

## Aiding the Vision of an 'Anemia Mukht Bharat'

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The rhetoric of the 'lazy' child has been pervasive in the everyday narrative of many Indian households. Looking back, I can think of several instances – at home and in the school – where children are labeled as disinterested or unconcerned due to a general sluggishness in their movement that may be seen as reflective of their attitude towards school or physical activity. Although several unique factors affect each child's physiology, the alarming prevalence of anemia amongst children in India suggests that as parents and teachers, concerns about the child's attitude might be misplaced; and the same energy needs to be directed towards robust nutritional interventions for the children of this country. Evidence suggests that a poor nutritional status, especially in early childhood, can negatively impact a child's cognitive and behavioral development, reflecting directly in poor brain development and weak learning outcomes. This, in turn, can lead to prolonged absences from school, affecting their academic performance and overall development.

Despite the knowledge that our country can have palpable economic gains, better living conditions by expanding education and overall improvement in the health sector by overcoming nutritional anemia, we have not been able to address this challenge completely. The last two rounds of the National Family Health Survey documented an alarming rising trend of anemia prevalence across the Indian population, most sharply in children who are 6-59 months old. The proportion of anemic children rose by almost 9%, from 58.6% in 2015-16 to 67.1% in 2020-21. The Comprehensive National Nutrition Survey conducted in 2016-2018, revealed that 41% of preschoolers (1-4 years), 24% school age children (5-9 years) and 28% of adolescents (10-19 years) in India have anemia.

Although, we have made some progress in early diagnosis of anemia and steady iron folic acid (IFA) supplementation for pregnant women, little has been achieved in terms of addressing anemia amongst children. The Anemia Mukht Bharat (AMB) program, launched in 2018, aimed to provide weekly iron folic acid supplementation to all children along with biannual deworming

days. Under the program, mothers of under five children are supposed to receive a bottle of IFA syrup from their village ASHA. School-going children and adolescents receive IFA under the Weekly iron folic acid supplement (WIFS) program at their school or anganwadi. Under the Rashtriya Bal Swasthya Karyakram (RBSK), children are also to be screened for anemia at least once a year, using a digital hemoglobinometer. Those detected with moderate or severe anemia are referred to their closest health facility for treatment. Although well-intentioned and seemingly robust, the AMB has been wrought with implementation shortcomings. Most private schools opt-out of the program as they do not want to be liable for medicating students. The hesitancy is found in parents too, who may not trust the quality of government procured subsidized drugs. Thus, a majority of the cohort of private-school going children are missed out. The program has a tough time reaching out-of-school and migrant children as well, due to the lack of a regular and permanent platform. In the schools where it is operational, IFA supplementation is irregular and there are no independent monitoring frameworks to hold the schools accountable. Iron ingestion, especially on an empty stomach, can cause discomfort and nausea. A poor past experience is likely to make the child avoid future dosages, and so there is a need for detailed and convincing IEC/BCC in schools.

The AMB also encouraged states to procure digital hemoglobinometers for point of care screening, to eliminate the subjectivity of color scales and other older devices. While some states have rapidly procured these devices, their reach and usage are still negligible in rural and resource-poor regions. Further, there does not seem to be a follow-up mechanism to monitor the development of the children that do get diagnosed during these screenings. Although, they are encouraged to see a care provider, one cannot help but question how many of them actually end up receiving complete treatment for anemia. Lastly, while the strategy focuses on iron-deficiency and non-nutritional anemia in endemic pockets, little attention is given to other nutritional deficiencies such as vitamin A, zinc or B12, which are highly prevalent in school-age

children. That being said, we must laud the effort of the government to initiate such a large-scale, ambitious and purposeful effort towards addressing the public health issue of anemia in our country.

So how can each of us contribute towards a truly *anemia mukt bharat*? First, we can leverage our individual associations with the schools of our area to encourage participation in the weekly IFA supplementation. It is important to initiate a dialogue between the schools and health department officials to work through their concerns. For example, ensuring the time of supplementation is right after lunch is a small step that can go a long way in reducing discomfort for the child and negative feedback about the program in schools. Secondly, it is time to look at behavior change communication innovatively. The material needs to be designed with the unique sensibilities of parents, teachers, children and adolescents individually taken into account. The emphasis needs to be on diet diversification and increased intake of iron rich foods. In an earlier communication, I have already addressed the importance of infant's sixth month visit to the pediatrician. It can be a game changer if we spend quality time in detailed counseling of complementary feeding. The pediatrician can train at least one paramedic person in their clinic who then gives a detailed account of dietary diversity and minimum acceptable diet using the local resources. I am sure it will make a huge impact on reducing nutritional anemia in children. Children and adolescents can be picky eaters and a tricky audience to win over, especially with the multitude of food myths and diet fads they are exposed to. The message needs to come from a figure they look up to and trust, perhaps one of their own, more than authority figures like parents or teachers.

The strategy to address anemia in under 5 children can be integrated with the early childhood development (ECD) initiatives, such as including comprehensive nutritional counseling along with early and exclusive breastfeeding. Routine immunizations are a good touchpoint to opportunistically test children aged 6-59 month. Another two important interventions for helping AMB program are implementation of adequate water, sanitation and hygiene strategies and delayed cord clamping. While a pediatrician has a limited role in the former; each one of us attending a delivery can definitely ensure delayed cord clamping by at least three minutes and not earlier than one minute or until cord pulsations cease, especially for babies born to anemic mothers.

Efforts are required to make this practice a routine at all healthcare levels. There are new non-invasive hemoglobinometers entering the market, and emerging research on even app-based technologies. Even accounting for a slight loss of accuracy, these devices can be a great asset in detecting moderate or severe anemia, and can be kept handy for opportunistic screening. There are tremendous public health gains in securing the nutritional status of our future generations. The government is definitely doing its bit to improve the effectiveness and efficiency of programs like AMB. This will surely need to overcome the implementation challenges, making the technical capacity more robust and integrating it into parallel programs. We pediatricians must roll up our sleeves and do our bit to contribute to the vision of Anemia Mukh Bharat.

Jai Hind! Jai IAP!

*Funding:* None; *Competing interests:* None stated.