



---

# **CURRENT STATUS IN SAFE BLOOD AND BLOOD COMPONENTS IN TURKIYE**

**Nigar ERTUGRUL ORUC, M.D.**

**Multi-Country Workshop on Patient Safety in Transfusion  
Therapy in Emergency and Special Circumstances,**

**Bucharest, Romania, 07-09 July 2014**

---



# GENERAL INFORMATION

---



Surface	: 783,562 km <sup>2</sup>
Population	: 80 million
Birth rate	: 0.17 %
Death rate	: 0,5 %
Young adult (18 -35)	: 47 %
Population in rural area	: 25 %
Average Life expectancy:	75 years (72 men, 77 women)

---



# DEMOGRAPHIC DATA



---

## Gender

Male : 50.4 %

Female : 49.6 %

## Age Distribution

0 - 18 : 31.3 %

19 - 64 : 61.2 %

> 64 : 7.5 %

**Median Age : 29.6**

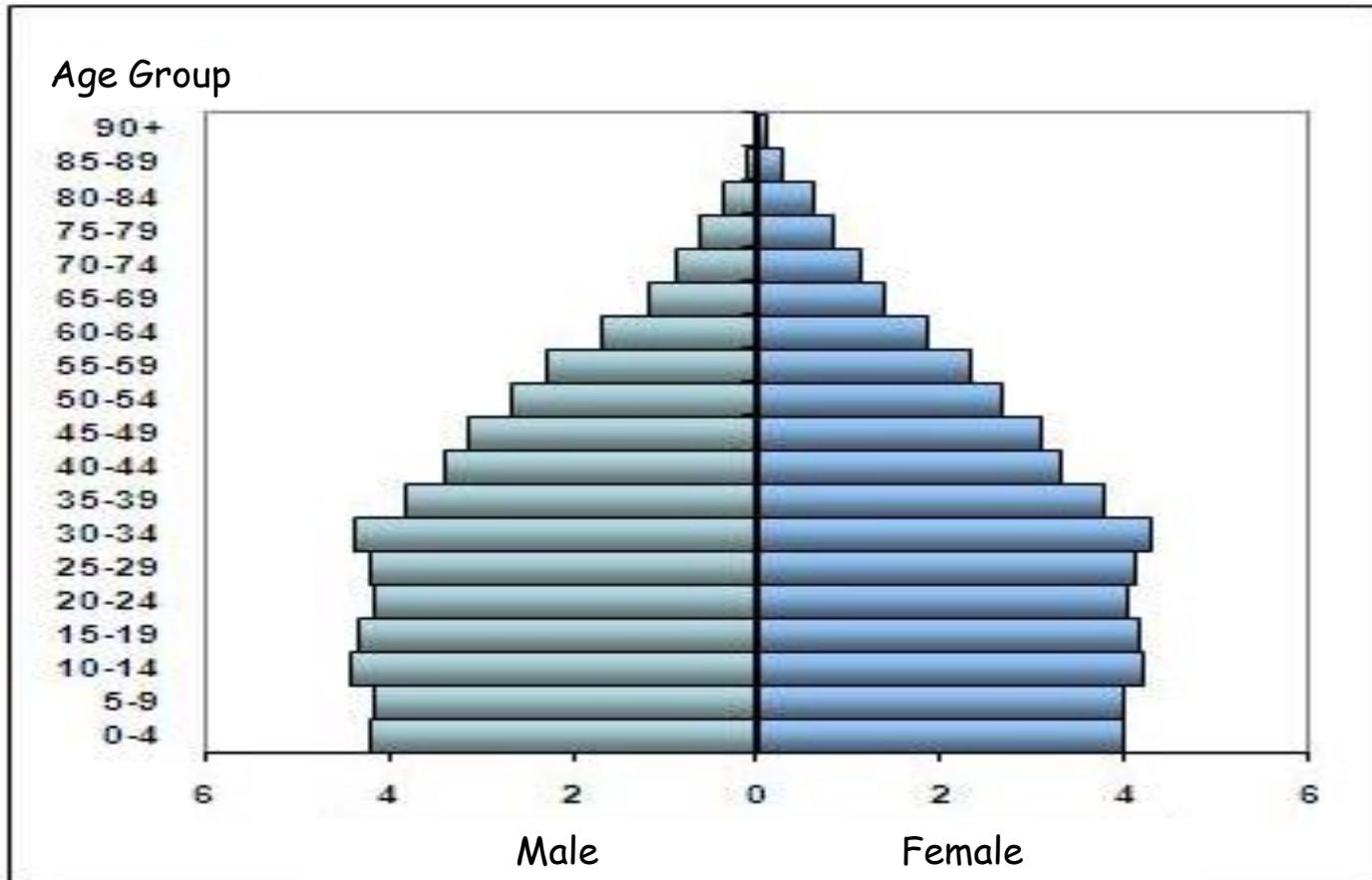
Male : 29

Female : 30

---



# AGE AND GENDER DISTRIBUTION OF POPULATION





# MILESTONES



- 
- 1983** First Blood Law (Nu: 2857) (paid donation was banned)
  - 2005** Use of ISBT 128 Labelling System
  - 2006** Accreditation activities (JCI, etc),
  - 2007** Current Law on Blood and Blood Products (Nu:5624),
  - 2008** Implementing Regulation on Blood and Blood Products,
  - 2009** The National Guide on Blood and Blood Products ,
  - 2012** EU project of "Strengthening the Blood Supply System in Turkiye" (completed)
  - 2014** EU project of "Recruitment of Future Blood Donor" (on going)



## BACKGROUND

---



Regulation on blood and blood products in Turkiye is updated in accordance with EC directives;

- ➔ to secure self sufficiency of blood collected from voluntary non-remunerated blood donors
  - ➔ to improve the safety and the quality of blood and blood components
-



## LEGAL FRAMEWORK

---



- ➔ *New Law on Blood and Blood Products (Law No: 5624, OJ No: 26510, 02.05.2007),*
  - ➔ *"Blood and Blood Products Implementing Regulation" (December, 2008),*
  - ➔ *"National Guide on Blood and Blood Products (2009-2011),*
-



# LEGAL FRAMEWORK

---



- ➔ National Standards for Blood Services
  - ➔ National Guide on Total Quality Management in Blood Services
  - ➔ National Guide for Preparation, Use and Quality Assurance of Blood and Blood Components
  - ➔ National Guide of Hemovigilance
  - ➔ Guide on Appropriate Clinical Use of Blood
  - ➔ Inspection Guide for Blood Services
-

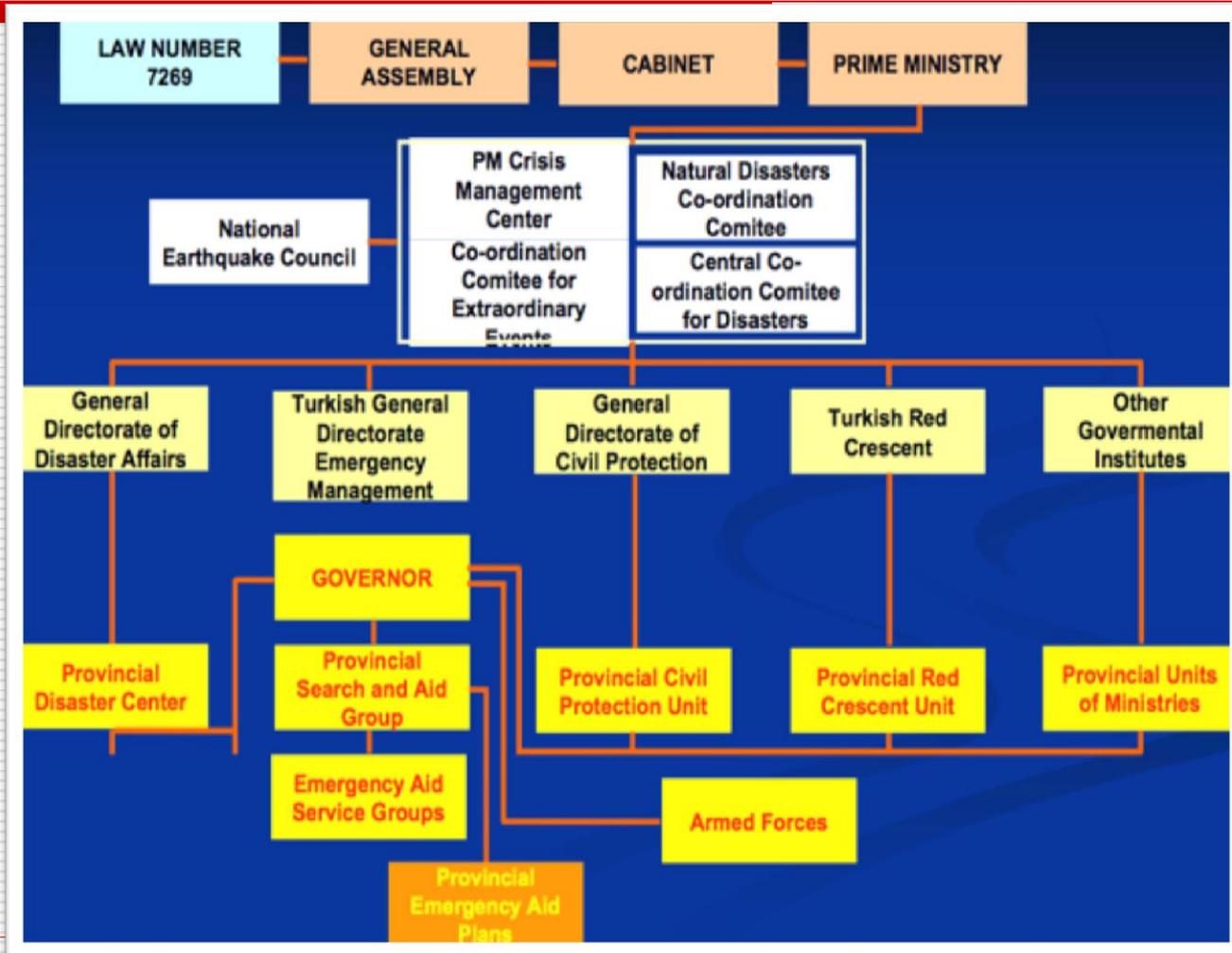


# EMERGENCY DOCUMENTATION

---



- ➔ Implementing Regulation and Crisis Preparedness Plan for EMS
  - ➔ Risk Assessment and Preparedness Information System
  - ➔ National Action Plan of Blood Services for Disasters
  - ➔ Written Standards and Protocols of Triage System
  - ➔ Procedures for patients without identification system
  - ➔ Haemovigilance reporting systems
  - ➔ Biosecurity protocols
-





# STRUCTURE OF THE SYSTEM

---



- ➔ Ministry of Health (MoH) is the main authority on blood banking and transfusion system,
  - ➔ MoH has the responsibility for blood policy, legislation and the implementation of regulations,
-



# STRUCTURE OF THE SYSTEM

---



Provincial Directorate of Health is responsible for;

- ➔ licensing,
  - ➔ auditing ,
  - ➔ inspection of blood establishments
  - ➔ hemovigilance
-



# STRUCTURE OF THE SYSTEM

---



- ➔ Board of Blood as a professional advisory board of Ministry of Health
  - ➔ Training Committee of Blood Banking and Transfusion Medicine Instruction
  - ➔ Hospital Transfusion Committees
-



## STRUCTURE OF THE SYSTEM

---



- ➔ Regional blood centres are managed nationally by Turkish Red Crescent
  - ➔ Transfusion centres are managed by various institutions such as university hospitals, training and research hospitals of MoH, private hospitals etc..
  - ➔ Private blood banking was prohibited in 1983 by Blood Law.
-



# ORGANIZATION OF HEALTH CARE AND THE BLOOD TRANSFUSION SERVICE



	<b>PUBLIC</b>	<b>PRIVATE</b>	<b>OTHERS</b>
Reagonal Blood Centers/ Blood Centres	-	-	16/60
Temporary Regional Blood Establishments	35	-	-
Hospitals Performing Transfusion Therapy	509	432	12
<b>TOTAL</b>	<b>544</b>	<b>432</b>	





# Number of Certified Personnel



Personnel	Number
Specialist Physicians	430
Physicians	490
Technical Personnel	5414
<b>Total</b>	<b>6343</b>

➔ Master Degree Program

➔ Certification program on Blood Banking and Transfusion Medicine



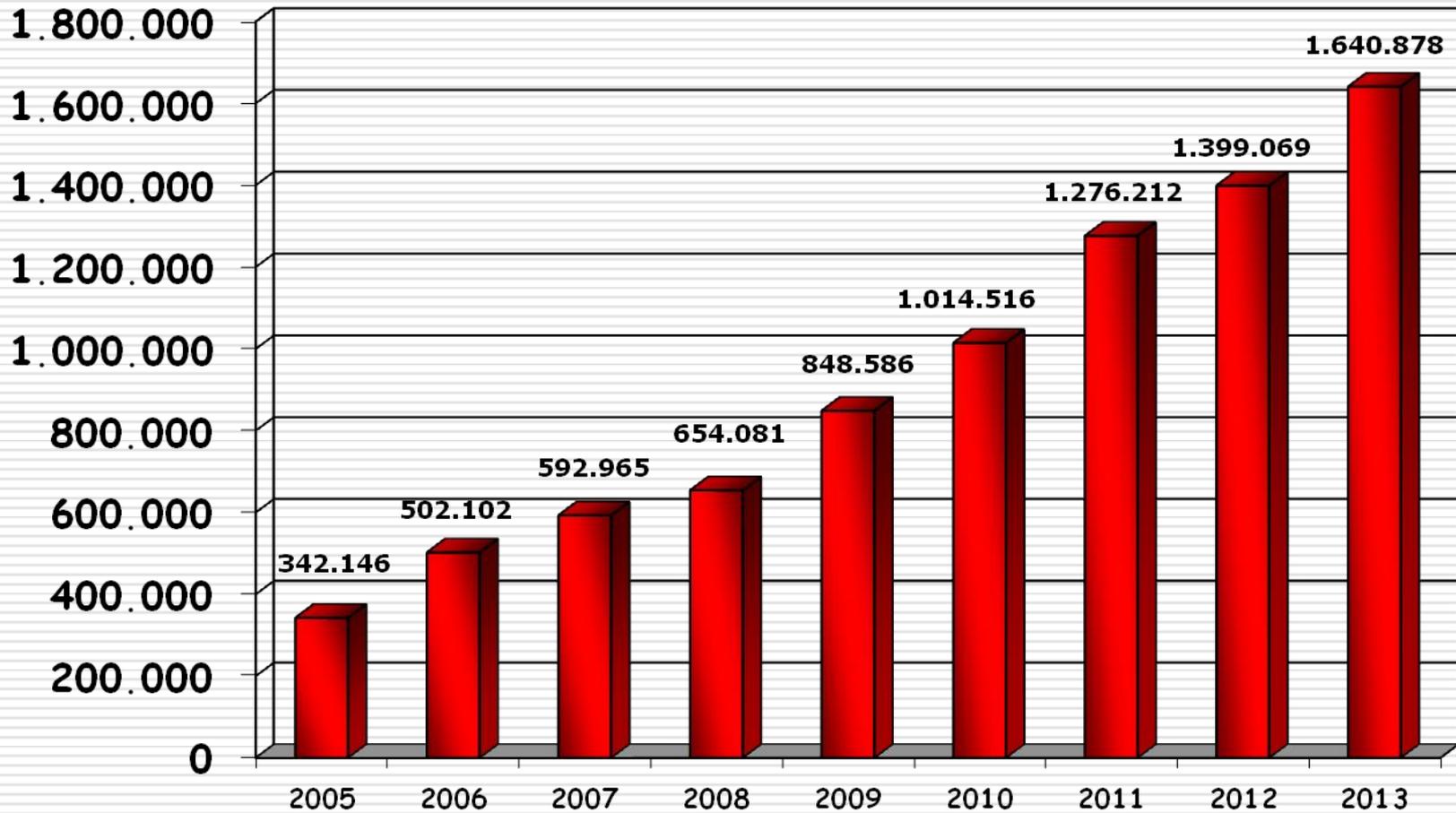
---

TRAINING FIELD	NUMBER OF TRAINEES
Administratif Training	100
Training of Trainers (C3)	100
Total Quality Management	1200
Haemovigilance	1200
Quality Control	250
Clinical Use of Blood	760
Trainers of Inspector	30
Inspector Training	90

---

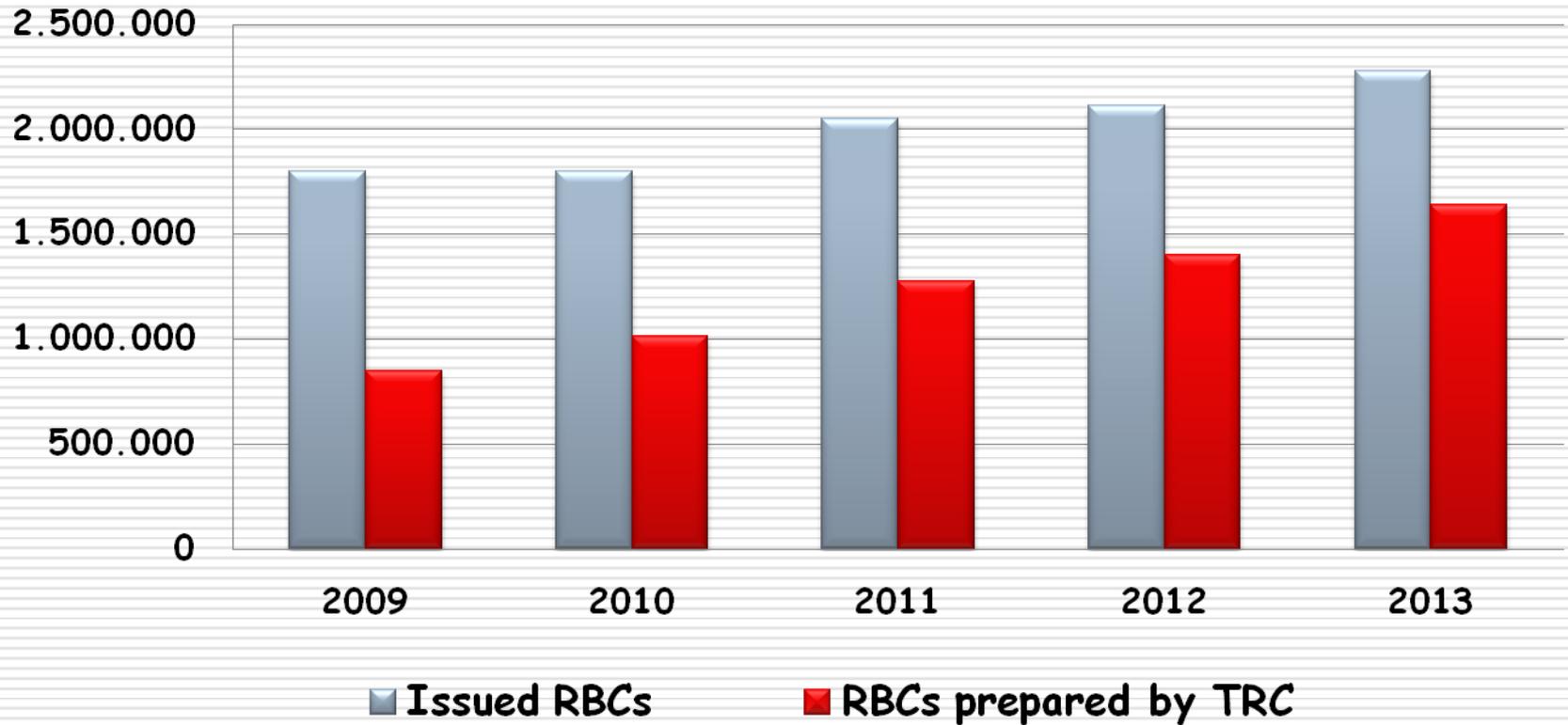


# Blood Collected by TRC



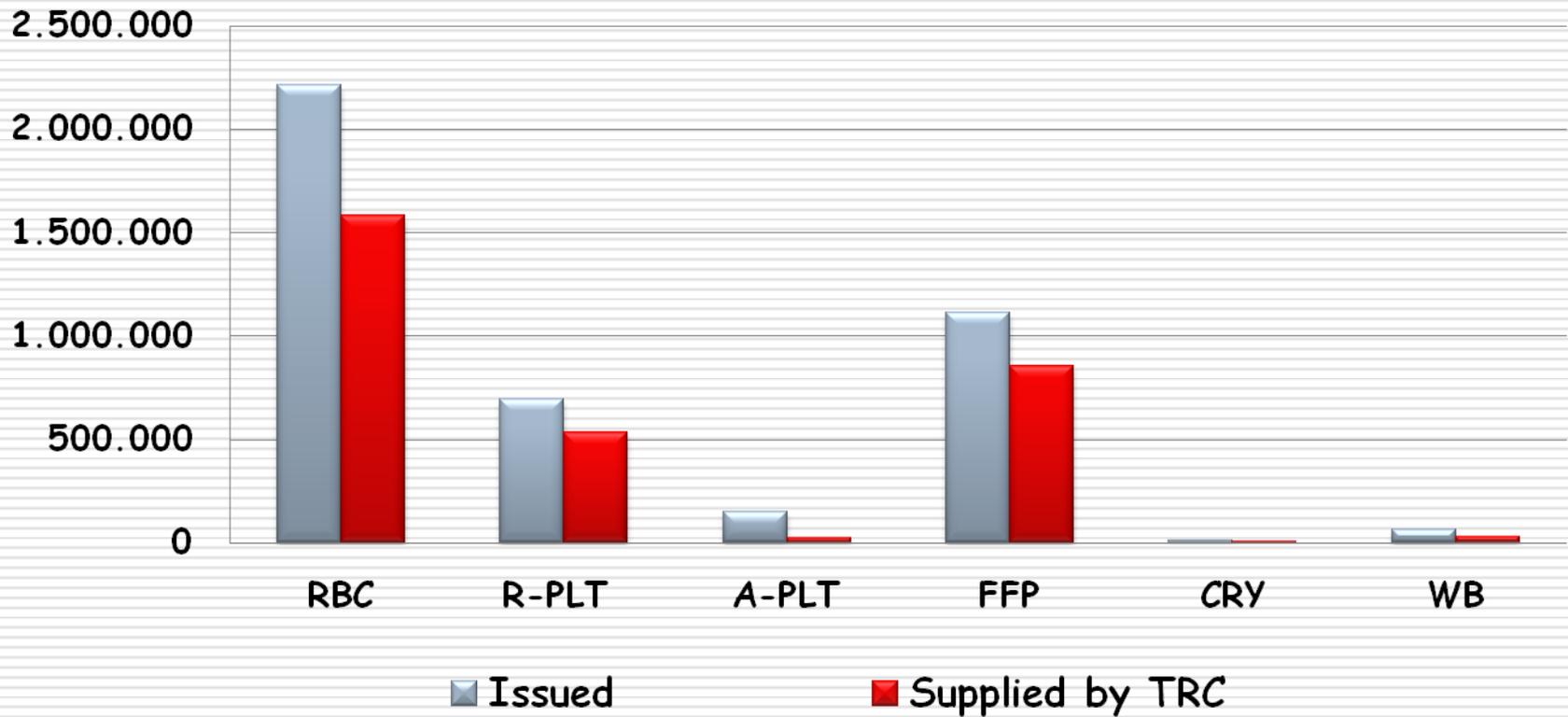


# Annual Demand Supplied by TRC



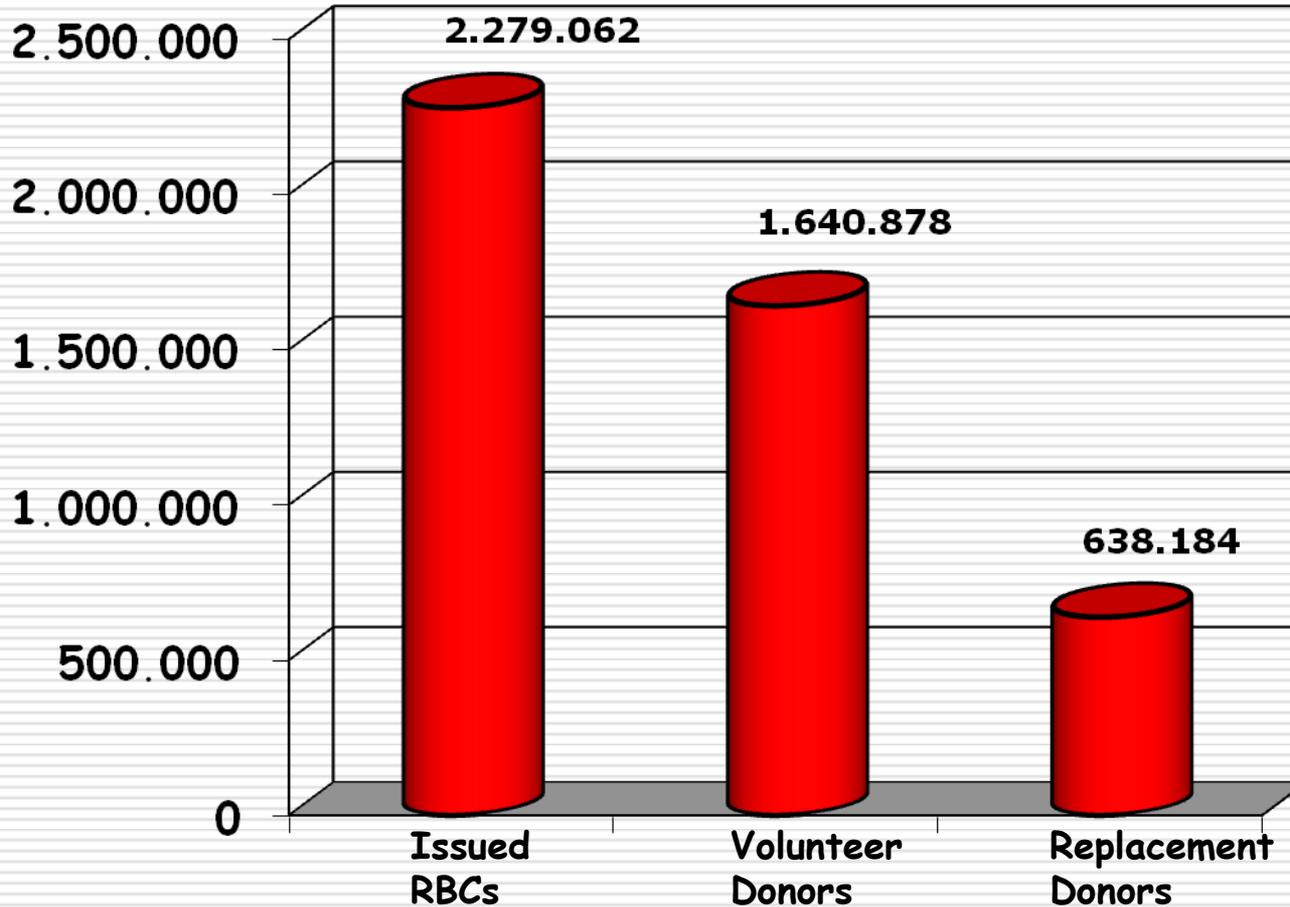


# Annual Demand Supplied by TRC



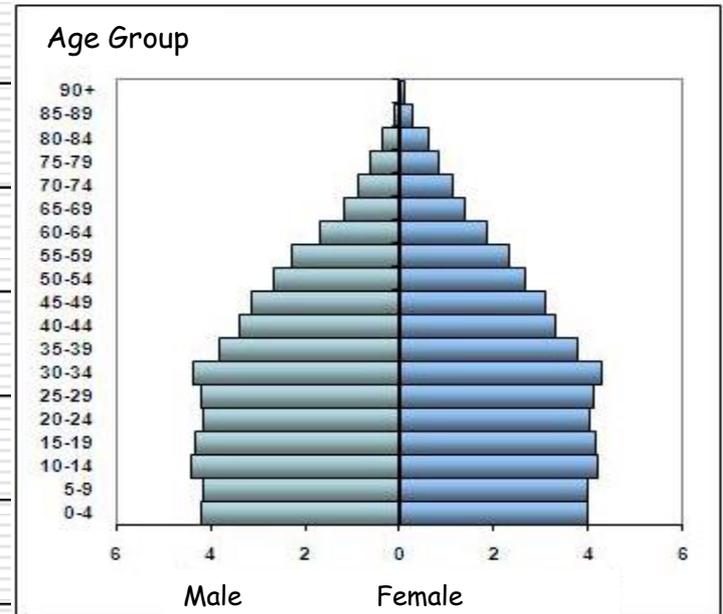
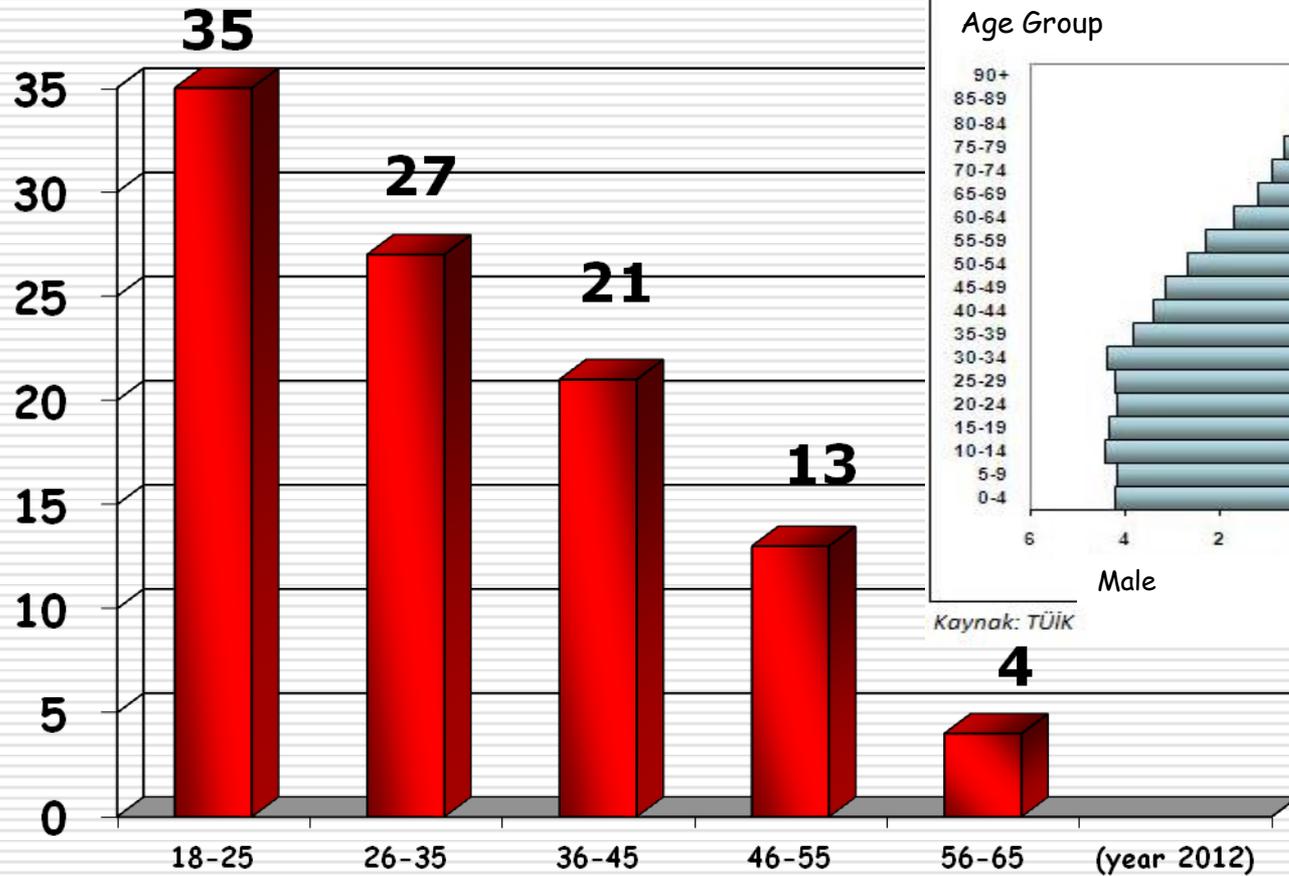


# Sources of Blood Supply (2013)





# Donation rates by age



Kaynak: TÜİK



# NATIONAL DATA PROCESSING

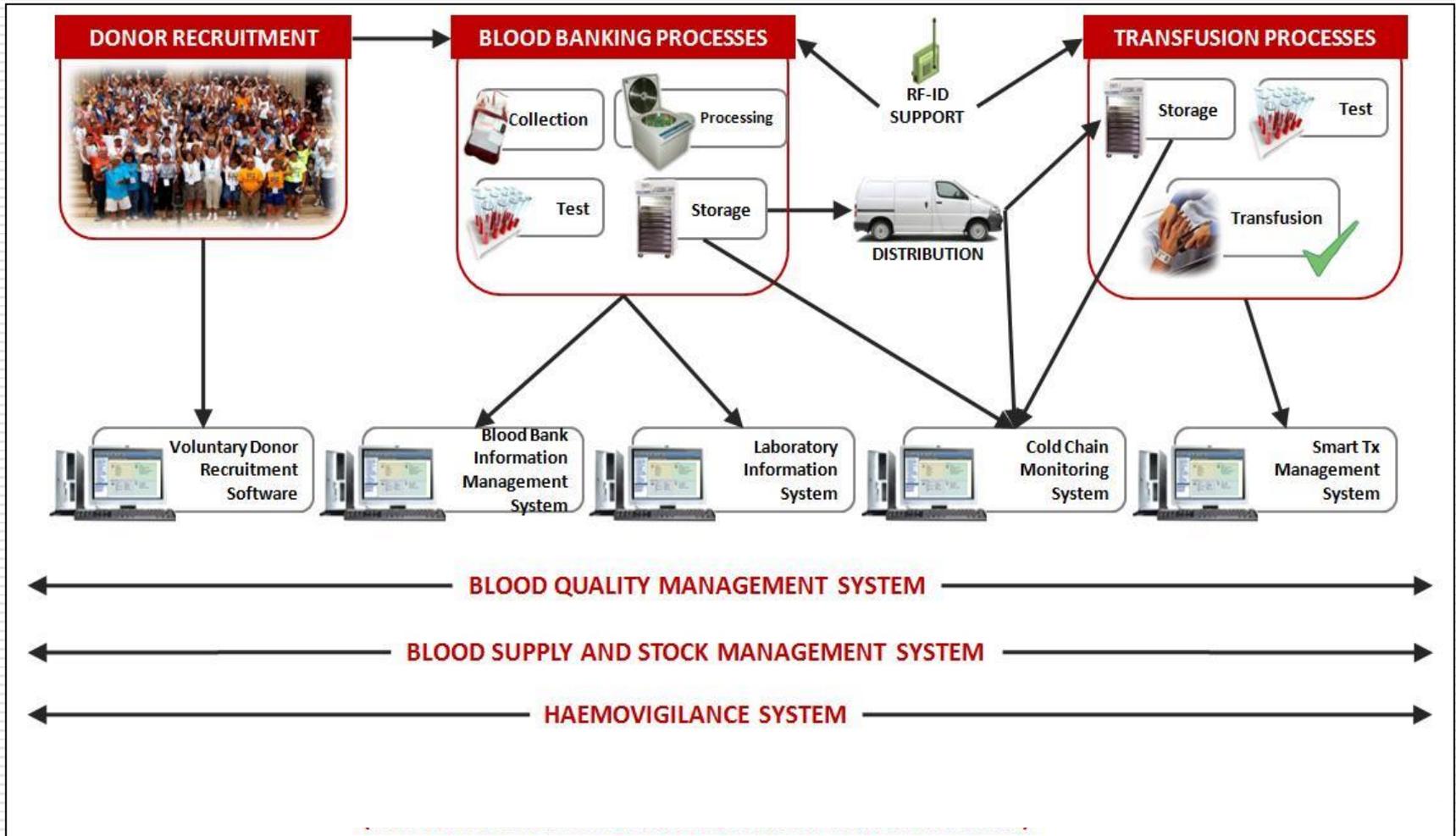
---

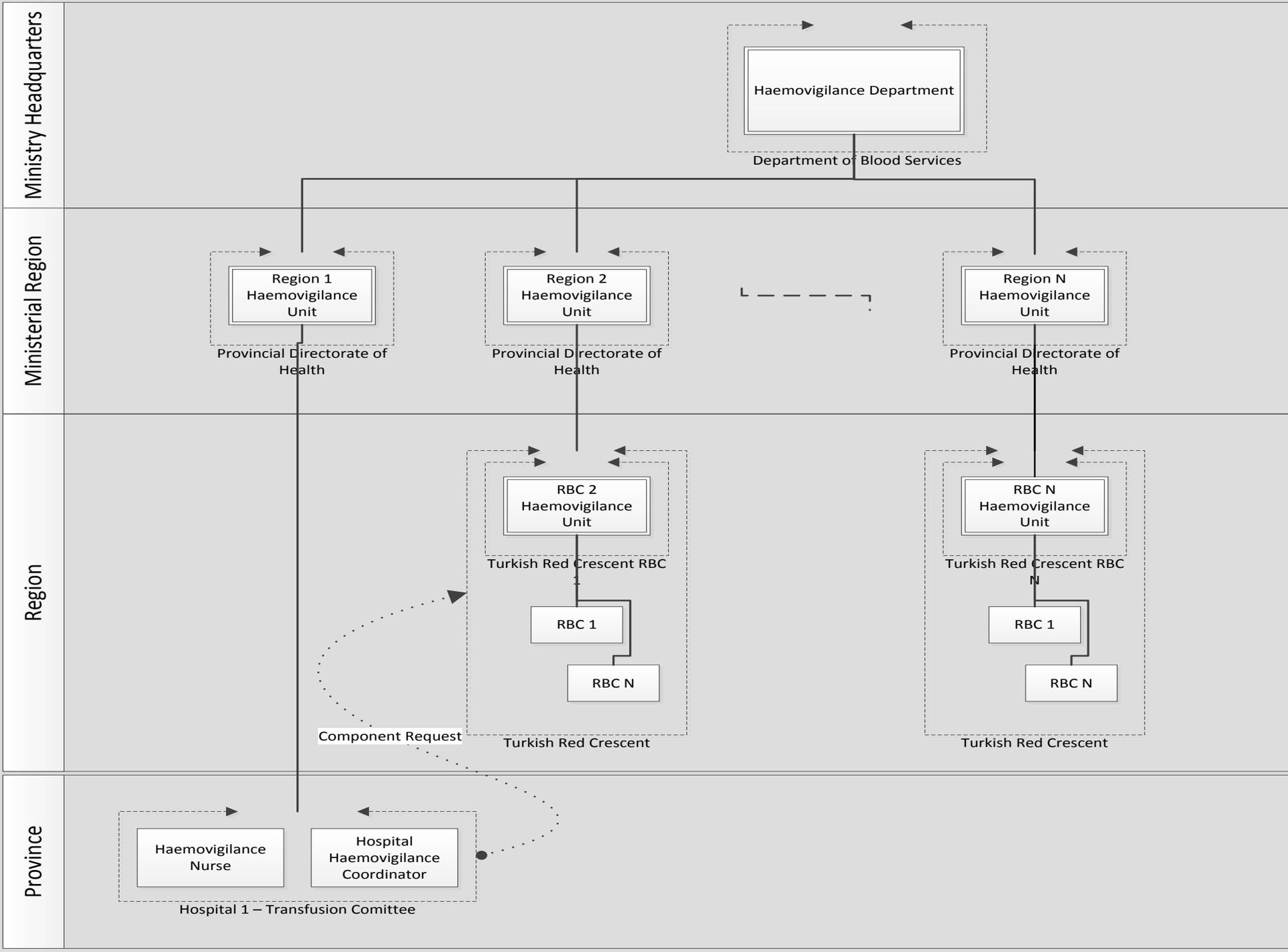


- ➔ Blood donor register
  - ➔ Available blood supplies
  - ➔ Clinical demand/use of blood
  - ➔ Blood supply activities
  - ➔ Blood transfusion activities
  - ➔ Haemovigilance
-



# BSM SYSTEM







MUSTAFA KEMAL ATATÜRK

Türkiye Cumhuriyeti'nin Kurucusu  
Fondatorul Republicii Turciei  
1881 - 1938

*Yurtta Barış, Dünyada Barış  
"Pace in Casa, Pace in lume."*



THANK YOU FOR YOR ATTENTION