

# A Real-World Survey of Health Inequalities as Drivers for Burden on Male Hemophilia Patients in the US, EU5 and Asia

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## Introduction

Hemophilia is characterized by bleeds and joint problems due to dysfunctional clotting factor VIII and IX in Hemophilia A and Hemophilia B, respectively. Therefore, there is an increased risk of spontaneous bleeds occurring in joints and muscles<sup>1</sup>.

People with hemophilia (PwH) experience substantial burden as a result of these disease outcomes. Factors such as distance to a hemophilia treatment center (HTC), disease associated costs and caregiver inconvenience can increase the likelihood of negative outcomes occurring, in turn increasing the burden of the disease<sup>2</sup>.

The impact of hemophilia on a patient's physical function can increase difficulty to maintain employment, further increasing the financial burden<sup>3</sup>. Physical limitations emphasize the need for caregiver support when managing daily activities<sup>3</sup>.

## Objective



To investigate health care resource utilization, caregiver utilization, and risk of mortality among male hemophilia patients.

## Conclusions



Physicians reported approximately half of PwH in Asia had no insurance and were never seen in an HTC.



PwH in Asia experienced a high perceived risk of mortality.



Less adult PwH in the US/EU5 required a caregiver than in Asia.



This indicates that decreased insurance and HTC usage are potential drivers of burden in hemophilia, highlighting the need to address health inequalities.

## Limitations

- Physicians completed surveys for their next consecutively consulting patients, meaning more frequently consulting patients and those with a more severe disease state are more likely to be captured within the DSP™.
- As data was reported retrospectively, there is a possibility of recall bias; this was reduced by collecting data at earliest time point following patient consultation.
- Without collecting all relevant data points that can impact health inequalities, i.e. access limitations, the potential for bias is introduced, undermining validity and replicability.

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## Acknowledgements:

- Data was collected by Adelphi Real World via the Hemophilia III Disease Specific Program™, an independent survey whereby all data are the intellectual property of Adelphi Real World. Pfizer Inc. subscribed to access this data source.
- Adelphi Real World and Pfizer Inc. would like to thank the physicians that participated in this survey.

## Disclosures:

- ST is an employee of Pfizer Inc., Cambridge, United States of America.
- ST, NP is an employee of Pfizer Inc., New York, United States of America.
- CK is an employee of Pfizer Inc., Canada.
- NB, EM, SL, CB and RS are employees of Adelphi Real World, Bollington, United Kingdom.

## References:

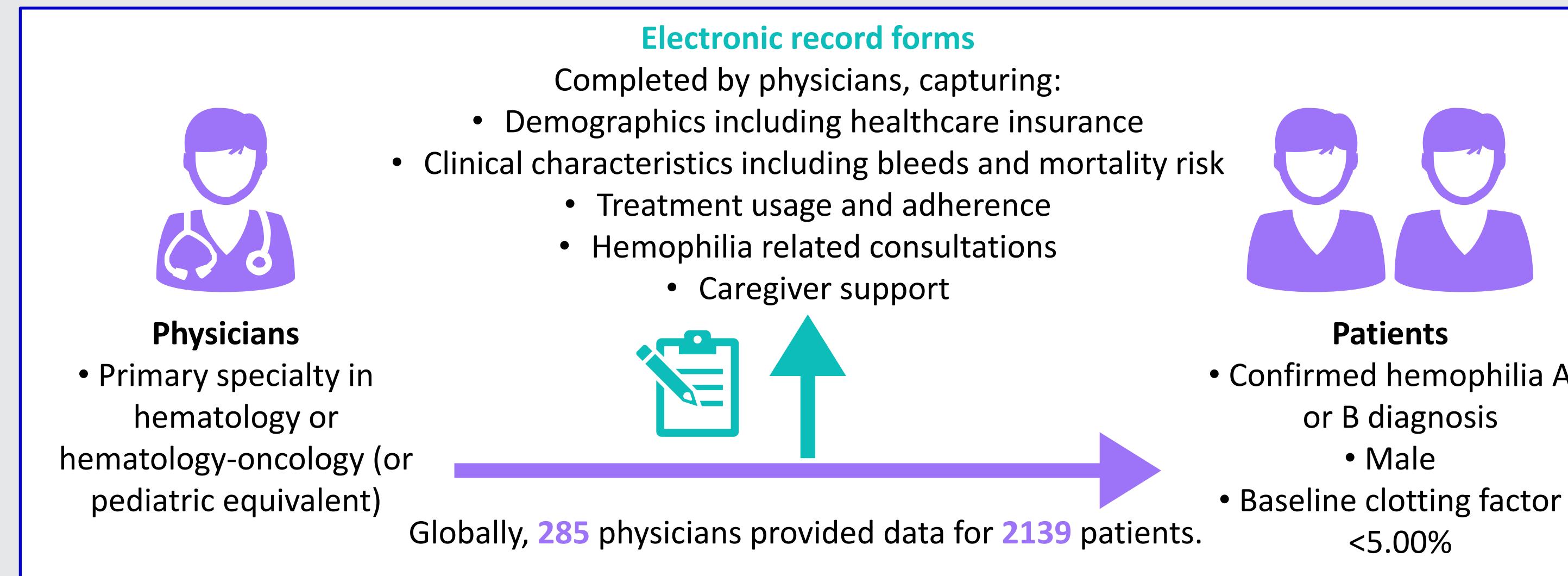
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## Methods

Data were drawn from the Adelphi Real World Disease Specific Programme™, a cross-sectional survey with retrospective data collection of physicians and male PwH A and B in France, Germany, Italy, Spain, the United Kingdom (EU5), the United States (US) and Japan, Saudi Arabia and India (Asia) (July 2023-October 2024).

Physicians reported data on insurance, consultations, caregiver support, and mortality risks. Analyses were descriptive.

DSP™ are cross-sectional surveys with retrospective data collection of a geographically representative sample of physicians. The DSP methodology has been previously described, validated, and the results proven to be consistent over time (4,5,6,7).



## Results

Table 1. Patient characteristics

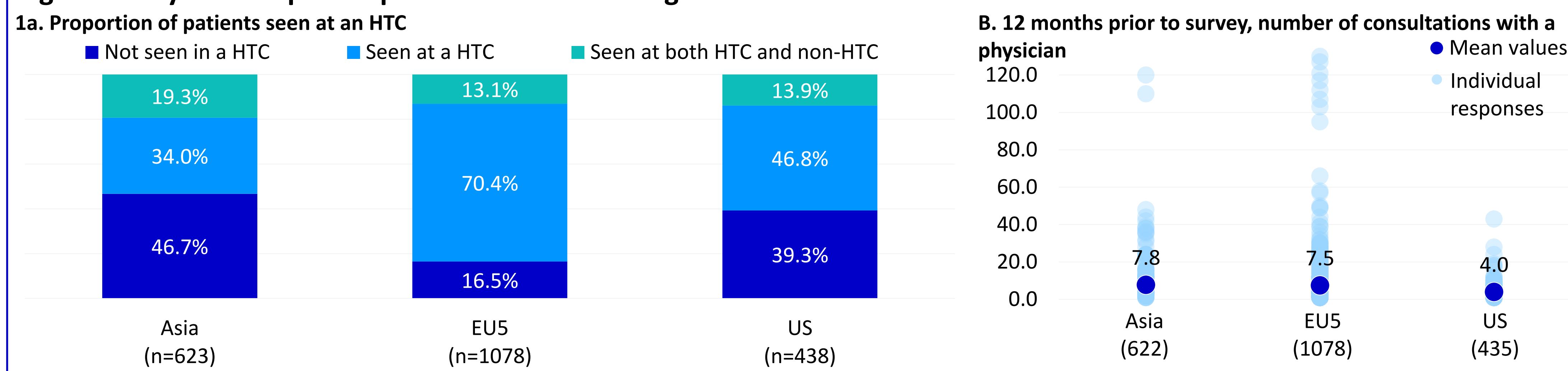
	Overall (n=2139)	Asia (n=623)	EU5 (n=1078)	US (n=438)
<b>Age</b>				
Years, mean (SD)	26.9 (15.3)	24.7 (14.9)	27.9 (15.5)	27.7 (14.9)
≥18 years old, n (%)	1633 (76.3)	406 (65.2)	877 (81.4)	350 (79.9)
<b>Employment, n (%)</b>				
Working full time	746 (45.5)	165 (39.5)	395 (44.6)	186 (55.2)
Not working full time	895 (54.5)	253 (60.5)	491 (55.4)	151 (44.8)
<b>Impact of hemophilia on employment, n (%)*</b>				
Not working full time due to hemophilia	184 (49.5)	106 (70.2)	61 (37.2)	17 (29.8)
<b>Baseline clotting factor at time of survey, n (%)</b>				
1.00% - 5.00% of the normal activity of clotting factor	1304 (62.8)	425 (70.5)	581 (54.8)	298 (72.0)
<1.00% of the normal activity of clotting factor	773 (37.2)	178 (29.5)	479 (45.2)	116 (28.0)
<b>Treatment at time of survey, n (%)</b>				
Solely receiving on-demand	150 (7.1)	61 (10.0)	67 (6.2)	22 (5.1)
Solely receiving prophylaxis	558 (26.2)	250 (40.8)	220 (20.4)	88 (20.2)
Receiving on-demand alongside prophylaxis	1405 (66.1)	300 (48.9)	786 (72.9)	319 (73.3)
No treatment	13 (0.6)	2 (0.3)	5 (0.5)	6 (1.4)
<b>Health insurance, n (%)</b>				
Has health insurance cover for hemophilia treatment	1803 (86.5)	324 (53.7)	1071 (100.0)	408 (99.5)

Asia=India, Japan, Saudi Arabia, EHL=Extended half life, EU5=France, Germany, Italy, Spain, United Kingdom, SD=Standard deviation, SHL=Standard half life, US=the United States, \*Base drop because physicians were only shown question if patient was working part-time, not working due to retirement, unemployed, or on long term sick leave.

- Physician-reported patient healthcare usage is reported in Figure 1a and 1b.

- Physicians reported 60.7% of US PwH, 83.5% EU5 and 53.3% Asia had been seen at least once in an HTC.

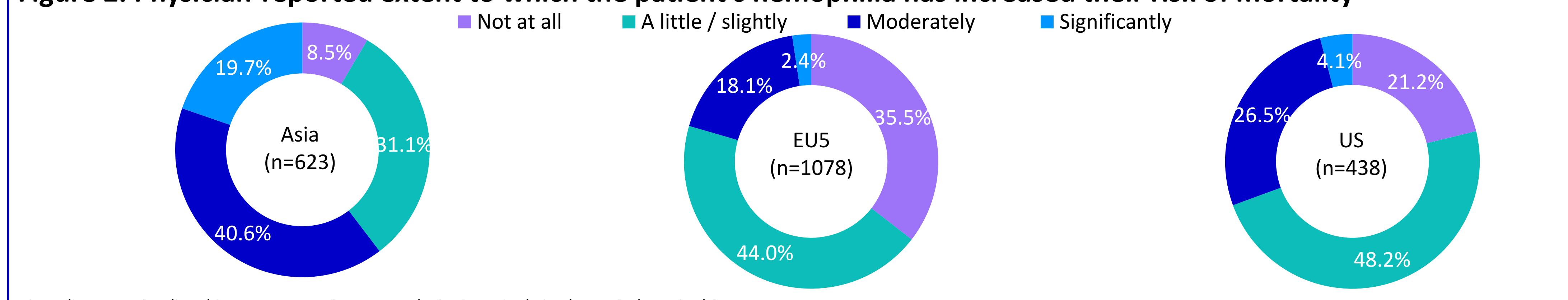
Figure 1. Physician-reported patient healthcare usage



Asia=India, Japan, Saudi Arabia, EU5=France, Germany, Italy, Spain, United Kingdom, HTC=Hemophilia treatment center, US=the United States.

- The extent to which physicians reported that hemophilia has increased the patient's risk of mortality is summarised in Figure 2.
- Physicians perceived the risk of mortality to "moderately" or "significantly" increase due to the patient's hemophilia for 30.6% of PwH in US, 20.5% in the EU5 and 60.4% in Asia
- Additionally, patients in Asia had a median (IQR) 2.0 (1.0-2.0) bleeds in the 12-months prior to survey, in the US and EU5 PwH had 0.0 (0.0-0.0) bleeds.

Figure 2. Physician-reported extent to which the patient's hemophilia has increased their risk of mortality



Asia=India, Japan, Saudi Arabia, EU5=France, Germany, Italy, Spain, United Kingdom, US=the United States.

- Physician-reported caregiver usage for PwH is summarized in Figure 3.
- Of the patients ≥18 years who required a caregiver (Asia; n=235, EU5; n=341, US; n=124), care was predominantly provided by the patients' parent or guardian (Asia; 52.3%, EU5; 51.3%, US; 37.1%) or their partner or spouse (Asia; 46.4%, EU5; 41.6%, US; 58.1%).
- Physicians reported of the 406 PwH ≥18 years in Asia, 75.4% had difficulty with physical activities, whilst PwH in EU5 (n=877) and the US (n=350), 38.9% and 36.6% had difficulty, respectively.

Figure 3. Physician-reported proportion of patients who required a caregiver

