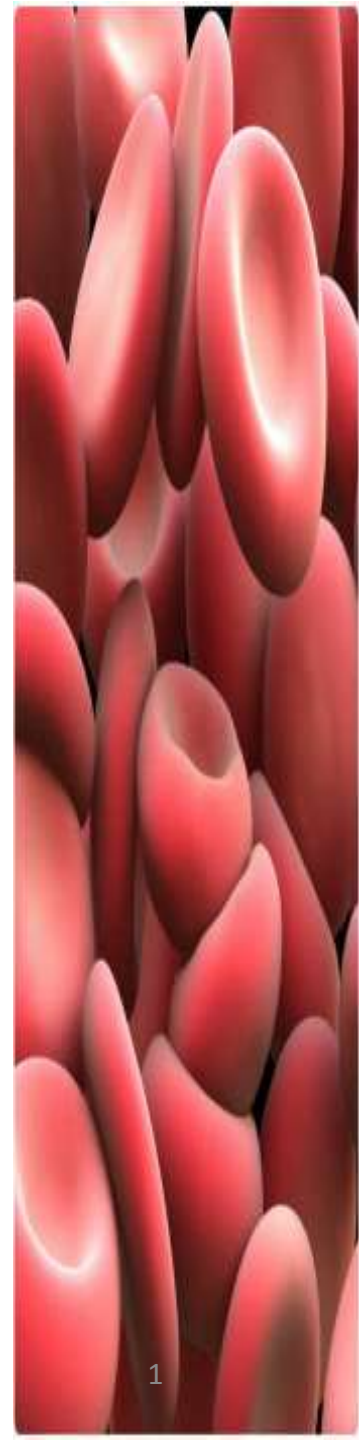


OVERVIEW OF BLOOD SERVICES IN INDONESIA

dr. Gita Maya Koemara Sakti, MHA
Director of Primary Health Care
Ministry of Health



COUNTRY PROFILE

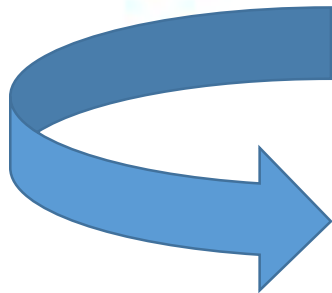
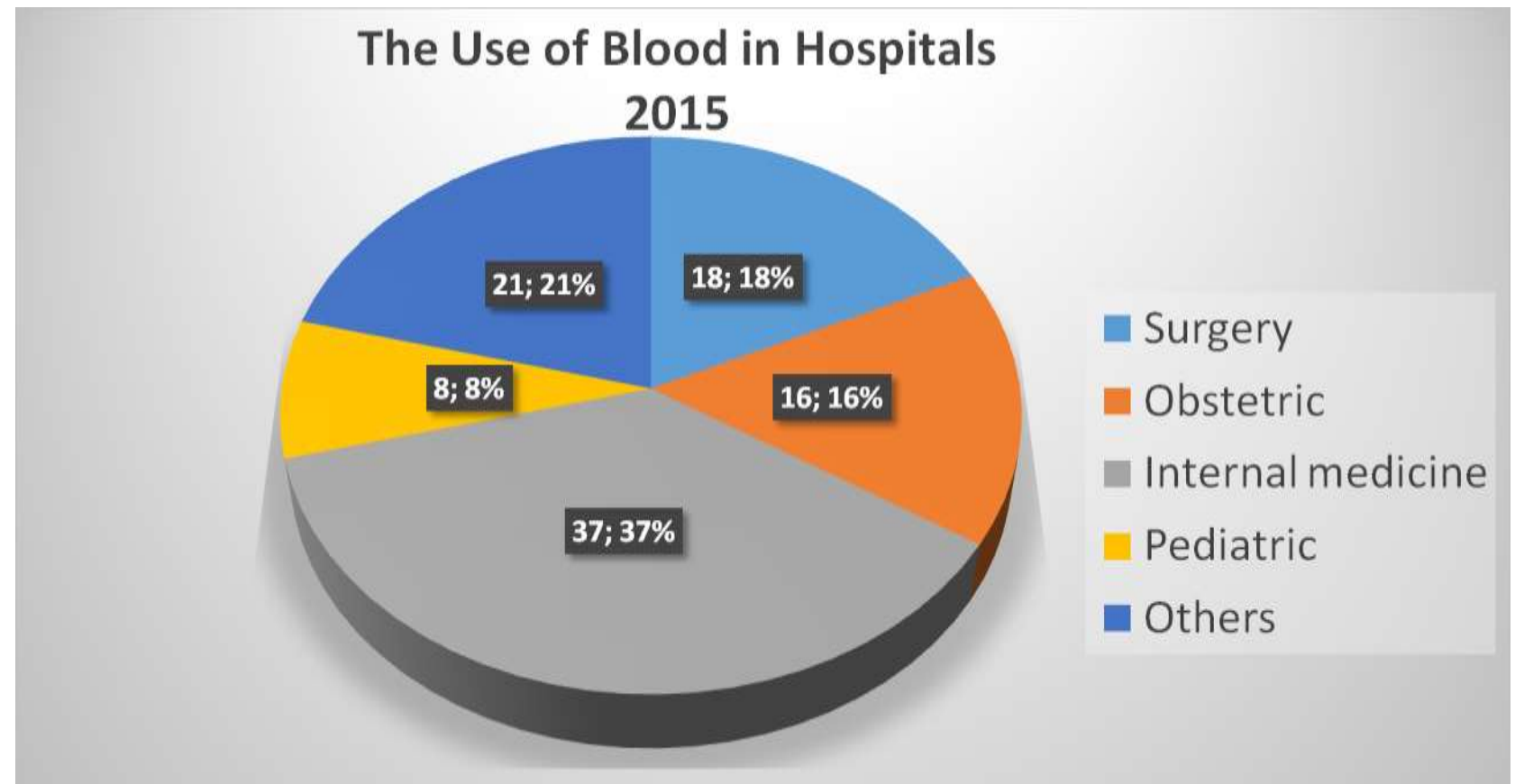
- Indonesia is the **largest archipelago** in the world between two oceans, the Pacific and the Indian ocean, and bridges two continents, **Asia** and Australia.



Population 255 Million
34 Provinces
416 Districts
98 Municipalities
7,160 Sub Districts
2,633 Hospitals
9,754 Primary Health Centers

THE NEED OF BLOOD FOR INDONESIA

With the population of 255 million, WHO calculates the need of blood for Indonesia is 5.1 million bags/year (2% of population)



GOVERNMENT REGULATIONS ON BLOOD SERVICES

**Health Law
No. 36/2009**

**Government
Regulation on
Blood Services
No. 7/2011**



**MoH Decree on
Blood Service
Organization &
Management
No. 83/2014**



**MoH Decree on
National Blood
Services Standard
No. 91/2015**



**MoH Decree on
Collaboration Work
between PHC & BTU
in Blood Supply No.
92/2015**

ENSURING THE AVAILABILITY OF SAFE BLOOD



Blood Centers (BCs)
(221 RC BCs & 193 Hosp
BCs)*

- Donor recruitment
- Blood collection
- Blood testing
- Blood processing
- Blood storage
- Blood distribution
- Hemovigilance system



Hospital Blood Banks (HBBs)
(432/2,633)*

- Blood Storage
- Pre-Transfusion Testing
- Blood transportation to hospital wards
- Haemovigilance System



Hospitals
(2,633)**

- Pre-Transfusion Preparation
- Rational and Clinical Use of Blood
- Haemovigilance System



Primary Health Centre
(PHCs) (9,754)**

**"Eligible"
Blood
Donor**

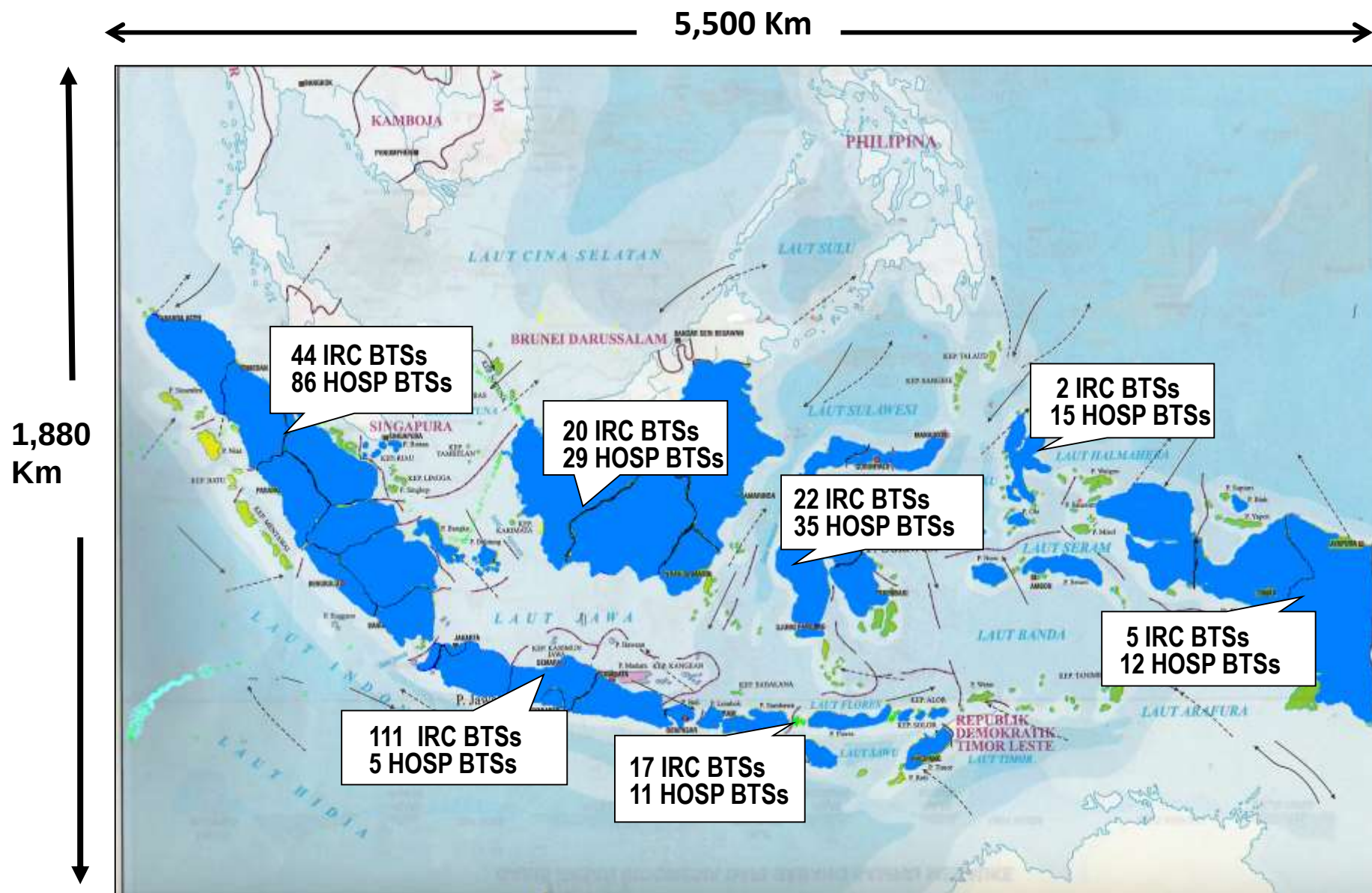
**Patient's referral
system**

QUICK WIN PROGRAM ON BLOOD SERVICES
Collaboration between PHC, BC & Hospital on Blood
Services through Donor Recruitment & Selection

* MoH Data of Blood Services, 2017

** MoH on Line Data of Hospitals and PHCs, 2017

INCREASING ACCESS TO BLOOD SERVICES 2017



CLASSIFICATION OF BLOOD CENTERS IN INDONESIA

BIG BLOOD CENTER



25 Blood Centers with total donation of 48% of National Donations
Blood donation > 50,000 units/year/BC, TTIs blood screening method: EIA/Chlia & NAT,
>80% of blood components processing, QC , as a training and referral center

MEDIUM BLOOD CENTER



86 Blood Centers with total donation of 35% of National Donations
Blood donation > 12,000 units/year/BC, TTIs blood screening method: EIA/Chlia,
>60% of blood components processing and QC

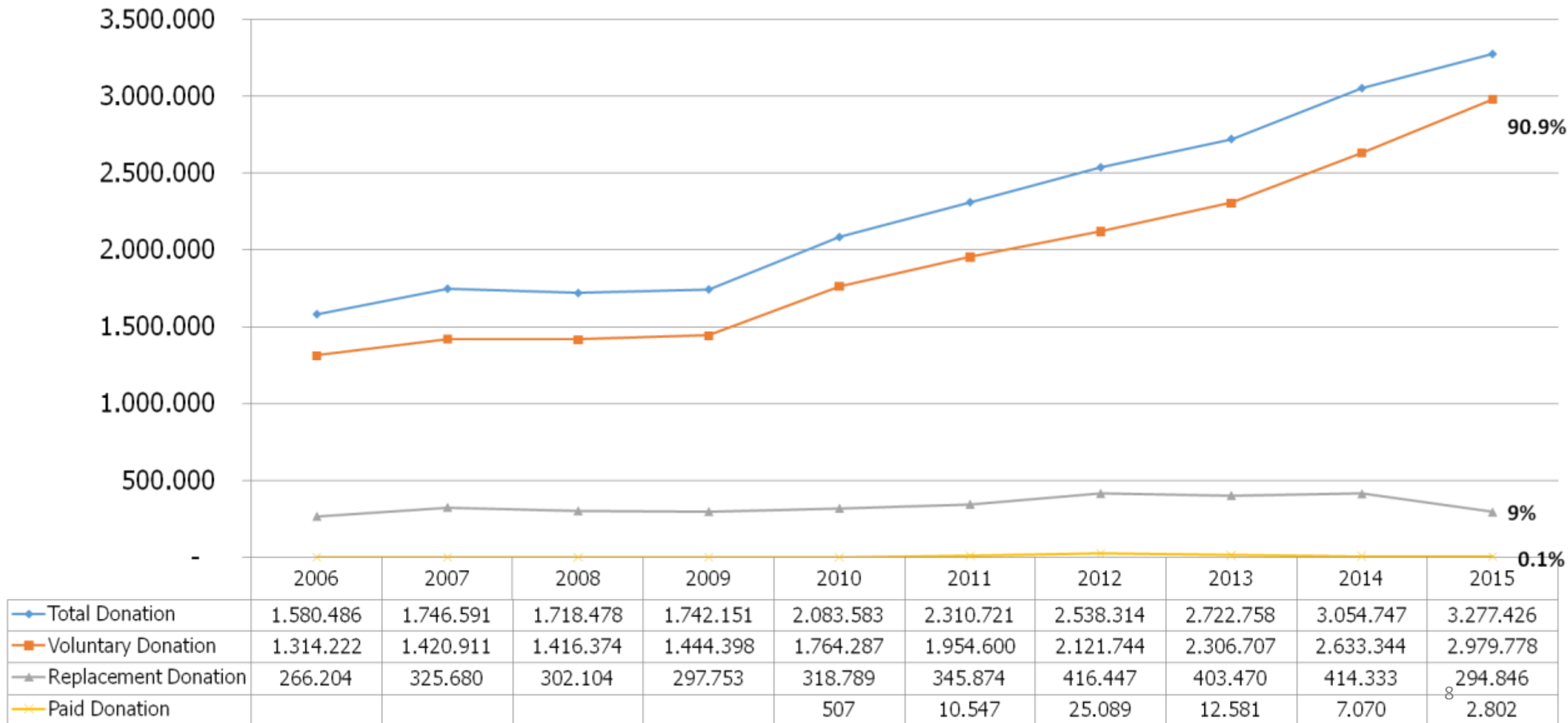
SMALL BLOOD CENTER



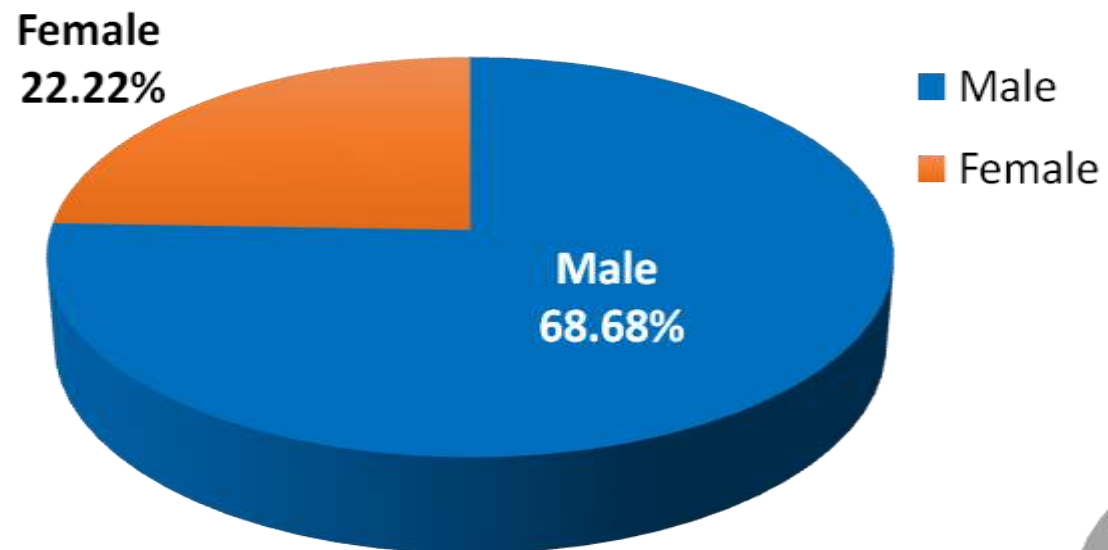
303 Blood Centers with total donation of 17% of National Donations
Blood donation > 1,000 units/year/BC, TTIs blood screening with Rapid Test,
mostly Whole Blood

BLOOD DONATION (UNITS) 2006 - 2015

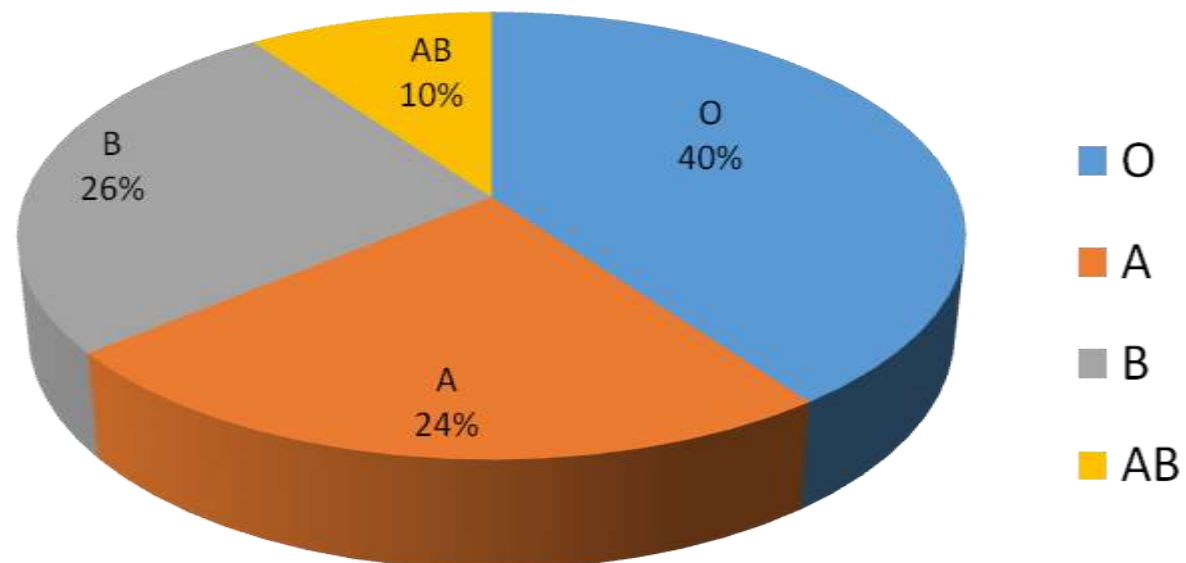
* 2015 Report of blood services in Indonesia, Directorate of Basic Health Care , MoH of Indonesia



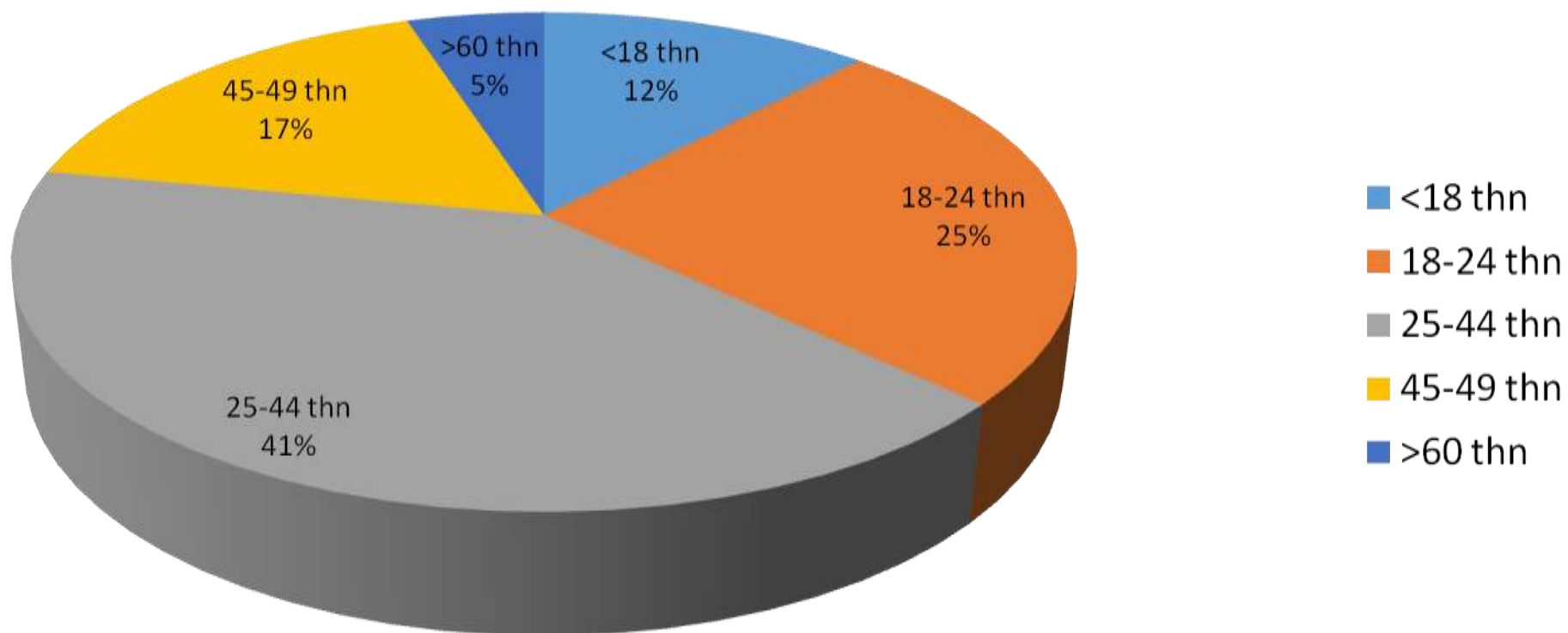
BLOOD DONATION ACCORDING TO SEX 2015



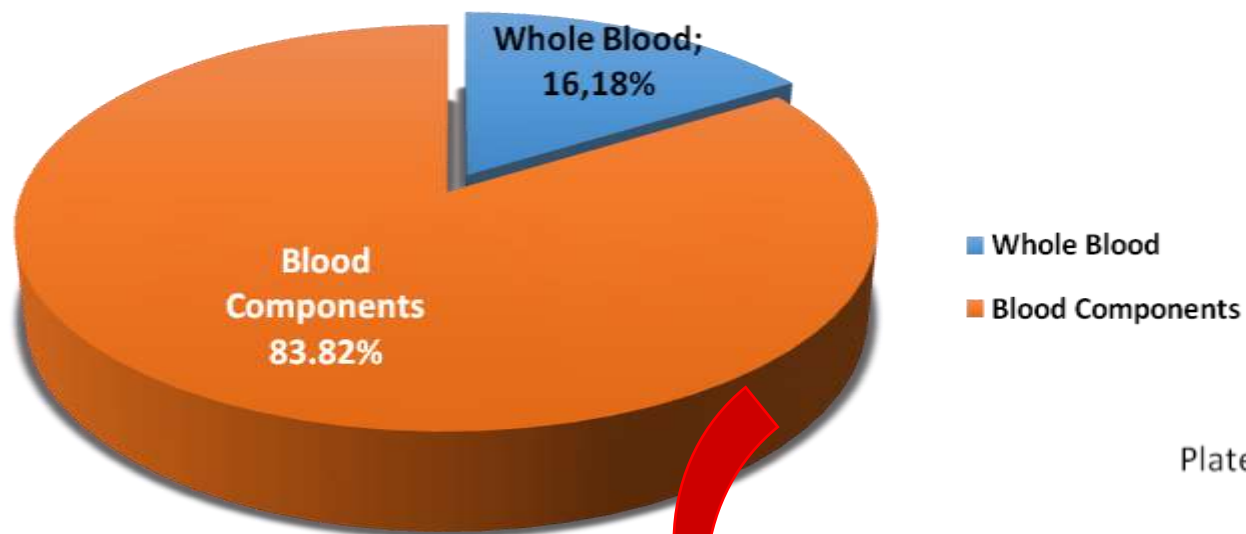
BLOOD DONATION ACCORDING TO BLOOD GROUP 2015



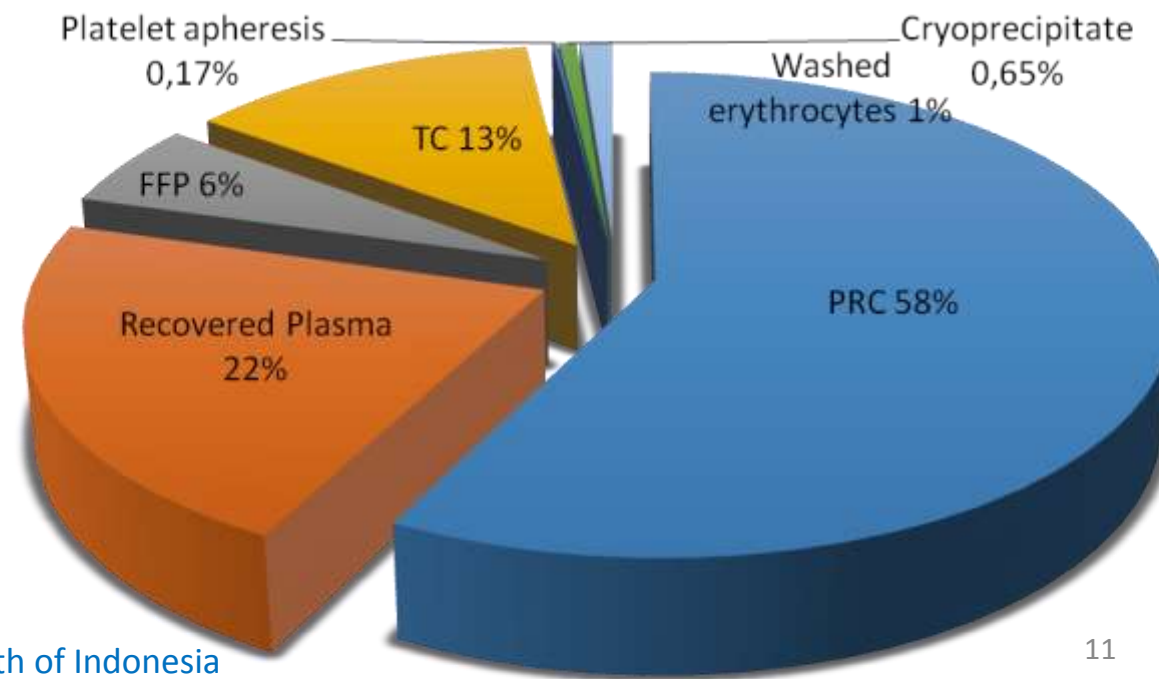
BLOOD DONATION ACCORDING TO AGE GROUP 2015



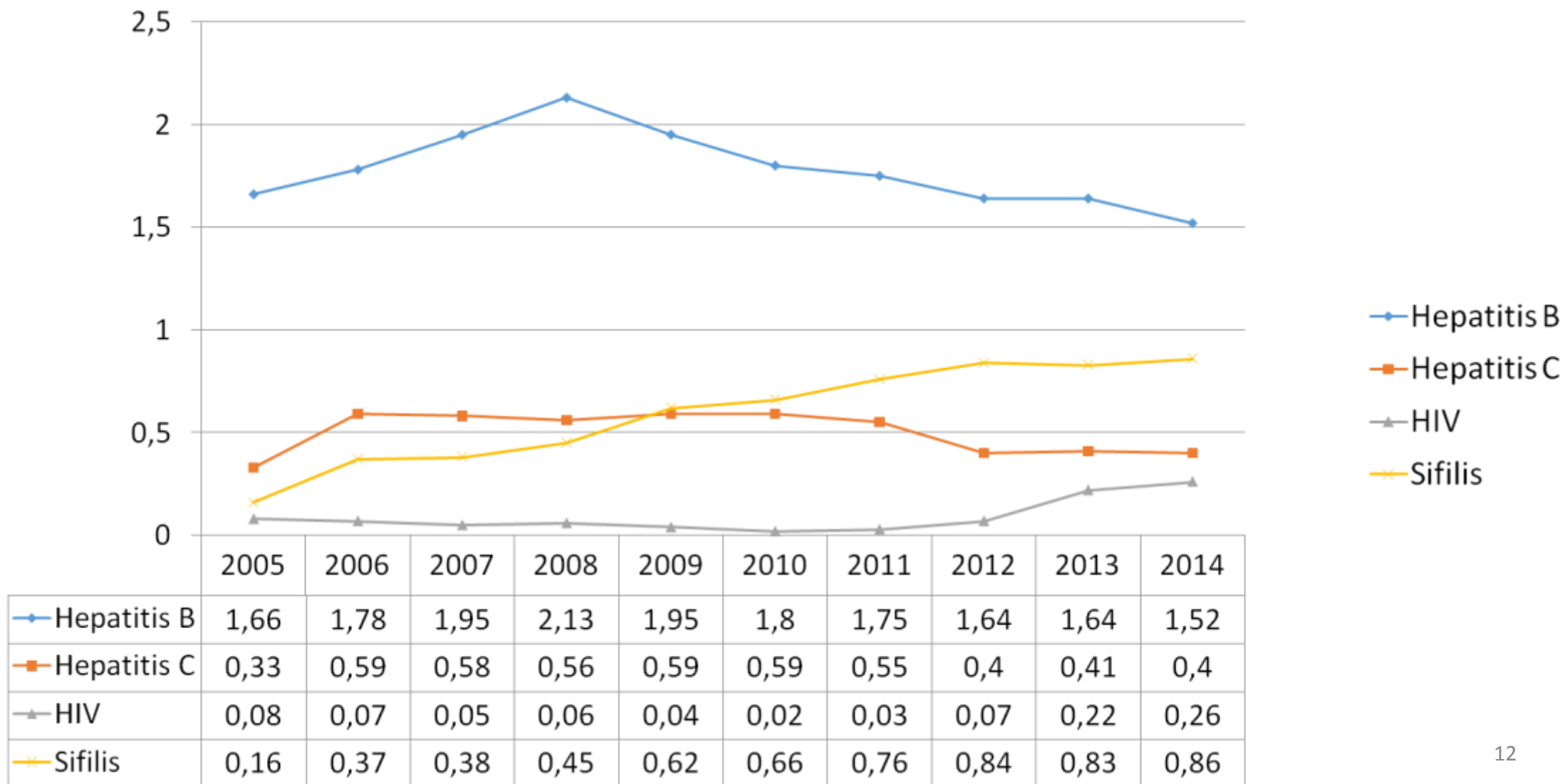
BLOOD COMPONENT PROCESSING 2015



Total production of whole blood & blood components in 2014 was 4,644.863 unit → fulfill 92% of blood needs



PERCENTAGE OF TTIS REACTIVE BLOOD 2005 - 2014



THE PLASMA PROTEIN MARKET IN INDONESIA (2006 – 2015)

	2006		2009		2012		2015
	Rp (Mill)	US \$(MM)	Rp (Mill)	US \$(MM)	Rp (Mill)	US \$(MM)	Rp. (Mill)
Albumin	150.885	16,778	146.274	14,247	235.917	25.078	540.000
Fc VIII	18.885	2,100	29.569	2,880	35.268	3,749	240
Others	199.222	22,153	234.467	22,837	69.144	7,350	-
	368.962	41,031	410.310	39,964	340.329	36.177	780.000

There were still a lot of undiagnosed and under reported patients.



Increase 58%

(*) Data from the Marketing Research Bureau, Inc, US, December 2013

(**) Data from the Preliminary report of The Marketing Research Bureau-US, 2015

INDONESIA'S POLITICAL WILL ON SELF SUFFICIENCY OF PLASMA-DERIVED MEDICINAL PRODUCTS (PDMPs)

REASONS:

- Inadequate PDMPs treatment
- Increase prevalence of PDMP's dependent diseases
- Expensive imported PDMPs
- Big population of the country

2011

Government
Regulation No. 7
on Blood Services,
Article 25

2015

MoH Decree
No. 72 on Plasma
Fractionation

2016

NADFC'S National
GMP Standard for
Blood Establishment
and its SOPs



ESSENSIAL CONTENTS:

1. Plasma should fulfil the approved requirement
2. Plasma fractionation run by the State
Pharmaceutical Enterprise
3. Incentives system for plasmapheresis donors
4. The PDMPs price controlled by the government

PROBLEMS & CHALLENGES OF BLOOD SERVICES IN INDONESIA



Inadequate supply of blood & blood component

- Improve networking of blood supply between BCs
- Increase awareness of VNRD in remote areas → Quick Win Program on Blood Services



Nationally standardized of blood & blood component

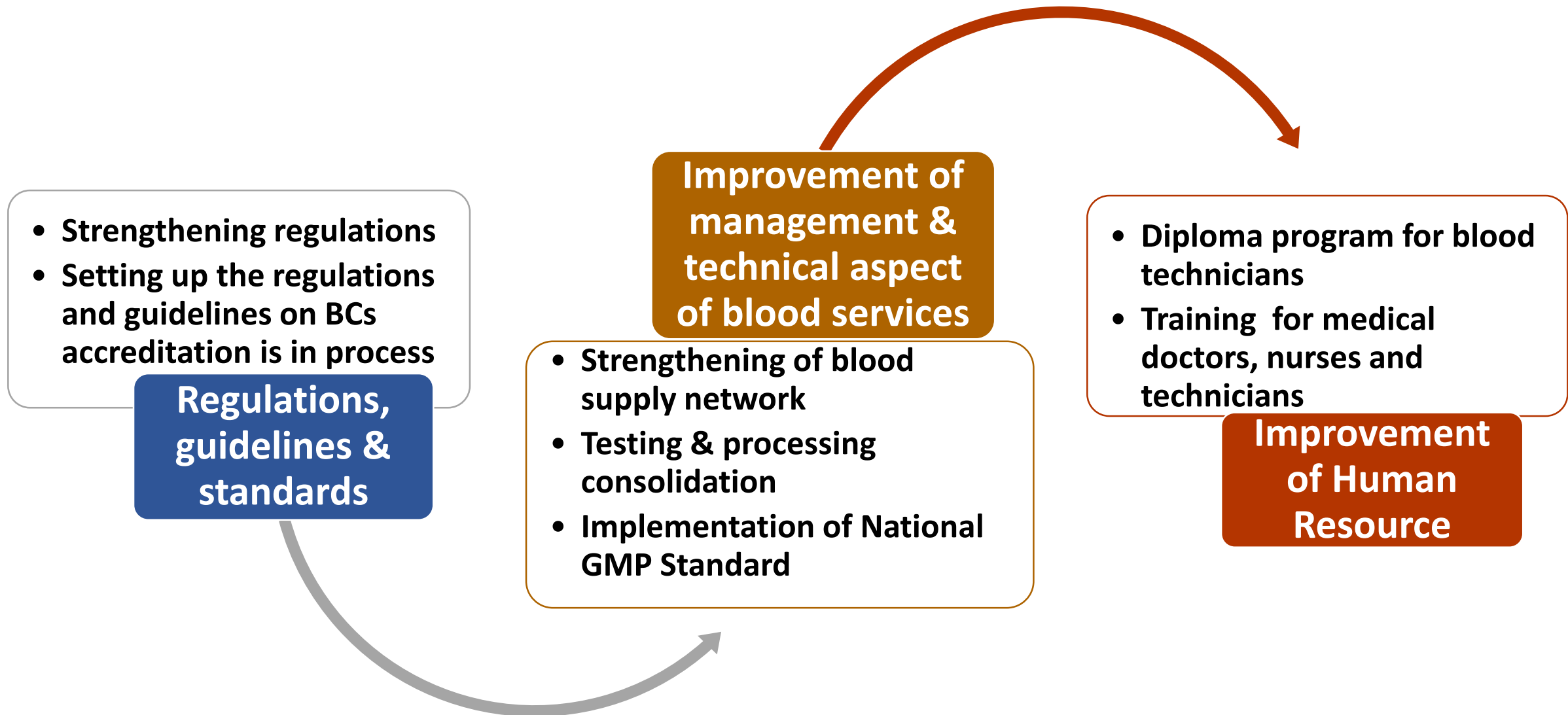
- Consolidation of testing & processing
- BC's accreditation
- Universal Health Coverage



Self-sufficiency of Plasma-Derived Medicinal Products

- Run by the State Pharmaceutical
- Plasmapheresis Collection

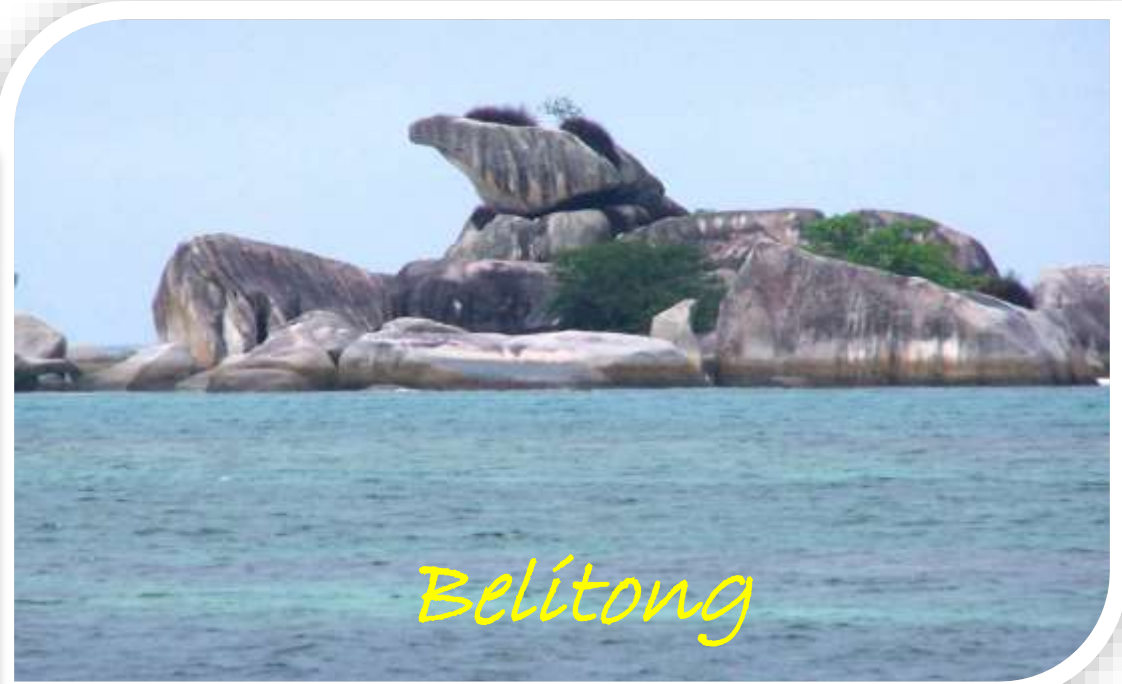
IMPROVEMENT OF BLOOD SERVICES IN INDONESIA



CLOSING

- **Blood service is an important part of health services**
- **Indonesia is still have a problem on sufficiency of blood supply, especially in remote areas due to geographic burden**
- **The quality of blood need to fulfil the National GMP standard**
- **The need of plasma products is increase due to better diagnostic and medical treatment**
- **GMP certification and Blood Centre accreditation is needed to assess quality of blood services**
- **Strategic plan for self-sufficiency of PDMPs need to be developed**

Nature.....



Bali



Culture.....



Nias



Bali

Thank You



Madura



Toraja