



**16TH INTERNATIONAL  
HAEMOVIGILANCE SEMINAR**  
Barcelona **March 5<sup>th</sup> - 7<sup>th</sup>, 2014**



# **Donor Vigilance in Blood Transfusion Services, Pakistan Institute of Medical Sciences, Islamabad, Pakistan**

**Prof. Hasan Abbas Zaheer**

Pakistan Institute of Medical Sciences, Islamabad  
Project Director, Safe Blood Transfusion Programme  
Government of Pakistan

# Overview

- Introduction
- Aims
- Material and Methods
- Results
- Observations
- Discussion
- Conclusion



# Introduction

- Blood transfusion system in Pakistan is fragmented
- Estimated number of blood banks is 1830
- Great diversity in size, scope and standard of services
- Predominant reliance is on ‘Family Replacement Donors’
- Very little contribution from Voluntary Blood Donors
- No centralized system for data collection including reporting of adverse events
- HV practiced in only some large centers
- Internationally recommended model of coordinated and centralized transfusion services being introduced
- Hitherto weak regulatory system also being strengthened



# Pakistan Institute of Medical Sciences



**Islamabad Hospital (1986) 592 beds**



**The Children's Hospital (1986) 230 beds**



**Mother & Child Health Centre  
(2001) 125 beds**



**Burn Care Center (2006)  
20 beds**



**Cardiac Centre (2012)  
100 beds**



# PIMS Blood Bank

Blood Collection in 2013 \_\_\_\_\_ 24,402  
Blood Component Transfusions \_\_\_\_\_ RCC (20,801), PC (18,540)  
FFP (19,883), WB (1,266)



# Study Objective

*To improve the safety standards of blood donation by monitoring all adverse events in the blood donor section at PIMS, Islamabad, a premier tertiary care hospital of the country.*



# Material and Methods

- **Study Design**

- Prospective single centre study

- **Study Period**

- June 2013 to February 2014

- **Study Population**

- 17,872 blood donations

- **Study Tool**

- Pre-tested standardized reporting form

- **Data collection**

- All shifts (morning, evening and night) 24/7



# Results

- 17,872 donations collected during the study period
- 99.5% of donations from 'Replacement Donors'
- Almost all donors were male
- 118 donors (0.66%) experienced adverse events
- A total of 758 signs and symptoms reported
- All adverse events were of mild intensity
- Initially, under-reporting was observed for evening and night shifts

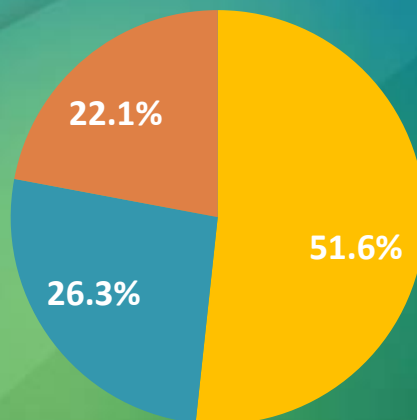




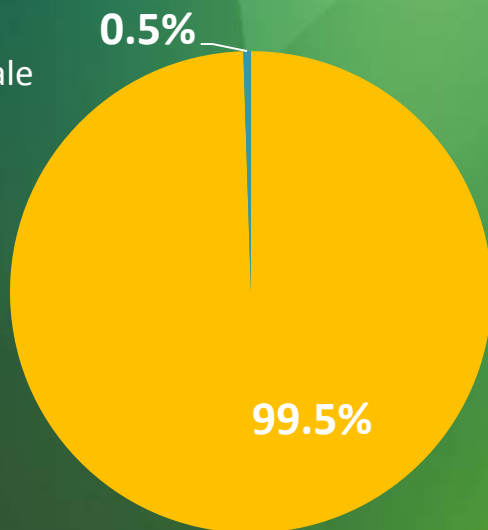
# Results...

*Donors with adverse events (n=118, 0.66%)*

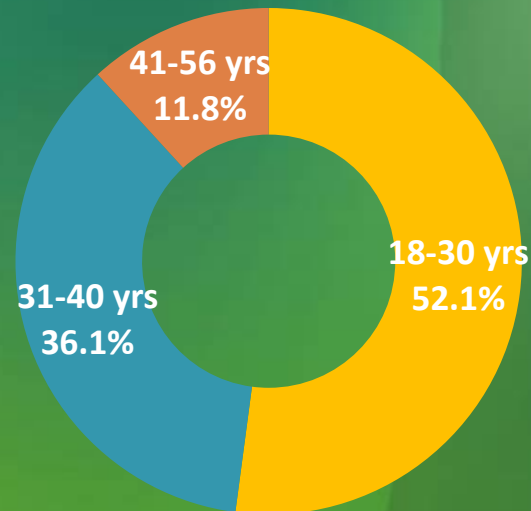
- Morning Shift
- Evening Shift
- Night Shift



- Male
- Female

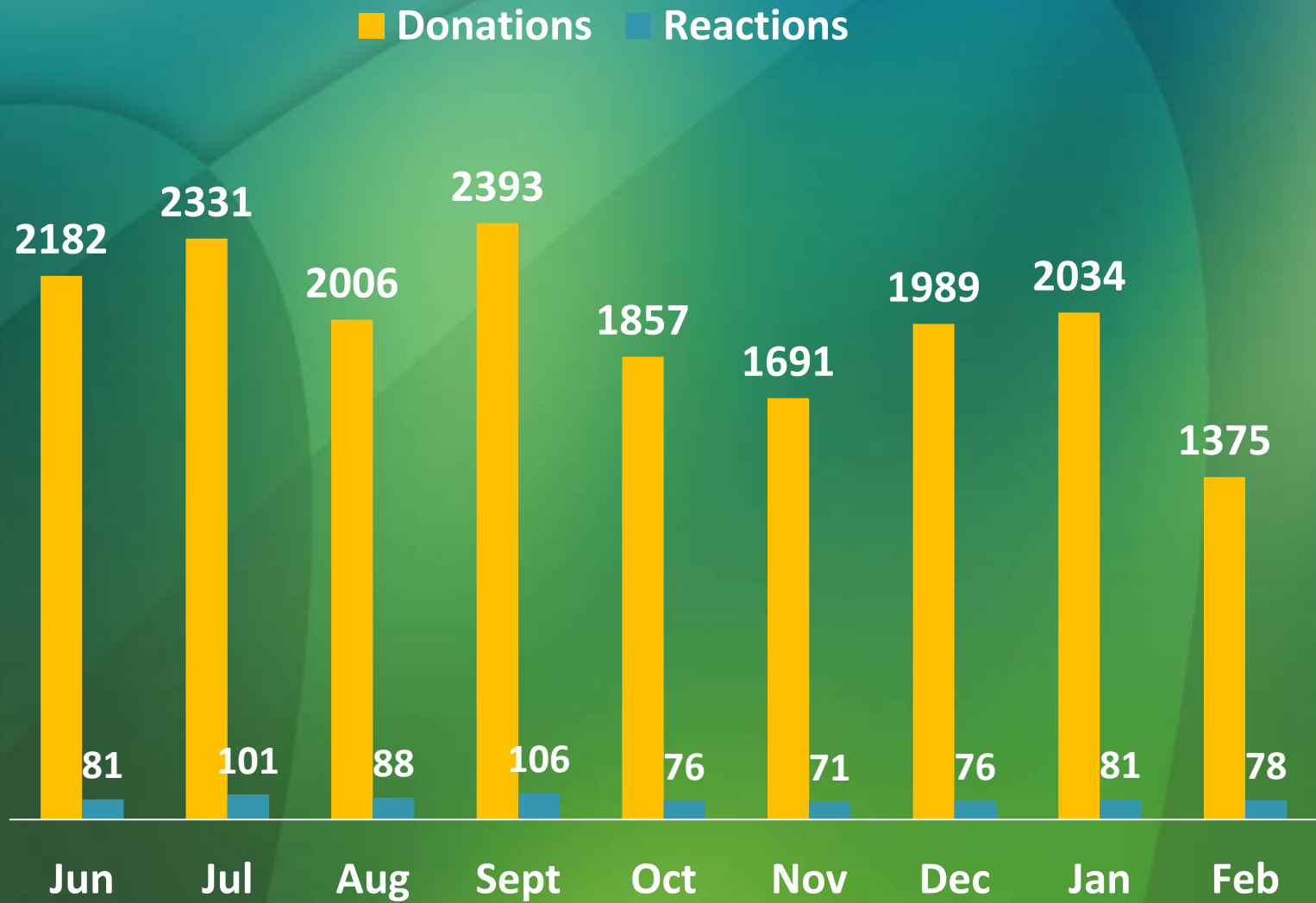


*Male vs Female Donations*

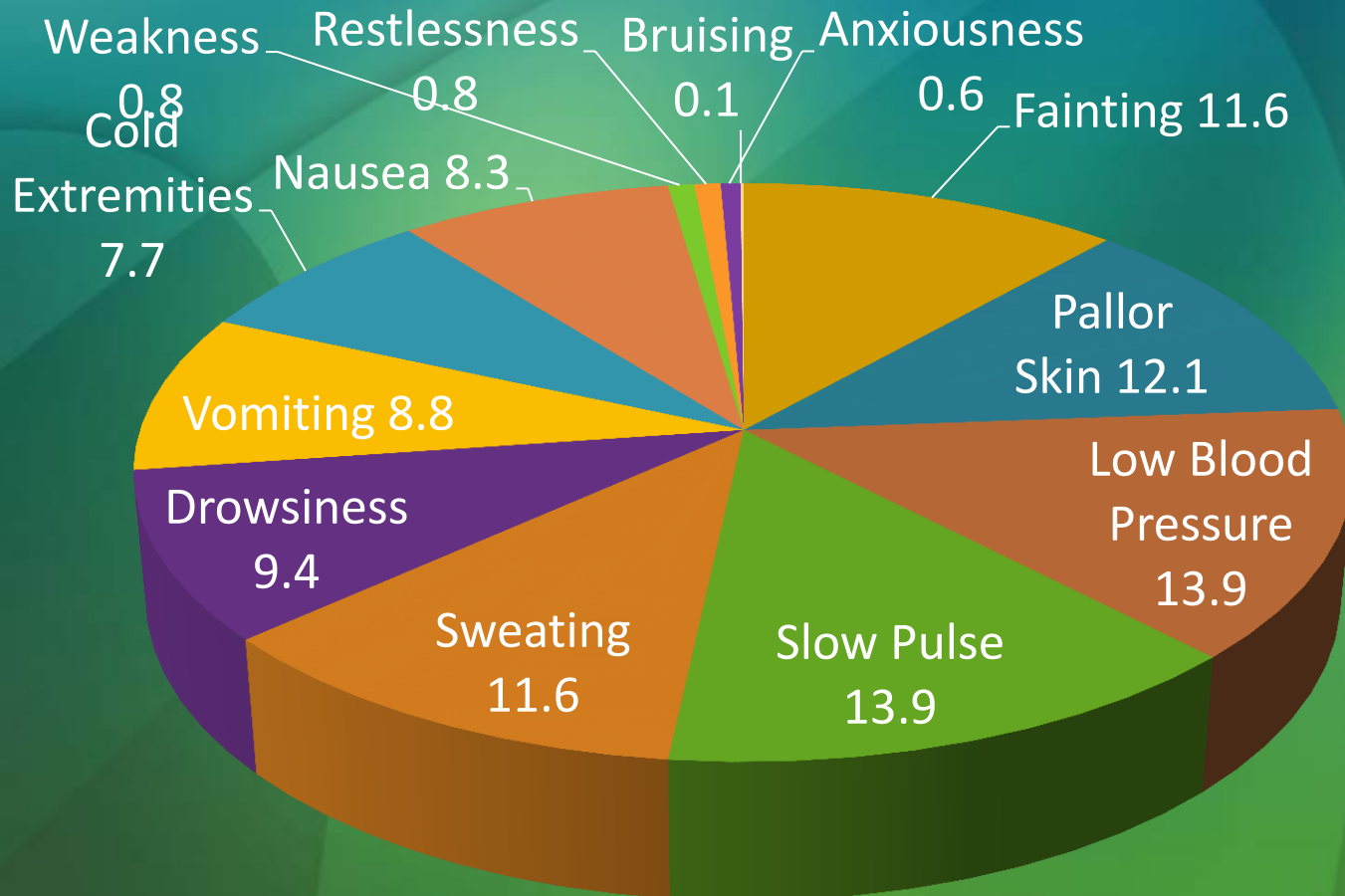


*Age Groups*

# Results...



# Results...



**Breakdown of Adverse Events in Donors**

# Comments

- Prior to the study, proper pre-donation counseling was not common and proper documentation not maintained of the adverse events
- An experienced female nurse inducted in the donor section which resulted in improvement of services in the morning shift.
- At the start of the study, staff members were briefed about the
  - recognition of signs and symptoms of adverse events during donation; and
  - the significance of improving safety measures and protecting the health of the donors
- Non-punitive approach was adopted to promote reporting
- Hospital transfusion committee review the DV data





# Observations

- On questioning, many donors especially in morning shift come empty stomach for donation
- The staff provides counseling and donors return for donation after taking a meal
- Incidence of fainting etc. reduced following this simple intervention
- Many donors are under stress and want to get over the donation process quickly so that blood can be provided to their patient. Staff nurse counsels the donor that blood for their patient would be issued from the existing stock and they should relax
- Female donors are often anaemic, have poor nutritional status and reluctant to donate because of lack of privacy
- Adverse events are more when donors are not provided counseling



# Discussion

- Donor vigilance data feeds into the PIMS HV Report
- PIMS HV Report is shared with the Islamabad Blood Transfusion Authority and also the Pakistan Haemovigilance Network (PHN)
- Currently there is no coordinated mechanism to compile or generate national haemovigilance data
- BT-IS will be developed by SBTP soon and will be made available to individual centres to develop or strengthen their HV system
- National HV data can thus be collected, compiled, analyzed and a National HV Report developed



# Conclusion

- Donor vigilance and Haemovigilance systems now being strengthened at PIMS
- Donor care and adverse events reporting is improving
- Efforts required to convert replacement donors into regular VNRBD through counseling and improved donor care
- To bring about a general improvement in the functioning of the blood transfusion services in Pakistan, current study being emulated in other centers also.





Thank you

