# THE MAHARASHTRA STATE NUTRITION MISSION: LEARNING BY DOING

*An Analysis of the Experience of the*
*Rajmata Jijau Mother-Child Health and Nutrition Mission, Aurangabad (2005-2010)*

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# ABBREVIATIONS & ACRONYMS

| | |
|---|---|
| ACDPO | Assistant Child Development Project Officer |
| AIIMS | All India Institute of Medical Sciences |
| ANC | Ante Natal Care |
| ANM | Auxiliary Nurse Midwife |
| APL | Above Poverty Line |
| ASHA | Accredited Social Health Activist |
| AWC | Anganwadi Centre |
| AWS | Anganwadi Supervisor |
| AWW | Anganwadi Worker |
| BAMS | Bachelor of Ayurvedic Medical Sciences |
| BDO | Block Development Officer |
| BMI | Body Mass Index |
| BPL | Below Poverty Line |
| BPNI | Breastfeeding Promotion Network of India |
| CD | Child Development |
| CDC | Child Development Centre |
| CDPO | Child Development Project Officer |
| CEO | Chief Executive Officer |
| CIDCO | City and Industrial Development Corporation |
| CW | Child Welfare |
| DG | Director General |
| DHO | District Health Officer |
| DWCD | Department of Women and Child Development |
| ECCE | Early Childhood Care and Education |
| EPW | Economic & Political Weekly |
| GIS | Geographic Interface System |
| GP | Gram Panchayat |
| GR | Government Resolution |
| HBNC | Home Based Neonatal Care |
| IAP | Indian Academy of Pediatrics |
| ICDS | Integrated Child Development Scheme |
| IEC | Information, Education and Communication |
| IMNCI | Integrated Management of Neonatal and Childhood Illnesses |
| IYCN | Infant and Young Child Nutrition |
| JSY | Janani Suraksha Yojana (Mother Protection Programme) |

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|---|---|
| LBW | Low Birth Weight |
| MAM | Moderate Acute Malnutrition |
| MBBS | Bachelor of Medicine and Bachelor of Surgery |
| MDS | Maharashtra Development Service |
| MIS | Management Information System |
| MO | Medical Officer |
| MPR | Monthly Progress Report |
| MPW | Multi-Purpose Worker |
| NFHS | National Family Health Survey |
| NRC | Nutrition Rehabilitation Centre |
| NRHM | National Rural Health Mission |
| PHC | Primary Health Centre |
| PHD | Public Health Department |
| PNC | Post Natal Care |
| PS | Panchayat Samiti |
| RCH | Reproductive and Child Health |
| RH | Rural Hospital |
| RKS | Rogi Kalyan Samiti |
| SAM | Severe Acute Malnutrition |
| SD | Standard Deviation |
| SHG | Self-Help Group |
| SNP | Supplementary Nutrition Programme |
| THO | Taluka Health Officer |
| THR | Take Home Rations |
| TOT | Training of Trainers |
| TSP | Tribal Sub-Plan |
| ULB | Urban Local Body |
| UNICEF | United Nation Children's Fund |
| VAD | Vitamin A Deficiency |
| VCDC | Village Child Development Centre |
| WCD | Women and Child Development |
| WHO | World Health Organisation |
| ZP | Zilla Parishad |

# Introduction

The Rajmata Jijau Mother-Child Health and Nutrition Mission represents a concept that evolved out of a unique experiment undertaken in the eight districts of Aurangabad Division (known more popularly as the 'Marathwada initiative') to try and make a significant impact on under-6 child malnutrition. It was the first major attempt in India at the state level to tackle the vexatious problem of child malnutrition. The creation of the Mission was recognition of the fact that major human development issues require moving beyond the traditional framework of government departments and special drives to focus on the core issues that can make a perceptible difference to the magnitude of the problem being tackled.

In this book, an attempt has been made to present a factual account of the genesis of the Mission, its first steps and the initiatives sought to be introduced on a state-wide basis. An analysis of the Mission's impact using data compiled by the Maharashtra ICDS Commissioner has been made. Recognising that child malnutrition is not an issue that will lend itself to amelioration in a specific five-year period, the study has sought to outline the future steps required in the next phase of the Mission's activities. That states like Madhya Pradesh, Gujarat and Karnataka have in recent times launched similar missions to reduce child malnutrition and that a number of other states are contemplating tackling the malnutrition problem in a mission mode bears testimony to the fact that this is an idea whose time has come. Indeed, without a multi-pronged and holistic approach to the problem, India may still remain a considerable distance away from attaining the Millennium Development Goal targets in respect of malnutrition and infant and child mortality reduction. At the same time, it must not be assumed that merely setting up missions is going to significantly impact the problem; a number of enabling conditions are necessary if such missions are to achieve their goals.

It would be possible for any such initiative to come about only through the vision and efforts of a large number of people at different levels of government and civil society. The concept of a mission to tackle child malnutrition received total and unqualified support from the then Chief Minister of Maharashtra and his colleagues in the Cabinet as well as the state bureaucracy. The Mission benefited from the continuous guidance and support of successive Ministers of Women & Child Development, who coordinated the actions required to be taken by a number of departments in their capacity as Chairpersons of the Mission Monitoring & Implementation Committee. The Mission also owes its inception to the fullest support from the then UNICEF India Representative and the then Chief of Nutrition, UNICEF, New Delhi, as also the continuous guidance and support from the UNICEF Maharashtra office. At the level of the state bureaucracy, the Mission benefited from the guidance and support of successive Chief Secretaries of the Government of Maharashtra from 2005 to 2010 and from the support of successive Secretaries of the Departments of Women & Child Development, Public Health and Tribal Development. ICDS Commissioners and Directors, NRHM, over the first five years of the Mission, have also provided invaluable support in key initiatives.

No words can suffice to place on record the Mission's appreciation of the efforts of hundreds of field level functionaries from AWWs and health workers to CDPOs and MOs, PHC, many of whom strove well beyond the call of duty to make reduction of child malnutrition a reality. While it is not possible to individually acknowledge each and every effort, I would emphasise that it was the dedication and enthusiasm of these "missionaries" at the field level that kept all of us in the Mission energised and enthused even in the face of the various challenges we encountered over the five years. Deepest admiration and appreciation is also due to the staff of the Mission who worked continuously over five years and travelled to almost every ICDS project in Maharashtra in their effort to bring about a revolution in the working of the ICDS and public health systems. It was their passion and unbounded enthusiasm that has given the Mission what success it could achieve over the first five years.

This book documenting the Mission's activities between 2005 and 2010 has been possible because of the support given by the Department of Women & Child Development, Government of Maharashtra and UNICEF, Maharashtra office. It seeks to show the path that the Mission in Maharashtra followed between 2005 and 2010. Hopefully, it will serve as a useful tool to those states that have recently embarked on the task of tackling child malnutrition in the "Mission mode" and to those states that are contemplating such Missions. We realise that there are no easy solutions to what is a very persistent problem and no standardised approaches that will work. Each state and even different regions within any one state will have to evolve their own solutions to the problem. I look forward to suggestions on and criticisms of the approach adopted in setting up and running the Mission in the first five years

of its existence. There is always room for improving on current practices and it is through continuous experimentation and critical evaluation that public policy models will meet the future challenges of child malnutrition. Our efforts through the “Mission approach” could be said to be the first steps in this gigantic task. But it is the will to meet the challenge head on and the recognition that child malnutrition can be successfully addressed that mark the first proactive steps towards making child malnutrition a vestige of the past.

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# I. Where it all started

## *The Marathwada experience*

Every story must have a beginning somewhere. The tale of the Rajmata Jijau Mother-Child Health and Nutrition Mission (referred to hereafter as "the Mission" for purposes of convenience) could be said to have had its origins in the reports of malnutrition deaths coming from the village of Bhadali in Vaijapur taluka of Aurangabad District in September 2001. These news reports saw a flurry of activity at the government level, with visits from the Chief Minister of the state and other concerned Ministers and officials. What was evident from visits to the village was that these deaths were of children under the age of six from the Bhil (nomadic) habitations in the village, where the poorest resided, with little or no access to health and other services. Immediate measures to improve the situation of these families through provision of nutrition and health care and sanitation and drinking water facilities were initiated.

The incident, though, set some of the officials at the Divisional Commissionerate at Aurangabad thinking. Why was it that, barely seventy kilometres from a major city like Aurangabad, basic services were not reaching segments of the population? More to the point, why was the ICDS not reaching groups which needed its services the most? These were also questions which engaged the mind of UNICEF officials who visited Aurangabad in the wake of the occurrence.

An article by Dr. Satish Agnihotri in the EPW of 18 December 1999 set off a train of thoughts regarding the manner in which severe malnutrition could be successfully tackled on a large-scale basis using essentially existing resources without any significant new investment in manpower or equipment. This article detailed the measures taken to tackle Grade III & IV malnutrition in all 326 ICDS projects in Odisha State between 1998 and 2001. Dr. Agnihotri was one of the key invitees to a workshop held at Aurangabad on 14 March 2002 to evolve a strategy for tackling malnutrition in the eight districts of Aurangabad Division, where all the Collectors, Chief Executive Officers of Zilla Parishads and concerned officers of the Women & Child Department dealing with the ICDS and Public Health Department (from the district, divisional and State levels) were present.

The Malnutrition Removal Campaign launched in Aurangabad Division on 14 March 2002 focused on the following important parameters, some of them drawn from the Odisha experience:

1.Complete (100%) survey of all children in the 0-6 age group.
2.100% registration of all such children.
3.100% weighing of all such children.
4.On the basis of weighing, classification of all children into normal/Grade I to IV categories (as appropriate).
5.Special concentration on children in Grade III & IV stages of malnutrition: regular weighing, providing for health & nutrition measures for these children.
6.Initiating measures for ensuring health and nutrition care for pregnant mothers to reduce incidence of low birth weight children.
7.Greater attention to children in the 0-3 age group, given the greater incidence of malnutrition in this age group and its implications for the future development of the child.
8.Analysis of data to bring out the relative incidence of malnutrition based on age, gender & social status (scheduled caste/tribe) etc.

The basic problem related to the very limited coverage of under-6 children under the ICDS. The 2001 Decennial Census of India showed that there were 19.18 lakh under-6 children in Aurangabad Division; only 12.90 lakh (67%) were registered in the Anganwadis. Even more notably, only 9.98 lakh (52%) children were weighed at the Anganwadis. Anganwadis were seen more as a place where supplementary nutrition was provided; the function of growth monitoring was not a very high priority. This meant that no systematic gradation of children according to their nutritional status was being undertaken. Without a clear idea as to which children were suffering from severe (Grade III & IV) malnutrition, the AWW would not be able to take steps to tackle their malnutrition. Shortage of weighing scales was one of the causes for infrequent weighing. UNICEF provided a solution to this problem: 7000 scales lying in a Navi Mumbai godown were commandeered for distribution to AWCs in Aurangabad Division.

The more important issue was how to instil a sense of goal-oriented behaviour in the ICDS and health staff. The ICDS staff at all levels from the Deputy CEO (CW) to the AWW suffered from low self-esteem and a lack of direction. Postings as Deputy CEO (CW) and CDPO were not considered prestigious and officers often tried to get themselves transferred from these posts or avoided such postings. The field staff at the Supervisor and AWW level were inadequately trained and not acquainted with the latest knowledge on mother and child nutritional care practices. They had no access to even contingency funds to strengthen the Anganwadi in terms of, say, minor repairs to the AWC or purchase of essential items. Vacancies in all these posts were a common feature, affecting ICDS activities.

**Motivation** of the staff was, therefore, one of the first priorities. Meetings were held at the different levels right up to the level of the AWW to emphasise the importance of the work to be done. The stress was on developing a problem-solving approach which focused on how to get the job done rather than complaining about the lack of facilities. Most importantly, the child was to be treated as a "live voucher"[1], with attention to each child being the basis for action. The Malnutrition Removal Campaign set as its goal the reduction of Grade III & IV malnutrition, recognising that the numbers involved were relatively smaller. Each AWW would have to give special attention to at most five to seven children under her charge who were suffering from severe malnutrition. With specific steps being outlined for tackling severe malnutrition, the AWW had a clear action plan to handle the problem.

**Training** of staff at all levels was critical to improving their competencies and sensitising them to the issues involved in maternal and child care. In particular, supervisors and AWWs received training in how to record weights properly and maintain growth charts of every child. Senior officers at district and divisional levels were acquainted with the critical issues involved so that they could provide effective leadership and exercise proper supervision over the campaign. Additionally, elected officials of the rural local bodies (ZPs, PSs and GPs) were involved in training programmes so that the campaign was taken up at the level of civil society.

Most crucial was the role of **monitoring** and **supervision** in ensuring the success and sustainability of the campaign. A Programme Monitoring Unit was set up in the office of the Divisional Commissioner to review monthly progress. Regular meetings at the district level and below and frequent visits to different locations by the staff of the Divisional Commissioner's office as well as priority to review of this subject at monthly meetings by the Divisional Commissioner emphasised the priority given to this issue.

What was a most heartening feature of the entire campaign was the enthusiastic involvement of local body elected officials and members of civil society. The ZPs of Osmanabad, Latur, Nanded and Hingoli earmarked funds from the grants of the Eleventh Finance Commission to finance different aspects of the campaign. Sarpanches of GPs motivated their communities to adopt sound nutrition and health practices. A number of well-to-do families in different villages took on the responsibility of ensuring the nutrition and health care of malnourished children. Village communities provided food and other resources for taking care of malnourished children. Above all, there developed awareness in the community of the importance of reducing child malnutrition, to achieve which different sections of society – village communities, elected officials, non-governmental organisations and the government machinery – came together enthusiastically. All this was attained without any additional resources having to be provided in terms of finances or manpower.

It was a revelation to see the missionary zeal with which the functionaries of the ICDS and health departments threw themselves into the task of malnutrition reduction. Probably for the first time in their professional life, attention was being focused on their work and appreciation for their efforts was coming from the supervisory levels. The "Star Competition"[2] created an atmosphere of healthy rivalry while also recognising the outstanding efforts of field-level workers. The campaign was successful in promoting convergence between the ICDS and health departments in addressing issues relating to maternal and child care, ensuring that both nutrition and health needs were taken care of at the same time.

The results were no less startling! In the space of three years (December 2001 to December 2004), the number of under-6 children being weighed on a monthly basis rose from 9.98 lakhs to 17.38 lakhs. Even more noteworthy, the number of Grade III & IV children went down from 7867 in December 2001 and a high of 10705 in

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[1] Imitation being the best form of flattery, this concept was borrowed from the Odisha initiative of 1998-2001 (Satish Agnihotri: 18 December 1999)

[2] Explained in detail in Chapter III

July 2002 (when increased registration and weighing saw increased numbers of children coming under Grade III & IV categories) to 1251 by December 2004. The fall in severe malnutrition numbers was accompanied by a reduction in moderate (Grade II) malnutrition, indicating that focus on the fundamentals was benefiting not only severely malnourished children but also children in other categories.

***The Mission concept – selling the idea***

The Divisional Commissioner of Aurangabad Division during the launch and implementation of the Malnutrition Removal Campaign, V. Ramani, was transferred to the State Secretariat in Mumbai in May 2004. While attending high-level meetings where under-6 child malnutrition was discussed, he felt that there was no plan of action to systematically tackle malnutrition at the state level. In June 2004, there was widespread media coverage of malnutrition in Nandurbar district, one of the most backward districts in the State with a largely tribal population. The very aspect of convergence between the ICDS and public health machinery, which was one of the underpinnings of the campaign in Aurangabad Division, was not visible among the officers of the two departments at the state level. While the health department officials ascribed child mortality to malnutrition-related causes, the Women & Child Development Department saw child mortality as a health problem. Neither department seemed prepared to acknowledge that the answer to the problem lay jointly with both of them. Consequently, no joint plan of action was envisaged by the two departments.

What was also clearly evident was that policy action was not founded on any firm statistical base. Even where reports indicated child mortality as possibly due to malnutrition-related causes, there was no analysis of the incidence of malnutrition in those areas from where such deaths were reported. The Marathwada experience had thrown up the lesson that the only systematic way to tackle child malnutrition was to go in for universal registration and weighing and initiate remedial action on the health and nutrition fronts based on the numbers of severely malnourished children indicated by the gradation process. But what was observed in areas like Nandurbar was that not only was the coverage of children well below the number indicated by the 2001 Census but that there was no authenticity to the figures of severely malnourished children in different AWCs in the district. This meant that any action taken would not tackle the problem in its totality in a holistic manner.

The two reports of the Committee headed by Dr. Abhay Bang which conducted an evaluation of infant mortality in Maharashtra were submitted in August 2004 and March 2005. These reports cast doubts on the figures of malnutrition given by the ICDS Commissioner. The Committee recommended universal coverage of under-6 children under the ICDS. It was of the view that there should be stress on home visits to attend to aspects like new born care, complementary feeding practices and focus on children in the 0-2 age group.

It seemed clear that tackling malnutrition required a mind set different from the “business as usual” approach of the ICDS machinery that focused almost exclusively on supplementary nutrition in the AWC. There was need for a group of people who could concentrate on the issues crucial to reducing malnutrition (as had been demonstrated successfully in Aurangabad Division). It was necessary to sensitise the ICDS functionaries and improve their knowledge and skill sets. Above all, convergence between the ICDS and health departments had to be ensured if malnutrition was to be effectively tackled.

The 'Mission approach' to tackling basic, critical issues had been successfully used in the 1980s in areas as diverse as telecom, agriculture and drinking water. Malnutrition had been a burning problem in Maharashtra for quite some years ever since reports about malnutrition and infant mortality in the Melghat area of Maharashtra had attracted attention in the mid-1990s. Against the backdrop of the successful attempt to tackle malnutrition in eight districts of Aurangabad Division since 2002, it was strongly felt that setting up a Mission for reducing malnutrition in the entire state of Maharashtra would yield results. This view was endorsed by the Country Head of UNICEF at a presentation on the Marathwada experience made to him in October 2004. Subsequently, the Chief Minister of Maharashtra declared that reducing malnutrition would be one of the leading priorities of the Government of Maharashtra. The proposal to set up the Rajmata Jijau Mother-Child Health and Nutrition Mission was approved by the Cabinet at its meeting on 22 February 2005. The Mission was formally constituted by the GR dated 11 March 2005 of the Department of Women and Child Development.

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## II. Mission formation and strategy – the initial steps

The GR of 11 March 2005[3] had as its primary objective the reduction of Grade III & IV malnutrition in under-6 children throughout the State of Maharashtra, covering both rural and urban areas. The supplementary aims included a special focus on children in the under-3 age group and pregnant (especially high-risk) mothers, reduction of mild (Grade I) and moderate (Grade II) malnutrition, assistance to the health department in childhood/neonatal illness and newborn care, nutrition and health education to adolescent girls and involving the community in efforts to reduce malnutrition, so that it became a socially-led rather than a purely government-managed programme. The Mission Unit was to be a lean organisational structure with a senior IAS officer at the helm, and four other officers drawn from the Maharashtra Development & Health Services, who were expected to catalyse efforts to energise the ICDS and health machineries. The selection of Aurangabad as the headquarters of the Mission and the deputation of officers who had worked in the Marathwada initiative from 2002 onwards was an attempt by the Government of Maharashtra to draw on the positive results achieved in Aurangabad Division over three years and replicate its success in other areas of the state. The Mission would concentrate on training at district level and below, monitoring and coordination of ICDS and health activities related to reducing malnutrition, bringing malnutrition on the agenda of the top decision-makers of the State and policy advocacy to initiate measures to effectively tackle malnutrition. An important aspect of the Mission's operations was to promote coordination between different departments of the government so that financial and other resources of various departments could be dovetailed to achieve maximum results in the drive against malnutrition. The Mission's area of operation was to expand in three phases[4]:

a) Phase-I, to be initiated during 2005-06, would cover the five districts of Thane, Nasik, Nandurbar, Amravati & Gadchiroli, which had large tribal populations, with the highest incidence of severe malnutrition in the state;
b) Phase-II, to be rolled out between 2006 and 2008, would cover ten other districts of the state with significant pockets of tribal population;
c) Phase-III would commence from April 2008 onwards and would encompass the remaining twenty districts of the state, including all urban areas in the state.

The Mission commenced functioning at Aurangabad on 7 April 2005 when the newly appointed Director General, V. Ramani, took charge. One by one, the other officers and staff deputed to the Mission came on board – Naresh Gite, Ashok Sawant and Mule in April 2005, Gopal Pandge, Pathan, Phadkule and Gaikwad in May 2005, Nagargoje in August 2005 and Khalegaonkar in September 2005. Additional personnel were recruited on contract basis. The Mission operated from rented premises in the Town Centre, CIDCO, Aurangabad, which was its headquarters for the next five years.

Realising that the district functionaries of the ICDS and health departments would be crucial allies in promoting the objectives of the Mission, apart from providing leadership to staff from the taluka to the village level, the Mission organised a two-day workshop at Aurangabad on 28 and 29 April 2005. CEOs, Dy. CEOs and DHOs of the five districts of the first phase were asked to prepare an Action Plan for the next year, focusing on 100% coverage of under-6 children and pregnant/nursing mothers. ANC registration, medical check-up and provision of referral services were to be the priority areas for mothers. Under-6 children were to be weighed on a monthly basis, with monthly medical check-ups for Grade III/IV children and quarterly check-ups for all other children. Filling in vacant posts in the ICDS/health structures at the district and sub-district levels and organising workshops to familiarise workers with the Mission's objectives were the other issues stressed on.

The basic strategy to be followed by the Mission was explained to CEOs, DHOs, Dy. CEOs (CD), MOs and CDPOs in workshops organised for three divisions (Konkan, Nasik and Amravati) at Thane, Nasik and Amravati in June 2005. The focus was to aim for universal coverage of under-6 children through a complete survey and registration in anganwadis of all such children. The figures for under-6 children for each block of each district reported in the 2001 Decennial Census were to be taken as the base and annual increases in population were to be factored in for calculating the 2005 population of under-6 children in a block. These figures would serve as a benchmark to

3 English translation of the GR is at Annexure-I

4 See map at Annexure-II

assess whether complete registration of under-6 children was in fact taking place. In particular, it was essential to ensure that residents of hamlets (wadis and vastis) outside the main village were not left uncovered. Responsibility for complete registration was cast on the AWS, MO and CDPO. Recourse could also be had to other documents like the electoral rolls, gram-panchayat house lists and child data compiled for other health programmes like pulse polio to verify the correctness of the information. The complete lists would be read out at special meetings of the Gram Sabha to rectify any errors. Thereafter, the lists certified by the THO and CDPO would be forwarded to the district. Crosschecking of these lists would be undertaken by other staff under the supervision of the district level officers.

As had been the practice in the Marathwada campaign, stress was laid on monthly weighing of all under-6 children. The AWW was expected to enter and plot the monthly weight of each child on his/her page in the growth chart. Emphasis was laid on weighing of under-3 children and children in remote hamlets, since there was evidence that the ICDS machinery tended to ignore such children. Gradation was to be done on the basis of weight for age, with all children being classified in one of five categories – normal and Grades I to IV. As a matter of abundant caution, directions were given that children whose weights fell on the borderline between two grades should be classified in the lower grade, e.g. a child whose weight was on the border between Grade III and IV should be classified as in Grade IV. This would not only check the tendency to misclassify such children but would also focus attention on children who, because of even marginal faltering in growth, could easily lapse into a lower category. What was sought was the correct factual position (erring even on the side of caution) so that all children (especially those in Grades III & IV) in need of attention were given access to special nutrition and health care.

What was of particular concern to the Mission was the fact that, in the five districts of the first phase, barely 40% of under-6 children were being medically examined. Children in Grades III & IV stages of malnutrition were to undergo medical check-up once a month and all other children once in three months. Not only was this system not followed, medical check-ups were often carried out by ANMs/health workers, defeating the very purpose of effective diagnosis and treatment by MOs. What was of concern also was that children displaying growth faltering signs (constant or reducing weight over a three month period) were not medically examined. This was all the more important since there could be cases where even normal or Grade I children were faltering in growth, which could, if not attended to, lead to worsening nutrition status and possibly mortality. AWWs and health workers were to focus on these children and monitor their growth closely. Children showing these growth trends (and not responding to nutrition care and/or displaying symptoms of illness) would first be referred to the nearest PHC; in the event the PHC was not able to address the problem, there were to be successive stages of referral to the RH, district hospital and (where there was need for specialised treatment) medical college hospital or other super speciality hospitals. Personal attention to each and every child not meeting the desired growth standards was the *mantra* that was sought to be impressed on every AWW, health worker, AWS, MO and CDPO. Of course, equipping the AWW with the knowledge to monitor the growth status of the child was important: in many areas, the AWW was not carrying out this function in any systematic manner, either because she had not been taught the basics or because of shortage of essential items like weighing scales or growth charts. But there was also a crying need to sensitise the AWW and other ICDS/health workers to the importance of the nutritional status and health of each and every child (treating each child as a “live voucher” for which the entire machinery was accountable and responsible). Each AWW needed in effect to concentrate on barely four to five children in her jurisdiction who were severely malnourished or displaying growth faltering symptoms. The experience of AWWs in Aurangabad Division since 2002 had shown the multiplier benefits of such a personalised approach to tackling malnutrition.

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## III. Improving service delivery effectiveness

The ICDS machinery needed to be made more effective on three fronts: service delivery, manpower availability and finance. The Mission took up a number of policy issues with the government in the first three to six months of its existence in relation to these three areas.

There was first of all the issue of training and sensitising workers to the interventions crucial to improving the nutrition status of children and enhancing accountability for results. The ICDS had to reach out to all those areas which were yet to come within the coverage of AWCs. The position in 2005 when new anganwadis sanctioned were yet to come into operation was that the existing AWWs were often under the impression that they were required to cover only the population as per the existing norms of one AWW for every 1000 population. An impression existed in the minds of AWWs and other ICDS functionaries that their responsibility did not extend to the entire mother/child population. Pending an expansion in the number of AWWs, it was necessary for AWWs to cover all eligible mothers/children in the areas served by them even if this imposed increased burdens on them. There was also a tendency for the AWWs to focus only on the main village area and ignore hamlets, wadis and vastis at some distance from the village. The AWWs, in their defence, often contended that the population in these remote hamlets were illiterate and ill-informed and disinclined to avail of the ICDS services.

In particular, supplementary nutrition services were to be extended to hitherto unserved areas. The existing government orders needed revision to ensure that severely malnourished children between the ages of 6 months and 6 years were provided supplementary nutrition as per medical advice, comprising both therapeutic food and twice the normal rations provided to other children. Revised government orders were issued on 28 October 2005 specifying the supplementary nutrition norms for pregnant/nursing mothers, severely malnourished children and all other children. Locally prepared and ready to eat food was to be prepared by self-help groups/mahila mandals, who were to be paid for their services on a monthly basis. Daily rates payable per child for the tribal areas where the Navsanjivan programme was being implemented and for other areas were specified as also the recipes for locally prepared food and ready to eat food. The Mission's recommendation to incorporate soya bean in the SNP was also accepted by the Maharashtra Government.

An ambitious training-cum-sensitisation programme for ICDS/health functionaries in the five districts in the first phase was drawn up by the Mission, for which funding was sought from the government. 2400 functionaries at the supervisory levels of the ICDS and health departments from the district, ICDS project/block, PHC and AWSs were to be trained at an estimated expenditure of Rs. 5 lakhs while 23500 workers from the ANMs to village level workers were to be trained at an estimated cost of about Rs. 26 lakhs. In addition, Rs. 25 lakhs was sought for imparting training in the IMNCI programme to 600 ICDS/health functionaries from the project/PHC level to the village level for seven districts of Aurangabad Division (other than Osmanabad district, where such training had already been given).

The Mission was aware that a focus on breastfeeding and complementary feeding was essential if Maharashtra was to improve nutrition standards among under-3 and under-6 children, more so since studies carried out by the Mission clearly showed that nutrition levels in children regressed between the ages of 6 to 23 months. The training programmes organised by the Mission in collaboration with the BPNI for CDPOs, ACDPOs, MOs and Supervisors had significant inputs on these topics.

The main messages on under-3 child feeding sought to be imparted through training were:

i. Initiation of breastfeeding within half an hour of birth;
ii. Exclusive breastfeeding till the child reaches 6 months of age – no other feed, including water, gripe water, tonics, etc. (except polio doses) to be given to the infant;
iii. Complementary feeding comprising clean, wholesome and adequate home-prepared food to be given from the time the child reaches 6 months of age, with continued breastfeeding upto at least two years of age;
iv. Stimulating the mental and cognitive facilities of the child while breastfeeding and giving complementary feeds.

A number of misconceptions and doubts in the minds of field workers were addressed through discussions on topics like the need to prepare the mother for breastfeeding, the advantages to the child and mother of “skin to skin” contact immediately after birth and starting early (half an hour after birth) breastfeeding and continuing it exclusively for 6 months, the important role of colostrum and the correct method of breastfeeding. The training also focused on

the food that should be given to adolescent girls, pregnant and nursing mothers, as well as to children between 6 months and one year and to children between one and 6 years. The DWCD had on 28 October 2005 and 19 May 2006 issued GRs specifying recipes which could be prepared at home and could also be used in the SNP at the AWCs.

The Mission highlighted the need for commencement of complementary feeding as the child entered the seventh month of life. With the evidence that malnutrition percentages went up between 6 and 23 months of age and the NFHS-3 figures showing that not even half the children were given solid and semi-solid foods between 6 and 8 months of age, the Mission recognised that symbolic importance had to be given to the initiation of complementary feeding. A concept used in the Marathwada experience was sought to be popularised throughout Maharashtra, that of the "half-yearly birthday". The traditional practice of "Annaprashan" where the child was introduced to regular food in the seventh month through a religious ceremony was attempted to be revived in a modified form by celebrating the "half-yearly birthday" and involving the community.

The workshops in the three divisions had thrown up an important point regarding the coordinated functioning of the ICDS and health machinery in tackling issues relating to mother and child care. The mandate of the ICDS covered three areas where the AWW had a predominant role – (i) supplementary nutrition, comprising both cooked food for 3-6 year children at the AWC and THR for under-3 children; (ii) growth monitoring and promotion through monthly weighing and recording on growth charts; (iii) pre-school education for 3-6 year children, to promote their cognitive and emotional development and prepare them for primary schooling at age 6. Three other areas where the health department had an important role to play even if the services were provided with the involvement of the AWW were: (i) immunisation of pregnant women and children; (ii) health services, including medical check-ups of under-6 children, ANC and PNC for mothers, treatment of minor illnesses and management of undernutrition; (iii) referral services where malnourished children and children with disabilities or other illnesses are referred to the health units at PHC level and above for specialised treatment. One area where the onus lay largely on the AWW in the past – nutrition and health education – has over time become a joint responsibility of the ICDS and health departments with the introduction of the ASHA. Both the AWW and the ASHA are expected to counsel women in the 15-45 age group in looking after the nutrition and health needs of their children and families, including feeding practices, sanitation, family planning and use of health services. The Mission actively promoted the concept of coterminus geographical areas for the AWS beat and the PHC. The idea was that one AWS should have to coordinate her activities with only one PHC. This would help promote uniformity in reporting by the ICDS and health workers of critical indicators like malnutrition and infant, child and maternal mortality, since there would be better coordination between the AWS and the MO of the PHC. It would also enable the AWS to attend the monthly meetings at the PHC and reconcile the data gathered by her from the different AWCs under her charge with the data gathered by the health workers for the areas covered by those same AWCs. Most importantly, it was hoped that this improved coordination would be reflected in better planning of delivery of health services in the PHC area through fixed days for health camps in different villages and specific focus on severely malnourished children.

The stress on a **fact-finding** rather than a **fault-finding** approach was emphasised. The Mission staff visited AWCs and PHCs in a number of districts in Maharashtra in the first eighteen months to get a first-hand understanding of how the service delivery systems were functioning and to identify lacunae which needed to be addressed at either an implementation or policy level. The common problems in service delivery which came to light in district after district included:

i. **Vacancies in key field personnel**: Both the ICDS and health services were affected by shortages of field-level workers which hampered the rendering of critical services at the village level as well as impacting the quality of supervision at levels immediately above the village level. Filling in the posts of AWWs was essential if the ICDS objectives were to be achieved. The rapid expansion in numbers of AWCs sanctioned consequent on the Governments of India and the different states implementing the Supreme Court directives on universalisation of the ICDS required quick action to fill in the posts of AWWs created to staff these AWCs. Even though sanction had been given for 12864 AWCs in the state in 2005, it tended to take an inordinate length of time for selection of AWWs. The Selection Committee for the appointment of AWWs was headed by the local MLA. This Committee often took many months to finalise appointments. The Mission made repeated suggestions in meetings of the three Committees constituted by the 11 March 2005 GR to permit selection of AWWs by Committees headed by the CEOs of the respective Zilla Parishads but this was not accepted. Vacancies at the supervisory levels were another cause for concern. Posts at the AWS level could

be filled up at the district level. But orders for posting of CDPOs and ACDPOs were to be issued by the State Government. Right from the days of the Marathwada initiative, the absence of a separate cadre of CDPOs had been seen as a stumbling block in the efficient supervision of ICDS activities. Invariably, there was a shortage of Class I & II officers in the MDS: officers preferred postings as BDOs rather than as CDPOs, given that the former enjoyed greater power and prestige. Many of those from the lower ranks of the Development Services posted as CDPOs were unfamiliar with the job requirements of the CDPO and needed training in terms of both knowledge and skill acquisition to handle their new responsibility.

One possible solution to the problem was the creation of a separate cadre of CDPOs and the DWCD was also in favour of such a move. The Mission was of the view that these CDPO posts could even be created on contract basis. However, since this had implications for the career prospects of Grade 'C' staff in the ZPs, who, on promotion, were posted as CDPOs, the proposal never really got off the ground. The creation of new talukas had not been accompanied by the creation of ICDS projects so that one CDPO was continuing to oversee projects areas spread over two or three new talukas. Till new posts of CDPOs for these projects were created, it was necessary to assign the work to an ACDPO or AWS.

The position was even more problematic where the posts of MOs in PHCs and specialists (paediatricians, gynaecologists and anaesthetists) in RHs were concerned. It was the remote, backward tribal pockets of the state which faced the maximum shortages in availability of skilled medical personnel (not surprisingly, it was in these areas that the highest incidence of under-6 child malnutrition was observed). Since the PHC was the first referral centre for severely malnourished children, lack of trained medical personnel meant that the children either had to be moved to the next levels of referral – the RH or the district hospital, or else that health care was just not provided to these children. The lack of doctors also meant that monthly check-ups of severely malnourished children and quarterly check-ups of all other under-6 children were not carried out or were carried out by ANMs, who were unaware of the protocol to be followed in such cases. In a number of areas, especially in the more remote tribal belts of Nandurbar and Gadchiroli districts, the Mission found that barely 40% of the medical check-ups were in fact being undertaken. In many PHCs in the tribal areas, newly appointed MBBS doctors just did not join their postings. Others who did join were often absent from the PHC. Repeated pleas on this score by the Mission to the government (also an issue which was repeatedly brought up at high-level meetings of the Mission at the state level) did result in action: it was made mandatory for doctors who had obtained their MBBS degrees to do an 11-month stint in a PHC before they could apply for post-graduate courses, as also for those doctors who had obtained their post-graduate qualification to work in a specialist capacity in an RH. While this did solve the problem to some extent, it could at best be called a short-term solution. Not only was there no continuity in medical personnel at any one location, the regular changes in medical personnel meant that a cohesive, coordinated approach to issues like child malnutrition and maternal and infant mortality was generally not possible. The government also went in for appointment of one BAMS doctor as the second doctor at the PHC (apart from one MBBS doctor). This step did go some way to meet the availability of skilled medical facilities at the PHC. It was relatively easier to get BAMS doctors who were willing to work in PHCs in remote areas: they also displayed considerable enthusiasm in implementing programmes like the CDCs and VCDCs. The absence of specialists at the RHs had serious implications for immediate treatment of emergencies in maternal and child care, especially in the perinatal and postnatal period. High-risk mothers and children in the neonatal period (within one month of birth) bore the brunt of this shortfall.

ii. **Motivation and skill levels in key field personnel:** Low levels of motivation and a lack of self-esteem were often to be seen in the ICDS machinery, leading to a situation where there was no direction in the functioning of the AWC. The tendency to treat the AWC as purely a centre for distributing supplementary nutrition had, over time, reduced the capability of the AWW to effectively deliver the other ICDS services which she was mandated to. There was also no delegation of any financial or decision-making authority to the AWW or her immediate supervisors. Even for minor items, the AWW was dependent on supplies procured in a centralised manner, often at the level of the ICDS Commissioner. Payments of her salary and allocations of funds for the SNP again followed a complicated route: they had to travel from the ICDS Commissioner through the ZP to the PS and from there to the CDPO, who then disbursed the funds to the AWW. At the same time, she bore the brunt of any public furore in the event of "malnutrition deaths" in her

area receiving media attention. Not surprisingly, the AWW tried to downplay the extent of under-6 child malnutrition in her AWC and made no serious efforts to bring down its incidence. It had been borne out from the Marathwada experience that workers should be given adequate opportunity to correct their errors and improve their functioning. Training and sensitisation programmes, therefore, focused on developing a sense of enthusiasm and commitment among field workers in the task of reducing under-6 child malnutrition. Penal or departmental action was to be used as a last resort only in cases where the functionary deliberately misrepresented the true position in his/her area and/or displayed a lack of commitment and interest in tackling the problem of malnutrition. Very often, it was the lack of knowledge and materials that led to faulty service delivery. Thus, absence of weighing scales and growth charts at AWCs and inadequately trained AWWs resulted in a situation where monthly growth monitoring was not being correctly carried out. The Mission actively lobbied for provision of Salter weighing scales (for infants and young children) and regular weighing machines for mothers and older children and for the printing and distribution of growth charts. These growth charts would depict the weight of a child from 0 to 72 months (on a monthly basis) and enable the AWW to keep a watch on under-6 children suffering from severe malnutrition and/or exhibiting growth faltering symptoms. Not only that, the Mission advocated a three-colour scheme – green for normal weight, orange for mild and moderate malnutrition and red for severe malnutrition, a practice prevailing in Odisha. This "traffic signal" approach to recognising the nutrition status of the child was intended to be easily understandable even to unlettered AWWs.

The Mission repeatedly advocated the delegation to some extent of funds and decision-making powers to AWWs, so that they could at least locally purchase items required on a regular basis and carry out any essential repairs or improvements to the AWC. Though such a decision was taken by the PHD in respect of untied funds allotted to sub-centres (as per the NRHM guidelines), no such untied funds were made available to the AWW. At meetings with the Chief Secretary, a decision was also taken that honorarium payments to AWWs and payments to SHGs involved in SNP food preparation would be made through electronic fund transfer directly to their bank accounts. Unfortunately, this decision was not implemented, leading to frequent complaints that payments were delayed, affecting the capacity of the SHGs to provide food to the children at the AWC.

The AWWs were also entrusted with a number of other duties in the villages where they were located – family planning programmes, motivating people to construct latrines under the Total Sanitation Campaign, etc. One reason for this was that a majority of AWWs resided in the villages where the anganwadis were located while staff entrusted with implementing many other national and state programmes often lived elsewhere and were not always available at the village. While it could be argued that these programmes had a direct or indirect impact on child malnutrition, the amount of time required to be devoted to these programmes by the AWW led to her neglecting basic duties like growth monitoring and home visits. The Mission, therefore, sought issue of instructions to involve AWWs only to the extent of promoting such programmes and not assigning them physical targets to be achieved in a financial year.

Efforts were also made to rationalise the reporting systems for the ICDS staff and bring about coordination in reporting of figures which were reported on both by the ICDS and health staff. A three day brainstorming workshop was held at Aurangabad from 27-29 September 2005, which was attended by representatives of the ICDS Commissionerate and the Directorate of Health Services. Some indicators like infant and maternal mortality were independently reported by ICDS and health functionaries leading to differing figures for a particular village or sub-centre. By streamlining the reporting system, it was hoped that uniformity in reporting and, more importantly, accuracy in data would be ensured. Attempts were also made to reduce the number of indicators reported on by AWWs (188, as per the existing system). While some rationalisation was tried, the scope for simplification was constrained by the fact that a lot of the data collected was as per the formats prescribed by the Government of India. While such data, if analysed, could have yielded valuable information, in actual practice, there was no further analysis. However, since modification of formats was not possible without the concurrence of the Government of India, there could be no drastic restructuring of the reporting formats, especially with regard to the supplementary nutrition programme.

To promote healthy competition among staff in the ICDS/health departments, the "Star Competition" was

introduced in all districts of the state[5] (*See **Box 1** below*). This competition had been employed with considerable success during the Marathwada campaign. It was based on the idea that even though it might not be possible to give monetary incentives for good work, recognition of excellent work based on objective, verifiable criteria would motivate ICDS and health staff to give of their best. By extending the reach of the competition right from the anganwadi to the division level, it was hoped that enthusiasm for quality performance would be generated at the middle and highest supervisory levels as well.

**BOX 1**

**Important points in the circular dated 14 July 2005 of the Mission**

**Subject: Role of star competition in reducing malnutrition**

1. The star competition is being promoted to aim at completely removing severe (Grade III & IV) under-6 child malnutrition in every anganwadi in the state of Maharashtra. It would be operated at all levels – AWC, health sub-centre, Anganwadi supervisor beat, PHC, ICDS project, district and revenue division.
2. Monthly ranking of performance at the different unit levels (AWW, PHC, etc.) would be the basis for assessing the star certification status of that unit.
3. The appropriate star certification would be awarded based on achievement in the respective area of operation of the following objectives: (i) 100% survey efficiency; (ii) at least 95% weighing efficiency; (iii) 100% monthly/quarterly medical check-up; (iv) maintenance of separate lists of children with congenital/severe diseases.
4. The norms for star certification (in the respective areas of operation) are as follows:

| Star number | Norm |
|---|---|
| One Star -- ☆ | No under-6 child in Grade IV |
| Two Star -- ☆ ☆ | No under-6 child in Grade III & IV |
| Three Star -- ☆ ☆ ☆ | No under-6 child in Grades II, III & IV |
| Four Star -- ☆ ☆ ☆ ☆ | No under-6 child in Grades I, II, III & IV |
| Five Star -- ☆ ☆ ☆ ☆ ☆ | No under-6 child in Grades I to IV and no under-19 mother |

5. Children suffering from congenital diseases or other serious ailments would be separately listed and treated on priority basis. Their numbers would be excluded in considering the number of children in the different nutrition grades.

6. Star certification would be reflected in the annual assessment of the concerned employee. A “two star” classification would earn a “very good” remark and a “three star to five star” classification would see the employee being graded “outstanding”.

However, it was not just the availability of doctors (even MBBS doctors) that ensured that no complications developed during and after delivery. It was also the initiative shown by the local health worker (the ANM) and the responsiveness of the staff manning the medical facilities, as well as the availability of efficient support services, that often determined the fate of the mother and child. The real-life stories at **Boxes 2 & 3** below highlight the different results obtained where the health staff is knowledgeable about its duties and where timely referral to the appropriate medical facility is done. As fact-finding assessments of the Mission in different districts showed, medical staff at sub-district levels was often not adequately equipped to handle obstetric emergencies, transport to medical facilities was not planned in advance and even amounts due to the mother and the ASHA under the JSY were sometimes not paid promptly.

[5] This novel idea drew on the “star ratings” for AWWs introduced in the Odisha campaign of 1998 (Satish Agnihotri: EPW, 18 December 1999)

**BOX 2**

**Death of a mother**

The mother developed labour pains at 6:30 a.m. Although the mother wished to deliver the child at the medical facility, the delivery was done by the local dai in the house itself. Post-partum bleeding commenced shortly after delivery. The ANM was called and she administered an injection and advised that the mother be moved to the sub-district hospital. She was admitted there at 9 a.m. but the only treatment given was the administration of saline drip. The local doctors advised that she be moved to the district hospital where, at 3 p.m., the doctors recommended that she be given an infusion of blood. By the time the blood was obtained at 6.30 p.m., the mother had died.

The death could possibly have been averted if the following steps had been taken:

a) Delivery had taken place in a medical facility
b) Breastfeeding had been commenced immediately after birth, thereby possibly arresting the bleeding ;
c) Transport arrangements had been planned in advance to cater to any emergency, thereby reducing the time taken to reach the medical facility;
d) Referral directly to the district hospital had been done to save time – also, information on the case could have been given on the telephone to the district hospital so that the doctors were prepared for the case;
e) Treatment at the district hospital had been prompt and effective.

All in all, delays at three levels contributed to maternal mortality: at the home, in the community and at the hospital.

**An ASHA group promoter's account**

During my home visits to pregnant mothers, I asked Chhaya where she was going to have her first child. Her mother-in-law wanted the child delivered at home but I persuaded her that the delivery should take place at the hospital. I said I would accompany her daughter-in-law to hospital for the delivery. I regularly visited Chhaya during her pregnancy and the family developed trust in me. When she developed labour pains, I accompanied her to the hospital. Since her feet were swollen and she had high blood pressure, the doctors referred her to the district hospital at Dhule. The doctors there decided to conduct a Caesarean delivery. The child weighed 2.5 kgs. at birth. When I visited the mother at the hospital two days later, she was breastfeeding the child. I got the paperwork completed and ensured that Chhaya was paid the amount due to her under the Janani Suraksha Yojana.

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# IV. Some Initiatives

While building up the service delivery capability of the ICDS and health staff was a primary objective, the Mission took the initiative in a number of other programmes that had a direct or indirect bearing on the problem of malnutrition. These involved both strengthening existing interventions through government programmes and influencing community and family behaviours.

***Infant and Young Child Nutrition (IYCN)***

NFHS-3 results for India showed that barely 25% of children are breastfed within an hour of birth and 55% within a day of birth. Maharashtra fared somewhat better in this regard with figures of 52% and 78% respectively. 46% of children in India were exclusively breastfed till 6 months of age; the corresponding figure for Maharashtra was 53%. Pre-lacteal feeding at 32% in Maharashtra was lower than the all-India figure of 57% but this was still a rather high figure. Timely complementary feeding at 6-8 months of age was started in about 53% of children in India; Maharashtra lagged behind at 48%. These statistics revealed that there was still a long way to go in Maharashtra to reach the desired standards in breastfeeding and complementary feeding. While, as mentioned earlier, the Mission utilised the expertise of the BPNI to sensitise field and supervisory workers of the ICDS and health departments to the various aspects of breastfeeding and complementary feeding, it was evident that the message needed to go right down to the community and family level to achieve the desired results. **Box 4** details the experience of an ASHA group promoter who was induced to give her child feed other than breast milk. The impact of advertisements by food companies and the advice given by family elders (and even doctors, in some instances) led to situations where mothers discontinued breastfeeding even before the child was 6 months or tended to supplement breast milk with other feed during this period.

**BOX 4**

**Personal case of an ASHA group promoter**

This is my personal experience. When I had to go for a training programme to the district headquarters, my neighbour told me to start bottle feeding my child, since it would be difficult to feed him during the programme. I started feeding the child a mixture of milk and water through the bottle throughout the day; he kept resisting the feed. At 11.30 p.m. that night, the child developed vomiting and loose motions. We took him to a private hospital the next day where he had to be administered saline drip. His weight dropped to 1.5 kgs. and there was severe fluid loss. The boy improved in health over the next four days at the hospital. I incurred an expenditure of Rs. 4000 on his treatment. I realised after going through the IYCN training programme that I was responsible for what happened. Since then, I have been promoting breastfeeding among mothers and discouraging use of bottle feeds.

The first steps in this direction were taken in 2005 with the publication of a booklet on basic training in **"Breastfeeding and Child Nutrition"** under the joint auspices of DWCD, PHD, ICDS Commissionerate, UNICEF, BPNI & the Mission. The booklet was first used in a training programme at Nandurbar between 6 and 9 October 2005. The publication was intended to address the gaps in knowledge of this subject in workers. It aimed at addressing the apprehensions in the minds of mothers and providing answers to commonly asked questions on problems relating to breastfeeding and child nutrition. The sessions spread over three days had a mix of classroom and practical training. Apart from imparting knowledge on breastfeeding and complementary feeding, the training aimed at training workers to counsel mothers on this subject prior to delivery and providing hands-on training using dummy models to impart to mothers the correct techniques for effective breastfeeding. Nutrition education to mothers on complementary feeding -- the need to give the child the same food as eaten by the family, how to make the food more tasty and acceptable to the child, the nutrients like vitamins, carbohydrates, proteins, iron and other micronutrients that should be part of the daily diet, etc. – was also part of the programme material. There were also sessions on effective communication with mothers and developing self-confidence in mothers to handle the post-pregnancy period. Participants were taken to a maternity ward where they spoke to mothers and observed the mother-child relationship in the immediate post-delivery period. One session was devoted to training participants in the art of interacting with mothers, senior citizens and adolescent girls to impart information on feeding practices.

A path breaking effort was the launch of the **BREAST CRAWL** initiative in 2007. A video recording of the

initiation of breastfeeding within half an hour of birth became the basis for a documentary and a written document which detailed what seemed to be an easy, precise method to initiate breastfeeding within half an hour of birth. Not only was the Breast Crawl a natural and instinctive way to achieve this aim, it also had several other advantages:

i. Helping to keep the baby warm and reducing the risk of hypothermia;
ii. Leading to faster and effective achievement of feeding skills by the baby;
iii. Getting colostrum as the first feed, which is important for the baby's survival;
iv. Reduction of maternal blood loss and prevention of anaemia;
v. Better infant-mother bonding.

This demonstration of the Breast Crawl method became an integral feature of the IYCF training programmes conducted by the BPNI in collaboration with the Mission and the Government of Maharashtra.

**PICTURE 1: CARRYING THE MESSAGE TO MOTHERS IN VILLAGES**

IEC session on IYCN held at Kalyani village, Bhokardan village, Jalna district, Maharashtra. AWS and AWW educating mothers on breastfeeding and complementary feeding practices

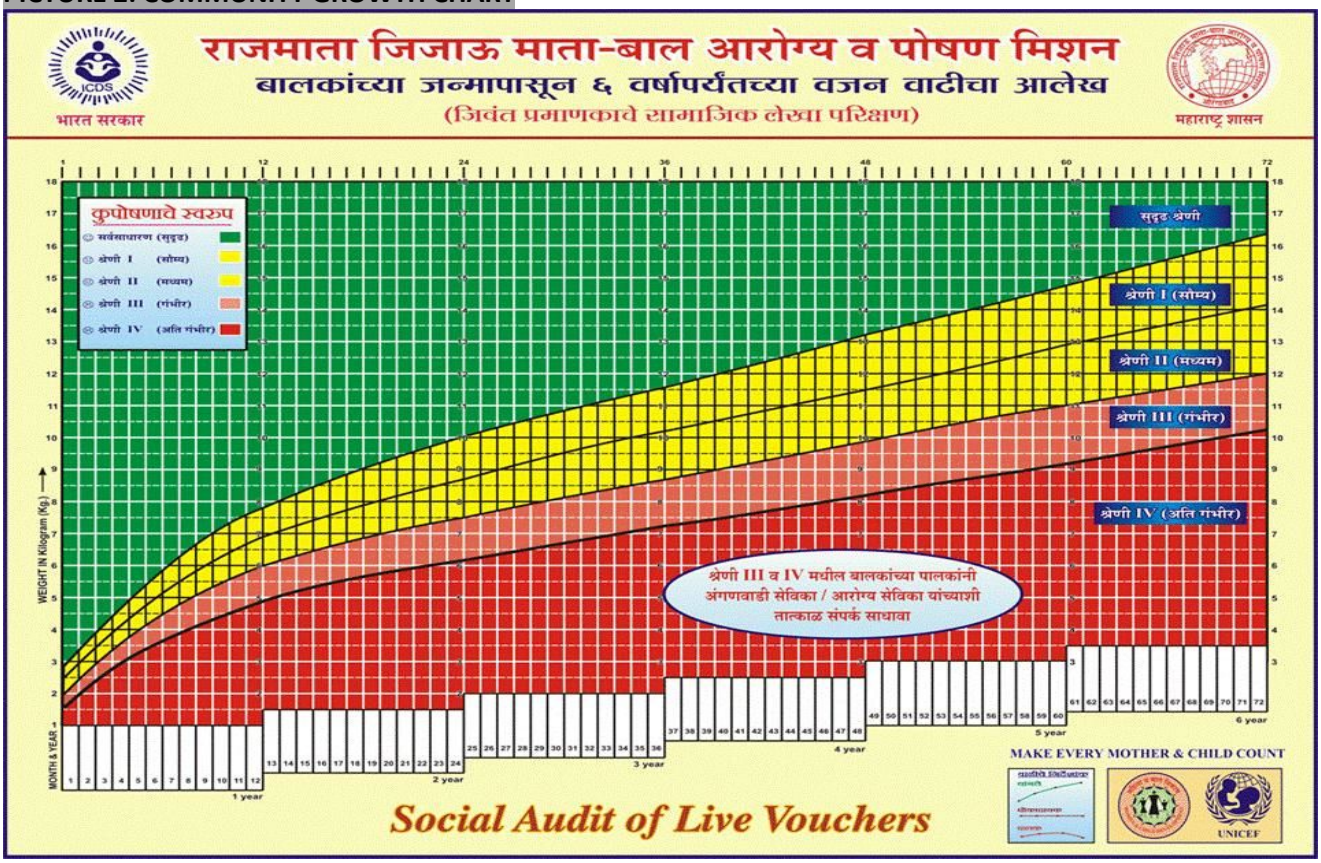
The IYCN programme was supported by both the DWCD and the PHD. This enabled TOT programmes to be carried out in 34 districts in Maharashtra between October 2005 and November 2009. Pandurang Sudame of the Mission team was involved as Facilitator in most of these programmes. Thanks to the involvement of the BPNI and the Mission, as many as 3251 participants benefited from the TOT programmes and nearly 36000 people were sensitised in Maharashtra. The programme was also extended to the states of Chhattisgarh and Jharkhand, where TOT and sensitisation programmes were carried out by Sudame at their request.

***Community Growth Charts***

Right from the days of the Marathwada initiative, Community Growth Charts were seen as a powerful tool to empower the community in the battle against malnutrition. The Mission raised this issue as one of its first priorities in meetings held at the government level. It was proposed that two Charts would be provided to each AWS and PHC

in the state. The Community Growth Chart was a pictorial representation at the community level of the growth card for each child which the AWW was to fill in after each monthly weighing. It showed the growth trajectory of the child over a 72 month period after birth. A series of growth curves were depicted on the chart which showed the paths of growth (in terms of weight for age) for a child with normal weight or for children suffering from malnutrition in Grades I to IV. The weights for age figures were based on the IAP classification of nutritional status of under-6 children in India which was used by the ICDS. The use of different colours was meant to draw attention to the relative severity of the malnutrition problem depending on the area on the chart where a child's weight for age was located. Thus, children with normal weight would be in the green segment, those with mild or moderate malnutrition in the amber portion and children with severe or very severe malnutrition would be in the red part of the chart. The use of a "traffic light" symbolism (used in Odisha State from 1998 and in Aurangabad Division of Maharashtra State from 2002) was intended to highlight the perils of a child slipping into the red zone, where the chances of mortality increased seven to tenfold.

**PICTURE 2: COMMUNITY GROWTH CHART**




The Community Growth Chart was printed on a plastic sheet ten feet long and twelve feet wide. Unlike the normal educational material which is prepared for vertical display, the Community Growth Chart was spread out on the ground in a public space in the village or community area (see **Picture 3** below). Mothers and other community members were invited to gather at the spot and the AWW or AWS would then place their children at the spot on the chart where their current weight status was reflected (**Picture 4**). A discussion would then be initiated on the relative location of the children placed on the Chart – why one child was in the green "safe" area while another was in the red "danger" zone. The mothers of children with normal weight would be asked to explain why their children were healthy and well nourished. Factors like the age of the mother at the time of delivery of the child and the spacing between children as well as the time of initiation of breastfeeding and the period of exclusive breastfeeding and the complementary feeding practices followed at home were all subjects of discussion. Uneducated mothers who did not have access to written or audio-visual material on the subject and who would otherwise never have obtained information on the possible reasons for their child's undernourished status were, through discussion, made aware of

what they could do to change the position. Often, their mothers-in-law, husbands and other family members were also present, so the occasion enabled the family to reflect on what it needed to do to improve the nutritional status of the child and prevent a recurrence of malnutrition in future births in the family. Other members of the community could also then come forward to support the mother and family, since they were now aware of the problem. As the Chart at **Picture 2** shows, each child is treated as a "live voucher" for which the community is responsible. The social audit of the nutritional status of children would focus attention on the causes for malnutrition and the measures the community and family could take to improve the situation. A question has sometimes been asked whether such public discussions did not tend to humiliate the family in which the malnourished child had been born. It needs to be stressed that the exercise was in the nature of an appreciative enquiry rather than an attempt to find fault with the mother or her family. Not only the mother and her family but the other community members and the ICDS and health workers present all gained a deeper understanding of the various social and economic factors at work in perpetuating malnutrition in the community.

**PICTURE 3: COMMUNITY GROWTH CHART SESSION**

**PICTURE 4: WHERE ARE THE CHILDREN TODAY?**

***Medical treatment for children with congenital ailments/severe illnesses***

It was observed that there were a number of under-6 children who, despite access to better nutrition, showed no significant improvement in their nutritional status. In fact, there was little weight increase as the child got older. Tests at the local medical facility also revealed no common illnesses that could account for this phenomenon. Such cases required reference to a major or super speciality hospital to ascertain the reasons for the poor nutritional status of the child, which also in some cases led to their death. When these children were examined at advanced medical facilities, the following abnormalities/ailments came to light – hole in the heart, urinary tract infection,

cancer, arrested mental development, bone deformities, cleft palate, etc. The Mission proposed a maximum expenditure of Rs. 2 lakhs per child for being treated at and operated on for the ailment in government or government-approved private hospitals. The amount would cover the costs of diagnosis, treatment and medicines, as well as stay in the hospital. The Mission initially proposed that this scheme be implemented by the ZP, which would initially meet the costs of medical treatment and then claim reimbursement from the government. Since the PHD had a scheme – the Jeevandayi Yojana – which provided for meeting hospitalisation expenses for children suffering from congenital ailments, the Mission attempted to tie in its strategy for treatment of under-6 children with this scheme. To systematise the approach to treating such children, the Mission issued instructions to all DHOs to prepare lists of such children for each district. A total list of 4231 children was prepared and sent to the government to provide adequate budgetary support. Two important changes in the existing Jeevandayi Yojana were introduced with the intervention of the Mission:

i. The limit for meeting hospitalisation expenses, including medicines and treatment, was increased from Rs. 1.5 lakhs to Rs. 2 lakhs.
ii. The criterion for families eligible for the scheme was changed from BPL to include APL families as well.

***Establishment of blood testing unit and treatment centre for sickle cell anaemia***

Sickle cell anaemia was widely prevalent in tribal areas because of marriages between close relations in Adivasi families. To reduce this incidence, it was necessary to set up blood testing units in 54 talukas in the five districts in Phase-I so that blood testing could be done prior to marriage. The aim was to carry out such tests in adolescent and school-leaving boys and girls to ascertain their proneness to the disease. Through education in Adivasi villages and padas, efforts could be made to reduce the transmission of the disease to succeeding generations by discouraging marriages between close relations. A testing centre was set up at Dhule in North Maharashtra in a predominantly tribal region.

***Provision of hypothermia prevention kits for neonate survival***

In rural and tribal areas, neonates are often laid to sleep on the floor; they are not adequately clothed or covered in the period immediately following birth. This leads to a fall in the body temperature of the baby below normal. In subsequent months, the clothes of the infant are not changed even when they become wet because of urination/defecation, leading again to a fall in body temperature. Because of this, especially in the monsoon and winter seasons, the child (particularly an LBW neonate) develops respiratory and other infections, leading to illness and even death. To prevent this occurrence, the Mission recommended the issue of hypothermia kits on a pilot basis in all tribal areas. The items provided would include a mosquito net, a small woollen blanket, four sets of cotton napkins and a plastic sheet. The AWW/health worker would counsel pregnant/nursing mothers on the proper use of this kit, which would keep the child clean, reduce her contact with the floor and reduce the chances of spread of contagious diseases.

***Promotion of kitchen vegetable gardens***

Promoting the consumption of locally grown vegetables and fruits would make available necessary carbohydrates, vitamins and micronutrients in the diet of families and contribute to malnutrition reduction in under-6 children. This could be disseminated on a wide scale in rural and tribal areas by providing vegetable and fruit seeds to families and educating them on the methods of planting and raising seasonal fruits and vegetables. AWWs and workers of the health and agriculture departments would be trained in promoting the spread of kitchen gardens. Not only would this contribute to raising nutrition levels in under-6 children, it would also improve cleanliness in the village by ensuring efficient use of waste water in kitchen gardens.

***IEC to develop community awareness***

Modern communication and mass media channels – radios, TVs, newspapers, etc. – have not penetrated remote hilly tribal terrains, which are also poorly served by physical communication infrastructure. As such,

information and knowledge on a variety of issues relating to health and nutrition have not reached communities in these areas. The potent combination of illiteracy, superstition, outdated traditions, poverty, unemployment and vices like alcohol and tobacco have contributed to early and repeated child bearing, poor sanitation practices, undernutrition, high child mortality and a general environment where poor awareness of sound health and nutrition practices condemns future generations to ill-health and low nutrition levels. To change this scenario, community education and awareness promotion campaigns were proposed in the most vulnerable (high malnutrition) blocks in the five tribal districts of Phase-I. Village volunteers and pada workers in these blocks would be trained in education and communication techniques. 100 volunteers in each block would be trained by practitioners in use of folk songs, dances and other entertainment techniques to make communities aware of different aspects of health and nutrition, in an attempt to initiate behavioural change in communities in these areas.

***Biannual deworming and Vitamin A drive***

Worm infestation in children between 6 months and 6 years of age leading to intestinal infections has been one of the causes of malnutrition and ill health, impeding weight increase. Vitamin A is an essential micronutrient promoting immunity in children and maintaining body tissue. In populations where natural consumption of Vitamin A is sub-optimal, its supplementation has an important role to play in promoting child development. VAD can not only lead to eye damage, it can also increase the severity of infections like measles and diarrhoeal diseases in children and slow down the process of recovery from illness. The earlier national policy of five rounds of Vitamin A supplementation between 9 months and 3 years of age has, in recent years, been replaced by nine rounds of supplementation between 9 months and 5 years of age. Even so, the NFHS-3 data shows that the performance of most states, including Maharashtra, has been less than satisfactory. Maharashtra showed coverage of only 38% of children by Vitamin A supplementation in the 12-35 month age group and 25% coverage in the 6-59 month age group. When NFHS-3 data showed that only about 34% of children in the 6-35 month age category received foods rich in Vitamin A, it was obvious that a major effort was required to augment Vitamin A levels in children. The Mission, therefore, proposed an integrated campaign every 6 months, where the administration of a dose of deworming syrup or tablets would be followed in the succeeding weeks by a Vitamin A dose. The campaign was sought to be linked to symbolic dates to lend added significance to it – the biannual programme would commence on 1 May and 14 November each year, coinciding with Maharashtra Day and Children's Day. After the deworming dose was given in two or three days to all under-6 children in the AWC, the Vitamin A dose would be given to all children in the following week. In effect, May and November would become campaign months. Fixing these two months would focus the attention of the ICDS and health staff on these two programmes on a sustained basis. The campaign was started in the five Phase-I districts in May 2006; subsequently, it was extended to the ten other Phase-II districts in November 2006 and to the entire state, including urban areas, from May 2007. **Table 1** below gives the percentage achievement in the deworming and Vitamin A campaigns between 2007 and 2009.

**TABLE1: ACHIEVEMENT IN BIANNUAL DEWORMING/VITAMIN A CAMPAIGN (2006-09)**

| Period | Coverage area | Deworming (%) | Vitamin A (%) |
|---|---|---|---|
| June 2006 | 5 Phase-I districts (rural & urban) | 89 | 89 |
| January 2007 | 15 Phase-I & II districts (rural & urban) | 86 | 85 |
| May 2007 | Entire State (rural) | 79 | 82 |
| | Entire State (urban) | 40 | 43 |
| | Entire State (total) | 64 | 67 |
| May/June 2008 | Entire State (rural) | 85 | 80 |
| | Entire State (urban) | 51 | 28 |
| | Entire State (total) | 73 | 48 |
| January/February 2009 | Entire State (rural) | 85 | 81 |
| | Entire State (urban) | 61 | 69 |
| | Entire State (total) | 75 | 76 |

**Source: Additional Director, Health Services, Pune, Maharashtra**

Coverage in the urban areas was considerably less as compared to the rural areas, reflecting the relatively greater effectiveness of ICDS and health outreach services in rural areas. The campaign did, however, result in significant improvement in both deworming and Vitamin A coverage of under-6 children.

***Developing partnerships to tackle malnutrition***

The Mission had an important role to play in the launch in 2006 of the Bhavishya Alliance, a multi-sectoral partnership comprising UNICEF, the Synergos Institute, New York, Unilever, the Government of Maharashtra, corporates like HDFC, ICICI Bank and the Tata Group as well as NGOs and civil society groups. Between 2006 and 2011, the Alliance pioneered a number of initiatives to address the problem of child malnutrition. Successful pilot projects included: (a) the Food Diversification project to improve the quality and variety of supplementary nutrition provided at AWCs, jointly implemented by Taj Hotels and the ICDS; (b) the Girls Gaining Ground initiative to build the knowledge, skills and self-confidence of adolescent girls, funded by the Nike Foundation, aiming at breaking the inter-generational transfer of malnutrition by empowering future mothers; (c) the Day Care Centres project, which expanded the AWC role to provide day-long care to children in the 1-3 age group from two slums and three construction sites in Mumbai/Navi Mumbai whose mothers had to go to work, providing them with improved nutritional supplements and monitoring their nutritional status; (d) the Computer-Aided Literacy, Health and Nutrition Awareness Programme to train local women at the community level in literacy, health and nutrition.

The Bhavishya Alliance was the first state-level initiative in India to harness the skills, resources and capabilities of multi-stakeholders from government, business and civil society in addressing a major problem like child malnutrition. While some of the pilot initiatives were very successful, others tended to falter after some initial steps, possibly because the different sectoral partners did not step in with the resources or other support needed to take the project forward. However, there were valuable lessons learnt in this creative collaborative approach. Partners from diverse backgrounds and with varying ideological approaches to development came to appreciate viewpoints different from their own and understood the need for consensus in fashioning solutions to the problem of child malnutrition. The pilot projects gave the partners insights into the challenges of implementation and the need for constant modifications and improvisation to deal with issues as they arose. Above all, the Bhavishya initiative underscored the role that each sector – government, business and civil society – had to play in tackling a complex issue like child malnutrition. While the multi-sector initiative wound up in 2011, the seeds of a number of ideas and creative solutions had been planted which will undoubtedly serve as a base for future multi-sectoral initiatives in this area.

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# V. Tackling moderate and severe malnutrition

The NRCs run by the Madhya Pradesh government were aimed at tackling severe (Grade-III & IV) malnutrition in under-6 children. In its efforts to integrate nutrition and health care to reduce severe malnutrition in under-6 children, the Mission zeroed in on a strategy of facility-based treatment. Naresh Gite and Gopal Pandge visited NRCs in Bhadarwas in Dewas district of Madhya Pradesh to get a first-hand understanding of their organisation. Out of these visits and subsequent discussions in the Mission and with UNICEF, the concept of Child Development Centres (CDCs) was born in 2007. The CDC was primarily intended to reduce under-6 severe malnutrition. It had, however, a number of supplementary aims, the objective being to bring about a sustainable change in the nutrition and health status of severely malnourished children through:

i. Training mothers and the government machinery on integrating health care and nutrition to improve the nutritional status of children;
ii. Developing in mothers the confidence to tackle malnutrition and making them capable of attending at home to their children's health and nutrition needs through improved sanitation, health care and balanced nutrition;
iii. Using trained mothers as a resource group to spread awareness in society on the measures needed to reduce existing malnutrition as well as avert malnutrition in yet-to-be born children;
iv. Augmenting the competencies of the government machinery at the district level and below to handle issues relating to severe malnutrition through the propagation of health and nutrition protocols and evolving in them the confidence that severe malnutrition could be tackled systematically and scientifically.

The target group was under-6 severely malnourished (Grade-III & IV) children who were not suffering from any congenital defects or chronic diseases and who, in spite of regular food intake, were not gaining weight. Since weights of children were sometimes not accurately recorded, the Mission also recommended the screening of children who were on the borderline between Grades II & III. The WHO criteria for identifying children suffering from SAM were used, namely:

i. Severe visible wasting (muscle wasting, especially over the buttocks and prominence of bony structures, especially over the chest) with a weight for height score 3 SD or more below the mean NCHS reference values;
ii. Bilateral pitting oedema of nutritional origin;
iii. A weight for age Z-score of less than minus 3 SD;
iv. A weight for height score less than 70% of the NCHS median;
v. MUAC of less than 110 mm in children aged 1-5 years.

While the identification of Grade III & IV children and referring them to the medical facility was the task of the AWS/AWW/ANM/MPW, the final responsibility for their admission and treatment lay with the MO of the PHC, THO & CDPO.

The scheme involved the admission for a 21-day period of the under-6 severely malnourished child in either the PHC or the RH, with provision being made for the stay of the mother (or in exceptional circumstances, another caregiver from the family) with the child in the medical facility. As mentioned earlier, this was to ensure that the mother received education on appropriate nutrition, health and hygiene practices, which she could put to use when the child returned home. The PHC/RH was to arrange for a separate room for the stay of the children and their mothers, with attached kitchen, store room, toilets and bathrooms and cupboards/boxes for storage of their clothes and other items of daily use. The aim was to recreate an atmosphere as similar to the home as possible so that the mother and child would be ready to stay for 21 days in the facility. Electronic weighing machines, community growth charts, play items, televisions, bedding, medicines, food grains and other food items, etc. were to be provided. Arrangements for 5 to 15 children and their mothers to stay in the PHC/RH were to be made. It was stressed that the MO, AWS and health staff should be available at the PHC/RH during the entire period of the CDC programme, with their daily roster of duties being displayed in the medical facility. A combination of schemes and budget provisions were to meet the expenses on the CDC. The Government of Maharashtra already had in place a programme in TSP areas for providing Rs. 105 per day per child admitted for treatment for severe malnutrition. This amount was to

meet the cost of food for the mother and child (Rs. 65) and compensation for lost wages (Rs. 40). The latter was intended to incentivise the mother to bring her child to the medical facility and stay with her during the period of treatment at the PHC/RH, since experience had shown that families were reluctant to forego the wages the mother would have earned had she been working during that period.

Other expenses incurred in arranging for the CDC, including repairs to the building housing the CDC, purchase of necessary items and provision of amenities were allowed as a one-time expenditure. The expenses were to be met from a variety of sources, including the Navsanjivan Yojana (for select pockets in tribal areas), TSP funds, RCH-flexible pool and the NRHM. In non-tribal areas, the expenditure could be debited to the RKS funds and even the 10% of cess funds reserved for women and child development in ZPs, PSs and GPs and the 20% available for socially disadvantaged groups. Transport expenses incurred in moving the mother and child to and from the medical facility could be met from the untied annual grants of Rs. 10000 available to the health sub-centre. An innovative measure to ensure that increased costs did not jeopardise the programme was spelt out in directions from the Family Welfare Commissioner in January 2008. Since wage rates had gone up all over the state consequent on a revision in minimum wages, the limit for reimbursement for lost wages was increased to Rs. 70 per day. For all other expenses, including additional expenses on medicines, fuel expenses, etc. the limit was increased to Rs. 90 per day, making a total of Rs. 160 per day per child admitted to the CDC.

**Protocols for implementing CDCs**

The Mission devised four protocols for setting up and running the CDCs effectively. These protocols constituted the basic training material for the ICDS and health staff of the 33 districts of the state who received training in 2007-08.

**Health Protocol**

The health protocol broadly followed the Manual for physicians and other senior health workers on management of severe malnutrition prepared by the WHO in 1999. These directions were modified to suit local conditions in the light of the guidelines outlined by the group of medical specialists in the AIIMS, New Delhi under Dr. M.K. Bhan ("Hospital Management of Sick and Severely Malnourished Children – Annexure-II"). The first step after the admission of severely malnourished children to the CDC was to classify them into one of two categories: ill or stable (not displaying any symptoms of illness). Those children who were ill were to be admitted to the medical ward and treated to stabilise their condition. Treatment would, in particular, focus on managing hypoglycaemia, hypothermia, dehydration and infection in the children. Depending on the nature of the infection, antibiotics, anti-malarial or anti-tubercular medicines or drugs for controlling associated infections were to be administered. Deworming was to be carried out on stable children and micronutrients like iron, folic acid, Vitamin A and multi-vitamin syrups were to be administered. In case the child did not show adequate increase in weight or an improvement in nutritional status during the stay at the CDC, the MO of the PHC was to admit the child to the district hospital for further investigation and treatment.

**Training protocol**

The Mission organised "Training for Trainers" programmes for MOs, CDPOs and ACDPOs: in turn, the information provided by the Mission was to be disseminated to the lower-level functionaries of both departments. More significantly, these field workers were then to communicate instructions on feeding, nutrition, health and hygiene practices to the mothers/caregivers of the children admitted to the CDCs. The training module covered: (i) health education and training in sound nutrition and feeding practices; (ii) maintaining personal hygiene and keeping the surrounding environment clean; (iii) planning the family; (iv) care to be taken during pregnancy; (v) importance and benefits of breastfeeding; and (vi) the dangers of and the need to effectively tackle anaemia in the mother and child. Inputs were also given on the implications on child malnutrition of low BMI of the mother and LBW children, traditional practices based on superstition which affected the mother and child and the importance of a balanced, nutritious diet in daily life. The idea was to educate and inform the mother on how often and what she should feed the child and to develop in the mother the capacity to prepare nutritionally wholesome food for the child so that the child would not suffer a nutritional relapse on return to her home after the stay at the CDC. Stress was laid on the concurrent training in health, nutrition and hygiene practices of AWWs/AWSs/ANMs and all other field workers who would be counselling the mother and monitoring the health and nutrition status of the child in the six months following discharge from the CDC. The Mission was keen that they should develop the confidence that moderate and

severe malnutrition could be successfully tackled at the community and family level through the adoption of scientific nutrition and feeding practices. Practical demonstrations of the preparations of different recipes were organised at the CDC so that the mothers and the field workers could get hands-on training.

**Nutrition protocol**

An important component of the nutrition protocol was the emphasis on preparation of nutritious recipes at the CDC using the services of local self-help groups or locally hired women. Since the sustainability of the CDC approach depended on the successful use of local resources for preparing food, which could be adopted by mothers, using the services of contractors for providing food was strictly prohibited. The food was to be prepared in a hygienic environment with fresh food for each feed being given to the mothers for feeding the children. The focus was on use of local staple items for preparing food in a manner which would be tasty and attractive to children, with the addition of items like sugar, oil and condiments like ginger, garlic, cumin, etc. to the food. The material for preparation of the food and the utensils were to be provided by the head of the CDC (MO/child specialist/Civil Surgeon). The child was to be fed as much food as she wanted to take at one time. Although norms were prescribed for the amount of food that the child would normally be expected to eat at one time, it was emphasised that there should be no compulsion on the child to finish the prescribed amount of food at any one sitting. The food intake by a child at each point of time during a day was to be recorded by the ICDS/health functionary present. Addition of semi-solid pulses to the diet (preferably tur (arhar) dal or moong dal) was recommended as also leafy or other vegetables. These pulses and vegetables would form part of the food to be consumed by the child during the main feeds at 12 noon and 8 p.m. Suitable modifications could be made in the food combinations indicated in the nutrition protocol in consultation with the mothers, without, however, compromising on the daily calorie and protein requirements of the child. Recognising that the child might need food at odd hours of the day and night, recipes for prepared ready-to-eat items like rawa soya biscuits, soya laddoos, groundnut laddoos, etc. were also taught to the mothers. They were instructed to keep these food items in easily visible transparent jars so that the child could demand them as required (on their return home from the CDC). To enhance the protein content in the food prepared at home, special training was given in the CDC in the preparation of amylase-rich flour and soya enriched flour. Both these preparations involved the use of roasted and ground sprouted wheat and green moong, with the latter adding roasted and ground sprouted soya.

**Monitoring protocol**

A major problem in the treatment of severely malnourished children in medical facilities had been the absence of subsequent follow up once the child returned home. It was not uncommon to see cases where a child who had registered improvement in nutritional status during the stay in a medical facility regressed on return to her natural environment to a point where death resulted. To increase the effectiveness of the CDC and ensure sustainable improvement in the health and nutrition status of the child, the Mission devised a rigorous monitoring protocol. A medical case record of each child admitted to the CDC was to be maintained with details of the child and her family and her entire medical and nutrition history. The health treatment and the nutrition given to each child were to be recorded. The weight of each child in the CDC was also to be recorded every morning on an electronic weighing machine. Progress was deemed to be satisfactory or otherwise according to the following yardsticks:

- Weight gain > 10 gms. per kg. per day (**good**) – nutrition and health treatment progressing in the right direction
- Weight gain between 5 to 10 gms. per kg. per day (**average**) – assess whether nutrition intake adequate and/or whether any infection requires to be treated
- Weight gain < 5 gms. per kg. per day (**poor**) – review completely the health and nutrition needs of the child (in particular existence of any disease requiring treatment or any congenital problems)

The monitoring protocol involved a reporting system covering both the CDC-stay period and the 26 weeks following the return home of the child. The CDPO/THO was to report the daily weight of each child during her stay in the CDC to the Deputy CEO (CW)/DHO, who in turn were expected to send a daily email listing the weights of all the children on the following day to the Mission. Similarly, after the return home of the child, the CDPO/THO was to forward the weekly/fortnightly weights of the children to the Deputy CEO/DHO who would then forward these by the next day to the Mission by email. A follow-up card was given for each child to be maintained in the 26 weeks after the return

home from the CDC. The medicines and diet given to the child at home and the weekly weight of the child were to be recorded. This responsibility was cast on the AWW, AWS and the ANM, who were to keep this information. They were expected to monitor the nutrition and the growth of the child in the 26 weeks at home following the stay at the CDC.

What made the CDC innovation unique was the close coordination maintained between the ICDS and health teams, without which the CDC could not have been run successfully. While the MO was the overall in charge of the CDC, the AWS as the co-leader of the CDC team was to oversee the facilities at the CDC, including the hygiene and cooking arrangements. The CDPO and the AWS were to ensure that all Grade-III & IV children were admitted to the CDC, for which purpose they were to liaise with and persuade the senior family members of the child. The AWS was to monitor the nutrition of the child at the CDC (with the assistance of the AWW/ANM) and record the daily consumption of each child. She was to record the daily weight of each child and report to the MO/THO/CDPO all cases where the child was not taking the prescribed quantum of food or where the child registered a weight increase of less than 5 gms. per kg. per day. Most importantly, the AWS was to ensure that mothers received training in how to prepare nutritious food and feed the child on her return home. The AWWs working under the supervision of the AWS were also to receive similar training, so that they could effectively counsel the mothers on their return home.

The MO was the lynchpin of the CDC and its success depended crucially on her initiative and commitment. She was to coordinate the admission of children to the CDC, with the assistance of the AWW/AWS/ANM. She had to ensure that all arrangements for the stay of the mothers and children were made in the PHC, including provision of medicines and foodstuffs. She was to commence the operation of the CDC only after ensuring that necessary funds were made available from the different sources. She was to assign specific duties to the AWSs/ANMs and other health workers in implementing the health and nutrition protocols. Monitoring the status of the children and initiating corrective action where the child was not taking food in the required proportions or was not showing the expected weight gain was the primary responsibility of the MO, who would then need to refer the child to the RH/district hospital for further medical attention.

The THO and CDPO were to function as the link between the operational level (the CDC) and the managerial level (the district), apart from playing a supervisory and coordinating role. While monitoring the provision of all services in the CDC that were part of the health and nutrition protocol and ensuring that necessary funds were made available for running the CDC, these two functionaries were also charged with the duty of communicating the daily progress of each child in the CDC to their superiors at the district level.

Where the CDC procedure involved a marked departure from the existing practice of treating severely malnourished children was in the post-CDC follow up and monitoring of children who were discharged from the CDCs subsequent to their return to their homes. The Mission recognised that for sustainable changes in the health and nutrition status of children, the good practices inculcated during the stay in the CDC needed to be continued in the home atmosphere of the child. In particular, the nutrition pattern followed in the CDC was to be followed at home, both in terms of the nutrition components as well as the frequency of feeding (at least 6 feeds a day). The training that the AWS/AWW/ANM had received was intended to equip them to act as effective counsellors to the mother and the family in improving the nutrition and health status of the child. Regular home visits in the 26 weeks following the discharge from the CDC were intended to ensure that the child was receiving the appropriate nutrition and medicines essential for improving her nutrition status. Monitoring of the weekly and fortnightly weights of the child would indicate whether the post-CDC progress of the child was on track or whether there was need for any further reference to a medical facility. Where the family was not able to provide the necessary food items and medicines to the child on account of poverty, the CDPO/AWS and their superiors in the ZP were to access additional funds from the NRHM, RCH-II Flexipool, RKS, 20% local government cess funds for social welfare, 10% local government cess funds for women and child development, etc. for meeting expenses on these items.

**CDC outcomes**

An analysis of the numbers of children who were discharged from the CDC throws interesting light on the different results obtained depending on whether the IAP or WHO growth standards were adopted for determining the status of children who needed to be admitted to the CDCs and their subsequent progress, from the time of discharge from the CDC and covering the following six months. As **Table 2** below brings out, not all children in Grade III stage of malnutrition as per the IAP guidelines necessarily came within the definition of moderately (between minus 2 and minus 3 SD) and severely (<-3SD) underweight children when assessed according to the WHO

specifications. Conversely, there could well be children even in Grades II & I who can be termed moderately or severely malnourished in line with the WHO definitions. This aspect will be dealt with in greater detail in the next section which discusses the adoption of the new WHO growth standards and its implications for the effective management of severe and moderate malnutrition in the context of budgetary constraints.

**TABLE2: CDC PERFORMANCE (32 DISTRICTS, 1503 CDCs)**

| Growth standards | Category | Admissions | Discharged | Upgradation (nos.) | Upgradation (%) |
|---|---|---|---|---|---|
| IAP | Grade III | 9030 | 8146 | 2985 | 37 |
| | Grade IV | 2052 | 1662 | 875 | 53 |
| | Total | 11082 | 9808 | 3864 | 39 |
| WHO | MAM | 3883 | 3443 | 2201 | 64 |
| | SAM | 6048 | 5373 | 3020 | 56 |
| | Total | 9931 | 8816 | 5221 | 59 |

**Source: Rajmata Jijau Mission (June 2010)**

In the 21 days at the CDC, 39% of the discharged children showed an upgradation in their nutrition status to the next higher level based on IAP norms; the upgradation performance was even better as per the WHO norms, with 59% of the discharged children showing enhancement in their nutrition status. What was more heartening was the nutrition status improvement registered by the discharged children in the six months after discharge.

**TABLE3: PERCENTAGE NUTRITION STATUS IMPROVEMENT IN THE SIX MONTHS AFTER DISCHARGE FROM CDC**

| Growth standards | Category | Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 |
|---|---|---|---|---|---|---|---|
| IAP | Grade III | 38 | 41 | 44 | 46 | 47 | 51 |
| | Grade IV | 57 | 61 | 63 | 65 | 64 | 68 |
| | Total | 41 | 44 | 47 | 49 | 50 | 54 |
| WHO | MAM | 63 | 70 | 74 | 77 | 78 | 80 |
| | SAM | 59 | 64 | 68 | 70 | 71 | 73 |
| | Total | 60 | 66 | 70 | 73 | 74 | 76 |

**Source: Rajmata Jijau Mission (June 2010)**

A discouraging feature of earlier efforts to tackle severe malnutrition at the medical facility level had been the relapse in the nutrition status of the child once she returned home after receiving medical attention. A major reason for this had been the inadequate emphasis on improving nutrition and caregiving practices at home. The stress in the CDC on educating the mother paid off as revealed by the data in **Table 3**. Both by IAP and WHO norms, the improvements registered by the children were impressive, showing no diminution even after the lapse of many months after discharge from the CDC: if anything, the nutrition status improvement percentage showed an upward trend over time.

Rigorous monitoring of the nutrition status of the child as reflected in weight change was facilitated by the development of a software programme to keep track of the child's progress at the CDC and subsequently on return home. The software was developed by M/s Soft-Info Services, a software company based in Aurangabad, which had won the bid to develop and run the software in association with the Mission. Based on the inputs provided by the Mission, a robust online system was put in place which allowed for functionaries at the field level to directly input the regular weight data of each child, thus enabling real-time monitoring of the child's progress.

## CDC VIGNETTES FROM ACROSS MAHARASHTRA

**Mothers feeding children at the CDC**

**Weighing the child accurately**

**Teaching healthy nutrition practices**

**Ready to eat snacks for the child**

**Essential medicines**


**The daily schedule**


**Team work – the key to success**

**<u>From CDCs to VCDCs – implications of the new WHO growth standards</u>**

The CDCs run in 2007 and 2008 had based admission of children on the IAP growth standards – Grade-III & IV children were considered for admission. At any point of time, the ICDS data for Maharashtra indicated that the maximum number of children who fell in this category was less than 15000: in fact, the numbers of Grade-III & IV children fell to below 10000 as the CDCs were implemented throughout Maharashtra. Even at a cost of Rs. 3500 per child, taking into account lost wages to the mother, diet charges and other expenses incurred on running the CDCs, the cost would have amounted to only Rs. 35 million. However, the picture changed with the introduction of the new

WHO growth standards, which were formally adopted by the Government of India on 15 August 2008. To get an idea of the implications of this change in norms, a brief discussion of the WHO norms is in order.

The ICDS was using the IAP standards based on the Harvard Unisex standards derived from formula-fed infants for assessing the nutritional status of under-5 children. The WHO standards involve a significant departure in that (a) there are different growth standards for girls and boys; and (b) they are based on the growth patterns of breastfed infants in six countries, including India. What is of particular relevance is the extent of correlation between the child growth patterns between 0 and 60 months in the IAP and WHO standards. Analysis of child weight according to the two standards (carried out by the Mission in select areas of different districts) reveals that a significant proportion of under-5 children who would have been classified as Grade-II in the IAP classification come below the -3SD level in the WHO standards. As such, if severe malnutrition (based on underweight) is taken as the yardstick for CDC admission, the numbers of children qualifying for CDC admission would expand dramatically once the WHO standards were adopted. This conclusion is borne out if we compare the ICDS MPRs from May 2010 to July 2010 (**Table 4** below). The Grade-II percentage (IAP) is fairly close to the percentage of severe malnutrition as per the WHO norms, which implies that a very substantial number of children in Grade-II stage of malnutrition fall in the severe malnutrition category. **Table 5** also bears out the same conclusion as the ICDS MPR data. This data from the 32 VCDCs in Vaijapur taluka, Aurangabad district shows the nutritional status of the under-5 children in the VCDCs. As many as 90 of the 117 children falling in the -3SD (underweight) category as per the WHO guidelines would have been in the Grade-II category according to the IAP norms.

**TABLE 4: A COMPARATIVE ASSESSMENT OF ICDS MPRs BASED ON IAP AND WHO STANDARDS (MAY TO JULY 2010)**

| | | Month | | | | | |
|---|---|---|---|---|---|---|---|
| | | May 2010 | | June 2010 | | July 2010 | |
| Standard | Category | Absolute | Percentage | Absolute | Percentage | Absolute | Percentage |
| IAP | Normal | 4736960 | 63.17 | | | | |
| | Grade-I | 2330811 | 31.08 | | | | |
| | Grade-II | 420844 | 5.61 | | | | |
| | Grade-III+IV | 9977 | 0.13 | | | | |
| WHO | Normal | | | 3754767 | 69.83 | 4795551 | 71.68 |
| | Moderate | | | 1354474 | 25.19 | 1579056 | 23.60 |
| | Severe | | | 267814 | 4.98 | 315373 | 4.71 |

**Source: ICDS MPRs May-July 2010, www.icds.gov.in**

**TABLE 5: IAP AND WHO STANDARDS COMPARISON – VCDCs IN VAIJAPUR TALUKA, AURANGABAD DISTRICT**

| Standard | WHO (Underweight) | | | | |
|---|---|---|---|---|---|
| | Nutritional status | Normal | Moderate | Severe | Total |
| IAP (Underweight) | | **27** | **74** | **117** | **218** |
| | Normal | 19 | 0 | 0 | 19 |
| | Grade-I | 8 | 44 | 1* | 53 |
| | Grade-II | 0 | 30 | 90 | 120 |
| | Grade-III | 0 | 0 | 24 | 24 |
| | Grade-IV | 0 | 0 | 2 | 2 |
| WHO (Wasting) | Normal | 9 | 19 | 15 | 43 |
| | Moderate | 14 | 48 | 72 | 134 |
| | Severe | 4 | 7 | 30 | 41 |
| WHO (Stunting) | Normal | 27 | 40 | 8 | 75 |
| | Moderate | 0 | 25 | 37 | 62 |
| | Severe | 0 | 9 | 72 | 81 |

**Source: Rajmata Jijau Mission (2007-2010 data analysis)**

**: That a child in the Grade-I stage of malnutrition as per the IAP standards is classified as severely underweight under the new WHO standard is an indication of the variation between the two standards in underweight*

*classification. While a detailed discussion on the comparison between these two standards is not possible here, it does point to the need to exercise caution in drawing facile, hasty conclusions about the increase in malnutrition numbers under the WHO standard. Essentially, what has happened is that five categories of nutrition classification under the IAP standard have been compressed to three categories under the new WHO standard. To draw from a railway coach analogy, it is as if passengers in five coaches have been re-accommodated in three coaches. Obviously, there are more passengers in each coach, but the status of the passenger does not change as a result. Similarly, the change in the numbers of severely underweight children has implications for policy interventions, but does not imply any change in their objective nutrition and health conditions.*

The cost per child admitted to the CDC for a 21 day period amounted to Rs. 3500. When Grade-III & IV children were to be admitted to the CDC, the total cost for 10000 children in Grades III & IV (the approximate number shown from month to month in the MPRs) would amount to roughly Rs. 35 million. If the criteria were to be modified to include all children falling in the severe malnutrition (underweight) category, the expenditure on CDCs would have risen by a factor of 30 to about Rs. 1050 million. Not only would the expenditure have been prohibitive, the logistics of organising CDCs for over 3 lakh children would have been almost impossible. The Mission recognised that a significant number of children in the severe malnutrition (underweight) category did not need inpatient treatment in a medical facility: only those children exhibiting symptoms of severe wasting and suffering from illnesses required to be admitted to CDCs. Furthermore, there was need to reach out to children in the category of moderate underweight malnutrition to improve their nutrition status without their needing to be admitted to a CDC. With the switch from the IAP to the WHO standards, the Mission was of the view that a new arrangement was needed to take care of the children in the MAM and SAM categories. Thus was born the novel concept of the VCDC.

The VCDC represented a community-based effort to improve nutritional status in the rural areas of the state. It had the advantage of not requiring the mother and child to leave the familiar environment of their village while benefiting from nutrition and health care. This not only added to the acceptability of the innovation, it also meant that there were significant cost savings in operating a VCDC. The VCDC could be run at a cost of about 25% of the CDC and imposed no major logistic issues. Like the CDC, the VCDC also aimed at a centralised focus on improving the access to nutrition and health care for the child, while exposing the mother to good nutrition, health and hygiene practices imparted to her during the operation of the VCDC. With the AWC as the location for the VCDC, the mother could attend to her daily duties (including taking up wage employment) while also attending the AWC for information on child care. The mother and child benefited from both an institutional (AWC) and a home setting, since the child would spend six hours in two sessions at the AWC over a 30-day period while the mother and child continued to live at their home.

The basis for enrolling a child in the VCDC was the nutrition status as reflected by the wasting parameter, i.e., weight in relation to height. The height/length of children and their weight was to be recorded and those children falling in the MAM or SAM category as per the wasting criteria were eligible for attending the VCDC. The priority for admission to the VCDC was:

i. Children between 6 months and 6 years in the severe (<-3SD) wasting (SAM) category;
ii. Children between 6 months and 6 years in the MAM (<-2SD and >-3SD) category whose weight-height parameters are on/near the borderline between MAM and SAM.

(Children suffering from serious illnesses or congenital problems were not to be enrolled in the VCDCs).

Detailed instructions for running VCDCs and CDCs were given in the GR issued by the DWCD on 1 January 2010. What was particularly noteworthy about this GR was that it was issued under the joint signatures of the Family Welfare Commissioner and Secretary, Public Health and the Secretary, DWCD, an affirmation at the highest level of the bureaucracy that the ICDS and public health departments had the joint responsibility to successfully tackle moderate and severe malnutrition through the mechanisms of the CDCs and VCDCs. While the instructions relating to the running of the CDCs were largely a reiteration of the instructions issued earlier by the Public Health Department, the GR laid out a graded approach to tackling MAM and SAM that moved from the VCDCs at the village level through the PHC, RH and district hospitals to treatment at the medical college/super-speciality hospitals. Only in cases of children under 6 months who were in the SAM category and under-6 children with congenital ailments/severe illnesses was an exception made: they were to be directly referred to an appropriate medical facility for treatment.

The VCDC was intended to be the first point for tackling MAM and SAM. It was to be funded from the RCH-II programme. An allocation of Rs. 30 per child per day (later enhanced to Rs. 32 per child per day) was made – for a

30-day VCDC for 15 children, the total expenditure came to Rs. 14800. The basis for enrolling children in the VCDC and the funding norms indicated in the GR of 1 January 2010 were revised somewhat in the GR dated 17 September 2010.

**TABLE 6: BREAKUP OF COST PER CHILD PER DAY**

| Item | Cost per child per day (Rs.) |
|---|---|
| Food thrice a day | 16 |
| Medicines – to be taken from PHC wherever possible | 8 |
| Increased honorarium to AWW/AWH, labour and fuel cost of food preparation | 8 |
| **TOTAL** | 32 |
| One-time expenditure on AWC repairs and other essential material (consolidated) | 400 |

**Source: GR No. ICD 2009/CN 181/D-5 of DWCD dated 17 September 2010**

As in the case of the CDCs, a four-stage protocol was devised to ensure that the VCDCs were successfully implemented:

**Health protocol**

The MO of the PHC in which area the VCDC was being organised was to ensure that necessary funds were made available for the VCDC. He was to treat the children enrolled in the VCDC for any minor illnesses and keep a record of the treatment given. Deworming medicine and Vitamin A dose were to be administered to those children who had not received them in the past six months. Additionally, folic acid tablets and vitamin syrups as also antibiotics were to be given to those children suffering from infections. The MO was expected to visit the VCDC once a week. If a child did not show any increase in weight in one week, the MO was to examine the child for any infections and ascertain that the deworming dose had been given. Necessary medical tests (blood and urine) were to be carried out and the existence of serious illnesses/congenital ailments like tuberculosis, sickle cell anemia, etc. was to be ruled out. Where the MO was not able to able to establish the cause for lack of growth in the child, he was to refer the child to a child specialist at one of the superior medical facilities like the RH or the district hospital.

**Nutrition protocol**

The stress in the nutrition protocol was on the frequency of feeding, with feeding times spread at intervals of two hours over a 12-hour period between 8 a.m. and 8 p.m. (Table 7).

**TABLE 7: FEEDING SCHEDULE IN THE VCDC**

| Time | Energy (kcal) | Proteins (gms.) | Food item |
|---|---|---|---|
| 8 a.m. | 420 | 8 | Amylase-rich shira/upma/lapshi |
| 10 a.m. | SNP at AWC (prepared with addition of 5 ml oil) | | |
| 12 noon | SNP at AWC (prepared with addition of 5 ml oil) | | |
| 2 p.m. | Lunch at home | | |
| 4 p.m. | 100 | 4 | One boiled potato and one banana or one boiled egg and one banana |
| 6 p.m. | 420 | 8 | Amylase-rich shira/upma/lapshi |
| 8 p.m. | Dinner at home | | |
| DAILY INTAKE | 940 | 20 | |

**Source: VCDC Guidelines -- Rajmata Jijau Mission (2009-10)**

As **Table 7** shows, apart from the two regular feeds at the AWC and two feeds at home, the child was to be provided three more feeds designed to provide significant nutrition content. The contents of the feeds at 8 a.m. and 6 p.m. could be varied depending on the locally popular items, while ensuring that the energy and protein requirements were met.

**Training protocol**

ICDS and health personnel drawn from the MOs, THOs, CDPOs and ACDPOs were given training in running VCDCs in the first half of 2010. They were to in turn train the AWSs and the functionaries at the village level, the AWWs and AWHs, in how to manage the VCDCs. The importance of proper, timely growth of the child in the first

three years of life was one of the major components of the training imparted to the ICDS and health staff. It was necessary to sensitise mothers and other caregivers in the family on the significance of the growth in height, weight and head circumference in the first 36 months, given that 90% of mental development of the child occurred in this period. **Table 8** gives the expected normal height, weight and head circumference (for boys and girls) in the first five years of life.

**TABLE 8: GROWTH TABLE (WHO STANDARDS) – BIRTH TO FIVE YEARS**

| Boy | | | Age (completed months) | Girl | | |
|---|---|---|---|---|---|---|
| Head circumference (cms) | Height (cms) | Weight (kgs) | | Weight (kgs) | Height (cms) | Head circumference (cms) |
| 34.5 | 50 | 3.3 | At birth | 3.2 | 49 | 33.9 |
| 43.3 | 68 | 7.9 | 6 | 7.3 | 66 | 42.2 |
| 46.1 | 76 | 9.6 | 12 | 8.9 | 74 | 44.9 |
| 48.3 | 88 | 12.2 | 24 | 11.5 | 86 | 47.2 |
| 49.5 | 96 | 14.3 | 36 | 13.9 | 95 | 48.5 |
| 50.2 | 103 | 16.3 | 48 | 16.1 | 103 | 49.3 |
| 50.7 | 110 | 18.3 | 60 | 18.2 | 109 | 49.9 |

**Source: WHO Growth Standards (2006)**

The implications of reduced development in the first three years in terms of physical growth, mental development, cognitive and social skills and their impact on educational attainments had to be understood not only by the village-level workers and their supervisory staff but also by family members responsible for bringing up the child. For achieving these growth levels, the importance of nutrition, health and hygiene measures had to be inculcated in the behavioural setup of families. As regards health measures, the measures of total immunisation, deworming and Vitamin A supplementation were to be emphasised. Handwashing, keeping the home environment clean and maintaining personal hygiene were also crucial messages to ensure freedom from contagious diseases.

But it was the education on proper feeding practices from birth upto three years that was the primary focus of the VCDC. Early and exclusive breastfeeding and commencement of complementary feeding from the seventh month (along with continued breastfeeding till two years) were the messages that needed to be repeatedly conveyed to families. It was imperative that traditional prejudices and practices that impacted on child growth in the first three years of life were tackled through effective IEC techniques. The feeding patterns adopted in the VCDCs were intended to bring home to families the importance of frequent feeding of the child. Given that the digestion capabilities of the small child were limited, feeds needed to be spaced out at two-hour intervals during the course of the day. While the child was to be given food similar to what the rest of the family ate, it was necessary to modify it somewhat to make it more palatable and digestible to the child. In particular, the tendency in families to feed the child watery soups and diluted food items had to be addressed to ensure that a nutrition deficit did not develop in the post-exclusive breastfeeding period. Families also had to be cautioned on the insidious impact of advertising and sales campaigns that promoted ready to eat foods like biscuits, chocolates, bread, etc. at the expense of natural foods like seasonal fruits, vegetables, eggs, milk, etc.

The Mission laid particular emphasis on the components that went to make a nutritious, balanced diet for the child. Addition of oil in preparing the food was aimed at increasing the energy content of the child's feed. To enhance the protein content, use of pulses and soya bean was advocated. The micronutrient component was addressed by recommending the inclusion of non-spicy cooked vegetables in the child's feed. Since the child was not likely to follow a fixed schedule (like adults) in consuming meals (apart from taking in smaller portions at any one sitting), the mission promoted the idea of a "Children's Corner" in the house. In this corner, items that could be consumed between meals by the child were to be stored in plastic jars kept at a convenient height where the child could access the foodstuffs. These items could include groundnut and sesame laddoos and soya bean-enhanced foods like chaklis, shev, chivda, etc. Whenever the child felt hungry, she could access items from this corner to assuage her hunger, thus ensuring access to nutrition as and when required even if the mother or other caregiver was not at home or readily available to meet the needs of the child. Such items could even be stored in the shirt, shorts or skirt pockets of the child so that the child could eat her fill as and when she wished.

**Monitoring protocol**

Monitoring the growth in length/height and weight of each child enrolled in the VCDC over the 30-day period was crucial to assessing the success of the VCDC. The AWW was to fill in the length/height and weight of the child in the appropriate proforma (on the 8th, 15th, 22nd and 30th days of the VCDC) with the assistance of the AWS and send these along with the expenditure report to the CDPO, who would in turn forward them to the Deputy CEO. Where the child did not show any weight gain over the first week, the AWW was to fill in the details of the food and medicines taken by the child so that the MO could take further action on referral of the child to a child specialist, if required. The CDPO and THO were to submit consolidated details of the improvement (or otherwise) in nutrition status of the children in the VCDC to their superior authorities. The Mission would use this consolidated information to assess the achievements of the VCDC conducted at any AWC.

**Upgradation of nutritional status in children enrolled in VCDCs**

Recognising that the training of ICDS and health personnel in conducting VCDCs would take time (the ToT programmes were organised between April and June 2010, since the staff was busy with year-end activities till March 2010), the Mission tapped the enthusiasm and innovative abilities of the staff in three districts (Pune, Beed and Nandurbar) to launch VCDC activities in the state. Not only would this provide an impetus to the initiative, the lessons from running the VCDCs in these districts would help in refining the VCDC operating procedures in other districts of the state. The results of the VCDCs in these three districts were heartening and showed a significant improvement in the nutrition status of children enrolled in the VCDCs. **Table 9** below brings out the upgradation in the MAM/SAM status of children in these VCDCs over the 30-day period.

**TABLE 9: UPGRADATION IN NUTRITION STATUS IN VCDCs**

| District | No. of VCDCs | Total Admission | | | Total upgradation | | | Per cent upgradation | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | MAM | SAM | Total | MAM | SAM | Total | MAM | SAM | Total |
| Beed | 19 | 143 | 47 | 190 | 71 | 29 | 100 | 50 | 62 | 53 |
| Pune | 16 | 108 | 22 | 130 | 84 | 18 | 102 | 78 | 82 | 78 |
| Nandurbar | 185 | 1018 | 703 | 1721 | 510 | 439 | 949 | 50 | 62 | 55 |
| **TOTAL** | 220 | 1269 | 772 | 2041 | 665 | 486 | 1151 | 52 | 63 | 56 |

**Source: Rajmata Jijau Mission (June 2010)**

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# VI. What the figures reveal: the importance of monitoring

In assessing the impact of the Mission's activities on the major goal of malnutrition reduction, it is necessary to analyse not only the reports based on the ICDS MPRs sent to the State and Central Governments but also the concurrent evaluations carried out by the Mission staff as well as by third parties trained and utilised for this purpose by the Mission. The latter was all the more necessary in view of the considerable scepticism with which claims by government departments of improvements in key social indicators are often received by the public.

In the initial months of its functioning, the Mission asked the five Phase-I districts to send separate monthly progress reports to the Mission, apart from the MPRs being sent by them to the ICDS Commissioner. Two problems were encountered with this exercise: the five districts felt overburdened with the task of sending two sets of data to the Mission and the ICDS Commissioner and, more importantly, there were often discrepancies in the two sets of data. The Mission realised that this could affect the credibility of the data and, therefore, decided to rely on the MPRs sent to the ICDS Commissioner (except for additional information like the number of children surveyed and registered at the AWC). Matters were greatly facilitated by the posting of the MPR data by the ICDS Commissioner on the website **www.icds.gov.in**.

The Mission accorded the greatest importance to the regular and thorough monitoring of key outcome indicators that showed whether the Mission's objectives were progressing in the right direction and in a satisfactory manner. Even at the time of the implementation of the Marathwada initiative, it was evident that performance could be ensured only if there was accountability for results. The prevailing ethos was to forward the MPRs (often put together in a perfunctory manner without any eye for consistency and accuracy) to the ICDS Commissioner. The MPRs were then sent to the State Government and the Government of India without any analysis. This meant that the wealth of raw data generated from month to month never served as a basis for assessing the performance of the ICDS programme in terms of key outcomes (such as the percentages of children in Grades III & IV). Nor was there any identification of the areas most vulnerable to under-6 child malnutrition which could have served to orient public policy more meaningfully to tackle the problem in the most critical ICDS project blocks. As mentioned earlier in this document, the Mission's first emphasis was on ensuring as complete a survey and registration of under-6 children in all rural and tribal ICDS blocks as possible, followed by weighing (on a monthly basis) of all children registered at the AWCs. Obviously, some children (from well-off families) might not avail of the services offered at the AWC. However, the effort was to ensure that all children from the disadvantaged sections of society and from families not able to ensure proper nutrition and health care for their children had access to the AWCs and were monitored on a monthly basis to promote their physical and mental growth.

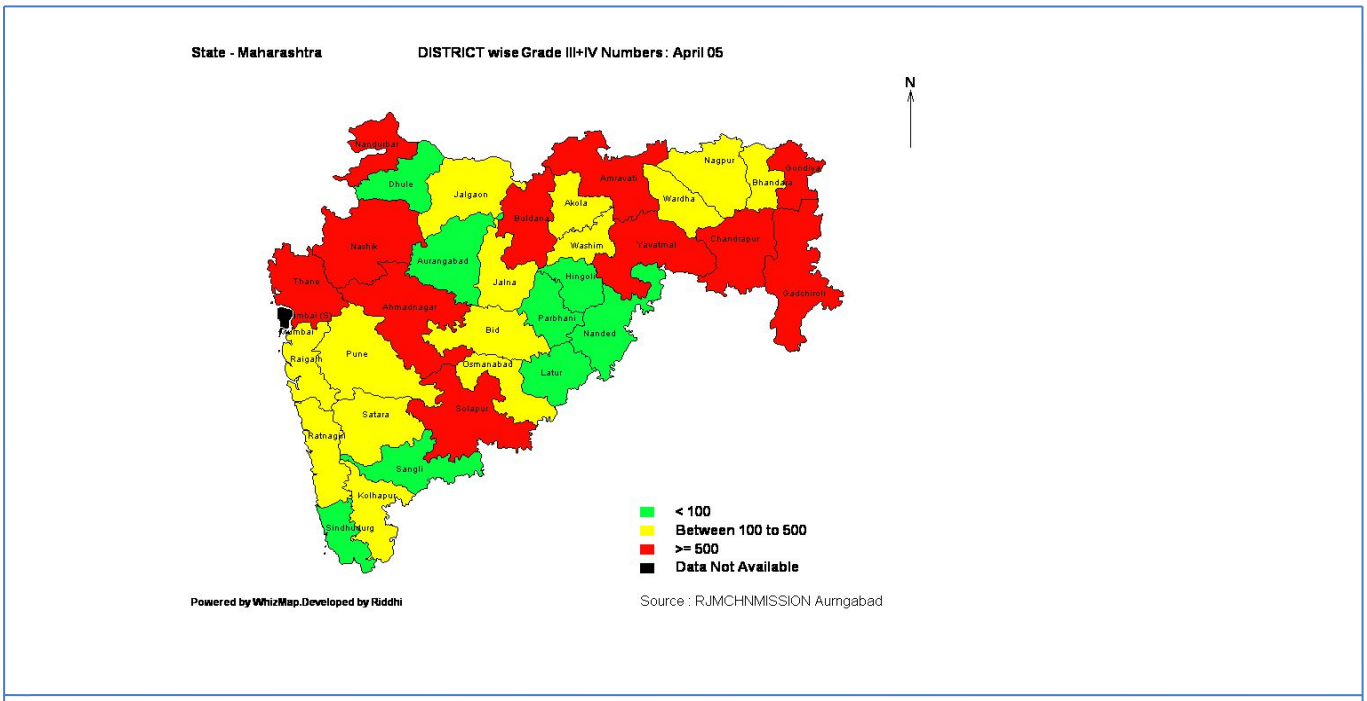
The Mission, therefore, focused on the following six process and outcome indicators to measure the progress in reducing under-6 child malnutrition:

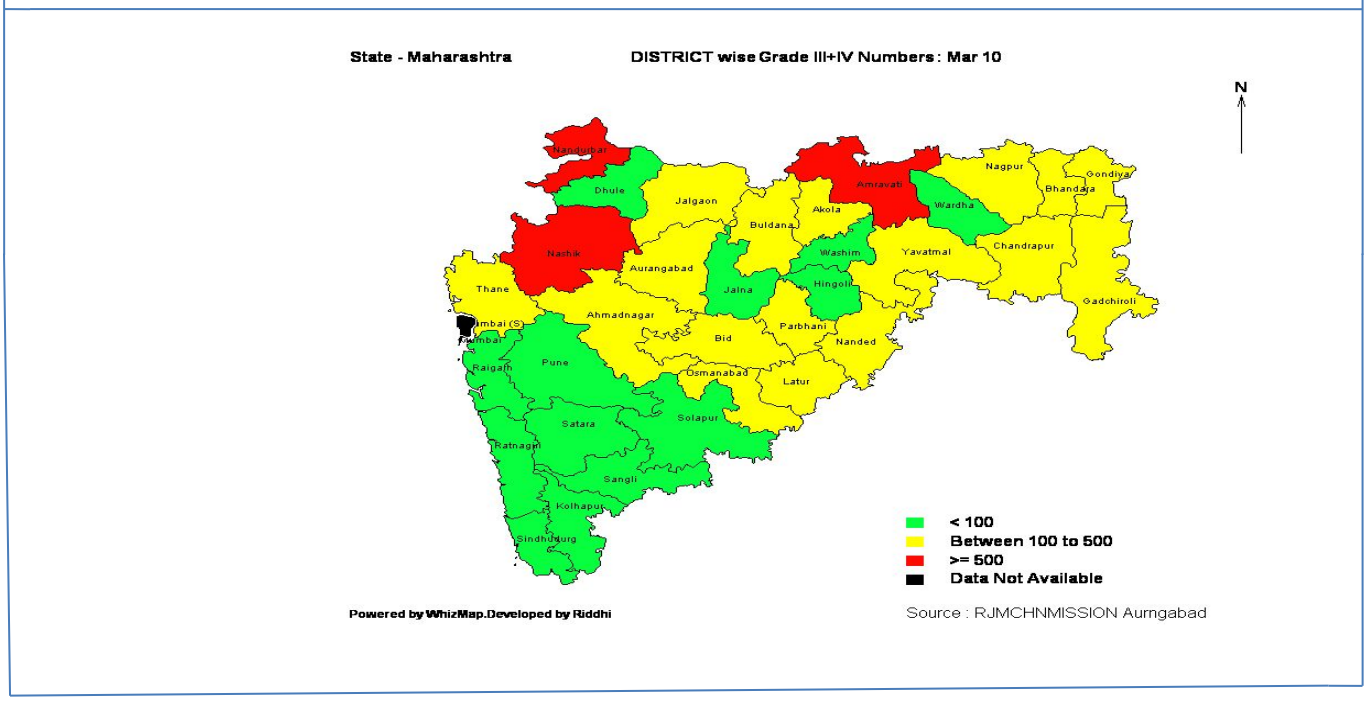
i. Survey efficiency: (no. of children registered at the AWC (*100)/no. of children expected to live in the AWC area as per the 2001 Census, adjusted for annual variations on account of population increase and permanent migration);
ii. Weighing efficiency: (no. of children weighed monthly at the AWC (*100)/no. of children registered at the AWC);
iii. Percentage of children showing normal growth in any month: (no. of children in normal range of nutrition as per IAP weight for age norms (*100)/no. of children weighed in that month at the AWC);
iv. Percentage of children in Grade-I stage of malnutrition: (no. of children in Grade-I stage of malnutrition in any month (*100)/ no. of children weighed in that month at the AWC);
v. Percentage of children in Grade-II stage of malnutrition: (no. of children in Grade-II stage of malnutrition in any month (*100)/ no. of children weighed in that month at the AWC);
vi. Percentage of children in Grades-III & IV stages of malnutrition: (no. of children in Grades-III & IV stages of malnutrition in any month (*100)/ no. of children weighed in that month at the AWC).

Right from April 2005 onwards, the Mission obtained information on these indicators from all districts and, after analysis, compiled a division and district-wise ranking in the state to highlight the performance of different districts with regard to each of these indicators. The ranking was given in a tabular form; the Mission also showed (on a map of Maharashtra) the nutrition status in a district in terms of whether it was better than the state average, below the state average or far below the state average. Green, yellow and red colours respectively were used to depict these

three levels of nutrition status. The colouring scheme had the advantage of being visually striking and driving the message home vividly. In particular, it had great impact in high-level meetings of the three Committees set up under the Mission GR of 11 March 2005, where the performance of different districts had to be conveyed to the top policy-makers in a relatively short time duration. The cartographic depiction also had the advantage of capturing the position in respect of any process or outcome indicator at different points of time: the three-colour scheme showed clearly the districts which lagged behind the state. **Box 5** below shows the comparative position of severe malnutrition in the various districts as of April 2005 and March 2007.

**BOX 5: TIMESERIES COMPARISON OF SEVERE MALNUTRITION IN DISTRICTS OF MAHARASHTRA**



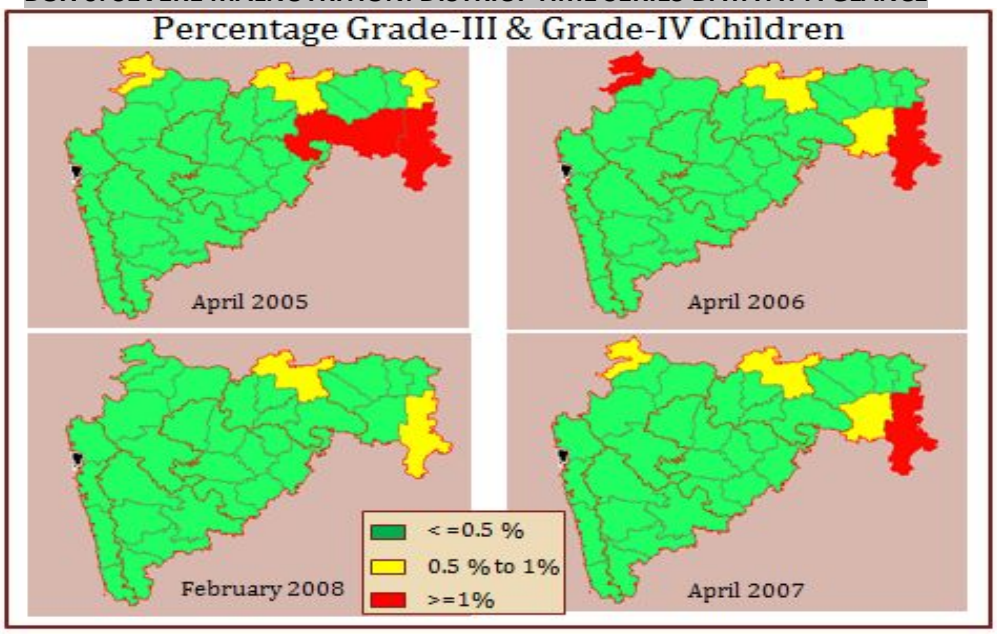




For the first time, important process and outcome indicators were analysed on a regular, monthly basis and the findings were conveyed to various levels in the Government of Maharashtra. A monthly report ranking the different

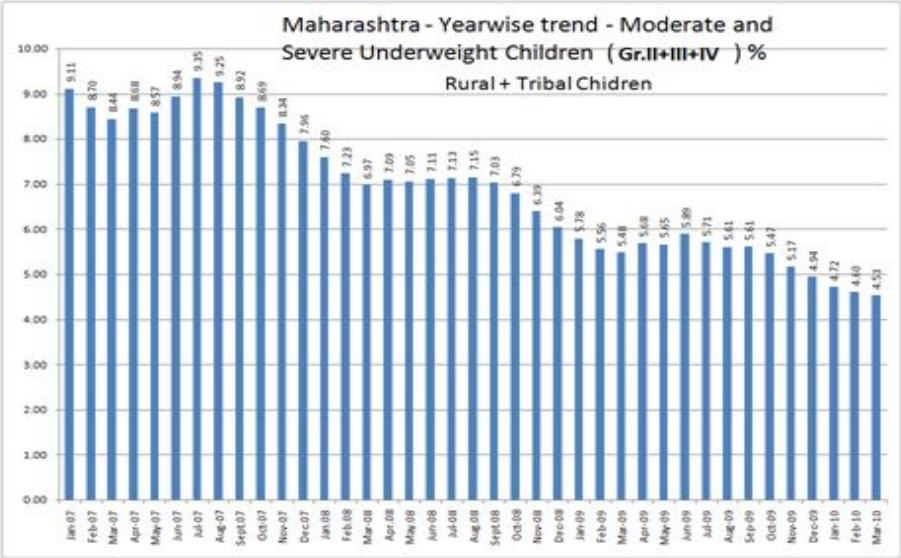
districts on the basis of the indicators was sent under the signature of the DG of the Mission to the offices of the Chief Minister, Deputy Chief Minister, Minister (WCD), Chief Secretary and all other Ministers and Secretaries who were members of the three Committees created under the 11 March 2005 GR. Copies of the report were also sent to the field offices of the different concerned departments, the Divisional Commissioners, District Collectors and CEOs of ZPs. With the MPRs of the ICDS being posted on the web within a month or two, it was possible for the Mission to provide analysed reports within a reasonably quick time frame, so that corrective action could be initiated, as indicated by the Mission in its reports. The monthly rankings were also uploaded on the Mission's website **www.nutritionmission.in** so that the public could have ready access to the indicators.

The Mission recognized that accountability could be enforced only through a rigorous system of regular reporting and ongoing analysis of monthly data of the ICDS. Over a period of time, the Mission, with the help of their Technical Support Institution, Riddhi Management Services started developing a proper MIS system with a GIS backbone to support the Management Information (nutritional status) needs of the Mission. In May 2008, a system was developed to spatially analyse the district and block level nutrition data of Maharashtra State. Time series data from 1998, for every month, was ported in the system to understand the progress in nutritional status over time as well as the seasonal variation in malnutrition in different districts and blocks of the State (**Boxes 6 & 7**).

**BOX 6: SEVERE MALNUTRITION: DISTRICT TIME SERIES DATA AT A GLANCE**

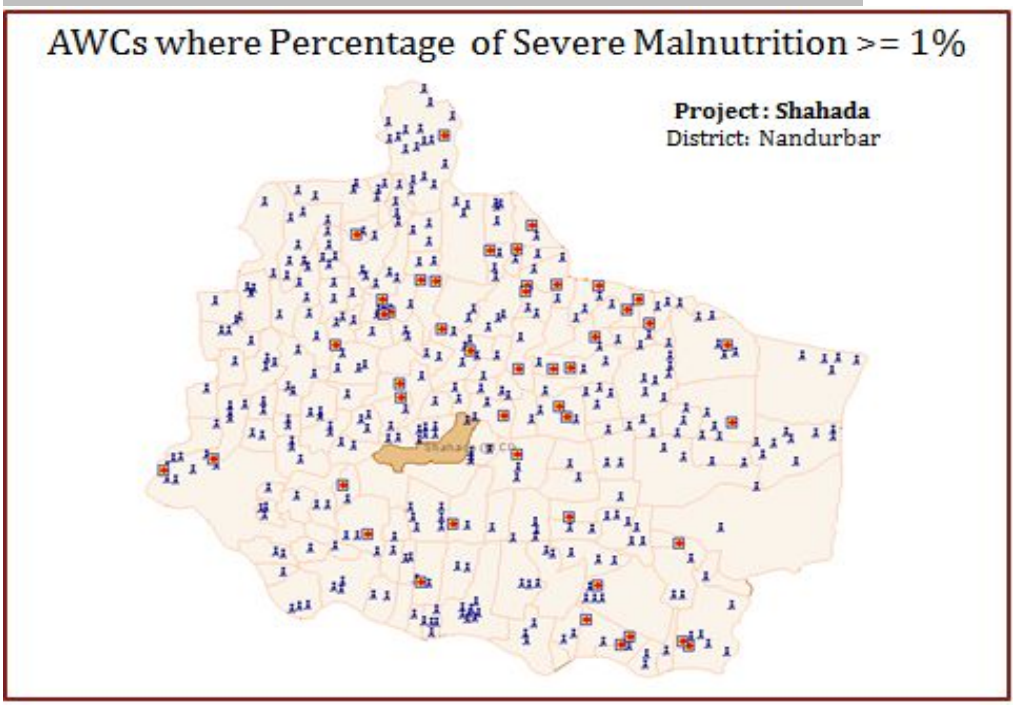


**BOX 7: UNDER-6 CHILD MALNUTRITION: YEARWISE TREND & SEASONAL VARIATIONS (January 2007-March 2010)**

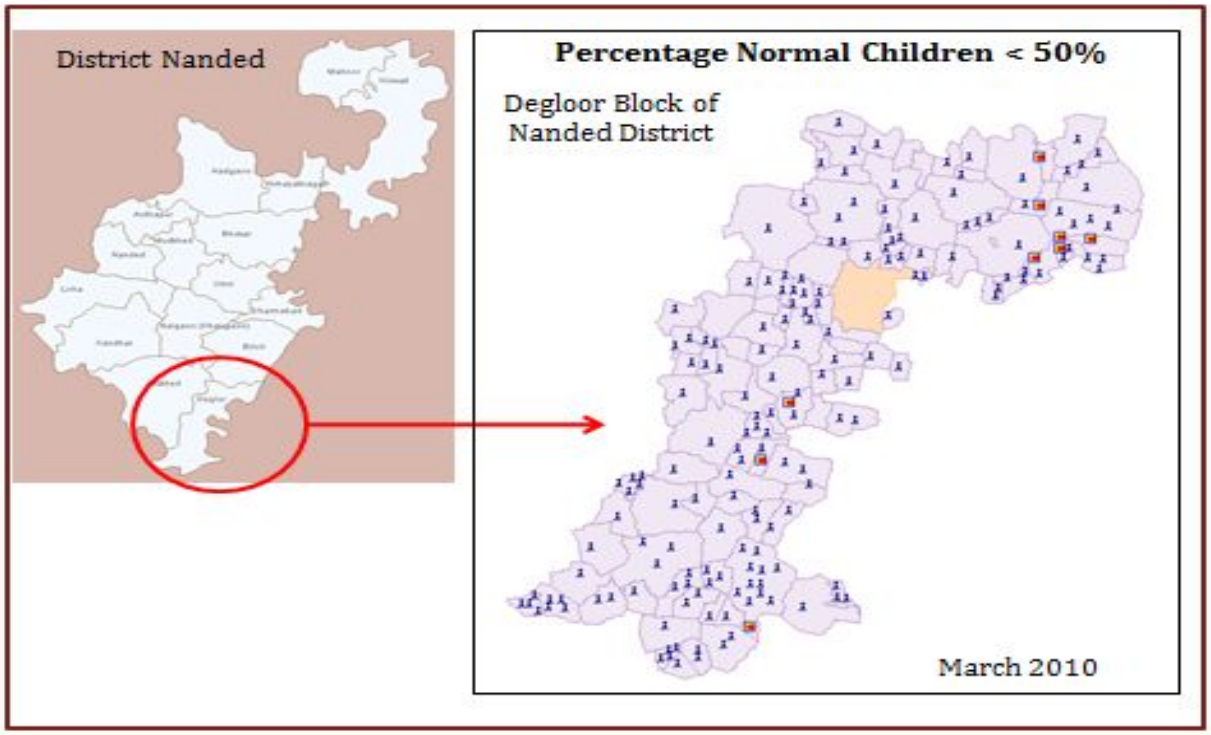



In September 2008, the Mission tried out a similar system to focus on each AWC of Nandurbar district with selected data. The purpose of this exercise was to understand whether it was feasible to develop such a system and implement it in the field. It was felt that, if successful, the system can bring a sea change in capturing of disaggregated data and its management, thereby helping the State to focus on individual children. **Boxes 8 & 9** show how tracking can move to individual AWCs in different districts.

**BOX 8: TRACKING AWCs WITH HIGH RATES OF SEVERE MALNUTRITION**



**BOX 9: DRILLING DOWN FROM DISTRICT TO AWC**




The Mission successfully implemented the system after imparting training to the block functionaries of the ICDS. The Mission, at this juncture, decided to progressively scale-up the system throughout the State. They also included newer features in the system. Till May, 2010, 10 districts of Maharashtra had been covered after imparting training to ICDS functionaries, who had started porting and analysing data. This would enable every AWC in an ICDS project to be traced and the status of every child in that AWC to be tracked.

The analysis of data over the five year period by the Mission throws up some interesting observations. For one, it reveals that the figures of Grade-III + IV malnutrition for the months of June and July in any year are greater than for the figures in April of that year. This can be explained in terms of the fact that the onset of the monsoon in June leads to an increase in waterborne diseases and also impacts adversely on the access to medical services because of disruptions in physical communications, both of which lead to increase in the severity of under-6 child malnutrition, as measured in terms of weight for age. No clear trends are discernible in the figures for Grade-II malnutrition, which are either constant or show a slight decline in certain years. The total number of children weighed shows some variation over the years: this may reflect either varying migration trends in different years or less reporting of children weighed in some years. **Table 10** gives the comparative figures for the various levels of nutrition status for April and September between 2005 and 2010.

**TABLE 10: MALNUTRITION STATISTICS (APRIL 2005 TO APRIL 2010)**

| Month | Apr-05 | Sep-05 | Apr-07 | Sep-07 | Apr-09 | Sep-09 | Apr-10 |
|---|---|---|---|---|---|---|---|
| Nutrition Status | | | | | | | |
| Normal | 3050553 | 3158871 | 3677481 | 3599407 | 4076125 | 4017552 | 4127405 |
| Normal (%) | 48.44 | 48.93 | 54.56 | 54.26 | 61.73 | 62.02 | 64.52 |
| Grade-I | 2406524 | 2492261 | 2477843 | 2442794 | 2151527 | 2097139 | 1965278 |
| Grade-I (%) | 38.21 | 38.6 | 36.76 | 36.82 | 32.58 | 32.37 | 30.72 |
| Grade-II | 823131 | 784702 | 570712 | 574173 | 367185 | 352769 | 297280 |
| Grade-II (%) | 13.07 | 12.15 | 8.47 | 8.66 | 5.56 | 5.45 | 4.65 |
| Grade-III+IV | 17672 | 20384 | 14493 | 17540 | 8027 | 10592 | 7522 |
| Grade-III+IV (%) | 0.28 | 0.32 | 0.22 | 0.26 | 0.12 | 0.16 | 0.12 |
| Total weighed | 6297880 | 6456218 | 6740529 | 6633914 | 6602864 | 6478052 | 6397485 |

**Source: MPRs, www.icds.gov.in**

The two trends that indicate an improvement in the nutritional status of children over the five year period are the significant increase in the numbers of children in the normal weight for age category and the equally significant decrease in the numbers of severely malnourished children. The reduction in the number of children in the Grade-II category indicates an improvement in the moderate malnutrition status as well. Taken in conjunction with the decrease in both Grade-III+IV and Grade-I figures, this means that a large number of children have moved from the severe and moderate malnutrition category to the mild malnutrition and normal category. At the same time, the percentage decreases in the children in the Grade-I category suggest that a number of children in Grade-I (mild) stage of malnutrition have moved into the normal category. While the increase in percentage of children in the normal category and the decrease in percentage of children in Grade-II category were visible from 2005 onwards, with gradual changes in the succeeding months and years after the Mission commenced operations, the decline in percentage of children in the severe malnutrition (Grades III & IV) category showed a clear decline from the latter half of 2007, possibly a consequence of the CDCs taken up all over the rural areas of the state, with over 11000 children in Grades III & IV being admitted to the CDCs.

The Mission had as its primary objective the reduction of Grade-III & IV malnutrition in the state. Viewed from this perspective, the data shows that the problem of severe malnutrition was more concentrated in specific districts. Table 11 compares the percentage of severe (Grade-III+IV) malnutrition in the districts registering the highest values over the five-year period. Four of the five districts in Phase-I of the Mission's action plan had over 0.50% of severely malnourished children (as a proportion of total children weighed). However, the aggregate for the districts hid the severity of the problem in select pockets in those districts. Thus, Dharni and Chikaldhara, the two tribal blocks in Amravati district recorded severe malnutrition percentages of 1.77% and 1.58% as compared to the overall district average of 0.80% for April 2005. Mokhada ICDS project block registered 2.77% of severely malnourished children in April 2005 as against the Thane district average of 0.54%. Dhadgaon & Akkalkuwa ICDS project blocks in Nandurbar district had 2.32% and 1.09% severely malnourished children in April 2005 as against the district average of 0.98%. In fact, the percentage of severely malnourished children in Nasik district, which was one of the five Phase-I districts, rarely crossed 0.25% in any of the months from April 2005 onwards. This was because the huge size of the district and the better outcome indicators in the prosperous ICDS blocks tended to hide the performance in the disadvantaged tribal ICDS blocks, such as Surgana, Peint & Igatpuri. Realising that the focus on a district was likely to lead to less attention being paid to the more severely affected blocks in those districts, the Mission focused in 2006 on the 75 worst affected ICDS project blocks (in terms of percentage of severely malnourished children). The intention was to apprise policy makers at the highest levels of the government of the severity of the problem in specific areas of the state, so that policy (and funds) could be oriented towards those areas. It was also intended to focus the attention of officials at the district level and below on these areas and thereby improve the quality of implementation as well as supervision of programmes in these pockets.

**TABLE 11: COMPARISON OF SEVERE MALNUTRITION (%) IN MOST AFFECTED DISTRICTS**

| Month | Apr-05 | Sep-05 | Apr-07 | Sep-07 | Apr-09 | Sep-09 | Apr-10 |
|---|---|---|---|---|---|---|---|
| District | | | | | | | |
| Amravati | 0.8 | 1.09 | 0.82 | 1.12 | 0.51 | 0.81 | 0.62 |
| Chandrapur | 1.06 | 1.02 | 0.74 | 0.65 | 0.19 | 0.2 | 0.08 |
| Gadchiroli | 1.21 | 1.58 | 1.11 | 1.2 | 0.49 | 0.54 | 0.45 |
| Gondia | 0.66 | 0.66 | 0.4 | 0.41 | 0.19 | 0.21 | 0.18 |
| Nandurbar | 0.98 | 1.41 | 0.68 | 0.79 | 0.4 | 1.12 | 0.53 |
| Thane | 0.54 | 0.48 | 0.18 | 0.2 | 0.05 | 0.05 | 0.03 |
| Yavatmal | 1.1 | 0.99 | 0.55 | 0.6 | 0.15 | 0.28 | 0.13 |

**Source: MPRs, www.icds.gov.in**

**Analysing data: some caveats**

The figures of children in the different categories of malnutrition show improvement over the five year period of the Mission, although it would not be easy to quantify the extent to which the Mission's interventions contributed to the reduction in moderate and severe malnutrition and the increase in numbers of children in the normal category. However, it is always necessary in the public sphere to subject information to close scrutiny; this is

all the more desirable since the data comes in from multiple locations and the accuracy of the data cannot be easily verified. One of the observations of the Mission was that there was a tendency for the field machinery to overstate achievement and underreport severe malnutrition since this reflected poorly on their performance. It was also a fact that data analysis received limited attention at various levels of the government, whether at the immediate supervisory or at the more remote policy-making levels. This enabled various field-level formations to send data which was not checked at any stage for consistency or accuracy. Also, the delay in transmission of data (at least a month or more, often even more) meant that no immediate remedial action could be initiated on the basis of the latest data. In any case, the office of the ICDS Commissioner carried out no concurrent evaluations to assess the accuracy of the data being transmitted to them.

An examination of the MPRs over the five years of the Mission shows that there were significant fluctuations in the numbers of children in the Grade-III & IV categories in different districts. While seasonal variations could have been logically explained, there were rising and falling trends in severe malnutrition which did not seem to have any rational reason. In some districts, the Grade-III & IV figures, after showing a declining trend in some years, suddenly moved in an upward direction in subsequent years. In other districts, the extent of reduction in severe malnutrition over the five-year period was so significant that it merited an independent evaluation to assess the causes for such reduction. A sample of the highest and lowest figures of severe malnutrition in the financial years 2005-06 to 2009-10 in five districts in different parts of the state highlights this interesting observation (**Table 12** below). Chandrapur district shows a dramatic drop in numbers of Grade-III & IV children from 2008-09 onwards. Solapur district offers an even more puzzling picture. While the numbers of Grade-III & IV children in this district in 2005-06 were over 500 till October 2005, the numbers have never crossed 300 after December 2005 right through till April 2010. Latur district showed two digit figures for severely malnourished children from April to August 2005 and figures below 200 till July 2006. When a Mission team highlighted the underreporting of Grade-III & IV children in the districts of Aurangabad Division in mid-2006, the figures shot up in all the eight districts of this division from July 2006 onwards. The total number of severely malnourished children in the eight districts of Aurangabad Division stood at 3620 in July 2007, a far cry from the figure of 686 reported for July 2005. Nandurbar district, one of the districts most affected by chronic malnutrition, showed a sudden drop in 2008-09 to a high of 847 before again climbing to a high of 1923 in 2009-10. The attitudes of the seniormost officers in the districts and divisions and the tolerance towards inaccurate reporting meant that data accuracy was critically dependent on the check exercised by the senior officers of the district (notably the CEO of the ZP) and the messages they sent to the field level formations.

**TABLE 12: SEVERE MALNUTRITION STATISTICS (YEARLY HIGH AND LOW) – SELECT DISTRICTS**

| Year | 2005-06 | | 2006-07 | | 2007-08 | | 2008-09 | | 2009-10 | |
|---|---|---|---|---|---|---|---|---|---|---|
| District | High | Low | High | Low | High | Low | High | Low | High | Low |
| Amravati | 2356 (Oct-05) | 1269 (Apr-05) | 1888 (Jun-06) | 1227 (Mar-07) | 2052 (Aug-07) | 1031 (Feb-08) | 1405 (Aug-08) | 732 (Feb-09) | 1297 (Sep-09) | 685 (Mar-10) |
| Chandrapur | 1528 (Apr-05) | 868 (Mar-06) | 1123 (Jul-06) | 877 (Apr-06) | 1106 (Jun-07) | 492 (Mar-08) | 557 (Sep-08) | 246 (Mar-09) | 290 (Jun-09) | 106 (Mar-10) |
| Latur | 164 (Nov-05) | 59 (Jun-05) | 458 (Jan-07) | 118 (May-06) | 802 (Jul-07) | 471 (Dec-07) | 569 (Sep-08) | 365 (Feb-09) | 456 (Jun-09) | 285 (Mar-10) |
| Nandurbar | 2346 (Sep-05) | 1482 (Apr-05) | 1960 (Aug-06) | 1193 (Mar-07) | 1451 (Aug-07) | 663 (Mar-08) | 847 (Aug-08) | 465 (Feb-09) | 1923 (Sep-09) | 710 (Apr-09) |
| Solapur | 1020 (May-05) | 139 (Mar-06) | 101 (Jan-07) | 19 (Jun-06) | 234 (Aug-07) | 60 (Apr-07) | 246 (Jun-08) | 93 (Jan-09) | 211 (Jun-09) | 96 (Mar-10) |

**Source: MPRs, www.icds.gov.in**

The Mission undertook concurrent evaluations of the nutrition status of under-6 children in 15 districts of Maharashtra between October 2007 and May 2009. Students of the MSW programme in different educational institutions were trained in the techniques of correctly weighing children. A 30-cluster survey was taken up in these districts and the monthly weighing of children in 30 randomly selected villages in each district by the AWW was compared with the weighing carried out by the ICDS staff in the presence of the MSW students. **Table 13** sets out the comparative analysis of the nutritional status of children based on these two sets of statistics.

**TABLE 13: NUTRITIONAL STATUS COMPARISON – 15 DISTRICTS**

| District | Survey month & year | AWW report (%) | | | | Mission evaluation (%) | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Normal | Grade-I | Grade-II | Grade-III+IV | Normal | Grade-I | Grade-II | Grade-III+IV |
| Amravati | Oct-07 | 42.64 | 40.37 | 15.09 | 1.91 | 38.41 | 40.4 | 16.68 | 4.51 |
| Ahmednagar | Mar-08 | 60.46 | 32.07 | 7.08 | 0.39 | 49.29 | 36.66 | 11.97 | 2.09 |
| Thane | Jul-08 | 49.78 | 39.21 | 10.76 | 0.26 | 38.05 | 39.56 | 19.86 | 2.52 |
| Jalgaon | Aug-08 | 47.02 | 42.66 | 10.16 | 0.17 | 39.11 | 37.57 | 20.82 | 2.5 |
| Pune | Aug-08 | 60.98 | 33.25 | 5.69 | 0.08 | 58.16 | 31.6 | 9.41 | 0.83 |
| Nagpur | Sep-08 | 54.69 | 37.48 | 7.52 | 0.31 | 43.77 | 38.84 | 13.99 | 3.4 |
| Yavatmal | Sep-08 | 43.97 | 43.34 | 12.22 | 0.46 | 33.67 | 37.93 | 24.59 | 3.8 |
| Dhule | Oct-08 | 50.27 | 40.89 | 8.68 | 0.16 | 42.36 | 38.25 | 16.88 | 2.51 |
| Nanded | Oct-08 | 48.68 | 41.84 | 8.83 | 0.65 | 39.05 | 38.39 | 19.1 | 3.45 |
| Sangli | Oct-08 | 65.92 | 29.53 | 4.24 | 0.31 | 56.33 | 32.29 | 10.09 | 1.29 |
| Satara | Oct-08 | 77.89 | 17.6 | 4.41 | 0.1 | 54.8 | 34.94 | 9.13 | 1.12 |
| Nandurbar | Apr-09 | 39.97 | 42.93 | 16.48 | 0.61 | 25.98 | 39.02 | 27.98 | 7.02 |
| Chandrapur | May-09 | 53.17 | 40.74 | 6.09 | 0 | 36.18 | 40.65 | 20.63 | 2.54 |
| Total sample | | 52.3 | 37.71 | 9.57 | 0.43 | 41.8 | 37.54 | 17.58 | 3.08 |

**Source: Rajmata Jijau Mission (2008-09)**

What the concurrent evaluations carried out by the Mission reveal is the tendency to over report the number of normal children. The least variation in percentages between the AWW figures and the concurrent evaluations is in relation to the Grade-I category. The substantial increase in normal percentage reported is, therefore, probably because a number of Grade-II children have been shown in the Grade-I category: correspondingly, children in the Grade-I category are presumably being shown as normal. However, what is of greatest concern is the sharp difference in Grade-III & IV numbers as between the AWW figures and the concurrent evaluations. The number of Grade-III & IV children as per the 30-cluster survey is higher by a factor ranging from 2 to 13 times the reports from the AWWs. Not surprisingly, the percentage of children in Grade-III & IV goes up from under 0.5% to over 3%, a six-fold rise in the sample evaluated.

Taken in conjunction with the earlier analysis of the unexplained fluctuations in the month to month figures of severe malnutrition in a number of districts, the conclusion has to be that there is need to develop a far more rigorous monitoring mechanism if the problem of child malnutrition is to be satisfactorily addressed in the coming years.

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# VII. Unfinished Agenda – The Way Ahead

The Mission completed five years of operation and closed its office at Aurangabad on 30 June 2010, with all the deputed Mission staff moving back to their parent departments. The Government of Maharashtra took the view that there were still a number of areas where the fight against malnutrition needed to be continued. The Chief Minister of Maharashtra, at a meeting on 30 September 2010, reviewed the progress made in the period 2005-10 and the priority areas that needed to be given attention to in the coming five years to significantly reduce child malnutrition. Directions were issued to give a renewed mandate of five years to the Mission with a somewhat different focus from the areas the Mission had concentrated on in the first five years.

The experience gained in the first five years of the Mission was instrumental in sharpening the vision in terms of the central issues which needed to be tackled to impact significantly on under-6 child malnutrition. Right from its inception, the Mission had stressed the need to move from a focus on "food" to interventions that sought to improve service delivery through capacity-building and motivational development in frontline personnel of the ICDS and health departments and convergence between the ICDS and health departments in delivering key services to mothers and children. The CDC and VCDC innovations were also convergence-based methods to effectively reduce malnutrition: convergence not only between government departments but also convergence between the government sector and civil society through the involvement of families and caregivers in the nutrition and health process. From the learnings of the five years, the areas for future action are discussed below:

## I. The 1000-day window of opportunity:

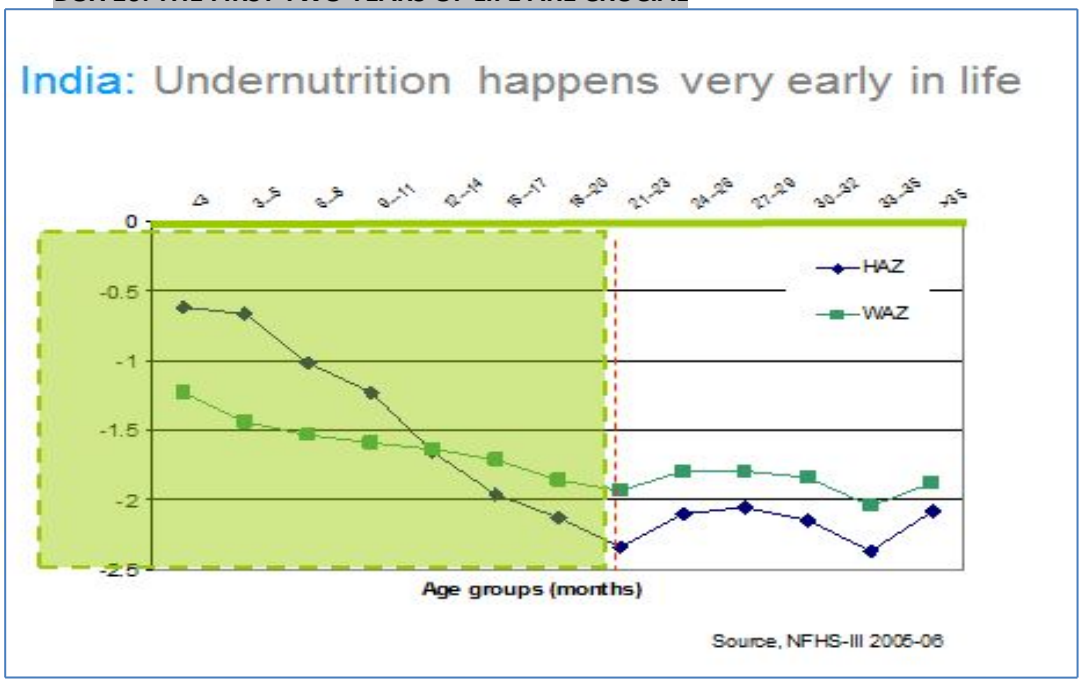
There is an adequate body of research to establish that the thousand days between conception and the attainment of two years of age by the newborn child are crucial to the future development (and sometimes even the survival) of the child. Low BMIs of mothers and poor care for the mother in the antenatal period lead to a significant proportion of LBW (<2500 gms.) children. The Mission analysed the BMIs of mothers of children admitted to the CDCs in Maharashtra. Of 13172 mothers, 48% had BMIs below 18.5, 31% had BMIs between 18.5 and 23.5 and 21% had BMIs greater than 23.5. This meant that almost half the mothers had subnormal BMIs. Coupled with inadequate antenatal care and a high prevalence of anemia, it was obvious that there would be a significant likelihood of obstetric complications, more so if delivery did not take place at a medical facility. It is clear then that against the backdrop of a large population of underweight mothers, ANC needs to be effectively provided. What has been observed in practice is that even though PHCs maintain lists of "high-risk" mothers, that is, underweight mothers with a history of anemia, previous obstetric complications and high blood pressure, no concerted action is generally taken as far these mothers are concerned. What is required is a focus on such mothers with regular follow up during the period of pregnancy by the health staff. These mothers need access to adequate quality food and iron and folic acid supplements. It needs to be ensured that mothers at risk of obstetric complications are brought to institutions for delivery, where appropriate medical care can be provided.

Subsequent to delivery, early and exclusive breast feeding for the first six months, total immunisation of the child and initiation of complementary feeding at the end of six months are crucial to ensuring the proper nutritional development of the child. NFHS-3 data (**Box 10**) shows that in terms of both stunting and underweight indices, the lowest point is reached around 24 months after birth. This is attributable to both the prenatal undernutrition of the mother (and, by implication, the fetus) and the sharp deterioration in the nutritional status of the child in the 6-23 month period, contributed to by both infections and inadequate complementary feeding. A sample analysis for 10 AWCs in Aurangabad district carried out by the Mission in June 2009 (**Box 11**) shows a similar trend. Interestingly, the natural advantage apparently enjoyed by girls over boys in terms of weight in the first six months of life is sharply reversed in the next 30 months. This is probably the outcome of the household meeting the food requirements of the male child first. But that does not change the overall picture: both boys and girls show a marked decline in weights over the first three years of life. NFHS-3 data for Maharashtra corroborates this picture: under 60% of 12-23 month old children have been fully immunised and just about half the children in the under-3 age group benefit from early and exclusive breast feeding and commencement of complementary feeding at the start of the seventh month. The Mission stressed these aspects of IYCN at almost every forum and made under-2 feeding a key element of its IYCN training as well as the trainings imparted at the CDCs and VCDCs. Getting the message effectively across to every household will determine the future course of child malnutrition in Maharashtra in the

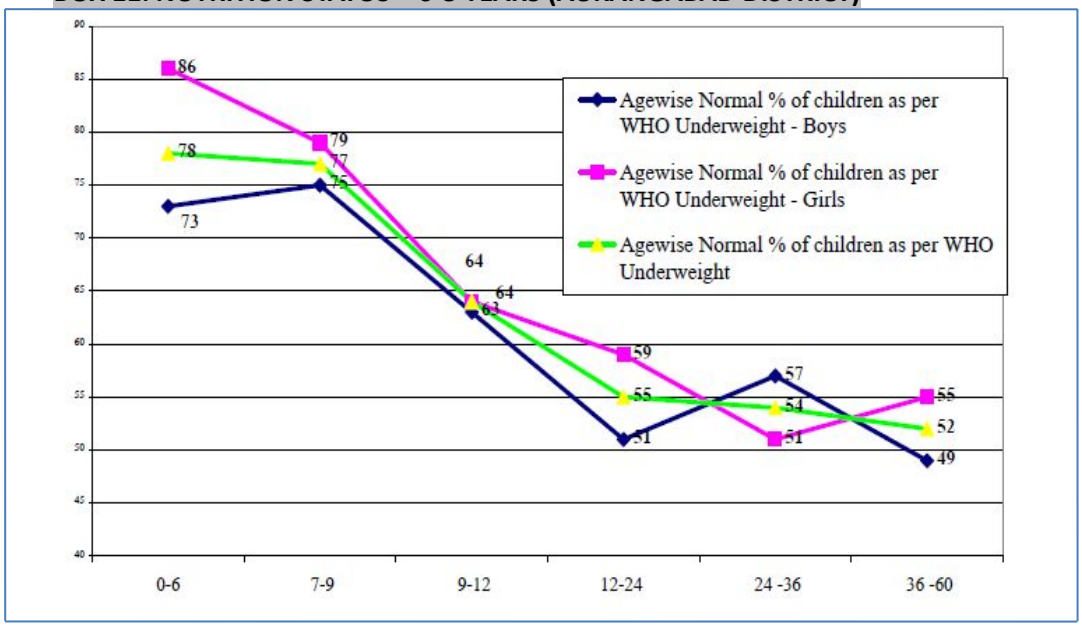
coming years.

The move from the current ICDS scenario where there is a predominant focus on food (SNP) and pre-school education for 3-6 year olds to one where the stress will be on the conception to 2 year period (-9 to 24 months) will require a reworking of the approach to tackling malnutrition. The emphasis will need to be on home visits and on augmenting the access of the mother and child to food resources. Whether this will need a two-AWW norm, one for the AWC tending to the 3-6 year olds and the other focused on home visits to the mother and under-3 child, or whether the job of home visits can be entrusted to the ASHAs and other health functionaries is a matter that will require further consideration. What is clear is that a large part of the responsibility for mother and under-2 health and nutrition will devolve directly on the health department.

**BOX 10: THE FIRST TWO YEARS OF LIFE ARE CRUCIAL**




**BOX 11: NUTRITION STATUS – 0-3 YEARS (AURANGABAD DISTRICT)**




**Source: Rajmata Jijau Mission (June 2009)**

**II. Effective service delivery:**

Nutrition and health are two sectors where the state has to play a major role in service delivery. While the health delivery system involves largely a very direct involvement in terms of both preventive and curative measures, the nutrition component involves a large component of counselling as well as direct delivery of services, which, to some extent, may overlap with the health service machinery. With the NRHM, the role of the ASHA in providing counselling to mothers and the family and promoting certain desirable practices in nutrition, health and sanitation has also gained importance. In a macroeconomic situation where prices of essential food grains have sharply risen in the recent past, the state has a crucial role to play in making food entitlements available to sections which do not have the purchasing power to buy directly from the markets. Improving service delivery and making it responsive to the needs of the public require state action on three fronts:

a) **Provision of personnel:**

The shortage of key field personnel has been a primary factor in the unsatisfactory delivery of services, especially in tribal and remote rural areas. Skilled personnel (anesthetists, gynecologists and pediatricians) are reluctant to work in remote rural hospitals; in fact, even MBBS graduates are not available to man the remoter PHCs. An innovative personnel policy needs to be devised to meet this shortfall. Public-private partnerships need to be explored to attract talent to areas that are in need. A mandatory spell of postings in such locations as a condition for future continuation/advancement in service also needs to be considered. Alternatively, contractual appointments for specified periods could be envisaged. If necessary, as a longer term measure, local boys and girls should be provided incentives to acquire the necessary qualifications so that they can serve in such areas. Continuation in service should also be a function of provision of quality service that meets the desired standards and contributes to the achievement of the desired outcomes.

However, even at the level of generalist personnel not requiring specific skills, government needs to put in place a quicker procedure to keep all posts filled. Even with the universalisation of the ICDS (and the directions of different judicial authorities to fill in vacancies expeditiously), there has often been considerable delay in filling in posts at the cutting edge, especially in the ICDS. There should be serious thought on delegating the power of filling in the posts of AWWs to the local bodies, rather than to committees headed by nominated appointees who are not accountable for their decisions. As regards the posts of CDPOs, in case the Rural Development Department is not able to provide in a timely manner the required number of officers, the possibility of creating a separate cadre of CDPOs under the DWCD needs to be examined. These could even be contractual appointments, with renewal being dependent on good performance.

b) **Promoting knowledge/skills/motivation and enforcing accountability for outcomes:**

Raising the knowledge and skill levels of field and supervisory personnel is crucial, especially in the health and nutrition sectors, where there are frequent advancements in terms of the practices that will promote health and good nutrition. Apart from sound induction-level training, there need to be opportunities for in-career courses to upgrade knowledge and skills, as well as scientific testing methods to assess the absorption of such knowledge/skills by personnel. Motivation of field staff, especially AWWs and ANMs, is essential to ensure high quality service delivery to communities. The role of supervisory staff right from the AWS upwards is crucial in this respect. In practice, there is little to no role played by them in building up team spirit and infusing enthusiasm in the field workers. As has been observed right from the time of the Marathwada initiative from 2002 onwards, encouragement to field workers, empowering them to take decisions and instilling in them a sense of self-worth has a tremendous multiplier effect on outcomes. Supervisory staff should not be used for routine clerical work like gathering and submitting data to authorities but should function as friends and guides to their line staff, facilitating their work and removing difficulties in implementation. Needless to say, performance in terms of outcomes should be the sole benchmark for assessing personnel. The Mission's philosophy of a fact-finding rather than a fault-finding approach should be the basis for evaluation, with staff being given opportunities for improvement before penal action is envisaged.

c) **Streamlining resource management:**

A major weakness in public systems has been the timely and required allocation of both physical and financial resources to the field levels to enable personnel to discharge their duties effectively. On the financial front, the availability of funds has often been a major constraint. Even salaries of staff and honorarium to AWWs and monthly payments to SHGs for providing cooked food at the AWCs have tended to be delayed for months. While the Government of Maharashtra has been putting in place mechanisms to ensure round the year fund

availability, the departments often lack the capability to plan for the release of funds. There is also the added problem of the tortuous route that money has to go through before it finally reaches the intended recipient. Processing of funds at three or four levels delays the arrival of funds at their final destination, holding up implementation at times. Technological solutions to this problem exist, which need to be explored urgently (these will be discussed in a subsequent part of this chapter). Another issue requiring attention is the excessive centralisation of resource allocation decisions. Minor repairs to AWCs or urgent contingent purchases get held up because of the lack of financial and administrative autonomy at the implementation levels. The NRHM has sought to address the matter by providing untied funds at the health sub-centre level. There is also need for developing efficient supply chain management systems in both the ICDS and health departments. Experience over the past five years showed that even programmes like the biannual deworming/Vitamin A exercise suffered delays in implementation since supplies of vital medicines could not be obtained in time. A rational policy to adequately stock all health units with supplies of essential vaccines, drugs, etc. needs to be evolved.

**III. Specific focus on urban malnutrition:**

Although the steps taken to universalise ICDS over the past few years have seen a significant increase in AWC coverage in urban areas, especially in urban slums, there is a widespread perception that the ICDS has not been able to extend its range of services in urban areas (especially slums) as effectively or thoroughly as in rural areas. Reasons for this range from the non-availability of space to start AWCs in urban slum areas to the non-involvement of ULBs in health and nutrition activities in the same manner as their rural counterparts. As a consequence, control and supervision over the functioning of the urban ICDS machinery has been highly inadequate; the state ICDS Commissionerate, which directly oversees the operations of the urban ICDS, has been unable to meaningfully monitor and direct ICDS activities in urban areas. The Mission did give some suggestions for restructuring the urban ICDS; however, no concrete action was initiated. An analysis of the ICDS MPR shows that moderate and severe malnutrition levels in some urban ICDS blocks are as pronounced as in some of the more severely affected rural ICDS blocks, lagging well behind the state averages. It is, therefore, essential that malnutrition reduction acquires a clear urban as well as rural focus.

Making ULBs responsible for tackling malnutrition will require the transfer of the ICDS scheme to these bodies. Given the capability and skill functions of different levels of ULBs, it would be appropriate to transfer the management and operations of the ICDS, with all existing staff, to municipal corporations and 'A' class municipal councils. These ULBs should play the same role in respect of ICDS in their respective areas as is done by ZPs in the rural areas. However, the ZPs could continue to manage and monitor ICDS activities in 'B' and 'C' class municipal areas. The District Collector would oversee the ICDS performance in municipal council areas while the Municipal Commissioners would be responsible for managing malnutrition in their respective Corporations. Funds from the state level would still devolve from the ICDS Commissionerate to the respective ULBs, but responsibility for performance would move directly to the ULBs. Where the ULB has its own health machinery (as in the larger Municipal Corporations), these would work in tandem with the ICDS machinery in reducing malnutrition. In the smaller ULBs, the existing state and ZP health staff would interact with the ICDS staff in the ULBs to tackle malnutrition.

**IV. Data as the driver:**

Data on the parameters of inputs, outputs and outcomes in analysing the impact of public policies and programmes is as crucial to governments and society as financial data is to companies. Not only does timely availability of data enforce accountability for results, it also serves as a guide to public policy, highlighting the sectors and areas where state intervention is necessary. However, these functional uses of data are yet to be adequately made use of by government departments. Even though both the ICDS and health departments have online reporting systems, the time lags in reporting and the absence of regular real-time analysis reduce the utility of the data as a policy and monitoring tool. The Mission focused on such analysis at district levels and below, going right down to the AWC. Disaggregated data need not be available at all levels: thus, the state authorities would find district and block data more relevant to their concerns. District and block-level functionaries would find data right upto the AWC and sub-centre level useful in planning and implementation. Health and ICDS officials at the PHC and project levels need to have detailed data of mothers and children in each

village and AWC to enable ongoing tracking of mothers and children whose health and nutrition status need to be individually monitored. Technology can be made use of to track mothers and children.

**V. Technology as a change agent:**

There has been concern over the quality of data as reflected in the MPRs. A lot of time of functionaries like the AWW, which could be more fruitfully employed in counselling mothers and making home visits, goes in filling in registers and preparing monthly reports. Consolidation of this data at higher levels provides scope for inaccuracies as well as for manipulation to creep in. The advances in information and communication technology can enable one-point entry of data and its immediate transmission to servers, saving a lot of time and effort. Attempts have been made in the Aurangabad Municipal Corporation area to use handheld devices to enable field-level health staff to monitor the delivery of ANC, immunisation and other health and nutrition-related services to mothers and children. The Mission has already demonstrated the use of GIS-based software to analyse data at various geographical levels both over and at a point of time. Linking the use of mobile communication devices provided to ICDS and health service providers at the implementation and supervisory levels with GIS-based systems would give access to up to date information, enabling immediate action at the individual level to address health and nutrition issues. Tracking the status of mothers and children in their jurisdiction would also increase the accountability of field staff since the linkage with centralised data systems would enable better supervision and monitoring of delivery of services.

Technology can also be harnessed to promote financial inclusion and transfer of funds to staff, service providers and beneficiaries. Direct transfer of funds from the state level to the final recipient, whether the AWW, SHG or beneficiary, would reduce delays as well as the scope for leakages. This can be achieved through the banking system or through a platform like the NSDL site. Since the mother and child receive entitlements from a number of government departments and agencies, use of these payment mechanisms would facilitate access to benefits with a minimum of bureaucratic intervention. With the spread of the " AADHAR" network under the UID scheme, entitlements under different schemes could be directly channeled to families (specifically to the female member). The provision of handheld and similar devices to service providers like FPS dealers would remove the need for exchange of cash and enable direct transfer of funds from the beneficiary's bank account to the supplier of the product or service.

**VI. Quality research and concurrent evaluation:**

Public policy interventions would be greatly facilitated by the availability of good research on nutrition and health issues. Issues like the prevalence of early and exclusive breast feeding, complementary feeding practices, reach of immunisation, impact of programmes like the supply of IFA tablets to adolescent girls and mothers, use of iodised salt, etc. require detailed research and analysis to plan future paths of action. Concurrent evaluation would provide immediate information on how programmes are being implemented and services are being delivered; it also allows for a check on the accuracy of information being sent from the field to higher levels. Surveys like the NFHS are conducted only once in seven years; in the interim, there is scanty information available on the status of mothers and children. State-wide sample surveys conducted more frequently would greatly aid planning and policy action.

**VII. Innovative solutions:**

What is particularly required is an 'out-of-the-box' approach to tackling issues of maternal and child malnutrition. The ICDS has always had a primary focus on "food" (as exemplified by the SNP allocations) with other interventions assuming a relatively minor position. This approach has tended to colour present-day discussions and interventions as well: it is assumed that provision of more calories and proteins (through more provision for the SNP under the ICDS) will solve the problem of malnutrition. Unfortunately, this has not proved to be the case. The relatively better performances of states like Odisha, Chhattisgarh & Maharashtra in reducing under-3 underweight child malnutrition in the period between NFHS-2 and NFHS-3 is the outcome of a number of novel solutions adopted by these states to tackle the problem. What characterised the work of the Mission over the five-year period was also the attempt to look for new approaches to tackling malnutrition, through capacity-building of the ICDS and health machinery, promoting convergence between the ICDS and health staff and evolving the CDC and VCDC concepts to bring malnutrition under control. Success in this endeavour in the coming years will also lie in such new methodologies.

A specific area of emphasis has to be on changing behaviours in the target groups, through both information & education and through changes that create a demand for services. The former requires a completely different IEC strategy from the “one size fits all” campaigns that have been the practice till now. Based on an analysis of behavioural data collected from different regions and taking into account local traditions, practices and food habits, varying strategies for influencing community and family behaviour need to be devised. The use of internet and the mass media will be particularly relevant in this respect.

The issue of attitudinal change is somewhat more complex. It would obviously be unrealistic to expect to change social structures in the short to medium term. At the same time, there is no reason to doubt that demands for certain goods and services bring about changes in social behaviours and in the attitudes of large sections of society towards public goods like health and education. Mobile phone and cable TV penetration have created aspirations in hitherto seemingly apathetic sections of society and led to their participation in processes that improve their economic and social position. The state could help in the access of hitherto deprived sections of society to such goods and services through a process of financial inclusion, which also draws on the services of the latest technology. Some aspects of this assistance could be conditional on particular behaviours: for example, the JSY benefits would accrue to a mother only on her going to a medical facility for delivery. Similarly, attendance at school could be the basis for cash transfer to families. There have been a number of analyses of the shortcomings in such approaches. However, what could be examined is the possibility of drawing particularly the woman/women in the family into the financial network. Opening a bank account in the name of the woman could facilitate the transfer of a number of benefits of government programmes to the family without the woman having to go through the bureaucratic route to secure her benefits. With the UID scheme, it would be simple to link a unique number to entitlements under various schemes. While the details of such interventions need examination in greater detail, what is being emphasised here is the need to look at new, hitherto unused routes to ensure that entitlements actually reach those for whom they are intended.

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# VIII. What makes a Mission successful?

A Mission approach is often favoured by governments when a problem assumes urgent dimensions and when it becomes evident that the tangled cross-connections between different government departments requires an overriding body with a mandate from the topmost political authority to bring about certain desired outcomes. Such has been the approach in areas like literacy, telecom and oilseeds in the past and, in more recent years, primary education, sanitation and healthcare. Currently, there is a lot of focus on missions in the area of nutrition: following the Maharashtra mission initiative, states like Madhya Pradesh, Gujarat and Karnataka have launched State Nutrition Missions over the past couple of years and a number of other states appear likely to follow suit very soon. Based on our experience in Maharashtra, we would like to highlight certain prerequisites for an effective Mission and draw attention to some challenges that any Mission will encounter in its functioning:

**1.** A Mission will need a Champion right from the outset, who will head the Mission. This Champion (Mission leader) should ideally be drawn from the existing administrative structure and should be high enough in the hierarchy to be able to easily and informally interact with the heads of various government departments and sell the Mission initiatives to these departments. She should ideally have previous experience in dealing with nutrition and health issues and/or have worked in the ICDS or Department of Women & Child Development. Alternatively, the Mission leader could be drawn from the private sector or civil society: she should be conversant with issues relating to maternal and child malnutrition and possess networking skills essential to interacting with government departments and agencies. The Mission leader must be given a clear mandate and a fixed tenure of five years to bring about the desired results. Since it is quite likely that the Mission leader may be an officer who is rated highly in administrative circles, the temptation to move her to other coveted positions in the bureaucracy should be avoided.

**2.** The Mission leader should be given freedom to select her team, which should comprise not more than five or six highly motivated individuals. These may be drawn from the administrative departments of the government as well as from specialists in specific areas of nutrition and health: they will also work in the Mission for a fixed tenure of five years. What all these individuals (including the leader) should possess are attributes of passion for the subject, intense commitment to the outcomes that the Mission has set itself and the readiness to work as a team, setting aside personal ambitions and differences.

**3.** Political and administrative support from the very top is crucial to the success of the Mission. Strong commitment from the Chief Minister and Chief Secretary of the state sends signals down the line that "business as usual" will not be tolerated. The setting up of the Mission is only the first small step. Involvement of the top echelons of the state administration in focusing on the problem and facilitating action are critical. The Committees set up at the state level need to meet frequently to iron out differences between departments, while also coordinating allocation of resources of different departments in an optimal manner to achieve the goal of malnutrition reduction. Especially in areas of the state where the problem is acute, personnel with a track record of efficiency and probity should be posted for fixed periods of three to five years to ensure better results, with suitable monetary and career incentives to motivate them to give of their best.

**4.** The Mission must function with the fullest autonomy, while also being responsible to the State Government for its performance. The objective behind posting a very senior government officer or a recognised expert as the Mission leader should be to vest administrative and financial powers in that individual so that normal bureaucratic processes do not slow down the working of the Mission. Depending on their individual local conditions, states need to decide on whether the Mission should function as an independent unit or as a society or some other similar structure. In any case, the Mission should not operate as a part of a department. Checks and balances can be devised to ensure that the Mission functions within the broad parameters of financial and administrative discipline.

**5.** While inter-departmental convergence in budgeting and decision-making will go a long way in ensuring that the Mission can work towards achievement of the stated objectives, convergence in the activities of the ICDS and Public Health Departments is a *sine qua non* for moving towards the goal of significant malnutrition reduction. It needs to be recognised that reduction in malnutrition is equally dependent on health and nutrition factors. Whether the Mission should function under the overall control of the Department of

Women & Child Development or the Public Health Department is a matter that each state government needs to deliberate and decide on. What is essential is that the personnel of both departments from the village and urban ward level to the state level need to work in synergy and harmony if the problem is to be effectively tackled.

**6.** A new (and somewhat different) strategy should be part of the Mission's approach to the problem of child malnutrition. Central to this approach is the recognition that current policies and programmes have been very slow in yielding results, so much so that in many states, there has been limited improvement in the ground situation even two decades after countrywide surveys first highlighted the magnitude of the problem (NFHS-1). The first Maharashtra Mission, for example, focused on improving AWW and ICDS staff capabilities in growth monitoring, creating a mechanism for referral of severe malnutrition cases to health facilities, launching a biannual drive for deworming and Vitamin A supplementation in under-6 children and promoting healthy feeding practices for children. The second Maharashtra Mission has selected as its focus area the first one thousand days of life, from the time of conception till the child completes two years. The emphasis should be on initiatives that break new ground or on areas that have hitherto received inadequate attention from the public health and ICDS machinery.

**7.** Attaining a few specific outcomes should be the main focus of the Mission. These should ideally relate to the reduction of severe and moderate malnutrition in under-2 children and in maternal and infant/child mortality in a specified time period. A robust MIS will be essential to measure these outcomes. Data entry and analysis capabilities will have to be developed in lower and middle-level functionaries of the health department and ICDS. The Mission will have to be watchful in monitoring the quality of data and commissioning third party evaluations to cross-check the authenticity of reported data. The message must clearly go out that any deviation from honest and factual reporting of data will invite severe action.

**8.** The temptation to push the responsibility for reduction of malnutrition on the Mission must be avoided. It must be made clear at the highest level that the primary accountability for results will lie with the departments of Public Health and Women & Child Development and the field formations under them. As far as possible, key personnel in these two departments right from the level of the Secretary downwards should be given adequately long tenures to enable them to show results. Future career advancement should be made contingent on the efforts put in and the commitment shown by officers and employees in wholeheartedly tackling the problem. Along with accountability, performance can also be incentivised by recognising and appreciating outstanding performance and linking future postings to performance in reducing malnutrition and mortality.

**9.** Promoting novel approaches to tackling malnutrition requires intensive advocacy. Government departments generally stick to routine methods and programmes without analysing why these time-worn strategies did not yield the desired results. Bringing about changes in behavioural patterns in families and in society at large also require engagement with different interest groups in different social settings. Such strategic changes, which often involve paradigm shifts in ways of thinking about the problem and measures for its amelioration, need strong advocacy platforms. Headed by a senior person with extensive contacts within and outside the government, who can use mass media and her position to push for sustainable change, the Mission is uniquely positioned for such an advocacy role.

**10.** Finally, it is crucial to stress the virtue of patience in any such initiative. Child malnutrition is caused by a variety of social and economic factors. Significantly reducing malnutrition will require time frames of upto ten years and more. Quick fix solutions are not going to solve the problem. Changing mindsets in families and society and strengthening service delivery in public systems needs repeated efforts and a readiness to accept failures and try fresh approaches to tackle the issue. Maharashtra drew on the lessons learnt from the first Mission (2005-2010) to refashion its strategy and focus on issues critical to the first thousand days of the child (from conception to two years of age). It is hoped that such course corrections will prove effective in successfully contributing to the reduction of child malnutrition.

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**ANNEXURE-I**

**Government of Maharashtra**
**Department of Women & Child Development**
**G.R. NO. ICD 2005/CR 5/D 5 dated 11 March 2005**

**Subject: Establishment of the Rajmata Jijau Mother-Child Health and Nutrition Mission**

1. The objective behind setting up the Mission is to reduce the incidence of malnutrition in the under-6 children age group in rural (both tribal and non-tribal) and urban areas.

2. The primary focus is to reduce Grade-III and IV malnutrition in under-6 children with the following supplementary aims:

i. Special focus on antenatal care for expectant (especially low-weight and anemic)mothers and children in the 0-3 age group in respect of immunisation, nutrition and health care access (thereby concentrating on the period from the time of conception {minus 9 months} to 3 years).
ii. Reducing Grade-I and II malnutrition in under-6 children through the ICDS and increasing the proportion of normal weight children, with emphasis on ECCE.
iii. Assisting the Public Health Department in training and sensitization programmes in the implementation of pilot schemes of the IMNCI and HBNC in specific PHC areas in selected districts of the state.
iv. Giving special attention to the education of adolescent girls to reduce the incidence of child marriages, promoting spacing between two issues and developing social awareness on various issues aimed at reducing the severity of malnutrition.
v. Publicizing the activities of the Mission through the media in order to promote a social movement through community participation in measures to reduce the incidence of malnutrition with the ultimate aim of seeking to transfer the responsibility for tackling malnutrition from the government to civil society.

3. The components of the action programme to achieve the aims of the Mission are:

a) Increasing survey efficiency (both within and outside the ICDS area)
b) Increasing weighing efficiency (both within and outside the ICDS area)
c) Grading children in normal and different grades of malnutrition
d) Preparing AWC-wise lists of Grade 3 & 4 children
e) Monthly medical checkup of Grade 3 & 4 children
f) Six monthly medical checkup of all under-6 children
g) Increasing registrations of pregnant women and nursing mothers
h) Regular medical checkups of pregnant women and nursing mothers
i) Expert medical examination and treatment of women and children
j) Regular reviews at different levels to achieve the Mission's objectives

4. To achieve the aims of the Mission, the Mission Monitoring Unit is to be set up at Aurangabad, comprising the following:

i. Director General (1) – IAS officer of level of Secretary to Govt.
ii. Directors (Training)/(Monitoring) (2) – MDS Group 'A' – Additional CEO/Selection Grade Dy. CEO
iii. Deputy Director (Health) (1) – Health Service Group 'A' – DHO level
iv. Assistant Director (Child Development) (1) – MDS Group 'B' – CDPO level
v. Accounts Manager (1) – District Finance & Accounts Service Group 'C' – Assistant Accounts Officer level
vi. Research Officer (2) – District Statistical Service Group 'C' – Extension Officer (Statistics) level
vii. Mission Assistants (2) – District Service Group 'C' (Steno-typist)
viii. Clerk/typist (2) – District Service Group 'C' (Junior Assistant)

ix. Office support staff – District Service Group 'D'

The officers/staff required for staffing the mission would be sent on deputation from the respective government departments/local government bodies. They would retain their lien on their original posts while on deputation. Further staff would be sought from the appropriate authority as and when required by the Mission.

5. The Mission would expand its area of operations in stages. The programme would cover the five predominantly tribal populated districts (Nandurbar, Thane, Nasik, Gadchiroli and Amravati – first year) first followed by the remaining ten tribal populated districts (second and third year) with the remaining districts of Maharashtra being covered in the third phase (rural and urban projects – fourth and fifth years).

6. The recurring and non-recurring expenditure on the Mission Monitoring Unit (salary/allowances, travel expenses, daily allowances, etc.) would be met through funds made available by UNICEF.

7. The responsibilities of the Mission would be as follows:

a) Planning and organization of training programmes on health and nutrition issues for officers and employees of various departments and elected officials of local government bodies.
b) Effective coordination and monitoring through development of a website, software and an online monitoring system.
c) Effective coordination and monitoring of officers and employees of different departments through holding of review meetings and workshops.
d) Ensuring achievement of objectives by bringing shortcomings to the notice of different departments and making recommendations on policy measures.
e) Sending monthly progress reports to the offices of the Chief Minister, Ministers, Women & Child Development and Public Health and concerned departments.
f) Organizing regular meetings of the three Committees set up to promote the working of the Mission.
g) The Director General of the Mission would be responsible for the financial dealings and account-related matters of the Mission and for submitting financial statements relating to the funds received in accordance with UNICEF norms.

8. Keeping in mind the responsibilities cast on the Mission, the following powers are delegated to the Mission:

i. The Director General would exercise the financial and administrative powers of a Secretary to the Government. Although on deputation, the Director General would exercise the same authority as vested in a Secretary to the Government.
ii. The Mission's finances would be handled by the Director General through independent bank accounts. The Director General and the Directors of the Mission would oversee the financial dealings and accounting matters of the Mission.
iii. Officers reporting on and reviewing the performance of officers of the Public Health and Rural Development departments at the Divisional level and Collectors and Chief Executive Officers of districts and officers of other concerned departments at the divisional and district levels would be required to take into account comments on the performance of these officers in relation to Mission-related activities while writing their Annual Confidential Reports.
iv. As and when the Mission requires additional staff, the Director General can make a request for officers/employees from concerned departments of the State Government or appoint employees on contract, with UNICEF approval.
v. The Director General can invite Divisional Commissioners/Collectors/Chief Executive Officers and other officers and employees of the State Government for training programmes, workshops and review meetings.
vi. On behalf of the Government of Maharashtra, the Director General can enter into agreements with UNICEF or other national and international organizations for getting work done or utilizing their services.

vii. The Director General can further delegate the powers delegated to him to other officers of the Mission.

9. The effective functioning of the Mission will be overseen by the following three Committees as mentioned in Appendix A: (1) Steering Committee (2) Monitoring and Implementation Committee (3) Advisory Committee.

10.To enable the Mission to meet its objectives, the following responsibilities devolve on different departments:

i. Officers and employees of departments should be released for training programmes organized by the Mission. Since this is an important programme of the State Government, it is mandatory for officers and employees to attend these training programmes.
ii. It is mandatory for officers to attend review meetings and workshops organized by the Director General to monitor and coordinate activities.
iii. Information called for by the Director General in the prescribed formats should be sent in the prescribed period.
iv. Administrative action should be initiated against those officers and employees against whom adverse reports are sent by the Director General for their failure to work for the achievement of the objectives of the Mission.
v. Acting on the recommendations of the Mission (without altering the current responsibilities of the department), departments would initiate improvements in functioning to enable achievement of the Mission's objectives.
vi. Consider recommendations of the Director General for making policy changes and give effect through issue of Government Resolutions after due deliberation.
vii. Set up Mission related monitoring and coordination units at divisional, district and project levels. The Divisional Commissioner, Chief Executive Officer and CDPO would be responsible for ensuring effective implementation of the Mission's objectives.
viii. Provide funds to districts for development of website, software and online monitoring systems and for training programmes and other essential activities.

11. The role of local government bodies being crucial for the achievement of the Mission's objectives, their responsibilities are as follows:

i. Obtain support of elected officials for reducing under-6 child malnutrition. The Mission's work would thereby be promoted through public participation and a people's movement.
ii. Aim at reducing malnutrition through making financial provisions in the local body budgets for medicines, AWC buildings, building awareness through public education and publicity and other essential items.
iii. Review implementation of the Mission's activities by bringing these as agenda items in meetings of statutory and subject committees and honouring good work done by institutions, non-officials, officers and employees in carrying out the Mission's activities.

12. The Department of Women & Child Development will be the nodal department for the Mission. The assessment of the Mission's work will be carried out by an independent agency.

13. Reduction of child malnutrition in the State being a significant policy initiative of the Government of Maharashtra, it is expected that officers and employees of all concerned departments and elected officials and office bearers of all local government bodies will make all efforts and render all cooperation in helping the Mission achieve its objectives.

**APPENDIX-A**

**Appendix to GR NO. ICD 2005/CR 5/D 5 dated 11 March 2005**

## (1) Mission Steering Committee

| | |
|---|---|
| Chief Minister, Maharashtra State | **Chairperson** |
| Deputy Chief Minister | **Deputy Chairperson** |
| Minister (Women & Child Development) | Member |
| Minister (Public Health & Family Welfare) | Member |
| Minister (Medical Education) | Member |
| Minister (Rural Development) | Member |
| Minister (Tribal Development) | Member |
| Minister (Food & Civil Supplies) | Member |
| Minister (Social Justice) | Member |
| Minister (Water Supply & Sanitation) | Member |
| Minister (Employment Guarantee) | Member |
| Minister (Cooperation) | Member |
| Chief Secretary | Member |
| Secretaries of all related departments | Invitees |
| Director General, Mission | Member-Secretary |

The meetings of this Committee will be convened at least once a year.

## (2) Mission Monitoring & Implementation Committee

| | |
|---|---|
| Minister (Women & Child Development) | **Chairperson** |
| Minister (Public Health & Family Welfare) | Member |
| Minister (Medical Education) | Member |
| Minister (Rural Development) | Member |
| Minister (Tribal Development) | Member |
| Minister (Food & Civil Supplies) | Member |
| Minister (Social Justice) | Member |
| Minister (Water Supply & Sanitation) | Member |
| Minister (Employment Guarantee) | Member |
| Minister (Cooperation) | Member |
| Minister of State(Women & Child Development) | Member |
| Minister of State (Public Health & Family Welfare) | Member |
| Minister of State (Medical Education) | Member |
| Minister of State (Rural Development) | Member |
| Minister of State (Tribal Development) | Member |
| Minister of State (Food & Civil Supplies) | Member |
| Minister of State (Social Justice) | Member |
| Minister of State (Water Supply & Sanitation) | Member |
| Minister of State (Employment Guarantee) | Member |
| Minister of State (Cooperation) | Member |
| Chief Secretary | Member |
| Secretaries of all related departments | Invitees |
| Director General, Mission | Member-Secretary |

The meetings of this Committee will be convened at least thrice a year.

## (3) Mission Advisory Committee

| | |
|---|---|
| Chief Secretary | **Chairperson** |
| Additional Chief Secretary (Planning) | Deputy Chairman |
| Principal Secretary/Secretary (Women & Child Development) | Member |
| Additional Chief Secretary/Principal Secretary (Finance) | Member |
| Additional Chief Secretary/Principal Secretary (Public Health) | Member |
| Principal Secretary/Secretary (Family Welfare) | Member |
| Principal Secretary/Secretary (Medical Education) | Member |
| Principal Secretary/Secretary (Rural Development) | Member |
| Principal Secretary/Secretary (Tribal Development) | Member |
| Principal Secretary/Secretary (Food & Civil Supplies) | Member |
| Principal Secretary/Secretary (Social Justice) | Member |
| Principal Secretary/Secretary (Drinking Water & Sanitation) | Member |
| Principal Secretary/Secretary (Employment Guarantee) | Member |
| Principal Secretary/Secretary (Cooperation) | Member |
| UNICEF Representative | Member |
| State Coordinator, PPMU (UNICEF), DWCD | Member |
| Commissioner, ICDS | Invitee |
| Commissioner, Tribal Development | Invitee |
| All Divisional Commissioners | Invitees |
| Director, Health Services | Invitee |
| Director General, Mission | Member-Secretary |

The meetings of this Committee will be convened at least twice a year. It will decide on administrative improvements to be made in the context of the activities of the Mission.

**ANNEXURE-II**

**PHASE-WISE EXPANSION OF MISSION ACTIVITIES**