

Observation study to assess the infrastructural readiness of the blood storage units in Public Sector Healthcare Facilities of BIHAR



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There is no substitute for blood. It only comes from generous donors.

ABOUT CARE INDIA, BIHAR

Care is a not-for-profit organization working in India for over 65 years, focusing on alleviating a poverty and social injustice. They do this through well planned and comprehensive projects in health, education, livelihoods and disasters preparedness and response

AREA:The study is carried out in sub division hospitals of 28 District of Bihar



RESEARCH QUESTION

What are the gaps in the BSU of the public healthcare facility of Bihar in terms of human resource, infrastructure and availability of equipment

OBJECTIVE:

- To assess the infrastructure of blood storage unit.
- To assess the human resource in blood storage unit.
- To assess the availability of equipment in blood storage unit.

RATIONALE:

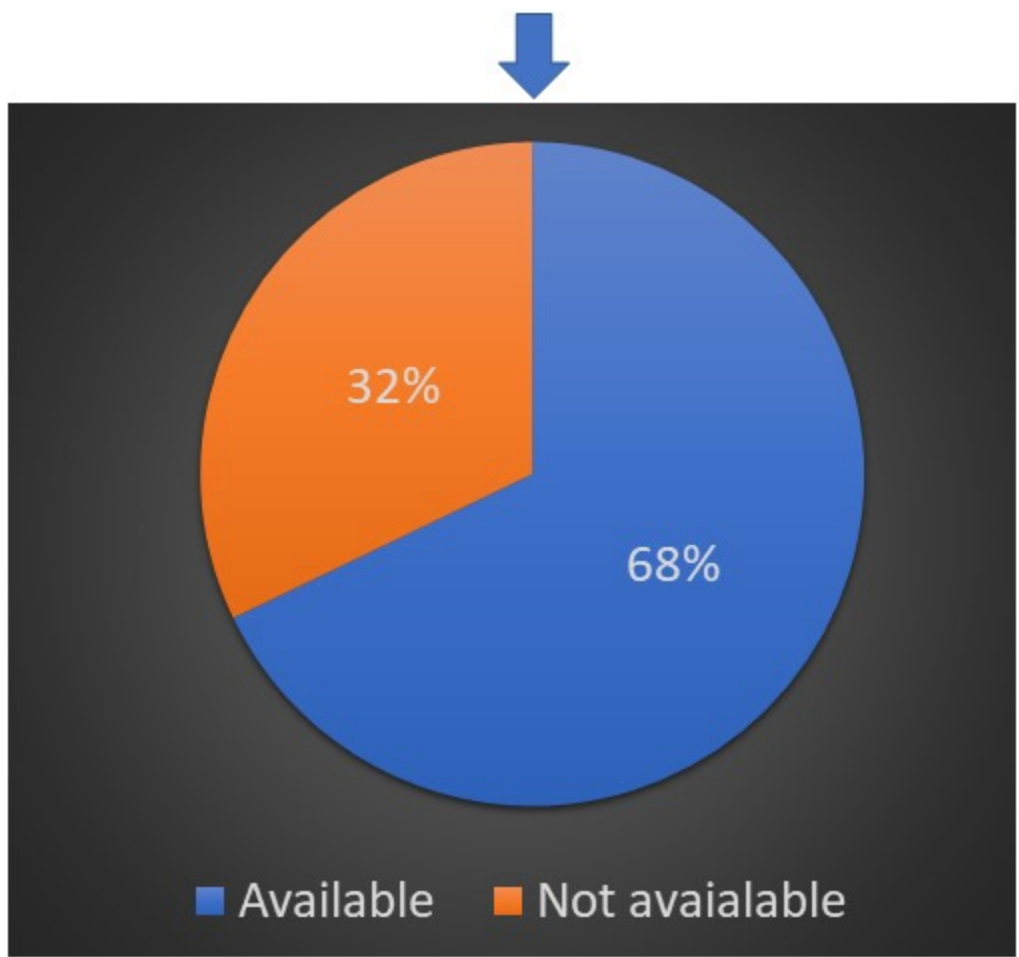
As focusing on RMHCH+A Programme
In India, Women die during pregnancy or within 42 days of the end of the pregnancy. Safe motherhood initiative is taken in India with the main goal to reduce Maternal death. According to SRS 2011-2013 MMR of India is 167 and MMR of Bihar is 208, highest as compare to national average. It holds 6th position among highest MMR states.
Several condition like Antepartum haemorrhage, Postpartum haemorrhage, anaemia require blood transfusion due to unavailability of blood units in FRU, CHC, PHC lead to death of the women.
As Focussing on Reducing the number of maternal death, Establishment of BSU is required at FRU, CHC and PHC facilities.

METHODOLOGY

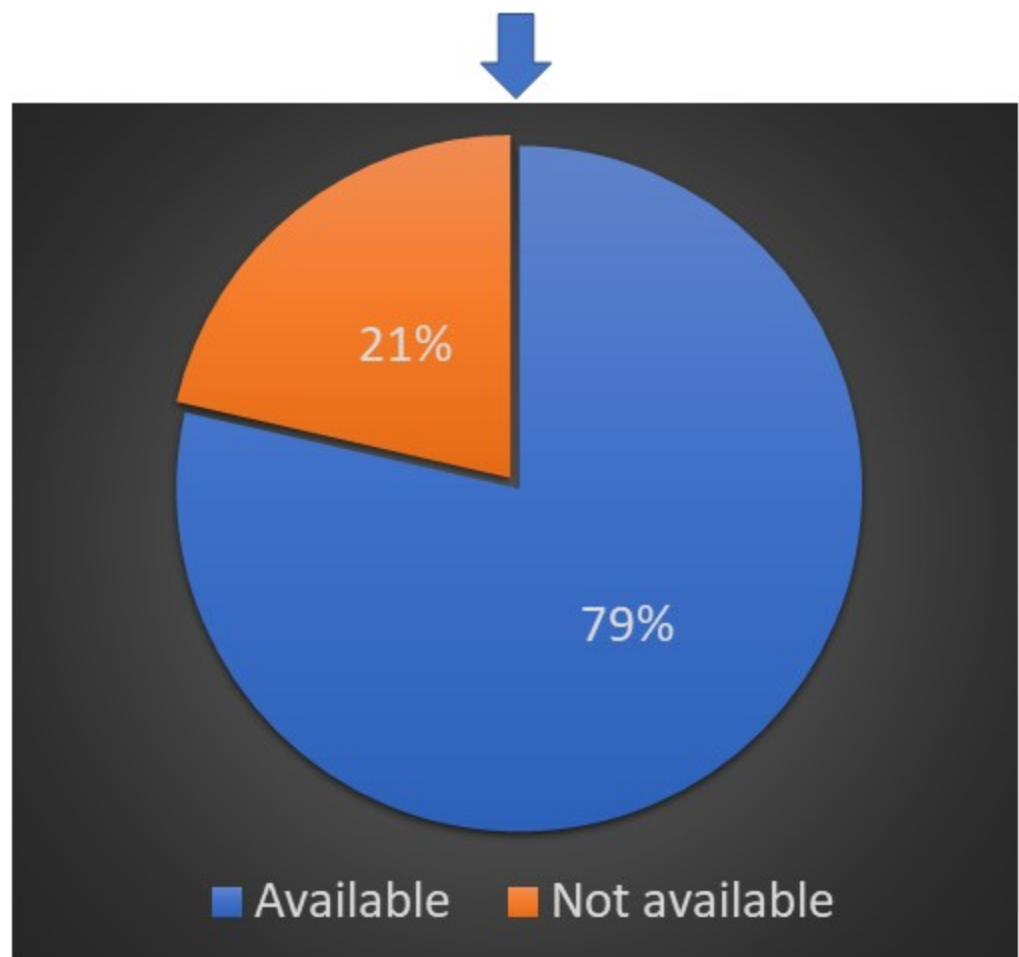
Descriptive Cross-sectional Study is done
Data collected by assessment of 5 District and data of the rest district is provided by the CML team of Care India.
Study Population All women under reproductive age 15-49 Years
Method of Data Collection
Data collected through Staff Interview, direct observation and record review.

DATA ANALYSIS

MEDICAL OFFICERS

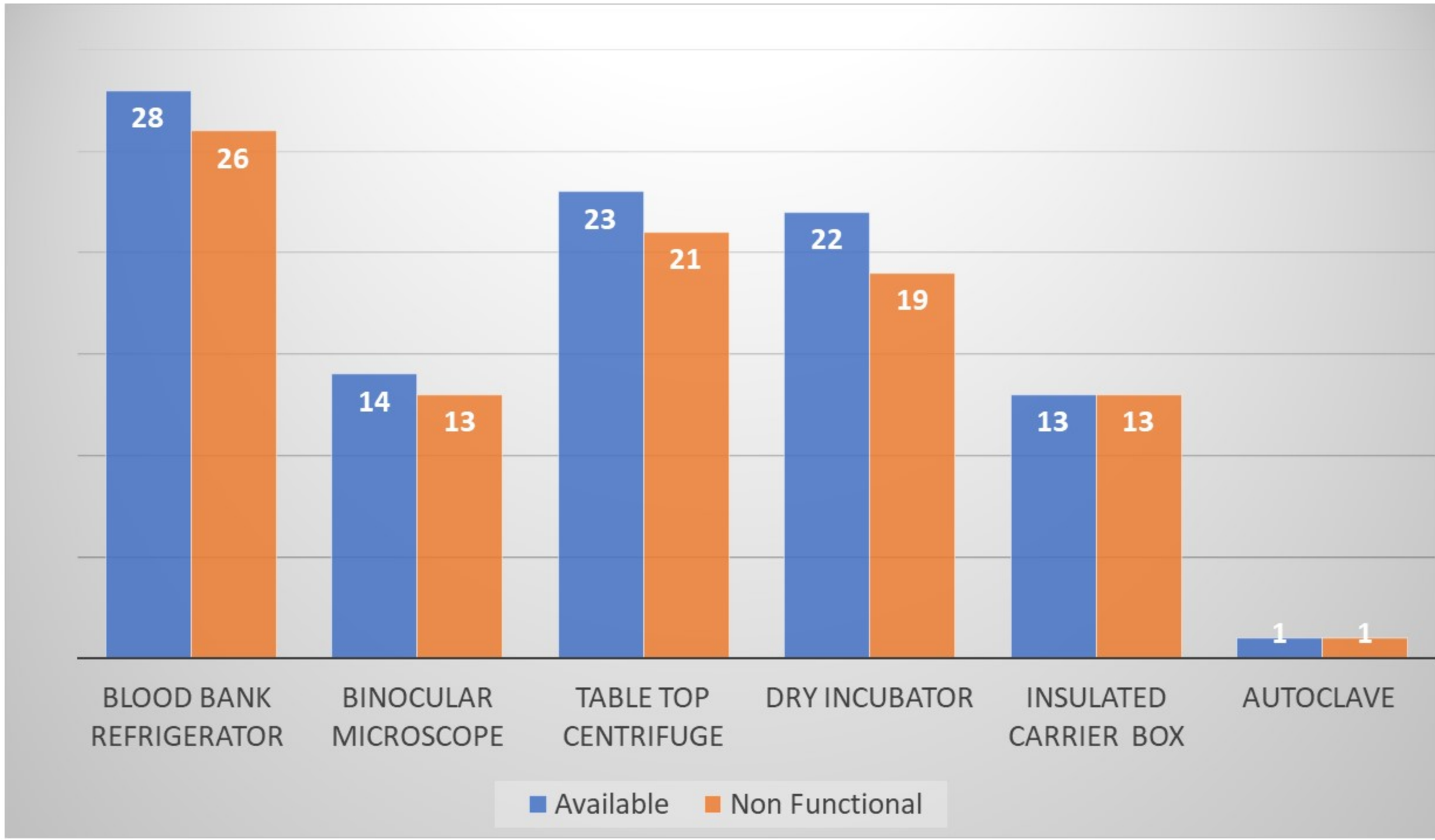


LAB TECHNICIAN



HUMAN RESOURCE	AVAILABLE IN BSU		TRAINED FOR BSU	
	%	n	%	n
Medical Officer	67.9%	19	67.9%	19
Lab Technician	78.6%	22	75%	21

EQUIPMENT AVAILABILITY IN BSU n=28



AVAILABILITY OF COLOURED BIN IN BSU

COLOURED BIN	PERCENTAGE	AVAILABLE
Red colour container	17.9	5
Yellow colour container	3.6	1
White colour puncture proof container	0.0	0
Blue colour container	3.6	1
Black colour container	10.7	3

	Mean $\pm$ Standard Deviation	Range	
		MINIMUM	MAXIMUM
Total Blood Received by Mother Blood Bank(In units)	5.8 $\pm$ 16.5	0	79
Blood Issued (In units)	5 $\pm$ 16.2	0	78

REAGENTS AVAILABILITY IN BSU

N=28

REAGENTS	PERCENTAGE %	AVAILABILITY OF ATLEAST ONE
Anti A Reagent	21.4	6
Anti B Reagent	21.4	6
Anti AB Reagent	7.1	2
Anti D1 Reagent	14.3	4
Anti D2 Reagent	14.3	4
Coomb Serum	0.0	0
Lectin	0.0	0
Anticoagulant	3.6	1

CONCLUSION:

Blood Storage Unit have main 3 functions Cross matching of blood before issue, Storage of the blood units, and distribution of the blood.
As we observe in this study that for the storage of blood units the equipment required like blood refrigerator were present but for cross matching there is no reagents and glass slides, test tubes So here we found the gap. According to the NACO Guidelines there should be 1 Lab Technician and 1 Medical Officer in each BSU but we found three fourth BSU had lab technician while two third BSU had designated Medical Officer. HR is very important in functioning of any facility as we see here there is unavailability of HR in few facility.

RECOMMENDATION

Based on the findings of this study following recommendations are made
According to NACO guidelines, a Designated doctor and Lab technician for each BSU. So all BSU should have require amount of HR
Majority of BSU lacked proper availability of Equipment, Reagents and Consumables, recommended to have adequate number of Equipment, Reagents in each BSU
Monitoring is necessary to increase the effectiveness of BSU.
All the essential Consumable should be made available at each BSU.
There should be 24 hour electricity supply in each BSU
Proper monitoring of each BSU by NACO team members.