# Making Blood Accessible

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# Current Scenario

- Blood is an intrinsic requirement for health care and proper functioning of the health system
- Maintaining a supply of safe blood and blood products has become a national priority in many countries as well as in India
- Human blood is regulated by the Drugs and Cosmetics Act, 1940 and categorized as a "drug" under Section 3 (b) of the said Act This Act and the Rules there under provide the legal framework for regulating the functioning of blood banks, which in turn directly impacts the blood services.
- Developing countries account for 80 % of the population, but contribute only 40 % of the global blood supply. More than 60 % of the blood supply in developing countries is collected from family/replacement donors and paid blood donors,

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- The human costs of unsafe blood are incalculable. Morbidity and mortality resulting from the transfusion of infected blood have far-reaching consequences, not only for the recipients themselves, but also their families.
- Shortfalls in blood supply have a particular impact on women with pregnancy complications, trauma victims and children with severe life-threatening anemia.
- Globally, up to 150 000 pregnancy-related deaths could be avoided each year through access to safe blood. In India alone, about 45000 women die every year , the major cause being post partum hemorrhages
- According to the 'Sample Registration Survey of India', hemorrhage alone accounts for nearly 38 percent of all maternal deaths, which is the highest cause of maternal death. Also, almost half the women in the reproductive age group are moderate to severe anaemic, according to NFHS surveys (1998-99).

# TRANSPORTING PREGNANT MOTHER WITH PPH

# BAD BLOOD: 2,234 GET HIV/HBV AFTER TRANSFUSION-HINDU

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***Bad blood: 2,234 get HIV after transfusion***

- *No action taken against hospitals or blood banks, says RTI activist.*
- The maximum number of such cases — 361 — was reported from Uttar Pradesh due to unsafe blood transfusion practices in hospitals.
- Onus of the blood bank services lies on the state health department which continues to be a challenge

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# Analysis of the State blood services

A safe blood supply depends on several important principles and the key elements are:

- Proper Infrastructure
- Adequate manpower & equipment
- Collection of blood from only voluntary, non-remunerated, low-risk blood donors
- Universal Screening of all donated blood for transfusion-transmissible infectious agents
- Tracking of the TTI patients,
- Monitoring of the Programme
- Implementation of a standardized quality management system covering all areas of the blood services
- Administration of blood transfusion and ….

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- No single blood services model is appropriate in all situations or locations or states
- Rather, there are a range of models that vary from centralized to decentralized
- The determination of what is the appropriate blood service model for a particular , state must take into account a number of considerations including the existing blood service infrastructure, transport infrastructure, mobility time and the availability of skilled and trained staff.

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- In states  highly decentralized model with each collection centre supported by a Processing, Testing, Inventory and Distribution facility exist.
- According to the WHO, in India blood-banks in the government hospitals usually have low status within laboratories and are usually run by a laboratory technologist, often inappropriately trained and inadequately supervised. This, in turn, affects the functioning of blood-banks.
- Blood banks and blood transfusion centres operate in total isolation; their standards vary from state to state, city to city, and from one centre to another centre in the same city
- **Linkages between the blood banks and the blood storages are not defined properly**

# Challenges

- Lack of proper infra-structure and facilities ( e.g.-Power supply in rural areas).
- Lack of manpower.
- Frequent transfer of trained manpower to their departments.
- Accessibility, adequacy, safety and quality not satisfactory (Currently blood banks have no responsibility to maintain minimum stock of units of each group and to ensure adequate collection and issue.
- Absence of Quality Management Systems (no regular checks).
- Lack of standardization in equipment, kits and consumables.

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- Improper record keeping and documentation.
- Availability of blood in rural areas a major challenge.
- Lack  of co-ordination between the arms of health department.
- Most of the population still resides in rural areas .
- Need assessment of required blood units is not there.
- MMR and IMR is quite high (one of the reasons is lack of blood).
- The fact is that the country's blood supply runs on perilously thin margins. Blood shortages occur quite often occur throughout the year because supply has not kept up with demand.

# Government initiatives under NHM

- Nothing is comparable to the preciousness of human blood. In spite of the rapid and remarkable conquests of medical science today, there is no factory that manufactures blood. It is only in human beings that human blood is made and circulated.

- **Unavailability of blood in time may cost lives.**

- A stable blood supply is vital for treating Trauma victims, Cancer patients, Organ transplant recipients, Premature babies, Sickle cell disease patients and many others(Dengue Hemorrhagic Fever).

# To overcome the challenges

- Health being a state subject the onus of the blood services lies with the state. States are being regularly liasioned for making blood services as a part of their core services . Meetings with the states are regularly convened to get the status .

- The Director of Health Services/ Director Medical Services in each state / union territory has been requested to undertake, jointly with the SBTC,NHM need to map of the blood banks, blood storage centres, and blood transfusion centres within their jurisdiction.

- Need assessment of required blood units is being done . Which is now 2% of the population in some states where medical tourism is higher .

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- Accordingly blood donation camps are being organized in the districts as per the requirement of the particular district.
- Dedicated staff for augmenting voluntary blood donation to increase the accessibility of blood in the remote areas. Small blood collection and transportation vans with dedicated Human resource has been provided to states.
- Dedicated staff at the blood banks to process the blood units to make it available as and when required in the FRUs.
- Dedicated staff at the blood  storage units
- Adequate no of blood transportation vans with cold chain maintenance boxes  to transfer the blood with in the peripheries.

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- States are requested that with the help of SBTC /NHM should articulate and design linkages between existing blood transfusion centers / blood banks and hospitals / nursing homes / hospices / Blood storages in the Government / NGO / private sector.
- This ensures that the onus of procuring screened blood will depend on smooth referrals between these sites, and not upon the relatives of patients.
- Licensed blood banks to provide standardized service delivery with well-trained staff and technicians.
- For adequate to service the peripheral demand centres, existing systems of logistics should be reviewed, and revitalized and the same may be projected in the PIPs .

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- Inventories in the peripheral blood storage centres and the central blood bank are being linked.
- In some pockets, the need arises for setting up additional blood storage centres, even after rationalizing and relocating present ones.
- Special transfusion requirements for hemophilia, thalassemia and other bone marrow failure syndromes to be provided at peripheral levels, through blood storage centres, particularly in endemic areas.
- SOPs for blood administration in blood storage guidelines which will be disseminated to states in the coming months.
- Licensing committees within the central establishment of the 'Drug Controller General of India' (DCGI) should be fully functional at all levels to monitor the blood services.

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- Ensure compliance through monthly report to state drug controller.
- Random sample collection and testing is required to taken up at the earliest.
- “BAD BLOOD REVIEW" is suggested to be initiated (Ref-CDR/MDR).
- Infrastructure requirement for the blood banks was assessed by the state NHM in collaboration with the state health department for the district with no blood bank. In 15 district construction has been started with the support of NHM.
- Increase area and equipment norms for blood banks to facilitate establishing more in smaller towns based on population (**Target:** a blood bank for every 500,000/10,00000 population- (a suggestion)which has been circulated among the state under IPHS norms.
- Training of medical officers are being done in shorter span with better prepared modules and online support in collaboration with NIB Noida.

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- A State Level **Blood Services Management Information System** is ready to be instituted early to see the over all blood services in the states. Piloted in the state of M.P., West Bengal and Uttar Pradesh.
- District health strengthening where the blood banks has been taken into consideration for strengthening of the same.
- However the most important is that functionality must be monitored by state drug authorities regularly. NHM in collaboration state drug controller have started working on the same.
- In state of Himachal and Punjab even the nursing homes which are taking blood from the Government blood banks need to sign a undertaking that they have a facility of storage of blood for transfusion it to patients .
- **Guidelines for Haemoglobinopathies** prepared and disseminated to states.


**Blood Donation = Sharing Hope, bringing Joy for a better tomorrow**

# Thank You!

**However ..... as I always say still miles to go before I sleep.**