

**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, Development delays including disability.

It is important to note that the 0-6 years age group will be specifically managed at District Early Intervention Center (DEIC) level while for 6-18 years age group, management of conditions will be done through existing public health facilities. DEIC will act as referral linkages for both the age groups.

First level of screening is done at all delivery points through existing Medical Officers, Staff Nurses and ANMs. After 48 hours till 6 weeks the screening of newborns will be done by ASHA at home as a part of Home Based New-born Care (HBNC) package.

Outreach screening will be done by dedicated Mobile Health teams for 6 weeks to 6 years at anganwadis centres and 6-18 years children at school.

Once the child is screened and referred from any of these points of identification, it would be ensured that the necessary treatment/intervention is delivered at zero cost to the family.

## Target age group

The services aim to cover children of 0-6 years of age in rural areas and urban slums in addition to children enrolled in classes 1st to 12th in Government and Government aided Schools. It is expected that these services will reach to about 27 crores children in a phased manner. The broad category of age group and estimated beneficiary is as shown below in the table. The children have been grouped in to three categories owing to the fact that different sets of tools would be used and also different set of conditions could be prioritized.

Target group under Child Health Screening and Intervention Service Categories		
Categories	Age Group	Estimated Coverage
Babies born at public health facilities and home	Birth to 6 weeks	2 crores
Preschool Children in rural areas and urban slum <sup>1</sup>	6weeks to 6 years	8 crores
School Children enrolled in class 1 <sup>st</sup> to 12 <sup>th</sup> in government and government aided schools	6yrs to 18 yrs	17 crores

## Health conditions to be screened

Child Health Screening and Early Intervention Services under RBSK envisages to cover 30 selected health conditions for **Screening**, early detection and free management. States and UTs may also include diseases namely hypothyroidism, Sickle cell anaemia and Beta Thalassemia based on epidemiological situation and availability of testing and specialized support facilities within State and UTs.

### Selected Health Conditions for Child Health Screening & Early Intervention Services

<p><b>Defects at Birth</b></p> <ol style="list-style-type: none"> <li>1. Neural tube defect</li> <li>2. Down's Syndrome</li> <li>3. Cleft Lip &amp; Palate / Cleft palate alone #</li> <li>4. Talipes (club foot)</li> <li>5. Developmental dysplasia of the hip</li> <li>6. Congenital cataract</li> <li>7. Congenital deafness</li> <li>8. Congenital heart diseases</li> <li>9. Retinopathy of Prematurity</li> </ol>	<p><b>Deficiencies</b></p> <ol style="list-style-type: none"> <li>10. Anaemia especially Severe anaemia</li> <li>11. Vitamin A deficiency (Bitot spot)</li> <li>12. Vitamin D Deficiency, (Rickets)</li> <li>13. Severe Acute Malnutrition</li> <li>14. Goiter</li> </ol>
<p><b>Diseases of Childhood</b></p> <ol style="list-style-type: none"> <li>15. Skin conditions (Scabies, fungal infection and Eczema)</li> <li>16. Otitis Media</li> <li>17. Rheumatic heart disease</li> <li>18. Reactive airway disease</li> <li>19. Dental conditions</li> </ol>	<p><b>Developmental delays and Disabilities</b></p> <ol style="list-style-type: none"> <li>21. Vision Impairment</li> <li>22. Hearing Impairment</li> <li>23. Neuro-motor Impairment</li> <li>24. Motor delay</li> <li>25. Cognitive delay</li> <li>26. Language delay</li> </ol>

<sup>1</sup> Source: CEA released Sep 2012

<sup>2</sup> (Data Sources : Elementary education in India, 2012, DISE 2010-11: Flash Statistics, NUEPA & DSEL, MoHRD, GOI. and State Report Cards: 2010-11 Secondary education in India, NUEPA)

20. Convulsive disorders

27. Behavior disorder (Autism)

28. Learning disorder

29. Attention deficit hyperactivity disorder

**30. Congenital Hypothyroidism, Sickle cell anemia, Beta thalassemia (Optional)**

### **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.

### **Composition of mobile health team:**

The mobile health team will consist of four members - two Doctors (AYUSH) one male and one female, at least with a bachelor degree from an approved institution, one ANM/Staff Nurse and one Pharmacist with proficiency in computer for data management.

<b>Suggested Composition of Mobile Health Team</b>			
<b>S.No.</b>	<b>Member</b>	<b>Number</b>	
1	Medical officers (AYUSH) - 1 male and 1 female at least with a bachelor degree from an approved institution	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 Ophthalmic Assistant			Technician or

### **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.