Comprehensive Nutrition Survey in Maharashtra

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Comprehensive Nutrition Survey in Maharashtra
(CNSM)

The Government of Maharashtra is committed to addressing undernutrition amongst children. The establishment of an independent State Nutrition Mission - the RajmataJijau Mother Child Health and Nutrition Mission - in collaboration with the Department of Women and Child Development, Government of Maharashtra and UNICEF in 2005-2010 wasan expressionof Government of Maharashtra's commitment to improve the nutritional status of children and women in the state. Thereafter, the state launched phase-II of the Mission (2011-2015) with a focus on the 1,000day *Window of Opportunity*- from conception to age two years - and the most vulnerable children: the youngest, the poorest and the excluded. This approach is based on global and national evidence indicating that undernutrition in the first two years of life has an adverse impact on the physical and cognitive development of children, eventually leading to irreversible damage.

The 2006 National Family Health Survey (NFHS-3) has been used as the foundation for advocacy, policy and programme actionfor maternal and child nutrition; since 2006 no estimates of the nutrition situation of children and women were made available to assess the impact of the interventions implemented. In view of this situation, the Government of Maharashtra endorsed the need to implement the Comprehensive Nutrition Survey in Maharashtra(2012) to assess the impact of the State Nutrition Mission and provide the evidence base for the Mission's Phase-II.The findings of the survey will help decision makers develop appropriate policies, strategies, and programmes for the delivery of the essential nutrition interventions to those who need it most when they most need it.
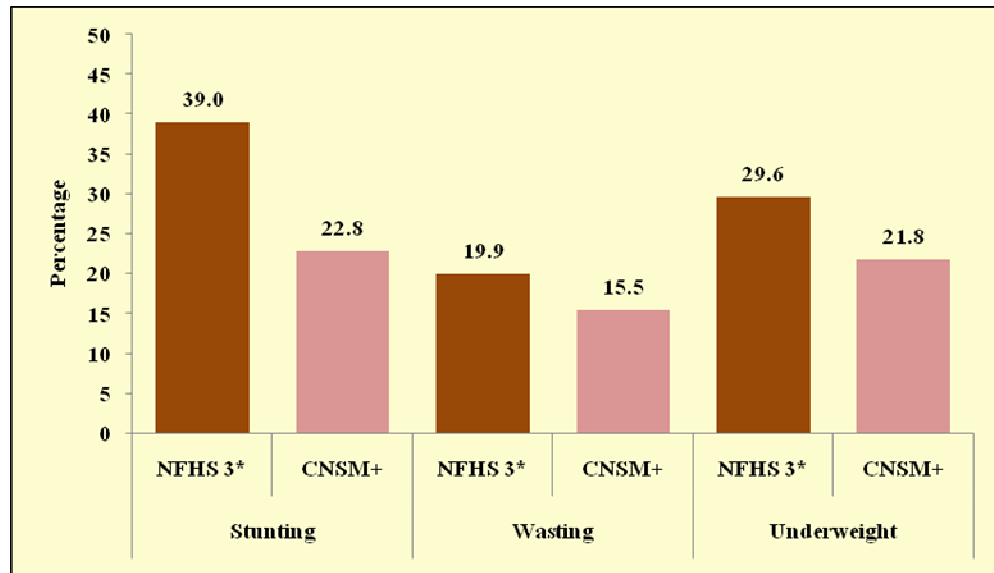
The Maharashtra Comprehensive Nutrition Survey 2012is the first ever state-specific nutrition survey with a focus on infants and children undertwo and their mothers. A representative sample of children under two years of age was selected from each of the six administrative divisions of Maharashtra namely, Amravati, Aurangabad, Konkan, Nagpur, Nashik and Pune. A selection of primary sampling units in both rural and urban areas was drawn by probability proportional to size sampling followed by systematic random sampling. The rural and urban samples were drawn separately using a multi-stage stratified sampling procedure. The rural sample was selected in two stages; the selection of primary sampling units (villages), with probability proportional to population size at the first stage. Systematic random selection of households was done out of those households where at least one child below two years was residing within each primary sampling unit in the second stage. In urban areas, a three-stage sampling procedure was followed using the city ward and Census Enumeration Blocksas the first and second stages. In the final stage, households were selected within each Census Enumeration Block in a similar manner like rural areas.

Data collection took place during March-April, 2012. Bilingual questionnaires in Marathi and English were used to collect data. Four questionnaires were used, namely theVillage, Household, Woman and Child questionnaires. The Village questionnaire included information on the availability of ICDS, Health and other services. The Household questionnaire included questions on the socio-economic characteristics of the household such as availability of assets, sanitation and hygiene,access to iodized salt and other selected food security indicators. The Woman's questionnaire included information on women's characteristics, work status, marriage and fertility, antenatal care, delivery care, life style indicators and anthropometric measurements. The Child questionnaire, collected information on children's characteristics, feeding and care practices, immunization, and anthropometryincluding weight and height. This fact sheet presents preliminary information on the nutrition situation of children undertwo and their mothers, child feeding practices and selected indicators of mother's empowerment and education. A detailed final report of the survey will be published shortly.

Indicators	Total	Rural	Urban
Sample size			
Number of children[1]	2809	1403	1406
Number of households with an eligible child	2630	1313	1317
Number of mothers with an eligible child	2694	1348	1346
Household characteristics			
Live in a 'pucca' house (%)	38.7	22.4	56.7
Households that have electricity (%)	95.3	92.0	99.0
Households that use drinking water from an 'improved' source[2] (%)	92.2	86.4	98.6
Households that use piped drinking water[3] (%)	68.8	48.4	91.5
Households that have access to atoilet facility (%)	62.0	39.3	77.2
Households that practice handwashing with soap[4] (%)	75.3	68.3	83.1
Households that have yellow colouredorAntyodaya ration cards[5] (%)	23.2	33.6	11.6
Nutritional status of children 0-23 months, Maharashtra			
Children who are stunted[6] (%)	22.8	24.8	20.7
Children who are severely stunted[7] (%)	7.8	8.2	7.3
Children who are wasted[8] (%)	15.5	16.5	14.2
Children who are severely wasted[9] (%)	4.2	4.7	3.6
Children who are underweight[10] (%)	21.8	24.6	18.5
Children who are severely underweight[11] (%)	6.0	6.7	5.2
Children who were weighed at birth (%)	92.9	91.0	95.0
Children who were born with a low birth weight[12] (%)	19.9	19.8	20.0

Nutritional status of children 0-23 months, by Region

	Stunting < -2SD	Wasting < -2SD	Underweight < -2SD
Amravati	23.5	18.6	29.3
Aurangabad	24.5	14.0	19.7
Konkan	23.4	15.2	20.5
Nagpur	15.3	21.9	22.7
Nashik	32.3	19.1	30.6
Pune	16.7	13.9	17.3
	< -3SD	< -3SD	< -3SD
Amravati	6.8	4.2	6.5
Aurangabad	7.9	4.9	7.4
Konkan	8.6	4.4	5.0
Nagpur	3.2	4.6	4.7
Nashik	14.9	6.6	13.1
Pune	4.3	3.7	4.3

Indicators	Total	Rural	Urban
Infant and young child feeding practices			
Children 0-23 months ever breastfed (%)	99.4	99.4	99.4
Children 0-23 months who started breastfeeding within one hour of birth (%)	61.8	67.6	55.1
Children less than 6 months who are exclusively breastfed[13] (%)	57.2	63.5	49.3
Children who continue breastfeeding at one year[14] (%)	88.3	91.9	84.6
Children who continue breastfeeding at two years[15] (%)	68.2	71.5	65.0
Children 0-23 months who are appropriately breastfed[16] (%)	71.3	72.8	69.7
Children 6–8 months who are fed solid, semi-solid or soft foods (%)	59.9	51.5	69.1
Children 6-23 months who are fed a minimum number of times[17] (%)	76.5	76.2	76.9
Children 6-23 months who are fed a minimum diverse diet[18](%) (Minimum Dietary Diversity)	8.9	10.3	7.4
Children 6-23 months who receive a minimum acceptable diet[19](%) (Minimum Acceptable Diet)	7.0	8.4	5.7
Children 6-23 months who are fed iron-rich foods[20] (%)	17.4	15.2	19.8
Children 6-23months who are fed vitamin A rich foods[21] (%)	19.2	19.4	19.1
Immunization and micronutrient supplements			
Children 9-23 months who were given a vitaminA dose in the last 6 months (%)	48.4	54.1	42.1
Children 6-23 months who live in households that use adequately iodized salt (%)	78.3	70.2	87.3
Children 12-23 months who are fully immunized (%) (BCG, measles, and 3 doses of polio and DPT)	62.7	57.2	68.4
Indicators for mothers			
Maternal nutrition and health			
Mothers aged 20-24 who were married below age 18 (%)	30.0	34.1	23.7
Mothers who registered their pregnancy during the first trimester (%)	75.9	74.1	78.0
Mothers who had at least 3 ANC visits in the last pregnancy[22] (%)	89.6	85.1	94.5
Mothers who consumed iron and folic acid supplements for 90days or longer during last pregnancy (%)	57.9	53.1	63.3
Mothers who had an institutional delivery[23] (%)	88.1	82.6	94.3
Mothers who received supplementary food from the anganwadi center during last pregnancy and lactation (%)	54.8	84.6	21.1
Mothers with a Body Mass Index (BMI)[24]<18.5 (%)	31.9	40.7	22.6
Mothers with height below 145 cm (%)	10.7	10.9	10.3
Mothers' education and empowerment			
Mothers who have completed 10 years of schooling (%)	41.6	30.1	54.5
Mothers who are involved in income generation activities (%)	29.6	44.8	12.6
Mothers who participate in household decisions (alone or jointly) regarding health care for themselves (%)	67.6	68.6	66.3
Mothers who participate in household decisions (alone or jointly) regarding the kind of food given to their children (%)	77.8	78.6	76.9
Mothers who are members of self-help groups (SHG) (%)	7.3	9.8	4.6
Mothers who have access to print/electronic media (%)	76.8	65.4	89.6

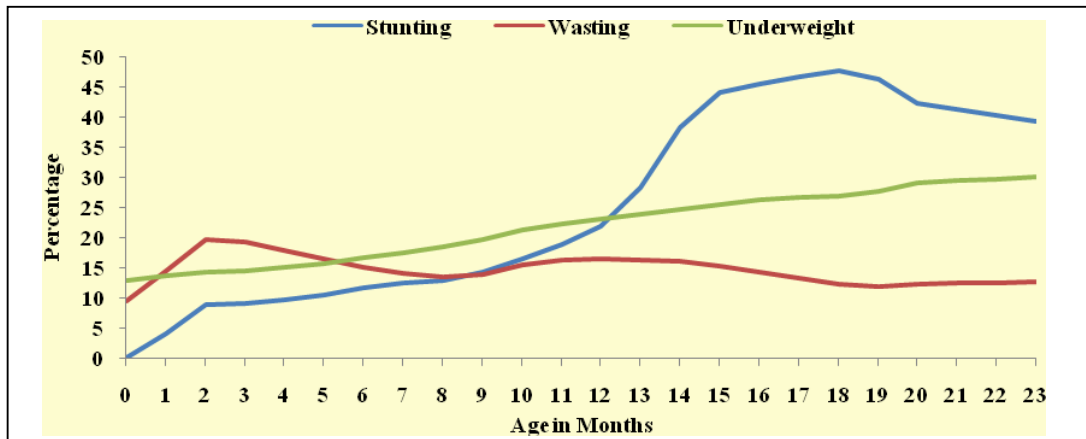## Trends in the nutritional status of children below 2 years Maharashtra, 2006-2012

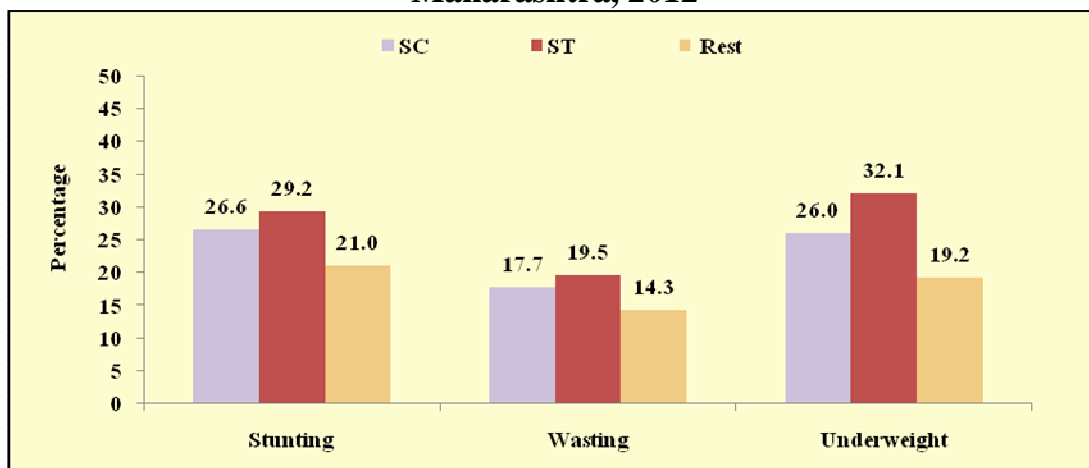* National Family Health Survey, 2005-06 (NFHS 3), + Comprehensive Nutritional Survey in Maharashtra (CNSM),2012

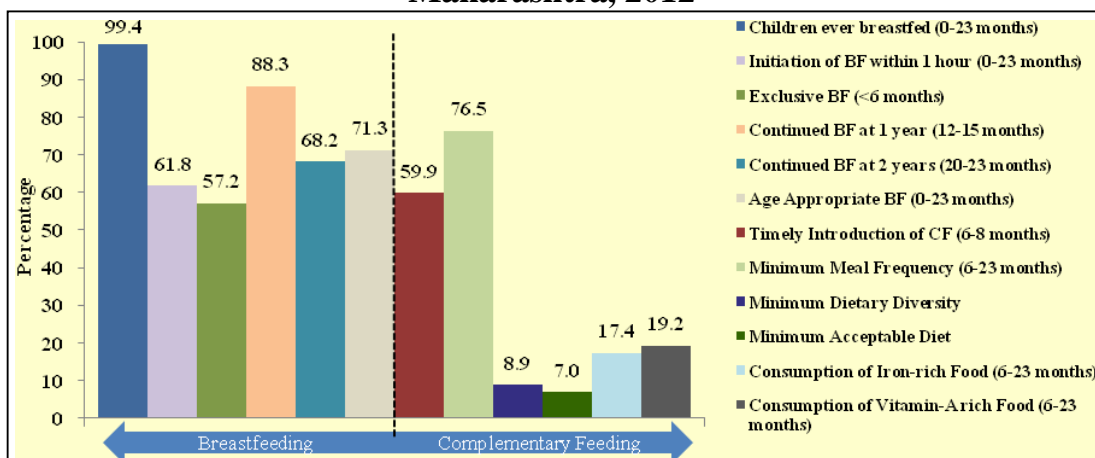## Prevalence of malnutrition inchildren below 2 years by region Maharashtra, 2012
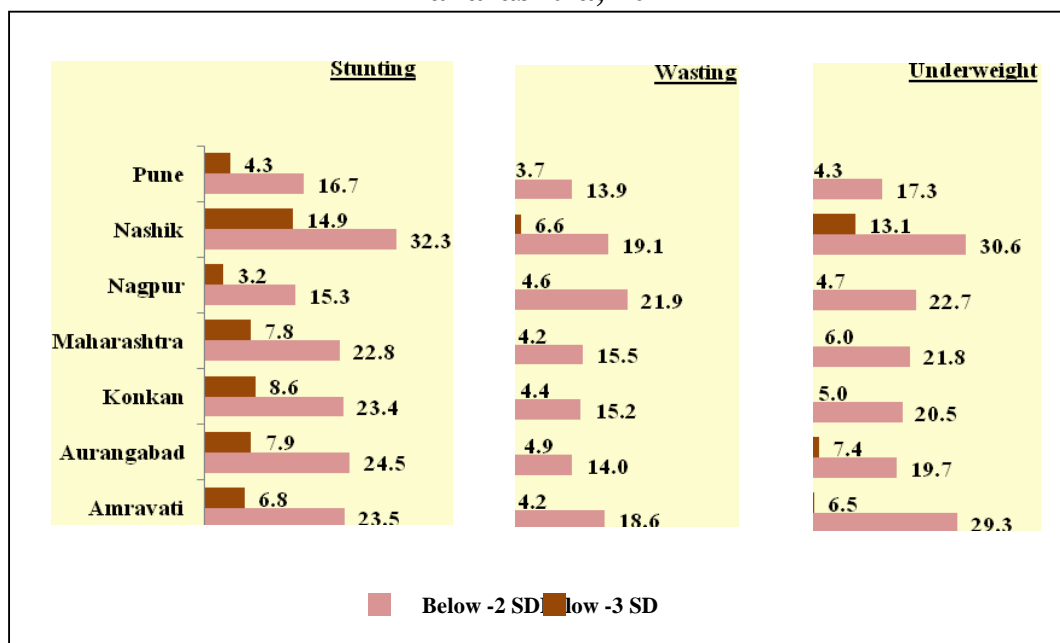
Prevalence of malnutrition in children below 2 years by age
Maharashtra, 2012

Prevalence of malnutrition in children below 2 years by social group
Maharashtra, 2012

Coverage of essential infant and young child feeding practices
Maharashtra, 2012

NOTES:

1. Number refers to those children who were born after 01-01-2010.
2. Improved source of drinking water as per WHO norm includes piped water into dwelling/yard/plot, public tap/standpipe, tube well or borehole, protected dug well, protected spring, rainwater.
3. Piped drinking water includes piped water into dwelling/yard/plot, public tap/standpipe.
4. Hand wash practice with soap includes bar soap, detergent powder/liquid/paste, or liquid soap.
5. Yellow card is given to Below Poverty Line (BPL) families having total income between Rs. 20,000–32,000 per annum and Antyodaya card is given to Below Poverty Line (BPL) families having total income below Rs. 20, 000 per annum.
6. Children whose height-for-age Z-score is below -2 standard deviation from the median of the international reference population of WHO are considered short for their age (stunted).
7. Children whose height-for-age below -3 standard deviation units (z-score) from the median of the international reference population of WHO are classified as severely stunted.
8. Children whose weight-for-height Z-score is below -2 standard deviation from the median of the international reference population of WHO are considered thin (wasted).
9. Children whose weight-for-height below -3 standard deviation units (z-score) from the median of the international reference population of WHO are classified as severely wasted.
10. Children whose weight-for-age Z-score is below -2 standard deviation from the median of the international reference population of WHO are classified as underweight.
11. Children whose weight-for-age below -3 standard deviation units (z-score) from the median of the international reference population of WHO are classified as severely underweight.
12. Percentages include those children whose birth weights are reported. Children weighing below 2.5 kg are considered to be low birth weight children.
13. Exclusive breastfeeding: Infants 0-5 months of age who received only breast milk during the previous day.
14. Proportion of children 12-15 months of age who are fed breast milk.
15. Proportion of children 20-23 months of age who are fed breast milk.
16. Proportion of children who are appropriately breastfed (infants 0-5 months of age who received only breast milk, during the previous day and children 6-23 months of age who received breastmilk, as well as solid, semi-solid or soft foods, during the previous day).
17. Minimum number of times: Fed solid or semi-solid food at least twice a day for breastfed children aged 6-8 months, 3 or more times for breastfed children aged 6-23 months, and 4 or more times including milk feed for non-breastfed children during the previous day.
18. Proportion of children aged 6-23 months who receive food from 4 or more food groups during the previous day.
19. Proportion of children aged 6-23 months who receive a minimum acceptable diet: Breastfed children 6-23 months of age who had at least the minimum dietary diversity and the minimum meal frequency during the previous day and non-breastfed children 6-23 months of age who receive at least 2 milk feeds, had at least the minimum dietary diversity not including milk feeds and the minimum meal frequency during the previous day.
20. Iron rich foods: Includes flesh foods like liver or other organ meats, chicken or other bird, any fresh or dried fish, shellfish, oysters crabs or any other meats and eggs; commercially fortified foods especially designed for infants and young children given during the previous day.
21. Foods rich in vitamin A: Includes meat and organ meats, fish, poultry, eggs, pumpkin, carrots, sweet potatoes that are yellow or orange inside, dark green leafy vegetables, ripe mango, papaya, cantaloupe, and jackfruit given during the previous day.
22. Mothers who had children below 2 years of age.
23. Institutional delivery refers to last births, which took place in health facility/institution.
24. Based on women who were currently non-pregnant at the time of the survey date.

Notes from 13-18 are based on "WHO and UNICEF (2007) *Indicators for assessing infant and young child feeding practices: conclusions of a consensus meeting held 6-8 November 2007 in Washington D.C. USA, WHO.***"**

. COMPREHENSIVE NUTRITIONSURVEY IN MAHARASHTRA (CNSM)

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