,713,600	28,285,500	49,078,020	14	31	54	0			1.07	1.07
Ghana	200,000	0	0	0	0	0	0	200,000		200,000	0.01	0.00
Greece	6,740,750	0	1,358,500	5,382,250	0	20	80	0			0.65	0.65
Guinea	50,000							50,000		50,000	0.00	
Guyana	60,000							60,000		60,000	0.07	
Honduras	650,000							650,000		650,000	0.06	
Hungary	9,855,000	9,855,000			100						1.03	1.03
India	23,447,080	17,313,480	2,036,880	1,018,440	74	9	4	3,078,280		3,000,000	0.02	0.01
Indonesia	10,715,200	9,615,200	0		90	0		1,100,000		700,000	0.04	0.03
Iraq	12,000,000	0	12,000,000		0	100		0			0.26	0.26
Ireland	12,154,250			12,154,250			100	0			2.31	2.31
Japan	119,264,000	15,067,000	19,717,000	84,480,000	13	17	71	0			0.96	0.96
Jordan	3,218,000							718,000		718,000	0.28	0.22
Kenya	401,750	0	0	0	0	0	0	401,750		401,750	0.01	0.00
Kyrgyzstan	1,274,250	271,250	453,000		21	36		550,000		550,000	0.18	0.10
Latvia	823,000	823,000	0	0	100	0	0	0			0.44	0.44
Lebanon	448,000	0	175,000	0	0	39	0	273,000		273,000	0.08	0.03
Lesotho	24,000	24,000	0	0	100	0	0				0.01	0.01
Lithuania	12,126,500	12,126,500			100						4.22	4.22
Macedonia	2,033,000	471,500	1,561,500	0	23	77	0				0.99	0.99
Madagascar	331,300	0	0	0	0	0	0	331,300		256,750	0.01	0.00
Malawi	150,000	0	0	0	0	0	0	150,000		150,000	0.01	0.00
Malaysia	11,053,500							0			0.32	0.32
Mali	70,000	0	0	0	0	0	0	70,000			0.00	0.00
Mauritania	203,000	59,000	0	19,000	29	0	9	125,000		125,000	0.04	0.02
Mauritius	175,000	175,000	0	0	100	0	0	0			0.14	0.14
Mexico	7,110,900	7,110,900			100						0.06	0.06
Mongolia	800,000							400,000		400,000	0.23	0.12
Morocco	7,971,091	2,200,000	5,521,091	0	28	69	0	250,000		250,000	0.21	0.20
Myanmar	500,000	0	0	0	0	0	0	500,000		500,000	0.01	0.00
Nepal	1,050,000							1,050,000		1,050,000	0.03	
Netherlands	14,755,500	0	3,301,750	11,453,750	0	22	78				0.83	0.83
Nigeria	400,000	0	0	0	0	0	0	400,000		400,000	0.00	0.00

Country	Factor IX total IU	Factor IX plasma derived	Factor IX recombinant	Factor IX recombinant, extended half life	Total percent plasma derived	Total percent recombinant	Total percent extended half life	Factor IX humanitarian aid total	Factor IX WFH humanitarian aid – standard half life	Factor IX WFH humanitarian aid – extended half life	Factor IX per capita	Factor IX per capital without humanitarian aid
Pakistan	1,036,000	219,000	0	0	21	0	0	817,000		817,000	0.00	0.00
Palestine	2,765,400							0			0.54	0.54
Panama	270,238	7,238	263,000	0	3	97	0	0			0.06	0.06
Paraguay	1,530,250	457,500	0	0	30	0	0	1,072,750		650,000	0.22	0.07
Peru	11,563,000	5,781,500	0	0	50	0	0	5,781,500		50,000	0.34	0.17
Philippines	348,548	0			0			348,548			0.00	0.00
Poland	56,826,650	50,086,400	6,740,250		88	12					1.55	1.55
Portugal	7,591,000		1,525,500	6,065,500		20	80				0.72	0.72
Qatar	11,900,000	5,400,000	0	6,500,000	45	0	55				4.38	4.38
Romania	7,927,550	2,000,000		5,927,550	25		75				0.42	0.42
Russia	159,095,804	108,526,304	50,569,500	0	68	32	0				1.11	1.11
Rwanda	400,000							400,000		400,000	0.03	
Saudi Arabia	29,785,500	11,555,000	10,230,500	8,000,000	39	34	27	0			0.81	0.81
Senegal	595,000							595,000		50,000	0.03	
Serbia	4,413,000	662,000	3,751,000	0	15	85	0	0			0.67	0.67
Singapore	3,681,500	43,500	3,265,000	373,000	1	89	10	0			0.62	0.62
Slovakia	6,315,000	2,925,000	250,000	3,140,000	46	4	50	0			1.16	1.16
Slovenia	2,048,000	0	1,232,000	816,000	0	60	40	0			0.97	0.97
South Africa	11,052,500	11,052,500		0	100		0	0			0.18	0.18
Sri Lanka	2,220,000	1,000,000			45			1,220,000		620,000	0.10	0.05
Sweden	17,967,650	652,400	3,041,500	14,273,750	4	17	79	0			1.71	1.71
Switzerland	11,339,591	447,000	964,750	9,927,841	4	9	88				1.28	1.28
Syria	1,105,000		0	0		0	0	1,105,000		1,105,000	0.05	
The Gambia	80,000							80,000			0.03	
Tunisia	3,441,000	3,441,000	0	0	100	0	0	0			0.28	0.28
Uganda	648,500	0	0	0	0	0	0	648,500		548,500	0.01	0.00
United Kingdom	82,128,519	994,000	25,752,000	55,382,519	1	31	67	0			1.20	1.20
United States of America	509,000,000	21,000,000	214,000,000	274,000,000	4	42	54				1.52	1.52
Uruguay	1,500,000	1,500,000	0	0	100	0	0	0			0.44	0.44
Uzbekistan	2,194,000	1,044,000	0	0	48	0	0	1,150,000		1,150,000	0.06	0.03
Venezuela	1,828,000	282,000			15			1,546,000		1,546,000	0.06	0.01
Vietnam	2,704,500	1,804,500	0	0	67	0	0	900,000		900,000	0.03	0.02
Zambia	100,000	0	0	0	0	0	0	100,000		100,000	0.00	0.00
TOTAL	1,700,217,361	551,824,837	479,256,859	615,869,887				36,129,378	0	25,464,750		

TABLE 17. Use of Emicizumab in 2023

(90 countries reported Emicizumab data)

Country	Number of patients with inhibitors treated with Emicizumab	Number of patients without inhibitors treated with Emicizumab	Total Emicizumab purchased (mg)	Total WFH Emicizumab donations (mg)
Argentina	92	29		
Armenia	44		0	45,360
Australia	50	551	2,561,024	
Austria	8	34		
Bahrain	5	7	50,600	
Bangladesh			1,500	94,500
Belarus			32,778	
Belgium		300		
Bolivia	2	17		52,890
Bosnia and Herzegovina	6	15	71,000	
Botswana	3	1		
Brazil	142	0		
Burkina Faso				26,460
Cambodia	9	57	165,930	109,320
Cameroon	17	17	0	49,530
Canada	204	505	4,017,420	
Chile	22	9	96,525	
Colombia	90	40	290,220	
Côte d'Ivoire	50	3		
Croatia	11			
Cuba	12	29	67,260	
Czechia	18	73	324,194	
Denmark	16	14		
Egypt	400	400	1,408,110	
El Salvador	2	0	210	
Finland	15	48	187,515	
France	93	497		
Georgia	12	10	105,990	
Germany			2,555,348	
Ghana	0	55	0	75,600

Country	Number of patients with inhibitors treated with Emicizumab	Number of patients without inhibitors treated with Emicizumab	Total Emicizumab purchased (mg)	Total WFH Emicizumab donations (mg)
Greece	18	23	166,065	
Honduras	12	12	81,780	81,780
Hong Kong	4	5		
Hungary	15			
Iran	32	0		
Iraq	225	0	750,000	
Ireland			786,090	
Israel	32	146		
Japan	91	767	7,184,115	
Kenya	63	0	0	211,680
Kuwait	5	6		
Kyrgyzstan	9	9	7,920	
Latvia			24,750	
Lebanon	3	1	8,640	
Lesotho	2			7,560
Lithuania			87,660	
Macedonia	1	12	73,260	
Madagascar	3	14	0	60,540
Malawi	0	6	0	22,680
Malaysia	26	1	26,377	
Mali	29	29	69,270	56,700
Mauritania	2	14	0	26,460
Mauritius	0	7	20,670	
Mexico			615,500	
Morocco	9	15		
Myanmar	49	41	0	211,680
Nepal	15	50		148,110
Netherlands	26	355	2,099,385	
New Zealand	17	84		
Nigeria	23	44	0	64,830
Pakistan	51	49	2,160	331,440
Panama	9	10	24,330	
Paraguay	48	2	73,260	

Country	Number of patients with inhibitors treated with Emicizumab	Number of patients without inhibitors treated with Emicizumab	Total Emicizumab purchased (mg)	Total WFH Emicizumab donations (mg)
Peru	12	0		
Poland	70	2	360,795	
Portugal	21	23	155,490	
Romania	98		198,165	
Russia			32,859	
Saudi Arabia	80	50	163,488	
Senegal	40	9	48,750	112,410
Serbia	15	45	224,175	
Singapore	9	11	66,750	
Slovakia	7	8	35,135	
Slovenia	3	25	148,942	
South Africa			203,880	
Sri Lanka	59	18		147,420
Sweden	26	111	437,760	
Switzerland		52	63,160	
Syria	7	19	0	75,600
Thailand	7	4		
Togo	1	12		
Tunisia	6			
Uganda	15	15	0	60,060
United Kingdom	156	1233	5,854,255	
United States of America			30,000,000	
Uruguay	3	59	179,250	
Uzbekistan	35	0	570,000	
Venezuela	33	29		128,520
Vietnam	67	19	2,250	230,580
Zambia	3	30	0	45,360

TABLE 18. Use of FVIIa and FEIBA

(94 countries reported FVIIa and FEIBA data)

Country	Number of patients treated with recombinant Factor VIIa	Total FVIIa purchased (mg)	Precise or Estimate	Number of patients treated with FEIBA	Total FEIBA purchased (IU)	Precise or Estimate
Albania	3		Estimate	5		Estimate
Algeria		53,971	Estimate		14,964,500	Estimate
Argentina	55	35,617	Estimate	15	1,628,000	Estimate
Armenia		0	Estimate	0	0	Precise
Australia	30	16,459	Estimate	1	2,184,000	Estimate
Bahamas	0	0	Precise	0	0	Precise
Bahrain	4	5,000	Precise	0	0	Precise
Belarus	5	770	Precise	5	90,000	Precise
Bolivia	0	0	Precise	5	0	Precise
Bosnia and Herzegovina	1	1,332,000	Precise	0		Precise
Botswana	3		Precise			Estimate
Brazil	553	63,850,000	Precise	373	202,964,000	Precise
Burundi	0	0	Precise	0	0	Precise
Cambodia	0		Precise	0		Precise
Cameroon	0	0	Precise	0	0	Precise
Canada	16	20,762	Estimate	6	4,913,733	Estimate
Chile		844	Estimate		674	Estimate
Colombia	18	31,727	Precise	13	6,726,500	Precise
Côte d'Ivoire	1	0	Precise	0	0	Precise
Croatia			Estimate	0		Precise
Cuba	4	900	Precise	0	0	Precise
Czechia	6	1,464	Precise	1	13,000	Precise
Denmark	4		Precise	0		Precise
Djibouti	0	0	Precise	0	0	Precise
Egypt		10,000	Estimate		984,500	Estimate
El Salvador	5	75	Precise	5	181,000	Precise
Eritrea	0	0	Precise	0	0	Precise
Ethiopia	0	0	Precise	0	0	Precise
Finland	2	223	Estimate	0	390,000	Precise
France	23		Precise	2		Precise

Country	Number of patients treated with recombinant Factor VIIa	Total FVIIa purchased (mg)	Precise or Estimate	Number of patients treated with FEIBA	Total FEIBA purchased (IU)	Precise or Estimate
Georgia	1		Precise		0	Estimate
Germany		29,759	Estimate		2,839,500	Estimate
Ghana	0	0	Precise	0	0	Precise
Greece	15	4,817	Precise	6	419,000	Precise
Guinea	0	0	Precise	0	0	Precise
Guyana	0		Precise	0		Precise
Honduras		144,000	Estimate		144,000	Estimate
Iran	79		Estimate	31		Estimate
Iraq	0		Estimate	0	0	Precise
Ireland	5	1,374	Precise	0	681,000	Precise
Israel	6		Precise	1		Precise
Japan		37,951	Estimate		4,275,000	Estimate
Jordan	5		Estimate	0	0	Estimate
Kenya	2	0	Precise	3	0	Precise
Latvia		682	Estimate	0	0	Precise
Lebanon	2	950	Precise	10	36,000	Precise
Lithuania		2,917	Estimate		1,628,000	Estimate
Macedonia	3	796	Precise	0	30,000	Precise
Madagascar	0	0	Precise	0	0	Precise
Malawi	0	0	Precise	0	0	Precise
Malaysia	10	2,149	Estimate	10	2,829,000	Estimate
Mali	0	0	Precise	0	0	Precise
Mauritania	0	0	Precise	0	0	Precise
Mauritius	0	785	Precise	0	0	Precise
Mexico		45,250	Estimate		7,752,500	Estimate
Myanmar	0	0	Precise	0	0	Precise
Nepal			Estimate	10		Precise
Netherlands	26	142	Estimate	7	151,000	Estimate
New Zealand	3		Estimate	1		Estimate
Nigeria		0	Estimate		0	Estimate
Pakistan	0		Precise	2		Precise
Panama	1	429	Precise	1	371,000	Precise

Country	Number of patients treated with recombinant Factor VIIa	Total FVIIa purchased (mg)	Precise or Estimate	Number of patients treated with FEIBA	Total FEIBA purchased (IU)	Precise or Estimate
Paraguay	3		Precise	0	0	Precise
Philippines		98	Estimate		0	Estimate
Poland	181	22,530	Precise	44	13,219,000	Precise
Portugal	11		Estimate	1		Estimate
Qatar	2		Precise	2		Precise
Romania		6,359,000	Estimate		4,483,500	Estimate
Russia		132,457	Estimate		17,859,000	Estimate
Saudi Arabia	85		Precise	35		Precise
Senegal	0		Precise	0		Precise
Serbia	2	840	Precise	0	130,000	Precise
Singapore	7	26	Estimate	0	0	Precise
Slovakia	4	646	Precise	2	680,000	Precise
Slovenia	0		Precise	0		Precise
South Africa		5,084	Estimate			Estimate
Sri Lanka		300,166,000	Estimate			Estimate
Sudan	0		Precise	2	50,000	Precise
Suriname	0	0	Precise	0	0	Precise
Sweden	64	3,979	Estimate	13	387,500	Estimate
Syria	0		Precise	4	0	Precise
Thailand	12		Precise	19		Precise
Togo	1		Precise	1		Precise
Trinidad and Tobago	0		Precise	4		Estimate
Tunisia		2,891	Estimate		959,000	Estimate
Uganda	0	0	Precise	0	0	Precise
Ukraine		0	Estimate		0	Estimate
United Kingdom	105	63,361	Precise	11	10,568,500	Precise
United States of America		380,000	Estimate		50,000,000	Estimate
Uruguay	2	376	Precise	1	164,500	Precise
Uzbekistan	0	0	Precise	0	0	Precise
Venezuela	40		Estimate	0		Precise
Vietnam	38	970	Precise	45	970	Precise
Zambia	0	0	Precise	0	0	Precise

TABLE 19. Use of VWD products 2023

(54 countries provided data on VWD products)

Country	Number of vWD patients treated with plasma		Number of vWD patients treated with Cryoprecipitate		Number of vWD patients treated with Plasma-derived Concentrate		Number of vWD patients treated with DDAVP		Number of vWD patients treated with recombinant concentrate		Number of vWD patients treated with tranexamic acid		Number of vWD patients treated with hormonal therapy	
	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE
Australia	0	0	18	14	262	138	0	0	0	0	1	1		
Bahamas	0	0	0	0			0	0			0	0		
Bahrain	0	0	380	280	30	0	0	0			380	280	280	280
Bosnia and Herzegovina					55	52					32	30		
Botswana									8	4	9	5		
Brazil			172	133	842	566					1113	817		
Cameroon	0	0	6	4	0	0	0	0	0	0	0	0	0	0
Canada					223	56					87	0		
Colombia	0	0	350	290	313	213	0	0	2	2	351	301		
Congo, Democratic republic of					2	0					2	0		
Côte d'Ivoire	0	0	3	2	0	0	1	0	0	0	3	2	1	1
Cuba			12	12	10	8								
Czechia	0	0	2	0	127	0	0	0						
Djibouti							0	0			0	0		
El Salvador			0	0	1	1			0	0	12	7	2	2
France			34	18	80	45	0	0	15	9				
Georgia					1	1								
Ghana									8	8				
Greece	0	0	0	0	0	0	0	0			0	0	0	0
Guyana											2	2		
Hong Kong					3	0								
Kenya	10	8	4	2	0	0	10	8	4	2	10	7	8	8
Lebanon					40	25								
Lesotho											1	1		
Macedonia					3	1								
Madagascar							0	0	3	2	3	2		
Malaysia					62	0					87	0	50	0

Country	Number of vWD patients treated with plasma		Number of vWD patients treated with Cryoprecipitate		Number of vWD patients treated with Plasma-derived Concentrate		Number of vWD patients treated with DDAVP		Number of vWD patients treated with recombinant concentrate		Number of vWD patients treated with tranexamic acid		Number of vWD patients treated with hormonal therapy	
	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE
Mali	0	0					50	22						
Mauritania							2	1			2	1		
Mauritius	0	0	0	0			0	0			0	0		
Mongolia	15	0					10	0	144	0				
Myanmar	4	3	1	1	0	0	4	3	0	0	4	3	1	1
Nepal							14	12						
Netherlands			225	144	739	374			27	12				
Nigeria									16	9				
Panama	0	0	547	297	552	300	0	0	0	0	552	300	29	29
Portugal			0	0	147	56			3	3	45	26	7	7
Saudi Arabia	13	8	130	62	268	131	18	10			359	192		
Sierra Leone							3	0						
Singapore					32	16			1	0	35	20		
Slovakia					144	113	0	0			104	90	82	82
Slovenia	0	0			12	8	0	0	2	1				
Suriname					2	1					2	1		
Sweden					367	177			23	18				
Switzerland	0	0			121	0	0	0	9	0				
Syria					36	0								
Thailand	53				60						120			
United Kingdom					686	330			441	151				
Uruguay					3	1								
Uzbekistan					112	26					93	24	46	46
Venezuela			250	200	300	225					1500	1050	300	300
Vietnam	103	64	3	2	0	0	4	3	0	0	89	57	0	0
Zambia	0	0	3	3	0	0	0	0	0	0	0	0	0	0
Zambia	0	0	0	0	0	0	3	3	0	0	0	0	0	0

GLOSSARY OF TERMS

Bernard-Soulier syndrome: A severe congenital bleeding disorder characterized by thrombocytopenia and large platelets, due to a defect in the platelet glycoprotein 1b/V/IX receptor.

Cryoprecipitate: A fraction of human blood prepared from fresh plasma. Cryoprecipitate is rich in factor VIII, von Willebrand factor, and fibrinogen (factor I). It does not contain factor IX.

Desmopressin (DDAVP): A synthetic hormone used to treat most mild cases of von Willebrand disease and mild hemophilia A. It is administered intravenously or by subcutaneous injection or by intranasal spray.

Extended half-life (EHL) factor concentrate: A new generation of recombinant factor concentrates, which extend their half-life. Half-life is the time it takes for infused factor to lose half of its potency. Traditional factor VIII has a half-life of 8 to 12 hours; an extended factor VIII half-life is defined as a ratio greater than 1.3-fold, of the traditional half-life.

Factor concentrates: These are fractionated, freeze-dried preparations of individual clotting factors or groups of factors derived from donated blood.

Glanzmann's thrombasthenia: A severe congenital bleeding disorder in which the platelets lack glycoprotein IIb/IIIa, the blood platelet count is normal, but their function is very abnormal.

Hemophilia A: A condition resulting from factor VIII deficiency, also known as classical hemophilia.

Hemophilia B: A condition resulting from factor IX deficiency, also known as Christmas disease.

Hemophilia treatment centre: A specialized medical centre that provides diagnosis, treatment, and care for people with hemophilia and other inherited bleeding disorders.

Identified person: A living person known to have hemophilia, von Willebrand disease, or another bleeding disorder.

Inhibitors: A PWH has inhibitors when their body's immune system attacks the molecules in factor concentrate, rendering it ineffective.

International Unit (IU): A standardized measurement of the amount of factor VIII or IX contained in a vial. Usually marked on vials as 250 IU, 500 IU, 1000 IU or 2000 IU.

Mild hemophilia: Condition resulting from a level of factor VIII or factor IX clotting activity below normal but above 5% of normal activity in the bloodstream. (National definitions differ on the upper limit for mild hemophilia, ranging from 24% to 50%. The normal range of factor VIII or IX is 50 to 200%)

Moderate hemophilia: Condition resulting from a level of factor VIII or factor IX clotting activity between 1 to 5 % of normal activity in the bloodstream.

Plasma-derived products: Factor concentrates that contain factor VIII or IX that have been fractionated from human blood.

PWH: Person with hemophilia

Recombinant products: Factor concentrates that contain factor VIII or IX that have been artificially produced and are, therefore, not derived from human blood.

Severe hemophilia: Condition resulting from a level of factor VIII or factor IX clotting activity of less than 1 % in the bloodstream.

von Willebrand disease (VWD): An inherited bleeding disorder resulting from a defect or deficiency of von Willebrand factor.

REFERENCES

1. World Health Organization. 2022. <https://www.who.int/countries>. Accessed on September, 2024.
2. Iorio A, Stonebraker JS, Chambost H, et al. Establishing the prevalence and prevalence at birth of hemophilia in males. *Ann Intern Med*. 2019;171:540-546.
3. Stonebraker JS, O'Mahony B, Noone D, Iorio A. Converting factor and nonfactor usage into a single metric to facilitate benchmarking the resources consumed for haemophilia care across jurisdictions and over time. *Haemophilia*. 2021 Sep;27(5):e596-e608.

