



ANNUAL GLOBAL SURVEY

World Federation of
Hemophilia Report on the

Annual Global Survey 2022



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

October 2023

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All data are provisional.

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INTRODUCTION TO THE REPORT ON THE ANNUAL GLOBAL SURVEY 2022

The Report on the Annual Global Survey (AGS) 2022 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 2022 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 2022

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 2022. 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 7.9 billion (4 billion males), the expected number of patients with hemophilia worldwide is 830,895, of which about 282,266 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: Magdy El Ekiaby
 Emna Gouider
 Alfonso Iorio
 Mike Makris
 Glenn Pierce
 Michael Recht

Annual Global Survey Reviewers:
 Paula Bolton-Maggs
 Randall Curtis
 Brian O'Mahony
 Suely Rezende
 Alok Srivastava



PART 1

**Global Data
1999–2022**

GLOBAL REPRESENTATION OVER TIME (1999–2022)

Since 1999, there have been 148 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.

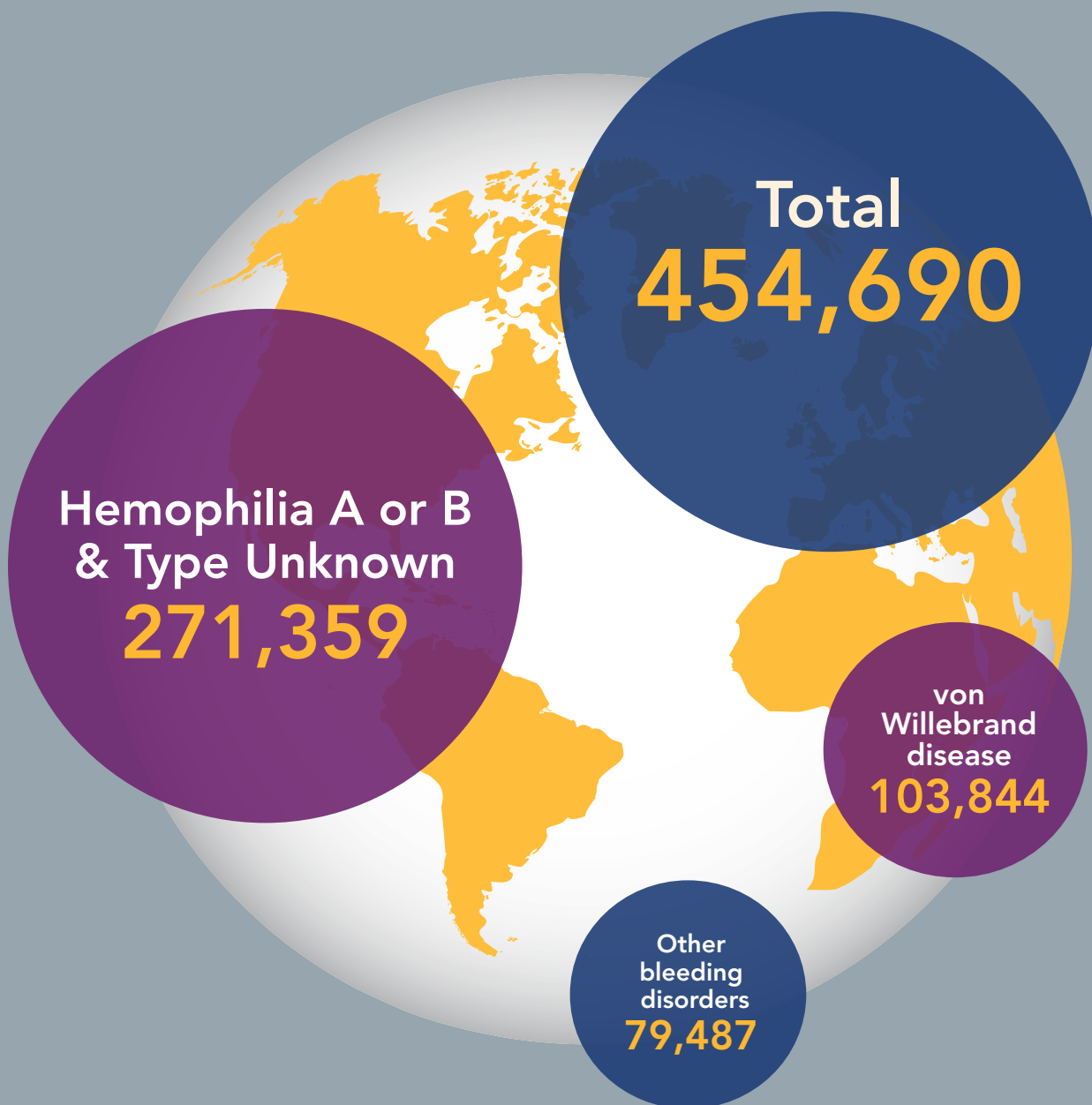


FIGURE A1. Identified patients over time – all bleeding disorders

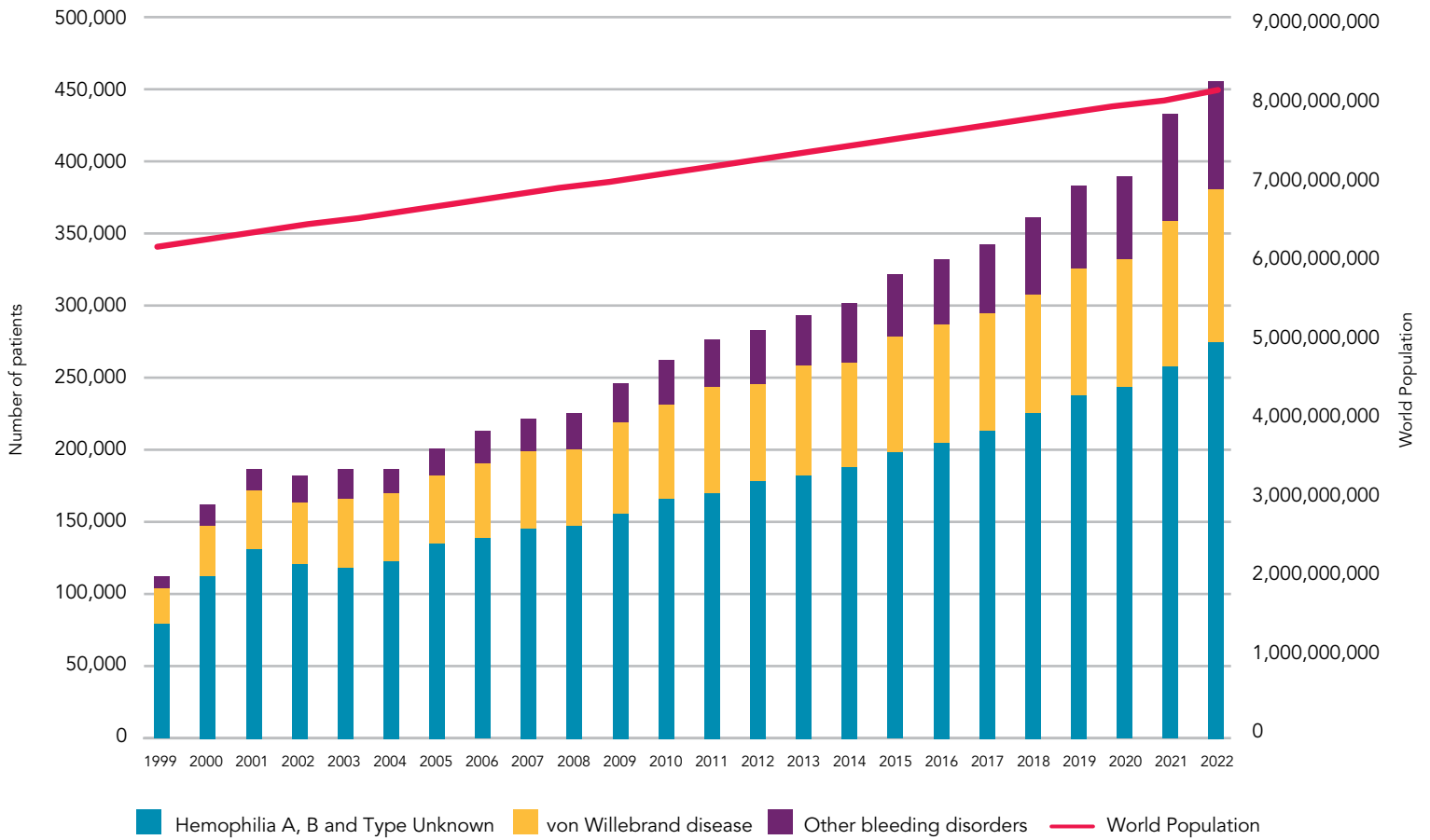


FIGURE A2. Identified patients over time – other rare bleeding disorders

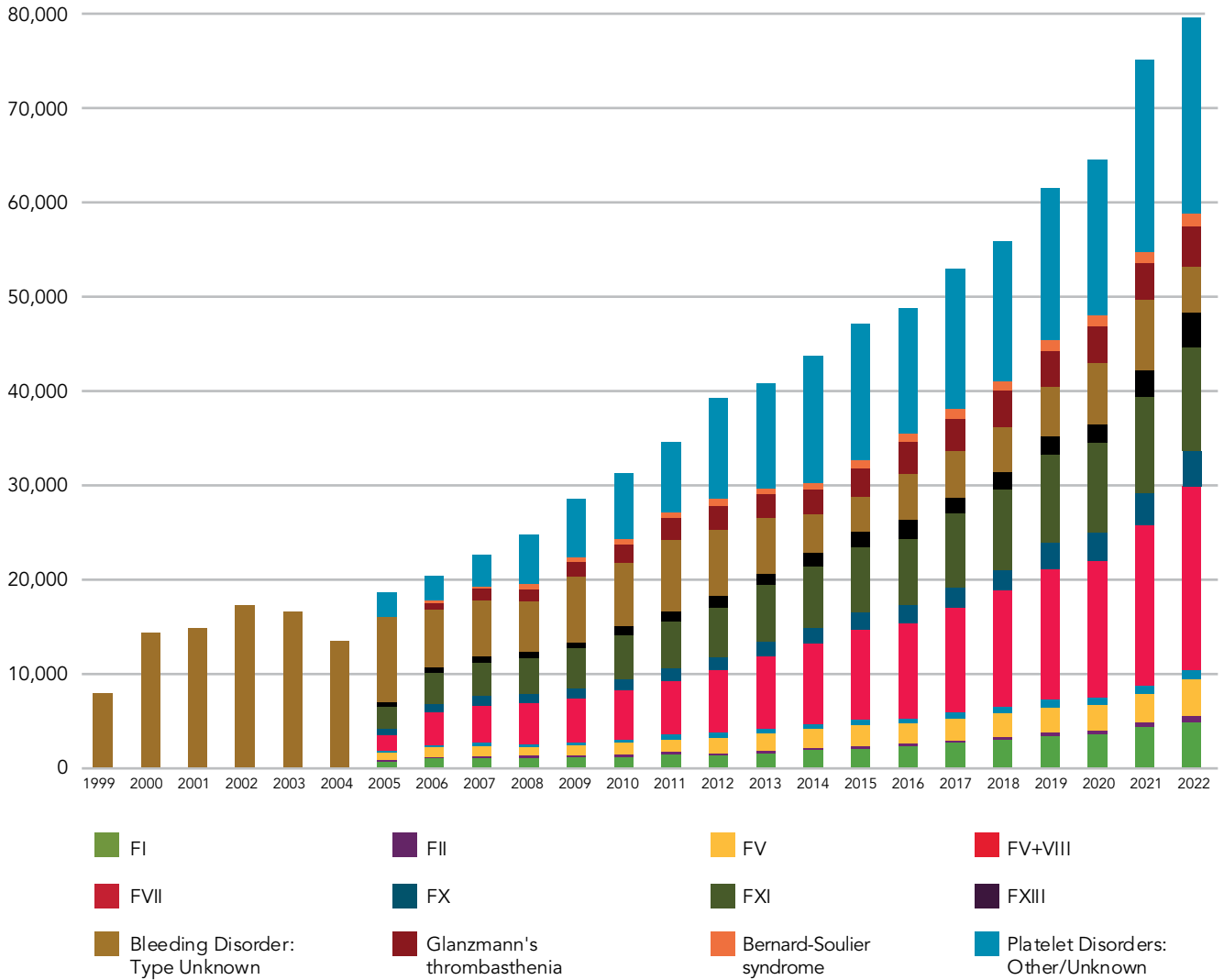


TABLE 1. National member organizations and their latest year of reporting.

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 2022 survey report, 125 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	2022	19	Czechia	2022	17
Algeria	2022	19	Denmark	2018	14
Angola	2022	3	Djibouti	2022	2
Argentina	2022	23	Dominican Republic	2022	21
Armenia	2022	13	Ecuador	2020	15
Australia	2022	24	Egypt	2022	21
Austria	2022	18	El Salvador	2022	10
Azerbaijan	2022	15	Eritrea	2022	15
Bahamas	2022	5	Estonia	2022	14
Bahrain	2022	7	Ethiopia	2022	12
Bangladesh	2022	22	Fiji	2022	1
Barbados	2022	6	Finland	2022	18
Belarus	2022	15	France	2022	20
Belgium	2022	22	Georgia	2022	21
Belize	2021	15	Germany	2022	24
Benin	2021	2	Ghana	2022	12
Bolivia	2021	10	Greece	2022	22
Bosnia and Herzegovina	2019	6	Guyana	2022	6
Botswana	2022	6	Honduras	2022	21
Brazil	2022	23	Hong Kong	2022	5
Bulgaria	2018	10	Hungary	2022	21
Burkina Faso	2022	7	Iceland	2007	6
Cambodia	2022	16	India	2022	22
Cameroon	2022	16	Indonesia	2022	19
Canada	2022	23	Iran	2022	23
Chile	2022	15	Iraq	2022	19
China	2022	14	Ireland	2022	24
Colombia	2022	23	Israel	2022	17
Congo, Republic of the	2021	1	Italy	2022	14
Costa Rica	2022	23	Jamaica	2021	11
Côte d'Ivoire	2022	15	Japan	2022	23
Croatia	2022	8	Jordan	2022	17
Cuba	2022	20	Kazakhstan	2008	1

Country	Last year of submission	Total number of submissions
Kenya	2022	21
Korea, Republic of	2022	24
Kuwait	2022	3
Kyrgyzstan	2022	9
Latvia	2022	24
Lebanon	2022	13
Lesotho	2022	16
Libya	2022	1
Lithuania	2022	23
Luxembourg	2022	5
Macedonia	2018	9
Madagascar	2022	7
Malawi	2022	7
Malaysia	2022	22
Maldives	2022	9
Mali	2022	7
Malta	2022	7
Mauritania	2020	4
Mauritius	2022	12
Mexico	2022	21
Moldova	2017	11
Mongolia	2022	16
Montenegro	2021	7
Morocco	2022	10
Mozambique	2022	5
Myanmar	2022	4
Namibia	2022	3
Nepal	2022	23
Netherlands	2022	18
New Zealand	2022	24
Nicaragua	2020	16
Nigeria	2022	15
Norway	2022	18
Oman	2016	6
Pakistan	2022	22
Palestine	2022	12
Panama	2022	21
Paraguay	2022	10
Peru	2022	12

Country	Last year of submission	Total number of submissions
Philippines	2022	20
Poland	2022	24
Portugal	2022	24
Qatar	2022	12
Romania	2022	19
Russia	2022	23
Saudi Arabia	2022	15
Senegal	2022	18
Serbia	2022	16
Singapore	2022	14
Slovakia	2022	21
Slovenia	2022	17
South Africa	2022	23
Spain	2022	16
Sri Lanka	2022	14
Sudan	2021	18
Suriname	2022	6
Sweden	2022	18
Switzerland	2022	18
Syria	2022	12
Tajikistan	2020	3
Tanzania	2022	11
Thailand	2022	22
The Gambia	2022	1
Togo	2022	11
Trinidad and Tobago	2022	3
Tunisia	2022	17
Turkey	2014	16
Uganda	2022	12
Ukraine	2022	15
United Arab Emirates	2022	2
United Kingdom	2022	23
United States of America	2022	23
Uruguay	2022	15
Uzbekistan	2022	20
Venezuela	2022	24
Vietnam	2022	20
Zambia	2022	8
Zimbabwe	2022	18



PART 2

2022 Data

KEY NUMBERS FROM THE REPORT ON THE ANNUAL GLOBAL SURVEY 2022

For all tables and graphs from this point onwards, the analyses were done using only data from countries that responded in 2022.

NUMBER OF COUNTRIES
in this survey

125



RESPONSE RATE

from WFH National
Member Organizations



85% (125/147)

NUMBER OF IDENTIFIED PATIENTS

427,685



257,146 People with hemophilia

208,957 Hemophilia A

42,203 Hemophilia B

5,986 Hemophilia type unknown

100,505 von Willebrand disease

70,034 Other bleeding disorders



FACTOR VIII USAGE PER CAPITA

1.383 IU (0.203-4.364) Median (IQR)
102 countries

FACTOR IX USAGE PER CAPITA

0.240 IU (0.023-0.733) Median (IQR)
90 countries

WOMEN AND GIRLS WITH BLEEDING DISORDERS

COUNTRIES RESPONDING

113



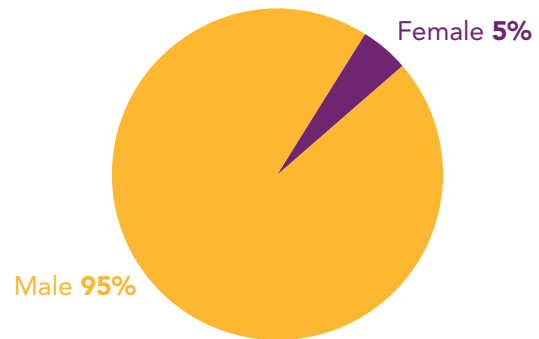
NUMBER OF IDENTIFIED FEMALE PATIENTS



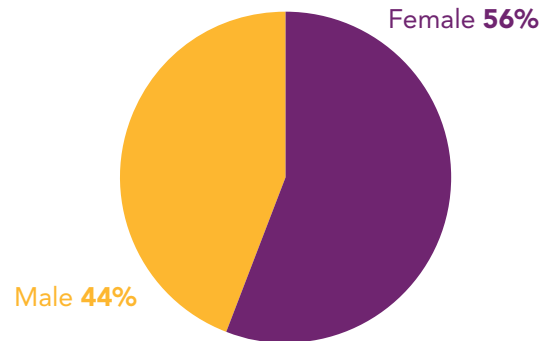
100,136

11,700 Hemophilia
54,066 von Willebrand disease
34,370 Other bleeding disorders

DISTRIBUTION OF HEMOPHILIA BY SEX



DISTRIBUTION OF VWD BY SEX



DISTRIBUTION OF OTHER BLEEDING DISORDERS IN FEMALES

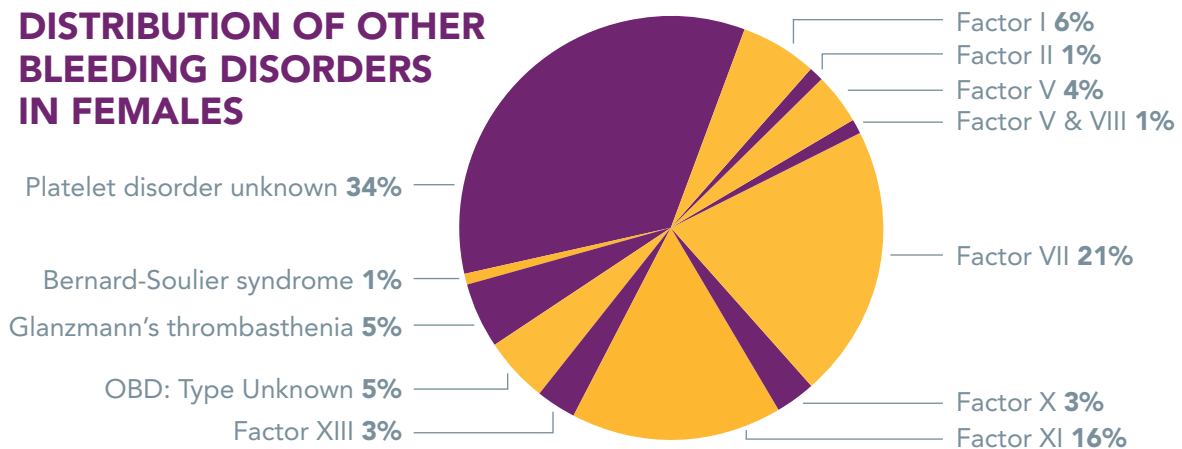


FIGURE B1. Country representation by region

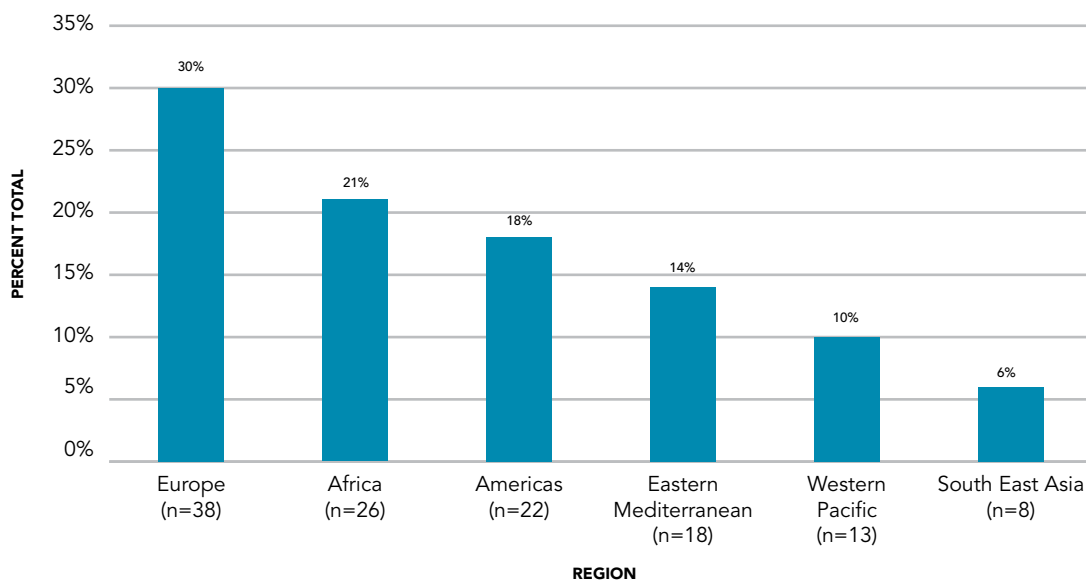
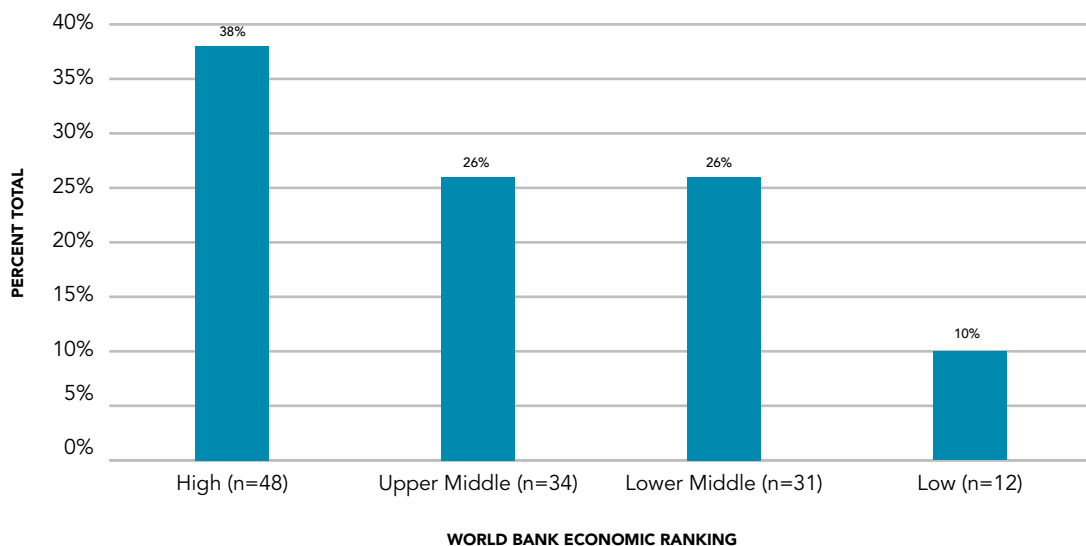


FIGURE B2. Country representation by gross national income



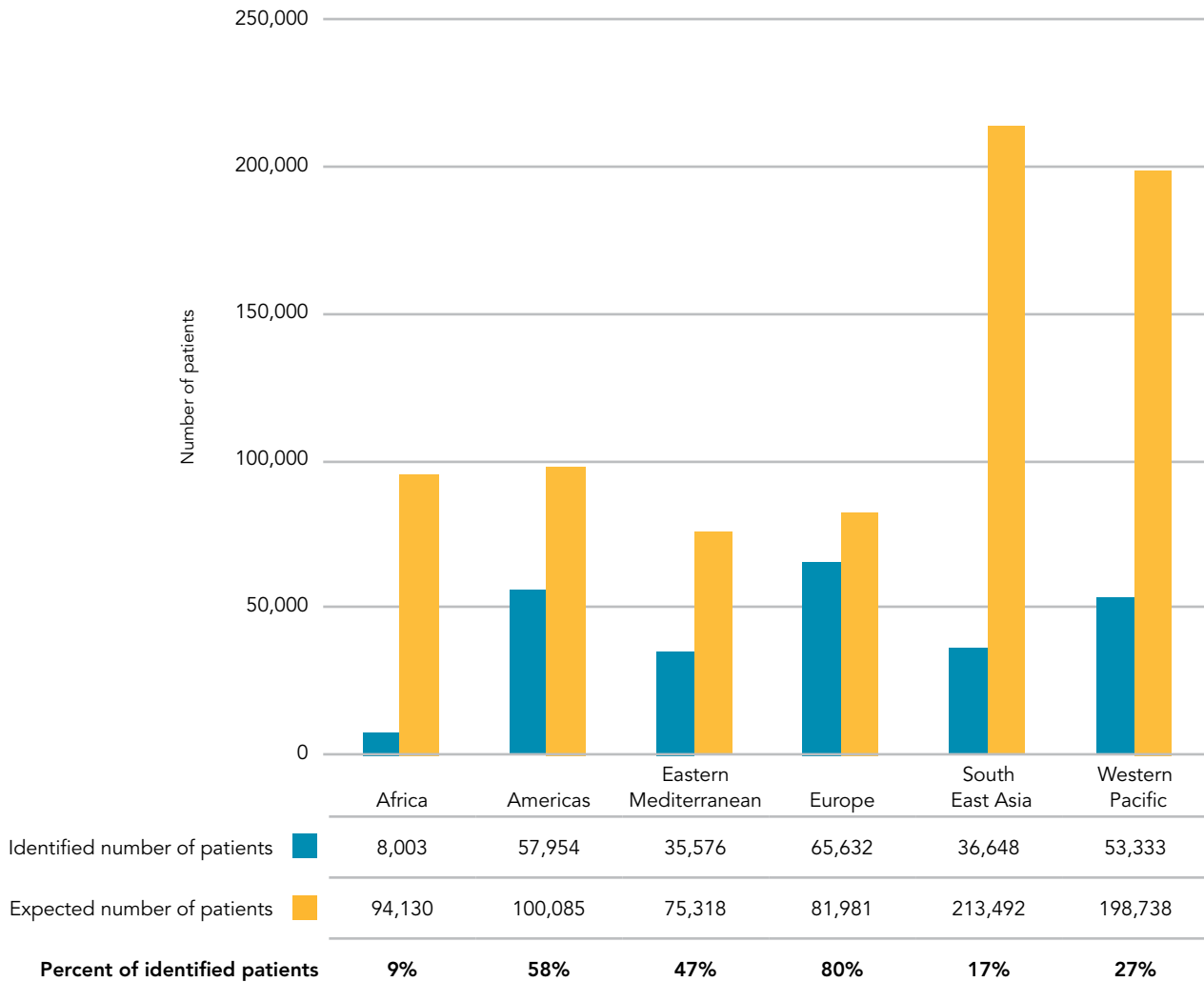
Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 or more.

REPORT ON THE ANNUAL GLOBAL SURVEY 2022 SUMMARY DEMOGRAPHICS

TABLE 2. **Demographics**

	2022 Total
Number of countries in this survey	125
World population covered by countries in this survey report	7,308,554,650
Total number of people with bleeding disorders identified	427,685
Number of people identified with Hemophilia	257,146
Number of people with hemophilia A	208,957
Number of people with hemophilia B	42,203
Number of people with hemophilia type unknown or type not reported	5,986
Number of people identified with VWD	100,505
Number of people identified with Other Bleeding Disorders	70,034
Number of hemophilia A patients with clinically identified inhibitors	7,186
Number of hemophilia B patients with clinically identified inhibitors	385

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.⁷

FACTOR USAGE SUMMARY

TABLE 3. Factor VIII usage 2022

(102 countries reported FVIII data)

	FACTOR USAGE
Mean (SD) global per capita factor VIII usage	2.721 IU (3.100)
Median global per capita factor VIII usage	1.383 IU
Interquartile range (IQR) global per capita factor VIII usage	4.160 IU (0.203–4.364)
Total consumption of factor VIII concentrates	9,323,804,681 IU

TABLE 4. Factor IX usage 2022

(90 countries reported FIX data)

	FACTOR USAGE
Mean (SD) global per capita factor IX usage	0.506 IU (0.661)
Median global per capita factor IX usage	0.240 IU
25th percentile of FIX per capita	0.710 IU (0.023–0.733)
Total consumption of factor IX concentrates	1,704,335,191 IU

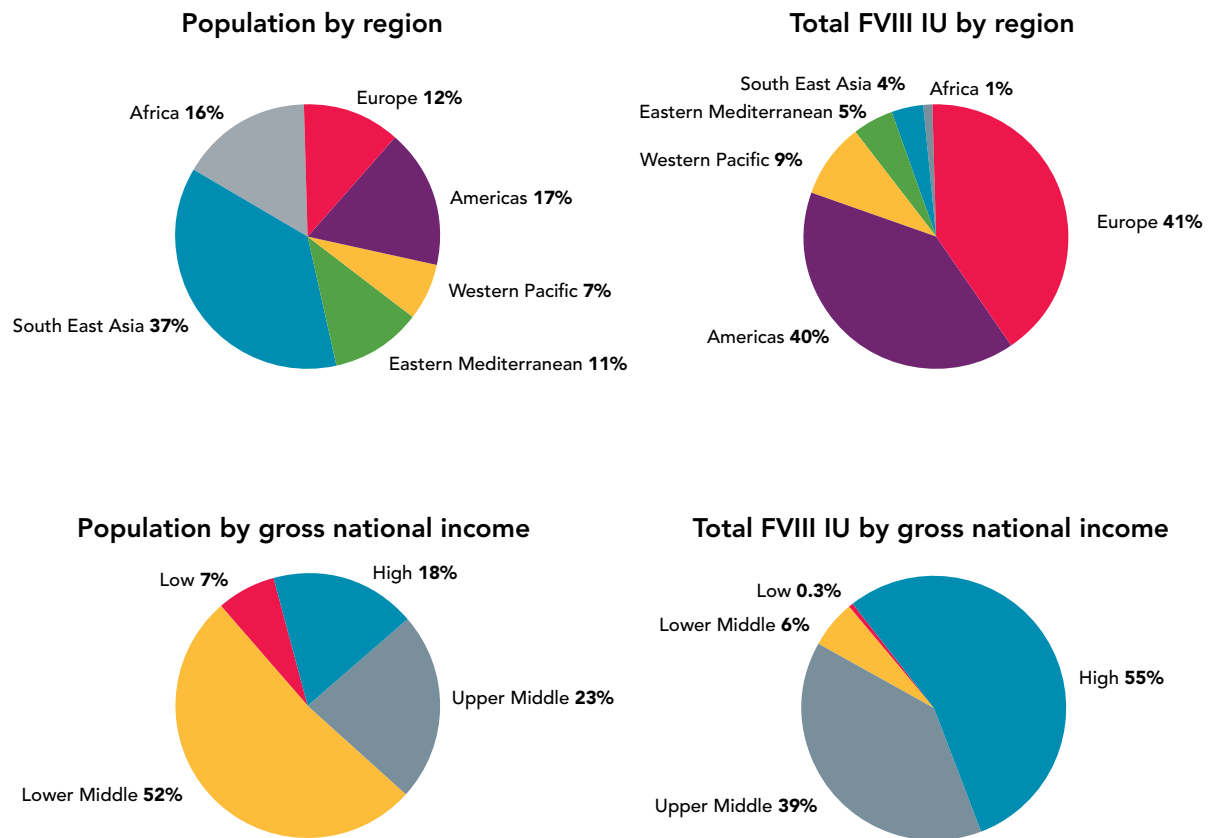
The average per capita and total consumption figures reported this year cannot be directly compared to the figures from other survey years as the group of countries reporting factor usage changes from year to year. To illustrate, if a large country using large amounts of factor or a large country using 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 2021 and 2022

	2021	2022
FACTOR VIII		
(94 countries reported FVIII data in both 2021 and 2022)		
Mean (SD) global per capita factor VIII usage	2.687 IU (3.127)	2.726 IU (3.157)
Median global per capita factor VIII usage	1.133 IU	1.220 IU
Interquartile range (IQR) global per capita factor VIII usage	4.810 IU (4.946–0.136)	4.160 IU (4.364–0.203)
FACTOR IX		
(81 countries reported factor IX data in both 2021 and 2022)		
Mean (SD) global per capita factor IX usage	0.485 IU (0.615)	0.523 IU (0.683)
Median global per capita factor IX usage	0.229	0.245
Interquartile range (IQR) global per capita factor IX usage	0.819 IU (0.845-0.26)	0.730 IU (0.754-0.024)

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).

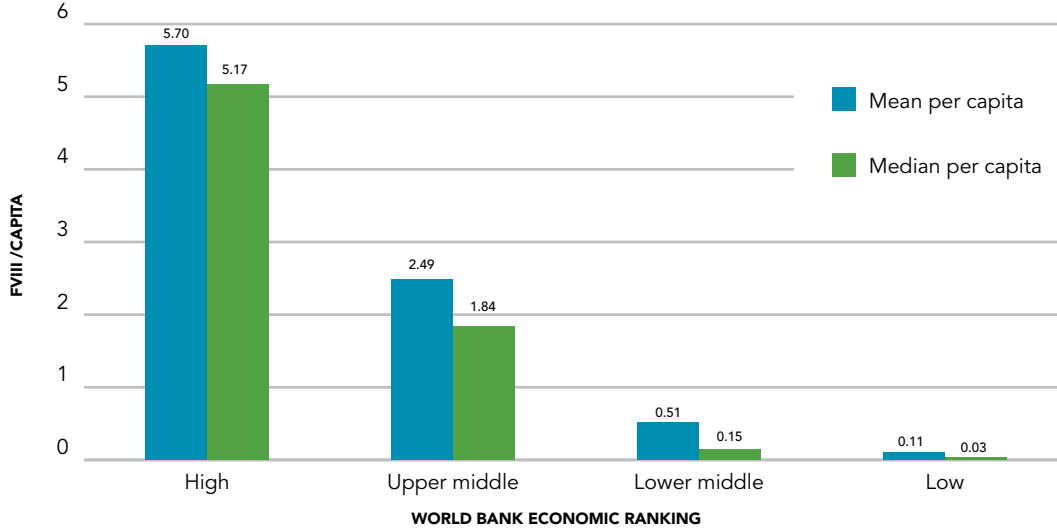
FIGURE D. Global distribution of factor VIII use



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 or more.

FIGURE E. Mean and median global factor VIII per capita 2022

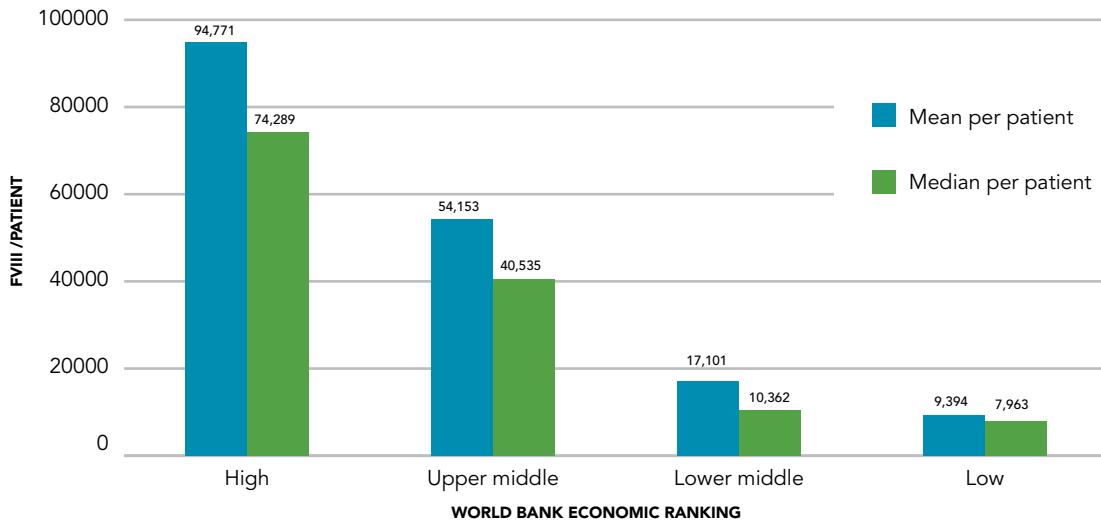
(Data from 102 countries.)



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 or more.

FIGURE F. Mean and median global factor FVIII per patient 2022

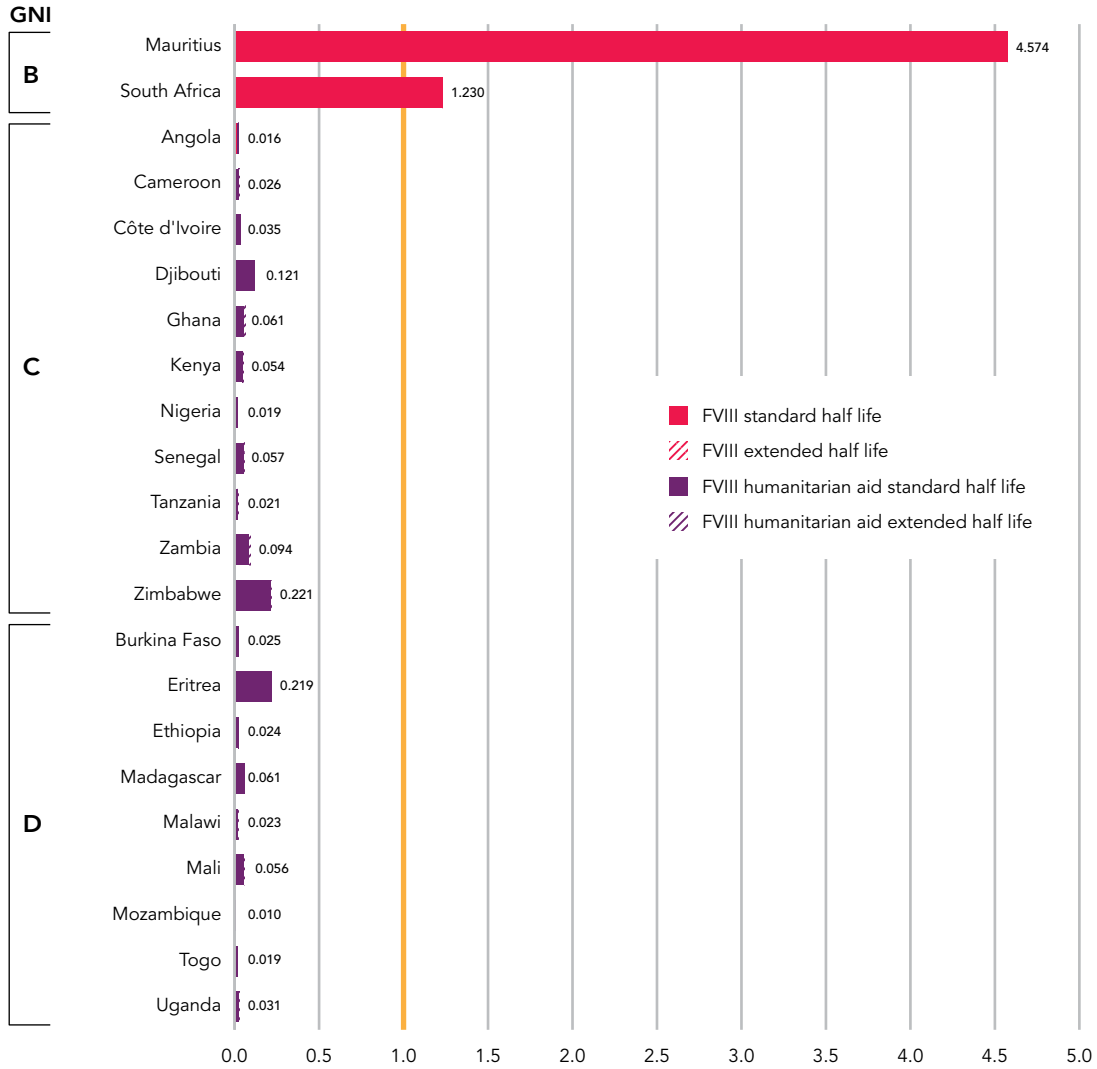
(Data from 102 countries.)



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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.

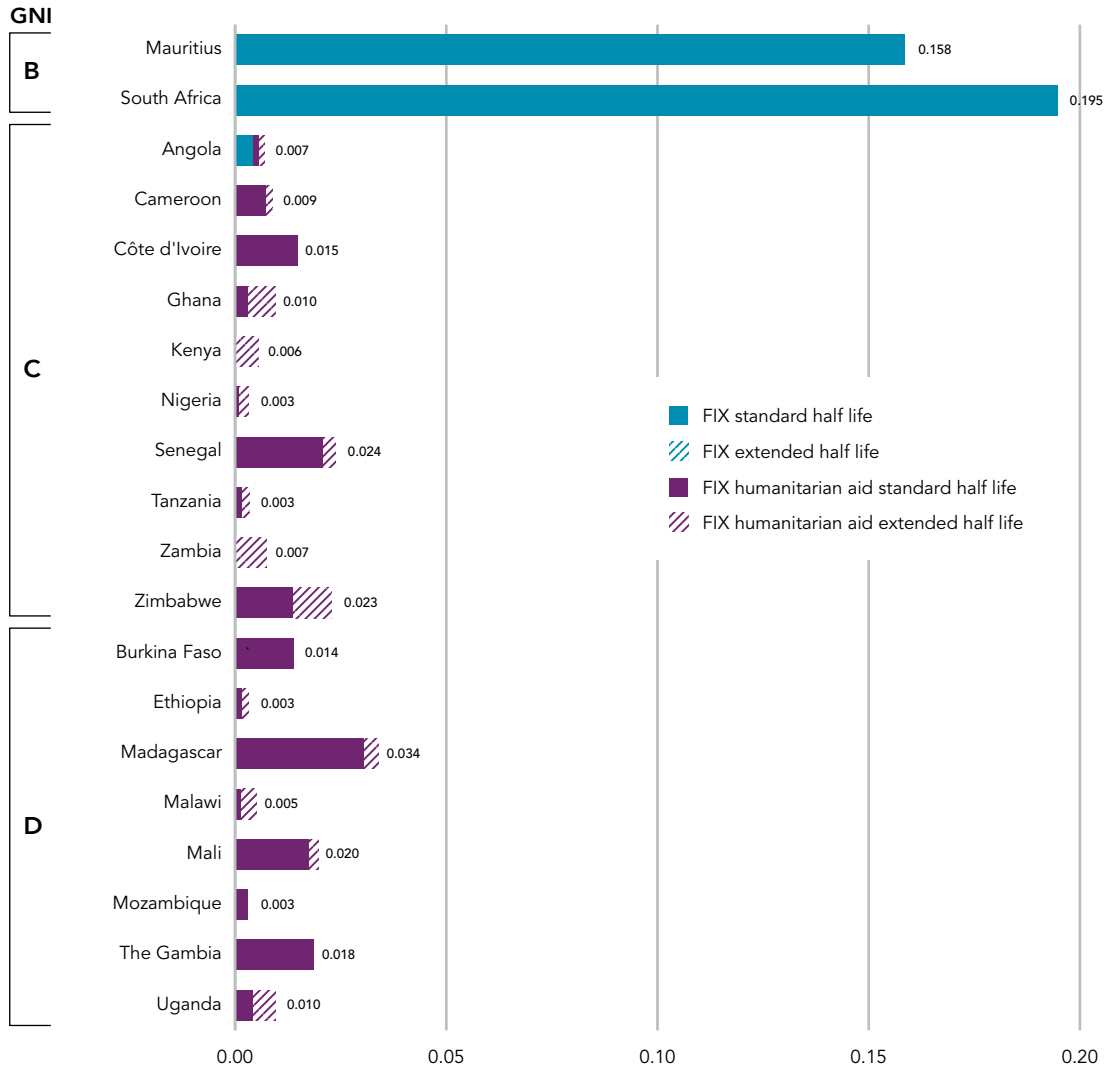
FIGURE G1a. Mean per capita factor VIII use in 2022 – regional and GNI comparisons of IU/total population: Africa



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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 2022 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.

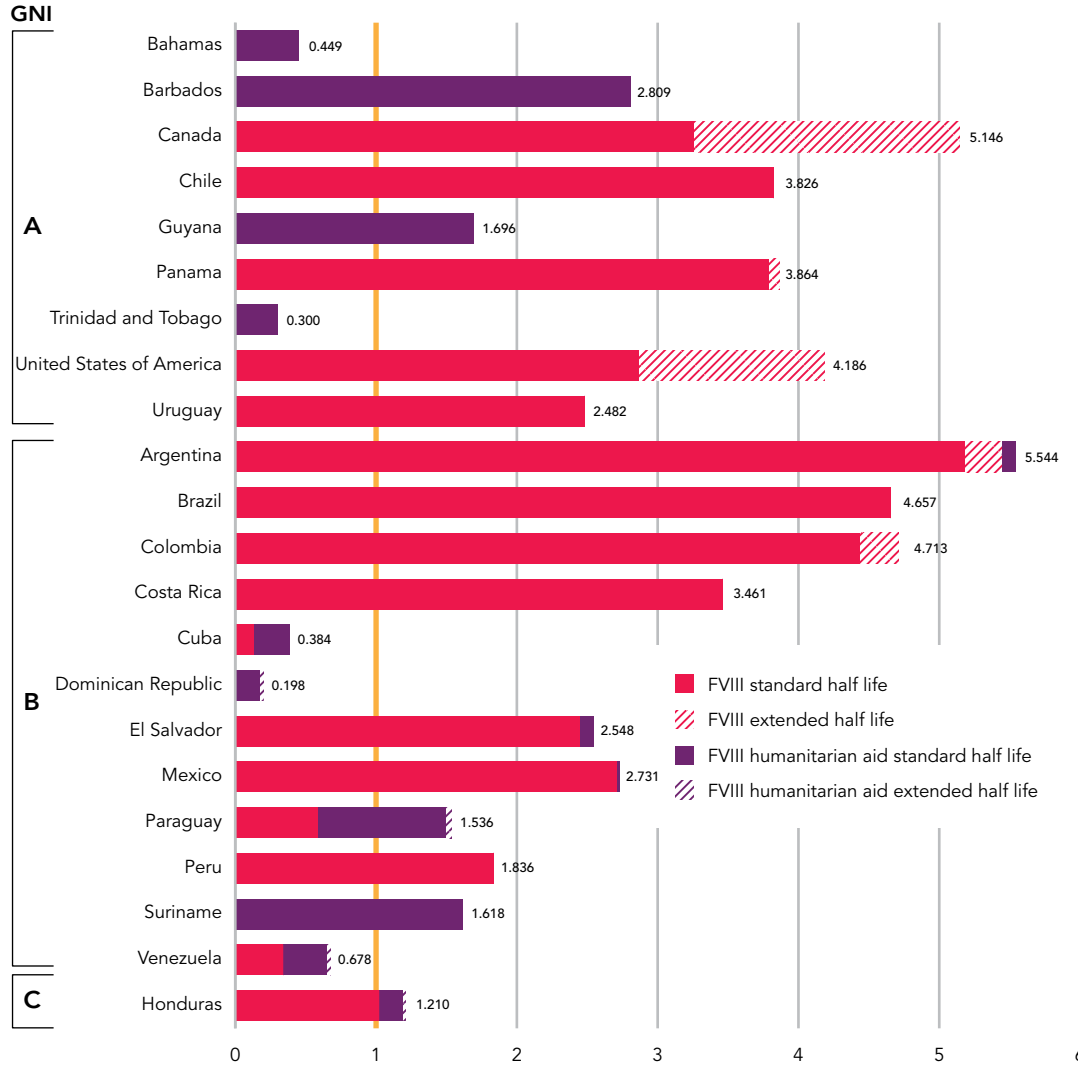
FIGURE G1b. Mean per capita factor IX use in 2022 – regional and GNI comparisons of IU/total population: Africa



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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 2022 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.

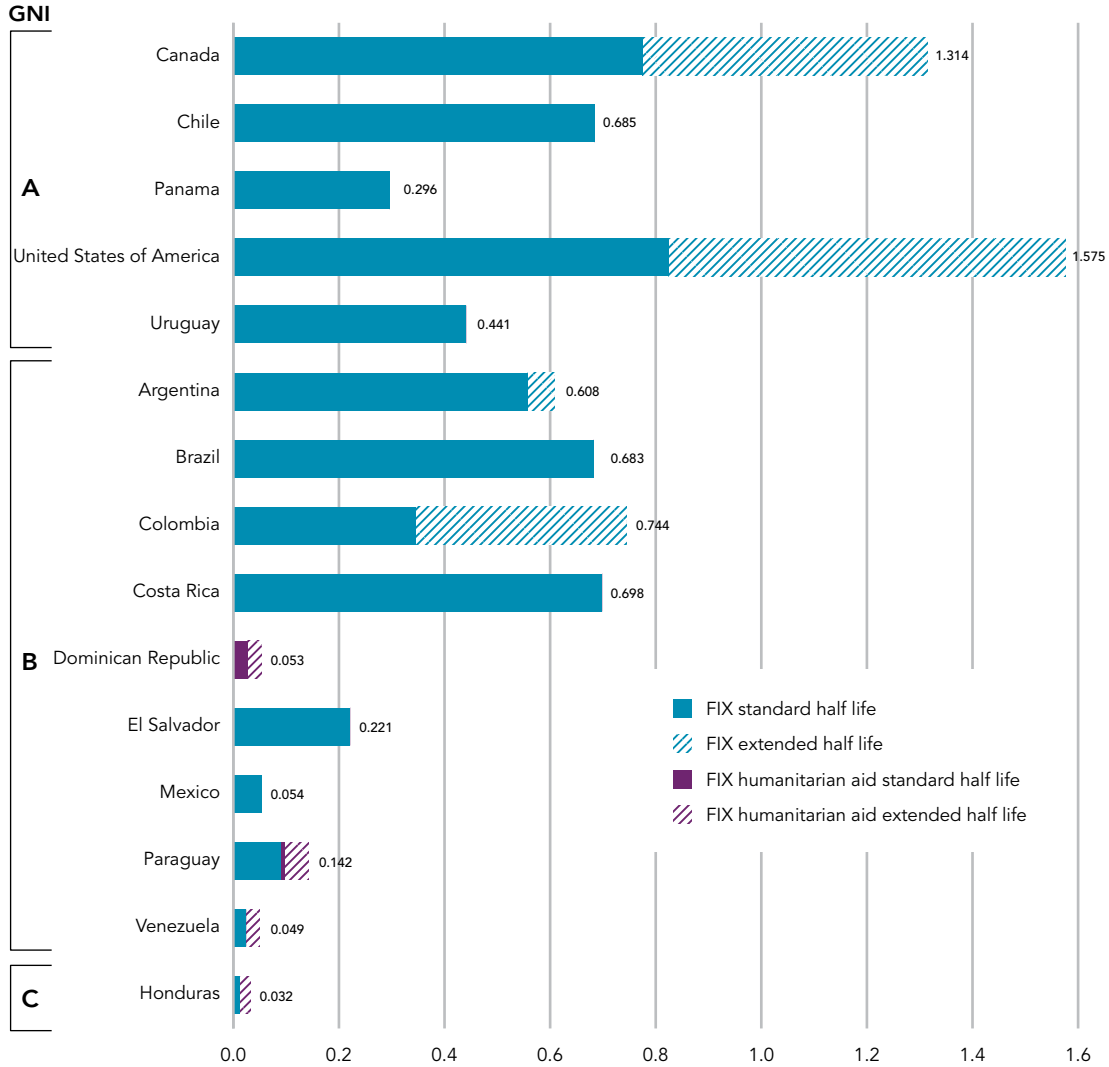
FIGURE G2a. Mean per capita factor VIII use in 2022 – regional and GNI comparisons of IU/total population: Americas



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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 2022 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.

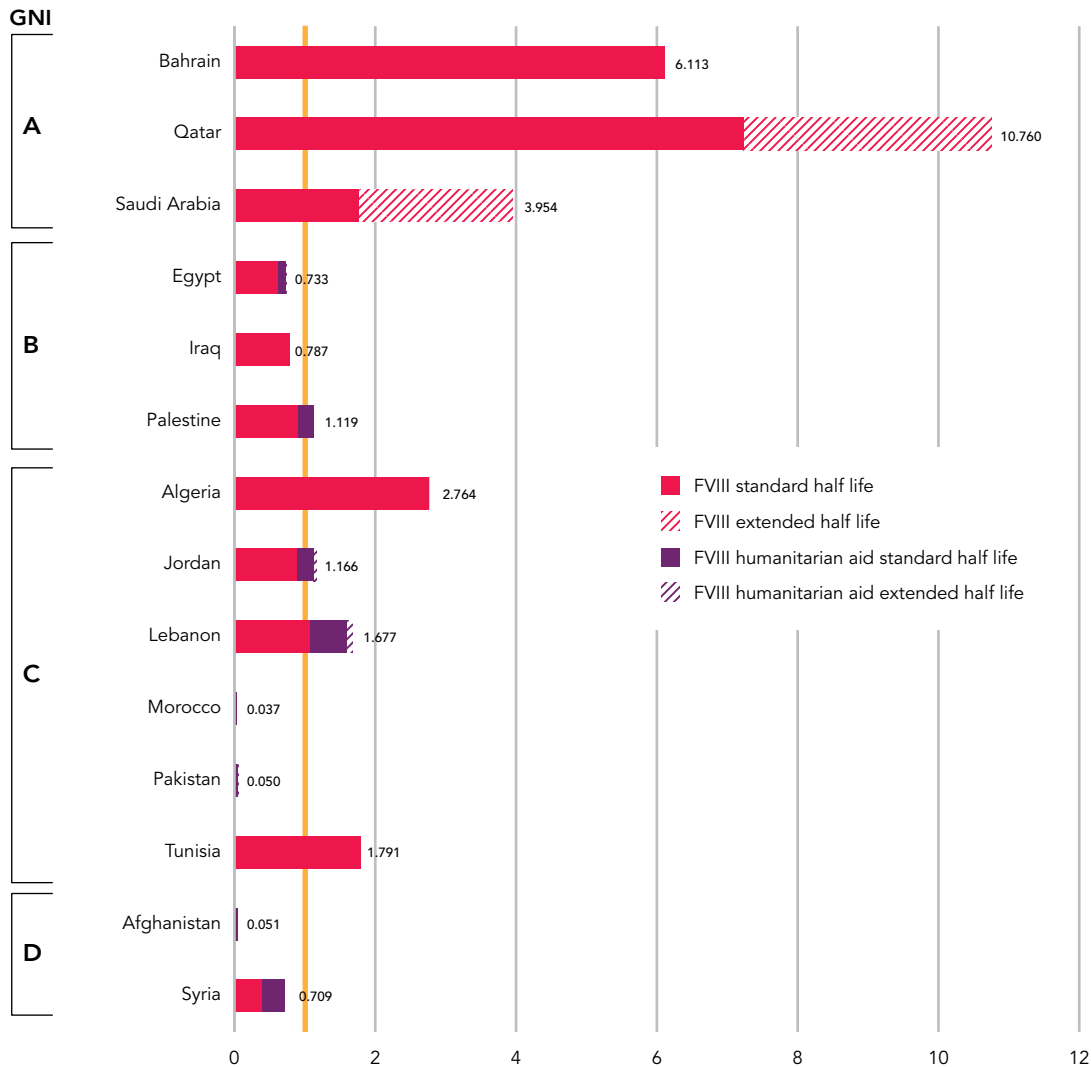
FIGURE G2b. Mean per capita factor IX use in 2022 – regional and GNI comparisons of IU/total population: Americas



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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 2022 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.

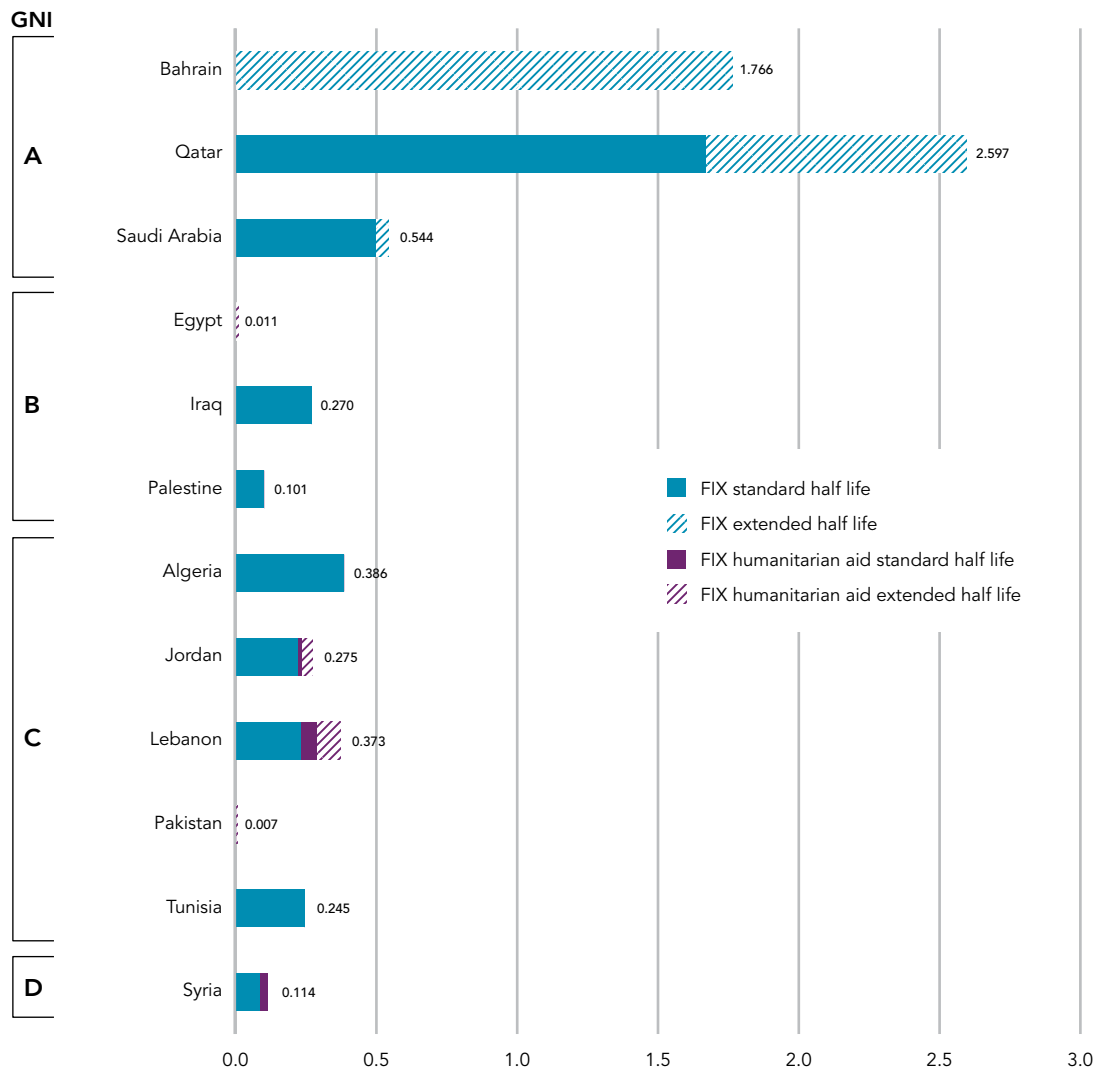
FIGURE G3a. Mean per capita factor VIII use in 2022 – regional and GNI comparisons of IU/total population: Eastern Mediterranean



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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 2022 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.

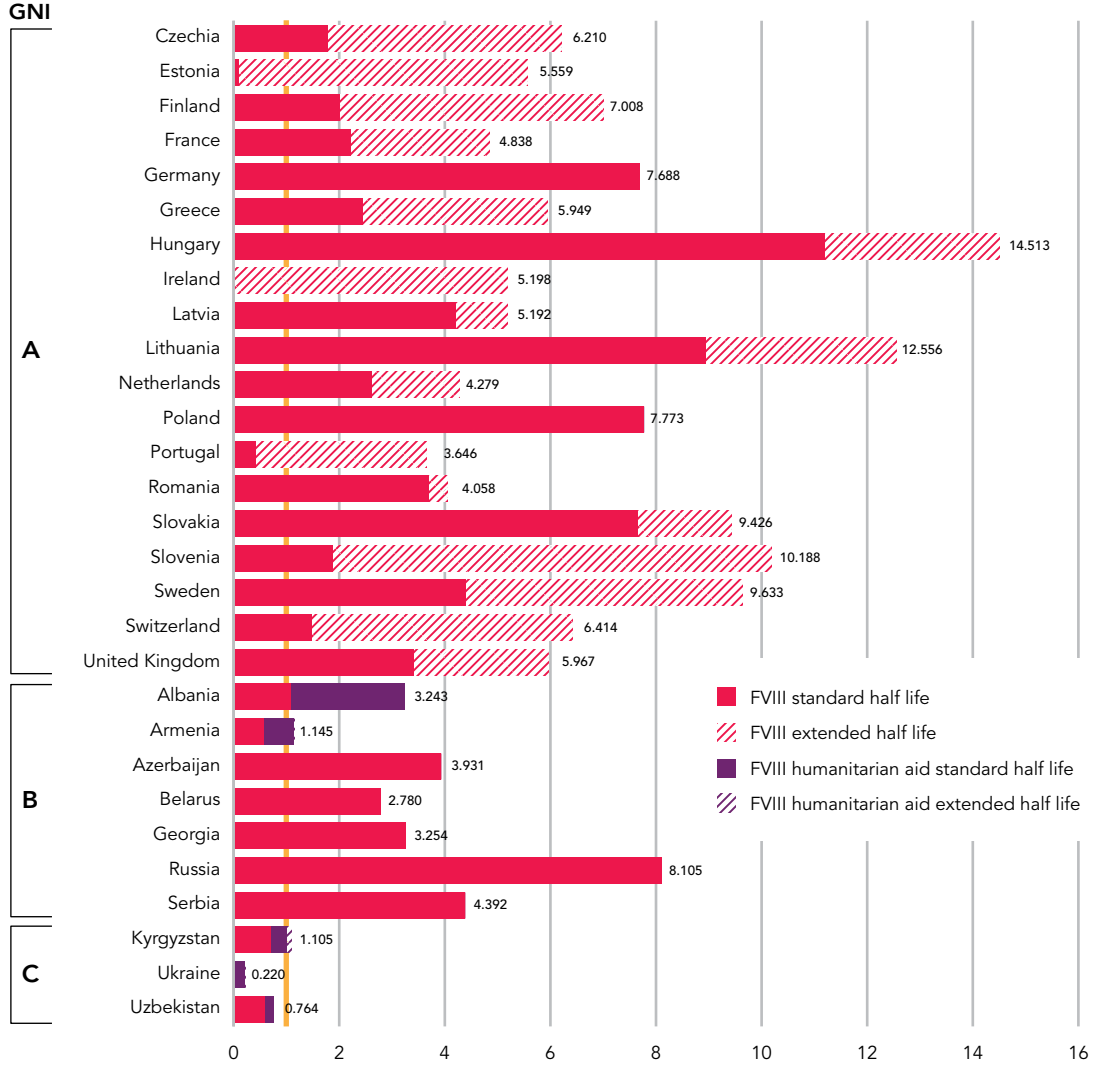
FIGURE G3b. Mean per capita factor IX use in 2022 – regional and GNI comparisons of IU/total population: Eastern Mediterranean



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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 2022 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. Mean per capita factor VIII use in 2022 – regional and GNI comparisons of IU/total population: Europe

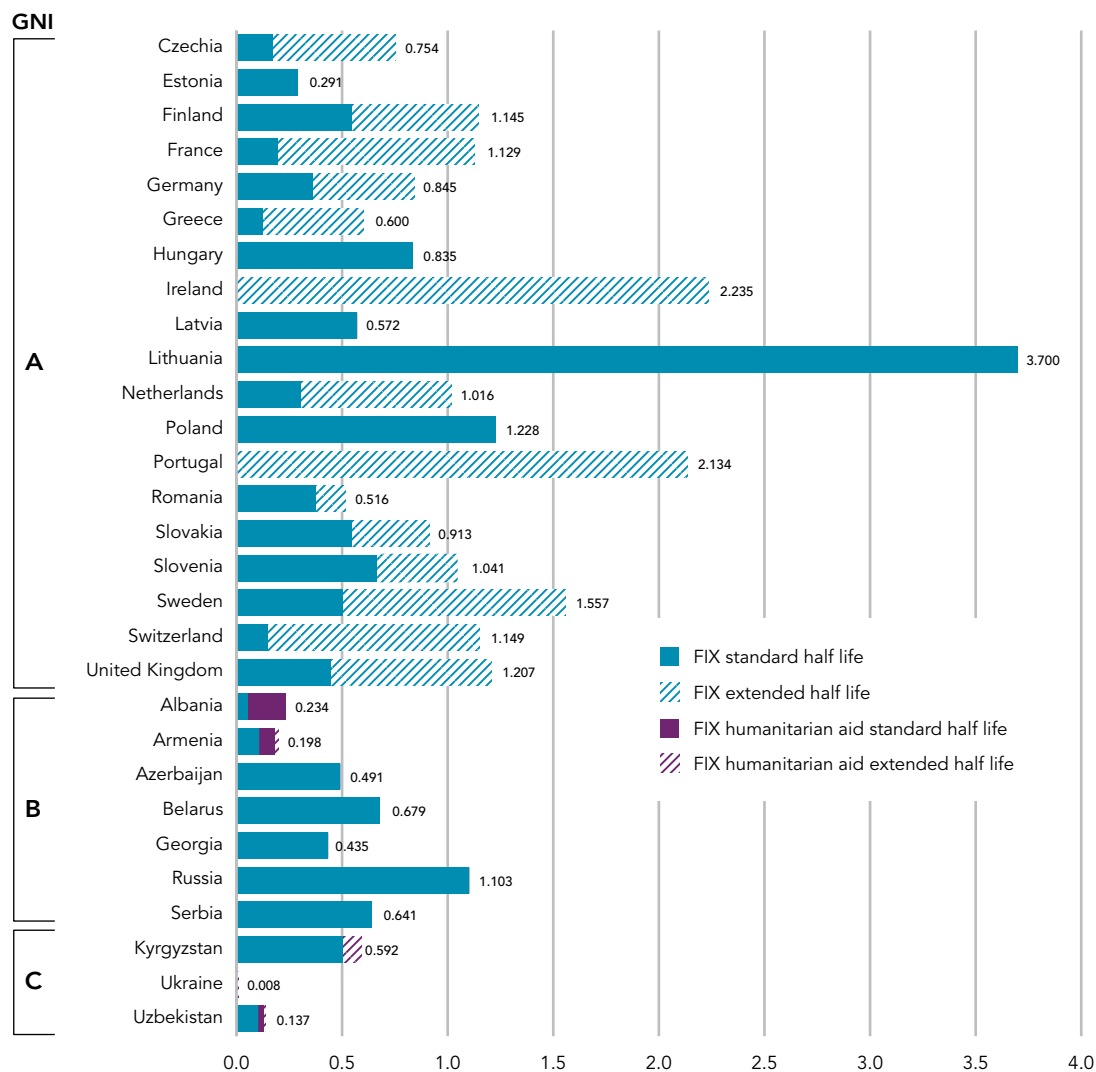


Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 or more.

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 2022 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.

* Data updated after publication. These updates are not reflected in any other calculations or summary tables in this report.

FIGURE G4b. Mean per capita factor IX use in 2022 – regional and GNI comparisons of IU/total population: Europe

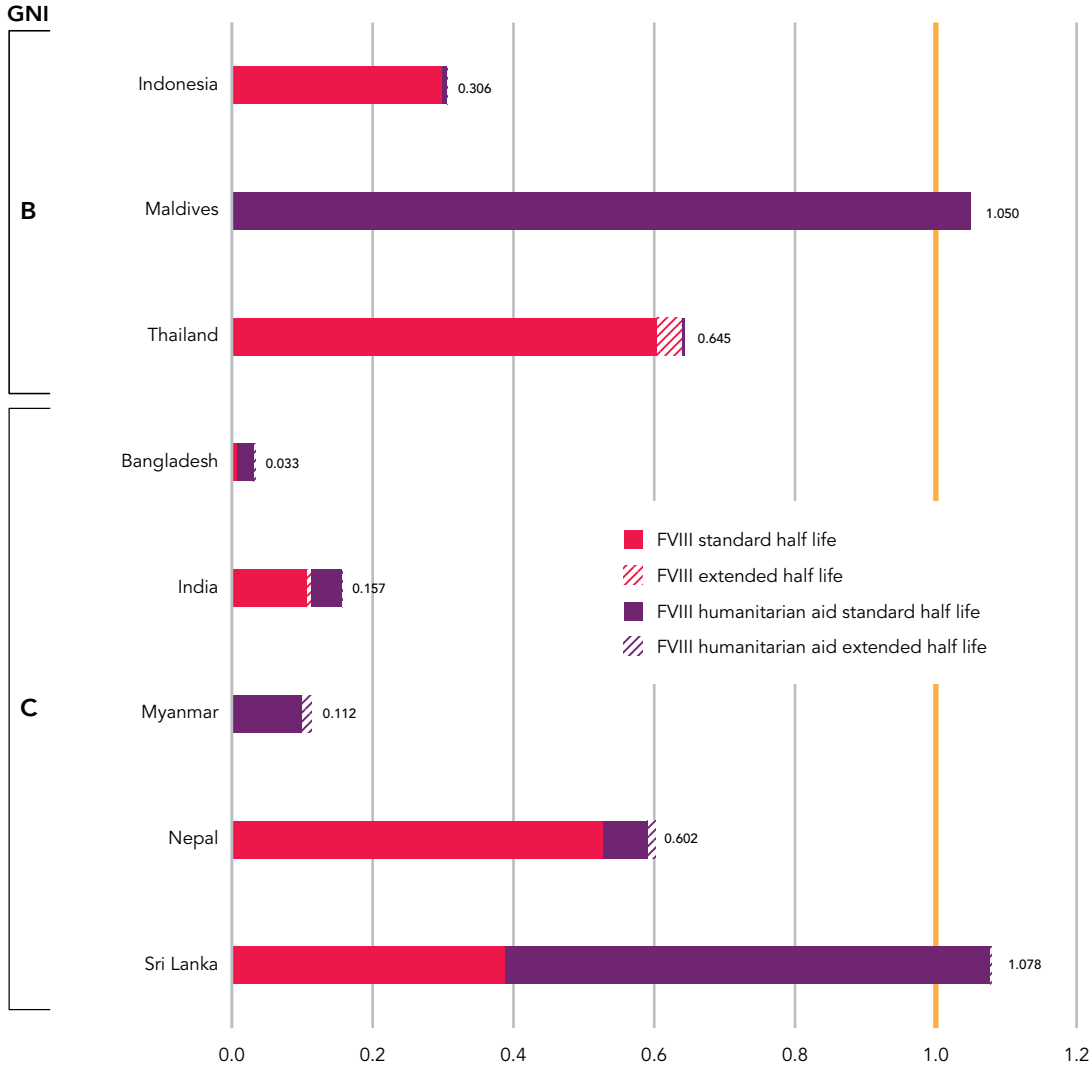


Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 or more.

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 2022 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.

* Data updated after publication. These updates are not reflected in any other calculations or summary tables in this report.

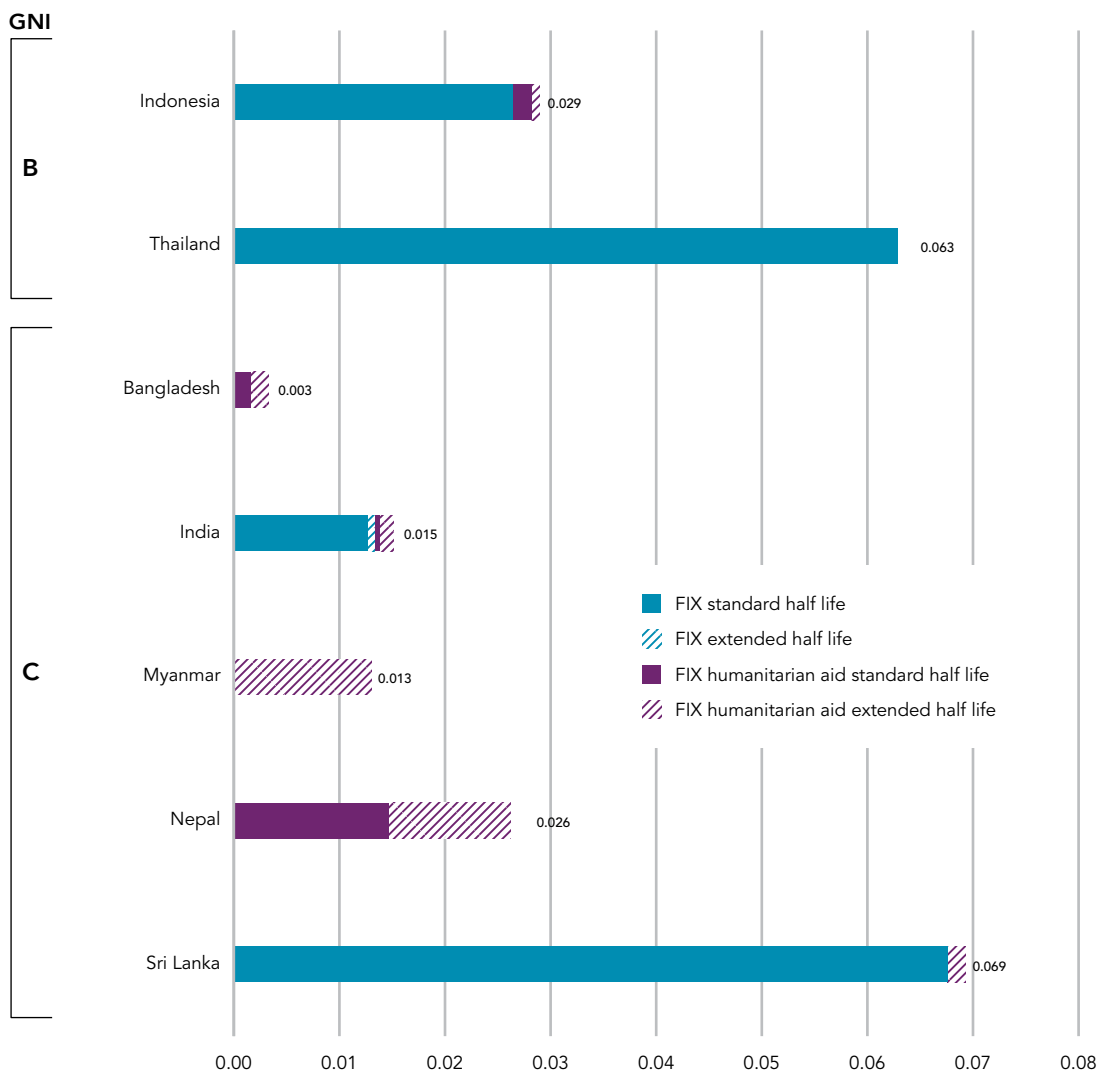
FIGURE G5a. Mean per capita factor VIII use in 2022 – regional and GNI comparisons of IU/total population: South-East Asia



Economic category based on The World Bank Group 2022 rankings for “Gross national income (GNI) per capita, Atlas method (current US\$)”. GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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 2022 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.

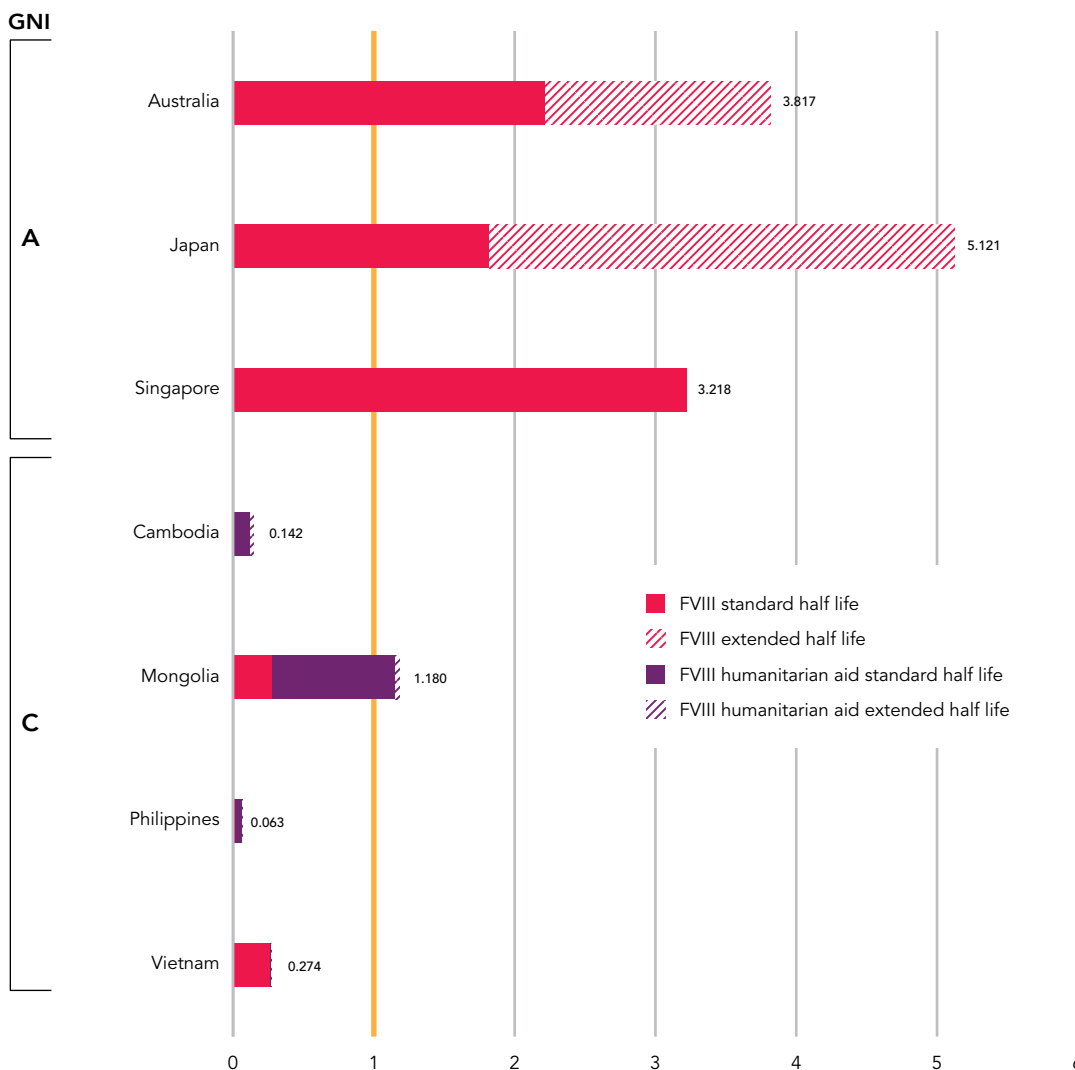
FIGURE G5b. Mean per capita factor IX use in 2022 – regional and GNI comparisons of IU/total population: South-East Asia



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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 2022 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.

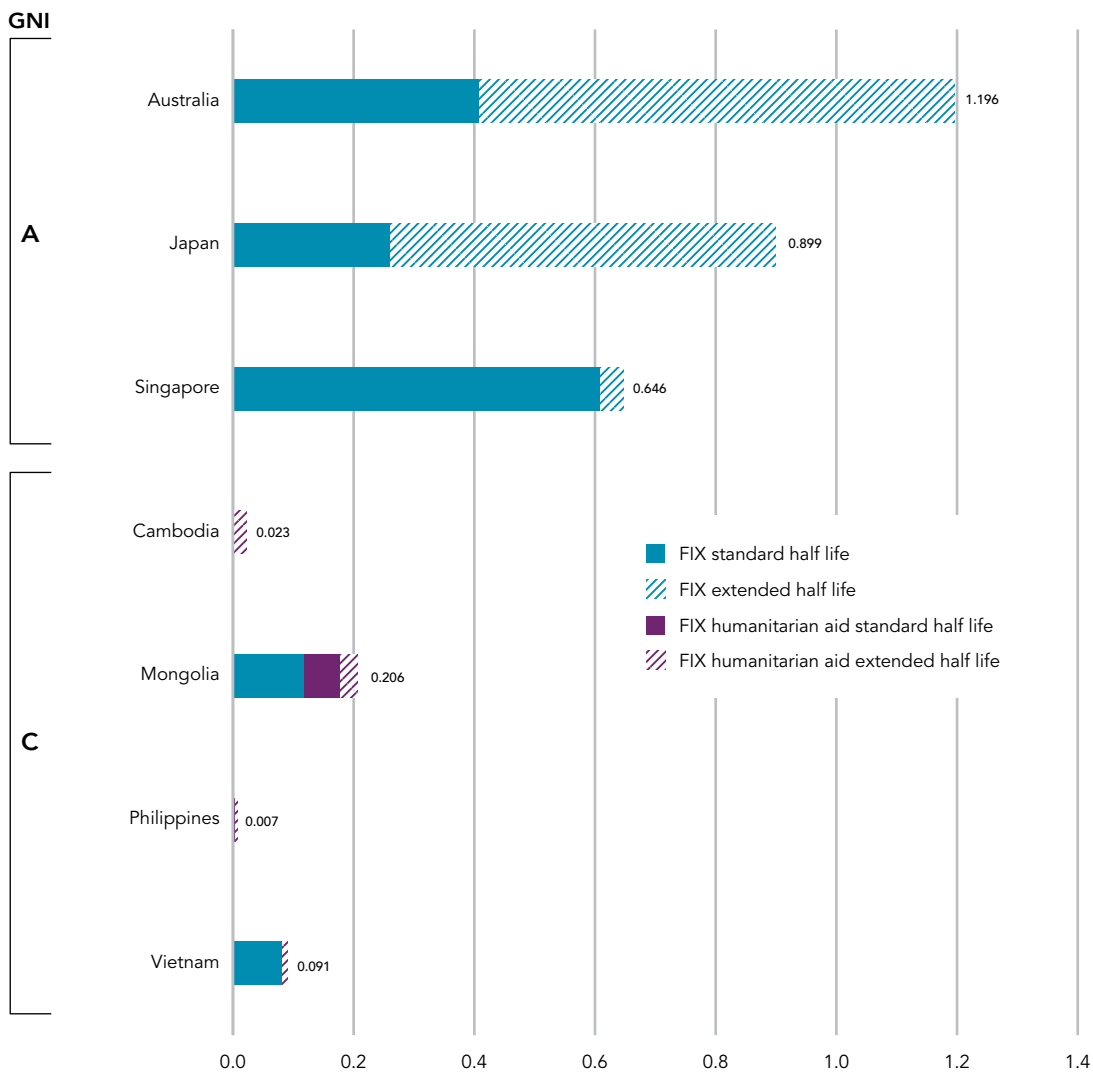
FIGURE G6a. Mean per capita factor VIII use in 2022 – regional and GNI comparisons of IU/total population: Western Pacific



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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 2022 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. Mean per capita factor IX use in 2022 – regional and GNI comparisons of IU/total population: Western Pacific



Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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 2022 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 H. **Data source**

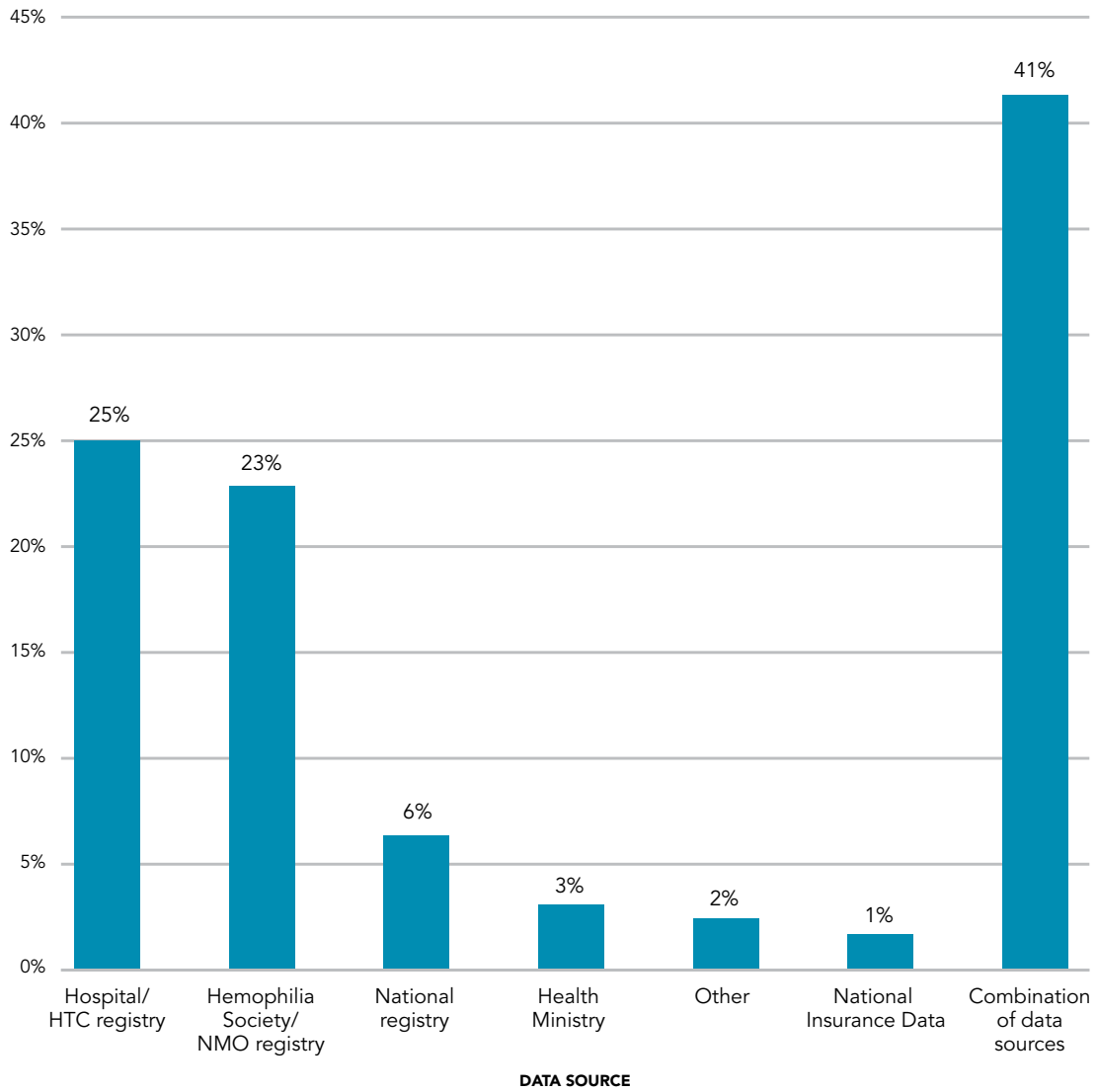
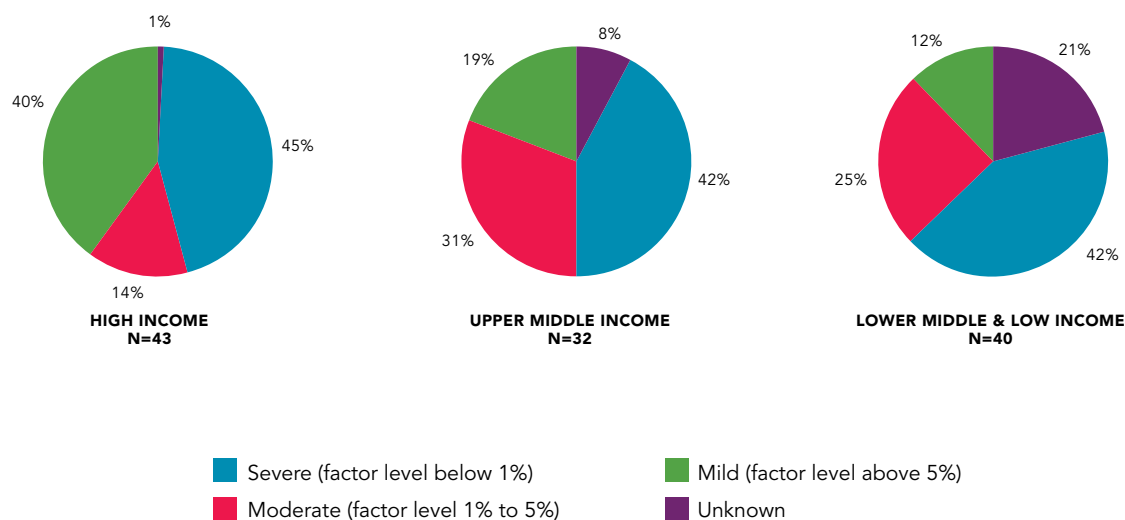


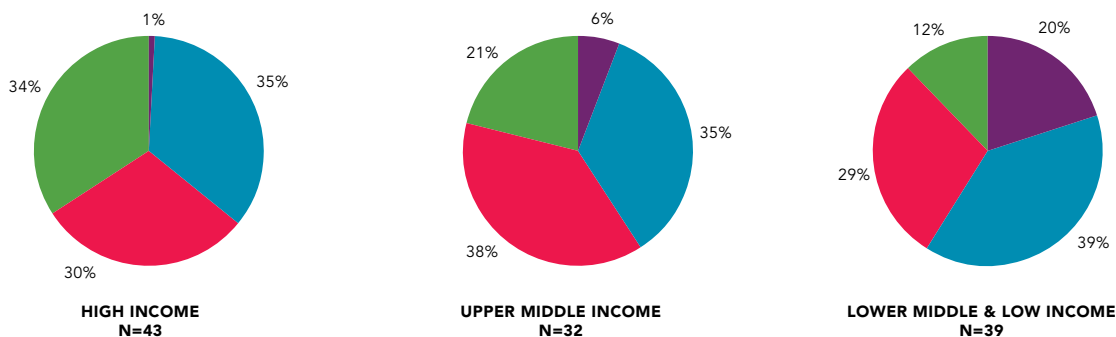
FIGURE 11. Severity of hemophilia in males by GNI

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

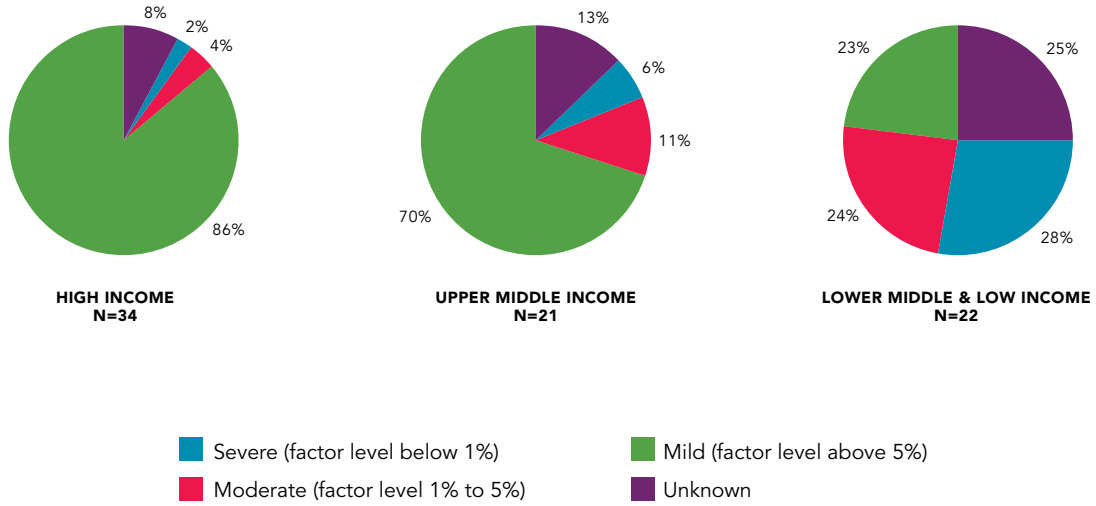


Economic category based on The World Bank Group 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 or more.

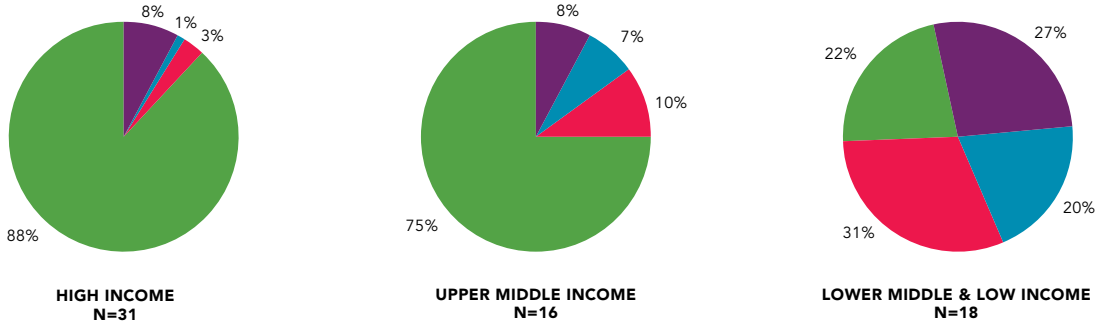
FIGURE 12. Severity of hemophilia in females—by GNI

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 2022 rankings for "Gross national income (GNI) per capita, Atlas method (current US\$)". GNI in US dollars: D low income, \$0–\$1,135; C lower middle income, \$1,136–\$4,465; B upper middle income, \$4,466–\$13,845; and A high income, \$13,845 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
Afghanistan	41,128,771	1,118	12	36
Albania	2,775,634	259	8	11
Algeria	44,903,225	2,658	532	857
Angola	35,588,987	100	Not Known	1
Argentina	46,234,830	2,892	403	11
Armenia	2,780,469	247	20	126
Australia	25,978,935	3,013	2,577	1,158
Austria	9,042,528	865	Not Known	Not Known
Azerbaijan	10,175,016	1,399	229	138
Bahamas	409,984	10	2	Not Known
Bahrain	1,472,233	111	450	106
Bangladesh	171,186,372	2,839	6	6
Barbados	281,635	27	3	3
Belarus	9,208,701	637	207	80
Belgium	11,669,446	1,349	2,318	696
Botswana	2,630,296	58	8	Not Known
Brazil	215,313,498	13,618	10,721	4,253
Burkina Faso	22,673,762	157	Not Known	Not Known
Cambodia	16,767,842	274	7	1
Cameroon	27,914,536	228	6	3
Canada	38,929,902	4,184	5,124	2,894
Chile	19,603,733	1,890	647	494
China	1,412,175,000	32,638	558	789
Colombia	51,874,024	4,073	3,818	889
Costa Rica	5,180,829	228	94	86
Côte d'Ivoire	28,160,542	144	4	5
Croatia	3,854,000	349	182	Not Known
Cuba	11,212,191	489	512	3,813
Czechia	10,526,073	1,062	843	183

Country	Population	People with hemophilia	People with von Willebrand disease	People with other bleeding disorders
Djibouti	1,120,849	7	Not Known	Not Known
Dominican Republic	11,228,821	572	52	59
Egypt	110,990,103	6,799	687	1,520
El Salvador	6,336,392	110	7	12
Eritrea	3,684,032	81	Not Known	Not Known
Estonia	1,344,768	112	132	95
Ethiopia	123,379,924	405	21	Not Known
Fiji	929,766	46	1	48
Finland	5,556,880	310	569	Not Known
France	67,935,660	9,802	3,578	1,619
Georgia	3,712,502	358	74	85
Germany	84,079,811	5,087	6,629	4,330
Ghana	33,475,870	475	11	Not Known
Greece	10,566,531	1,026	1,389	677
Guyana	808,726	26	2	Not Known
Honduras	10,432,860	343	16	8
Hong Kong	7,346,100	155	4	5
Hungary	9,683,505	1,160	1,473	718
India	1,417,173,173	25,715	958	618
Indonesia	275,501,339	3,155	21	Not Known
Iran	88,550,570	11,803	2,159	4,236
Iraq	44,496,122	3,306	737	555
Ireland	5,086,988	936	1,927	1,641
Israel	9,550,600	758	223	743
Italy	58,856,847	3,651	2,802	3,329
Japan	125,124,989	7,070	1,576	527
Jordan	11,285,869	520	272	308
Kenya	54,027,487	884	46	19
Korea, Republic of	51,628,117	2,283	165	190
Kuwait	4,268,873	40	6	50
Kyrgyzstan	6,803,300	404	16	8
Latvia	1,883,379	119	91	21
Lebanon	5,489,739	257	190	84
Lesotho	2,305,825	11	1	Not Known
Libya	6,812,341	304	32	234
Lithuania	2,833,000	206	312	18

Country	Population	People with hemophilia	People with von Willebrand disease	People with other bleeding disorders
Luxembourg	650,774	20	1	Not Known
Madagascar	29,611,714	154	2	14
Malawi	20,405,317	42	Not Known	Not Known
Malaysia	33,938,221	1,048	106	107
Maldives	523,787	21	Not Known	Not Known
Mali	22,593,590	179	15	38
Malta	523,417	37	45	Not Known
Mauritius	1,262,523	94	1	9
Mexico	127,504,125	5,909	374	67
Mongolia	3,398,366	126	18	Not Known
Morocco	37,457,971	1,752	193	172
Mozambique	32,969,518	191	2	1
Myanmar	54,179,306	893	34	10
Namibia	2,567,012	82	Not Known	4
Nepal	30,547,580	765	10	37
Netherlands	17,703,090	1,778	663	170
New Zealand	5,124,100	471	768	165
Nigeria	218,541,212	743	15	Not Known
Norway	5,457,127	457	468	83
Pakistan	235,824,862	3,201	607	231
Palestine	5,043,612	356	66	138
Panama	4,408,581	328	548	119
Paraguay	6,780,744	312	4	Not Known
Peru	34,049,588	1,068	229	5
Philippines	115,559,009	1,644	50	Not Known
Poland	37,561,599	3,231	2,804	1,141
Portugal	10,379,007	1,028	990	1,178
Qatar	2,695,122	69	49	17
Romania	18,956,666	1,825	325	19
Russia	143,555,736	8,304	3,120	Not Known
Saudi Arabia	36,408,820	1,403	590	898
Senegal	17,316,449	351	16	22
Serbia	6,760,087	578	334	88
Singapore	5,637,022	277	102	91
Slovakia	5,431,752	717	790	1,723
Slovenia	2,108,732	275	221	86

Country	Population	People with hemophilia	People with von Willebrand disease	People with other bleeding disorders
South Africa	59,893,885	2,404	671	209
Spain	47,615,034	2,129	722	116
Sri Lanka	22,181,000	1,249	84	69
Suriname	618,040	16	3	0
Sweden	10,486,941	1,066	977	Not Known
Switzerland	8,769,741	660	181	81
Syria	22,125,249	1,166	183	252
Tanzania	65,497,748	291	3	Not Known
Thailand	71,697,030	2,011	171	94
The Gambia	2,705,992	21	0	Not Known
Togo	8,848,699	40	Not Known	Not Known
Trinidad and Tobago	1,531,044	74	10	2
Tunisia	12,356,117	613	261	373
Uganda	47,249,585	349	2	0
Ukraine	38,000,000	2,188	469	Not Known
United Arab Emirates	9,441,129	100	15	12
United Kingdom	66,971,411	9,387	11,759	14,149
United States of America	333,287,557	18,580	13,966	7,758
Uruguay	3,422,794	280	263	23
Uzbekistan	35,648,100	1,856	328	129
Venezuela	28,301,696	2,925	1,200	1,088
Vietnam	98,186,856	4,288	198	650
Zambia	20,017,675	237	9	0
Zimbabwe	16,320,537	275	Not Known	Not Known

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
Afghanistan	875	215	28	12	1		6		8			5		1		15
Albania	220	39	0	8					6	2	0	2	0	1	0	
Algeria	2,097	561		532	64	10	90	32	502	36	21	19	32	34	17	
Angola	86	14							1							
Argentina	2,493	399	0	403	0	0	0	2	2	0	1	1	0	2	0	3
Armenia	214	33		20	2		4		56	2	10	1	36	4	6	5
Australia	2,445	568		2,577	175	0	24	0	119	25	374	33	0	33	20	355
Austria	716	149	0													
Azerbaijan	1,092	164	143	229	1	3	15		41	27	22			17	12	
Bahamas	8	1	1	2												
Bahrain	100	11	0	450	0	12	15	7	10	15	3	8	0	30	6	0
Bangladesh	2,374	459	6	6	2		2		1			1				
Barbados	16	11		3			2	1								
Belarus	513	124		207	4				23		26		27			
Belgium	1,077	265	7	2,318	3	2	25	1	197	13	170	5	32	21	10	217
Botswana	50	8	0	8												
Brazil	11,384	2,234		10,721	65	25	301	57	1,954	175	417	96	0	432	120	611
Burkina Faso	122	35														
Cambodia	229	45		7								1				
Cameroon	188	37	3	6	0	0	1	0	1	0	0	0	1			
Canada	3,442	742		5,124	213	23	102		638	65	612	67		75	44	1,055
Chile	1,687	203		647	1	0	18	7	405	20	16	7	3	9	8	
China	27,689	4,799	150	558	106	11	74	19	222	29	265	17	0	46	0	0
Colombia	3,335	738	0	3,818	111	18	93	58	243	43	150	109	0	16	2	46
Costa Rica	184	44	0	94	4	0	2	13	46	12	7	2				
Côte d'Ivoire	126	18	0	4	0	0	0	0	3	2	0	0	0	0	0	0
Croatia	280	69	0	182												
Cuba	404	85	0	512	3	1	2	0	2	0	12	3	1	2	0	3,787
Czechia	919	143	0	843	0	4	15	0	96	7	34	1	26			
Djibouti	7															
Dominican Republic	470	43	59	52	0	0	0	0	12	40	0	5	0	2	0	0

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
Egypt	5,521	1,278		687	218	10	187	6	274	120	84	54	3	502	62	
El Salvador	93	17		7	5				4	1	1	1				
Eritrea	73	8	0													
Estonia	102	10	0	132	10	1	7	2	34	4	3	0	26	0	0	8
Ethiopia	197	38	170	21												
Fiji	45	0	1	1					45							3
Finland	180	34	96	569												
France	7,893	1,909	0	3,578	52	2	66	28	244	39	284	40	0	269	78	517
Georgia	298	60		74	1		2		64	2		3		7		6
Germany	4,245	842	0	6,629	636	186	479		1,759	177	142	951				
Ghana	385	33	57	11												
Greece	835	191	0	1,389	46	3	40	1	212	16	119	11	0	20	10	199
Guyana	25	1	0	2												
Honduras	313	30		16					6			2				
Hong Kong	131	23	1	4					3	2						
Hungary	910	250		1,473	24	2	30	0	449	26	100	7	0	3	1	76
India	21,620	3,557	538	958	25	12	56	8	118	68	40	159		109		23
Indonesia	2,690	403	62	21												
Iran	6,387	1,471	3,945	2,159	203	40	340	318	1,113	301	356	654		698	213	
Iraq	2,671	635		737	60	2	15	4	145	30	14	65		120	23	77
Ireland	703	233	0	1,927	116	3	207	1	356	190	303	19	0	14	4	428
Israel	645	113		223	5	0	9	15	95	9	383	8		47	5	167
Italy	2,944	707		2,802	308	13	367	28	1,840	170	553	50				
Japan	5,776	1,294		1,576	122	9	71	9	132	29	60	95				
Jordan	368	114	38	272	4	4	16	0	83	25	46	17	0	113	0	0
Kenya	715	169	0	46	0	0	0	0	1	0	0	0	0	0	0	18
Korea, Republic of	1,789	451	43	165	10	0	9	0	56	3	36	4	72	0	0	0
Kosovo																
Kuwait	32	8	0	6	0	4	2	0	6	3	2	8	2	13	7	3
Kyrgyzstan	343	61		16	1	1							1	5		
Latvia	96	23	0	91	0	0	2	2	12	3	0	0	0	1	1	0
Lebanon	200	57	0	190	36	0	9	1	13	7	5	6	0	1	1	5
Lesotho	10	1		1												
Libya	275	29		32				194	20			20				
Lithuania	178	28		312					13	2						3

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
Luxembourg	16	4	0	1												
Madagascar	84	70	0	2	14											
Malawi	34	8														
Malaysia	899	149		106	2	1	2		29	18	21	11		23		
Maldives	16	5														
Mali	160	19	0	15	5	1	0	0	0	0	0	1	24	0	0	7
Malta			37	45												
Mauritius	84	10	0	1	0	0	0	0	4	1	0	0	2	2	0	0
Mexico	4,880	732	297	374	3	2	3	0	30	7	6	4	2	6	0	4
Moldova																
Mongolia	93	33		18												
Morocco	1,456	294	2	193	16	8	12	7	79	3	3	5	1	26	5	7
Mozambique	158	13	20	2					3	3	1	3				
Myanmar	757	127	9	34								3				
Namibia	71	11												1	3	
Nepal	648	117		10			2	1	7	24		3				
Netherlands	1,535	243	0	663	13	5	8	2	31	3	25	14	3	19	2	45
New Zealand	375	96	0	768	15	0	5	0	21	2	9	6	6	6	1	94
Nigeria	691	33	19	15												
Norway	346	111	0	468	3	2	5		38	5	2	5		15	6	2
Pakistan	2,720	481		607	26	4	24	8	44	39	1	49	1	31	3	1
Palestine	292	64		66		7	4	1	2	16		2	96	10		
Panama	289	39	0	548	0	0	0	0	12	16	0	0	0	11	1	79
Paraguay	278	34	0	4												
Peru	914	154		229					4	1						
Philippines	1,217	216	211	50												
Poland	2,754	477	0	2,804	166	1	36	6	408	32	102	15	7	33	9	326
Portugal	818	210		990	39	2	31	4	444	23	179	92	25	36	31	272
Qatar	56	13	0	49	0	0	1	0	3	1	0	2	0	2	5	3
Romania	1,615	210		325	2			1	10		2	1	3			
Russia	7,003	1,301		3,120												
Saudi Arabia	1,134	262	7	590	15	24	57	15	119	71	31	144	5	319	41	57
Senegal	302	49	0	16	1		1		6	1		1		5	1	6
Serbia	485	93	0	334	12	0	4	2	46	2	14	5	1	0	2	0
Singapore	227	50	0	102	0	0	14	0	9	0	53	5		4		6
Slovakia	622	95	0	790	440	0	89	1	998	42	82	11	0	10	15	35

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
Slovenia	241	34	0	221	4	0	14	3	25	5	29	0	0	6	0	
South Africa	2,009	395	0	671	0	0	42	5	16	9	28	8	0	22	26	53
Spain	1,842	287		722	15	3	12		30	8	30	17		1	0	0
Sri Lanka	1,006	243	0	84	3	2	11	1	6	2	13	10		11		10
Suriname	14	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0
Sweden	844	220	2	977												
Switzerland	519	141	0	181	17		2		18	4	20	13		7	0	
Syria	1,046	120	0	183	33	0	19	34	57	4	0	2	1	60	11	31
Tanzania	273	18		3												
Thailand	1,778	233		171	1	1	9	4	29	3	3	3		13	11	17
The Gambia	9	12	0	0												
Togo	36	2	2													
Trinidad and Tobago	59	15	0	10			1			1						
Tunisia	489	124	0	261	38	1	15	11	111	7	59	33	5	71	9	13
Uganda	301	48	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Ukraine	1,860	328	0	469												
United Arab Emirates	78	22	0	15			1		5					6		
United Kingdom	7,666	1,721	0	11,759	1,128	22	303	31	2,227	372	4,272	91	1,700	143	101	3,759
United States of America	14,207	4,373	0	13,966	277	41	163	0	1,262	181	695	151	0	192	59	4,737
Uruguay	233	39	8	263			2		6	1	9			1	4	
Uzbekistan	1,641	205	10	328	13	2	4	0	30	9	17	0	11	32	3	8
Venezuela	2,307	618		1,200	21	65	41	29	174	111	399	15	20	28	6	179
Vietnam	3,527	761	0	198	35	8	22	17	101	29	37	30	3	116	4	248
Zambia	178	45	14	9	0	0	0	0	0	0	0	0	0	0	0	0
Zimbabwe	235	40														

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	124	208,957	189,750	91%	7,225	3%	9,754	5%
Hemophilia B	123	42,203	37,507	89%	2,331	6%	1,923	5%
Hemophilia Unknown	83	5,986	3,718	62%	2,144	36%	86	1%
VWD	115	100,505	31,496	31%	54,066	54%	13,080	13%
FI Deficiency	79	4,994	1,787	36%	2,209	44%	952	19%
FII Deficiency	70	603	206	34%	192	32%	197	33%
FV Deficiency	80	3,664	1,334	36%	1,434	39%	846	23%
FV+VIII Deficiency	68	998	605	61%	346	35%	31	3%
FVII Deficiency	90	18,129	7,145	39%	7,194	40%	3,561	20%
FX Deficiency	82	2,796	1,276	46%	1,140	41%	343	12%
FXI Deficiency	76	10,813	4,227	39%	5,335	49%	1,124	10%
FXIII Deficiency	82	3,309	1,277	39%	925	28%	960	29%
BD: Type Unknown	58	2,178	457	21%	1,685	77%	32	1%
Glanzmanns Thombasthenia	73	3,915	1,898	48%	1,787	46%	23	1%
Bernard Soulier Syndrome	64	1,009	436	43%	499	49%	54	5%
Platelet Disorders: Other/Unknown	61	17,626	5,672	32%	11,624	66%	290	2%

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

(111 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	19	0	2	0
Algeria	137	7	0	
Argentina	68	2	8	0
Australia	62	18	3	0
Austria	14		0	
Azerbaijan	38	2		
Bahamas	2	0		
Bahrain	2	2	0	0
Bangladesh	9			
Barbados	1		1	
Belarus	43	2	4	0
Belgium	10			
Botswana	3	1	0	0
Brazil	372		19	37
Burkina Faso	1	0	0	0
Cambodia	9	1	0	0
Cameroon	0	0	0	0
Canada	33	2	1	0
Chile	30	1	3	0
China	493	103	32	6
Colombia	173	3	23	1
Costa Rica	20	0	0	0
Côte d'Ivoire	3	0	1	0
Croatia	14	0	4	0
Cuba	30	0	0	0
Czechia	27	6	2	0
Dominican Republic	18		6	
Egypt	664	91	4	2
El Salvador	5	2	0	0
Eritrea	0	0	0	0
Estonia	3	1	0	0
Ethiopia	2	2	0	0

Country	Hemophilia A active inhibitors	Hemophilia A new cases inhibitors	Hemophilia B active inhibitors	Hemophilia B new cases inhibitors
Finland	13			
France	234	7	14	0
Georgia	13			
Germany	143		7	
Ghana	0	0	0	0
Greece	16	0	2	0
Honduras	13			
Hong Kong	8		1	
Hungary	30		0	
India	607	8	23	
Indonesia	67			
Iraq	220	18	8	
Ireland	9	0	3	0
Israel	15	3	2	0
Italy	62		7	
Japan	90		15	
Jordan	25	0	1	0
Kenya	15	6	5	0
Korea, Republic of	46		7	
Kuwait	8	2	0	0
Kyrgyzstan	6	0	0	0
Lebanon	12	2	1	
Lesotho	1	1		
Libya	8			
Lithuania	8	0	0	0
Luxembourg	0	0	0	0
Madagascar	4	1	1	0
Malaysia	76	4	5	
Maldives	1	0		
Mali	0	0	0	0
Mauritius	0	0	0	0
Mexico	288		16	
Moldova	2			
Mongolia	1			
Morocco	288	10	4	0
Mozambique	2			
Myanmar	51	1	0	
Namibia	4	0	0	0
Nepal	20	2		
Netherlands		4		0

Country	Hemophilia A active inhibitors	Hemophilia A new cases inhibitors	Hemophilia B active inhibitors	Hemophilia B new cases inhibitors
New Zealand	11	0	0	0
Norway	8	0	0	0
Pakistan	47	5	4	0
Palestine	3		0	
Panama	13	1	0	0
Paraguay	35	1		
Peru		12		1
Philippines	36	2	1	0
Poland	175		5	
Portugal	37	2	1	0
Qatar	4	1	0	0
Romania	71			
Saudi Arabia	135	13	2	0
Senegal	14	1	0	0
Serbia	15	0	0	0
Singapore	9	3	0	0
Slovakia	8	1	1	0
Slovenia	4	0	1	0
South Africa	178		13	
Sri Lanka	54	12		
Suriname	0	0	0	0
Sweden	35	4	4	0
Switzerland	8		0	
Syria	72		1	
Tanzania	4		2	
Thailand	104	6	1	0
Togo	1			
Trinidad and Tobago	5	1	2	0
Tunisia	31	11	4	0
Uganda		3		
United Arab Emirates	4	1	1	0
United Kingdom	238	16	16	1
United States of America	815		85	
Uruguay	8		1	
Uzbekistan	29	11	3	0
Venezuela	97	2	2	1
Vietnam	161	9	0	0
Zambia	3	3	0	0
Zimbabwe	5			

TABLE 10. Age distribution: Hemophilia A

(111 countries reported age data for hemophilia A)

Country	Hemophilia A	0–4	5–13	14–18	19–44	45+	Age not known
Afghanistan	875	7%	42%	16%	30%	4%	0%
Albania	220	0%	11%	6%	55%	28%	0%
Algeria	2,097	2%	14%	15%	58%	10%	0%
Argentina	2,493	2%	12%	10%	46%	28%	3%
Armenia	214	11%	23%	7%	36%	21%	2%
Australia	2,445	5%	14%	8%	38%	35%	0%
Austria	716	5%	10%	9%	44%	32%	0%
Azerbaijan	1,092	2%	15%	8%	43%	32%	0%
Bahamas	8	0%	0%	13%	75%	13%	0%
Bahrain	100	10%	25%	34%	21%	10%	0%
Bangladesh	2,374	17%	33%	17%	30%	3%	0%
Barbados	16	6%	13%	6%	50%	25%	0%
Belarus	513	7%	12%	4%	77%	0%	0%
Belgium	1,077	2%	8%	7%	37%	47%	0%
Botswana	50	12%	32%	18%	36%	2%	0%
Brazil	11,384	5%	15%	9%	49%	23%	0%
Burkina Faso	122	32%	43%	10%	14%	1%	0%
Cambodia	229	4%	39%	23%	34%	0%	0%
Cameroon	194	19%	42%	30%	5%	3%	2%
Canada	3,442	4%	11%	7%	42%	36%	0%
Chile	1,687	4%	12%	10%	51%	23%	0%
China	27,689	4%	21%	12%	43%	16%	4%
Colombia	3,335	7%	11%	13%	58%	11%	0%
Costa Rica	184	2%	15%	13%	54%	16%	0%
Côte d'Ivoire	126	13%	33%	18%	32%	4%	0%
Croatia	280	4%	9%	7%	45%	35%	0%
Cuba	404	3%	10%	8%	49%	29%	0%
Czechia	919	7%	13%	8%	39%	34%	0%
Djibouti	7	0%	43%	43%	14%	0%	0%
Dominican Republic	470	4%	18%	8%	48%	6%	16%
Egypt	5,521	6%	23%	11%	51%	10%	0%
El Salvador	93	10%	56%	34%	0%	0%	0%
Eritrea	73	10%	30%	19%	37%	1%	3%
Estonia	102	6%	11%	7%	47%	26%	3%
Ethiopia	197	5%	36%	18%	40%	3%	0%

Country	Hemophilia A	0-4	5-13	14-18	19-44	45+	Age not known
France	7,893	4%	13%	9%	40%	34%	0%
Georgia	298	4%	18%	10%	43%	25%	0%
Ghana	385	22%	49%	15%	5%	2%	6%
Greece	835	3%	9%	5%	35%	48%	0%
Guyana	25	4%	28%	8%	40%	20%	0%
Honduras	313	7%	19%	12%	42%	4%	15%
Hong Kong	131	3%	15%	12%	58%	11%	1%
Hungary	910	3%	7%	5%	33%	51%	0%
India	21,620	2%	14%	13%	45%	11%	15%
Indonesia	2,690	7%	31%	18%	39%	4%	1%
Iraq	2,671	17%	37%	25%	19%	2%	0%
Ireland	703	6%	16%	9%	37%	32%	0%
Israel	645	14%	17%	9%	38%	22%	0%
Japan	5,776	4%	12%	6%	38%	39%	1%
Kenya	715	11%	35%	26%	18%	9%	0%
Korea, Republic of	1,789	2%	11%	6%	53%	28%	0%
Kuwait	32	25%	22%	16%	38%	0%	0%
Kyrgyzstan	343	16%	29%	25%	26%	3%	0%
Latvia	96	1%	0%	0%	45%	23%	31%
Lebanon	200	6%	22%	10%	43%	20%	1%
Lesotho	10	10%	20%	0%	70%	0%	0%
Libya	275	8%	23%	11%	46%	11%	0%
Lithuania	178	0%	0%	0%	0%	0%	100%
Madagascar	84	12%	33%	15%	33%	6%	0%
Malawi	34	0%	29%	18%	41%	0%	12%
Malaysia	899	8%	22%	10%	45%	15%	1%
Maldives	16	0%	25%	13%	38%	25%	0%
Mali	160	7%	49%	19%	20%	2%	3%
Mauritius	84	2%	4%	7%	48%	33%	6%
Mexico	4,880	1%	9%	11%	52%	19%	9%
Mongolia	93	16%	37%	15%	28%	3%	1%
Morocco	1,456	6%	11%	9%	23%	3%	49%
Mozambique	158	3%	9%	6%	53%	1%	27%
Myanmar	757	17%	32%	13%	29%	4%	5%
Nepal	648	8%	19%	14%	44%	11%	5%
Netherlands	1,535	3%	12%	7%	35%	43%	0%
New Zealand	375	2%	7%	5%	23%	19%	44%
Nigeria	691	4%	35%	15%	28%	4%	13%
Norway	347	2%	12%	10%	40%	35%	0%

Country	Hemophilia A	0–4	5–13	14–18	19–44	45+	Age not known
Pakistan	2,720	7%	30%	15%	42%	5%	2%
Palestine	292	4%	16%	8%	36%	13%	23%
Panama	289	3%	15%	9%	51%	22%	0%
Paraguay	278	5%	16%	9%	49%	13%	9%
Philippines	1,217	6%	13%	12%	49%	8%	12%
Poland	2,754	0%	0%	0%	0%	0%	100%
Portugal	818	2%	10%	6%	37%	33%	12%
Qatar	56	14%	23%	27%	32%	4%	0%
Saudi Arabia	1,134	22%	36%	19%	21%	1%	0%
Senegal	302	9%	29%	16%	40%	5%	0%
Serbia	485	4%	13%	4%	47%	32%	0%
Singapore	227	4%	11%	4%	39%	41%	0%
Slovakia	622	4%	9%	5%	35%	47%	0%
Slovenia	241	3%	11%	7%	30%	49%	0%
South Africa	2,009	2%	13%	10%	43%	30%	2%
Spain	1,842	1%	6%	5%	44%	44%	0%
Sri Lanka	1,006	20%	7%	6%	21%	5%	41%
Suriname	14	7%	29%	0%	50%	14%	0%
Sweden	844	5%	12%	9%	41%	31%	1%
Switzerland	519	0%	0%	0%	0%	0%	100%
Syria	1,046	6%	29%	17%	41%	5%	2%
Tanzania	273	3%	20%	7%	7%	0%	62%
Thailand	1,778	8%	25%	15%	39%	13%	0%
The Gambia	9	22%	44%	22%	11%	0%	0%
Togo	36	6%	36%	17%	33%	8%	0%
Trinidad and Tobago	59	3%	20%	5%	32%	15%	24%
Tunisia	333	5%	22%	11%	52%	9%	1%
Uganda	301	15%	48%	15%	21%	2%	0%
United Arab Emirates	78	9%	29%	29%	32%	0%	0%
United Kingdom	7,666	5%	12%	7%	39%	37%	0%
United States of America	14,207	8%	23%	12%	38%	19%	0%
Uruguay	233	4%	18%	9%	35%	34%	0%
Uzbekistan	1,641	11%	23%	9%	47%	10%	0%
Venezuela	2,307	2%	10%	8%	43%	21%	15%
Vietnam	3,527	6%	18%	12%	53%	11%	0%
Zambia	178	16%	33%	24%	13%	3%	12%
Zimbabwe	235	1%	7%	2%	43%	0%	48%

TABLE 11. Age distribution: Hemophilia B

(109 countries reported age data for hemophilia B)

Country	Hemophilia B	0–4	5–13	14–18	19–44	45+	Age not known
Afghanistan	215	30%	26%	21%	20%	2%	0%
Albania	39	0%	8%	8%	64%	21%	0%
Algeria	561	4%	19%	17%	42%	18%	0%
Argentina	399	3%	13%	12%	49%	21%	2%
Armenia	33	30%	21%	3%	21%	21%	3%
Australia	568	5%	9%	10%	36%	40%	0%
Austria	149	5%	15%	11%	40%	30%	0%
Azerbaijan	164	2%	19%	16%	43%	20%	0%
Bahamas	1	0%	0%	0%	100%	0%	0%
Bahrain	11	9%	27%	18%	9%	36%	0%
Bangladesh	459	23%	33%	17%	25%	2%	0%
Barbados	11	9%	9%	9%	45%	27%	0%
Belarus	124	0%	0%	80%	20%	0%	0%
Belgium	265	1%	8%	7%	33%	50%	0%
Botswana	8	13%	13%	38%	38%	0%	0%
Brazil	2,234	4%	14%	9%	50%	23%	0%
Burkina Faso	35	31%	34%	14%	20%	0%	0%
Cambodia	45	13%	38%	18%	24%	7%	0%
Cameroon	38	21%	34%	13%	24%	8%	0%
Canada	742	3%	10%	7%	41%	40%	0%
Chile	203	5%	14%	8%	50%	22%	0%
China	4,799	4%	23%	12%	41%	17%	4%
Colombia	738	5%	14%	8%	58%	16%	0%
Costa Rica	44	5%	18%	5%	52%	20%	0%
Côte d'Ivoire	18	6%	44%	28%	17%	6%	0%
Croatia	69	0%	14%	9%	58%	17%	1%
Cuba	85	6%	14%	7%	46%	27%	0%
Czechia	143	4%	14%	8%	31%	43%	0%
Dominican Republic	43	0%	28%	5%	56%	9%	2%
Egypt	1,278	6%	19%	13%	52%	9%	0%
El Salvador	17	12%	82%	6%	0%	0%	0%
Eritrea	8	13%	38%	0%	50%	0%	0%
Estonia	10	0%	30%	10%	40%	20%	0%
Ethiopia	38	5%	29%	18%	45%	3%	0%
France	1,909	5%	14%	10%	36%	34%	0%

Country	Hemophilia B	0–4	5–13	14–18	19–44	45+	Age not known
Georgia	60	12%	18%	5%	37%	28%	0%
Ghana	33	30%	42%	18%	9%	0%	0%
Greece	191	2%	9%	4%	33%	52%	0%
Honduras	30	7%	30%	17%	40%	3%	3%
Hong Kong	23	4%	9%	17%	35%	35%	0%
Hungary	250	3%	7%	3%	38%	48%	0%
India	3,557	2%	14%	12%	49%	13%	10%
Indonesia	403	8%	35%	18%	32%	2%	5%
Iraq	635	19%	36%	24%	16%	6%	0%
Ireland	233	4%	11%	10%	40%	35%	0%
Israel	113	19%	16%	14%	35%	17%	0%
Japan	1,294	4%	12%	6%	38%	39%	1%
Kenya	169	18%	40%	25%	11%	6%	0%
Korea, Republic of	451	1%	12%	9%	49%	28%	0%
Kuwait	8	13%	38%	13%	38%	0%	0%
Kyrgyzstan	61	15%	33%	16%	30%	7%	0%
Latvia	23	0%	0%	0%	52%	26%	22%
Lebanon	57	4%	23%	7%	53%	14%	0%
Lesotho	1	0%	0%	0%	100%	0%	0%
Libya	29	7%	24%	10%	52%	7%	0%
Lithuania	28	0%	0%	0%	0%	0%	100%
Madagascar	70	9%	44%	17%	24%	6%	0%
Malawi	8	0%	13%	13%	13%	0%	63%
Malaysia	149	9%	9%	15%	46%	19%	1%
Maldives	5	20%	60%	0%	20%	0%	0%
Mali	19	21%	47%	11%	21%	0%	0%
Mauritius	10	10%	20%	10%	50%	10%	0%
Mexico	732	1%	11%	10%	53%	18%	7%
Mongolia	33	15%	36%	6%	36%	6%	0%
Morocco	294	3%	7%	8%	26%	1%	54%
Mozambique	13	0%	0%	8%	62%	0%	31%
Myanmar	127	30%	27%	13%	22%	4%	5%
Nepal	117	1%	21%	23%	38%	14%	4%
Netherlands	243	4%	11%	7%	37%	42%	0%
New Zealand	96	4%	4%	2%	6%	16%	68%
Nigeria	33	12%	45%	15%	12%	6%	9%
Norway	111	4%	12%	6%	44%	34%	0%
Pakistan	481	6%	28%	12%	46%	6%	2%

Country	Hemophilia B	0-4	5-13	14-18	19-44	45+	Age not known
Palestine	64	8%	20%	3%	38%	14%	17%
Panama	39	13%	15%	5%	54%	13%	0%
Paraguay	34	6%	24%	15%	35%	15%	6%
Philippines	216	6%	17%	9%	54%	6%	9%
Poland	477	0%	0%	0%	0%	0%	100%
Portugal	210	1%	7%	5%	36%	29%	22%
Qatar	13	31%	15%	23%	31%	0%	0%
Saudi Arabia	262	23%	37%	13%	26%	1%	0%
Senegal	49	16%	37%	27%	18%	2%	0%
Serbia	93	3%	14%	9%	49%	25%	0%
Singapore	50	2%	16%	8%	46%	28%	0%
Slovakia	95	3%	17%	8%	48%	23%	0%
Slovenia	34	3%	3%	12%	38%	44%	0%
South Africa	395	4%	14%	12%	42%	28%	2%
Spain	286	2%	6%	6%	34%	45%	6%
Sri Lanka	243	21%	19%	7%	7%	8%	39%
Suriname	2	0%	0%	0%	0%	0%	100%
Sweden	220	2%	12%	9%	38%	38%	1%
Switzerland	141	0%	0%	0%	0%	0%	100%
Syria	120	13%	28%	19%	33%	5%	2%
Tanzania	18	11%	28%	11%	17%	0%	33%
Thailand	233	10%	27%	17%	28%	18%	0%
The Gambia	12	0%	42%	33%	25%	0%	0%
Togo	2	0%	0%	0%	100%	0%	0%
Trinidad and Tobago	15	0%	20%	13%	40%	20%	7%
Tunisia	92	10%	22%	13%	38%	17%	0%
Uganda	48	13%	38%	17%	33%	0%	0%
United Arab Emirates	22	9%	36%	32%	23%	0%	0%
United Kingdom	1,721	4%	14%	7%	37%	38%	0%
United States of America	4,373	10%	22%	11%	34%	24%	0%
Uruguay	39	5%	13%	8%	51%	21%	3%
Uzbekistan	205	23%	21%	10%	41%	5%	0%
Venezuela	618	1%	9%	10%	40%	25%	15%
Vietnam	761	6%	20%	11%	50%	14%	0%
Zambia	45	24%	20%	42%	13%	0%	0%
Zimbabwe	40	0%	20%	0%	80%	0%	0%

TABLE 12. Age distribution: Hemophilia Type Unknown

(24 countries reported age data)

Country	Hemophilia type unknown	0–4	5–13	14–18	19–44	45+	Age not known
Afghanistan	28	18%	25%	29%	29%	0%	0%
Bahamas	1	0%	0%	100%	0%	0%	0%
Bangladesh	6	0%	0%	100%	0%	0%	0%
Belgium	7	0%	0%	0%	0%	86%	14%
Cameroon	6	0%	0%	17%	67%	17%	0%
China	150	0%	19%	12%	39%	19%	10%
Dominican Republic	59	0%	2%	3%	42%	39%	14%
Ethiopia	170	2%	37%	21%	41%	0%	0%
Ghana	57	42%	23%	19%	16%	0%	0%
Hong Kong	1	0%	0%	0%	100%	0%	0%
India	538	1%	15%	4%	31%	7%	42%
Indonesia	62	5%	19%	6%	61%	3%	5%
Korea, Republic of	43	0%	9%	12%	33%	47%	0%
Mexico	297	0%	3%	4%	26%	17%	49%
Morocco	2	0%	0%	0%	50%	0%	50%
Mozambique	5	0%	0%	0%	0%	0%	100%
Myanmar	9	11%	78%	11%	0%	0%	0%
Nigeria	19	11%	21%	11%	5%	0%	53%
Philippines	211	2%	9%	12%	46%	6%	26%
Sweden	2	50%	0%	0%	0%	50%	0%
Togo	2	0%	100%	0%	0%	0%	0%
Uruguay	8	0%	0%	0%	0%	0%	100%
Uzbekistan	10	40%	30%	30%	0%	0%	0%
Zambia	14	14%	21%	0%	0%	0%	64%

TABLE 13. Age distribution: VWD

(94 countries reported age data)

Country	Total number of VWD patients	0-5	5-13	14-18	19-44	45+	Age not known
Afghanistan	12	17%	42%	25%	17%	0%	0%
Albania	8	0%	0%	0%	50%	50%	0%
Algeria	532	0%	0%	0%	0%	0%	100%
Argentina	403	0%	1%	3%	37%	45%	14%
Armenia	20	0%	15%	45%	35%	5%	0%
Australia	2,577	1%	7%	7%	44%	41%	0%
Azerbaijan	229	5%	10%	32%	31%	21%	0%
Bahamas	2	0%	0%	0%	100%	0%	0%
Bangladesh	6	17%	50%	0%	33%	0%	0%
Barbados	3	0%	0%	33%	33%	33%	0%
Belarus	207	0%	0%	5%	95%	0%	0%
Belgium	2,318	0%	7%	10%	43%	39%	1%
Botswana	9	0%	33%	67%	0%	0%	0%
Brazil	10,721	1%	8%	8%	54%	29%	0%
Cambodia	7	0%	57%	43%	0%	0%	0%
Cameroon	6	0%	0%	17%	67%	17%	0%
Canada	5,124	1%	7%	7%	47%	38%	0%
Chile	647	0%	0%	0%	0%	0%	100%
China	558	3%	33%	10%	31%	19%	5%
Colombia	3,818	4%	12%	17%	54%	14%	0%
Costa Rica	94	0%	0%	3%	41%	53%	2%
Côte d'Ivoire	4	25%	25%	0%	25%	25%	0%
Croatia	189	1%	5%	11%	46%	38%	0%
Cuba	512	2%	11%	29%	41%	16%	0%
Czechia	843	1%	9%	7%	42%	41%	0%
Dominican Republic	52	0%	6%	6%	71%	0%	17%
Egypt	687	3%	22%	11%	57%	7%	0%
El Salvador	7	0%	100%	0%	0%	0%	0%
Estonia	132	3%	21%	6%	43%	23%	4%
Fiji	1	0%	0%	0%	0%	0%	100%
France	3,578	3%	13%	10%	37%	37%	0%
Georgia	74	1%	14%	19%	49%	18%	0%

Country	Total number of VWD patients	0-5	5-13	14-18	19-44	45+	Age not known
Greece	1,389	2%	13%	12%	32%	40%	1%
Guyana	2	0%	0%	0%	100%	0%	0%
Honduras	16	6%	13%	19%	50%	0%	13%
Hong Kong	4	0%	0%	25%	50%	25%	0%
Hungary	1,473	2%	6%	5%	34%	53%	0%
India	958	2%	17%	12%	51%	12%	6%
Indonesia	21	0%	29%	5%	29%	5%	33%
Ireland	1,927	4%	18%	9%	41%	28%	0%
Kenya	14	0%	0%	14%	71%	14%	0%
Korea, Republic of	165	3%	7%	8%	58%	25%	0%
Kuwait	6	0%	67%	33%	0%	0%	0%
Latvia	91	0%	0%	0%	49%	11%	40%
Lebanon	190	3%	19%	9%	51%	14%	4%
Lesotho	1	0%	0%	0%	100%	0%	0%
Libya	32	3%	3%	6%	88%	0%	0%
Lithuania	312	0%	0%	0%	0%	0%	100%
Madagascar	2	0%	0%	50%	0%	50%	0%
Mali	15	7%	33%	20%	27%	13%	0%
Mauritius	1	0%	100%	0%	0%	0%	0%
Mexico	374	1%	6%	13%	42%	18%	20%
Mongolia	18	0%	6%	0%	89%	6%	0%
Morocco	193	2%	10%	5%	58%	18%	7%
Mozambique	3	0%	33%	0%	0%	67%	0%
Myanmar	34	21%	35%	18%	15%	0%	12%
Nepal	10	0%	40%	10%	30%	0%	20%
Netherlands	663	2%	13%	10%	33%	41%	0%
Nigeria	15	7%	20%	0%	53%	0%	20%
Norway	468	0%	2%	3%	39%	56%	0%
Pakistan	607	7%	30%	16%	43%	3%	0%
Palestine	66	3%	24%	14%	42%	2%	15%
Panama	548	1%	9%	16%	60%	15%	0%
Paraguay	4	0%	0%	0%	0%	25%	75%
Philippines	50	2%	10%	10%	28%	6%	44%
Poland	2,804	0%	0%	0%	0%	0%	100%

Country	Total number of VVD patients	0-5	5-13	14-18	19-44	45+	Age not known
Portugal	533	2%	12%	7%	43%	36%	0%
Qatar	49	0%	0%	31%	20%	49%	0%
Saudi Arabia	590	5%	7%	41%	35%	12%	0%
Senegal	16	13%	19%	31%	31%	6%	0%
Serbia	334	2%	10%	3%	49%	37%	0%
Singapore	102	3%	6%	11%	28%	52%	0%
Slovakia	790	1%	5%	4%	50%	40%	0%
Slovenia	221	2%	7%	6%	50%	34%	0%
South Africa	671	0%	3%	5%	42%	46%	4%
Spain	722	1%	1%	1%	23%	57%	17%
Sri Lanka	84	13%	24%	6%	10%	10%	38%
Suriname	3	0%	0%	33%	33%	33%	0%
Sweden	977	2%	9%	5%	38%	45%	0%
Switzerland	181	0%	0%	0%	0%	0%	100%
Syria	183	2%	16%	15%	55%	11%	0%
Tanzania	3	0%	0%	0%	33%	0%	67%
Thailand	171	2%	11%	24%	32%	15%	15%
Trinidad and Tobago	10	0%	0%	0%	10%	10%	80%
Tunisia	148	5%	13%	9%	49%	13%	11%
Uganda	2	0%	0%	50%	0%	50%	0%
United Arab Emirates	15	0%	20%	40%	40%	0%	0%
United Kingdom	11,759	3%	10%	7%	41%	40%	0%
United States of America	13,966	6%	28%	24%	28%	14%	0%
Uruguay	263	0%	0%	2%	2%	2%	95%
Uzbekistan	328	13%	43%	21%	15%	9%	0%
Venezuela	1,200	1%	7%	11%	49%	30%	3%
Vietnam	198	5%	25%	12%	44%	14%	0%
Zambia	9	0%	22%	67%	0%	11%	0%

TABLE 14. Percentage of severe patients on prophylaxis

(107 countries reported prophylaxis data)

Country	Percent 18 and under on prophylaxis	Precise or Estimate	Percent 19 and over on prophylaxis	Precise or Estimate
Afghanistan	66	Estimate	34	Estimate
Albania	100	Estimate	50	Estimate
Algeria	95	Estimate	75	Estimate
Angola	0	Precise	0	Precise
Argentina	90	Estimate	20	Estimate
Australia	97	Estimate	89	Estimate
Austria	90	Precise	81	Precise
Azerbaijan	23	Precise	18	Precise
Bahamas	0	Precise	2	Precise
Bahrain	100	Precise	50	Precise
Belarus	100	Precise	25	Precise
Belgium	90	Estimate	90	Estimate
Brazil	82	Precise	90	Estimate
Burkina Faso	26	Precise	17	Precise
Cambodia	40	Estimate	10	Estimate
Cameroon	82	Precise	8	Precise
Canada	94	Estimate	87	Estimate
Chile	97	Estimate	70	Estimate
Colombia	99	Precise	96	Precise
Costa Rica	100	Precise	70	Estimate
Côte d'Ivoire	80	Precise	0	Precise
Croatia	100	Precise	94	Precise
Cuba	5	Precise	7	Precise
Czechia	95	Precise	79	Precise
Djibouti	43	Precise	14	Precise
Dominican Republic	42	Estimate	0	Estimate
Egypt	20	Estimate		Estimate
El Salvador	100	Precise		Estimate
Eritrea	90	Precise	0	Precise
Estonia	100	Precise	76	Precise
Ethiopia	0	Precise	0	Precise
Finland	95	Estimate		Estimate
France	86	Precise	71	Precise
Georgia	73	Estimate	10	Estimate

Country	Percent under 18 on prophylaxis	Precise or Estimate	Percent 19 and over on prophylaxis	Precise or Estimate
Germany	99	Estimate		Estimate
Ghana	80	Estimate	50	Estimate
Greece	96	Precise	76	Precise
Guyana	100	Precise	100	Precise
Honduras	8	Estimate	1	Estimate
Hong Kong	92	Estimate	85	Estimate
Hungary	100	Precise	70	Precise
Iran	65	Estimate	20	Estimate
Iraq	100	Precise	16	Estimate
Ireland	96	Estimate	95	Estimate
Israel	95	Precise	85	Precise
Italy	91	Precise	91	Precise
Japan	90	Estimate	80	Estimate
Jordan	25	Estimate	25	Estimate
Kenya	35	Precise	54	Precise
Korea, Republic of	73	Estimate	61	Estimate
Kosovo	11	Estimate	2	Estimate
Kuwait	100	Precise		Estimate
Kyrgyzstan	1	Estimate	0	Precise
Latvia	100	Precise	100	Estimate
Lebanon	30	Estimate	10	Estimate
Lesotho	33	Precise	75	Precise
Lithuania	100	Precise	65	Precise
Luxembourg	100	Precise	95	Estimate
Madagascar	30	Estimate	16	Estimate
Malawi	80	Estimate	83	Estimate
Malaysia	80	Estimate	90	Estimate
Maldives	1	Estimate		Estimate
Mali	90	Precise	18	Precise
Malta	100	Precise	94	Precise
Mauritius	100	Precise	100	Precise
Mexico	96	Estimate	50	Estimate
Moldova	0	Precise	0	Precise
Morocco	40	Estimate	40	Estimate
Myanmar	65	Precise	35	Precise
Netherlands	100	Estimate	96	Estimate
New Zealand	99	Estimate	90	Estimate
Nigeria	96	Estimate	1	Estimate

Country	Percent under 18 on prophylaxis	Precise or Estimate	Percent 19 and over on prophylaxis	Precise or Estimate
Norway	100	Estimate	90	Estimate
Pakistan	34	Precise	0	Precise
Palestine	65	Estimate	25	Estimate
Panama	100	Precise	80	Precise
Paraguay	100	Precise	100	Precise
Peru	100	Estimate	60	Estimate
Philippines	1	Estimate	1	Estimate
Poland	100	Precise	64	Precise
Qatar	70	Precise	80	Precise
Romania	100	Estimate	45	Estimate
Russia	90	Precise	75	Precise
Saudi Arabia	30	Estimate	50	Estimate
Senegal	27	Precise	4	Precise
Serbia	95	Precise	90	Precise
Singapore	98	Precise	70	Estimate
Slovakia	98	Precise	75	Precise
Slovenia	100	Estimate	95	Estimate
South Africa	50	Estimate	30	Estimate
Sri Lanka	45	Estimate		Estimate
Suriname	20	Precise	44	Precise
Sweden	95	Estimate	90	Estimate
Switzerland	99	Precise	89	Precise
Syria	14	Estimate	0	Precise
Thailand	62	Precise	14	Precise
Trinidad and Tobago	80	Estimate	32	Estimate
Tunisia	75	Precise	47	Precise
Uganda	30	Precise	5	Precise
United Arab Emirates	10	Precise	10	Precise
United Kingdom	93	Precise	90	Estimate
Uruguay	100	Precise	53	Estimate
Uzbekistan	98	Precise	95	Precise
Venezuela	40	Estimate	30	Estimate
Vietnam	17	Estimate	4	Estimate
Zambia	29	Precise	29	Precise
Zimbabwe	25	Estimate	85	Estimate

TABLE 15. Use of Factor Concentrates in 2022: Factor VIII

(102 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 2022 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
Afghanistan	2,094,000							2,094,000	1,523,000	500,000	0.051	
Albania	9,000,000	2,900,000	100,000	0	32	1	0	6,000,000			3.243	1.081
Algeria	124,114,550	60,678,000	46,109,750		49	37					2.764	2.764
Angola	560,000							260,000	100,000	50,000	0.016	0.008
Argentina	256,320,000	136,000,000	103,400,000	12,300,000	53	40	5	4,620,000	2,980,500	0	5.544	5.444
Armenia	3,185,000							1,585,000	408,000	1,177,000	1.145	0.575
Australia	99,153,835	10,312,000	47,222,835	41,619,000	10	48	42	0			3.817	3.817
Azerbaijan	40,000,000	35,000,000	5,000,000		88	13					3.931	3.931
Bahamas	184,000	0	0	0	0	0	0	184,000	0	187,500	0.449	0.000
Bahrain	9,000,000	0	9,000,000	0	0	100	0	0			6.113	6.113
Bangladesh	5,692,000	900,000			16			4,792,000	192,000	4,600,000	0.033	0.005
Barbados	791,000							791,000	72,000	719,000	2.809	
Belarus	25,600,000										2.780	2.780
Brazil	1,002,684,000	207,005,000	795,679,000	0	21	79	0				4.657	4.657
Burkina Faso	569,000	0	0	0	0	0	0	569,000	294,000	275,000	0.025	0
Cambodia	2,388,000							2,388,000	672,000	1,716,000	0.142	
Cameroon	715,000							715,000	120,000	595,000	0.026	
Canada	200,313,959	25,244,191	101,624,174	73,445,594	13	51	37	0			5.146	5.146
Chile	75,003,250	75,003,250		0	100		0	0			3.826	3.826
Colombia	244,468,000	49,131,000	180,903,000	14,384,000	20	74	6	50,000			4.713	4.712
Costa Rica	17,931,000	17,931,000	0	0	100	0	0	0			3.461	3.461

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
Côte d'Ivoire	990,000	0	0	0	0	0	0	990,000	490,000	500,000	0.035	0
Cuba	4,300,500	250,000	0	0	6	0	0	2,800,500	2,000,000	670,500	0.384	0.134
Czechia	65,365,684	3,194,013	15,578,663	46,593,008	5	24	71	0			6.210	6.210
Djibouti	136,000							136,000			0.121	
Dominican Republic	2,225,250							2,225,250	106,000	2,069,250	0.198	
Egypt	81,324,500	24,000,000	45,000,000		30	55		12,324,500	0	12,324,500	0.733	0.622
El Salvador	16,148,000	15,500,000	0	0	96	0	0	648,000	120,000	528,000	2.548	2.446
Eritrea	808,000	0	0	0	0	0	0	808,000	200,000	608,000	0.219	0
Estonia	7,476,000	0	137,000	7,339,000	0	2	98	0			5.559	5.559
Ethiopia	3,015,000	0	0	0	0	0	0	3,015,000	120,000	2,800,000	0.024	0
Finland	38,945,000	1,409,000	9,780,750	27,755,250	4	25	71	0			7.008	7.008
France	328,668,150	24,564,400	125,701,000	178,402,750	7	38	54				4.838	4.838
Georgia	12,079,300	12,079,300			100						3.254	3.254
Germany	646,370,906	160,393,723			25			0			7.688	7.688
Ghana	2,052,300	0	0	0	0	0	0	2,052,300	420,000	1,500,000	0.061	0
Greece	62,862,300	2,298,800	23,503,000	37,060,500	4	37	59	0			5.949	5.949
Guyana	1,372,000							1,372,000	150,000	400,000	1.696	
Honduras	12,620,000	10,650,000	0	0	84	0	0	1,970,000	420,000	1,250,000	1.210	1.021
Hungary	140,538,000	45,072,000	63,451,000	32,015,000	32	45	23				14.513	14.513
India	222,594,501	79,200,000	71,280,000	7,920,000	36	32	4	64,194,501	0	19,652,000	0.157	0.112
Indonesia	84,335,975	82,123,475			97			2,212,500	0	2,212,500	0.306	0.298
Iraq	35,000,000	0	35,000,000	0	0	100	0	0			0.787	0.787
Ireland	26,443,750	0	21,000	26,422,750	0	0	100	0			5.198	5.198
Japan	640,721,000	47,474,000	179,998,000	413,249,000	7	28	65	0			5.121	5.121
Jordan	13,160,000							3,160,000	210,000	2,950,000	1.166	0.886
Kenya	2,892,000	0	0	0	0	0	0	2,892,000	1,992,000	900,000	0.054	0
Kyrgyzstan	7,516,000	4,768,000	0	0	63	0	0	2,748,000	1,248,000	1,500,000	1.105	0.701
Latvia	9,779,000	607,000	7,312,000	1,860,000	6	75	19	0			5.192	5.192
Lebanon	9,208,000			0			0	3,358,000	1,041,000	2,317,000	1.677	1.066
Lithuania	35,571,000	7,897,500	17,451,500	10,240,000	22	49	29				12.556	12.556
Madagascar	1,805,000	0	0	0	0	0	0	1,805,000	1,018,000	400,000	0.061	0
Malawi	470,000	0	0	0	0	0	0	470,000	120,000	350,000	0.023	0

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
Maldives	550,000	0	0	0	0	0	0	550,000	150,000	400,000	1.050	0
Mali	1,274,000	0	0	0	0	0	0	1,274,000	624,000	650,000	0.056	0
Mauritius	5,775,000	5,775,000	0	0	100	0	0	0			4.574	4.574
Mexico	348,246,250	29,412,080	316,090,170		8	91		2,744,000			2.731	2.710
Mongolia	4,009,250							3,066,750	120,000	2,946,750	1.180	0.277
Morocco	1,400,000							1,400,000	0	1,400,000	0.037	
Mozambique	320,000							320,000	120,000	200,000	0.010	
Myanmar	14,359,250		45,000			0		14,314,250	0	6,046,000	0.265	0.001
Nepal	18,400,000							2,300,000	1,000,000	1,300,000	0.602	0.527
Netherlands	75,747,750	0	46,250,500	29,497,250	0	61	39				4.279	4.279
Nigeria	4,120,000	0	0	0	0	0	0	4,120,000	120,000	3,500,000	0.019	0
Pakistan	11,835,250	1,080,000			9			10,755,250	6,564,000	4,191,250	0.050	0.005
Palestine	5,643,500							1,079,000			1.119	0.905
Panama	17,033,000	15,800,000	909,000	324,000	93	5	2	0			3.864	3.864
Paraguay	10,417,000	2,507,000	1,489,000	0	24	14	0	6,421,000	260,000	650,000	1.536	0.589
Peru	62,500,000	62,500,000	0	0	100	0	0	0			1.836	1.836
Philippines	7,322,000	1,558,000	19,000	0	21	0	0	5,745,000	0	3,500,000	0.063	0.014
Poland	291,963,800		7,037,250			2					7.773	7.773
Portugal	37,843,500	0	4,418,500	33,425,000	0	12	88				3.646	3.646
Qatar	29,000,000	0	19,500,000	9,500,000	0	67	33	0			10.760	10.760
Romania	76,922,500	35,836,750	34,091,000	6,994,750	47	44	9	0			4.058	4.058
Russia	1,163,492,316	486,397,628	650,554,250	26,540,438	42	56	2				8.105	8.105
Saudi Arabia	143,964,000	40,572,000	24,000,000	79,392,000	28	17	55	0			3.954	3.954
Senegal	995,000	0	0	0	0	0	0	995,000	384,000	472,250	0.057	0
Serbia	29,689,000	2,959,000	26,730,000	0	10	90	0	0			4.392	4.392
Singapore	18,138,250	2,527,000	15,611,250	0	14	86	0	0			3.218	3.218
Slovakia	51,200,000	20,100,000	21,500,000	9,600,000	39	42	19	0			9.426	9.426
Slovenia	21,484,750	1,766,000	2,185,750	17,533,000	8	10	82	0			10.188	10.188
South Africa	73,652,500	72,135,500	1,517,000	0	98	2	0	0			1.230	1.230
Sri Lanka	23,911,350	8,580,870			36			15,330,480	0	7,212,250	1.078	0.387
Suriname	1,000,000	0	0	0	0	0	0	1,000,000	528,000	450,000	1.618	0
Sweden	101,021,750	0	46,130,250	54,891,500	0	46	54	0			9.633	9.633
Switzerland	56,251,490	420,000	12,572,635	43,258,855	1	22	77	0			6.414	6.414

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
Syria	15,685,750	8,651,250	0	0	55	0	0	7,034,500	3,748,000	3,050,000	0.709	0.391
Tanzania	1,369,250							1,369,250	317,000	1,052,250	0.021	
Thailand	46,232,500	23,650,000	19,575,000	2,614,000	51	42	6	393,500			0.645	0.639
Togo	170,000							170,000	120,000	50,000	0.019	
Trinidad and Tobago	460,000							460,000	360,000	100,000	0.300	
Tunisia	22,125,000	10,960,000	11,165,000	0	50	50	0	0			1.791	1.791
Uganda	1,470,000	0	0	0	0	0	0	1,470,000	520,000	950,000	0.031	0
Ukraine	8,342,500							8,342,500	0	8,342,500	0.220	
United Kingdom	399,630,657	3,327,025	225,340,767	170,962,865	1	56	43	0			5.967	5.967
United States of America	1,395,000,000	95,000,000	860,000,000	440,000,000	7	62	32				4.186	4.186
Uruguay	8,497,000	8,497,000	0	0	100	0	0	0			2.482	2.482
Uzbekistan	27,234,500	20,832,000	50,000	50,000	76	0	0	6,402,500	1,862,000	1,795,250	0.764	0.584
Venezuela	19,175,000	239,000	9,385,000		1	49		9,551,000	3,072,000	6,479,000	0.678	0.340
Vietnam	26,880,500	14,329,250	11,301,250	0	53	42	0	1,250,000	0	1,250,000	0.274	0.261
Zambia	1,883,000							1,883,000	1,143,000	740,000	0.094	
Zimbabwe	3,606,858	0	0	0	0	0	0	3,606,858	624,000	1,720,000	0.221	0
TOTAL	9,323,804,681	2,116,998,005	4,250,720,244	1,855,189,510				246,577,389	37,652,500	121,198,750		

TABLE 16. Use of Factor Concentrates in 2022: Factor IX

(90 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 2022 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	650,000	100,000	50,000	0	15	8	0	500,000			0.234	0.054
Algeria	17,326,800	17,326,800			100						0.386	0.386
Angola	250,000							100,000	0	50,000	0.007	0.004
Argentina	28,100,000	11,200,000	14,600,000	2,300,000	40	52	8	0			0.608	0.608
Armenia	550,000							250,000	200,000	1,177,000	0.198	0.108
Australia	31,068,450	607,000	9,945,700	20,515,750	2	32	66	0			1.196	1.196
Azerbaijan	5,000,000	5,000,000	0		100	0					0.491	0.491
Bahrain	2,600,000	0	0	2,600,000	0	0	100	0			1.766	1.766
Bangladesh	546,250							546,250	216,750	4,600,000	0.003	
Belarus	6,253,500										0.679	0.679
Brazil	146,978,500	146,978,500	0	0	100	0	0				0.683	0.683
Burkina Faso	312,000	0	0	0	0	0	0	312,000	312,000	275,000	0.014	0.000
Cambodia	387,500							387,500	0	1,716,000	0.023	
Cameroon	250,000							250,000	200,000	595,000	0.009	
Canada	51,164,728	1,479,908	28,684,459	21,000,361	3	56	41	0			1.314	1.314
Chile	13,420,500	13,420,500	0	0	100	0	0	0			0.685	0.685
Colombia	38,604,000	14,664,000	3,299,500	20,640,500	38	9	53	0			0.744	0.744
Costa Rica	3,618,000	3,618,000	0	0	100	0	0	0			0.698	0.698
Côte d'Ivoire	420,000	0	0	0	0	0	0	420,000	420,000	500,000	0.015	0.000
Czechia	7,937,929	975,208	821,654	6,141,067	12	10	77	0			0.754	0.754
Dominican Republic	600,000							600,000	50,000	2,069,250	0.053	
Egypt	1,227,250							1,227,250	0	12,324,500	0.011	
El Salvador	1,400,000							0		528,000	0.221	0.221

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
Estonia	391,200	391,200	0	0	100	0	0	0			0.291	0.291
Ethiopia	400,000	0	0	0	0	0	0	400,000	0	2,800,000	0.003	0
Finland	6,360,500	480,000	2,552,500	3,328,000	8	40	52	0			1.145	1.145
France	76,705,000	3,513,000	9,983,500	63,208,500	5	13	82				1.129	1.129
Georgia	1,614,750	1,614,750			100						0.435	0.435
Germany	71,030,650	12,209,100	18,386,800	40,434,750	17	26	57	0			0.845	0.845
Ghana	322,000	0	0	0	0	0	0	322,000	100,000	1,500,000	0.010	0
Greece	6,343,000	0	1,340,000	5,003,000	0	21	79	0			0.600	0.600
Honduras	329,500	129,500	0	0	39	0	0	200,000	0	1,250,000	0.032	0.012
Hungary	8,086,000	8,086,000	0		100	0					0.835	0.835
India	21,364,250	16,031,000	1,886,000	943,000	75	9	4	2,504,250	0	19,652,000	0.015	0.013
Indonesia	7,974,750	7,274,750			91			700,000	500,000	2,212,500	0.029	0.026
Iraq	12,000,000	0	12,000,000	0	0	100	0	0			0.270	0.270
Ireland	11,367,250	0	0	11,367,250	0	0	100	0			2.235	2.235
Japan	112,499,000	15,487,000	17,033,000	79,979,000	14	15	71	0			0.899	0.899
Jordan	3,100,000							600,000	6,000	2,950,000	0.275	0.222
Kenya	300,000	0	0	0	0	0	0	300,000	0	900,000	0.006	0
Kyrgyzstan	4,029,000	3,429,000	0	0	85	0	0	600,000	0	1,500,000	0.592	0.504
Latvia	1,077,000	1,077,000	0	0	100	0	0	0			0.572	0.572
Lebanon	2,049,000			0			0	778,000	306,000	2,317,000	0.373	0.232
Lithuania	10,482,600	10,482,600			100						3.700	3.700
Madagascar	1,002,000	0	0	0	0	0	0	1,002,000	902,000	400,000	0.034	0
Malawi	103,500	0	0	0	0	0	0	103,500	100,000	350,000	0.005	0
Mali	444,000	0	0	0	0	0	0	444,000	70,000	650,000	0.020	0
Mauritius	200,000	200,000	0	0	100	0	0				0.158	0.158
Mexico	6,902,890	6,902,890			100						0.054	0.054
Mongolia	700,000							300,000	200,000	2,946,750	0.206	0.118
Mozambique	99,500							99,500	99,500	200,000	0.003	
Myanmar	1,139,750							1,139,750	0	6,046,000	0.021	
Nepal	799,000							799,000	449,000	1,300,000	0.026	
Netherlands	17,987,350	45,600	5,326,250	12,615,500	0	30	70				1.016	1.016
Nigeria	681,000	0	0	0	0	0	0	681,000	200,000	3,500,000	0.003	0
Pakistan	1,715,000	615,000			36			1,100,000	0	4,191,250	0.007	0.003
Palestine	509,500										0.101	0.101

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
Panama	1,303,500	1,051,250	252,250	0	81	19	0	0			0.296	0.296
Paraguay	960,000	611,000	0	0	64	0	0	349,000	0	650,000	0.142	0.090
Philippines	865,000	0	0	0	0	0	0	865,000	0	3,500,000	0.007	0
Poland	46,113,900		6,152,000			13					1.228	1.228
Portugal	22,153,500	0	0	22,153,500	0	0	100				2.134	2.134
Qatar	7,000,000	4,500,000	0	2,500,000	64	0	36	0			2.597	2.597
Romania	9,789,750	7,138,000		2,651,750	73		27	0			0.516	0.516
Russia	158,275,804	107,860,804	50,415,000	0	68	32	0				1.103	1.103
Saudi Arabia	19,805,000	11,555,000	6,600,000	1,650,000	58	33	8	0			0.544	0.544
Senegal	409,500	0	0	0	0	0	0	409,500	359,500	472,250	0.024	0
Serbia	4,333,000	582,000	3,751,000	0	13	87	0	0			0.641	0.641
Singapore	3,644,000	178,000	3,250,000	216,000	5	89	6	0			0.646	0.646
Slovakia	4,960,000	2,760,000	200,000	2,000,000	56	4	40	0			0.913	0.913
Slovenia	2,195,000	0	1,398,000	797,000	0	64	36	0			1.041	1.041
South Africa	11,661,500	11,661,500	0	0	100	0	0	0			0.195	0.195
Sri Lanka	1,536,000	1,500,000			98			36,000	0	7,212,250	0.069	0.068
Sweden	16,331,500	1,120,000	4,154,000	11,057,500	7	25	68	0			1.557	1.557
Switzerland	10,074,730	543,000	784,461	8,747,269	5	8	87	0			1.149	1.149
Syria	2,520,000	1,870,000	0	0	74	0	0	650,000	650,000	3,050,000	0.114	0.085
Tanzania	225,000							225,000	100,000	1,052,250	0.003	
Thailand	4,507,500	4,500,000	7,500	0	100	0	0	0			0.063	0.063
The Gambia	50,000	0	0	0	0	0	0	50,000			0.018	0
Tunisia	3,029,000	3,029,000	0	0	100	0	0	0			0.245	0.245
Uganda	450,000	0	0	0	0	0	0	450,000	200,000	950,000	0.010	0
Ukraine	303,500							303,500	0	8,342,500	0.008	
United Kingdom	80,839,160	998,060	28,912,300	50,928,800	1	36	63	0			1.207	1.207
United States of America	525,000,000	25,000,000	250,000,000	250,000,000	5	48	48				1.575	1.575
Uruguay	1,510,000	1,510,000	0	0	100	0	0	0			0.441	0.441
Uzbekistan	4,894,000	3,644,000	0	0	74	0	0	1,250,000	350,000	1,795,250	0.137	0.102
Venezuela	1,391,250	679,500			49			711,750	0	6,479,000	0.049	0.024
Vietnam	8,906,000	7,906,000	0	0	89	0	0	1,000,000	0	1,250,000	0.091	0.081
Zambia	150,000							150,000	0	740,000	0.007	
Zimbabwe	373,750	0	0	0	0	0	0	373,750	0	1,720,000	0.023	0
TOTAL	1,704,335,191	503,535,420	481,785,874	642,778,497				23,489,500	5,990,750	115,713,750		

TABLE 17. Use of Hemlibra in 2022

(96 countries reported Hemlibra data)

Country	Number of patients with inhibitors treated with Hemlibra	Number of patients without inhibitors treated with Hemlibra	Total Hemlibra purchased(mg)	Total WFH Hemlibra donations (mg)
Argentina	60	6		
Armenia	46	46		64,260
Australia	47	342	2,084,209	
Austria	6	20		
Azerbaijan	3			
Bahamas		1		
Bahrain	4	5	30,500	
Bangladesh				221,790
Belarus	7	0		
Belgium	10	285		
Botswana	3	0		
Brazil	102	0		
Burkina Faso	1	25	0	49,140
Cambodia	8	41		90,720
Cameroon	17	17		22,680
Canada	90	438	3,098,490	
Chile	30	4	59,880	
Colombia	95	8	329,565	
Costa Rica	16	5	12,315	
Côte d'Ivoire	3	47		
Croatia	12			
Cuba	11	12	63,150	
Czechia	24	57	255,733	
Egypt			900,000	
El Salvador	2	0	2,160	
Estonia	4	11	38,685	
Finland	13	23	98,670	
France	103	558	4,089,105	
Georgia	5	2	30,975	
Germany			1,566,764	

Country	Number of patients with inhibitors treated with Hemlibra	Number of patients without inhibitors treated with Hemlibra	Total Hemlibra purchased(mg)	Total WFH Hemlibra donations (mg)
Ghana	1	54	0	132,300
Greece	12	8	107,280	
Honduras	8	3	0	52,920
Hong Kong	5	10		
Hungary	16	0		
Indonesia			8,370	
Iraq	220		750,000	
Ireland			665,670	
Israel	30	140		
Italy	23	73		
Japan	84	660	6,426,480	
Kenya	15	46	0	170,100
Kuwait	8	3		
Kyrgyzstan	6	3		
Latvia			16,095	
Lebanon	2	0	2,880	
Lithuania	8	10	61,530	
Madagascar	4	13	0	52,920
Malawi		6		18,900
Malaysia	18			
Maldives		1		
Mali	4	29	0	59,880
Mauritius		2	450	
Mexico			512,500	
Morocco	8	10		
Mozambique	2	19	0	22,680
Myanmar	36	48		230,580
Namibia	4	0		
Nepal	14	50		196,560
Netherlands	26	296	1,449,135	
New Zealand	10	1		
Nigeria	0	56	0	232,560
Norway	11	7		

Country	Number of patients with inhibitors treated with Hemlibra	Number of patients without inhibitors treated with Hemlibra	Total Hemlibra purchased(mg)	Total WFH Hemlibra donations (mg)
Pakistan	47	52		491,400
Panama	10	1	2,400	
Paraguay	27	4	62,490	
Peru	1	0		
Philippines	1		0	
Poland	50	2	304,545	
Portugal	29	6	108,405	
Qatar	0	2	0	
Romania	40	37	134,580	
Russia	157	442	18,367	
Saudi Arabia	60	40	163,488	
Senegal	9	31	0	72,750
Serbia	9	31	93,870	
Singapore	7	11	45,090	
Slovakia	5	5	26,000	
Slovenia	3	22	138,786	
South Africa	27	27	119,550	
Sri Lanka	67	23	0	143,640
Sweden	23	41	158,310	
Switzerland			418,290	
Syria	6	5	0	56,700
Tanzania	4	98		81,390
Thailand	7	4	4,470	
Tunisia	1	0		
Uganda	35	35	24,060	24,060
United Arab Emirates	8	2		
United Kingdom	139	929	4,472,068	
United States of America			25,000,000	
Uruguay	1	52	146,985	
Uzbekistan	17	6	24,720	
Venezuela	34	31	0	185,220
Vietnam	64	17	2,100	267,660
Zambia	3	27		41,130

TABLE 18. Use of FVIIa and FEIBA

(88 countries reported FVIIa and FEIBA data)

Country	Number of patients treated with recombinant factor VIIa	Precise or Estimate	Total FVIIa purchased (mg)	Number of patients treated FEIBA	Precise or Estimate	Total FEIBA purchased (IU)
Albania	4	Estimate	540			0
Algeria			2,263,200			13,324,500
Argentina	55	Estimate	45,700	15	Estimate	4,500,000
Australia	21	Estimate	16,126	2	Estimate	645,000
Azerbaijan	7	Precise		28	Estimate	
Bahamas	0	Precise	0	0	Precise	0
Bahrain	2	Precise	3,000	0	Precise	0
Bangladesh				5	Estimate	
Brazil			99,444			59,812,000
Burkina Faso	0	Precise	0	0	Precise	0
Cambodia	0	Precise		0	Precise	
Cameroon	0	Precise		0	Precise	
Canada	6	Estimate	21,615	6	Estimate	6,484,640
Chile	8	Estimate	3,790	4	Estimate	585,000
Colombia	25	Estimate	40,260	12	Estimate	12,578,000
Costa Rica			46,300			1,066,500
Côte d'Ivoire	0	Precise	0	0	Precise	0
Cuba	5	Precise	800	0	Precise	0
Czechia	4	Precise	1,381	0	Precise	2,122,500
El Salvador	2	Precise	46	1	Precise	60,500
Eritrea	0	Precise	0	0	Precise	0
Estonia	1	Precise	1,550	0	Precise	45,000
Ethiopia			0	0	Precise	0
Finland	1	Estimate	384	0	Precise	
France	34	Precise	62,902	5	Precise	8,247,500
Georgia	2	Estimate	250	2	Estimate	315,000
Germany			15,107			3,730,000
Ghana	0	Precise	0	0	Precise	0
Greece	18	Precise	6,974	6	Precise	837,200
Guyana	0	Precise	0	0	Precise	0

Country	Number of patients treated with recombinant factor VIIa	Precise or Estimate	Total FVIIa purchased (mg)	Number of patients treated FEIBA	Precise or Estimate	Total FEIBA purchased (IU)
Honduras				1	Precise	72,000
Iran	40	Estimate		50	Estimate	
Iraq	0	Precise	24,973	0	Precise	0
Ireland	4	Precise	2,230	0	Precise	481,000
Israel	8	Estimate		1	Estimate	
Italy	26	Precise		5	Precise	
Japan			34,668			4,683,000
Jordan	5	Estimate		0	Precise	98,000
Kenya	0	Precise	0	15	Precise	0
Kuwait	2	Estimate				
Kyrgyzstan	0	Precise	0	6	Precise	288,000
Latvia	0	Precise	0	0	Precise	0
Lebanon	3	Precise	211	6	Precise	226,000
Lesotho	0	Precise	0	1	Precise	0
Lithuania	2	Precise	1,803	1	Precise	971,000
Luxembourg	0	Precise	0	0	Precise	0
Madagascar	0	Precise	0	0	Precise	0
Mali	0	Precise	0	0	Precise	0
Mauritius	1	Precise	785	0	Precise	0
Mexico			452,500			7,862,500
Moldova	0	Precise		0	Precise	
Morocco	38	Estimate		1	Estimate	
Mozambique	2	Precise	0	2	Precise	0
Myanmar	0	Precise		0	Precise	
Netherlands	5	Estimate		2	Estimate	1,265,000
New Zealand	1	Estimate		1	Estimate	
Nigeria			0			0
Norway	1	Estimate		1	Estimate	
Pakistan	0	Precise		3	Precise	
Panama	1	Precise	2,640	2	Precise	199,500
Philippines	10	Estimate	104	10	Estimate	0
Poland	63	Precise	21,461	46	Precise	13,877,000

Country	Number of patients treated with recombinant factor VIIa	Precise or Estimate	Total FVIIa purchased (mg)	Number of patients treated FEIBA	Precise or Estimate	Total FEIBA purchased (IU)
Qatar	1	Precise	0	1	Precise	36,000
Romania	71	Precise	10,181,000	71	Precise	5,064,500
Russia			117,150			33,532,500
Saudi Arabia	85	Precise		35	Precise	
Senegal	0	Precise	0	1	Precise	0
Serbia	2	Precise	1,060	0	Precise	595,000
Singapore	2	Precise	312	1	Precise	162,000
Slovakia	5	Precise	1,828	3	Precise	900,000
Slovenia	2	Precise	1,482	0	Precise	
South Africa			5,583			3,672,000
Sri Lanka			432			0
Suriname	0	Precise	0	0	Precise	0
Sweden	6	Precise	3,964	28	Precise	527,500
Syria	2	Estimate				
Thailand	12	Precise	2,063	19	Precise	878,000
The Gambia			0			0
Trinidad and Tobago	1	Precise		5	Precise	
Tunisia	6	Precise	1,832	6	Precise	1,197,000
Uganda	0	Precise	0	0	Precise	0
United Arab Emirates	0	Precise		0	Precise	
United Kingdom	128	Precise	222,529	24	Precise	9,222,900
Uruguay	1	Precise	934	1	Precise	1,655,000
Uzbekistan	25	Precise	1,920	6	Precise	309,500
Venezuela	7	Precise	0	0	Precise	0
Vietnam	31	Precise	775	47	Precise	831,500
Zimbabwe	1	Estimate		0	Estimate	

TABLE 19. Use of VWD products 2022

(55 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
Afghanistan	12	7	12	7			12	7			12	7		
Australia	0	0	0	0	181	100	20	15	0	0	3	2		
Azerbaijan					75	53					125	22	29	29
Bahrain	0	0	0	0	30	0	350	0			125	0		
Belarus					207	0					27	0	27	0
Botswana					8	4					9	5	2	2
Brazil	0	0	0	0	1,071	755	140	114	0	0	969	746		
Canada					205	0	94	0	1	0	86	0		
Colombia	0	0	0	0	230	130	185	153	1,400	10	280	245		
Côte d'Ivoire	1	1	0	0	0	0	1	1	0	0	3	2	1	1
Cuba			4	3	3	3	12	12						
Czechia	0	0	0	0	107	0	2	0						
El Salvador			7	5	7	5					7	5	0	0
France	1	0			130	75	59	36	28	16				
Georgia													9	0
Ghana									8	8				
Greece					160	0							5	5
Guyana	0	0	0	0	0	0			0	0	2	0		
Hong Kong					2	0								
Italy					119	0			1	0				
Kenya	5	0	8	6	22	2	4	4	363	3	20	4	0	0
Latvia														
Lesotho					10	0					10	0		
Libya									32	25				
Madagascar	1	0							1	0	1	0		
Malaysia					45	45	4	4			71	60		
Mali	1	0	0	0			0	0	111	4	1	0		
Mauritius	1	1	1	1							1	1		

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
Mongolia	10	0	15	0					144	0				
Myanmar	1	1	1	1					1	1	1	1	1	1
Nepal	10	0												
Netherlands					554	329	134	90	25	12				
Nigeria									15	8				
Norway					13	8			4	3				
Panama					548	298	543	295			548	298	50	50
Portugal					110	37	60	10	3	2				
Qatar	0	0	0	0	13	12	2	1	0	0	8	8	0	0
Saudi Arabia	18	10	13	8	268	131	130	62			359	192		
Senegal	10	3			8	3					8	3		
Singapore					29	14	0	0			35	21		
Slovakia					140	112					104	90	80	80
Slovenia	0	0			14	9			0	0				
Suriname					2	1								
Sweden					258	89			11	10				
Switzerland	0	0	0	0	121	0			19	0				
Syria					9	3								
Thailand			53	0	50	0					100	0		
Trinidad and Tobago			1	0							1	0		
Tunisia					32	0								
Uganda	2	0	1	0					355	0	30	0		
United Kingdom					714	375			290	173				
Uzbekistan					108	45					64	21	48	48
Venezuela	2	0	3	1	80	60	120	100	0	0	500	300	50	50
Vietnam	0	0	95	55	0	0	2	1	0	0	87	53	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 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.

HIV: Human immunodeficiency virus. The virus that causes AIDS.

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.

Registry: A database or record of identified people with hemophilia or inherited bleeding disorders. A registry includes information on personal details, diagnosis, treatment and complications.

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.

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