

Nutrition Moves

States create promising change in India



Acknowledgements

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Nutrition Moves

States create promising change in India



Foreword

Indian children have the same growth and development potential as all children worldwide. Evidence shows that a set of proven interventions from conception to age two years – the 1,000 day window of opportunity – can offer Indian children the best start in life. Advocacy, policy and programme action need to ensure that:

- Children are breastfed within the first hour of life and are fed only breastmilk in the first six months of life to grow healthy and strong;
- Children are fed the right foods – in quantity and quality – and mother's milk after six months of age with good feeding and hygiene practices to ensure optimal growth and development;
- Children are given iron and vitamin A supplements and deworming which, with full immunization, will protect them from diseases and anaemia;
- Children are given nutritious life-protecting foods and care when they are sick or severely undernourished for survival and lasting recovery;
- Women benefit from good foods and care, including during adolescence, pregnancy and lactation, to secure their nutrition today and the nutrition of their children tomorrow.

The good news is that we know what works and, increasingly, we know how to make it work. This publication gathers a collection of twenty case studies that illustrate how Indian states are creating promising change to ensure the delivery of essential nutrition information, counselling, support and services to children and mothers: **all children, all mothers, everywhere.**

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1. Strengthening delivery

Indian children have the same growth and development potential as all children worldwide. State governments are strengthening the ability of their flagship programmes to deliver a package of proven nutrition interventions to mothers and children – from conception through infancy and early childhood – so as to offer children the best start in life.



Maharashtra

Good governance and coordinated inter-sectoral response improve children's nutrition

Highlights

1. The Government of Maharashtra launched in 2005 the State Nutrition Mission as an autonomous body with political sanction at the highest level to coordinate an inter-sectoral response to reduce the prevalence of child undernutrition in the state.
2. The work of the Mission, which focuses on delivering proven nutrition interventions for children under two and their mothers and improving governance for nutrition, has yielded unprecedented reduction in child undernutrition.
3. The prevalence of stunting among children under two decreased from 39 per cent in 2006 to 23.3 per cent in 2012 largely due to improvements in the way children are fed, the way they and their mothers are cared for, and the environments they live in.

The progress was largely due to the improvements in the way children are fed, the way they and their mothers are cared for, and the environments they live in.

In 1999, every second child in Maharashtra was underweight. The situation was particularly worrisome among tribal children as 65 per cent of them were undernourished. In the early 2000s, an increasing number of deaths attributable to undernutrition were reported among children living in tribal districts.

Around the same time, a campaign against child undernutrition in Aurangabad Division showed a positive impact in reducing severe undernutrition in children. A number of factors contributed to this reduction: systematic identification of all children who should benefit from services, particularly children residing in households and settlements that were far from the anganwadi centre; frequent and accurate child growth monitoring and promotion sessions; relevant and timely counselling to mothers and caregivers on child feeding, nutrition and care; and provision of improved health and nutrition interventions to undernourished children.

Mission tackles undernutrition

Using this evidence, the Government of Maharashtra launched in 2005 the Maharashtra Nutrition Mission, which initially covered the five primarily tribal districts where child undernutrition deaths had been reported: Amravati, Gadchiroli, Nandurbar, Nasik and Thane. The Mission—an autonomous body with political sanction at the highest level—was designed to protect, promote and support the delivery of proven (evidence-based) interventions to reduce child undernutrition.

The staff of Maharashtra's Integrated Child Development Services (ICDS) programme was trained and supported to acknowledge the problem of undernutrition in

their area without fear of being reprimanded. The training methodology and content were aligned with the programme responsibilities of different staff: the anganwadi workers were trained to deliver essential nutrition services, counselling and care, especially related to infant and young child feeding, vitamin A supplements, deworming tablets, and growth promotion and referral services; and supervisors were trained to identify the challenges facing anganwadi workers and to provide easy-to-implement solutions (problem solving). Additionally, joint trainings were held for ICDS and National Rural Health Mission (NRHM) workers to improve the coordination between both programmes at all levels.

The Mission coordinated efforts to influence community and family norms, and practices related to infant and young child feeding and care, girls' education, age at marriage, first pregnancy and birth spacing, and involved communities and local self-governance *panchayats* in the management of nutrition services for children.

The Mission strengthened services to treat children with moderate and severe undernutrition. Child Development Centers (CDCs) were established for residential care of children with severe malnutrition and medical complications, and village CDCs (VCDCs) for community-based management of children with moderate and severe malnutrition without medical complications.

Anganwadi centres served as VCDCs or day-care units for children with uncomplicated moderate or severe malnutrition. This enabled the children to access services without leaving their home and community, thus increasing community acceptance of VCDCs. Furthermore, the running cost for a VCDC was about

25 per cent of the cost for a CDC. Like the CDC, the VCDC focused on improving access to nutrition and health services for the child, while providing mothers and caregivers with counselling and support on how to improve health, nutrition and hygiene practices.

A monitoring system was designed to track changes in the nutrition situation of children over time. Monitoring data were analysed to track progress at the village, block and district level and customize interventions to achieve greater nutrition impact.

Focus on children under two and their mothers

The first phase of the Mission (2005-2010) influenced political leadership, commitment and funding for nutrition programming. In 2011, the Government of Maharashtra launched the second five-year phase of the Mission with a focus on children under two and their mothers in light of global evidence indicating the centrality of the 1,000-day window of opportunity—from conception to age two years—to prevent child undernutrition.

In 2012, the Government of Maharashtra commissioned a statewide nutrition survey to assess the progress in improving nutrition outcomes for children and to identify programme priorities for phase two of the Mission. The survey findings indicated a significant improvement in the nutrition situation of children under two and their mothers. The prevalence of stunting in children under two decreased from 39.0 per cent in 2006 to 23.3 per cent in 2012, the prevalence of underweight decreased

from 29.6 per cent to 22.6 per cent and the prevalence of wasting decreased from 19.9 per cent to 16.3 per cent. This progress was largely due to the improvements in the way children were fed, the way they and their mothers were cared for, and the environments they lived in.

The findings indicated that between 2006 and 2012 there was an increase in the proportion of children who were fed complementary foods in a timely manner (from 47.8 to 59.9 per cent), were given complementary foods a minimum number of times per day (from 35.9 to 76.5 per cent) and lived in households with a toilet facility (from 53 to 62 per cent). Similarly, there was an increase in the percentage of mothers who benefited from at least three antenatal care visits (from 75.0 to 89.6 per cent) and those who availed themselves of food supplements through the anganwadi centre during pregnancy and while breastfeeding (from 25.8 per cent to 54.8 per cent).

The Government of Maharashtra has demonstrated that it is possible to improve the nutrition situation of children over a short period of time through better governance for nutrition and a coordinated inter-sectoral response. The work of the Mission continues for the greater benefit of Maharashtra's children. In light of the findings from the 2012 survey, the Mission is now focusing in the geographical areas (districts and divisions) with the highest levels of child undernutrition while delineating a statewide strategy to improve the quality of complementary foods and feeding practices for children 6-24 months old.

UNICEF supported

The Government of Maharashtra with the designing of the State Nutrition Mission and by strengthening the capacity of the state government systems to design programmes based on data and evidence and deliver nutrition services for children under two and their mothers with greater emphasis on quality and equity.



Gujarat

Convergence brings about improvements in programme coverage and performance

Highlights

1. In 2006, the Government of Gujarat started the implementation of *Mamta Abhiyan*, an initiative to promote synergy between the Department of Health and Family Welfare and the Department of Women and Child Development and synchronize the delivery of ICDS and NRHM services to improve nutrition outcomes in children and women.
2. Piloted in Valsad district, *Mamta Abhiyan* improved significantly the proportion of infants younger than six months who were exclusively breastfed and the proportion of children 6–24 months old who were fed complementary foods in a timely manner.
3. *Mamta Divas*—one of the four components of *Mamta Abhiyan*—indicates that Village Health and Nutrition Days deliver essential nutrition services to mothers and children and provide mothers and caregivers with timely counselling and support on child feeding and care.

This initiative is a good example of how management reforms can improve the use of human and financial resources in flagship programmes and bring about significant improvements in the coverage and quality of essential nutrition interventions for young children and mothers.

In Gujarat, the Integrated Child Development Services (ICDS) programme was historically managed by the Department of Health and Family Welfare (DHFV). However, with the rapid expansion of ICDS, its management was handed over to the Department of Women and Child Development (DWCD) in 2002.

ICDS expansion and the changing roles of DWCD and DHFV resulted in three important coordination challenges: firstly, the geographical jurisdictions of DHFV and DWCD did not coincide; in many instances one ICDS sector fell within the jurisdiction of two primary health centres, making joint planning and review difficult; secondly, the deployment of supervisors was not rational—some sectors had several supervisors while others had none; and thirdly, the service delivery calendars of the two departments were not synchronized, preventing communities from accessing all essential services in one visit.

Optimizing resources

In 2006, the Government of Gujarat designed an initiative to promote convergence between DHFV and DWCD, synchronizing the delivery of ICDS and NRHM services and optimizing the use of human and financial resources to improve nutrition outcomes in children and mothers.

This initiative called *Mamta Abhiyan* comprised four components, each of which required inputs from both departments: 1) the *Mamta Divas*, or Village Health and

Nutrition Day, organized on a fixed day every month at the anganwadi centre to provide a package of health and nutrition services to mothers and children including antenatal services for pregnant women, immunization and growth monitoring for children, counselling on infant and young child feeding for mothers with children 0-24 months old and health check-ups for mothers and children; 2) the *Mamta Mulakat*, or home visits by the anganwadi worker and/or the auxiliary nurse midwife (ANM) post-delivery to ensure essential maternal and newborn care; 3) the *Mamta Nond*, a growth monitoring and service tracking card for pregnant women and mothers of children 0-36 months old to be used as an aid to child care through the pictorial messages included in the card; and 4) the *Mamta Sandharb*, or referral services provided to pregnant women, breastfeeding mothers and children under six years during the *Mamta Divas* or *Mamta Mulakat*.

A task force comprising DHFV and DWCD officials at the district level guided the effective implementation of *Mamta Abhiyan*. The task force ensured the alignment of the geographic boundaries of ICDS and NRHM areas and organized consultative workshops with block officials from both departments to foster geographic alignment and synchronize service delivery.

Block level officials from both departments developed joint quarterly activity plans to deliver the four components of *Mamta Abhiyan*, with a clear division of roles and responsibilities between the staff of both

departments. Additionally, to support joint planning and review, quarterly sector meetings of ICDS and NRHM frontline workers were held at the Primary Health Centre in the presence of the Child Development Programme Officer and the concerned Medical Officer.

Significant improvements in key indicators

The initiative was piloted in Valsad district by DHFV and DWCD. The alignment of ICDS and NRHM geographic areas allowed the coordinated delivery of health, nutrition and development services, balanced the workload of ICDS and NRHM staff, and improved the coverage of services, particularly in hard-to-reach areas. In 2007, over 9,800 *Mamta Divas* were organized in Valsad district and the rate of *Mamta Mulakats* increased from 32 per cent in 2007 to 74 per cent in 2008.

In 2008, a survey showed significant improvements in key programme indicators including the proportion of pregnant women receiving three antenatal check-ups, the proportion of infants younger than six months who were exclusively breastfed, the proportion of infants who were fed complementary foods in a timely manner and the proportion of households that were using iodized salt. Moreover, *Mamta Divas* became an effective platform for the delivery of other essential services such as the distribution of iodized salt and calcium supplements to pregnant women and vitamin A supplements to children under five.

The experience in Valsad was scaled up statewide. Data collected in 2011-2012 indicated that:

- 98 per cent of the *Mamta Divas* planned were held;
- 62 per cent of the sessions were held at the anganwadi centre;
- Over 80 per cent of the sessions were attended by the anganwadi worker and ANM;
- 37 per cent of the sessions were attended by supervisors of either department;
- Pregnant women's weight was recorded in 99 per cent of the sessions;
- Counselling on infant and young child feeding was provided in 69 per cent of the sessions; and
- Frontline workers conducted group counselling in 53 per cent of the sessions.

Gujarat has been able to pilot and scale up the concept of a 'fixed-day, fixed-site' for the delivery of a package of maternal and child health and nutrition services, demonstrating that interventions led by different departments can be aligned and synchronized. This initiative is a good example of how management reforms can improve the use of human and financial resources in flagship programmes.

The Government of India has adopted the concept of 'fixed-day, fixed-site' for the delivery of a package of essential health and nutrition services through the Village Health and Nutrition Days (VHNDs) at anganwadi centres across the country. Gujarat's experience in geographic alignment and programme synchronization between DHFV/NRHM and DWCD/ICDS can inspire the effective expansion of VHNDs in other states and the convergence between ICDS and NRHM and their nodal departments and ministries.

UNICEF supported

The Government of Gujarat in designing *Mamta Abhiyan*, pilot testing its implementation in Valsad district, documenting its impact on the coverage of essential health and nutrition services, and using this evidence base for its scale up statewide.



Uttar Pradesh

Baby friendly community initiative results in improved infant feeding practices

Highlights

1. Evidence shows that optimal feeding practices can avert almost 20 per cent of underfive deaths. In Uttar Pradesh only 51 per cent of infants 0-6 months are exclusively breastfed and less than 20 per cent of children 6-24 months are fed a minimum adequate diet.
2. The district of Lalitpur initiated in 2006 the Baby Friendly Community Health Initiative. The core strategy relied on the formation of mother support groups to bring life-saving counselling closer to mothers when they need it most.
3. In 2012, an external evaluation indicated that the Initiative brought about significant improvements in infant and young child feeding practices at an average annual cost of US\$1.4 per child in addition to the cost of the existing government programmes.

The initiative is an effective means to bring life-saving information, counselling and support closer to mothers and families when they need it most.

Every year, an estimated 1.4 million Indian children die before their fifth birthday. Global evidence shows that optimal breastfeeding and complementary feeding practices can avert about 20 per cent of underfive deaths. However, in the state of Uttar Pradesh, the largest in India, only 51 per cent of infants 0-6 months are exclusively breastfed and less than 20 per cent of children 6-24 months are fed a minimum adequate diet as recommended by national and international bodies.

Reaching out to mothers with appropriate information, counselling and support on infant and young child feeding is a challenge when the number and capacity of community frontline workers is limited. However, global evidence shows that mother support groups can successfully bridge this gap by providing information, encouragement, counselling and support to mothers in their communities and homes.

Mother support groups key to success

Learning from global evidence, the district of Lalitpur initiated in 2006 the Baby Friendly Community Health Initiative. Lalitpur, one of the most socially-disadvantaged districts of Uttar Pradesh, is home to about one million people who live in 696 villages. The implementation of the Initiative is a collaborative effort among the Department of Paediatrics, Baba Raghav Das Medical College in Gorakhpur, the Breastfeeding Promotion Network of India and UNICEF in support to Lalitpur's district administration.

The core strategy of the initiative—designed through a consultative process with the local stakeholders—relied on the formation of a mother support group for every 100 households. Besides the anganwadi worker and the Accredited Social Health Activist (ASHA), every

support group included a third person, either the traditional birth attendant, or the anganwadi helper or a socially-respected village woman. In Lalitpur, 42 per cent of the members of the 1,286 mother support groups formed were local women. Additionally 48 counsellors were recruited to form, train and monitor the support groups. A coordination team comprising the project director, the project coordinator and eight block monitors oversaw programme implementation.

Staff from the Breastfeeding Promotion Network of India trained the counsellors using the *Three-in-One Counselling Course on Infant and Young Child Feeding*. In turn, the counsellors trained the support groups through a three-day simplified training. Once trained, each woman of the support group identified 30-40 households as her cluster. Within this cluster, she identified all pregnant women and breastfeeding mothers with a child under two years of age and visited them following an agreed-upon schedule: one visit in the first trimester of pregnancy, two visits in the third trimester of pregnancy, two visits in the first seven days post-delivery, and at least one monthly visit thereafter. The support groups were equipped with pictorial communication tools to facilitate the counselling sessions.

Besides home visits, the support groups conducted theme-focused group counselling meetings with eligible families every Saturday. Some of the approaches adopted to make these meetings enjoyable included singing health-related folk songs, cooking nutritious foods for pregnant women and infants, demonstrating correct breastfeeding positioning and attachment, and celebrating traditional ceremonies. Finally, the groups used immunization days and growth monitoring sessions to reinforce messages on optimal infant and young

child feeding. The support group members referred mothers with severe breastfeeding difficulties or severely undernourished children to the nearest block or district health facility for specialized advice and support.

Mother support groups were supervised monthly by their respective counsellors. Additionally, support groups attended monthly review meetings facilitated jointly by block monitors and Integrated Child Development Services (ICDS) sector supervisors. Mother support groups did not receive any monetary incentive but were given travel compensation for trainings and meetings, in-kind incentives such as bags, badges and counselling kits, and – most importantly – recognition in public events and media. Assessments indicated that the four main factors that kept members of the mother support groups motivated were: good quality training, mentoring and supportive supervision, good coordination among the group members and social recognition.

Dramatic improvements in child feeding practices

In 2009, mother support groups were rated as 'above average' (A category), 'average' (B category) and 'below average' (C category) on the basis of their performance. It was then decided that groups in A category (643 in number) did not need to be visited by a counsellor any more. Thus the number of counsellors

was gradually reduced from 48 to 10 and the number of block monitors from 8 to 4. The performance was rated using two criteria: 1) all members of the support group have demonstrated knowledge on optimal infant and young child feeding; and 2) infant and young child feeding practices in the area have improved.

In 2012, an external evaluation of the Initiative indicated that infant and young child feeding practices in Lalitpur had improved dramatically over the previous six-year period. For example, the proportion of children under two who were breastfed within one hour of birth had increased from 39 to 82 per cent; the proportion of those who were exclusively breastfed in the first three days of life (no prelacteal feeds) increased from 52 to 97 per cent; finally, the proportion of infants 6-8 months old who were fed complementary foods increased from 5 to 83 per cent.

Importantly, the attrition rate of group members over a period of six years was about 10 per cent only. The estimated average annual cost of the initiative was US\$1.4 per child in addition to the cost of the existing government programmes. In light of this evidence, the state Department of Health has made financial provisions to scale up the Initiative to an additional two districts, acknowledging that the Initiative is an effective means to bring life-saving information and counselling closer to mothers and families when they need it most.

UNICEF supported

The design, implementation, monitoring and evaluation of the Initiative in partnership with Baba Raghav Das Medical College in Gorakhpur and the Breastfeeding Promotion Network of India in support to the district administration.



Assam

Universalization of ICDS starts with the most vulnerable children

Highlights

1. In 2004 the Government of India made a decision to universalize ICDS and increase the number of anganwadi centres in the country from 600,000 to 1.4 million. In Assam, there was a backlog of over 22,000 anganwadi centres that needed to be made functional.
2. In 2010, the Government of Assam took steps to universalize ICDS services giving priority to the most vulnerable districts. This was in line with the recommendation to make ICDS services available to the most disadvantaged children on a priority basis.
3. The number of functional anganwadi centres in the state increased from some 25,000 in 2006 to over 58,000 in 2012. Importantly, 55 per cent of the anganwadi centres created were located in underserved, vulnerable and hard-to-reach communities.

The experience in Assam shows that it is possible to universalize ICDS with equity when appropriate policy decisions and budget allocations are made and community representatives are involved in programme planning, implementation and monitoring.

In 2004, the Government of India decided to universalize the coverage of the Integrated Child Development Services (ICDS) programme and make its services available to all children below six years of age, pregnant women and breastfeeding mothers. To make universalization possible, a policy decision was made to increase the number of anganwadi centres from 600,000 to 1.4 million. The central and state governments increased their budget allocations to operationalize new anganwadi centres and expand ICDS coverage. However, in Assam, the universalization of ICDS was delayed due to a shortage of funds by the state government.

ICDS was largely a centrally-funded programme. However, state governments were expected to make a matching contribution for the food component of the ICDS Supplementary Nutrition Programme (SNP) and a 10 per cent contribution to the cost of ICDS implementation. In 2007, the combined funding by the central and state governments for the SNP in Assam was enough to supply supplementary food to the eligible population groups for only 50 days instead of the recommended 300 days. Additionally, as most of ICDS funding was directed to the SNP, the Government of Assam had a backlog of over 22,000 new anganwadi centres that needed to be operationalized.

In 2010, the Government of India decided to change ICDS funding pattern for the North-East and reduce the contribution by state governments to 10 per cent for all ICDS programme components, including the SNP. The Government of Assam found that this was

an opportunity to universalize ICDS services, starting in 19 of Assam's 27 districts. These 19 districts comprised seven primarily tribal districts, seven primarily tea garden districts, and five districts with riverine islands and urban slums. This decision was in line with ICDS design and the Supreme Court's directives to make ICDS services available to the most disadvantaged children on a priority basis.

Community representatives involved

The Government of Assam involved peoples' representatives, *panchayats*, urban local bodies and autonomous councils, and requested them to submit proposals for the operationalization of new anganwadi centres in vulnerable communities. The Department of Social Welfare in consultation with the Deputy Commissioners of the concerned districts reviewed the proposals and rationalized the location and catchment area of the new anganwadi centres. Once this exercise was finalized, a detailed proposal for the universalization of ICDS in Assam was submitted to and endorsed by the Government of India.

The number of functional anganwadi centres in Assam increased from some 25,000 in 2006 to over 58,000 in 2012. More than 50 per cent of this increase happened between 2010 and 2012, and the backlog of new anganwadi centres that needed to be operationalized decreased from about 22,000 in 2009 to some 3,500 in 2012. Importantly, 55 per cent of the new anganwadi centres were located in underserved areas.

With the rapid expansion of anganwadi centres, the recruitment, training and supervision of anganwadi workers needed to be accelerated. While the recruitment of new anganwadi workers kept pace with the expansion of the centres, there was a 44 per cent shortfall of ICDS supervisors. In response to this situation, the Government of Assam introduced the concept of anganwadi management committee – a local group comprising *panchayat* representatives, parents and grassroots workers – to support the anganwadi worker and monitor the functioning of the anganwadi centre. Although the anganwadi management committee does not compensate for the lack of an ICDS supervisor, it provides anganwadi workers with a support system from the community, which is particularly important where ICDS is new to the community.

Simultaneously, day-to-day management and supervision was shifted from the Divisional Programme Officer to the District Social Welfare Officer, reducing the geographical area by manager from 40-50 ICDS projects to 8-10. As a result, the monthly reporting from the projects increased from 34 per cent in December 2009 to 74 per cent in July 2011.

To ensure the timely and quality training of the newly recruited anganwadi workers, the Department of Social Welfare designed and implemented a strategy to build the capacity of the concerned training centres. The 2011-2012 State Training Plan focused on reducing the backlog of untrained anganwadi workers and ICDS supervisors.

Additionally, the 21 Child Development Project Officers appointed in 2010-2011 were trained on a priority basis by the National Institute of Public Cooperation and Child Development Regional Centre for the North East of India.

Services universalized with equity

Once the challenge of operationalizing new anganwadi centres and training new anganwadi workers was met, the state focused on strengthening the delivery of services through Village Health and Nutrition Days (VHND). The location of anganwadi centres in vulnerable and hard-to-reach areas provided an opportunity to expand the coverage of ICDS to some of the most marginalized populations. More than 85 per cent of the VHND sessions planned in the state every month are held at the anganwadi centre, including in urban slums, tea gardens, and riverine and tribal areas.

The experience in Assam shows that it is possible to universalize ICDS with equity when appropriate policy decisions and budget allocations are made and community representatives are involved in programme planning, implementation and monitoring. Concurrent efforts to improve the recruitment, training and supervision of anganwadi workers have helped to meet communities' expectations about ICDS. States with similar topography, demography and challenges can learn from Assam's experience in accelerating the universalization of ICDS to bring services and support closer to the most vulnerable children and mothers.

UNICEF supported

The Government of Assam in mapping the areas that did not have anganwadi centres, particularly the tea garden and riverine communities, and building the capacity of the ICDS programme and training centres to train new anganwadi workers, supervisors and managers.

Odisha

Child Growth Standards and Mother-Child Protection Card gain universal coverage

Highlights

1. In 2007, the Government of India endorsed the Child Growth Standards of the World Health Organization. The Standards recognize that the growth potential of Indian children is similar to that of children in the rest of the world provided they receive adequate feeding and care.
2. As a complement to the Growth Standards, ICDS and NRHM designed and introduced a common Mother-Child Protection Card – a pictorial tool to counsel families on how to care for pregnant women and young children and track the delivery of essential services to them.
3. By mid-2012, Odisha was at the forefront of universalization of the Growth Standards and Protection Card, with over 90 per cent of its anganwadi centres equipped with essential supplies and all anganwadi workers, 63 per cent of ANMs and one third of ASHAs trained.



The outstanding progress in the universalization of the WHO Child Growth Standards and the Mother-Child Protection Card in Odisha has been possible through a coordinated effort by the Departments of Women and Child Development, and Health and Family Welfare with the support of their development partners.

In 2007, the Government of India endorsed the Child Growth Standards of the World Health Organization (WHO). The Standards establish a normative approach to child growth as they indicate how children should grow – as opposed to how children grow – irrespective of their ethnicity or class. They also confirm that the growth potential of Indian children is similar to that of children in the rest of the world provided they receive adequate feeding and care.

Subsequently in August 2008, the Government of India introduced the WHO Child Growth Standards in India's flagship programmes for child survival, growth and development, namely the Integrated Child Development Services (ICDS) programme and the National Rural Health Mission (NRHM). In April 2010 as a complement to the Growth Standards, ICDS and NRHM designed and introduced a common Mother-Child Protection Card – a pictorial tool to counsel families on how to care for pregnant women and children below three years and track the delivery of health and nutrition services to them.

The two Ministries concerned with the implementation of ICDS and NRHM – the Ministry of Women and Child Development and the Ministry of Health and Family Welfare respectively – involved their state counterparts, training institutes and development partners to support the roll-out of the Growth Standards and Protection Card in over 1.3 million anganwadi centres throughout the country.

Good leadership shows results

In June 2012, UNICEF supported the Ministry of Women and Child Development in documenting progress in the universalization of the Growth Standards and the Protection Card in 13 states, where 80 per cent of India's anganwadi centres are located. The assessment indicated that Odisha was at the forefront of universalization, as over 90 per cent of the state's 68,000 anganwadi centres were equipped with all the essential supplies (weighing scales, child growth chart registers and Protection Cards) and all its anganwadi workers, 63 per cent of Auxiliary Nurse Midwives (ANMs) and one third of Accredited Social Health Activists (ASHAs) had been trained on the use of the Growth Standards and the Protection Card. Importantly, all districts were reporting child growth monitoring data based on the WHO Growth Standards.

Such progress was largely a result of the leadership provided by the Departments of Women and Child Development, and Health and Family Welfare in universalizing the use of the Growth Standards in the context of ICDS and NRHM, coupled with the decision by the state government to universalize the Indira Gandhi Matritva Sahyog Yojana, a maternity benefit conditional cash transfer scheme, and use the Protection Card as a the verification tool for cash payments.

The Departments of Women and Child Development, and Health and Family Welfare adopted a systemic approach for the roll-out of the Growth Standards and the Protection Card. Supply and fund requirements were assessed and plans were drawn to procure and distribute essential supplies. The Government of Odisha printed and supplied adequate quantities of Growth Chart Registers and Protection Cards and supplied weighing scales to all its anganwadi centres.

Quality training and monitoring

UNICEF and the UK's Department of International Development (DFID) supported the Department of Women and Child Development to design a common training package for the Growth Standards and Protection Card and create a pool of state and district level trainers. The two development partners supported three-day joint trainings of ICDS and Health staff up to the supervisory level. Anganwadi workers and ASHAs were trained in the use of the Standards and Card at their monthly sector meetings.

Simultaneously, the Government of Odisha introduced the Growth Standards and Protection Card in the training curriculum of anganwadi workers, ASHAs, and ICDS supervisors and built the capacity of the concerned training institutions to integrate the use of the Growth Standards and Protection Card in the pre-service and in-service training curricula of the

programmes run by the Departments of Women and Child Development, and Health and Family Welfare.

Monitoring tools were developed and a system was put in place to monitor the use of the Growth Standards and Protection Card. These tools were utilized by the supervisory staff during their field visits to monitor the functioning of anganwadi centres and the implementation of Village Health and Nutrition Days. The information collected by this monitoring system was used to take corrective actions and ensure the appropriate use of the Standards and Card. To complement these monitoring efforts, the district collectors reviewed the availability and use of the Standards and Card during their monthly meetings.

The outstanding progress in the universalization of the WHO Child Growth Standards and the Mother-Child Protection Card in Odisha has been possible through the joint effort of the Departments of Women and Child Development, and Health and Family Welfare with support by their development partners. The collective action of these stakeholders, pooling human and financial resources, allowed the Government of Odisha to procure all essential supplies in adequate quantities, ensure their timely distribution to anganwadi centres, ensure the training of frontline workers and supervisors and monitor the use of the Child Growth Standards and Mother-Child Protection Card.

UNICEF supported

The Government of Odisha in designing the training package for the use of the Growth Standards and Protection Card, creating a pool of state and district level trainers, and supporting the training of ICDS and NRHM workers up to the supervisory level.



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2. Creating partnerships

Well-nourished children are more likely to grow healthy and perform better in school. Well-nourished mothers have a better chance to have a successful pregnancy and breastfeeding experience. State governments are fostering innovative public-private partnerships to scale up the delivery of essential nutrition services to children and mothers, everywhere.



Uttar Pradesh

Large-scale partnerships with local NGOs bring infant and young child feeding promotion and support closer to mothers and homes

Highlights

1. In Uttar Pradesh, poor child feeding practices are widespread as barely 51 per cent of infants 0-6 months are exclusively breastfed and less than 20 per cent of children 6-24 months are fed a minimum adequate diet.
2. In 2010, the Government of Uttar Pradesh with technical support by UNICEF established a partnership with five NGOs to bring information, counselling, support and services to an estimated 100,000 pregnant women and breastfeeding mothers in 12 poor districts.
3. After two years of programme implementation, the proportion of infants younger than six months who were exclusively breastfed increased from 65 to 74 per cent and the proportion of infants 6-8 months who were fed semi-solid or solid foods increased from 45 to 90 per cent.

It is possible to improve infant and young child feeding practices in a relatively short period of time by partnering with local NGO consortia with a large network of community-based organizations and support groups.

In India, there are an estimated 61 million stunted underfives due to undernutrition. Nearly 20 per cent of these children (12 million) live in Uttar Pradesh. Poor feeding practices for infants and young children are largely responsible for this worrisome situation as barely 51 per cent of the state's children 0-6 months are exclusively breastfed and less than 20 per cent of children 6-24 months are fed a minimum adequate diet.

Evidence shows that infant and young child feeding practices can be improved by counselling mothers and other caregivers individually and in groups. However, in Uttar Pradesh, promoting good feeding practices for infants and young children through the frontline workers of the Integrated Child Development Services (ICDS) and the National Rural Health Mission (NRHM) is challenging as the counselling capacity of frontline workers is weak and the coverage of these programmes is not universal.

In view of this situation, the Departments of Health and Family Welfare, and Women and Child Development with technical support by UNICEF established in 2010 a partnership with five non-governmental organizations (NGOs) to bring information, counselling, support and services to an estimated 100,000 pregnant women and breastfeeding mothers with a child under two years of age in 623 villages of 12 socially-disadvantaged districts. The protection, promotion and support of optimal infant and young child feeding practices was identified as the core focus of the partnership and the five NGOs had community-based programmes in

one or more of the districts and proven experience in advancing at least one of the proposed interventions.

Frontline and community support

In the initial phase, each NGO recruited its implementation team comprising a project coordinator, district coordinators and block coordinators (one for every eight to ten villages). UNICEF contributed to build the technical and programming capacity of the implementation teams (about 100 people). The strategy focused on improving the capacity of frontline workers to promote optimal feeding practices for infants and young children. The implementation teams trained about 1,500 frontline workers and supervisors from ICDS and NRHM and over 3,000 members of community support groups to provide counselling and support on infant and young child feeding with a particular focus on counselling pregnant women and breastfeeding mothers with a child under two years.

Once trained, the frontline workers used all existing opportunities within ICDS and NRHM to provide timely and accurate information, counselling and support on infant and young child feeding to mothers and other caregivers. These opportunities included among others: institutional deliveries and home deliveries assisted by skilled birth attendants, home visits during the four-week neonatal period, monthly immunization contacts, growth monitoring and promotion sessions, take home ration distribution days at the anganwadi centre, and biannual vitamin A supplementation rounds.

A community support group was created in each village. The community support group comprised five to six dynamic local women who had been trained to visit regularly eight to ten households of pregnant women and mothers with a child under two in their neighbourhood. Additionally, frontline workers and community support groups facilitated monthly group meetings with pregnant women, mothers of undertwos and community influencers to reinforce the centrality of optimal infant and young child feeding practices for child survival, growth and development.

Child feeding practices improve

District and block coordinators visited the villages every month to monitor progress in programme implementation by assessing eight programme indicators at every visit. Villages were ranked on the basis of this information and specific strategies were devised for the villages with poorer performance. Coordinators also participated at the monthly review meetings of ICDS and NRHM at the block level to voice implementation concerns and conduct refresher trainings on specific topics for the frontline workers and supervisors.

In addition to these efforts the NGO consortium did two important things: they mainstreamed protection, promotion and support of optimal child feeding in their projects outside the 12-district partnership and built the capacity on child feeding of 500 members of other grassroots organizations

that were working in nutrition-relevant programmes such as girls' education, women's empowerment and poverty reduction. These programmes provided an alternative platform to reach an additional 25,000 mothers of undertwos.

Representatives of the Departments of Health and Family Welfare, and Women and Child Development met with the NGO consortium and UNICEF on a quarterly basis to assess progress in programme implementation and decide on programme adjustments as appropriate. Additionally, these quarterly meetings were used to build further the capacity of the implementation team.

Through their work with frontline workers and community support groups and networks, the partnership with the five NGOs is reaching out to an estimated 125,000 pregnant women and mothers of undertwos. In 2012, an external evaluation of the partnership indicated that after two years of programme implementation, the proportion of infants younger than six months who were exclusively breastfed increased from 65 to 74 per cent and the proportion of infants 6-8 months who were fed semi-solid or solid foods increased from 45 to 90 percent.

The experience in Uttar Pradesh indicates that in settings where the government delivery system is weak, it is possible to improve infant and young child feeding practices in a relatively short period of time and by partnering with local NGO consortia with a large network of community-based organizations and support groups.

UNICEF supported

The Government of Uttar Pradesh in designing the partnership and built the capacity of the NGO partners in designing, implementing and monitoring the programme while bringing a nutrition focus in other nutrition-relevant projects run by these NGOs.

Rajasthan

Public-private partnerships with local NGOs improve ICDS management

Highlights

1. In 2006, 40 per cent of children in Rajasthan were stunted and only 21 per cent were benefiting from at least one service by ICDS. Thus, it became important to explore innovative approaches to improve the coverage and impact of ICDS.
2. The Government of Rajasthan decided to explore the potential of partnerships with local NGOs to improve the coverage and impact of ICDS by partnering with three local NGOs to manage three ICDS projects in the districts of Bharatpur, Bikaner and Kolayat.
3. Evaluation data indicate that the partnership with NGOs improved the management of anganwadi centres, enhanced the quality of supervision, improved community support for the anganwadi worker and expanded the coverage and quality of ICDS services.



These improvements are largely a result of the creation of an environment that enables anganwadi workers to deliver ICDS services more effectively.

In 2006, India's National Family Health Survey indicated that 40 per cent of underfives in Rajasthan were stunted. The low coverage of the Integrated Child Development Services (ICDS) programme was of particular concern as only 21 per cent of children were benefiting from at least one ICDS service and only 17 per cent were benefiting from the ICDS Supplementary Nutrition Programme. In light of this situation, it was important to explore innovative approaches to improve the coverage and impact of ICDS.

In the early eighties, the Government of Rajasthan had taken initiatives to strengthen the presence and reach of civil society organizations. As a result, non-governmental organizations (NGOs) were emerging as a potential partner to support the delivery of essential nutrition services and support for children and mothers, particularly among the most vulnerable and disadvantaged communities, including children and mothers from scheduled castes and scheduled tribes.

The Department of Women and Child Development partnered with three local NGOs – Uttari Rajasthan Milk Union Limited, Seemant Samiti Bhoruka Charitable Trust and Lupin Human Welfare and Research Foundation – to explore the potential of public-private partnerships with NGOs in strengthening the effectiveness of ICDS in the districts of Bharatpur, Bikaner and Kolayat.

Innovations in ICDS projects

While the managerial, supervisory and field structures in the NGO-managed ICDS projects were similar to those in the government-managed projects, NGOs were given flexibility to introduce innovations within the budgets allocated to each ICDS project by the state government.

Some of the innovations that the NGOs introduced were:

- Engaging anganwadi workers as staff whose contracts were renewed annually based on performance;
- Providing adequate support to anganwadi workers to help them perform their tasks better; this support took the form of pre-service and in-service (refresher) trainings coupled with learning sessions during the monthly meetings, and on-site supportive supervision by their supervisors and NGO staff;
- Distributing supplies for the anganwadi centres at the monthly sector meetings to reduce the time gap between the receipt of supplies at the block headquarter and their arrival at the anganwadi centre;
- Freeing up the time of anganwadi workers by shifting the procurement and preparation of supplementary foods to local self-help groups (SHGs) so that anganwadi workers have more time to provide information, counselling and support to mothers and families;
- Leveraging resources from other programmes implemented by the NGOs in the same location; for example Bhoruka Charitable Trust pooled its resources from ICDS and the Rural Effective Affordable Comprehensive Health Care Project to list all pregnant women, breastfeeding mothers and children under six, and track their access to ICDS services.

Effective delivery of services

In 2010, the Government of Rajasthan undertook an assessment of the anganwadi centres in the ICDS projects managed by the NGOs. The assessment was conducted by the State Institute of Health and Family Welfare with technical support by UNICEF. The assessment documented the following findings:

- The physical condition of the anganwadi centres was similar in both the NGO- and government-

managed ICDS projects; however, the overall governance of the ICDS programme was better in the NGO-managed projects: staff vacancy rates were lower (particularly among anganwadi workers and lady supervisors), anganwadi centres were better stocked, and critical information about the centre such as its location, opening hours and available services was displayed more prominently.

- The education level of the anganwadi workers was higher in the ICDS projects managed by the NGOs, as over 30 per cent of the anganwadi workers had formal education beyond the high school level. Higher education helped anganwadi workers better comprehend the technical aspects of their work. Furthermore in all the ICDS projects managed by NGOs, the anganwadi workers resided in the village where they worked, which contributed to regular and timely opening of the anganwadi centre.
- The coverage and quality of the services was better in the NGO-managed projects. In more than 50 per cent of the anganwadi centres managed by NGOs, children's participation in ICDS activities at the anganwadi centre was one hour longer than in the government-managed anganwadi centres. Similarly, in more than 75 per cent of the anganwadi centres managed by NGOs, the procurement and preparation of supplementary food was done by SHGs, freeing anganwadi workers'

time. Thus, the duration of preschool activities in these projects was longer with better use of the preschool kits.

Programme evidence suggests that partnering with NGOs that have experience in community-based programming improves the management of anganwadi centres, enhances the quality of supervision, improves community support for the anganwadi worker and expands the coverage and quality of ICDS services. These improvements are largely a result of the creation of an environment that enables anganwadi workers to deliver ICDS services more effectively. This knowledge base needs to be built further to understand how the management of ICDS projects by the NGOs can be further strengthened to impact on nutrition outcomes for children and their mothers.

The Ministry of Women and Child Development is committed to the universalization of the ICDS programme with quality and equity. The recently launched ICDS Mission envisages that partnerships with NGOs can be considered to improve the management of ICDS. The experience in Rajasthan can inform the scaling up of partnerships between state governments and NGOs for the management of ICDS and other large-scale programmes for children and women, particularly in areas where the coverage of services is low and the needs are high.

UNICEF supported

The Government of Rajasthan in conceptualizing and forging the partnership with the NGOs, designing the intervention and supported the State Institute of Health and Family Welfare in assessing the effectiveness of the public-private partnership in improving the capacity of ICDS in delivering services to children and mothers.

Gujarat

Partnership with milk cooperatives improves infant feeding practices in tribal communities

Highlights

1. In Gujarat, 52 per cent underfives are stunted because of chronic undernutrition. The prevalence of stunting is highest among tribal children: 61 per cent. Child feeding practices in the first two years of life are also poorer in tribal communities.
2. A partnership was formalized between Valsad District Administration, Vasudhara Dairy Cooperative and UNICEF to bring information, counselling and support on infant and young child feeding closer to mothers and families in tribal communities.
3. Three years later, the proportion of infants younger than six months who were exclusively breastfed had increased from 27 to 61 per cent and that of infants 6-8 months who were fed complementary foods in a timely manner had increased from 42 to 71 per cent.

The partnership created a win-win situation as it contributed to expand access to timely information, counselling, support and services by mothers and families while helping the Dairy Cooperative to expand its network in hard-to-reach areas.

In Gujarat, 52 per cent children under five are stunted because of chronic undernutrition. Child stunting sets in early in life as by age 24 months 48 per cent of Gujarati children are stunted. The prevalence of stunting is high in both urban and rural areas (47 and 55 per cent respectively); however, the prevalence of stunting is highest among tribal children as 61 per cent of tribal children are too small for their age.

In the tribal communities of Gujarat, sub-optimal feeding practices in the first two years of life – a major predictor of stunting in early childhood – are also poor as only 5 per cent tribal children 0-6 months are exclusively breastfed, only 14 per cent children 6-8 months are fed complementary foods, and just 14 per cent children 6-24 months are fed complementary foods that are adequate in both quantity and quality.

Reaching out to mothers and families in tribal communities with accurate and relevant information, and counselling and support on infant and young child feeding, nutrition and care in a timely manner is challenging as terrains are hilly and forested, homes sparsely spaced and the number and capacity of frontline workers is often insufficient.

Dairy self-help groups

Unique to Gujarat is a network of village-based dairy self-help groups – referred to as *Doodh Mandlis* – which are engaged in dairy farming across the state, including in tribal areas. Eight to 10 *Doodh Mandlis* are linked to a dairy society and dairy societies in two to three

neighbouring districts federate into milk marketing federations that supply milk and dairy products across India. The members of *Doodh Mandlis* are trained on calf rearing and hygiene practices in milk production, and are offered loans and remunerative prices according to the quality of the milk they produce.

Many of the hygiene and calf rearing practices promoted by the federations have a significant parallelism with the practices promoted globally for optimal infant and young child feeding. For instance, milking hygiene practices such as the need to wash hands with soap – which the dairy teaches its members – are applicable before feeding children. Similarly, the recommendation to feed the newborn calf colostrum immediately after birth and exclusively on mother's milk for a period of time to build immunity, and reduce morbidity and mortality can be used to promote exclusive breastfeeding practices for infants in the first six months of life.

Capitalizing on this synergy and the potential for the *Doodh Mandlis* to become allies to frontline workers in promoting optimal infant and young child feeding practices, a partnership was formalized in 2005 between the administration of Valsad district, the Vasudhara Dairy Cooperative and UNICEF to improve infant feeding practices in Valsad.

Village women counsellors

Among the 40 poorest districts of India, Valsad is a predominantly tribal (55 per cent) district and is

characterized by hilly terrain, uncertain rainfall and the presence of large tracts of forestland. In 2005, the Vasudhara Dairy Cooperative, a member of the Gujarat Cooperative Milk Marketing Federation, had a network of 208 dairy societies, comprising 1,200 *Doodh Mandlis* that were reaching out to 416 of the 469 villages in the district.

In these 416 villages, a participatory planning meeting was conducted to understand the reasons for the health and nutrition situation of children. At these meeting, four women from the village *Doodh Mandlis* who were willing to work as village women counsellors were identified – 800 in total – and trained on how to provide information, counselling and support to pregnant women and breastfeeding mothers on optimal infant and young child feeding, nutrition and care, and where to obtain services and support in their village. Additionally, a project coordinator, four block monitors and 40 cluster coordinators from the Vasudhara Dairy Cooperative were trained to coordinate, monitor and support the work of the village women counsellors.

The counsellors used their monthly self-help group meetings to promote optimal infant and young child feeding practices among village women. They also mobilized women in their neighbourhoods to utilize existing services of the Integrated Child Development Services and National Rural Health Mission at the monthly Village Health and Nutrition Days. Families who were less inclined to improve child feeding practices

were visited in their homes and provided additional information, counselling and support to persuade them and 'win them over'. The counsellors did not receive any monetary incentive but were provided travel support for trainings and meetings, in-kind incentives such as bags and counselling kits and, importantly, social recognition by their communities and district government officials

Since 2007, UNICEF has been conducting multiple indicator cluster surveys in Valsad district in support to the Government of Gujarat. The findings of the 2010 survey indicated that after three years of programme implementation, the proportion of infants younger than six months who were exclusively breastfed had increased from 27 to 61 per cent and the proportion of infants 6-8 months who were fed complementary foods in a timely manner while they continued to breastfeed had increased from 42 to 71 per cent.

In 2012, the estimated annual cost of this initiative in Valsad district was about US\$85,000. Half of this cost was covered by the Vasudhara Dairy Cooperative. The partnership created a win-win situation as it contributed to expand access to timely information, counselling, support and services by mothers and families while helping the Dairy Cooperative to expand its network in hard-to-reach areas. In light of these encouraging results, UNICEF is supporting the Government of Gujarat to plan for the future expansion of the model to other districts.

UNICEF supported

The design, implementation, monitoring and evaluation of this initiative while the Dairy Cooperative provided its extensive network of district, block and village workers to reach out to mothers and households.

Assam

Infants and young children in hard-to-reach communities benefit from concerted public-private actions

Highlights

1. In the state of Assam, only 51 per cent of newborns were breastfed within one hour of birth and only 63 per cent of infants younger than six months were breastfed exclusively.
2. In 2006, the Government of Assam launched a strategy to accelerate progress in improving feeding indicators for children with two key pillars: build the capacity of frontline workers to counsel mothers, and improve coverage in hard-to-reach areas.
3. As a result of this concerted public-private effort, the proportion of infants younger than six months who were exclusively breastfed increased from 28 per cent in 2004 to 55 per cent in 2011 in three tea producing districts.



Effective public-private partnerships to reach out to the most vulnerable communities, coupled with focused strategies and large scale community-based action, can contribute to improve infant feeding practices in a relatively short period of time and give children the best start in life.

India's 2006 National Family Health Survey indicated that in the north eastern state of Assam only 51 per cent of newborns were breastfed within one hour of birth, 63 per cent of infants younger than six months were breastfed exclusively and 60 per cent of infants 6-8 months were fed complementary foods. Cognizant of this situation and its potential negative consequences for the survival, growth and development of children, the Government of Assam launched in 2006 a strategy to accelerate progress in improving infant feeding indicators in the state. The strategy relied on two major pillars: 1) build the capacity of frontline workers to counsel and support mothers; and 2) expand programme coverage to marginalized and hard-to-reach communities.

All village-based health and nutrition workers were trained to provide timely and quality information, counselling and support to mothers and families on feeding and care for infants and young children. Standardized training materials and job aids were provided to the training centres and health facilities where frontline workers learn and work to ensure that the messages that they share with mothers are accurate and consistent across the state.

Equipped with appropriate knowledge and counselling skills and tools, these health and nutrition workers meet at the anganwadi centre on a fixed day each month. There, they list the names and addresses of all women in the last trimester of pregnancy and breastfeeding

mothers with a child under two. The frontline workers then establish a schedule to visit these women and children in their homes three to four times a month.

Building capacity of frontline workers

During the home visits, the frontline workers provide women with essential information and counselling while they support mothers to solve problems related to infant feeding, nutrition and care. Additionally, the frontline workers facilitate the formation of mother support groups in the villages. Each mother support group comprises three to four mothers who have fed or feed their children successfully. The support group helps frontline workers provide counselling to pregnant women and breastfeeding mothers by visiting them regularly in their homes. Additionally, frontline workers and mother support groups organize group meetings with pregnant and breastfeeding women in the village to discuss and solve problems related to child feeding nutrition and care.

Since 2009, two traditional ceremonies are celebrated at these community gatherings. The first ceremony, *Matri Amrit*, celebrates women in the third trimester of pregnancy and provides them with information and counselling on the benefits of early initiation of breastfeeding within one hour of delivery and exclusive breastfeeding in the first six months of life. The second ceremony, *Pratham Aahar*, celebrates mothers with an infant who is entering the seventh month of life, when the six-month exclusive

breastfeeding period is completed. At this ceremony, infants are fed complementary foods for the first time.

Improving coverage in difficult areas

The second pillar of the strategy entailed intensifying efforts in the areas where services to promote optimal infant feeding and nutrition were poorer. These were tea garden districts where the coverage of flagship programmes for women and children was minimal and five hard-to-reach districts where geographical access was difficult and/or coverage of programmes was limited.

In support to the Government of Assam's efforts, UNICEF entered into a partnership with the Assam Branch of the Indian Tea Association – a federation of 276 tea garden companies – to improve the health and nutrition situation of children in three tea districts where 117 tea garden companies were operating. In these three districts, village-based health and nutrition frontline workers were trained to provide timely and quality counselling and support to mothers on feeding and care for young children while mother support groups, called 'mothers clubs', were formed to support optimal infant feeding practices. Tea companies complement these efforts by allowing mothers to take breastfeeding breaks during working hours in the tea gardens and by enhancing the quality of services provided at the crèches managed by them.

In the five hard-to-reach districts, where numerous positions of health and nutrition workers were vacant and where the coverage of health and nutrition service was poor, a

partnership with the North East Diocesan Social Forum – a faith-based organization – was established' to protect, promote and support optimal child feeding practices through community volunteers. These volunteers visit the homes of pregnant women and breastfeeding mothers and, using a pictorial counselling flip book, provide mothers with relevant information and support on infant feeding, nutrition and care. Additionally, community volunteers support the existing frontline workers in organizing village events to promote good feeding and care for infants and young children.

In parallel, the Government of Assam is implementing a maternity protection cash transfer scheme to incentivize the early registration of pregnancies, appropriate prenatal care and institutional deliveries. The scheme is used as a platform to promote and support optimal feeding practices for infants and young children statewide. As a result of this concerted effort – with focused interventions in tea gardens and hard-to-reach communities and universal interventions through the state – the proportion of infants who were breastfed within one hour of birth in Assam increased from 51 per cent in 2006 to 70 per cent in 2011. Similarly in the three tea producing districts, the proportion of infants younger than six months who were exclusively breastfed increased from 28 per cent in 2004 to 55 per cent in 2011.

The state of Assam is demonstrating that effective public-private partnerships to reach out to the most vulnerable and hard-to-reach communities, coupled with focused strategies and large scale community-based action, can contribute to improve infant feeding practices in a relatively short period of time and give children the best start in life.

UNICEF supported

The Government of Assam in designing the strategy, building the capacity of frontline workers and forging the public-private partnerships with the Assam Branch of the Indian Tea Association and the North East Diocesan Social Forum.

Maharashtra

Maternal and child nutrition integrated in training curricula of all state medical schools

Highlights

1. Global evidence indicates that health professionals are one of the sources of information mothers and caregivers trust most when they need information and support on child feeding, care and nutrition.
2. In 2008, an assessment indicated that the importance given to maternal and child nutrition in the training of medical doctors was minimal and that the information included in the pre-service and in-service training curricula was often outdated.
3. The Government of Maharashtra led a partnership to strengthen the maternal and child nutrition content of the state's pre-service and in-service training curricula for medical doctors. Since the academic year 2012-2013, medical doctors are provided with the knowledge and skills to deliver essential nutrition information, counselling, support and services to children and women.

Health professionals are one of the sources of information mothers trust most. Maharashtra's new generations of physicians are being provided with the knowledge and skills to deliver essential nutrition information, counselling, support and services to children and mothers.

In 2006, India's National Family Health Survey indicated that in Maharashtra – the wealthiest state of India – every second child under five years of age had stunted growth due to chronic undernutrition. Stunting in early childhood is a result of poor maternal nutrition before and during pregnancy, and/or inadequate foods, and feeding and care practices in the first two years of life. Global evidence indicates that timely and quality nutrition counselling and support can significantly reduce the incidence of stunting in infants and young children.

Health professionals who interact with mothers and their families before, during and after pregnancy in facilities and through community programmes are in a unique position to help mothers, families and communities use essential health and nutrition services and adopt positive home and family practices to ensure children's optimal survival, growth and development. Evidence shows that health professionals are one of the sources of information mothers and caregivers trust most when they need information and support on child feeding, care and nutrition.

Every year, at least 6,000 students complete their medical degree in Maharashtra and about 700 complete their postgraduate specialty degree in community medicine, paediatrics, or obstetrics and gynaecology in one of the 41 medical schools of the state. About one third of these medical professionals will serve as medical officers in government hospitals at primary, secondary or tertiary levels, or will support the

implementation of the state flagship programmes for maternal and child health and nutrition.

In 2008, an assessment of the pre-service and in-service curricula in Maharashtra's medical schools indicated that the importance given to maternal and child nutrition in the training to medical doctors was minimal. Moreover, the information included in the training curricula was often outdated. The assessment also indicated that medical officers had limited facilitation and training skills to build the nutrition capacity of other health workers, including that of frontline workers, critical to universalize the coverage of essential nutrition interventions for children and their mothers.

Partnership strengthens nutrition content

In response to this situation, a partnership was established in 2009 between the state's Departments of Health and Family Welfare, and Women and Child Development, the Maharashtra's State Nutrition Mission, Maharashtra University of Health Sciences, the Indian Academy of Pediatrics and UNICEF. The aim of the partnership was to strengthen the nutrition content of the pre-service and in-service curricula used to train medical doctors in the state.

A series of 22 technical consultations was held to inform and sensitize the deans and 480 professors of community medicine, neonatology, paediatrics, obstetrics and gynaecology from all medical schools under the Maharashtra University of Health Sciences. These

consultations were designed to sensitize the participants on the latest research and evidence on the links between maternal and child nutrition and children's survival, growth and development, as well as the latest global and national recommendations, guidelines and programmes.

Importantly, these consultations provided an opportunity to build consensus on the urgent need to update the maternal and child nutrition component of the medical curricula. As an outcome of the consultation, a task force was formed to develop a roadmap for the revision of the undergraduate and postgraduate pre-service medical curricula. The task force comprised representatives of teaching faculty, the academic council of Maharashtra University of Health Sciences – an apex academic body overseeing all the medical schools and allied health institutions – and members of the partnership team.

Aligning with global practice

Senior faculty members of Maharashtra University of Health Sciences were tasked to lead the review of the existing curricula and align their content on maternal and child nutrition with the latest research evidence, global recommendations and national policies, programmes and guidelines. The nutrition component of the curricula was revised accordingly and pilot-tested with 600 medical students in three medical schools. Students' feedback was incorporated in the

final version of the curricula by the task force. Finally the revised curricula were approved by the Academic Council of Maharashtra University of Health Sciences for integration in the 2012-2013 pre-service training of undergraduate and postgraduate medical students.

In 2012, a first promotion of nearly 3,500 medical students graduated with the revised nutrition curricula. By 2014, another 6,000 medical graduates will complete their training using the revised curricula. These new generations of physicians will be provided with the knowledge and skills to deliver essential nutrition information, counselling, support and services to children, women, mothers, caregivers and communities.

Given the long-term dividends that this initiative is expected to bring about, efforts are currently underway to revise the maternal and child nutrition content of the pre-service curriculum of nursing schools and the in-service curriculum of medical doctors. In addition, three Public Health Nutrition courses have been developed by the same task force and have been endorsed by the Academic Council of Maharashtra University of Health Sciences: a two-year Master's degree course in Public Health Nutrition, a one-year Infant and Young Child Nutrition fellowship, and a six-month certificate course in clinical nutrition. Importantly, a decision has been taken by the academic council to revise the curriculum at least once every ten years.

UNICEF supported

The partnership and the process for the review of the pre-service and in-service curricula of medical doctors. Currently UNICEF is supporting a similar initiative to review the pre-service and in-service curricula of nursing schools.



3. Building capacity

Optimal nutrition in the first two years of life is critical to prevent child stunting and break the inter-generational cycle of undernutrition. State governments are building the capacity of programme staff, frontline workers and community volunteers to bring services, information, counselling and support closer to mothers and children when they need it most.

Madhya Pradesh

Breastfeeding counsellors contribute to double the rate of timely initiation of breastfeeding

Highlights

1. In Madhya Pradesh, the proportion of deliveries that take place in health facilities reached 81 per cent in 2009. However, the proportion of mothers who started breastfeeding their newborns within one hour of delivery was a mere 32 per cent.
2. In response to this situation, the Government of Madhya Pradesh decided to place trained breastfeeding counsellors in all state-run district hospitals using funds under the Infant and Young Child Feeding component of the National Rural Health Mission.
3. The placement of the breastfeeding counsellors contributed to an almost two-fold increase in the proportion of mothers who started breastfeeding their newborns within one hour of birth, which increased from 32 per cent in 2009 to 61 per cent in 2011.

The placement of breastfeeding counsellors created an enabling environment for the protection, promotion and support of optimal breastfeeding practices from birth.

In India, 1.4 million underfives die every year. About two thirds of these deaths occur in the neonatal period, the first 28 days of life. Research shows that initiation of breastfeeding within one hour of birth can reduce neonatal deaths by up to 22 per cent. Therefore, helping mothers to start breastfeeding within one hour of delivery by promoting skilled support at birth is a key strategy to improve neonatal survival in India.

In 2005 India's Ministry of Health and Family Welfare introduced Janani Suraksha Yojana (JSY), a conditional cash transfer scheme that incentivizes institutional delivery. JSY requires mothers to give birth and stay in the facility for three days after delivery to qualify for the cash transfer. As a result of JSY, the proportion of institutional deliveries increased from 41 per cent in 2004 to 73 per cent in 2009. However, the proportion of mothers who started breastfeeding within one hour of delivery in 2009 was only 33 per cent.

The state of Madhya Pradesh witnessed a similar mismatch between the high proportion of institutional deliveries (81 per cent in 2009) and the low rates of initiation of breastfeeding within one hour of birth (32 per cent). In response to this situation, the Government of Madhya Pradesh decided to position trained breastfeeding counsellors in all the state-run district hospitals.

Pilot programme shows positive results

This innovation was introduced as a pilot programme in the district of Shivpuri in 2009. A female graduate in Food and Nutrition Sciences was posted as breastfeeding counsellor at Shivpuri's district hospital. Before being posted, the breastfeeding counsellor received a five-day skill-based training

on Infant and Young Child Feeding (IYCF) given by a certified trainer at Gwalior Medical College following the *Three-in-One IYCF Counselling Course*.

Equipped with appropriate knowledge, skills, counselling materials and job aids, the primary responsibility of the breastfeeding counsellor was to support all women who delivered at the district hospital in initiating breastfeeding within one hour of birth. Post-delivery, the counsellor's role was to motivate mothers, accompanying family members and hospital staff to ensure that newborns are exclusively breastfed, with no other liquids or foods given, not even water or ritual prelacteal feeds.

Importantly, the counsellor played a key role in solving problems related to breastfeeding positioning and attachment, particularly with first time mothers, mothers with premature or low birth weight newborns, mothers with twins and mothers who underwent a caesarean section. In 2009, 69 per cent of the women who delivered in the district hospital initiated breastfeeding within one hour of delivery; by the end of 2010, this figure had increased to 82 per cent

Counsellors create enabling environment

Encouraged by these positive results, the Government of Madhya Pradesh decided to place breastfeeding counsellors in the 50 district hospitals of the state. By December 2012, 47 breastfeeding counsellors had been trained and placed in an equal number of district hospitals and had been given the same job description as that of the counsellor at Shivpuri's district hospital. The training and placement of these breastfeeding counsellors was funded by the IYCF component of the Project Implementation Plan of the National Rural Health Mission (NRHM) in Madhya Pradesh.

The placement of breastfeeding counsellors created an enabling environment for the protection, promotion and support of optimal breastfeeding practices in the district hospitals and contributed to a two-fold increase in the proportion of mothers who started breastfeeding their newborns within one hour of birth, which increased from 32 per cent in 2009 to 61 per cent in 2011. Quality skill-based training, regular refresher training and hands-on supportive supervision contributed to achieve these significant results.

The state of Madhya Pradesh is now marching ahead to accelerate progress towards universal initiation of

breastfeeding within one hour of birth by reaching out to mothers who deliver in block-level health facilities. A pilot programme led by the Madhya Pradesh State Nutrition Mission is underway wherein 26 breastfeeding counsellors have been trained and placed in the 26 block-level delivery facilities in the districts of Jhabua and Barwan.

The evidence-based approach taken by the Government of Madhya Pradesh to improve the rates of timely initiation of breastfeeding can be adopted by other states to accelerate India's efforts to reach out to all newborns with this life-saving infant feeding intervention.

UNICEF supported

The State Department of Health and Family Welfare in implementing and documenting the pilot programme in Shivpuri, developing the strategy to scale up this intervention state-wide and building the capacity of breastfeeding counsellors.

Maharashtra

Network of certified breastfeeding counsellors builds capacities on infant and young child feeding beyond the state

Highlights

1. In the early nineties, 53 per cent of the children born in the state of Maharashtra were delivered by a health professional. However, only 7 per cent of them started breastfeeding within one hour of birth.
2. In 1995, the Government of Maharashtra created a critical mass of breastfeeding counsellors whose primary responsibility was to provide counselling and support to mothers and families and serve as a breastfeeding training hub for the state.
3. In 2011, over 40,000 mothers received support by breastfeeding counsellors. Among these mothers, the rate of initiation of breastfeeding within one hour of birth was above 90 per cent. This network of counsellors has trained 5,000 master trainers and 50,000 frontline workers in five states, thus building capacity beyond Maharashtra.

The network of counsellors serves as a pool of master trainers to build the capacity of programme staff to protect, promote and support optimal infant and young child feeding practices across and beyond Maharashtra.

In the early nineties, 5 per cent of India's newborns died in the first 28 days of life. Most of these neonatal deaths happened in the first week of life and many could have been prevented had these children been delivered by a skilled birth attendant and breastfed within one hour of birth. Unfortunately, at that time only 12 per cent of infants delivered by health professionals were breastfed within one hour of birth, a practice that could reduce neonatal mortality by up to 20 per cent.

The State of Maharashtra – the wealthiest, second most populous and third largest in India – was not an exception, as 53 per cent of newborns were delivered by a health professional but only 7 per cent were breastfed within one hour of birth. In 1995, the state government initiated with support by UNICEF and the Breastfeeding Promotion Network of India (BPNI) in Maharashtra, the creation of a critical mass of breastfeeding counsellors whose primary responsibility was to provide breastfeeding information, counselling and support to mothers and families in the maternities of Mumbai, the state capital, while serving as a breastfeeding training hub for the rest of the state.

Mothers invited to be breastfeeding counsellors

Mothers with a university degree and successful breastfeeding experience were invited to enrol in a breastfeeding counselling training programme that used tools and methodologies adapted from those developed by UNICEF and the World Health

Organization globally. The training comprised 18 hours of classroom lectures, 24 hours of practise in a maternity hospital under the supervision of a senior breastfeeding counsellor and a three-month hands-on internship in a different maternity hospital. These women were certified as breastfeeding counsellors if the technical committee in charge of the programme reviewed favourably their competency – both knowledge and skills – at the examination, practicum and internship.

The city of Mumbai now has a network of 56 certified breastfeeding counsellors who are reaching out to 50 private maternity homes (up to 50 deliveries per month), four private hospitals (up to 100 deliveries per month), four municipal maternity homes (up to 500 deliveries per month) and three municipal hospitals (up to 1,000 deliveries per month). Each woman counsellor is assigned a municipal hospital, a municipal maternity home and two or three private maternity homes that she is to visit every month. During their regular visits, the counsellors provide information and support to mothers and families in the neonatal intensive care unit, the postnatal ward, the paediatric ward, and during out-patient pediatric consultations.

Pool of master trainers

When providing support to mothers, counsellors pay particular attention to ensure that the newborn's positioning and attachment are optimal to ensure a successful breastfeeding experience. They listen

to mothers' concerns and fears and help solve the doubts and difficulties that mothers and families may encounter when breastfeeding. Importantly, counsellors also conduct breastfeeding education sessions with the maternity staff as well as breastfeeding awareness drives. Counsellors are remunerated monthly by the hospital administration based on the number of visits they make to the hospital.

The network of certified breastfeeding counsellors is contributing to promising results. Programme data indicate that, in 2011, over 40,000 mothers who gave birth in private maternity homes and municipal hospitals received support from members of the network. Among these mothers, the rate of timely initiation of breastfeeding within one hour of birth was above 90 per cent. Currently the cost of the initiative is included entirely in the Infant and Young Child Feeding component of the Municipal Corporation budget for the National Rural Health Mission (NRHM). Based on this successful experience, the State Health Department has agreed to place certified breastfeeding counsellors in seven women's hospitals and all the state district hospitals using NRHM state funds.

UNICEF supported

The conception and design of the network of breastfeeding counsellors, and helped the Government of Maharashtra to build institutional capacities on infant and young child feeding and nutrition across the state.

The network continues to identify prospective members and collaborate with the medical faculty of municipal hospitals and other maternity facilities to expand its coverage in the districts where it works and to new ones. Medical faculty associated with BPNI-Maharashtra coordinates the work of network members while playing a mentorship and monitoring role. The network of counsellors serves as a pool of master trainers to build the capacity of programme staff to protect, promote and support optimal infant and young child feeding practices across and beyond Maharashtra.

In the last five years, the network has trained 5,000 master trainers and 50,000 frontline workers in five states: Chhattisgarh, Gujarat, Jharkhand, Maharashtra and Odisha. Ten of the 56 counsellors have received an additional certification from the International Board of Breastfeeding Consultant Examiners, the most trusted source for certifying breastfeeding practitioners worldwide. Additionally, Maharashtra's state medical university has sanctioned a one-year breastfeeding counselling course based on this experience.

Andhra Pradesh

Large-scale programmes and partnerships promote better complementary foods and feeding practices

Highlights

1. The state of Andhra Pradesh is known for its thriving economy. Paradoxically, the latest data available indicated that only 10 per cent of children 6-24 months in the state are fed a minimum adequate diet.
2. When the Government of India increased the financial allocation and nutrient norms of the ICDS Supplementary Nutrition Programme in 2009, the Government of Andhra Pradesh saw an opportunity to improve complementary feeding practices in the state.
3. Andhra Pradesh has stirred a momentum to accelerate improvements in the quality of complementary foods and feeding practices by building on existing opportunities and platforms and capitalizing on innovative partnerships with civil society organizations.

Importantly, the protection, promotion and support of optimal complementary feeding practices has been integrated in the state Behaviour Promotion Mission, which includes both interpersonal and mass media communication initiatives.

The state of Andhra Pradesh in southern India is known for its thriving economy. Paradoxically, the latest data available indicated that 43 per cent of children under five have stunted growth due to chronic undernutrition. Child stunting can be prevented by improving women's nutrition before and during pregnancy, and infant feeding, hygiene and care practices in the first two years of life. The nutrient quality of foods in the first two years of life is of the essence for children's survival, growth and development. In the first six months, exclusive breastfeeding meets all the nutrient requirements of infants; thereafter, age-appropriate complementary foods are needed.

The Government of Andhra Pradesh provides supplementary foods in the form of take-home rations for children 6-36 months old through the Integrated Child Development Services (ICDS) Supplementary Nutrition Programme. However, the 2006 National Family Health Survey indicated that only 29 per cent of children 6-36 months old were receiving ICDS supplementary foods. Furthermore, only 10 per cent of children 6-24 months in the state were fed a minimum adequate diet.

An opportunity to improve this situation emerged in 2009, when the Government of India decided to increase the financial allocation and nutrient norms of the ICDS' Supplementary Nutrition Programme. This policy development directed that the supplementary foods distributed through ICDS should provide 500 kcal and 12-15 grams of protein per child per day and be fortified with eight essential micronutrients

such as vitamin A, vitamin C, iron and others. This development provided the Government with an unprecedented opportunity to improve the quality of the supplementary foods given to children and with it, the uptake of the Supplementary Nutrition Programme.

Innovations to increase intake

As a first step, a technical committee was formed to guide the formulation of supplementary foods with AP-Foods, a state undertaking that has been producing such foods for ICDS since the programme's inception. The technical committee comprised specialists from the National Institute of Nutrition, the Food and Nutrition Board, the Global Alliance for Improved Nutrition (GAIN) and UNICEF. AP-Foods developed a locally acceptable ready-to-eat extruded snack and three varieties of ready-to-cook rice-based take-home ration pre-mixes (*upma*, *halwa* and soya *khichri*) that are distributed in over 51,000 anganwadi centres. In the remaining 39,000 anganwadi centres, self-help groups (SHGs) and non-governmental organizations (NGOs) provide hot cooked meals (*pongali* and broken wheat *khichri*). In both cases, supplementary foods are fortified with micronutrients as recommended by the Government of India's directive.

Consequently, service providers in ICDS, SHGs and NGOs were trained by the regional centre of the National Institute of Public Corporation and Child Development – the autonomous training institution of ICDS – on how to cook and/or distribute these fortified supplementary foods. This opportunity was seized to

introduce three important innovations:

- Use these trainings to build the knowledge of ICDS, SHG and NGO workers on the benefits of optimal complementary feeding practices and build their knowledge and skills to counsel mothers and families on how to improve the quality of complementary foods and feeding practices;
- Use weekly take-home ration distribution days as an opportunity to build the capacity of mothers to prepare good quality complementary foods and feed their children following the recommended optimal feeding and hygiene practices;
- Strengthen the capacity of ICDS, SHG and NGO workers to provide information, counselling and support to mothers on complementary feeding in their villages.

UNICEF supported the development of training materials and pictorial job-aid on complementary feeding for children 6-24 months old. In parallel, the Government of Andhra Pradesh completed the local adaptation of the Mother and Child Protection Card, including a detailed pictorial section on complementary feeding for children 6-24 months old.

Village-based initiation of complementary foods

Furthermore, in 2011 the Department of Women and Child Development launched the organization of a village-based initiative at the anganwadi centre called *Samuhika Anna Prasanam*, whereby mothers of infants who enter the seventh month of life initiate together the introduction of complementary foods with support by the anganwadi worker and mothers who are feeding complementary foods successfully to their 6-24 month old children.

UNICEF supported

The formulation of the strategy, directives and guidelines, the development of counselling and communication materials and building the capacity of frontline workers.

In addition, the state government sent out directives to the 23 districts guiding them to use the weekly take-home ration distribution day for group counselling sessions on complementary feeding in all anganwadi centres. All anganwadi workers are to report on these sessions in their monthly progress report and sessions are monitored in at least five anganwadi centres by a state team each month. SHGs that are involved in supplementary feeding are asked to support anganwadi workers to monitor complementary feeding practices in the households. Progress in the implementation of these activities is reviewed every month by the State Nutrition Committee.

After three months of implementation, 18,000 (20 per cent) frontline workers were conducting group counselling on complementary feeding at food distribution and immunization days. State reviews indicate that this number continues to increase. In the 4,200 villages with village-based nutrition centres, SHGs meet every two weeks with all mothers of children 6-24 months old and teach them how to prepare complementary foods using locally available foods.

Importantly, the protection, promotion and support of optimal complementary feeding practices has been integrated in the state Behaviour Promotion Mission called *Marpu* ('desired change'), which includes both interpersonal and mass media communication initiatives. A first evaluation of the impact of these initiatives is needed. However, it seems clear that Andhra Pradesh has stirred a momentum to accelerate improvements in the quality of complementary foods and feeding practices for infants and young children by building on existing opportunities and platforms and capitalizing on innovative partnerships with civil society organizations.

West Bengal

Positive deviance principles scaled up to tackle child stunting

Highlights

1. West Bengal was the first state to introduce Positive Deviance, based on the premise that solutions to child undernutrition may already exist in the community as in every community there are positive family practices that keep some children well-nourished.
2. Positive Deviance aims at helping families adopt the positive practices identified in the community, on the premise that practices to prevent child undernutrition are transferred more easily from family to family within the same community.
3. By December 2012, Positive Deviance had been scaled up in 10 districts and over 40,500 anganwadi centres, of which almost 20,000 were running nutrition and counselling sessions and reaching over 230,000 caregivers of children under three years.



The experience in West Bengal indicates that the key elements of Positive Deviance can be effectively incorporated into the Integrated Child Development Services and National Rural Health Mission.

Child feeding, nutrition and care is the prime responsibility of families. However, families must be provided with the information, counselling, support and services that they need to ensure that children grow and develop to their full potential. The Integrated Child Development Services (ICDS) programme has explored different approaches to engage families and communities in improving feeding and care practices for infants and young children. One such approach is Positive Deviance. Positive Deviance is based on two premises: the first is that solutions to child undernutrition may already exist within the community as in every socio-economically homogenous community there are families who have well-nourished children; the second is that knowledge and practices to prevent child undernutrition can be transferred more easily from family to family within the same community.

West Bengal was the first state to introduce Positive Deviance in ICDS. In 2001 the Department of Women and Child Development and Social Welfare, with support by UNICEF, introduced the Positive Deviance approach or *Kano Parbo na* (Why can't we do it?) in two districts. *Kano Parbo na* aimed at:

- Identifying positive child feeding, nutrition and care practices in families that manage to have well-nourished children in a context of high child undernutrition rates;
- Helping families and communities understand the importance of such positive practices for children's survival, growth and development;
- Encouraging families with undernourished children below three years of age to adopt

- these positive practices through counselling sessions organized at the anganwadi centre;
- Spreading positive feeding, nutrition and care practices to other families with infants and young children.

Positive Deviance cells at district level

Kano Parbo na employed a four-pronged strategy:

- 1) building the knowledge and skills of anganwadi workers and families on child feeding, nutrition and care;
- 2) supporting community participation through dialogue with village leaders, influencers and social groups and through formation of village health committees;
- 3) organizing nutrition counselling and care sessions, a platform for hands-on learning on child feeding, nutrition and care for mothers; and
- 4) practising these learnings to establish positive care practices.

To support implementation, a four-day comprehensive training was imparted to anganwadi workers and the frontline workers of the Department of Health to equip them with knowledge and skills to mobilize communities, identify positive deviant families, identify positive child feeding and care practices in these families, and organize the nutrition counselling and care sessions. Once the training was completed, ICDS staff and village leaders, influencers and social groups introduced Positive Deviance in the village, which included mobilizing communities, forming village health committees, identifying existing positive practices, promoting these practices through the

nutrition counselling and care sessions, and sustaining the adoption of positive practices by families.

Positive Deviance cells were created at the district level under the leadership of district magistrates to support the implementation and monitoring of *Kano Parbo na*. The activities of the Positive Deviance cell were implemented by the concerned ICDS District Programme Officer with support by a Positive Deviance coordinator and a data management coordinator. In each block, a block facilitator supported the ICDS Child Development Project Officer with the implementation of *Kano Parbo na*. These block facilitators reported to the Positive Deviance cell at the district level.

In 2003, *Kano Parbo na* was scaled up to cover four districts with an expanded Positive Deviance approach that in addition fostered stronger linkages with mothers' groups and women self-help groups and improved coordination with the Departments of Health and Family Welfare, Rural Development, and Panchayati Raj.

Nutrition indicators improve in intervention areas

In 2006, the Government of West Bengal commissioned an evaluation of *Kano Parbo na*. The survey findings showed that indicators of child feeding, nutrition and care were significantly better in *Kano Parbo na* intervention areas than in non-intervention areas: colostrum feeding (90 vs. 82 per cent), no prelacteal feeds in the first days of life (78 vs. 35 per cent), exclusive breastfeeding (70 vs. 61 per cent), timely introduction of complementary foods (44 vs. 29 per cent), minimum feed frequency per day (79 vs.

39 per cent), full immunization (86 vs. 68 per cent) and vitamin A supplementation (84 vs. 74 per cent). Importantly, these positive trends were associated with a significantly lower prevalence of child stunting in *Kano Parbo na* intervention areas than in non-intervention areas (26.5 vs. 32 per cent).

As Positive Deviance expanded, the strategy was adapted to take into account new challenges and opportunities. In 2010, West Bengal launched the Positive Deviance Plus approach, which focused on involving local bodies and *panchayats* (local self-governance). Positive Deviance has been scaled up in 10 districts, 133 ICDS projects and over 40,500 (36 per cent) anganwadi centres, of which almost 20,000 are running community-based nutrition and counselling sessions and reaching over 230,000 caregivers of children under three years. In 2012-2013, the National Rural Health Mission allocated INR30.3 million for the implementation of Positive Deviance, and for the year 2013-2014, the proposed budget increased to INR35 million.

The experience in West Bengal indicates that the key elements of Positive Deviance can be effectively incorporated into ICDS and NRHM – the state flagship programmes for child survival, growth and development – at an additional cost of about INR1,435 per anganwadi centre per year. The care practice surveys conducted by anganwadi workers indicate positive trends with respect to colostrum feeding, exclusive breastfeeding, introduction of complementary foods, hand washing with soap after defecation and use of sanitary latrines – key inputs to improve nutrition outcomes in infants and young children, particularly the most vulnerable.

UNICEF supported

The pilot testing of Positive Deviance and used the evidence emanating from the pilot phase of the programme to facilitate the scale up of Positive Deviance principles through ICDS and NRHM with state government resources.



Jharkhand

Community women's groups bring counselling and support on infant and young child feeding closer to families

Highlights

1. Global evidence shows that in settings where child undernutrition is high and there are a limited number of frontline workers, community groups can be vital allies in improving counselling and support on infant and young child feeding, nutrition and care.
2. The Government of Jharkhand has scaled up the *Dular* strategy in its 24 districts. *Dular* builds the capacity of community women volunteers to reach out to mothers and families with essential information, counselling and support on child feeding, nutrition and care.
3. Currently, over 77,000 trained community women volunteers are providing information, counselling and support on child feeding, nutrition and care to mothers through one-to-one counselling contacts at home and group counselling sessions in the community.

The three most important motivating factors to the women who form the Local Resource Group are the leadership provided by the anganwadi worker, the opportunities for acquiring new knowledge and skills, and the recognition by their communities.

India's latest National Family Health Survey indicated that 50 per cent of underfives in Jharkhand were stunted due to chronic undernutrition and only 35 per cent of them were receiving services from the Integrated Child Development Services (ICDS) programme, the state's flagship for child nutrition and development.

Global evidence shows that in settings where child undernutrition is high and there are a limited number of frontline workers who can advise and support mothers and families on child feeding, nutrition and care, community groups can be vital allies for improving the frequency and quality of counselling contacts with mothers and families.

Building on global evidence, the Government of Jharkhand launched in 2001 the pilot phase of Dular with technical support by UNICEF in five of Jharkhand's 24 districts. Dular, which in Hindi means *to love and care*, is a strategy to build the capacity of groups of community women volunteers to support ICDS and National Rural Health Mission (NRHM) frontline workers in reaching out to mothers, mothers-to-be and their families with essential information, counselling and support on child feeding, nutrition and care.

Community participation and engagement are at the heart of Dular. Dular is introduced to the community through a two-day village contact drive, which helps initiate community dialogue on child nutrition and stimulate the need for collective community action. The drive is facilitated by ICDS and NRHM frontline workers with the support of their supervisors.

Community map an effective visual tool

A key component of the drive is community mapping. Through this exercise, community members draw a map of their village and identify on it the households where there is a pregnant woman or breastfeeding mother and the areas of the village where the reach of ICDS and NRHM services is poor. The map serves as an effective visual tool to discuss the spread and concentration of nutrition problems, discuss barriers to service delivery and service uptake, and divide the village into geographic clusters. Another key component of the drive is the identification by the community of six to eight local women – the Local Resource Group – who have knowledge about the realities of the community and are willing to serve as counsellors on infant and young child feeding, nutrition and care.

Each of the women in the Local Resource Group is entrusted with a cluster of about 15 households as her catchment area. After receiving a two-day training to acquire knowledge and skills on infant and young child feeding and being equipped with pictorial job-aids for counselling, the women of the Local Resource Group start their work. Each Group member identifies all pregnant women and mothers with a child under three years of age in her catchment area, visits them weekly in their homes, and provides them with information, counselling and support to feed and care for their children.

In addition to the weekly home visits, Group members mobilize pregnant women and breastfeeding mothers

to avail themselves of the nutrition and health services during monthly immunization days. Since most local resource women are also members of thrift and credit groups, the monthly meetings of these groups are used by them to disseminate information on maternal and child nutrition to other women.

Furthermore, members of the Local Resource Group meet monthly to facilitate group counselling sessions with all the pregnant women and breastfeeding mothers in the community. To keep these sessions enjoyable, health messages tuned to folk songs are sung and video shows are organized using *Amma ji kehti hai*, (*mother-in-law says so*) a series of entertainment education videos developed by UNICEF to facilitate community dialogue around maternal and child feeding, nutrition and care.

More frequent contacts with mothers

In 2007, an evaluation indicated that Dular resulted in more frequent contacts with mothers and families, improved family satisfaction with the functioning of the anganwadi centre and increased knowledge about child feeding, nutrition and care. The evaluation showed that in Dular villages pregnant women were more likely to receive prenatal check-ups than in non-Dular villages (94 vs. 71 per cent). Mothers in Dular villages were three times more likely than mothers in

non-Dular villages to avoid prelacteal feeds in the first three days of life, (53 vs. 17 per cent respectively) and feed their newborns colostrum (95 vs. 21 per cent).

On the basis of this evidence, the Government of Jharkhand decided to scale up the Dular strategy statewide to all 38,432 anganwadi centres. By 2011, Dular comprised a strong network of over 77,000 trained local resource persons who were providing information, counselling and support on infant and young child feeding, nutrition and care to mothers through home-based one-to-one counselling and group counselling sessions. These neighbourhood voluntary women groups helped expand the outreach capacity of anganwadi workers. The estimated additional cost of Dular is about US\$185 per anganwadi centre per year.

Dular relies on its block, district and state monitoring teams to assess programme implementation through periodic field visits and monthly review meetings. Assessments undertaken in 2011 indicated that the three most important motivating factors to the women who form the Local Resource Group are the leadership provided by the anganwadi worker, the opportunities for acquiring new knowledge and skills, and the recognition by their communities. An evaluation is envisaged in 2013 to assess whether Dular has been able to sustain its quality and impact after its scale-up to Jharkhand's 24 districts.

UNICEF supported

The pilot testing of Dular in the initial five districts and designed its scale-up strategy. It continues to support Dular through capacity building initiatives and the development of counselling and monitoring tools and strategies.



4. Reaching the vulnerable

Sick newborns, severely undernourished children and children who live in underserved communities are at a higher risk of death and poor growth and development due to undernutrition. State governments are scaling up special programmes and initiatives to ensure that these children receive the services, care and support they deserve.

Madhya Pradesh

Frontline workers identify, refer and follow up children with severe acute malnutrition

Highlights

1. The 2006 National Family Health Survey indicated that in Madhya Pradesh the prevalence of severe wasting – a life-threatening form of severe acute malnutrition (SAM) – was as high as 12.6 per cent, the highest in the country.
2. The Government of Madhya Pradesh launched a programme to provide timely and quality care for children with SAM through a continuum of facility- and community-based care ensured by ICDS and NRHM workers.
3. The experience in Madhya Pradesh demonstrates that existing flagship programmes can be strengthened to provide care for children with SAM through a model that comprises early detection and facility- and community-based care.



While saving lives, the programme in Madhya Pradesh is paving ways for the effective, evidence-based management of severe acute malnutrition in India.

The 2006 National Family Health Survey indicated that the state of Madhya Pradesh had the highest rate of child undernutrition in the country with 60 per cent of its underfives underweight, 50 per cent stunted and 35 per cent wasted. The prevalence of severe wasting – a life-threatening form of severe acute malnutrition (SAM) – was as high as 12.6 per cent.

With an average 1 million children severely wasted at any point in time, the Government of Madhya Pradesh resolved to strengthen the synergy between the Integrated Child Development Services (ICDS) and the National Rural Health Mission (NRHM), and launched with UNICEF support an integrated programme for the management of SAM in children. The programme aims at providing timely and quality care for children with SAM through a continuum of facility- and community-based care ensured by ICDS and NRHM workers.

Anganwadi workers identify children with SAM

Children with SAM are identified in the community by the anganwadi worker. Once the anganwadi worker has identified a child with SAM, she explains to the child's family the benefits of the programme and offers to accompany them to the nearest nutrition rehabilitation centre (NRC).

Children with SAM are first admitted to the facility-based phase of the programme in the nearest NRC of the 278 that are currently functioning under NRHM. After completing a 14-day stay in the NRC, children move to the community-based phase of the programme; in this phase, they are followed by the anganwadi worker, who enrolls the child in the ICDS Supplementary Nutrition Programme, provides counselling and

support to the mother and other family caregivers on child feeding, nutrition and care, and facilitates that the child be taken back to the NRC for a follow-up visit every 15 days during eight weeks (i.e. four follow-up visits). At the follow-up visit in the NRC, the children's weight gain is assessed and mothers and caregivers are counselled on child feeding, nutrition and care.

A recent evaluation of the programme indicates that 79 per cent of the children admitted were in the age group 6-24 months old and 75 per cent had uncomplicated SAM (free of oedema and medical complications). Survival rates were very high as only 0.4 per cent of children died while in the programme; 32 per cent of children left the programme (defaulted) before completing the 10-week protocol and 67 per cent of children were discharged after completing the 10 weeks. Among the children discharged, 65 per cent recovered (gained 15 per cent or more of their initial weight); the average weight gain among the children who were discharged was 2.7 ± 1.9 g/kg body weight/day and their average length of stay was 75.8 ± 9.4 days.

Effective life-saving care

The experience in Madhya Pradesh demonstrates that existing flagship programmes can be strengthened to provide care for children with SAM through an integrated model that comprises facility- and community-based care. The data available indicate that 80 per cent of the referrals to the NRC are done by anganwadi workers and that the proportion of children completing the four follow-up visits had increased from 61 per cent in 2009 to 84 per cent in 2011. Furthermore, qualitative assessments indicate that the process of early detection, referral,

rehabilitation and follow-up has raised awareness about and demand for services, especially in villages with high rates of child undernutrition.

The programme provides effective live-saving care for children with SAM as indicated by its high survival rates. However, the high defaulter and moderate recovery rates indicate that the current strategy, protocols and therapeutic foods need to be improved. The community phase of the programme is of particular concern as the average weight gain in children while in the community phase (1.6 ± 1.9 g/kg body weight/day) is significantly lower than that observed in out-patient therapeutic programmes in other countries ($4-5$ g/kg body weight/day), indicating that the nutrient density of the foods used in this phase of the programme do not ensure appropriate weight gain and recovery.

While saving lives, the programme in Madhya Pradesh is paving ways for the effective, evidence-based management of SAM in India. Four recommendations emanate from the experience in Madhya Pradesh:

- Ensure active finding of children with SAM in the community with a particular focus on children 6-24 months old;
- Admit to NRC children with complicated SAM only (i.e. with oedema or medical complications);
- Admit children with uncomplicated SAM directly to the community-based programme under the supervision of anganwadi workers;
- Ensure that the therapeutic foods used both in the facility and community phases of the programme are in line with the composition recommended by WHO for children with severe acute malnutrition.

UNICEF supported

The Government of Madhya Pradesh in designing, planning and implementing the programme, as well as in documenting programme outcomes and effectiveness, including survival, defaulter, discharge and recovery rates.

Bihar

Reaching out to most vulnerable children and communities significantly increases vitamin A supplementation coverage

Highlights

1. In 2006, only 51 per cent of preschool-age children in Bihar were consuming foods rich in vitamin A. Furthermore, only 26 per cent children 6-59 months old were receiving vitamin A supplements biannually.
2. In response to this situation, the Government of Bihar devised a strategy to reach out to all children, beginning with children of socially-disadvantaged communities as undernutrition and mortality rates were significantly higher among them.
3. Between 2008 and 2011, over 95 per cent children received at least one vitamin A supplementation dose per year across wealth quintiles and socio-economic groups, indicating that the equity principles applied to programme delivery are paying the expected dividends.

The Government of Bihar is demonstrating that it is feasible to undertake inclusive programming for child nutrition and reach out to excluded children if efforts are made to understand who these children are and where they live, and political decisions are made to assign the human and programme resources needed to reach them.

Global evidence indicates that in areas where vitamin A deficiency is prevalent, regular vitamin A supplementation can reduce child mortality by an average 23 per cent. Thus vitamin A supplements are often referred to as *drops of life*. The latest available data show that in India vitamin A deficiency is widespread, particularly in rural areas. The Ministry of Health and Family Welfare therefore recommends that all children aged 6-59 months receive a preventive oral dose of vitamin A supplementation every six months. However, the 2006 National Family Health Survey indicated that only 25 per cent of eligible children were receiving vitamin A supplements regularly. Importantly, vitamin A supplementation coverage was particularly low in states with high mortality rates in children.

In the state of Bihar the under-five mortality rate in 2006 was 85 child deaths per 1,000 live births. At that time, only 51 per cent of preschool-age children were consuming foods rich in vitamin A regularly and a mere 26 per cent children 6-59 months old were receiving vitamin A supplements biannually. In response to this situation, the Government of Bihar in partnership with UNICEF devised in 2007 a strategy to improve vitamin A supplementation coverage beyond the low levels achieved through routine contacts with the health system. The goal of the strategy was to reach out to all children, beginning with children of socially-disadvantaged communities

such as those belonging to families of scheduled caste and minority groups, as undernutrition and mortality rates were significantly higher among these children.

Two important innovations were introduced. The first innovation was to extend the duration of the biannual round from one to four days: the first two days were dedicated to map the geographic areas that needed to be covered and mobilize mothers, families and communities while the last two days were devoted to deliver vitamin A supplements to children. The second innovation was that every primary health centre was requested to map all the underserved communities in their catchment area. Health workers in mobile vans equipped with supplies moved to these underserved communities and set up mobile sites for four days to ensure that all eligible children benefited from the vitamin A supplementation round. About 9,000 mobile sites were created.

Temporary site approach succeeds

The mobile site approach improved vitamin A supplementation coverage dramatically as the vitamin A supplementation round implemented in 2007 reached over 95 per cent of eligible children. However, the cost of hiring vehicles for four days and the time and effort needed to coordinate mobile teams and manage supplies questioned the cost-effectiveness of this strategy. Hence, the strategy

was revisited in 2008 and moved from a mobile site to a temporary site approach. Underserved and hard-to-reach communities were clustered and 3,500 temporary sites for vitamin A supplementation were created.

In each temporary site, one community volunteer was identified to manage the four-day supplementation round. All community frontline workers and volunteers attended a one-day training course in their respective primary health centre where they were provided with the knowledge, skills and tools to ensure successful implementation. Volunteers were provided with a small financial incentive for the services rendered. Frontline workers in the fixed sites and volunteers in the temporary sites were in charge of preparing the list of eligible children, motivating and mobilizing parents and communities, and administering the vitamin A supplements.

The Government of Bihar has been using the temporary site strategy since 2008. The annual coverage data in Bihar indicate that between 2008 and 2011, eight biannual vitamin A supplementation rounds have been implemented state-wide, reaching an average 13.4 million children annually. Programme data indicate that over 95 per cent of the eligible children received at least one vitamin A supplementation dose per year. Importantly, programme coverage was similar in the districts with the lowest and highest concentration of children from scheduled caste families, indicating that the equity lens applied to the design and implementation of the strategy is paying the expected dividends.

Key to sustaining high coverage

Four pillars have been key in sustaining high vitamin A supplementation coverage:

- Mapping unreached areas and recruiting and training new volunteers annually to manage the temporary sites;
- Training all community frontline workers and volunteers in the 38 districts of the state to prepare the list of eligible children, counsel mothers on the benefits of vitamin A supplementation and how to improve the vitamin A content of children's diets, administer vitamin A syrup to children and tally the results of the supplementation round in their site;
- Quantifying the needs of each district in terms of vitamin A supplements, communication materials, and monitoring and reporting formats well in advance and ensuring their timely distribution to all supplementation sites;
- Ensuring intensive communication and mobilization drives at the state, district, block and supplementation site level before and during the biannual round to raise community awareness about the benefits of vitamin A supplementation and mobilize mothers, families and communities to bring children to the nearest supplementation site.

More than 80,000 anganwadi centres, 11,000 primary health centres and 3,500 temporary sites are the regular distribution sites of the biannual vitamin A supplementation rounds. Hard-to-reach and marginalized communities are mapped annually and reached out through additional sites. The Government of Bihar is demonstrating that it is feasible to undertake inclusive programming for child nutrition and reach out to excluded children if efforts are made to understand who these children are and where they live, and political decisions are made to assign the human and programme resources needed to reach them.

UNICEF supported

The Government of Bihar with the design of the strategy, mapping the temporary sites, development of district level micro-plans, and building the capacity of community volunteers.

Gujarat

***Annaprashan* days ensure that infants are fed the right complementary foods at the right time**

Highlights

1. The 2006 National Family Health Survey showed that in Gujarat every second child under five years of age was stunted (i.e. chronically undernourished) largely due to poor feeding practices in the first two years of life.
2. To address this challenge, Gujarat launched the celebration of *Annaprashan* days a fixed-day, fixed-time and fixed-site strategy to improve the quality of complementary foods and feeding practices in children under two.
3. Since its launch in 2010, an estimated 72 per cent Gujarati infants 6-9 months old are attending *Annaprashan* day and 41 per cent are being fed complementary foods for the first time on this day.

There is unanimity that *Annaprashan* day has propelled the momentum to focus on complementary feeding for children 6 to 9 months old and defeated the myth that nutrition counselling is difficult to execute and monitor through public providers.

Gujarat is better positioned than most other Indian states in terms of economic growth and development infrastructure. However, despite its booming economy, the 2006 National Family Health Survey showed that every second child under five years of age in Gujarat was stunted due to chronic undernutrition. The survey also indicated that feeding practices in the first two years of children's life were poor. Timing and quality of complementary foods and feeding practices were two of the main problems as only 58 per cent of infants 6-9 months were fed complementary foods and a mere 20 per cent children 6-24 months old were fed complementary foods adequate in quantity and quality.

Recognizing the need to address this challenge, the Government of Gujarat launched in April 2010 the *Annaprashan* day, a fixed-day, fixed-time and fixed-site strategy to improve the quality of complementary foods and feeding practices for children under two. Spearheaded by the Department of Women and Child Development with technical support by UNICEF, *Annaprashan* day is celebrated on the fourth Friday of every month in every anganwadi centre.

The strategy capitalizes on an important Indian tradition that celebrates the infant's first food intake or *Annaprashan* (*Anna* means *grain* and *Prashan* means *initiation*). Traditionally, when infants turn six months old, most Indian families ceremoniously feed them smooth and sweet cereal-based porridge to mark this important milestone in their lives. The food is prepared and fed by a senior woman of the

family who also provides counselling and support to the mother about how to prepare and feed nutritious foods to the child to complement breastfeeding.

Four key components

Annaprashan day has four key components: preparation of complementary foods; hand washing with soap; supervised feeding of children; and nutrition counselling to mothers. In every village, anganwadi workers and their helpers encourage mothers and other caregivers of infants 6-9 months old to participate in *Annaprashan* day at the anganwadi centre. After greeting them, the anganwadi worker ensures that mothers and caregivers wash their hands and those of their children with soap and water.

The process that follows focuses on the preparation of two types of infant foods using *Bal Bhog*, a ready-to-cook complementary food fortified with eight essential vitamins and nutrients that is provided by the Integrated Child Development Services (ICDS) programme. The anganwadi worker facilitates the food demonstration session with the help of a mother who has previously participated in *Annaprashan* day and feeds her child successfully. Once the food demonstration session finishes, the mothers feed the food that has been prepared to their infants using bowls and spoons under the supervision of the anganwadi worker and her helper.

Typically, each *Annaprashan* day has six to eight participants. This two-hour session is not limited to demonstrating the preparation of nutritious complementary

foods; it also includes the promotion of the guiding principles to feed infant and young children recommended by UNICEF and the World Health Organization, the discussion of the advantages and disadvantages of local and traditional complementary foods and feeding practices, learning recipes from other mothers and sharing tips and support to solve problems related to child feeding and care. Information on growth monitoring and promotion, nutrition and health services is also shared and discussed.

Publicity through print media and radio ensures adequate community participation and visibility of *Annaprashan* day. Anganwadi workers have been trained to counsel mothers and caregivers on how to improve the quality of complementary foods and feeding practices. They have also been provided with job-aids and counselling tools in the form of pictorial message cards to facilitate the dialogue with mothers and other caregivers. Additionally, reminders are sent through mobile phone messaging and satellite communication to all staff one week prior to *Annaprashan* day to ensure that the event is well implemented in a timely manner.

Children fed the right foods

Annaprashan days are monitored through state monitoring teams that assess the implementation of the monthly event in randomly selected districts. Importantly, *Annaprashan* day indicators have been included in

the anganwadi workers' monthly progress reports, which are compiled and reviewed by the Department of Women and Child Development at the monthly ICDS State Programme Officers' review meeting.

These monthly monitoring reports indicate that since its launch in 2010, an average 130,000 infants 6-9 months old attend *Annaprashan* day every month and 75,000 of them are fed complementary foods for the first time on this occasion. It is estimated that an average 72 per cent of infants 6-9 months old in Gujarat attend *Annaprashan* day and 41 per cent are fed complementary foods for the first time on this day.

Considering the potential impact of this initiative, *Annaprashan* day has been included as an integral part of the Gujarat Nutrition Mission's strategy. Additionally, participation at *Annaprashan* day is included as an indicator in the *Mamta* Card, Gujarat's joint Mother and Child Protection Card. There is unanimity that *Annaprashan* day in Gujarat has propelled the momentum to focus on complementary feeding for children 6 to 9 months old and defeated the myth that nutrition counselling is difficult to execute and monitor through public providers. While the impact of *Annaprashan* day on reducing the prevalence of stunting among infants and young children is to be assessed, there is evidence that it has contributed to increase significantly the number of children who are fed the right complementary foods at the right time.

UNICEF supported

The Government of Gujarat in designing the *Annaprashan* day strategy, its guidelines, job-aids and communication materials, as well as in building the capacity of the staff involved in programme implementation, supervision and monitoring.

Madhya Pradesh

Special Newborn Care Units support mothers to breastfeed successfully

Highlights

1. In 2007, neonatal mortality in Madhya Pradesh was worryingly high – 51 deaths per 1,000 live births – despite the increasing number of institutional deliveries. Appropriate feeding and care, including early and exclusive breastfeeding could have saved many of these newborns.
2. In response to this situation, the Government of Madhya Pradesh with support by UNICEF piloted the first Special Newborn Care Unit in the district hospital of Guna in 2006.
3. By 2012, 42 of the 50 district hospitals in the state were equipped with a Special Newborn Care Unit. These Units had provided care to more than 150,000 newborns and contributed to a reduction in neonatal mortality from 51 to 44 newborn deaths per 1,000 live births between 2007 and 2011.

The experience in Madhya Pradesh shows that the protection, promotion and support of optimal breastfeeding practices for sick and low birth weight newborns can be successfully integrated in the daily practice of Special Newborn Care Units at a minimal cost compared to the potential life-saving benefits for children and their families.

In 2007, neonatal mortality in Madhya Pradesh was worryingly high – 51 deaths per 1,000 live births – despite the increasing number of institutional deliveries. Approximately three quarters of these deaths occurred within the first week of birth. Appropriate care for sick and low birth weight newborns, including early and exclusive breastfeeding, could have saved many of these newborns. In response to this situation, the Government of Madhya Pradesh with support by UNICEF piloted the first Special Newborn Care Unit in the district hospital of Guna in 2006. By 2012, 42 of the 50 district hospitals in the state were equipped with Special Newborn Care Units.

Special Newborn Care Units provide care to sick newborns other than those who need ventilator support and surgical care. Each unit is equipped with radiant warmers, phototherapy units, oxygen concentrators, pulse oxymeters and intravenous infusion pumps. This is enough to take care of newborns with birth asphyxia, jaundice, sepsis and low birth weight.

Optimal breastfeeding practices supported

Breastfeeding is critical to the survival, growth and development of newborns. However, maintaining lactation in Special Newborn Care Units is often the biggest challenge for successful breastfeeding as newborns are not

in a position to take breast milk for prolonged duration and mothers are often kept away from their infants. However, a unique feature of Madhya Pradesh's Special Newborn Care Units is that provisions were made from the planning stage to ensure that optimal breastfeeding practices would be systematically supported. These provisions included:

- A separate 20-bed mothers' ward in the vicinity of the Special Newborn Care Unit for the mothers whose newborns are undergoing treatment in the Unit. This ensures that mothers can feed their newborns on demand, day and night, sustain lactation and ensure optimal mother-child bonding. Importantly, this provision ensures that mothers have adequate rest, food, medical attention and care, while reducing the risk of hospital-acquired infection in the Unit.
- Involving mothers in the provision of care for their sick newborns. When newborns are stable, mothers are encouraged to visit the Special Newborn Care Unit and handle their children under the supervision of a nurse. This helps reduce mothers' anxiety, a hindering factor in breastfeeding. When visiting the Unit, mothers are requested to wash their hands with soap and water and wear a separate gown to limit the risk of infection.
- Breastfeeding room in the Special Newborn Care Unit. Every Unit has a breastfeeding room where four to six mothers can feed their babies at any given time. The breastfeeding room has music

to ease the mother, all the provisions needed for expressing breast milk and feeding with tubes, cups and spoons and a display of materials to support optimal breastfeeding. A nurse posted in the step down unit, which is adjoining the breastfeeding room, helps mothers overcome breastfeeding difficulties.

- Audio-visual materials to protect, promote and support optimal infant feeding and care practices. Videos on breastfeeding, immunization and optimal health, nutrition and care practices are played at regular intervals in the labour room, mothers' ward, and breastfeeding room. Posters and visual support materials are displayed in prominent places in the hospital.
- Individual counselling on exclusive breastfeeding at time of discharge. Mothers are counselled individually by the staff nurse and the breastfeeding counsellor at the time of discharge from the Special Newborn Care Unit.

Neonatal mortality reduced

By 2012, these 42 Special Newborn Care Units had provided care to more than 150,000 newborns in the

previous five years and contributed to a reduction in neonatal mortality from 51 to 44 newborn deaths per 1,000 live births between 2007 and 2011.

Currently, the state government is in the process of scaling up the availability of these units in the 50 district hospitals with funding by the Department of Health and Family Welfare. The average cost of establishing a Special Newborn Care Unit is US\$100,000. The average additional cost of establishing the mothers' ward is US\$60,000 and the annual cost of extra nurses is US\$10,000 per nurse. The estimated average annual cost of the programme to promote and support optimal breastfeeding practices is US\$5,000.

The Ministry of Health has proposed to establish 1,000 Special Newborn Care Units across the country by 2017. The experience in Madhya Pradesh shows that the protection, promotion and support of optimal breastfeeding practices for sick and low birth weight newborns can be successfully integrated in the daily practice of Special Newborn Care Units at a minimal cost compared to the potential life saving benefits for children and their families.

UNICEF supported

The Government of Madhya Pradesh in designing the Special Newborn Care Units, piloting the intervention in Guna district, and planning the scale-up phase, including staff training, quality assurance and data management strategies.



Chhattisgarh

Partnership with local civil society organization delivers nutrition services to children affected by civil strife

Highlights

1. The latest data indicated that in Chhattisgarh, 20 per cent of children under five were wasted and 53 per cent were stunted. The same survey indicated that only 55 per cent had received at least one service from the anganwadi centre in the year previous to the survey.
2. About one third of the population of Chhattisgarh belong to scheduled tribes and 14 of its 27 districts are affected by civil strife, which poses a major challenge to the delivery of nutrition services to children and women.
3. A partnership with a civil society organization ensures that the 85 anganwadi centres in the Abhujmarh region organize monthly Village Health and Nutrition Days and 61 per cent of caregivers receive counselling and support on infant and young child feeding.

The experience in Chhattisgarh proves that partnerships with credible local civil society organizations can ensure the delivery of essential interventions to children and mothers who live in locations affected by civil strife by improving the effectiveness of state programmes.

In 2006, the National Family Health Survey indicated that 20 per cent of children under five in Chhattisgarh were wasted and 53 per cent were stunted. The same survey indicated that while 79 per cent of children lived in an area served by an anganwadi centre only 55 per cent had received at least one service from the anganwadi centre in the year previous to the survey.

About one third of the population of Chhattisgarh belong to scheduled tribes and 14 of its 27 districts are affected by civil strife, which poses a major challenge to the delivery of nutrition services to children and women. The Abhujmarh region, which comprises the Orchha block of Narayanpur district and a few villages of Dantewada and Bijapur districts, is one of those affected by civil strife. Abhujmarh has a tribal population of some 34,000 people who belong for the most part to particularly vulnerable tribal groups. This population resides in 233 villages spread over an area of 4,000 square kilometres of inaccessible terrain that remains cut-off from the rest of the state for about up to five months annually.

Building capacity of frontline workers

In 2009, the Government of Chhattisgarh undertook with support by UNICEF a series of visits in Narayanpur district to assess the needs of children and mothers who were residing in areas affected by civil strife and identify opportunities to deliver services,

information and support to them. The assessment visits indicated that about one fourth of children in these remote villages were not benefiting from the services provided by ICDS. Further, the knowledge and skills of anganwadi workers on infant and young child nutrition were limited, underscoring the need to build their capacity to provide services, information, counselling and support to children under two years of age, their mothers, families and communities.

In 2011, the Narayanpur District Administration, the Department of Woman and Child Development, the Department of Health and Family Welfare, the Ramakrishna Mission Ashram and UNICEF agreed to work collaboratively to deliver key health and nutrition interventions to children and women in the Abhujmarh region through the Abhujmarh Health Outreach Project (A-HOPE).

The Department of Woman and Child Development entrusted the Ramakrishna Mission Ashram – under the banner of its sister organization Vivekananda Institute of Social Health Welfare and Service – to implement the Integrated Child Development Services (ICDS) programme in the Orchha block. The block – home to an estimated 35,000 people and about 6,000 children under six years of age – comprises 201 villages, where 85 anganwadi centres and 88 mini anganwadi centres provide essential services to children and women.

Ensuring delivery of essential services

UNICEF identified state-level trainers who were conversant in Halbi and Gondri, the local languages, and had vast experience in training community-level workers. Through a three-day training course, they equipped 292 anganwadi workers, anganwadi helpers and community volunteers with knowledge and skills to deliver essential health and nutrition services to children and women. In addition, Village Health and Nutrition Days were planned and organized and six Nutrition Rehabilitation Centres were set up in the interior regions of Abhujmarh to provide life-saving therapeutic care and support to children with severe acute malnutrition.

The latest programme data available indicate that all 85 anganwadi centres in the Abhujmarh region

organize monthly Village Health and Nutrition Days, 72 per cent of children under five are weighed regularly, 61 per cent of caregivers receive information, counselling and support on infant and young child feeding, vitamin A supplementation coverage for children has increased from 39 per cent in January 2012 to 68 per cent in August 2012 and 604 children with severe acute malnutrition have been treated between May 2011 and December 2012.

The experience in Chhattisgarh proves that partnerships with credible local civil society organizations can ensure the delivery of essential interventions to children and mothers who live in locations affected by civil strife by improving the effectiveness of state programmes such as ICDS or the National Rural Health Mission.

UNICEF supported

Building the capacity of anganwadi workers and community volunteers with knowledge and skills to deliver essential nutrition services to children and women, and plan and organize Village Health and Nutrition Days. In addition, UNICEF supported the set up of six Nutrition Rehabilitation Centres for children with severe acute malnutrition.



Nutrition Moves

States create promising change in India



Nutrition Moves

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