

# Infant Feeding practices in India & Kerala- Where do we stand?

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Poor-quality diets in inappropriate quantity pose one of the greatest obstacles to childhood survival, growth, development and learning. The stakes are highest in the first two years of life. Around the world, 8,20,000 lives could be saved every year among under-fives, if all children 0–23 months were optimally breastfed<sup>1</sup>. Globally, undernutrition is estimated to be associated with 2.7 million child deaths annually (45% of all child deaths)<sup>1</sup>. Optimal infant and young child feeding practices has been identified as the most cost-effective measures to reduce under-five mortality.

## IYCF indicators- old and new

Eight core and seven optional indicators were published by WHO (2008) to help in data collection and reporting on IYCF practices throughout the world. The new WHO recommendations (2021) include 17 population-level indicators without distinction as core or optional<sup>2</sup>. Breastfeeding indicators (expressed as percentages) include Ever breastfed, Early initiation of breastfeeding within one hour, Exclusively breastfed for the first two days after birth (new), Exclusive breastfeeding under six months, Mixed milk feeding under six months (new) and Continued breastfeeding 12–23 months (earlier, 12-15 months). Complementary feeding indicators (expressed as percentages) include Introduction of solid, semisolid or soft foods 6–8 months, Minimum dietary diversity (5 out of 8, breastmilk included as one food group), Minimum meal frequen-

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cy, Minimum acceptable diet, Minimum milk feeding frequency for non-breastfed children 6–23 months, Egg and/or flesh food consumption the previous day 6–23 months (new), Sweet beverage consumption the previous day 6–23 months (new), Unhealthy food consumption the previous day 6–23 months (new), Zero vegetable or fruit consumption the previous day 6–23 months (new), Bottle feeding the previous day 0–23 months and Infant feeding area graphs (new). Consumption of iron-rich/fortified foods as an indicator has been deleted as it was found hard to operationalize in household surveys.

## India

### Breastfeeding indicators-

According to NFHS-5 (2019-21), 41.8% of

children below 3 years who were interviewed as part of the survey received **early initiation of breastfeeding** within one hour of birth<sup>3</sup>. Similarly, 63.7% received **exclusive breastfeeding till 6 months**.

### Complementary feeding indicators

According to NFHS-5, **infants aged 6-8 months who received solid or semi-solid food along with breastmilk** were 45.9%. Breastfed babies aged 6-23 months who received **an adequate diet** (~ Minimum Acceptable Diet) was only 11.1%.

Comprehensive National Nutritional Survey (CNNS) 2016-18 is the largest micronutrient survey conducted in India till date with a sample size of 1,12,316 children and adolescents<sup>4</sup>. Their survey showed that in India, 82.5% **infants continued breastfeeding at 12-15 months of age**. While 41.9% of babies aged 6 to 23 months got the **Minimum Meal Frequency**, only 21% got the **Minimum Dietary Diversity** of four or more food groups on a daily basis. Dietary diversity differed between breastfed and non-breastfed babies, with a higher proportion of non-breastfed children aged 6 to 23 months receiving an adequately diverse diet (36%), compared to breastfed children (18%). A reverse pattern was observed for meal frequency, with a higher proportion of breastfed children being fed the minimum number of times for their age compared to children who were not breastfed (50% vs 42%). **Minimum Acceptable Diet**, a composite index of Minimum Dietary Diversity and Minimum Meal Frequency was 6.4%.

As per UNICEF Flagship Child Nutrition Report 2021, 'Fed to Fail?- The crisis of children's diets in early life', the percentage of **children 6-23 months of age who consumed egg and/or flesh food** during the previous day is 15% in India<sup>5</sup>. **Zero vegetable or fruit consumption** (percentage of children 6-23 months of age who did not consume any vegetables or fruits during the previous day) is 55%.

### Micronutrient Status

According to NFHS-5, antenatals who consumed iron-folic acid tablets for 100 days or more were 44.1% and for 180 days were 26%. Babies aged 6-59 months who were anemic (<11.0 g/dl) were 67.1%. Only 8.6% of babies aged 6-23 months received iron-rich food (non- veg source) as per CNNS 16-18. Coverage of weekly Iron-Folic acid supplementation among babies aged 6-59 months (2023 April) as per Anemia Mukh Bharath score card is 26.6%<sup>6</sup>.

Children aged 9-35 months who received a vitamin A dose in the last 6 months was 71.2% (NFHS-5). Under-fives with diarrhea in the 2 weeks preceding the survey who received zinc was 30.5%.

**Table 1- Biochemically proven micronutrient deficiencies in India (CNNS 2016-18)**

Age	Vitamin A	Vitamin D	Zinc	Vitamin B12	Folate
1-4 years	18%	14%	19%	14%	23%

### Malnutrition in India (NFHS-5)

U5 underweight 32.1%, stunting 35.5%, wasting 19.3%, severe wasting 7.7%, overweight 3.4%

## Kerala

### Breastfeeding indicators

According to NFHS-5 (2019-21), 66.7% of children below 3 years who were interviewed as part of the survey received **early initiation of breastfeeding** within one hour of birth<sup>7</sup>. Only 55.5% received **exclusive breastfeeding till 6 months** which is low when compared to the national percentage of 63.7.

### Complementary feeding indicators

According to NFHS-5, **infants aged 6-8 months who received solid or semi-solid food along with breastmilk** were 71.3%. Breastfed babies aged 6-23 months who received an **adequate diet** (~ Minimum Acceptable Diet) was 23.6%.

Comprehensive National Nutritional Survey (CNNS) 2016-18 had a sample size of 2647 children and adolescents from Kerala. While 65.9% of babies aged 6 to 23 months got the **Minimum Meal Frequency**, only 52.8% got the **Minimum Dietary Diversity** of four or more food groups on a daily basis. **Minimum Acceptable Diet**, the composite index was 32.6% (Rank 2 among all states).

### Micronutrient Status

According to NFHS-5, antenatals who consumed iron-folic acid tablets for 100 days or more were 80% and for 180 days were 67%. Babies aged 6-59 months who are anemic (<11.0 g/dl) were 39.4%. 37.4% of babies aged 6-23 months received iron-rich food (non- veg source) as per CNNS 16-18. Coverage of weekly Iron-Folic acid supplementation among babies aged 6-59 months (2023 April) as per Anemia Mukh Bharath score card is 1.2%.

Children age 9-35 months who received a vitamin A dose in the last 6 months was 84.1% (NFHS-5). Under-fives with diarrhea in the 2 weeks preceding the survey who received zinc was 22.4%.

**Table 2- Biochemically proven micronutrient deficiencies in Kerala (CNNS 2016-18)**

Age group	Vitamin A	Vitamin D	Zinc	Vitamin B12	Folate
1-4 yrs	17.1%	11.8%	9%	3.4%	18.4%

**Malnutrition in Kerala (NFHS-5)**

U5 underweight 19.7%, stunting 23.4%, wasting 15.3%, severe wasting 5.8%, overweight 4%

We need to act fast. While more than half of our young children get breastmilk, they do not get enough animal source foods, fruits, legumes or vegetables and rely too heavily on grains. The concept of ‘nutritional milestones’ with emphasis on quality, quantity, frequency and consistency of complementary feeds should reach grassroot HCWs and caregivers of young children. The concept of ‘responsive feeding’ is still unknown to HCWs and caregivers. Optimal feeding depends not only on what is fed, but also on how, when, where, and by whom the child is fed. No indicator has been devised to ‘measure’ responsive feeding or the psychosocial aspect that is involved in infant feeding practices.

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