



MINISTRY OF HEALTH
NATIONAL INSTITUTE OF HEMATOLOGY AND BLOOD TRANSFUSION

Hemophilia Care in Vietnam

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Situation of Hemophilia Care in Vietnam

- GDP/capita: **2,385** USD/year (2017)
- Population: **93.7 mil** (2017)
- Number of PWH estimated: about **6,200**
- Number of patient diagnosed in 2017: **3,357 ($\approx 54.1\%$)**
- Number of Hemophilia Treatment Centers (HTCs): **7**

Situation of Hemophilia Care in Vietnam

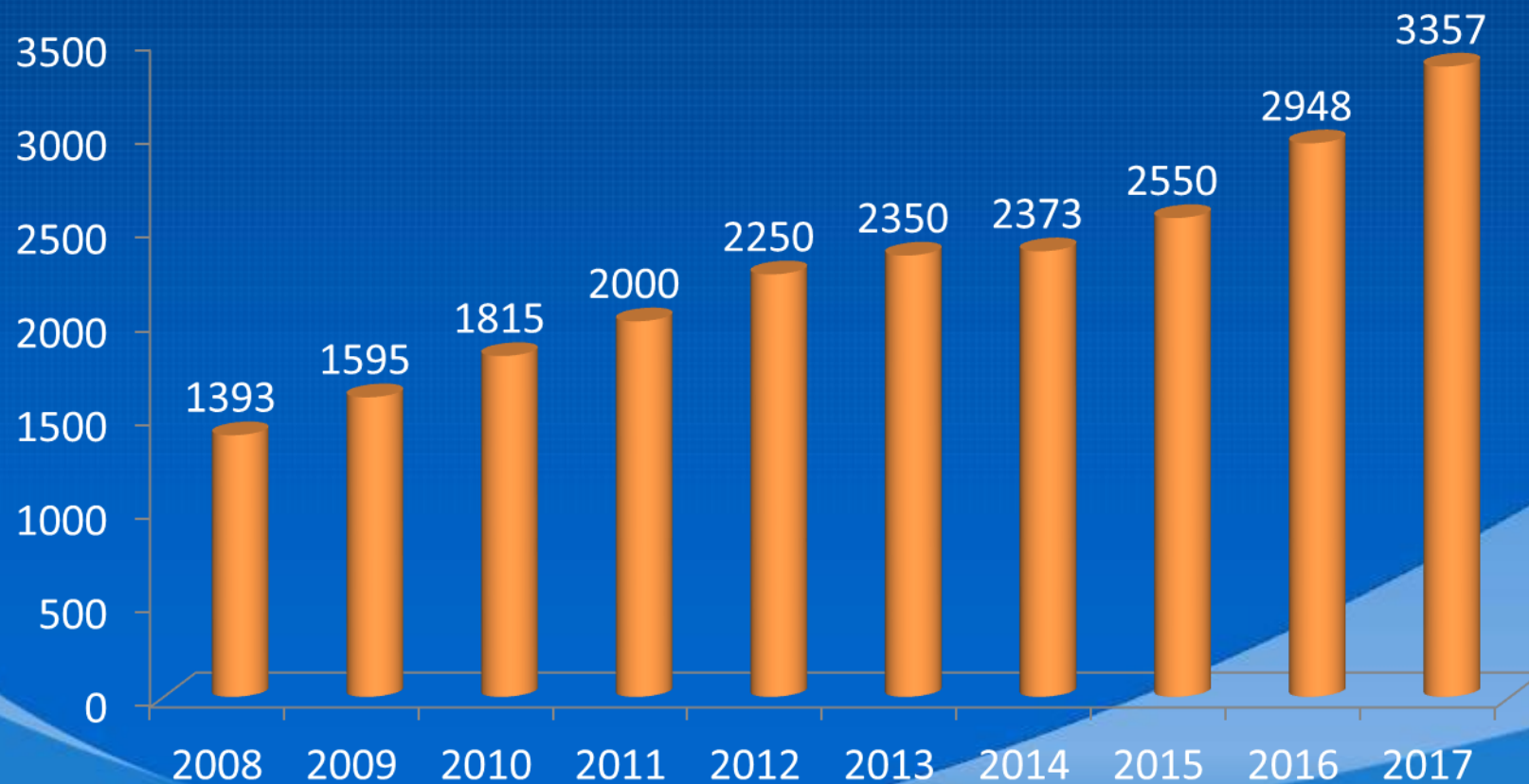
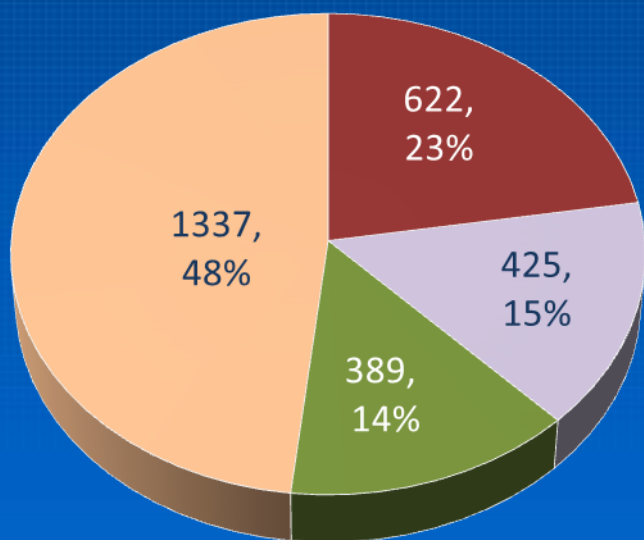


Chart 1: Number of hemophilia patients managed in Vietnam

Distribution of hemophilia patients with severity

Hemophilia A



Severe Moderate
Mild Unknown

Hemophilia B

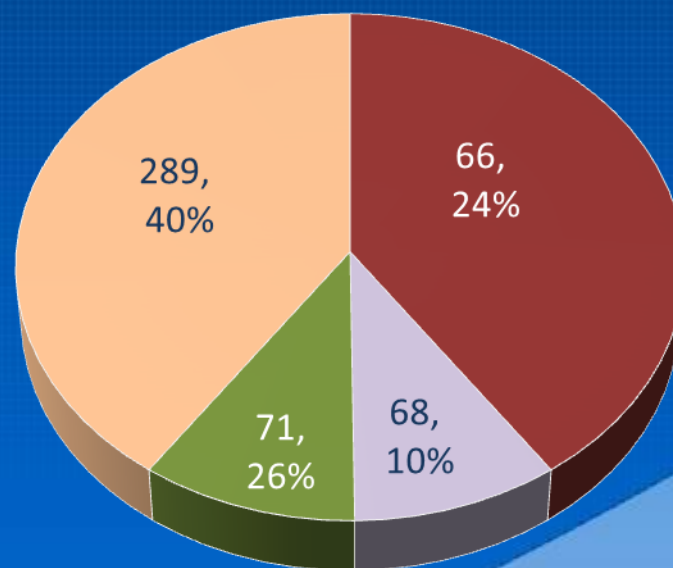
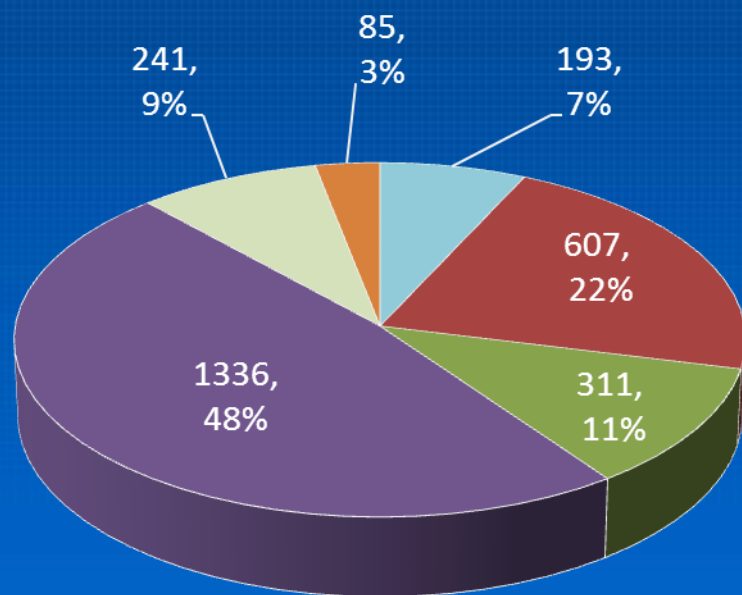


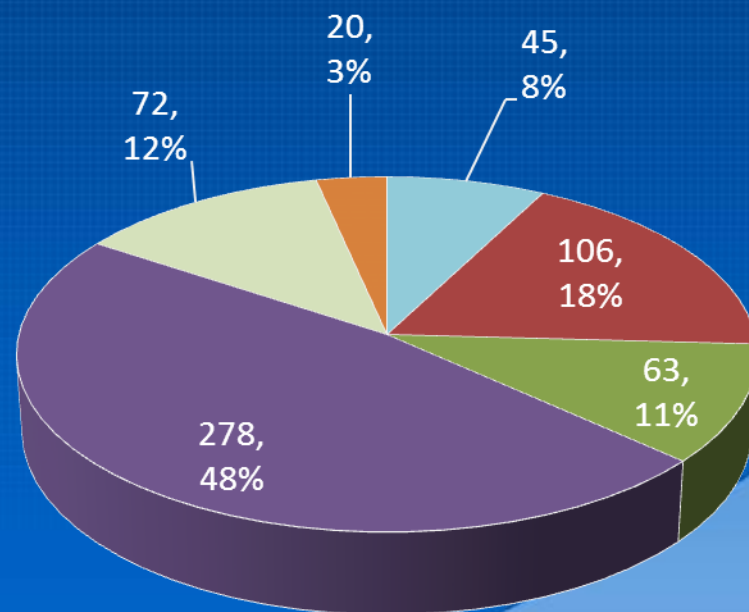
Chart 2 + 3: Distribution of hemophilia patient with severity (year 2017)

Distribution of hemophilia patients in Vietnam by age groups (2017)

Hemophilia A



Hemophilia B



- 0-4 years old
- 5-13 years old
- 14-18 years old
- 19-44 years old
- over 45 years old
- Unknown

7 hemophilia centres in Vietnam

1. National Institute of Hematology and Blood Transfusion

2. National Pediatric hospital

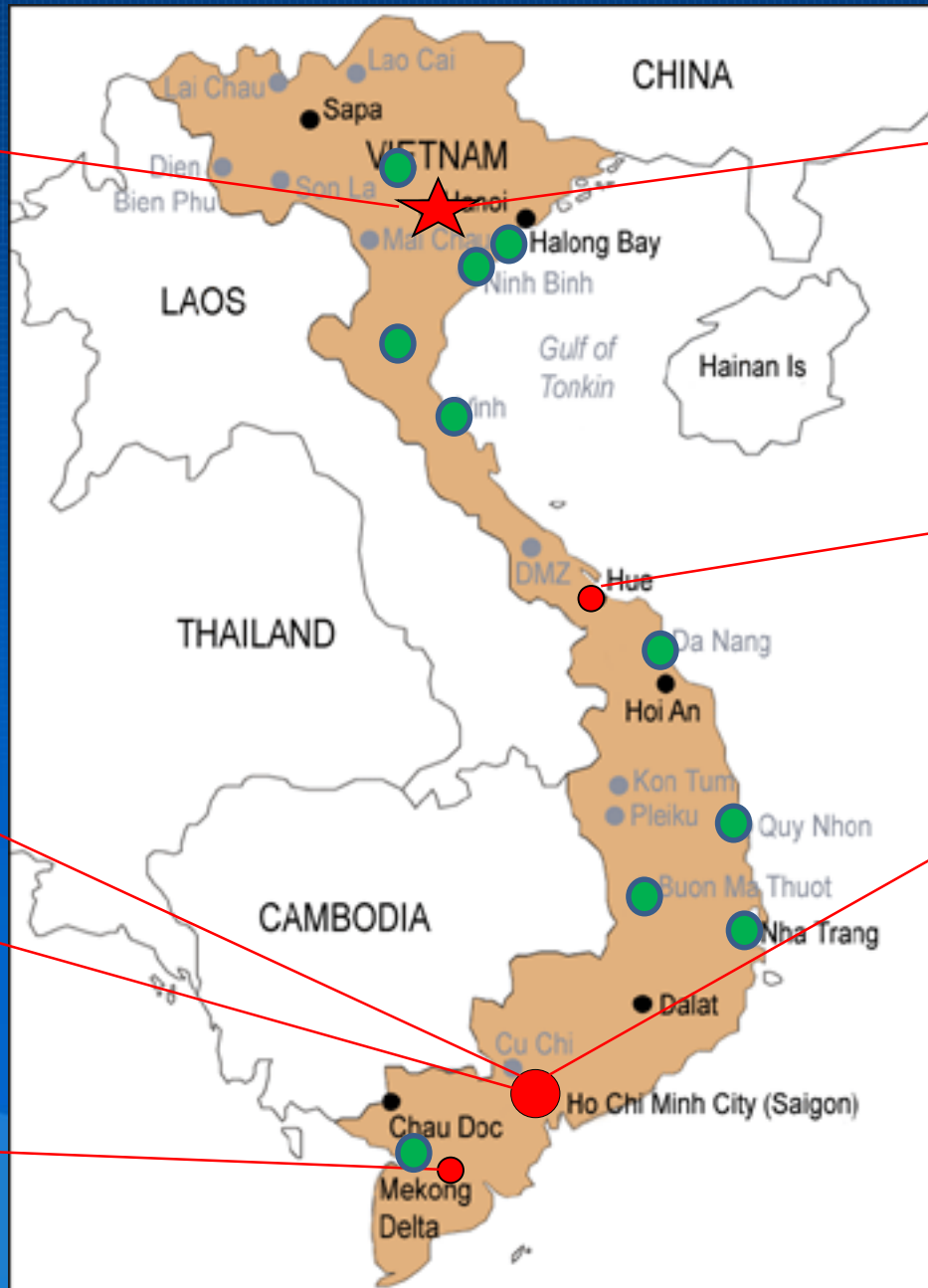
3. Hue General hospital

4. Blood Transfusion and Hematology hospital of Ho Chi Minh city

5. Cho Ray Hospital

6. Pediatric Hospital in Ho Chi Minh city

7. Can Tho general hospital



Vietnam Hemophilia Association (VHA)

- Established in 2007, with over 1,000 members
- Structure of Vietnam Hemophilia Association:
 - + Executive boards with 13 members
 - + 4 chapters, 3 clubs, 3 peer groups
- Activities: Propaganda, education, training, advocacy, humanitarian aid, international cooperation..



TYPE OF TREATMENT

- Episodic bleeding treatment in hospital: > 95%
 - Home treatment: some cases
 - Prophylaxis in some indicated patients
 - + single dose prophylaxis
 - + long term secondary prophylaxis: severe children <15 year old.
 - + short term (1-3 months) secondary prophylaxis: after CNS bleeding, target joint...
- HA: 10 – 20iu/kg x 2-3 times/wk
- HB: 20 iu/kg x 1-2 times/wk
- ITI: low dose 25-30iu/kg x 3 times/wk

BLOOD PRODUCTS

* ***Domestic product:*** Fresh frozen plasma; Cry0-removed plasma, Cryoprecipitate

* ***Import product:***

- Plasma derived products:

+ FVIII:

8Y, Hemofil – M, Octanat (Octapharma),
Haemoctin (Biotest), Green 8 (Green Cross)

+ FIX:

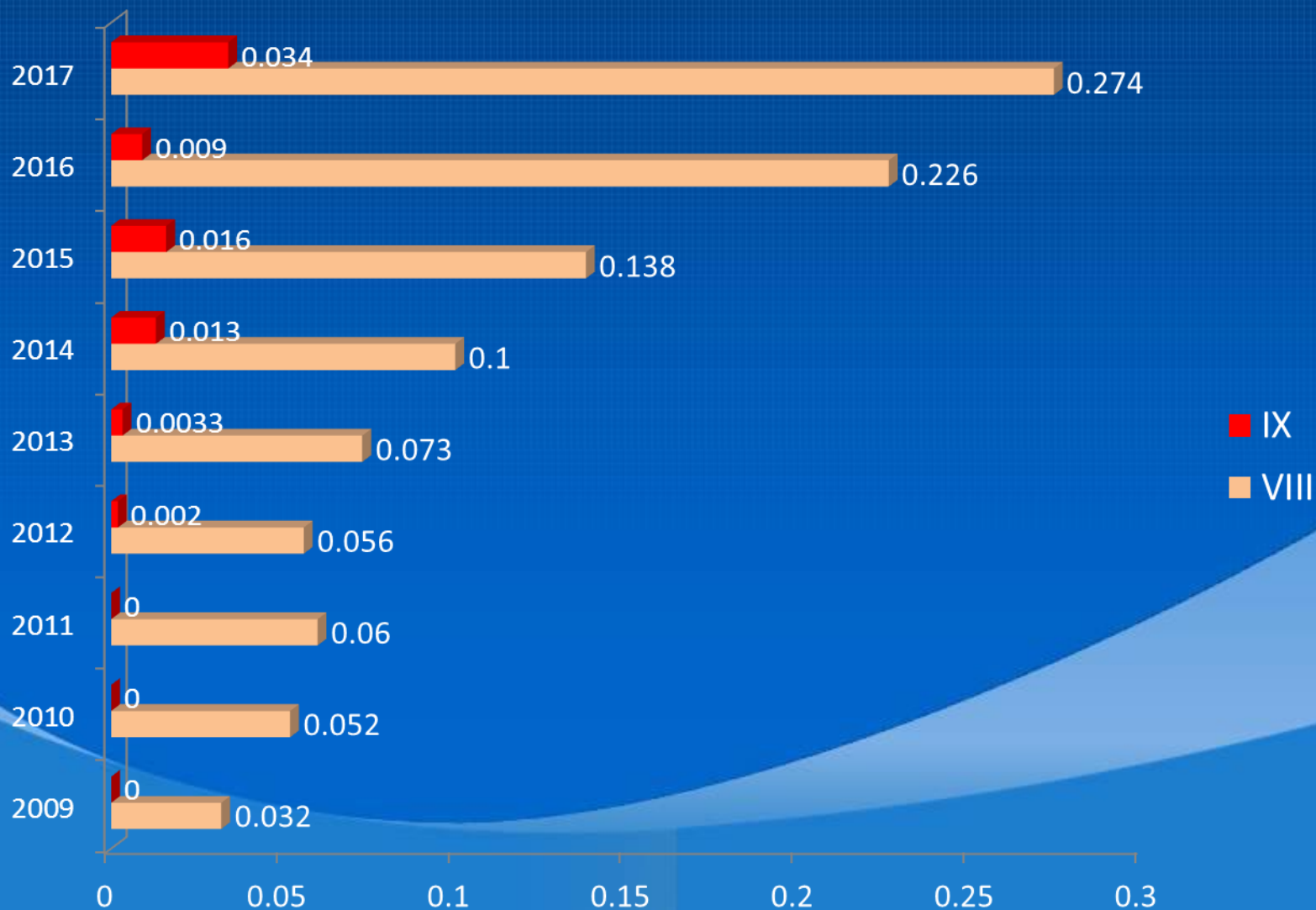
Replenine (BPL), Immunine (Shire – Takeda),

- Recombinate: Not available yet

- FVIIa: Novo seven (Novo Nordisk)

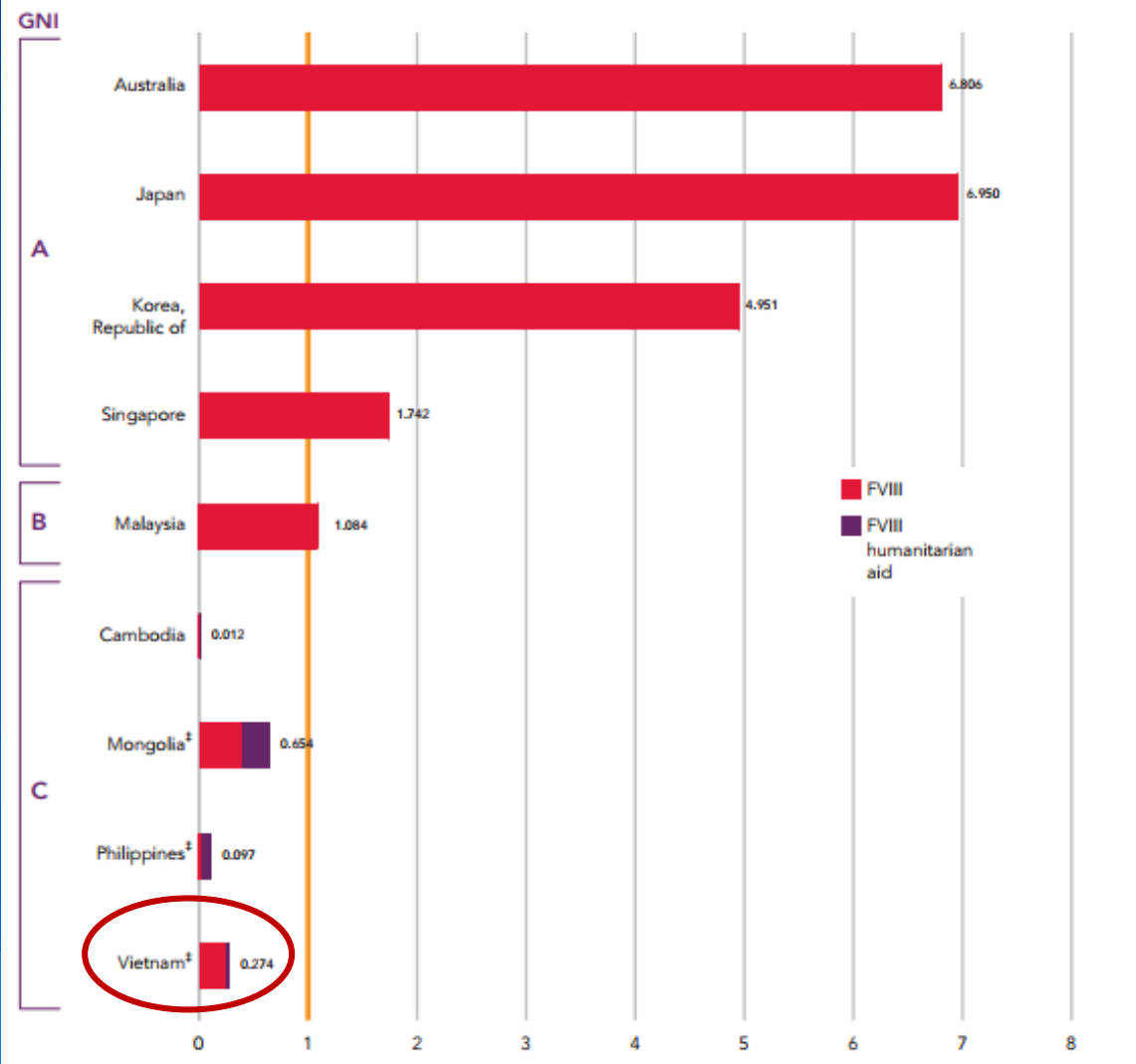
- FEIBA (since 2019)

FVIII/FIX used across the country over the years (Unit: unit /capita)



Mean global factors used

Figure C6a. Mean per capita factor VIII use in 2017 – regional and GNI comparisons of IU/total population: Western Pacific



Government Support

- Most of patients in Vietnam were covered the cost of treatment in hospital by the Vietnam Health Insurance:
 - Insurance cover 100%: Patient < 6 years old, poor people and handicap (70% of PWH)
 - 95%: Nearly poor, retirement
 - 80%: Other
 - For people have social insurance continuously ≥ 5 years: Co-pay max 8.400.000 VND (≈ 360 USD)/year
 - **Maximum coverage:**

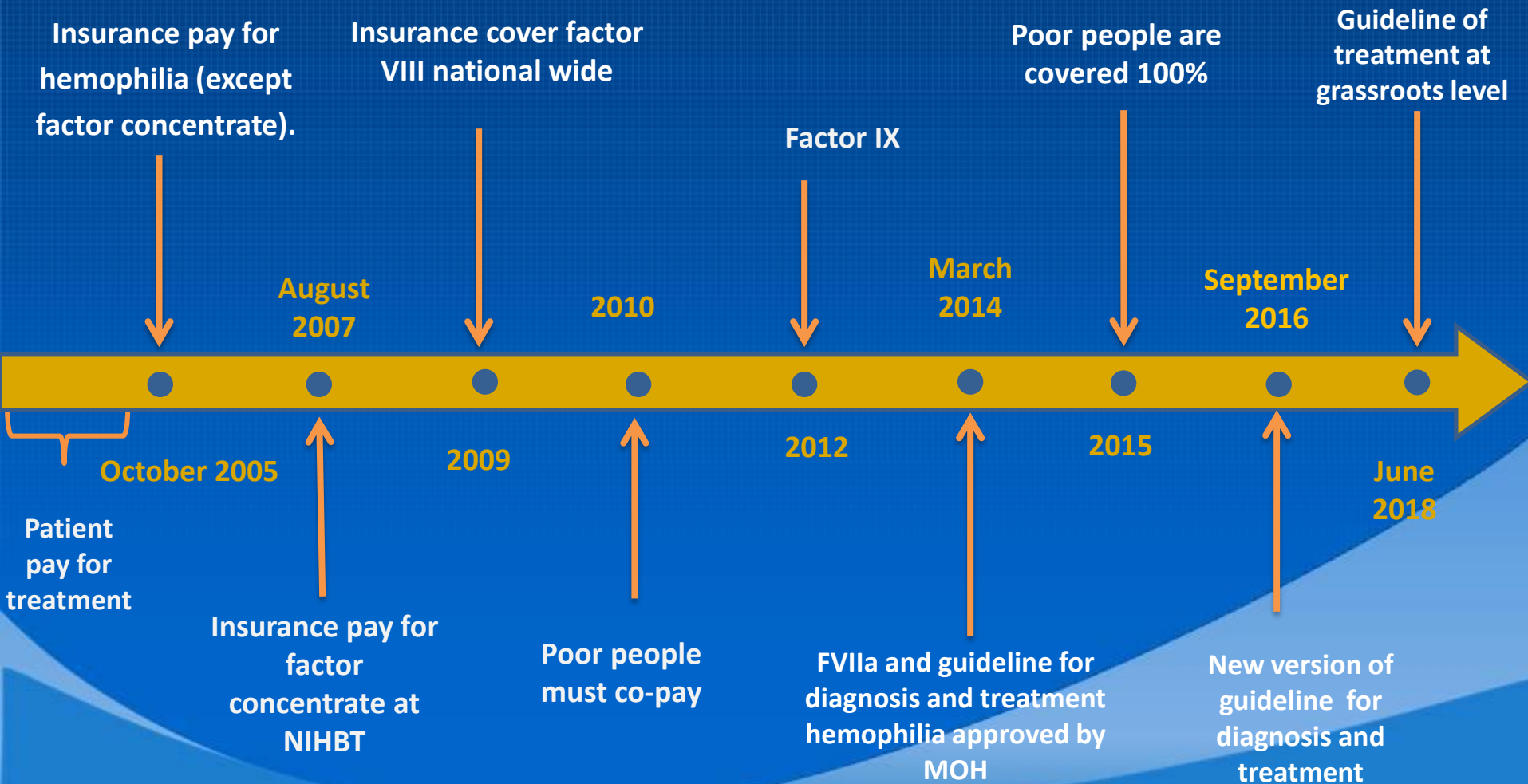
Advocacy for better policy



Meeting with Social Insurance Department and the Ministry of Health in 2013 and 2015



Achievements in advocacy



The Social Situation for Patients and Families

- The quality of life of hemophilia patients in Vietnam in low standards.
- + 51% PWH married,
- + 34.2% PWH of working age unemployed,
- + 9.2% of PWFH below the primary level education.
- Average a hemophilia patient bleeding 18.6 ± 12.7 times /year and missed school/work 56 ± 35.8 days/year (1)
- Some carries suffer discrimination (from husband family)

[1] Nguyen VK, Nguyen TM, Nguyen AT, Nguyen TV. Research on some sociological characteristics and quality of life in hemophilia patients in Vietnam. *Vietnam J Med.* 2016;466:473–82.



INHIBITOR (2017)

	Hemophilia A N= 961		Hemophilia B N=205		Hemophilia N= 1166	
	n	%	n	%	n	n
Inhibitor	78	8,1	0	0	78	6,69

- 2005: 2 – 0.56%
- 2008: 1,5%
- 2011: 3.16%
- 2012: 4.01%
- 2014: 7.48
- 2015: 6.69

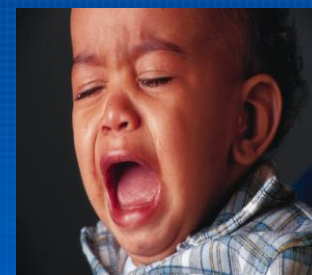
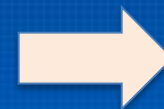
Transfusion transmitted virus in PWH in NIHBT

Time	n	HBV	HCV	HIV
2002 (1)	73	8.2	32.9	0
2005 (2)	335	6.6	20	0
2008 (3)	429	5,21	21,8	0
2018	1297	4,7	16,6	0.07

1. Do Trung Phan et all, (2004), "Effectiveness of cryoprecipitate produced in National Institute of Hematology and Blood Transfusion in treatment of bleeding for patients with hemophilia A, Journal of Medical Practice 12/2004. p. 143-146.
2. Nguyen Anh Tri et all, (2006), "The clinical features and epidemiology of Hemophilia patients at the National Institute of Hematology and Blood Transfusion 2005", Journal Medical Practice number (545). p.57 - 61.
3. Nguyen Thi Huong Que et all, (2009), "Research undesirable effects in patients with hemophilia is transmitted in blood products National Institute of Hematology and Blood Transfusion 2004 - 2008", Medicine Vietnam in March No. 2/2009. p. 155-159

Limitations of current factor concentrates

- Short half-life (Compliance & QoL)^{1,2}
- Frequent intravenous injections
 - Thrice weekly for haemophilia A
 - Ports – infection risk, occlusion etc.
- FVIII inhibitors (allo-antibodies)
 - Immune Tolerance Induction costly & <100% effective
 - Short acting “bypass agents”



¹HackerHaemophilia 2001;7: 392–6; ² Lillicrap Thromb Res 2008; 122 (Suppl. 4): S2–8

“Ideal” features for hemostatic product in hemophilia

Characteristic of therapeutic agent	Relevance to all hemostatic therapies	Particular relevance to bioengineered coagulation factors in development
Least invasive mode of administration (Subcutaneous vs IV)	X	X
Least requirement for dose manipulation due to inter-individual differences in response/clearance	X	X
Maximal (i.e, supraphysiologic) half-life		X
No (or lowest) immunogenicity		X
Highest tolerability (safety)	X	
Lowest thrombogenic potential		X
Lowest cost (aggregate, over a lifetime)	X	X

WHAT VIETNAM PWH NEED ?

1. Better access to treatment
 - More hemophilia centre
 - Home treatment
 - Prophylaxis: Low dose
 - Lower price
2. Safer product: Recombinant ?
3. Less injection:
 - Prolong half – life factor
4. Easy to use: Oral, subcutaneous injection
5. Cure? Gene therapy

WHAT CAN WE DO?

Clinicians:

Improve quality of care, joint multi-centre research for novel therapy, for a future of cure for hemophilia

Government:

Policy support, ex: national tender system

PATIENTS

Patient association:

Advocacy for better policies

Factor suppliers:

Improve technology and quality, reduce the price of CFCs

THANK YOU FOR YOUR ATTENTION!

