



COMMENT

# Putting food at the centre of India's nutrition agenda

[S.V. Subramanian and William Joe](#)

Reducing the burden of child undernutrition needs a policy goal — providing affordable access to quality food items

The provisional verdict from the fifth round of the [National Family Health Survey \(NFHS 2019-20 factsheets\)](#) on the burden of child undernutrition is not encouraging, with few exceptions. For the most part, this assessment has relied on the measure of a child's anthropometry, i.e., children are defined as stunted, underweight or wasted if their standardised height-for-age, weight-for-age or weight-for-height, respectively, is more than two standard deviations below the [World Health Organization \(WHO\) Child Growth Standards](#) median.

However, undernutrition can also be measured by observing the adequacy and sufficiency of food or dietary intake among children. So how do Indian children fare when we bring a food measure to tell us about their nutritional status?

## Diet-related undernutrition

Across the 22 States/Union Territories for which the NFHS-5 has released the factsheets, the percentage of children (aged 6-23 months) who do not meet the [minimum dietary adequacy](#) — as defined under the Infant and Young Child Feeding (IYCF) practices by WHO — is 83.9%; a decline of just over 2 percentage points from

what was observed in NFHS-4 (2015-16). Thus, eight out of 10 children appear to be experiencing a dietary shortfall. It would not be surprising if this situation has worsened (<https://bit.ly/3nrJlo1>) with the spread of the COVID-19 pandemic and the ensuing 2020 lockdown.

Although 17 of the 22 States/Union Territories did experience a decline, the percentage of children not meeting the dietary adequacy norms increased in five States/Union Territories. Goa experienced the largest percentage point decline (11.1%), and Jammu and Kashmir observed the highest increase in its percentage of children not meeting dietary adequacy over the last three years (76.5% to 86.4%). While there are some variations, in every State more than 75% of the children do not receive the minimum adequate diet.

**Analysis** based on NFHS-4 has shown that consumption of protein-rich food as well as fruit and vegetables were substantially low. Since the disaggregated child-level data on consumption of various food groups has not been released, we will have to wait to see what specific aspects are children experiencing a dietary shortfall.

## Prevalence of anaemia

Fortunately, the factsheets provide the percentage of children who are anaemic — **an indication of iron deficiency** — and the trends should raise concern. Across the 22 States/Union Territories, anaemia prevalence among children increased by about eight percentage points from 51.8% to 60.2%. The prevalence of anaemia in childhood increased in 18 of the 22 States/Union Territories. In the majority of the States, two out of three children have possible iron-deficiency. The State-wise trends for adults are mixed, although it is clear that women are substantially at a far greater risk for anaemia than men.

The Prime Minister's Overarching Scheme for Holistic Nutrition (POSHAN) Abhiyaan and, particularly, the **Anemia Mukh Bharat**, or AMB, Strategy was launched in 2018 with efforts to improve Iron and Folic Acid (IFA) supplementation, behaviour change and anaemia-related care and treatment across six target groups including pregnant women, lactating mothers, and children, and the provisional verdict is mixed for women and concerning for children.

## Diet-related measures

Viewing the burden of child undernutrition from a food or dietary lens is sobering, and raises serious concerns than what has been well-revealed by measures based on anthropometry. It is time that undernutrition is not only viewed simply through the measures of anthropometric failure, but is complemented through explicit attention to diet-related measures.

A classification of nutritional status using a combined typology based on children who experience dietary failure and anthropometric failure is crucial. [A recent NFHS-4 based study](#) using this typology found that 36.3% of children who experienced a dietary failure do not show anthropometric failure. Anthropometric-centric measures thus run the risk of omitting such children from policy discussions. A combined typology is also necessary to highlight groups that may need most immediate priority (e.g., children experiencing both dietary and anthropometric failures, 44%). Indeed, the prevalence of children who experience anthropometric failure only but no dietary failure was only 9.8%.

Dietary factors can clearly be a major determinant of stagnancy in the nutritional status of Indian children. The true burden of child undernutrition thus may well be underestimated by the sole reliance on anthropometric measures. Besides, a child's anthropometric status is a consequence of several complex factors, including inter-generational, which current policies and interventions cannot alter in the short term. Importantly, food and diet have an intrinsic importance, regardless of their impact on a child's anthropometry. Therefore the [nutrition agenda needs to be considered from "food as a right" perspective](#).

A disproportionate focus on anthropometric measures inadvertently precludes meaningful and direct engagement with strategies and data necessary to address diet and food security concerns. Data, available in a timely manner and in public domain, is empowering, as the NFHS has demonstrated over the last 25-plus years. But systematic and quality data on what Indians eat remains largely unknown.

## Data initiative needed

It is important to emphasise that India does not have a dedicated nationally representative survey on the dietary intake and nutritional status of children or adults.

A modern data initiative leveraging and combining aspects of the NFHS, the National Nutrition Monitoring Bureau and the National Sample Surveys that collected data on detailed household-level consumption and expenditure on various food items should be considered.

In summary, decluttering our current approach to reducing the burden of child undernutrition and keeping it simple with a policy goal to providing affordable (economic and physical) access to quality food items, particularly for lower socioeconomic populations groups, should be prioritised. This may serve well as India tries to realise the Sustainable Development Goals (SDGs 2 and 3) related to zero hunger and good health and well-being.

*S.V. Subramanian* is Professor of Population Health and Geography, Harvard Center for Population and Development Studies, Cambridge, MA, U.S. *William Joe* is Assistant Professor, Population Research Centre, Institute of Economic Growth, Delhi. Inputs by *Abhishek Kumar*, a doctoral candidate at the Central University of Gujarat.

# Putting food at the centre of India's nutrition agenda

Reducing the burden of child undernutrition needs a policy goal — providing affordable access to quality food items +



S.V. SUBRAMANIAN &  
WILLIAM JOE

**T**he provisional verdict from the fifth round of the National Family Health Survey (NFHS 2019-20 factsheets (<https://bit.ly/3q2yC77>) on the burden of child undernutrition is not encouraging, with few exceptions. For the most part, this assessment has relied on the measure of a child's anthropometry, i.e., children are defined as stunted, underweight or wasted if their standardised height-for-age, weight-for-age or weight-for-height, respectively, is more than two standard deviations below the World Health Organization (WHO) Child Growth Standards (<https://bit.ly/3rd1IA7>) median.

However, undernutrition can also be measured by observing the adequacy and sufficiency of food or dietary intake among children. So how do Indian children fare when we bring a food measure to tell us about their nutritional status?

## Diet-related undernutrition

Across the 22 States/Union Territories for which the NFHS-5 has released the factsheets, the percentage of children (aged 6-23 months) who do not meet the minimum dietary adequacy (<https://bit.ly/3aoc447>) — as defined under the Infant and Young Child Feeding (IYCF) practices by WHO — is 83.9%; a decline of just over 2 per-

centage points from what was observed in NFHS-4 (2015-16). Thus, eight out of 10 children appear to be experiencing a dietary shortfall. It would not be surprising if this situation has worsened (<https://bit.ly/3n7j0l0>) with the spread of the COVID-19 pandemic and the ensuing 2020 lockdown.

Although 17 of the 22 States/Union Territories did experience a decline, the percentage of children not meeting the dietary adequacy norms increased in five States/Union Territories. Goa experienced the largest percentage point decline (11.1%), and Jammu and Kashmir observed the highest increase in its percentage of children not meeting dietary adequacy over the last three years (76.5% to 86.4%). While there are some variations, in every State more than 75% of the children do not receive the minimum adequate diet.

Analysis (<https://bit.ly/3pd7T11>) based on NFHS-4 has shown that consumption of protein-rich food as well as fruit and vegetables were substantially low. Since the disaggregated child-level data on consumption of various food groups has not been released, we would have to wait to see what specific aspects are children experiencing a dietary shortfall.

## Prevalence of anaemia

Fortunately, the factsheets provide the percentage of children who are anaemic — an indication of iron deficiency (<https://bit.ly/3nsPelf>) — and the trends should raise concern. Across the 22 States/Union Territories, anaemia prevalence among children increased by about eight percentage points from 51.8% to 60.2%. The prevalence of anaemia in child-



FILE PHOTO/AM

hood increased in 18 of the 22 States/Union Territories. In the majority of the States, two out of three children have possible iron deficiency. The State-wise trends for adults are mixed, although it is clear that women are substantially at a far greater risk for anaemia than men.

The Prime Minister's Overarching Scheme for Holistic Nutrition (POSHAN) Abhiyaan and, particularly, the Anaemia Mukta Bharat (<https://bit.ly/3r4pUEz>), or AMB, Strategy was launched in 2018 with efforts to improve Iron and Folic Acid (IFA) supplementation, behaviour change and anaemia-related care and treatment across six target groups including pregnant women, lactating mothers, and children, and the provisional verdict is mixed for women and concerning for children.

## Diet-related measures

Viewing the burden of child undernutrition from a food or dietary lens is sobering, and raises serious concerns than what has been well-revealed by measures based on anthropometry. It is time that undernutrition is not only viewed simply through the measures of anthropometric failure, but is

complemented through explicit attention to diet-related measures.

A classification of nutritional status using a combined typology based on children who experience dietary failure and anthropometric failure is crucial. A recent NFHS-4 based study (<https://bit.ly/3r5dVGR>) using this typology found that 36.3% of children who experienced a dietary failure do not show anthropometric failure. Anthropometric-centric measures thus run the risk of omitting such children from policy discussions. A combined typology is also necessary to highlight groups that may need most immediate priority (e.g., children experiencing both dietary and anthropometric failures, 44%). Indeed, the prevalence of children who experience anthropometric failure only, but no dietary failure was only 9.8%.

Dietary factors can clearly be a major determinant of stagnancy in the nutritional status of Indian children. The true burden of child undernutrition thus may well be underestimated by the sole reliance on anthropometric measures. Besides, a child's anthropometric status is a consequence of several complex factors, including inter-generational, which current policies and interventions cannot alter in the short term. Importantly, food and diet have an intrinsic importance, regardless of their impact on a child's anthropometry. Therefore the nutrition agenda needs to be considered from "food as a right" (<https://bit.ly/3qZA6hH>) perspective.

A disproportionate focus on anthropometric measures inadvertently precludes meaningful and direct engagement with strategies

and data necessary to address diet and food security concerns. Data, available in a timely manner and in public domain, is empowering, as the NFHS has demonstrated over the last 25-plus years. But systematic and quality data on what Indians eat remains largely unknown.

## Dietary initiative needed

It is important to emphasise that India does not have a dedicated nationally representative survey on the dietary intake and nutritional status of children or adults. A modern data initiative leveraging and combining aspects of the NFHS, the National Nutrition Monitoring Bureau and the National Sample Surveys that collected data on detailed household-level consumption and expenditure on various food items should be considered.

In summary, decluttering our current approach to reducing the burden of child undernutrition and keeping it simple with a policy goal to providing affordable (economic and physical) access to quality food items, particularly for lower socioeconomic populations groups, should be prioritised. This may serve well as India tries to realise the Sustainable Development Goals (SDGs 2 and 3) related to zero hunger and good health and well-being.

S.V. Subramanian is Professor of Population Health and Geography, Harvard Center for Population and Development Studies, Cambridge, MA, U.S. William Joe is Assistant Professor, Population Research Centre, Institute of Economic Growth, Delhi. Insights by Abhishek Kumar, a doctoral candidate at the Central University of Gujarat