

# SAFE BLOOD – WHERE WE ARE AND THE WAY FORWARD

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# Blood Transfusion Services in Pakistan

- In 2017 , estimated 2.75 million blood donations in 500 blood banks across Pakistan <sup>(1)</sup>
- Around 95-98% based on replacement donors
- Most collections are performed in the existing hospital laboratory
- Almost all blood banks in public sector with exception of few, and most (approx. half) private blood banks are using rapid ICT devices (not recommended).
- In addition , ICT devices used are sub standard
- Resulting in HBV upto 8.4% and HCV upto 8.68% in blood donors <sup>(2)</sup>
- Incomplete Blood Grouping (Forward Grouping only) performed on slides
- Cross matching not routinely performed

1) SBTP National Data Collection Report 2017

2) Prevalence of Hepatitis B and C in Pakistan.2008.Pakistan Medical Research Council , Ministry of Health , Government of Pakistan.

# Blood Transfusion Services in Pakistan

- Serious Shortage of staff and untrained at most sites
- Most DHQ & THQ hospitals do not have proper blood banks
- Either blood is drawn by the scanty lab staff and handed over to patients family without proper testing
- Or Blood has to be procured by affected families from outside blood banks
- Uneven access to blood, has lead to creation of Blood Mafia's

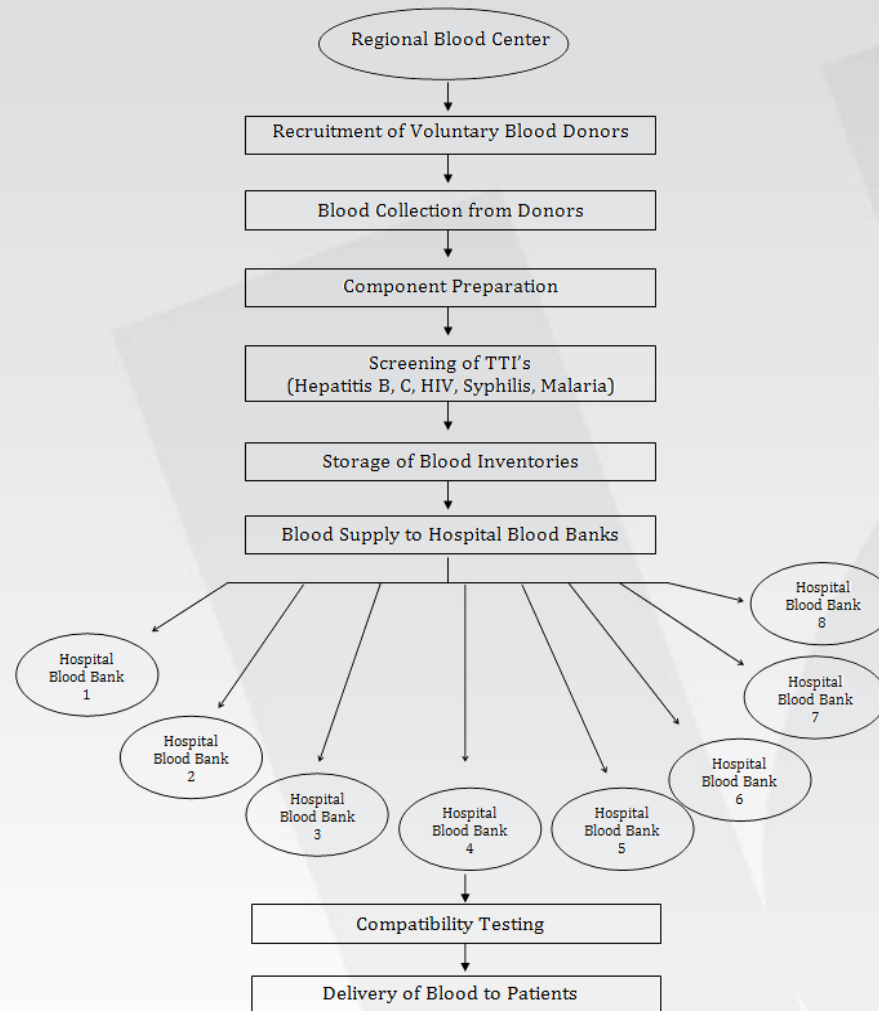
# Blood Supply for Thalassemia Major Patients

- Estimated one fourth of the national annual blood collections are transfused to the Thalassaemia Major patients.
- Estimated 100,000 Thalassaemia cases have limited access to proper healthcare.
- A national Thalassaemia registry does not exist and many patients are managed in the private sector NGOs.
- Services to the Thalassaemia patients are unregulated with insufficient transfusion and medical coverage.
- One impact of this state of affairs is the accumulating higher percentages of HBV (8.4%) and HCV (56.8%) among these chronic transfusion recipients <sup>(1)</sup>

1) Prevalence of Hepatitis B and C in Pakistan.2008.Pakistan Medical Research Council , Ministry of Health , Government of Pakistan

# Centralized Blood Banking – The Way Forward

Fig 2; Blood Supply in Centralized Blood Banking



# The Journey Begins

The Indus Hospital Blood Center – inaugurated October 29<sup>th</sup>, 2013  
in facility with a seminal team of 18 members

## **With the Vision:**

“Provide the safest possible blood, meeting international standards  
to all segments of the Society without any discrimination”

## **And the Mission;**

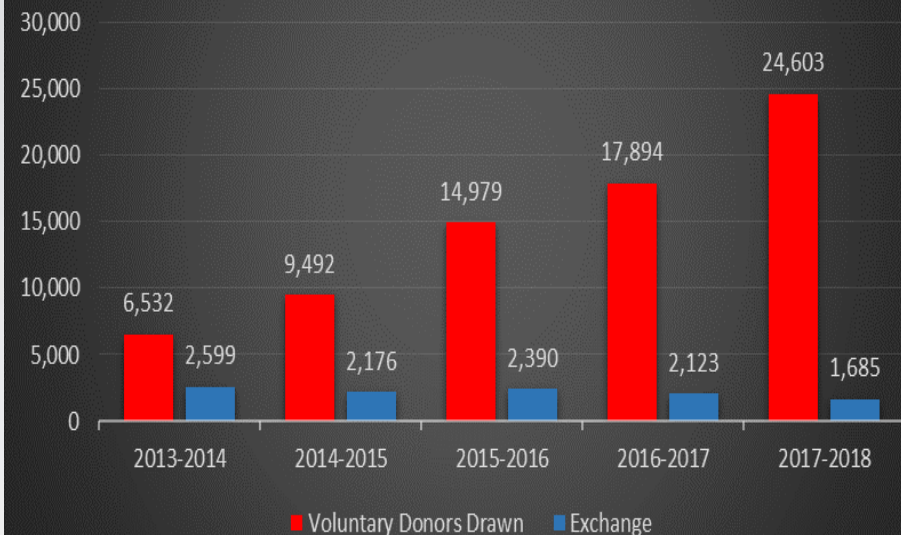
“Mobilize the nation towards 100% voluntary blood donations”

# BLOOD DONATION COLLECTION

**Nov 30<sup>th</sup> 2013 to June 30<sup>th</sup>, 2018**

Years	Total Drawn	% Growth in Voluntary Donor	Voluntary Donors Drawn		Replace ment Donors	%
			#	%	#	
July 15 <sup>th</sup> 2013 To 30 <sup>th</sup> June 2014	9,131	-	6,532	72%	2,599	28%
July 1 <sup>st</sup> - June 30 <sup>th</sup> 2014- 2015	11,668	31%	9,492	81%	2,176	19%
July 1 <sup>st</sup> - June 30 <sup>th</sup> 2015-2016	17,369	37%	14,979	86%	2,390	14%
July 1 <sup>st</sup> - June 30 <sup>th</sup> 2016-2017	20,017	16%	17,894	89%	2,123	11%
<b>July 1<sup>st</sup> - June 30<sup>th</sup> 2017-2018</b>	<b>26,288</b>	<b>27%</b>	<b>24,603</b>	<b>94%</b>	<b>1,685</b>	<b>6%</b>

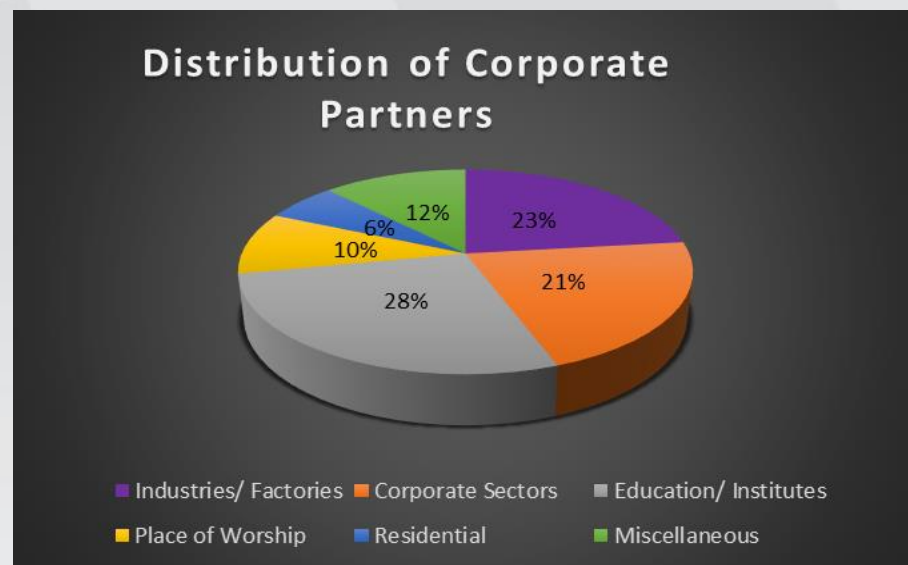
## VOLUNTARY vs EXCHANGE BLOOD COLLECTION





# BLOOD DRIVES

Years	Total Number of Camps
2014	109
2015	204
2016	352
2017	471
2018	769
<b>Total</b>	<b>1,905</b>







## RAMAZAN COLLECTIONS

### Summary Ramadan Collections

Year	Visited Donors	Drawn Donors	% Growth	Total Camps
2014	469	<b>343</b>	-	10
2015	994	<b>939</b>	37%	29
2016	1259	<b>1201</b>	22%	46
2017	1590	<b>1340</b>	10%	55
2018	2752	<b>1836</b>	27%	71

# MOBILE BLOOD COLLECTION UNIT

- The Indus Hospital Blood Center launched its first mobile blood collection unit on July 15, 2017.
- Since the inception of this service, **134** mobile camps were organized resulting into **3,604** blood bags collection till June 30th 2018. The highest collection marked from the bus camp was 85 units during the time span of 8 hours.



## TIHBC Data of Product issue from 1 July-2017 to 30 June -2018

Site Name	PC		FFP		PLT		CRYO		WB	
	Yearly	Average Monthly	Yearly	Average Monthly	Yearly	Average Monthly	Yearly	Average Monthly	Yearly	Average Monthly
Afzal Memorial	891	74	0	0	0	0	0	0	0	0
Kashif Iqbal Thalesimia Center	623	52	0	0	0	0	0	0	0	0
Kindney Center	1458	122	0	0	4	0	0	0	0	0
Civil Hospital Badin	5611	468	1931	161	515	43	0	0	0	0
Burns center, Civil Hospital Karachi	1933	161	451	38	196	16	0	0	0	0
Al-Ghazi Campus Bhong	610	51	80	7	36	3	0	0	0	0
Cancer Foundation	12	1	0	0	0	0	0	0	0	0
Zia uddin Hospital North campus	99	8	0	0	14	1	0	0	0	0
Zia uddin Hospital Cilifton campus	219	18	0	0	35	3	0	0	0	0
NIBD	2	0	0	0	20	2	0	0	0	0
Thalesimia Center Badin	599	50	0	0	0	0	0	0	0	0
Baitul Sukoon	229	19	14	1	24	2	0	0	0	0
RBC Jamshoro	7	*	60	*	0	0	0	0	261	*
Un Registered	818	68	229	19	594	50	0	0	0	0
RBC Multan	0	0	0	0	0	0	0	0	254	*
RBC Bhawalpur	0	0	90	*	0	0	0	0	288	*

\* Product issue for commissioning of RBC

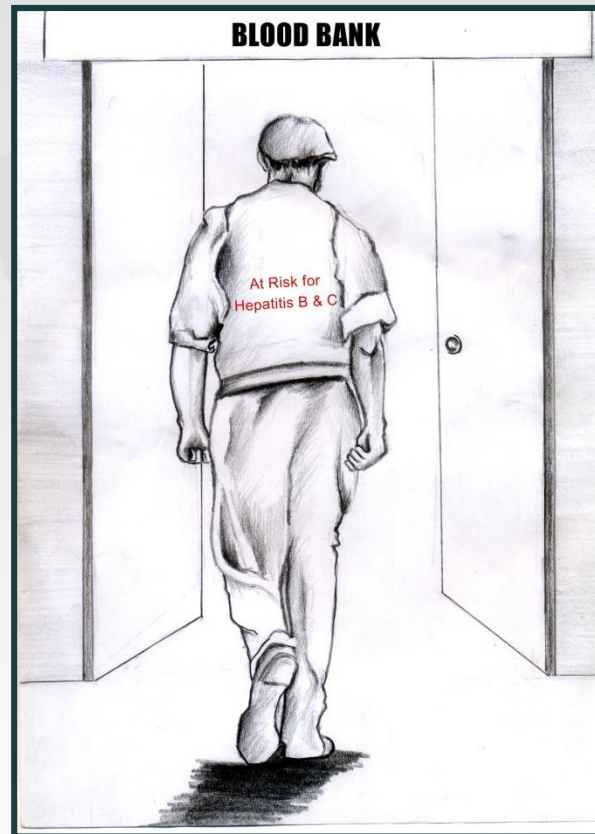


# Regional Blood Centers of Punjab

- TIHBC was requested by the Government of Punjab to replicate TIHBC, Karachi model.
- RBC Multan commissioned on October 1<sup>st</sup>, 2017
- Nishter Hospital (1700 Beds) Blood Bank commissioned on October 16, 2017
- RBC Bahawalpur and Bahawal Victoria Hospital (1500 beds) Blood Bank commissioned on December 6<sup>th</sup>, 2017



# Poor Donor Selection Practices Before



# Donor Selection After





# Donor Draw Before





# Donor Draw After



# BLOOD DONATION DRIVES (CAMPS)





# MOBILE BLOOD COLLECTION



# Transfusion Transmitted Infection Testing Before



Immunochromatographic Tests

# Transfusion Transmitted Infection Testing After





# Request for Blood Before

**OUT DOOR SLIP**  
**DEPARTMENT OF RADIOTHERAPY ONCOLOGY**  
Nishtar Hospital, Multan.


RTD No: 1290992

Pt. Name: Bilal Age: 24y Sex: M



*B/G & Cross Match*  
*2 POB*

**ACENIM**  
Aceclofenac  
100mg tab

**Rabzole** 20mg Tab  
Rabeprazole 40mg Tab

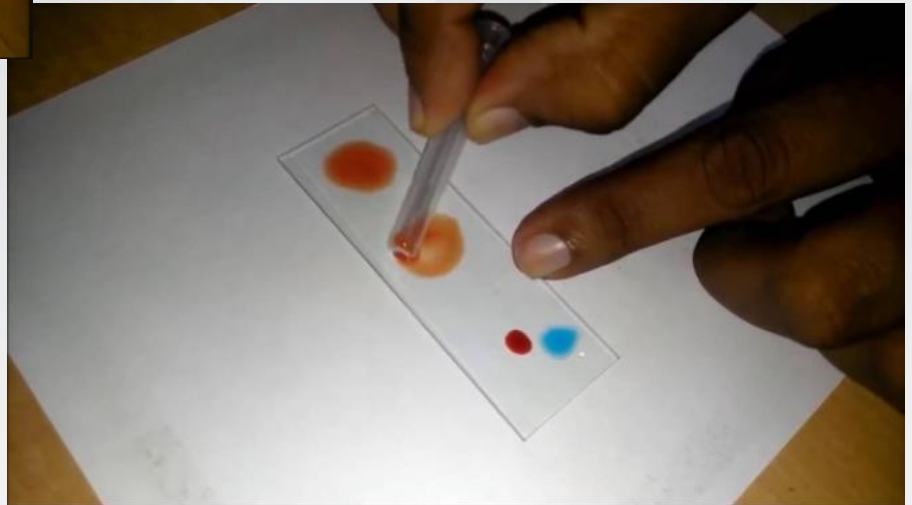
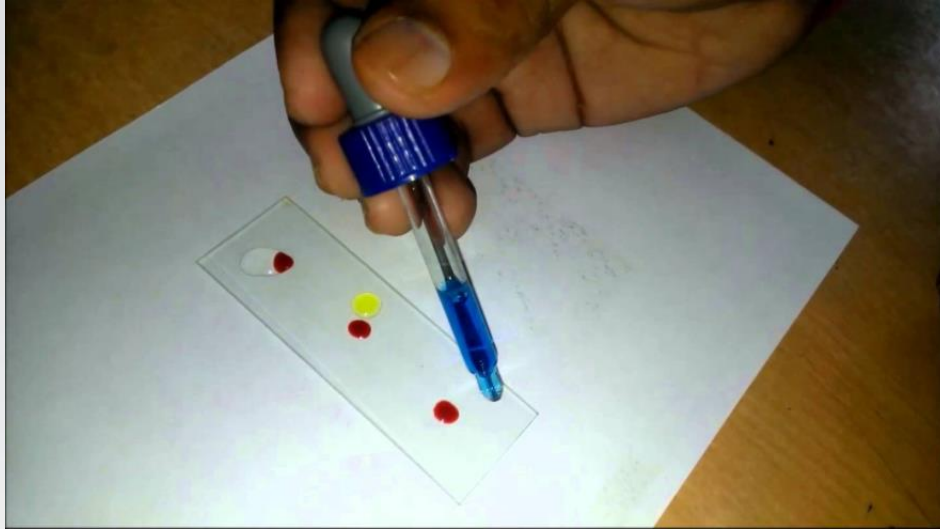


# Request for Blood After

		<b>Nishtar Hospital, Multan</b> <b>REQUEST FORM FOR BLOOD BANK</b>		 Managed by	
Patient's Blood Sample <b>MUST</b> be sent with this Request Form					
Patient Name: <u>Parveen</u>					
IR #:	<u>1333406</u>	Ward	<u>04</u>	Bed:	<u>11</u>
Number of donors being sent along this "Request Form"				<u>1</u>	
When will the blood be required				Date: <u>21-02-18</u>	
<b>Blood Product Needed</b>					
rrange			Quantity <u>3 POR</u>		
Whole Blood					
Red Cells					
Platelets					
Plasma					
Cryoprecipitate					
<b>Tests</b>					
lood Group					
irect Antiglobulin (Coombs) Test					
isting Doctor: <u>Dr. Owais</u> Designation: <u>H/S</u>					
it Written By: <u>Dr. Owais</u>					
<u>21-02-18</u> Time: <u>10:00 am</u>					



# Blood Grouping and Crossmatching Before



# Blood Grouping and Compatibility Testing After

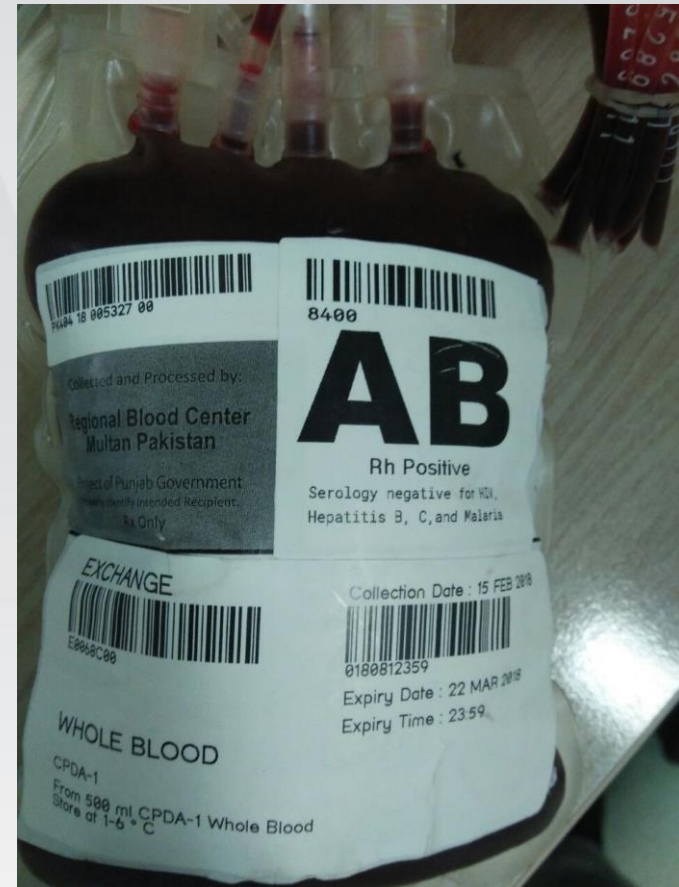


# Ready Unit

Before



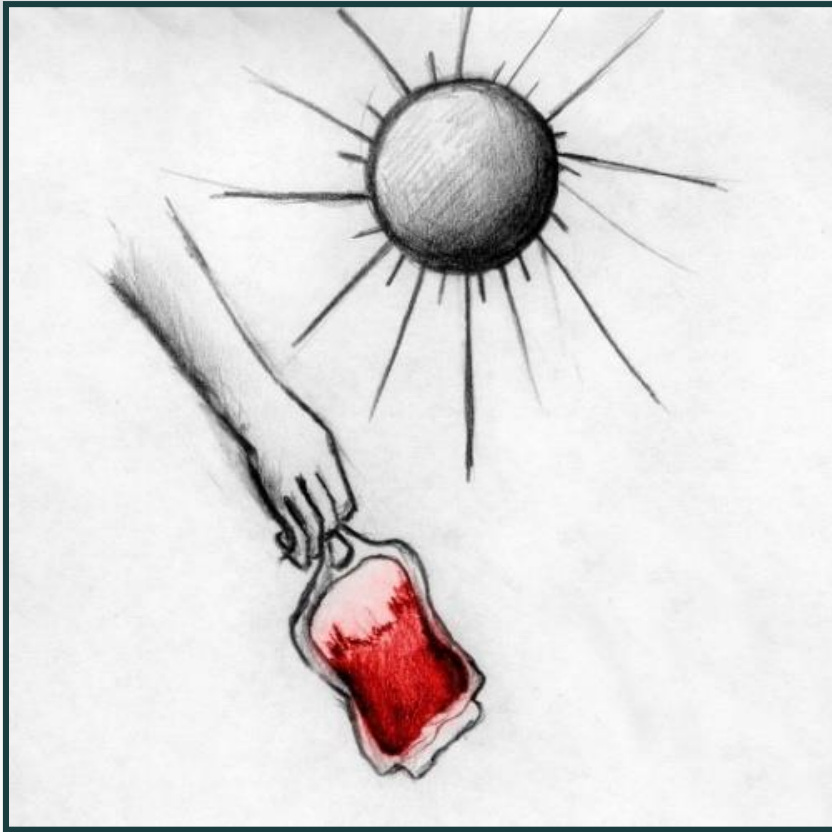
After





# Delivery of Blood

**Before**



**After**



**Cold Chain Maintained till bedside**

## **RBC Jamshoro – Operationalized on September 3<sup>rd</sup> , 2018**

- Hospital Blood Banks to be connected;
  - Civil Hospital Badin (operationalized 2016)
  - LUMHS Hospital, Jamshoro (operationalized September 3<sup>rd</sup>, 2018)
  - Civil Hospital City Branch, Hyderabad (Commissioning Initiated)
  - DHQ, Mirpurkhas
  - DHQ, Thatta
  - DHQ , Mitiari

## RBC UPDATE; TOTAL DONORS DRAWN

NAME	DONORS DRAWN		
	TOTAL	REPLACEMENT	VOLUNTARY
RBC MULTAN (Oct 16 <sup>th</sup> 2017 till Sept 30 <sup>th</sup> , 2018)	55,945	53,808 (96%)	2137 (4%)
RBC Bahawalpur ( Dec 6 <sup>th</sup> , 2017 till Sept 30 <sup>th</sup> 2018)	49,795	45,506 (91.4%)	4,289 (8.6%)
RBC Jamshoro ( Sept 3 <sup>rd</sup> , 2018 – Oct 15 <sup>th</sup> , 2018)	900	874 (97.1%)	26 (2.9%)

## BLOOD SUPPLIED TO THALASSEMIA CENTER, BAHAWALPUR

Dec-17	638
Jan-18	642
Feb – 18	714
Mar – 18	819
Apr – 18	829
May – 18	947
Jun – 18	939
July – 18	929
Aug – 18	1027
Sep – 18	960
TOTAL	8444



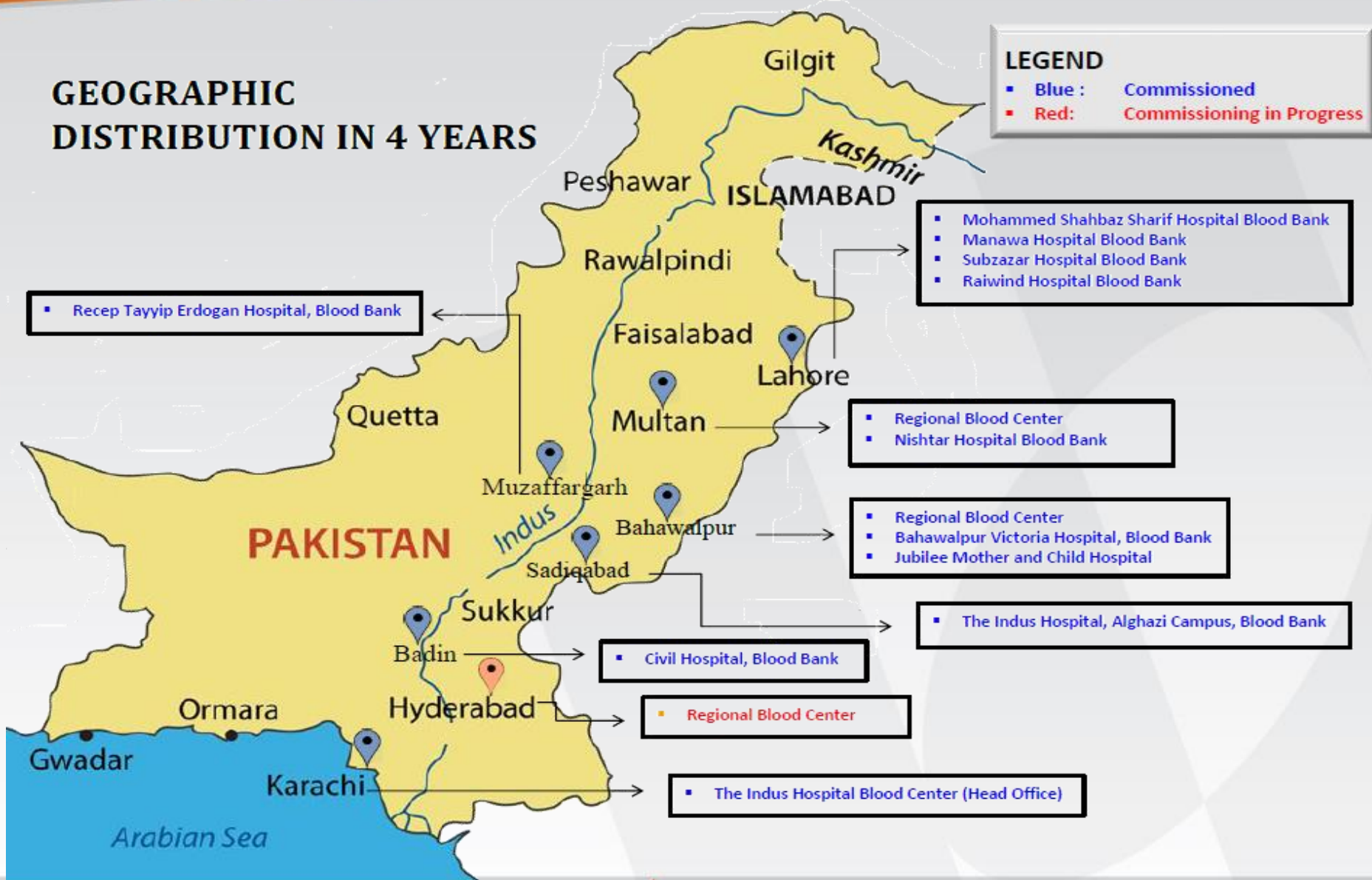
## RBC Multan

Total Units Dispatched to Other Centers	11067
Children Hospital Multan & Thalassemia Center	5410
RBC Bahawalpur	1474
THQ Mananwa	913
THQ Sabzazar	981
THQ Kahna Nu	431
THQ Raiwind	963
Multan Institute of Cardiology	39
RTEH Muzaffargarh	856

# TTI Testing Results

Site	Total Donors	HBsAg	HCV	HIV	Syphilis	Malaria
TIHBC (4 yrs 11 months)	83,000	1.07%	1.01%	0.08%	0.85%	0.03%
RBC Multan (11 months)	55,945	2.9%	5.5%	0.11%	2.4%	0.03%
RBC Bahawalpur (10 months)	49,795	2.8%	5.6%	0.13	1.8%	0.03%
RBC Jamshoro (1 month)	900	3.3%	5.5%	0	5.3%	0.22%

## GEOGRAPHIC DISTRIBUTION IN 4 YEARS



# THE RACE FOR **QUALITY** HAS NO FINISH LINE

## Questions....

