

## **PPP Initiatives in State**

### **1. Emergency Medical Service /102 – Ambulance Service**

The Toll free number 102 was launched during 2006-07 and is running in all the six regional headquarters successfully. Under this scheme Ambulance for emergency transport is being provided in all the districts of Bihar. The empanelled ambulance & ambulance available in Govt. institutions are made available on receipt of calls from the beneficiaries.

This service has been outsourced to a private agency for Operationalisation. The Telephone Charges for the free toll free number is paid to BSNL by SHSB. The amount required would be for payment of incoming calls received from the beneficiaries.

### **2. Doctor on Call & Samadhan: Dial 1911**

A scheme is operational in the state wherein patients can dial a number and call for doctors. For this a special toll free number of 1911 has been provided for w.e.f. 01.3.2008. The objective of the scheme is to give medical assistance to the patients at their home at any time as well as act as a Samadhan of Rogi Shikayat.

Doctors and Specialists have been empanelled for this scheme. Pathology labs have also been attached to collect samples for tests from patient's home.

### **3. Advanced Life Saving Ambulances/108**

SHSB is providing prompt quality pre hospital care to patients, trauma victims, pregnant women, for the purpose of which Emergency Network service is being piloted under PPP in Patna District. The objective is to save lives of Road Traffic Accidents, cardiac emergencies, fire victims and other emergency cases.

#### **Description**

There are 5 Advance Life saving Ambulances (Trauma, Critical & Cardiac Care) & 5 Basic Life saving Ambulances which run within Patna Municipal Corporation area and its sub urban areas. Every Ambulance is manned by a Driver, an Emergency Medical Technician and trained Helper to provide basic care during transportation of patients.). For each trip made by the Ambulance to anywhere within the limits of Patna Municipal Corporation and its sub-urban areas, a charge of Rs. 300/- shall be collected by the outsourced agency from the patients. The agency has set up a Control Room in Patna which would operate for 24 hours in a minimum of 3000 sq. ft. area through dedicated toll free three digit telephone numbers (108). The agency has to provide 10 parallel lines with hunting facilities. The Control Room receives emergency calls related to Medical Services and from Police and Fire Fighting Services to cater to Medical Emergencies. The agency provides GIS (Geographic Information System) maps, GPS (Global positioning systems) / AVL (Automatic Vehicle Location Track) and all the other necessary hardware/software for Computer Telephonic Integration. The agency keeps a record of the contact numbers and location of each of the 10 Ambulances, all Hospitals of

city which can provide medical emergency, all the Police Stations, Police Control Room, Police Head-quarters and Fire Services in the city. The agency bears all expenses relating to hire of space, water, electricity charges, furniture, furnishing etc in running the Control Room. The Control Room shall also keep battery / generator backup facility so that services could be provided un-interrupted round the clock.

Support activities- The agency has undertaken the following-listing of Govt and private hospitals which can provide emergency services round the clock. It has undertaken necessary training of hospital personnel to take up Emergency cases. Dissemination of the scheme is being done by the agency itself and the toll free numbers for police, fire, health, education and general public so that this service can be utilized.

The project has been successfully piloted in Patna town which provides timely emergency services and additionally is adding to the goodwill of the Government.

#### **4. Referral Transport in Districts**

In the districts at health facilities in various levels, Ambulance services are operational through PPP or Government. It is proposed to bring this expenditure under NRHM as this would fall under the ambit of Referral Transport and would also streamline timely payment to private parties, resulting in smooth operation of the project.

#### **5. American Association of Physicians of Indian Origin (AAPIO)**

##### **AAPIO survey on Specific Disease :**

The Ministry of Overseas Affairs, Govt of India and American Association of Physicians of Indian Origin (AAPIO) signed an MoU at the Pravasi Bharatiya Divas in Jan 2006 to conduct a study on 5 specific diseases. Thereafter a meeting of Core Committee was held in New Delhi in this regard.

#### **6. Services of Hospital Waste Treatment and Disposal in all Government Health facilities up to PHC in Bihar (IMEP)**

Bio medical waste management has emerged as a critical and important function within the ambit of providing quality healthcare in the country. It is now considered an important issue of environment and occupational safety. As per the Bio-Medical Waste (Management & Handling) Rules, 1998, all the waste generated in the hospital has to be managed by the occupier in a proper scientific manner. The GoI has also issued the IMEP guidelines for SCs, PHCs and CHCs. The state has outsourced the Biomedical Waste Management system for all the Government hospitals.

##### Strategy/Project Description

State Health Society Bihar is implementing National Rural Health Mission (NRHM) to carry out necessary architectural correction in the basic health care delivery system. In order to provide quality services to the public, SHSB has sought Public Private

Partnership in providing proper Hospital Waste Treatment and Disposal Services, in all Health facilities right from Medical Colleges to the PHCs.

### Services to be provided

1. Provide service of Hospital Waste Treatment and Disposal in all Medical Colleges, District Hospitals, Sub-Divisional Hospitals, Referral Hospitals and PHCs of the State.
2. Install, Operate and maintain appropriate Common Biomedical Waste Treatment facility, as per the Biomedical Waste (Management & Handling) Rules, 1998 and subsequent amendments in it.
3. Provide one day orientation training to all the health service providers.
4. Maintain the above-mentioned arrangement for a period of minimum 10 years. The Common Biomedical Waste Treatment facilities are proposed to be established at various locations across the State

### Setting up a Bio-Medical Waste Management System:

1. The state has started a CWTF facility at Indira Gandhi Institute of Medical Sciences, Patna (autonomous institute). The facility has been approached for undertaking waste treatment for all PHCs to DHs in all the eight districts of Patna division.

Status – Registration of the health facilities with IGIMS and with Bihar State Pollution Control Board being ensured.

2. As per the rules each CWTF should cater to all facilities in 100 Km radius, keeping this in mind, more CWTF are to be operationalised in each of the division except Patna (which already has such a facility).

*To implement the IMEP in a comprehensive systematic manner, Private Parties have been invited through National Open Tender. SHSB has already finalized two agencies for undertaking the BWM project that would set up CBWM Treatment facilities at various locations in the State and cater to all the PHCs to DHs to MCHs in all the Divisions except Patna.*

The agency shall ensure segregation and collection of waste, disinfection, treatment, transportation, handling and disposal of waste both within and outside the healthcare setting; also ensure use of protective devices and safety precautions. The objective being to ensure waste management, waste minimization and infection control.

Trainings to be provided to health care workers and officers in Infection Management and Environment Plan implementation by the respective agencies. Payment is to be made on a per bed per day monthly basis to both IGIMS and the Private Agencies.

Status- The project is in the finalization stage, agencies have been finalised and Contract has been approved to be signed with both the agencies. However approval of the Bihar State Pollution Control Board is awaited.

## **7. Dialysis Units in various Government Hospitals of Bihar (in pipeline)**

It is proposed to set up & Operationalise Dialysis Units through Public Private Partnership (PPP) in District Hospitals of Bihar. This would require operation, maintenance and reporting 24-hours 7 days a week Dialysis units in Hospitals.

The State Government shall provide vacant space in the premises of the Hospital itself with additional space for washing and RO plant installation (incase it is not in-built). The space provided shall be approx. 750-1000 sq.ft. including RO plant. The agency has to provide everything from equipments & machine, logistics, consumables etc to suitable medical personnel to man these units. The agency has to also ensure the installation, maintenance, functioning with provision of technical manpower round the clock. No rates shall be charged from the patients.

*Tender bids have already been floated for the same and M/s Apollo Hospitals, Chennai have been finalized for undertaking the task.* Government/SHSB shall pay a monthly rental to the agency, based on the monthly cost as projected by them in the financial bid.  
Status – Negotiations are on with M/s Apollo on the costing for the Dialysis unit and contract terms are being finalised

It is proposed to undertake the project on a pilot basis for 3 DHs initially and based on performance further up-scaling can be done in the next FY.

## **8. Setting Up of Ultra-Modern Diagnostic Centers in Regional Diagnostic Centers (RDCs) and all Government Medical College Hospitals of Bihar**

Ultra-Modern Diagnostic Centres through Public Private Partnership (PPP) in 9 Regional Diagnostic Centres (RDCs) and 6 Medical College Hospitals (MCHs) of Bihar have been or are in the process of being set up.

M/s Softline, New Delhi and M/s Doyen Diagnostics, Kolkata are the private partners in these initiative which caters to high profile districts of the State.

Project Area –Regional Diagnostic Centers in Ara, Gaya, Bhagalpur, Munger, Muzaffarpur, Motihari, Purnea, Saharsa and Chapra. Government Medical College Hospitals – PMCH, NMCH, SKMCH, DMCH, ANMMCH, JLMNCH

Project Scope– To operate, maintain and report 24-hours ‘Ultra-Modern Diagnostic Centers’ in RDCs & MCHs and report the progress to the RDDs (who would be in-charge of monitoring the RDCs project) and the Superintendents (who would be in-charge of monitoring the MCH project) and the SHSB.

### Project Condition -

- The State Government has created the buildings for Regional Diagnostic Centers at all the towns mentioned in Project Area. In the case of MCHs, space is provided in the premises of the MCH itself.
- The agency provides everything from equipments & machine, logistics, consumables etc to personnel; the said RDC/MCH provides space for the Diagnostic Centre along with space for storage at a nominal monthly rent payable to the DHS of the concerned district (in the case of RDC) and the Rogi Kalyan Samiti of the concerned MCH (in the case of MCH) by the agency.
- Rates (charged from the users) is as per AIIMS, New Delhi for the basic, standard and other specialized tests under each Diagnostic head.
- The project is on a revenue sharing model

The project is for ten (10) years depending upon performance further extension will be considered.

Facilities that are being provided in RDCs and MCHs are→ Pathology- Bio-Chemistry, Radiology – Digital x-ray, CT scan, MRI, ECG, Mammography.

Under NRHM reimbursement through RKS to BPL patients is being done.

The State again requires budget in this regard only for reimbursement to the Private Parties by the RKS of the concerned hospital for providing free services to BPL patients. All the remaining cost for setting up centers will be borne by the private providers.

## **9. Outsourcing of Pathology and Radiology Services from PHCs to DHs**

Under this scheme Pathology and Radiology services have been outsourced to different Private agencies. The agencies have and/or are in the process of setting up centers/diagnostic labs/collection centers at the hospitals/facilities.

The state has taken a policy decision to provide free service under this to all Government patients and the reimbursement to the agency as per the fixed rates of SHSB and is reimbursed to RKS. The state has provided space at the hospitals to the agency for running the Pathology and Diagnostic Centre.

However under the project service expansion has been done and Ultrasound facility is also being provided at various locations at DHs and SDHs. For this purpose of establishment of Central Reporting System (CRS) for X-ray and Ultrasound Units is being done at IGIMS, Patna. The purpose being CR system will connect all the Ultrasound and X-ray centers of IGEMS set up in Government Hospitals under this contract, with Tele-radiology in a phased manner.

The Agency has provided all necessary hardware, software and manpower for establishing the network between IGIMS and each of its Radiology unit having X-Ray and Ultrasound facilities for running the Tele-Radiology service.

SHSB has to provide radiologist (preferably retired persons) to report on the ultrasound and x-ray images, telephone line with broad band connection and necessary power connections. All the remaining cost for setting up centers and providing services is being borne by the private providers.

## **10. Operationalising Mobile Medical Unit**

SHS, Bihar on behalf of the Department of Health, Government of Bihar invited Private Service Providers for providing Mobile Medical Units (each unit fitted with GPS- Global Positioning System) to provide primary health care facilities in the hard to reach rural areas of various districts of Bihar.

Three agencies have been awarded the contract for operationalising mobile medical units in all the districts.

### Scope of Work

Private Service Providers for providing mobile health care services in rural Bihar of curative, preventive and rehabilitative nature, to be provided by the service provider along with all deliverables like Mobile Clinic (each unit fitted with GPS- Global Positioning System), professional manpower, and other such services, to provide and supplement primary health care services for the far flung areas in the various districts of Bihar and to provide a visible face for the Mission.

### Project Objective

To provide and supplement regular, accessible and quality primary health care services for the farthest areas in the districts of Bihar and to provide visible face for the mission and the Government, also establishing the concept of Healthy Living among the rural mass

### Project Scope

The detailed roles and responsibilities of the private partners to meet the aforesaid objectives are as follows:

- Providing the requisite vehicle and equipments and software for Operationalization of the MMU.
- Install, Operate and maintain appropriate GPS facility.
- Technical manpower support to run the MMU and provide the services
- Continued technical back up for maintenance of the system.
- Ensuring Quality Standards
- Providing detailed reports and maintain database of information of MMU services as per the Proformas provided at the time of signing of the contract, or as issued by the SHS from time to time.

### Vehicle Type for MMU

- Brand new GPS fitted, fully Air Conditioned TATA 709 chasis or equivalent vehicle of similar dimension from reputed manufacturers for MMU

- An accompanying vehicle of TATA Sumo or Mahindra Bolero or equivalent specification make vehicle for Carriage of Medical persons and also to be used as ambulance for transporting patients in case of emergency. The body of vehicle should be suitably modified to serve this dual purpose.
- Mobile Van should be designed keeping in mind the following criteria -ease of deployment, female privacy, community acceptance and cost.
- Web enabled MIS has to be ensured along with a Control room at Patna or Commissioner HQ.
- Temporary shed facility shall have to be ensured at the site for the patients in waiting.

### Manpower

The manpower to be employed for the program is to be appointed by the Private agency as such-1 Doctor, 1 Nurse, 1 Pharmacist (van supervisor), 1 OT assistant, 1 X-ray technician, 1 ANM, 1 Driver

### Equipments being provided in the MMU

Medical Equipments -Semi Auto-Analyzer, Portable X ray unit, Portable ECG, Microscope, Screen, Stretcher, O.T Table with standard accessories, Stools, Dressing Trolley/Instrument trolley, Dressing drums, Oxygen Cylinder, Suction Machine., Ophthalmoscope, Refraction set, Horoscope, Mobile light or Ceiling light (OT Light), Centrifugal Machine, Hemoglobin meter, Glucometer, Autoclave, Incubator, Urine Analyzer, Vaccine carrier, Weighing machines-adult and infant, Stethoscope, BP Instrument, Kits like Suture removal kit, Pregnancy test kit, IUD insertion kit, Starter, Regent kit, HIV testing kit, General Instrument kit, First Aid kit, various, tests and surgery kits, Normal Ambulance appliances or accessories like foldable furniture, waste basket, linen, mattress, mackintosh sheets, fire extinguisher etc  
Silent DG set, Audio-Visual Equipment with projection system for IEC especially with, 40" LCD, P&A System, Cell phone

## **11. Monitoring and Evaluation**

### **Data Centre at State Level, Divisional Level, District Level and Block Level**

#### **Item No. 1: State Data Centre**

The State has One Data Centre which collects data from all PHCs, Sadar Hospitals, Sub. Div. Hospitals and Medical Colleges and Hospitals of all 38 districts on monthly basis through Fax / E-mail. The collected data are stored and maintained in a computerized format and they are sent to respective programme officers according to their requirements. The collected data includes all the parameters required under RCH/NRHM for monitoring. The State Data Centre will also be involved in Monitoring and Evaluation through HMIS. The main activities of Data Centre in HMIS are-1 collecting, the MIS reports and FMR from those district/Block which are unable to upload.

#### **Item No. 2: District Data Centre**



The Data Centres at each and every hospitals (PHC, Sadar Hospital, Sub-Divisional Hospital etc.) are being established through outsourcing. The main purpose of these Data Centres of Hospitals is to gather and maintain health related data under RCH/NRHM programme in their computer system and they upload the gathered health related data on the web-server of SHSB on daily basis. The Data Centres also enter and upload the monthly MIS reports and FMR in revised HMIS formats on Web-Portals of NRHM and NHSRC. The Data Centres contains one computer with UPS, Laser printer, Phone connection, Internet connection, Computer operator, Misc. etc. The GPRS enabled mobile set has been given to each and every data centres. The total no. of Data Centres is to be established is 685

### **Item No. 3: Divisional Data Centre**

Data Centre may be established at all 9 Divisional District Headquarter for entry ,confirmation , uploading of data from districts of the particular division and also giving feedback reports to all their concerned districts which helps in effective Monitoring & Evaluation of Health related activities under NRHM. Therefore fund may be made available for establishing Data Centre at all 9 Divisional district Headquarters in SPIP 2010-2011.

## **12. Generic Drug Shop**

Under the PPP initiative Generic Drug Stores shall be set up at all MCHs, DHs and PHCs. The Private agency has to keep 188 types of drugs at the store. The state has provided only space for this purpose to the agency and the agency shares a % revenue share with the Government. The state has also fixed rates for the Generic Drug as per MRP.

## **13. Hospital Maintenance**

The state has outsourced the cleanliness and maintenance of Hospitals to private agencies.

The activities include -

- Maintenance of Hospital Premises
- Generator Facility
- Washing

## **14. Outsourcing of Urban Health Centres on Rental Basis**

### **Project Goal:**

Improve the health status of the urban poor community by provision of quality Primary Health Care Services, with a focus on RCH services to achieve population stabilization.

**Services** – Free OPD, Immunization, Antenatal care (early registration, TT immunization, IFA supplements, nutrition counseling,



Physical examination of ante-natal mothers including weighing, blood pressure, abdominal examination for position of the baby, identification of danger signs, referral services, Child Health services, including breastfeeding, immunization, management of diarrhoea and Treatment of minor ailments, delivery services & Family Planning services.

### **15. Setting up of Blood Storage Centres through PPP**

Lack of Blood Storage Units in the state make things complicated during emergency, hence in 76 First Referral Unit a blood storage units is being set up.

As per GOI guideline the State should setup Blood Storage facility in all the 76 First Referral Unit. As of now 21 (Red Cross Society and M/s Santosh Agency) Blood Banks have been setup in different districts by BSACS. For setting up facilities of Blood Storage Units in rest of the 55 First Referral Unit tender was floated in different news papers for the supply of equipments for Blood Storage Centres to be installed at different District Hospitals/Sub-Divisional Hospitals & First Referral Unit. Selected firms have supplied equipments to the designated First Referral Unit to operationalise the Blood Storage Centres.

### **16. Mapping of Urban Areas in Bihar for facilitating Urban Health Planning through PPP (completed)**

National Rural Health Mission (NRHM) focuses primarily on rural population, it acknowledges the condition of urban slums where proper interventions are equally important. However to focus solely on urban health, Govt. of India is planning to initiate National Urban Health Mission in near future. As a preparation for Urban Mission, the Department of Health intends to map all the urban slums and service providers in and around those slums.

M/s Research & Development Initiative Pvt. Ltd., New Delhi was contracted to undertake mapping of urban areas (123 units) of Bihar to enable proper planning for upcoming National Urban Health Mission.

#### **Highlights :**

- Mapping of all the major cities/towns/urban agglomerations of Bihar with special emphasis on slum settlements and health facilities in each slum.
- Subdivide the urban area into units of 50,000 populations and provide an A3 size map of the same showing the slum.
- Mapping of all the health service providers especially service providers within and around the slums. This is to be done with an intention to identify likely referral services available.

### **17. Providing Sterilisation Services through Camp Approach (through PPP specifically JANANI) - Completed**

**Goal:** Population control and increase in the number of trained service providers of Sterilization, especially NSV

#### **Objectives**

- A. To increase the acceptance of sterilization, both male and female
- B. Proper and complete information availability to the community and men in particular through counseling, mobilization and motivation

- C. Rendering sterilization services easily accessible to the beneficiaries
- D. Ensuring availability of qualified providers for rendering sterilization services in identified centers.
- E. Increase in male participation in the Family Welfare programme to reduce the burden on women.

**Task:**

A total of 15960 sterilization cases (3192 NSV and 12768 female sterilization) was to be done in seven (10) months @ Rs. 735.80/case.

### **18. Private Specialists**

Provision of Private specialists in Eye, ENT, Orthopedics, Pediatrics, Gynae and Surgery @ Rs.500/day from District Hospitals to PHCs. Renowned doctors being personally contacted.

### **19. Provision for HR Consultancy services (pipeline)**

SHSB has invited offers from Human Resource Consultancy Services for assisting State Health Society in selection and recruitment of doctors, nurses, paramedical staffs and other managerial and clerical staff under guidance and direction of State Health Society, Bihar.

**Responsibilities of the Human Resources Consultant:** The Consultant will be required to prepare panel of names for selection for the post as per reservation roster. Applications would be invited through open advertisements. Selection process may include open written test or interview or marks obtained or combination of these processes in the qualifying examination depending upon the no. of applicants and urgency. The mode of selection to be adopted will be the sole discretion of the State Health Society.

The agency would be required to assist the State in HR/Manpower planning.

To achieve this objective, Human Resources Consultant shall be responsible for the following services:-

- Will have to set up an office for this purpose.
- Will be providing all office equipments and professional manpower for this purpose. SHSB shall provide only space.
- All works like processing, data entry, scrutiny, selection, panel formation as per reservation roster and recruitment etc.
- Any other task related to Human Resources Consultancy Services prescribed by the authority.

### **20. Operating and maintaining Dental Clinics in all District/Sub Divisional Hospitals of Bihar through PPP for providing Dental Treatments of varying nature**

**Highlights-**

- ☞ The State Government only provides space for setting up Dental Clinic
- ☞ The agency has to provide everything from equipments & machine, logistics, consumables etc to personnel along with space for storage at a nominal monthly rent payable to the DOHFW, GOB of the concerned district by the agency.
- ☞ The agency has to ensure the installation, maintenance, functioning with provision of expert technical manpower (one Dental Surgeon (BDS), one Dental Hygienist-cum-chair side Assistant and one Nurse).
- ☞ The Clinic is to be operational from 8 to 5 pm
- ☞ Rates (to be charged from the users ) are decided by the DOHFW, GOB

## **21. Operating and Maintaining Eye Units in all District/Sub-Divisional Hospitals of Bihar through PPP**

### **Highlights –**

- The State Government will only provide space for Setting up of Eye Units
- The agency has to provide everything from equipments & machine, logistics, consumables etc to personnel along with space for storage at a nominal monthly rent payable to DISTRICT HOSPITALS of the concerned district
- The agency has to ensure the installation, maintenance, functioning with provision of expert technical manpower (one Eye Surgeon (M.S in Eye), one Ophthalmic Assistant, one O.T. Assistant)
- Rates for OPD charges and for Cataract Operations shall be reimbursed on a monthly basis at prescribed rates by DOHFW, GOB.
- Treatments to be provided include - consultancy in OPD including refraction, cataract surgery without IOL, Cataract surgery with IOL, any other treatment/surgery relating to eye care.
- The contract under PPP is for a period of 2 years.
- The agency has to share a certain percentage of the gross revenue share with DISTRICT HOSPITALS.
- The monitoring is done by the Superintendent/Dy. Superintendent of the DH/SDH.

## **22. EmOC Training**

Funds are sent to cover the training expenses

## **23. Accreditation of Private Clinics to provide FP services**

Private nursing homes in districts across the state provide cashless service to acceptors of sterilisation.

**24. Basic Life Saving Ambulance under Prime Minister Relief Fund** – In all 38 districts being operationalised

## **25. NRC**

### **Nutrition Rehabilitation Centres (NRCs) for Treatment of Severe and Acute Malnutrition (SAM)**

Child malnutrition extracts a heavy toll on both human and economic development, accounting for more than 50 % of child deaths worldwide. The consequences of

malnutrition are serious leading to stunting, mental and physical retardation, weak immune defense and impaired development. More than one-third of world's malnourished children live in India.

In India, as revealed by the recent National Survey (NFHS-3, 2005-06), malnutrition burden in children under three years of age is 46 %. With the current population of India of 1100 million, it is expected that 2.6 million under-five would be suffering from severe and acute malnutrition which is the major killer of children under five years of age. It can be direct or indirect cause of child death by increasing the case fatality rate in children suffering from such common illnesses as diarrhea and pneumonia.

The risk of death in these children is 5-20 times higher compared to well-nourished children. Severe and acute malnutrition (SAM) is defined by a very low weight for height, below -3 z\* scores of the median WHO growth standards, presence of visible severe wasting or 'bipedal Oedema', or mid-upper arm circumference (MUAC) of <11 or 11.5 cm in children between 6-60 months.

### **MALNUTRITION IN BIHAR:**

In Bihar, malnutrition is a serious concern with a high prevalence of 58.4 % as revealed by the National Health and Family welfare Survey (NFHS-3, 2005-06). Children suffering from severe and acute malnutrition are reported to be 8.3 %. Based on population figures, it is estimated that in Bihar, 2.5 million children under five years of age are threatened to face the consequences of severe malnutrition. With the situation of nutrition among children being far from satisfactory, it will not be surprising to find that these children who have already arrived in a poor state of nutritional status, with further deterioration are at a high risk of morbidity and mortality.

### **MEASURES TO MANAGE MALNUTRITION:**

While mild and moderate forms of malnutrition in the absence of any minor or major illness among children can be addressed through Anganwadi centres, by supporting mothers to ensure service utilization and appropriate feeding and care practices at the household level; **the treatment of children with severe and acute malnutrition calls**

---

\* A 'z score' is the number of standard deviation below or above the reference mean or median value.

**for a therapeutic feeding programme.** A decision was thus taken to set up Nutrition Rehabilitation Centers which is a unit for the management of SAM children where they are kept under observation and provided with medical and nutritional care. In addition to curative care, special focus is given on timely, adequate and appropriate feeding to children. Efforts are also made to build the capacity of mothers through counseling to identify the nutrition and health problems in their child.

Initial discussions with UNICEF on establishment of NRCs in the 2007 flood affected districts, resulted to be extremely productive. It was thought worthwhile to pilot NRCs for treatment of children suffering from severe forms of malnutrition in 2 flood affected districts with support from UNICEF for supervision and monitoring of activities, especially in the initial period of management of NRCs.

Thus the NRCs were established in the districts of Muzaffarpur and East Champaran during August-September 2007. The results have been very encouraging with 1444 SAM children benefitting till date, of which around 98% belonged to the socially excluded class. Based on these impressive results from the two piloted NRCs in the management of child malnutrition, it has been decided to scale these units in a phased wise manner. A total of eight NRCs have been established in Phase-1 in districts of Muzaffarpur, East Champaran, Samastipur, Darbhanga, Madhubani, Khagaria, Sitamarhi and Sheohar.

In Phase I, the state plans to run all eight NRCs either through the respective District Health Society or via a qualified NGO/Welfare Organizations. Technical staff selection and training already done at these places and services of the same technical staff shall be taken to run these NRCs. Efforts are concerted to strengthen the management of ongoing NRCs in districts of Muzaffarpur and East Champaran. At the same time, NRCs will be made functional in two other districts of Darbhanga and Khagaria NRCs with funds from PIP. The remaining four districts of Madhubani, Samastipur, Sitamarhi and Sheohar will be supported with NRCs too, by the end of financial year 2010-11.

In Phase II, State plans for establishing NRCs in the remaining 30 districts will be prepared and initiate the implementation process this year. Learning lessons from the eight NRCs made functional in the previous phase, the scaling in remaining districts will progress.

Nutrition Rehabilitation Centres will thus be important to address severe and acute malnutrition among children needing residential care and medical treatment. However, considering the major challenge of SAM in Bihar, which is 8.3%, corresponding to 2.5 million preschool children, a special care and feeding for children will be promoted through ICDS along with NRC services during the scaling process.

**26. School Health Camp**

**27. MTP Training** – 4 Private Hospitals have signed an MOU with SHSB for this purpose.