

TITLE: Early Childhood Development and Nutritional Risk Screening Platform

DESCRIPTION: Developmental milestones and nutritional deficiencies are markers of a child's development from infancy to childhood. Understanding and identifying milestones and nutritional deficiencies at benchmark points helps in detecting developmental delays in children. These indicate the need to follow an early intervention process when identified.

A low-cost and scalable non-intrusive tool that eases community screening for developmental concerns and nutritional risk factors in young children is needed.

The proposed solution should integrate:

1. Developmental milestone tracking app for parents and healthcare workers [using STEP surveillance tool, Weight and Height tracker inclusion and Vaccines (Both Govt and IAP Vaccines)].
2. A camera-based eye-tracking module to objectively assess attention, gaze, visual engagement, and neurodevelopmental markers with results to be stored and displayed in the app.
3. A non-intrusive Vitamin D risk assessment module using optical, imaging, or other novel approaches to identify risk of deficiency in children and integrate with the app.

It should include a composite risk score, recommendations for referrals, and conduct early screening at homes, schools, Anganwadi centres and primary healthcare facilities.

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EXPECTED OUTCOME: Develop non-invasive child health screening platform that combines developmental milestone assessment, eye-tracking analytics, and Vitamin D risk evaluation for early identification of children requiring clinical intervention.