International Journal of Community Medicine and Public Health
*Gafurjiwala SM et al. Int J Community Med Public Health. 2023 Oct;10(10):3938-3940*
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20233135

**Review Article**

# Assessment of district early intervention centres in India

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**Received:** 14 June 2023
**Revised:** 25 August 2023
**Accepted:** 29 August 2023

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## ABSTRACT

India has the largest number of children between the ages of 0-18 years globally with a child population of over 400 million. Developmental delays affect a minimum 10% of preschool children, preventing them from reaching their full development potential. The studies to estimate the prevalence of disability and its association with socio-demographic and quality of life may provide valuable information for optimizing how health and social welfare organizations deal with morbidities. The paper concludes with a discussion that reflects on the functionary status of district early intervention centre (DEICs) in India and finds out the gaps in the referral system of DEICs combined with a general reflection on the utility of the rapid cycle evaluation model used. There is the scope of the country-level uniformity of reporting of the data of children with delayed development and disabilities. The policymakers should notice that early intervention can reduce the burden of disease and disability-adjusted life years (DALYs) and improve the quality of life of the next young generation of India.

**Keywords:** India, DEICs, Children, DALYs,

## INTRODUCTION

India has the largest number of children between the ages of 0-18 years globally with a child population of over 400 million. Developmental delays affect a minimum of 10% of preschool children, preventing them from reaching their full development potential. Diseases like dental caries, otitis media, rheumatic heart disease, and reactive airways have a high prevalence in children.[1,2] India's child health indicators are at still seem to be alarming. According to the national sample survey organization (NSSO 2002), the total number of the disabled population in India is approximately 1.85 crores (1.8% of the population), still the actual estimates may be higher.[3] The studies to estimate the prevalence of disability and its association with socio-demographic and quality of life may provide valuable information for optimizing how health and social welfare organizations deal with morbidities.[4]

The govt. of India has introduced initiatives like ICDS, RBSK, etc., ICDS (Integrated child developmental services), and the universal immunization programme (UIP), launched in 1975 and 1978 respectively, has over the years addressed the country's poor child health and survival status. In February 2013, the government of India launched Rashtriya Bal Swasthya Karyakram (RBSK) aimed at screening children for 4 Ds-Defects at birth, diseases, deficiencies, and development delays including disabilities and early intervention for the same. In the organizational structure, accredited social health activists (ASHA's) and mobile health teams (MHT) will do the community screening, while the DEIC located in the district headquarters will screen, diagnose and treat children referred from the community. The ministry of health and family welfare, government of India has developed the operational guidelines for DEIC, institutional capacities like infrastructural, manpower, and training capacities, DEIC has to acquire different types of equipment and skilled specialist manpower for effective

operationalization. A team consisting of a pediatrician, medical officer, staff nurses, and paramedics will be engaged to provide services. There is also a provision for engaging a manager who would carry out the 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 the ministry of health and family welfare.

Thus, the DEIC will be the hub of all activities, will act as a clearing house, and also provide referral linkages. At DEIC it should be an Interdisciplinary approach. One should not have the typical OPD model i.e., multidisciplinary approach especially for children <6 years as it confuses the parents and the child would not cooperate. Further, the space and design for examining children up to 6 years are very different as compared to older children, hence we cannot share the same OPD space. These children require space to explore and move.[5] The services provided by DEIC include occupational and physical, psychological, cognitive, audio-logical, language, vision, speech, and nutritional therapies apart from laboratory services.[6] Children diagnosed with any of the 30 listed health conditions shall receive follow-up treatment including surgeries at the tertiary level, free of cost.

Current status on the date,11020 teams in 36 states/UTs are in place, 92 DEICs are functional, during FY 2019-20, 203 million children were screened; 16.1 million children identified with any of 4Ds; 12.3 million children were referred to secondary/tertiary facilities; 8.8.0 million children availed services in secondary tertiary facilities. During 2020-21 and April-September 2021 (FY 2021-22), due to the COVID-19 pandemic field activities by MHT of the RBSK program were affected.[4]

Research has proved that the period from birth to 6 years is the most crucial year for all children. This is especially true for children with developmental delays. Strategically, the implementation of health program for early identification and early intervention can significantly improve the quality of lives of children with delayed development. the evidence showed that the drawback of the RBSK program was the decentralisation of rehabilitation services at the district level.[7] Another study found that 90.5% of study participants were satisfied and 9.42% were dissatisfied with the functioning and services provided at DEIC.[8] This was supported by the study conducted in MP state which mentioned that 76.92% of beneficiaries were dissatisfied with the referral service and DEIC staff (behaviour and availability) in Indore, while in Ujjain 65.3% were dissatisfied. Beneficiaries remained dissatisfied with expenses, 71.1% in Indore and 63.4% in Ujjain.[3] The paper concludes with a discussion that reflects on the functionary status of DEICs in India and finds out the gaps in the referral system of DEICs combined with a general reflection on the utility of the rapid cycle evaluation model used.

***Objectives***

To assess the functionary status of DEICs in India and find out the gaps in the referral system of DEICs.

## DATA SOURCES

We had a consultative process with public health personnel working in early child development for developing the list of keywords for searching articles. Accordingly, appropriate free terms and MeSH terms were identified, condensed, and adjusted with the database search. The keywords used were: early childhood, developmental vulnerabilities, developmental problems, developmental disabilities, developmental delays, developmental deviances, developmental difficulties, early intervention, RBSK, and DEICs.

## DISCUSSION

As discussed above RBSK Programme provided an effective platform for early screening of 0-18year children for various health problems by MHTs and a referral support and management by staff of DEIC to children identified and referred to them. We found several studies in different state concluded that there were 42% vacant positions in MHTs and DEIC. These need to be filled up to make more effective and sustainable implementation of the programme. Retinopathy of prematurity (ROP) could not be screened due to non-availability of trained ophthalmologist. Screening for sickle cell disease and thalassemia could not be done due to non-availability of blood testing facility for haemoglobin electrophoresis. Referral services and follow-up to tertiary care centres should be more streamlined and accelerated for an early new-born screening at delivery points and referral of SNCU discharged babies to DEIC need further strengthening and capacity building of healthcare providers.[9] One of the s studies, interviewed the parents of the children who referred to DEICs and analysed the reasons for their dissatisfaction in which 36% parents mentioned too much paperwork, whereas 55.3% felt that specialized tests or treatment unavailable at DEIC, the whole exercise was futile, 73.4% parents said loss of daily wages was a deterrent to go to DEIC repeatedly for follow-up. Therefore, in places where higher investigations are not available in government facilities, there should be a provision to get it done in private facilities at government fixed rates, paid through RBSK and free of cost to the children. Each baby discharged form SNCU should be line listed and tracked in the community for regular follow up for an early screening of health conditions and early intervention for a better outcome. This tracking can be done through available health care facilities i.e., AWW, ASHA, community health worker, MCTS (mother and child tracking system) and through SMS in mobile phones. There is also an urgent need of empowerment of the caregivers of children for early stimulation, responsive health, and access to healthcare facilities at

early stage of any developmental delay or defect. For multisystem approach must be in two-way communication between all the stakeholders for referral and linkages at each level of management.

Public health facilities still do not have the ability to perform evaluation and management/treatment of disease and developmental delays, compelling caregivers to go to private sector diagnostics. One of the studies found that, the caregivers had incurred an average of INR 45,000 of out-of-pocket expenses in caring for their child with 2Ds (Birth defects and developmental delay), with some caregivers spending as much as INR 950,000.[10] The OOP dissuades caregivers from seeking further referral and management services. Instead of experiencing the necessary care and free treatment as envisioned under RBSK, caregivers are often subjected to physical, psychological and financial stress.[11] Capacity building of skills for the evaluation at DEICs must be carried out with all the team members who are the pillars of DEIC building .

There is also scope of the country level uniformity of reporting of the data of children with delayed development and disabilities. Therefore, an attempt has been made to conduct a cross-sectional case study at a micro level to assess the early childhood developmental status in holistic manners.

## CONCLUSION

The unique feature of the RBSK services is the continuum of care extending from birth to 18 years of age. The health sector has to focus more on the resources skilled manpower, training of community health workers at regular intervals about the different morbidities screened, early stimulation, follow-up and refer to the centre that would help in identifying the morbidities at the earliest possible time and receive the intervention at the best centre**.** The policy makers should notice that the early intervention can reduce the burden of disease and DALYs and improve the quality of life of next young generation of India.

*Funding: No funding sources*
*Conflict of interest: None declared*
*Ethical approval: Not required*

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**Cite this article as:** Gafurjiwala SM, Kumar Y, Nirupama AY. Assessment of district early intervention centres in India. Int J Community Med Public Health 2023;10:3938-40.