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Invitation for Expressions of Interest for participation in  
**UNNATI** initiative  
(Upgrading Norms for Growth and Development Assessment of Indian Children)  
(Phase 2)

## Background

Growth during childhood and adolescence is a key determinant to achieving optimal health and productivity throughout life. Growth patterns during this period are influenced by nutritional, environmental and biological factors and are closely associated with the risk of developing metabolic and cardiovascular conditions later in life. Any deviation from expected growth trajectory may indicate underlying nutritional deficiencies, illness and unfavorable biological and/or environmental influences. Therefore, early identification of faltering growth pattern is critical for improving overall health, promoting healthy development and preventing adverse health outcomes at later stages in life.

## Existing standards

The most widely adopted standards for assessing growth and developments of children were established through the World Health Organization- Multicentre Growth Reference Study (WHO-MGRS) conducted between 1997 and 2003. This study established growth standards for children aged 0-5 years based on pooled data on growth from six countries representing wide ethnic and cultural diversity. Growth and development were assessed using key anthropometric indicators such as weight-for-age, length/height-for-age, weight-for-length/height, and body mass index-for-age which serve as essential measures for monitoring nutritional status and overall health among children. The study revealed that children attain comparable growth and development outcomes under ideal condition, irrespective of their ethnicities and genetic determinants. The findings reinforced the concept that environmental factors play a dominant role in early childhood growth and development and provided a universally accepted yardstick for international growth comparisons.

## Need for the cross-sectional component under *UNNATI* study

Growth patterns during early childhood and adolescence are strongly influenced by variability in pre-pubertal and pubertal development. Growth monitoring and assessment during this period is imperative for evaluating developmental trajectories and long term health outcomes. The UNNATI study is an ongoing National Health Research Programme initiated by Indian Council of Medical Research in 2025. Under the UNNATI phase 1, longitudinal data are being collected from children aged 0-2 year who have received an optimal environment for growth and development across six zones of the country. This data will be pooled to develop the growth and developmental standards for Indian children during early childhood.

The WHO MGRS study established single international growth standards for children aged 0-5 years. However, comparable national/ international standards for children beyond aged 5 years are currently not available. In addition, there is a felt need to review and refine the standards developed through WHO-MGRS study for children through the cross section data of the age group 2 to 18 years. Therefore, UNNATI phase 2 has been proposed by ICMR to collect adequately representative cross sectional data across the country. The cross-sectional component of UNNATI study among children aged 2-18 years is essential to ensure continuity in growth curves around the critical transition age (approximately 2 years). During this period growth patterns begin to shift from rapid early-life changes to gradual and stable trajectories. The timing and progression of puberty differ widely among individuals and a small longitudinal cohort may not adequately capture the full spectrum of early and late maturers in this context. This cross-sectional study will enable the inclusion of children at different stages of maturation across all age groups ensuring biological variability.

### **Purpose of the call**

This call for **Expressions of Interest (EoI)** invites applications from interested researchers for participation in data collection for a multicentre study on growth standards for Indian children 2-18 years of age (UNNATI). The data will be collected from children and adolescents age 2 to 18 years, who will meet pre-defined criteria to indicate 'no constraints to growth'. The resultant data from all the study sites will be pooled to generate growth standards for Indian children.

### **Aim of the research initiative**

*To develop contemporary Indian child growth and developmental standards based on children aged 2-18 years representative of six zones of the country, who have received optimal care that is likely to be associated with optimal growth and low risk of future metabolic disorders.*

### **Outline of research initiatives (Methods)**

#### Study Design

Multi-centre cross-sectional study

## Settings

Pre-schools/schools representing populations without any social, educational or economic constraints that may impede the growth and development of children and adolescents.

## Sites

Each zone will have at least four representative sites; approximately 24 sites will be supported under UNNATI phase 2.

## Tentative Inclusion Criteria and Target Population

The target population will be selected from an environment without major biological, socio-behavioral, and economic constraints to growth. The primary inclusion criteria may also include but are not limited to:

1. Participant was exclusively breastfed for at least the initial six months after birth and complementary feeding initiated at six month and continued breastfeeding till 1 year.
2. Participant is apparently healthy, does not have a history of smoking, tobacco use or substance use and maintains active lifestyle.
3. Participant attending a pre-school/school that provides sports facilities or promotes regular sports participation among children.
4. Consent to participate in the study.
5. Favorable clinical and /or biochemical assessment.

## **Duration of study**

<b>S. No.</b>	<b>Activities</b>	<b>Estimated Duration</b>
1	Preparation	6 month
2	Enrolment and Data Collection	6 month
3	Analysis	3 month
4	Total	1 year 3 month

## **Study Procedures**

Children and adolescents aged 2–18 years who meet the eligibility criteria will be recruited from pre-schools/ schools catering to families of high socioeconomic status to ensure appropriate contextual representation. To adequately assess the physical activity component, only pre-schools/ schools with access to a playground and comprehensive sports facilities will be included.

All eligible participants will undergo one-time measurements of anthropometric parameters using standardized, high-quality methodology. Data on health status, anthropometric measurements, blood pressure and other relevant blood biomarkers will be collected to assess their growth, development and metabolic and cardiovascular status.

### **Roles and responsibilities**

The selected study teams will timely deliver the following, under the coordination of ICMR:

- a) Collection of data on anthropometric measurements from apparently healthy Indian children and adolescents aged 2 to 18 years for development of national growth standards.
- b) Collection of data on health status and biomarkers to assess the cardiovascular and metabolic profile using validated and standardized procedures.
- c) Establish a strong quality assurance and quality control system for data collection, staff training, real time data entry, laboratory quality control and regular audits to ensure accurate and consistent data
- d) Engage a paediatrician (full time/ part-time/ honorarium basis) to counsel the participants and their family and oversees the entire assessment process

### **Who can apply**

1. Researchers who have regular employment in Medical Institutes/ Research Institutes/ Universities/ Colleges/ Government and semi- government organizations and NGOs.
2. A team of researchers should be identified along with the principal investigator.
3. The team should have prior experience in conducting large pre-schools/ school-based studies/ community based studies.
4. The team should have experience in studies on child and adolescent health.
5. The team should have expertise to ensure high quality standardized anthropometric measurements in the field settings.
6. The team should have experience in body composition assessment/ metabolic health/ anthropometric measurements.
7. The teams should have experience in conducting large studies with timely implementation and capability of enrolling 500-600 children and adolescents in 3-6 months

### **Information to be included in the EoI**

#### **Two-page CV:**

1. Name, academic/ professional qualifications and affiliation of PI and the other members of the team (PI + maximum of 3 other investigators)

2. Experience in undertaking large projects on child growth/ body composition in community settings (experience of the PI and a maximum of 3 other investigators should be included).

The research experience and publications of the team as a whole should be summarized within one page, including:

- a) Upto five most relevant previous research grants with the main objectives of the research studies
- b) Upto five most relevant previous publications with brief summary of each paper

### **Two-page EoI Document**

3. The EoI should explicitly state:
  - a) The choice of the sites (states, districts, pre-schools/ schools) where the study will be implemented and the well-founded rationale for the /selection.
  - b) The implementation strategy (one page) including selection of sample population, enrolment strategy, agreement with the existing criteria/ suggestions for additional inclusion/ exclusion criteria, quality assurance for anthropometric measurements, blood sampling, laboratory procedures, other data collection procedure, expected challenges and mitigations.

### **Review process**

The EOI documents will be screened for completeness and eligibility by the ICMR. The shortlisted applications will be reviewed by an independent selection committee. The study group will comprise of a total of 24 study sites, with four sites selected from each of the six zones of the country. The selected teams will then collaborate to develop a single detailed proposal, under the guidance of ICMR. The technical and operational aspects of proposal will be evaluated and finalized by the Project Steering Committee constituted by ICMR.

### **How to submit the EoI**

The EoI can be submitted through ONLINE MODE ONLY using the Google form through the link provided below:

Link:

<https://docs.google.com/forms/d/e/1FAIpQLScbeVEDPs1PFdFwLbbbN25MyAZc8kDsAsv4uRhHjhOjjs7NRQ/viewform?usp=sharing&ouid=110865509699112305282>

*Only the shortlisted applicants will be contacted via e-mail*

### **Timelines**

Activities	Dates
Release of the Call	01.07.2026
Last date for submission of EoI	22.07.2026
Short listing of EoIs	22.08.2026
Proposal Development Workshop	To be notified

**For any queries related to the call, please contact the following program officers:**

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