

Background:

Under National Rural Health Mission, significant progress has been made in reducing mortality in children over the last seven years (2005-12). Whereas there is an advance in reducing child mortality there is a dire need to improving survival outcome. This would be reached by early detection and management of conditions that were not addressed comprehensively in the past.

According to March of Dimes (2006), out of every 100 babies born in this country annually, 6 to 7 have a birth defect. This would translate to around 17 lakhs birth defects annually in the country and accounts for 9.6% of all the newborn deaths. Various nutritional deficiencies affecting the preschool children range from 4 per cent to 70 per cent. Developmental delays are common in early childhood affecting at least 10 percent of the children. These delays if not intervened timely may lead to permanent disabilities including cognitive, hearing or vision impairment. Also, there are group of diseases common in children viz. dental caries, rheumatic heart disease, reactive airways diseases etc. Early detection and management diseases including deficiencies bring added value in preventing these conditions to progress to its more severe and debilitating form and thereby reducing hospitalization and improving implementation of Right to Education.

Rashtriya Bal Swasthya Karyakram (RBSK) is an important initiative aiming at early identification and early intervention for children from birth to 18 years to cover 4 'D's viz.

Defects at Birth, Deficiencies, Diseases specific to childhood and Developmental delays **including disabilities**, can either lead to untimely death of a child or a survival **with poor developmental outcomes**. Such long lasting adverse health outcomes can be addressed only through early screening and timely management.

Extending preventive and primitive health as an approach for selected health conditions along with provision of free curative management, will help the marginalized and underprivileged population by reducing their out of pocket expenditure thereby influencing public health expenditure.

Selected Health Conditions for Child Health Screening & Early Intervention Services under RBSK

Defects at Birth	Deficiencies
1. Neural tube defect	10. Anaemia especially Severe anaemia
2. Down's Syndrome	11. Vitamin A deficiency (Bitot's spot)
3. Cleft Lip & Palate / Cleft palate alone	12. Vitamin D Deficiency (Rickets)

5. Developmental dysplasia of the hip	13. Severe Acute Malnutrition
6. Congenital cataract	14. Goiter
7. Congenital deafness	41. Severe Stunting
8. Congenital heart diseases	42. Vitamin B complex def.
9. Retinopathy of Prematurity	
42. Microcephaly	
43. Macrocephaly	
Diseases	Development delays and Disabilities
15. Skin conditions (Scabies, fungal infection and Eczema)	21. Vision Impairment
16. Otitis Media	22. Hearing Impairment
17. Rheumatic heart disease	23. Neuro-motor Impairment
18. Reactive airway disease	24. Motor delay
19. Dental caries	25. Cognitive delay
20. Convulsive disorders	26. Language delay
40. Childhood T.B	27. Behaviour disorder (Autism)
39. Childhood leprosy Disease	28. Learning disorder
40.1 Childhood Extra Pulmonary T.B	29. Attention deficit hyperactivity disorder
30.Others- Congenital Hypothyroidism, Sickle Cell Anaemia, Beta Thalassemia (Optional)	

Adolescent Health Concerns
31. Growing up concerns
32. Substance abuse
33. Feel depressed

- 34. Delay in menstruation cycles
- 35. Regular periods
- 36. Experience any pain or burning sensation while urinating
- 37. Discharge/foul smelling discharge from the genitor-urinary area
- 38. Pain during menstruation

Target age group

RBSK aims to cover children from birth to 6 years of age and children from 6-18 year enrolled in classes 1 to 12 in Government and Government aided Schools.

Target group for Child Health Screening and Early Intervention Service under RBSK

Categories	Age Group	Service Providers
Pre School children in rural areas and urban slum, Anganwadi Center (AWC)	Birth to 6 years	Mobile health team
School children enrolled in class 1 and 12 in Government and Government aided schools & Jr. Colleges	6 years to 18 years	Mobile health team

Operational approach of RBSK

Mechanisms for screening at Community & Facility level:

Child screening under RBSK is at two levels community level and facility level. While facility based new born screening at public health facilities like PHCs / CHCs/ DH, will be by existing health manpower like Medical Officers, Staff Nurses & ANMs, the community level screening will be conducted by the Mobile health teams at Anganwadi Centres and Government and Government aided Schools.

Screening at Anganwadi Centre:

All pre-school children below 6 years of age would be screened by Mobile Block Health teams for deficiencies, diseases, developmental delays including disability at the Anganwadi centre at least twice a year. Tool for screening for 0-6 years is supported by pictorial, job aids specifically for developmental delays. For developmental delays children would be screened using age specific tools specific and those suspected would be referred to DEIC for further management.

Screening at Schools- Government and Government aided:

School children age 6 to 18 years would be screened by Mobile Health teams for deficiencies, diseases, developmental delays including disability, adolescent health at the local schools at least once a year. The tool used is questionnaire (preferably translated to local or regional language) and clinical examination.

Mobile Health Team (MHT)

There are total 306 Mobile Health Teams (two in each of 153 Health Blocks) in the State of Assam screening of the children (0-18 years). The RBSK mobile health team consisting of four members will reach out to every child to facilitate Screening services from birth to 6 years at AWC and also reach out to children in the age group of 6 to 18 years in schools / Junior Colleges.

Composition of Mobile Health Team

S. No	Member	Number
1	Medical Officers - 1 Male And 1 Female With A Bachelor's Degree AYUSH from an approved Institution or one Dental Surgeon.	2
2	ANM/ Staff Nurse	1
3	Pharmacist* with proficiency in computer for data management	1

***In case a Pharmacist is not available, other paramedics – Lab Technician or Ophthalmic Assistant with proficiency in computer for data management may be considered.

MHT screen all the children upto 6 years of age registered with the Anganwadi Centers and all children enrolled in Government and Government aided schools (6-18 years). In order to facilitate implementation of the health screening process, vehicles hired for movement of the teams to Anganwadi Centers, Government and Government aided schools. A tool kit with essential equipment for screening of children will also be provided to the Mobile Health Team members.

Composition of Tool Kit for Mobile Health Team

1. Equipments for Screening including Developmental Delays	
6 weeks to 6 years	6-18 years

- Bell
- Rattle
- Torch
- One inch cubes
- Small bottle with raisins
- Squeaky toys
- Colored wool
- Manual and a card specific to each age with age appropriate developmental check list to record milestones to identify developmental delays
- Vision charts
- Reference charts
- BP apparatus with age appropriate calf size

(6 weeks -9 years)

2. Equipments for Anthropometry

Age appropriate-

- Weighing scale (mechanical newborn weighing scale , standing weighing scale)
- Height measuring – Stadiometers / Infantometers
- Mid arm circumference tape
- Non stretchable measuring tape for head circumference

District Early Intervention Centre (DEIC)

Following the initial step of screening of children from birth to 18 years of age group for selected health conditions including Defects at Birth, Deficiencies, Diseases & Developmental delays including disabilities under Rashtriya Bal Swasthya Karkyakram (RBSK) through trained and dedicated Mobile Health Teams, the next vital step is confirmation of preliminary findings, referral support, management and follow up. Under RBSK, these activities viz. confirmation, management, referral, tracking & follow-up, needs to be planned according to the age group of the child.

The early intervention centers are to be established at the District Hospital level across the country as District Early Intervention Centers (DEIC). The purpose of DEIC is to provide referral support to children detected with health conditions during health screening, primarily for children up to 6 years of age group.

A team consisting of Pediatrician, Medical officer, Staff Nurses, Paramedics will be engaged to provide services. There is also a provision for engaging a manager who would carry out mapping of tertiary care facilities in Government institutions for ensuring adequate referral support. The funds will be provided under NHM for management at the tertiary level at the rates fixed by State Governments in consultation with Ministry of Health & Family Welfare.

Thus, the DEIC will be the hub of all activities, will act as a clearing house and also provide referral linkages.