

Nutrition Wins

How nutrition makes progress in India



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Nutrition Wins

How nutrition makes
progress 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. Therefore, 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-saving foods and care when they are sick or severely undernourished for survival and lasting recovery; and
- 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.

We know what works and, increasingly, we know how to make it work. This publication gathers a collection of case studies that narrate how the Government of India and the state governments are accelerating progress for Maternal and Child Nutrition and how UNICEF is supporting them in bringing about this positive change.





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1. Improving feeding, growth and development in the first two years of life

Indian children have the same growth and development potential as all children worldwide. Optimal nutrition in the first two years of life – including good breastfeeding,

complementary feeding, and care and hygiene practices – are critical to prevent stunting in infancy and early childhood and break the inter-generational cycle of undernutrition in India.







Breastfeeding is best feeding

Early initiation of breastfeeding on the rise in India

Highlights

01

Research shows that initiation of breastfeeding within one hour of birth can reduce neonatal mortality by up to 22 per cent by averting deaths related to sepsis, pneumonia, diarrhoea and hypothermia.

02

UNICEF has been supporting state governments in improving breastfeeding practices through a comprehensive strategy to strengthen planning, counselling, partnerships, communication and community action.

03

In the seven northern states of India – where 72 per cent of infant deaths occur – rates of early initiation of breastfeeding within one hour of birth increased from 12.4 per cent in 2006 to 42.1 per cent in 2011.

This evidence demonstrates that focused strategies, effective capacity building initiatives, strong partnerships and vibrant community-based action were able to triple the rates of early initiation of breastfeeding in a relatively short period of time.

In India, 1.7 million children under five die every year. Half these deaths occur in the first 28 days of life, a time referred to as the neonatal period. Research shows that initiation of breastfeeding within one hour of birth can reduce neonatal mortality by up to 22 per cent by averting deaths related to sepsis, pneumonia, diarrhoea and hypothermia. Therefore supporting mothers to initiate breastfeeding within one hour of delivery is a high-impact child survival intervention.

In 2006, India's National Family Health Survey indicated that only 25 per cent of newborns were breastfed within one hour of birth. Importantly, rates of early initiation of breastfeeding were as low as 12.4 per cent in the seven states, where 55 per cent of Indian infants are born and 72 per cent of infant deaths occur: Bihar, Chhattisgarh, Jharkhand, Madhya Pradesh, Uttar Pradesh, Odisha and Rajasthan. UNICEF has been supporting the Government of India and

state governments in improving infant and young child feeding practices through a comprehensive six-pronged strategy:

1. Integrating programming and budgets for infant and young child feeding in the annual implementation plans of India's flagship programmes for child survival, growth and development, namely the Integrated Child Development Services (ICDS) and the National Rural Health Mission (NRHM), the largest of their kind in the world;
2. Strengthening the capacity of ICDS and NRHM community-based frontline workers and community volunteers to provide information, counselling and support on infant and young child feeding to mothers and families;
3. Building the capacity of medical doctors and nurses to ensure that women who choose to deliver in a health facility are supported to breastfeed their newborns within one hour of birth;

4. Forming alliances with professional bodies, including the Indian Academy of Pediatrics, universities and medical schools to update national and state level technical guidelines and mainstream infant and young child feeding into the teaching curricula of physicians and nurses;
5. Communicating the benefits of breastfeeding through a large scale entertainment-education television soap opera – *Kyunki Jeena (Because... this is what life is)* – to promote positive social and behaviour change; and
6. Mainstreaming support to optimal infant and young child feeding practices in the work of grass-roots women’s groups and non-governmental organizations.

Early breastfeeding rates triple

Between 2008 and 2012, the seven states integrated a comprehensive strategy to improve infant and young child feeding practices in the annual implementation plan of ICDS and NRHM with budgets increasing every year; over 360,000 community-based frontline workers and 30,000 community volunteers were trained to provide information, counselling and support to

mothers; some 7,500 medical doctors and nurses were equipped with skills to ensure that women who deliver in a health facility are supported to breastfeed within one hour of birth; in more than 14,000 villages, grass-roots women’s groups and other civil society organizations were equipped to improve counselling and support to mothers and families; and 145 million viewers received information on the benefits of early initiation of breastfeeding through *Kyunki Jeena*.

Recent evidence shows that these efforts are paying off. In 2011, India’s Health Survey indicated that in the seven high-burden states rates of early initiation of breastfeeding within one hour of birth had increased from 12.4 per cent in 2006 to 42.1 per cent in 2011. This evidence demonstrates that focused strategies, effective capacity building initiatives, strong partnerships and vibrant community-based action were able to triple the rates of early initiation of breastfeeding in a relatively short period of time. Effective strategies will continue to be of the essence in making optimal breastfeeding matter for policy makers, programme planners, service providers, communities and families with one unequivocal message: Breastfeeding is best-feeding!

UNICEF supported

-
- The integration of strategies and budgets in the state annual implementation plans for ICDS and NRHM to improve early initiation of breastfeeding through facility- and community-based action.
 - The design and roll out of state level strategies to train ICDS and NRHM frontline workers to provide timely and quality counselling and support to mothers, families and communities for improved infant and young child feeding.
 - The expansion and strengthening of partnerships with professional bodies, medical colleges, nursing schools, and civil society organizations to improve the quality of teaching curricula and service delivery on infant and young child nutrition.



Community workers on frontline to prevent stunting

Some 5.5 million mothers given support on infant feeding

Highlights

01

Global evidence indicates that group and individual counselling are effective strategies to improve the quality of foods and infant and child feeding practices and can lead to significant reductions in stunting.

02

Between 2008 and 2012, over 1.1 million frontline workers and community volunteers were equipped with knowledge and skills to bring good quality counselling and support on infant and young child feeding closer to mothers, families and communities.

03

Through a combination of centre-based, outreach and community-based contacts, these frontline workers have reached an estimated 5.5 million mothers with children under two years old with information, counselling and support to break the intergenerational cycle of child stunting in India.

The first 1,000 days during a mother's pregnancy and the child's first two years of life represent a crucial window of opportunity to prevent child stunting.

Stunting in early childhood remains a major threat to the survival, growth and development of Indian children. India's 2006 National Family Health Survey (NFHS-3) indicated that 48 per cent of Indian underfives (61 million children) are stunted due to chronic nutrition deprivation in early childhood. These 61 million children represent about one third of all stunted children worldwide.

In India, stunting happens very early in life. According to NFHS-3 the mean height of Indian children at birth is significantly below the expected mean height at birth in a healthy population. Children's mean height deteriorates further through the first two years of life largely as a result of poor child feeding practices. At the age of 24 months, 58 per cent of Indian children are stunted. Thus, the first 1,000 days during a mother's pregnancy and the child's first two years of life represent a crucial window of opportunity to prevent child stunting.

Global evidence indicates that group and individual counselling are effective

strategies to improve the quality of infant and young child feeding practices and can lead to significant reductions in stunting. Recognizing the urgency to improve infant feeding practices in the country, UNICEF has been supporting state governments in building the capacity of community workers to provide counselling and support on infant and young child feeding to mothers and families. Anganwadi workers and accredited social health activists (ASHA) – the community-based frontline workers of India's Integrated Child Development Services (ICDS) programme and National Rural Health Mission (NRHM) – are the focus of this effort.

One million frontline workers reach 5.5 million mothers

To ensure that the content to be learned and skills to be developed are consistent across states and are aligned with national policy and international recommendations, the frontline workers are trained using the *Three-in-One Training Course on Infant and*

Young Child Feeding Counselling, which covers breastfeeding, complementary feeding and related maternal nutrition. Additionally, knowledge and skills on infant and young child feeding are reinforced through training on the *Integrated Management of Neonatal and Childhood Illnesses*, which is compulsory for all ASHAs and many anganwadi workers.

Between 2008 and 2012, over 1.1 million frontline workers were equipped with knowledge and skills to counsel and support mothers and families to start breastfeeding within one hour after delivery, breastfeed infants exclusively during the first six months of life, gradually introduce complementary foods once the six-month exclusive breastfeeding period is completed,

and improve the nutrient density, feeding frequency and diversity of complementary foods as children grow older.

These frontline workers reached mothers and families through a combination of centre-based, outreach and community-based contacts. The monthly Village Health and Nutrition Days held at anganwadi centres in 320 districts (i.e. half of the districts in the country) ensured that mothers, families and communities have access to counselling and support “on a fixed day, at a fixed site”. This integrated effort reached an estimated 5.5 million mothers with children under two years old with information, counselling and support to break the intergenerational cycle of child stunting in India.

UNICEF supported

- The development of partnerships with the Indian Academy of Pediatrics, medical and home sciences colleges, the Breastfeeding Promotion Network of India, and non-governmental organizations to model skill-based training on infant and young child feeding for frontline workers and community volunteers.
- Training institutes to bring about qualitative improvement in their capacity to train anganwadi workers to provide information, counselling and support on infant and young child feeding to mothers, families and communities.
- The integration in the annual implementation plans of ICDS and NRHM – India’s flagships for child survival, growth and development – of budget lines to build the capacity of frontline workers to provide information, counselling and support on infant and young child feeding.



India endorses use of WHO Child Growth Standards and Mother and Child Protection Card

All states roll out Standards and Card

Highlights

01

In 2007, India endorsed the Child Growth Standards of the World Health Organization (WHO), recognizing that Indian children have the same growth potential as the rest of the children of the world provided they and their mothers receive adequate feeding and care.

02

In 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).

03

Currently, all states have endorsed the WHO Child Growth Standards, adapted the training modules to build the capacity of existing staff and frontline workers, and integrated the Standards in ICDS and NRHM training curricula and the ICDS management information system.

A final effort is needed so that the use of the Growth Standards and Mother and Child Protection Card becomes universal: for all children, mothers and families in India.

In 2007, India endorsed the Child Growth Standards of the World Health Organization (WHO). The WHO Child Growth Standards establish a normative approach to nutrition as they indicate how children should grow. They also confirm that Indian children have the same growth potential as the rest of the children of the world provided they receive adequate feeding and care.

Subsequently, 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 run by the Ministry of Women and Child Development, and the National Rural Health Mission (NRHM) run by the Ministry of Health and Family Welfare. The Mother and Child Protection (MCP) Card – a pictorial tool designed to counsel families on how to care for pregnant women and children below three years of age and track the delivery of health and nutrition

services for them – was endorsed by ICDS and NRHM to complement the use of the WHO Growth Standards.

The roll-out of the WHO Growth Standards and MCP Card countrywide required a gigantic effort – well beyond the printing of millions of sex-specific growth charts, registers and MCP Cards – which included the procurement of thousands of weighing scales, the development of training packages, the training of 1.3 million anganwadi workers (ICDS frontline workers) and an equal number of health staff and other frontline workers, and the integration of the Growth Standards in ICDS' information systems.

Through a consultative process involving the Ministries of Women and Child Development, and Health and Family Welfare, their state counterparts, training institutes and development partners, UNICEF supported the design of the MCP Card, growth charts and growth chart registers,

the development of training materials, the creation of a pool of national and state master trainers, and the development of guidelines and roll-out plans.

Significant progress made in roll-out

Currently, all states have endorsed the WHO Child Growth Standards, adapted the training modules to build the capacity of existing staff and frontline workers, and integrated the Growth Standards in ICDS and NRHM training curricula. Furthermore, the monthly reporting on the nutritional status of children in anganwadi centres is based on the Growth Standards, which have been integrated into the computerized management information system of ICDS.

In June 2012, UNICEF supported a rapid assessment to document the progress in the roll-out of the WHO Child Growth Standards and the MCP Card in 13 states that account for 1.04 million (80 per cent)

of India's anganwadi centres. The assessment indicated that all states had integrated the WHO Growth Standards and MCP Card in the training of ICDS and NRHM workers and that 66 per cent of anganwadi workers had been trained to weigh children, plot children's weights and counsel mothers using the new growth standards; 63 per cent of anganwadi centres had a functional weighing scale and a register to keep a monthly record of individual children's growth and 55 per cent of anganwadi workers had been trained in the use of the MCP Card to counsel mothers and track service delivery.

The roll-out of the WHO Child Growth Standards and MCP Card has required a gigantic joint effort by the Government of India, state governments, UNICEF and other development partners. Significant progress has been achieved so far. A final effort is needed so that the use of the Growth Standards and MCP Card becomes universal: for all children, mothers and families in India.

UNICEF supported

- The design of sex-specific Child Growth Charts, growth chart registers and Mother and Child Protection Cards.
- The development of training materials, the creation of a pool of national and state master trainers, and the development of guidelines and roll-out plans.
- The monitoring of the roll-out of the WHO Child Growth Standards and Mother and Child Protection Card in their availability and use.



पत्तेदार सब्जी,
एवं दालिमा
आ चावल एवं
आ चावल एवं

Community action improves infant and young child feeding practices

Women volunteers provide counselling to 1 million households in Jharkhand

Highlights

01

The challenge of India's flagship programmes for child survival, growth and development is to ensure the quality of the services provided, particularly in the states where the prevalence of child undernutrition is high and the human resources available are limited.

02

The state government of Jharkhand partnered with UNICEF to implement the *Dular* strategy. *Dular* – 'to care and love' in Hindi – engages women community volunteers to provide information, counselling and support on child feeding, and care to mothers and families.

03

Since its initial phase, over 77,000 community volunteers have been trained to support the delivery of improved counselling on child feeding and nutrition. The synergy between anganwadi workers and the women community volunteers is reaching an estimated 1 million households.

Dular demonstrates that communities can be engaged to enhance the coverage and quality of the services delivered by ICDS and NRHM.

The Integrated Child Development Services (ICDS) scheme is one of India's national flagship policy and programme responses to fight child undernutrition. In each village, the anganwadi worker – ICDS frontline worker – is responsible for the delivery of ICDS services to the community. In recent years, ICDS has seen a large expansion as the network of anganwadi centres has increased from about 850,000 in 2007 to over 1.3 million in 2012. This provides India with an unprecedented opportunity to reach out to all children – particularly the most vulnerable – with essential nutrition services and support.

One of ICDS' most important challenges is to ensure the quality of the services provided in the states where the prevalence of child undernutrition is high and the human resources available to deliver nutrition services and support are limited. The state of Jharkhand is one such state as 50 per cent of its underfives are stunted due to chronic nutrition deprivation and only 42 per cent are reported to receive services from ICDS.

To enhance the coverage and impact of the ICDS programme, the state government of Jharkhand partnered with UNICEF to implement the *Dular* strategy. *Dular* – 'to care and love' in Hindi – engages women community volunteers to provide timely and quality information, counselling and support on child feeding and care to mothers and families. In each village, *Dular* trains a group of women volunteers, approximately one woman per 20-25 households, elected by their own communities to support the anganwadi worker in providing services to mothers and children.

Improved coverage and quality of services

Evaluation studies have indicated that *Dular* brings about notable qualitative improvements in the ICDS programme, including improved family satisfaction with the functioning of the anganwadi centre, better and more frequent contacts with households through the women volunteers and increased knowledge in the community about child feeding and

practices. These evaluations have indicated that in Jharkhand, pregnant women in *Dular* villages were more likely to receive prenatal check-ups than mothers in non-*Dular* villages (94 vs. 71 per cent). Additionally, mothers in *Dular* villages were nearly four times more likely than mothers in non-*Dular* villages to feed their newborns colostrum, mother's first milk and infant's first immunization against infection and disease (95 vs. 21 per cent). Finally, mothers in *Dular* villages were three times more likely than women in non-*Dular* villages to exclusively breastfeed their newborns and avoid any kind of prelacteal feeds (53 vs. 17 per cent).

Dular continues to evolve building on the experience gained with its implementation and capitalizing on the emerging opportunities

with the expansion of ICDS and the scale up of India's National Rural Health Mission (NRHM). Since its initial phase, over 77,000 community volunteers have been trained to support the delivery of improved counselling on child feeding, nutrition and care. The synergy between anganwadi workers and the women community volunteers is reaching an estimated 1 million households.

Dular demonstrates that communities can be engaged to enhance the coverage and quality of the services delivered by ICDS and NRHM. As *Dular* expands geographically it is vital that the strategy be adequately tailored to respond to bring information, support and services to the most vulnerable children, women and households to ensure increased equity and impact.

UNICEF supported

- The conceptualization and pilot testing of *Dular* to expand the coverage and enhance the impact of India's ICDS and NRHM programmes on children under three years of age, particularly in the most vulnerable and hard to reach communities.
- The scale up of *Dular* in the state with a particular focus on building the capacity of local women volunteers to bring counselling and support on infant feeding and young child feeding closer to the families.
- The supervision and monitoring of *Dular* implementation and the development of communication strategies to raise awareness of the benefits of the programme and stimulate community demand for counselling, support and services.



Concerted public-private action doubles exclusive breastfeeding rates

Over 120,000 infants given best start in life in Assam

Highlights

01

Global evidence shows that in developing countries, optimal breastfeeding practices in the first six months of life have the potential to avert an average 13 per cent of underfive deaths. In India, only 46 per cent of infants younger than six months are exclusively breastfed.

02

In 2006, the Government of Assam entered into a five-year partnership with the Assam Branch of the Indian Tea Association (ABITA) and UNICEF to build the capacity of village health and nutrition workers to provide counselling and support to mothers on optimal breastfeeding.

03

As a result of this concerted effort, the rate of exclusive breastfeeding in the seven tea producing districts of Assam increased from 24.4 per cent in 2004 to 49.8 per cent in 2011, protecting children against undernutrition and disease and giving them the best start in life.

Assam is demonstrating that effective public-private partnerships, focused strategies, and community-based action can indeed double the rates of exclusive breastfeeding in a relatively short period of time.

Every year, 1.7 million Indian children die before their fifth birthday, most of them from preventable causes. Global evidence shows that in developing countries, early initiation of breastfeeding within one hour of birth and exclusive breastfeeding in the first six months of life have the potential to avert an average 13 per cent of underfive deaths.

The Government of India and international organizations recommend that infants initiate breastfeeding within one hour of birth and be fed only breastmilk for the first six months of life, with no other foods or fluids added, not even water. However, India's 2006 National Family Health Survey indicated that only 25 per cent of newborns were breastfed within one hour of birth and only 46 per cent of infants younger than six months were exclusively breastfed.

Since 2006, many Indian states have embarked on a crusade to improve breastfeeding practices in infants and young children: Assam is one such state. Situated in the north-east of India, Assam is famous for its lush tea gardens. The workforce of its tea industry – among the largest in the world – is comprised of migrant tribal peoples, mostly women. Nearly half of them are engaged as casual workers and therefore without health and other social benefits.

In 2006, the Government of Assam entered into a five-year partnership with UNICEF and the Assam Branch of the Indian Tea Association (ABITA) – a federation of 276 tea garden companies – to improve the health and nutrition situation of the children of families working in the tea gardens. Village-based health and nutrition workers

were trained to provide timely and quality counselling and support to mothers and families on feeding and care for infants and young children. The strategy included harmonizing the messages used for the promotion and support of breastfeeding, building the capacity of village-based health and nutrition workers to counsel mothers and families on breastfeeding, and standardizing the tools they use to support breastfeeding.

Best start in life

Equipped with appropriate knowledge and counselling skills and tools, the village-based health and nutrition workers meet at the anganwadi centre on a fixed day each month. There, they draw up a list with the names and addresses of women in the last trimester of pregnancy and mothers with a child under two and establish a schedule to visit these women three to four times a month. During these home visits, the workers provide women with essential information and counselling and help mothers solve problems related to infant feeding and care. The tea companies complement these efforts by allowing breastfeeding mothers to take nursing breaks in the tea gardens.

Additionally, the Government of Assam provides maternity protection cash benefits while strengthening community-based action to protect, promote and support optimal breastfeeding state-wide.

As a result of this concerted effort, the proportion of infants who are breastfed within one hour of birth in Assam has increased from 51 per cent in 2006 to 70 per cent in 2011. Similarly in the seven tea producing districts, the proportion of infants younger than six months who are exclusively breastfed has increased from 24.4 per cent in 2004 to 49.8 per cent in 2011, demonstrating the potential impact of supporting working mothers to breastfeed exclusively.

The state of Assam is demonstrating that effective public-private partnerships, focused strategies, and community-based action can indeed double the rates of exclusive breastfeeding in a relatively short period of time. In the seven tea producing districts of Assam, over 120,000 infants have been exclusively breastfed in the last four years. Protected against undernutrition and disease by exclusive breastfeeding, these children have been given the best start in life.

UNICEF supported

- The design of the partnership with the Assam Branch of the Indian Tea Association to expand the coverage of the ICDS programme and improve the quality of services it delivers in the tea garden areas.
- The establishment of linkages between the tea garden-owned services for children and women and the state flagship programmes for child survival growth and development.
- Building the capacity of health and child care workers and hospital staff to counsel families and communities on how to improve feeding and care practices for mothers and infants.



Partnership with NGOs delivers results for maternal and child nutrition

Over 80 per cent of newborns in 11 districts in Uttar Pradesh start breastfeeding after birth

Highlights

01

In the state of Uttar Pradesh, home to 21 million children under five, only 7 per cent of infants start breastfeeding within one hour of birth and just about half are exclusively breastfed in the first six months of life.

02

In 2010, the Government of Uttar Pradesh and UNICEF teamed up with five non-governmental organization partners to implement a community-based initiative to protect, promote and support optimal breastfeeding practices for children under two years of age in 11 districts.

03

After a year of programme implementation, the proportion of newborns who started breastfeeding within one hour of birth increased from 51 to 86 per cent. Similarly, the proportion of infants younger than six months who were exclusively breastfed increased from 65 to 74 per cent.

NGOs – particularly those with a large and dynamic network of community support groups – are uniquely placed to support the scale up of government efforts for child survival, growth and development.

The state of Uttar Pradesh, home to 21 million children under five, scores poorly on child survival indicators. With one of the highest infant mortality rates in the country, it is estimated that of the 5.7 million children born in the state every year, 400,000 die in the first year of life. This is due in part to the prevailing poor infant feeding practices as only 7 per cent of infants start breastfeeding within one hour of birth and just about half (51 per cent) are exclusively breastfed in the first six months of life as recommended by the Government of India and World Health Organization.

In view of this situation, the Government of Uttar Pradesh and UNICEF teamed up in 2010 with five non-governmental organizations (NGOs) to implement a community-based initiative to protect, promote and support optimal breastfeeding practices for children under two years of age in 11 districts. These five NGO partners were selected because they were already working on maternal and child health and nutrition in these districts, had a demonstrated ability to work with

communities where the burden of child undernutrition and mortality was highest, and had the potential to mobilize other NGOs.

NGOs reach over 50,000 households

In the initial phase, UNICEF built the capacity of the five NGOs to design and implement initiatives aimed at improving infant and young child feeding and nutrition. Subsequently, the NGO partners trained about 1,500 frontline workers and supervisors of India's Integrated Child Development Services (ICDS) and National Rural Health Mission (NRHM) programmes and some 3,000 members of community support groups to provide counselling and support to mothers and families on optimal feeding practices for infants and young children.

The trained frontline workers used all existing opportunities within ICDS and NRHM to provide timely and accurate information, counselling and support on breastfeeding to mothers. These opportunities included among others: institutional deliveries and

home deliveries assisted by skilled birth attendants, home visits in the neonatal period, immunization contacts, vitamin A supplementation drives, and growth monitoring and promotion sessions and monthly Village Health and Nutrition Days.

Importantly through the NGO consortium, the five NGO partners were able to mainstream breastfeeding protection, promotion and support into the routine work of 500 grassroots organizations working in nutrition-sensitive programmes such as girls' education, women's empowerment and poverty reduction.

Through their work with frontline workers and community support groups and networks, the partnership with the five NGOs reached over 50,000 households with a child under two years of age. After a year of programme implementation, the proportion of newborns who started breastfeeding within one hour of birth increased from 51 to 86 per cent. This increase was observed both among mothers who delivered in a health facility

(early initiation of breastfeeding increased from 66 to 93 per cent) and among mothers who delivered at home (early initiation of breastfeeding increased from 32 to 69 per cent). Similarly, the proportion of infants younger than six months who were exclusively breastfed increased from 65 to 74 per cent.

This initiative in Uttar Pradesh indicates that NGO partners can be effectively engaged in supporting national and state programmes to deliver results for maternal and child nutrition. This is particularly important where government delivery systems are fragile and the knowledge and skills of frontline workers to counsel and support mothers and families is weak. NGOs – particularly those with a large and dynamic network of community support groups – are uniquely placed to support the scale up of government efforts for child survival, growth and development, particularly by supporting awareness generation, community mobilization and communication to improve individual behaviours and social norms.

UNICEF supported

- **Building the technical and programming capacity of the five NGO partners to design, implement and monitor interventions aimed at improving infant and young child feeding and nutrition.**
- **Building the knowledge and skills of community workers and volunteers to provide timely and quality information, counselling and support to mothers and families on maternal and child nutrition and care.**
- **Bringing a nutrition focus into the work of five implementing NGOs and their network of 500 grassroots organizations, thus contributing to scale up the delivery of essential nutrition interventions to infants, young children and their mothers.**

2. Preventing nutrient deficiencies in children, women and families

Regular intake of vitamins and nutrients such as vitamin A, iron and iodine is essential to ensure good growth and development in infants, optimal cognitive development, school

readiness and school performance in children, and improved health and nutrition in women and families. In addition, supplementation and deworming improve health and nutrition.







அவ்வாயத்திக்கு இவ்வெண்
என்பது இவ்வெண்
அவ்வெண் உள்
அவ்வெண் உள்

National vitamin A supplementation programme reaches record coverage

Some 62 million underfives protected from vitamin A deficiency

Highlights

01

It is recommended that in regions where vitamin A deficiency is prevalent, children 6-59 months old receive preventive vitamin A supplementation every six months. In 2006, only 25 per cent of Indian underfives were benefiting from this child survival intervention.

02

In 2006, the Government of India adopted a biannual approach to reach out to children 1-5 years old with vitamin A supplements every six months, while children below one year of age receive their first vitamin A supplementation dose with the measles immunization at nine months.

03

The proportion of children receiving two doses of vitamin A annually increased from 25 per cent in 2006 to 67 per cent in 2011, with a record 62 million children protected and seven of the 15 major states reporting figures above 80 per cent.

The biannual outreach strategy has shown to be feasible and effective in improving the coverage of the vitamin A supplementation programme.

Vitamin A deficiency is a leading cause of preventable blindness, morbidity and mortality in preschool-age children in developing countries. Global evidence indicates that in regions where vitamin A deficiency is prevalent, vitamin A supplementation can reduce child mortality by an average 23 per cent. Thus, the World Health Organization recommends that in vitamin A deficient areas, children 6-59 months old should receive a preventive dose of vitamin A supplementation every six months.

India's national vitamin A supplementation programme is in line with this recommendation. However in 2006, India's National Family Health Survey indicated that only 25 per cent of underfives were benefiting from this child survival intervention. Further analyses showed that children who were being missed by the vitamin A supplementation programme would benefit greatly as they were more likely to be undernourished and belong to vulnerable families. These analyses

also indicated that the states with higher underfive mortality rates had lower vitamin A supplementation coverage.

Recognizing the need to address this situation, the Government of India adopted a biannual approach to reach out to children under five with vitamin A supplements in 2006. The approach recommends that children below one year of age receive the first vitamin A supplementation dose with their routine measles immunization at nine months while the subsequent nine doses of vitamin A supplementation for children aged 1-5 years are to be administered twice a year, six months apart, through a biannual large scale outreach vitamin A supplementation strategy.

Two thirds of children under five protected

Currently, India's 15 major states are implementing this biannual outreach strategy in partnerships with UNICEF and others. UNICEF has supported the state governments' capacity to procure, supply

and distribute vitamin A supplements to districts and blocks in a timely manner while mobilizing families and communities to bring their children to utilize the vitamin A supplementation services.

As a result, the proportion of children receiving two doses of vitamin A annually – referred to as full vitamin A supplementation coverage – increased from 25 per cent in 2006 to 67 per cent in 2011, with a record 62 million children protected in 2011 and seven of the 15 major states reporting full coverage figures above 80 per cent. Importantly, between 2007 and 2011, UNICEF reduced its direct procurement of vitamin A supplements by 100 per cent while full vitamin A supplementation coverage increased by over two-fold, indicating the state governments' ownership of the programme.

The biannual outreach strategy has shown to be feasible and effective in improving the coverage of the vitamin A supplementation

programme. Overall, greater political commitment and ownership at the state level translates into stronger motivation and action at the district level. A stable procurement and distribution mechanism to ensure an adequate, timely and sustainable supply of vitamin A supplements is a critical determinant of programme success. All staff engaged in programme implementation and monitoring needs to receive appropriate training and supervision while education and communication strategies are required to increase and sustain demand by families and communities.

The challenge now is to reach out to the remaining 33 per cent of children, undoubtedly the hardest to reach and potentially the most vulnerable. Special plans will be developed to reach children who live in remote rural areas or urban slums and who belong to tribal communities or excluded groups. Business as usual will not do it for these children; these children deserve a different deal.

UNICEF supported

- **Advocacy efforts to ensure higher political commitment to the vitamin A supplementation programme at national and state levels, with emphasis on districts with a high proportion of children belonging to scheduled caste and scheduled tribe families.**
- **The state governments in developing and implementing district level plans for the timely and quality procurement and distribution of vitamin A supplements and implementation of the vitamin A supplementation programme.**
- **The districts with lower vitamin A supplementation coverage to design and implement a communication plan to mobilize families and communities to bring their children to the meeting points and utilize the preventive vitamin A supplementation services.**



Strategy accelerates progress towards universal salt iodization

Over 70 per cent of households have access to iodized salt

Highlights

01

In 2006, India's National Family Health Survey indicated that only 51 per cent of households had access to adequately iodized salt, the most cost-effective and sustainable strategy to prevent iodine deficiency throughout the life cycle.

02

The Salt Department of the Government of India – with technical support by UNICEF, GAIN and other partners – devised a strategy to accelerate progress in reaching *the next half* of the population by improving access to and availability and use of adequately iodized salt.

03

In 2009, the coverage of adequately iodized salt had increased to 71 per cent nationwide. Thus, an additional 240 million people, including 5.5 million newborns, are protected every year from the brain damage and learning ability losses associated with iodine deficiency.

Strong political leadership, adequate capacity and commitment of salt producers and traders to supply adequately iodized salt, strong monitoring systems through the salt trade chain, and high consumer demand are needed to achieve universal salt iodization.

Iodine is an essential nutrient required in small amounts to ensure optimal child growth and development. Iodine deficiency is the world's most important cause of preventable, yet irreversible, brain damage and learning ability losses in early childhood. In iodine deficient communities, children's mean IQ is on average 13.5 points lower than in iodine sufficient communities. Thus, widespread iodine deficiency hinders the social and economic development of nations.

Universal salt iodization (USI), or fortification of all salt for human consumption with iodine, is the most cost-effective and sustainable strategy to prevent iodine deficiency. In 2006, India's National Family Health Survey indicated that only 51 per cent of households had access to adequately iodized salt. This called for an urgent need to strengthen the national salt iodization programme in order to accelerate progress in reaching *the next half* of the population with adequately iodized salt. Accordingly, the Salt

Department of the Government of India – with technical support by UNICEF, the Global Alliance of Improved Nutrition (GAIN) and other partners – devised a strategy to improve access to and availability and use of adequately iodized salt. The four pillars of the strategy are:

1. Advocacy to strengthen political commitment and support for universal salt iodization at the national and state levels;
2. Technical support to ensure the sustainable production and supply of iodized salt to all segments of the population;
3. Quality assurance and control to improve the quality of iodized salt; and
4. Awareness raising and demand creation for iodized salt.

National and state level advocacy meetings with the participation of various stakeholders

have been carried out to place the USI programme higher in the political agenda. To improve the overall management and coordination of the national USI programme, the National Coalition for Sustained Iodine Intake was launched with the objective of bringing key partners together for regular dialogue and monitoring, and accelerating progress towards USI. The technical capacity of salt producers to incorporate correct levels of iodine in salt was enhanced and salt wholesalers and retailers were mapped, sensitized, trained and equipped with tools and skills to procure and sell only adequately iodized salt.

A Management Information System that uses state-of-the art web technology was launched to ensure real-time information related to salt production and quality and to strengthen monitoring at all levels. The system helps the Salt Department to improve its efficiency in monitoring the flow of iodized salt in India. In addition, education and communication activities were carried out to create awareness on the consequences of iodine deficiency and create demand for iodized salt among consumers.

Additional 240 million people protected

As a result, the 2009 Coverage Evaluation Survey indicated that the coverage of adequately iodized salt had increased to 71 per cent nationwide, representing a 39 per cent increase since 2005. This increase was observed both in rural areas (from 48 per cent to 66 per cent) and urban settings (from 71 per cent to 83 per cent). Thus, an additional 240 million people, including 5.5 million newborns, are protected every year from the brain damage and learning ability losses associated with iodine deficiency.

A key lesson from the past two decades of USI programming experience is that mandatory legislation – in place since 1992 in India – is not enough to achieve USI. Strong political leadership, adequate capacity and commitment of salt producers and traders to supply adequately iodized salt, strong monitoring systems through the salt trade chain, and high consumer demand are needed. If India is to ensure universal access to adequately iodized salt, a well-defined and compelling strategy will be necessary to reach the last 30 per cent of households as they are likely to be the least accessible and most socio-economically disadvantaged.

UNICEF supported

- **The advocacy efforts to generate political commitment to and prioritization of the universal salt iodization programme at the national, state and district levels while improving coordination among programme stakeholders through the National Coalition for Sustained Iodine Intake.**
- **Large scale public education and social mobilization initiatives through various channels including television, radio and print media as well as inter-personal communication, counselling and support to create consumer demand for and use of salt with adequate levels of iodine.**
- **Intensive sensitization and training initiatives with salt producers and suppliers to create awareness among them about the causes and consequences of iodine deficiency and bring wholesalers and retailers to procure and sell only salt with adequate levels of iodine.**



Fortified wheat flour brings iron to diet of millions

Nine states scale up flour fortification programme benefiting 40 million

Highlights

01

India's 2006 National Family Health Survey indicated that 70 per cent of children under five and 62 per cent of pregnant and breastfeeding mothers were anaemic, largely due to iron deficiency.

02

In 2007, the Indian Flour Fortification Network was formed to support state governments in improving the availability, access and use of iron-fortified wheat flour through well designed fortification programmes.

03

By 2012, 9 of the 15 major states of India were scaling up wheat flour fortification programmes. It is estimated that some 40 million people have regular access to wheat flour fortified with iron and other micronutrients.

The current political will and the fast-changing food fortification scenario in India bring hope that the present rate of progress will continue to accelerate.

Micronutrients are essential vitamins and minerals required in small amounts to maintain a healthy and productive life. In India, micronutrient deficiencies, especially iron deficiency, are widespread due to the frequent consumption of cereal-based diets and the low intake of animal products.

Iron deficiency is the leading cause of anaemia. Iron deficiency anaemia increases the risk of maternal deaths related to pregnancy and delivery, and leads to a wide range of adverse consequences such as reduced learning capacity in children and lower work productivity in adults. In 2006, India's National Family Health Survey indicated that 70 per cent of children under five and 62 per cent of pregnant and breastfeeding mothers were anaemic.

Wheat flour fortification is a simple, inexpensive and effective food-based strategy to improve the micronutrient status of populations. Fortification refers to the practice of restoring the nutrients

lost during the milling process while adding other vitamins and minerals, as needed, in order to improve the nutritional quality of the food supply. The World Health Organization recommends this approach as part of a multi-pronged strategy to control iron and other micronutrient deficiencies in the general population.

India produces an average 75 million tons of wheat annually. The majority of this production is transformed into flour and widely consumed by all socioeconomic categories in the form of flat bread, or *chapatti*. Therefore, wheat flour fortification has the potential to effectively improve the micronutrient status of a large segment of the Indian population.

In 2007, the Indian Flour Fortification Network was formed. It comprises government institutions, international development partners and wheat and flour milling industry associations. The Network provides technical support to help state governments design,

plan, implement and monitor their fortification programmes and improve the availability, access and use of fortified wheat flour.

Need for strong commitment

Advocacy has focused on generating political commitment for the wheat flour fortification programme by informing politicians and policy makers about the serious implications of micronutrient deficiencies and the potential short and long term benefits of food fortification. Public education and intensive social mobilization activities have been conducted through various channels including print media, television and radio to create consumer demand for fortified wheat flour.

In addition, efforts have been made to encourage the millers to incorporate correct levels of iron and other micronutrients into the wheat flour they produce by enhancing the internal quality assurance and quality control procedures at the roller flour mills and strengthening regulatory monitoring by the state government.

By end 2012, 9 of the 15 major states of India were scaling up wheat flour fortification programmes and fortifying nearly two million metric tons of wheat flour with iron and other micronutrients. This is more than a two-fold increase in the number of states with wheat flour fortification programmes with respect to 2008. It is estimated that some 40 million people have regular access to wheat flour fortified with iron and other micronutrients.

With 75 million tons to fortify, an important task still lies ahead. Indian mothers and children need to have regular access to iron-rich foods: food fortification can contribute to this goal. The current political will and the fast-changing food fortification scenario in India bring hope that the present rate of progress will continue to accelerate. Strong commitment and ownership of the programme by all stakeholders including the national and state governments, development partners, and the private sector will be essential.

UNICEF supported

- **Advocacy efforts to generate political commitment to the wheat flour fortification programme by informing politicians and policy makers about the serious consequences of micronutrient deficiencies and the potential short and long term benefits of food fortification.**
- **The Indian Flour Fortification Network's efforts to provide technical support to help state governments in designing, implementing and monitoring their fortification programmes to improve the availability, access and use of fortified wheat flour.**
- **Public education and social mobilization initiatives to create awareness about the potential benefits of fortified foods for maternal and child nutrition, and generate consumer demand for wheat flour fortified with iron and other essential vitamins and nutrients.**



Vitamin A supplementation programme achieves sustainable and equitable coverage

Over 90 per cent of underfives, including tribal children, reached in Odisha

Highlights

01

In the absence of appropriate programmes, 64 per cent of children under five in Odisha were at risk of vitamin A deficiency in 2000. In response to this situation, the state adopted a biannual approach to deliver preventive vitamin A supplements to preschool-age children.

02

Most of the vitamin A supplementation is carried out by auxiliary nurse midwives at the anganwadi centres where mothers are also counselled on the importance of vitamin A and how to improve the vitamin A content of their children's diet.

03

Since 2007, Odisha's full vitamin A supplementation coverage – two vitamin A doses per child per year – is above 90 per cent, including in the 20 per cent of districts with the highest concentration of tribal children.

The reasons for the success include high political commitment and coordination across departments, good district level micro-planning, and effective programme supervision and monitoring.

Improving the vitamin A status of preschool-age children prevents child blindness and increases resistance to common infections. In areas where vitamin A deficiency is prevalent, vitamin A supplementation can reduce child mortality by an average 23 per cent. In the state of Odisha, vitamin A deficiency has long been recognized as an important public health problem. A study conducted in 2000 showed that 64 per cent of children under five had low serum retinol, a biochemical sign of vitamin A deficiency. In response to this situation, the state adopted a biannual approach to deliver preventive vitamin A supplements to preschool-age children.

In May and November each year, children are brought to the immunization outreach site to receive the necessary vaccinations and/or vitamin A supplementation. Before each biannual round, intensive education, communication and social mobilization activities are carried out to encourage families and communities to bring their children to the outreach site. Most of the

vitamin A supplementation is carried out by the auxiliary nurse midwives at the anganwadi centres where mothers are also counselled on the importance of vitamin A and how to improve the vitamin A content of their children's diet.

The Department of Health and Family Welfare is the leading body responsible for designing and implementing the programme, while the Department of Women and Child Development supports the implementation of the programme by mobilizing its extensive network of village-level anganwadi workers for communication campaigns and supplement administration. Funding for the programme comes entirely from the state budget.

Since 2006, the procurement of vitamin A supplements is managed by the state government, which at present has an efficient and stable procurement mechanism able to receive vitamin A supplies within 60 days of initiating the tendering process. The state estimates the amounts of vitamin A supplements required on a round by

round basis. The supplies are distributed to the districts, which in turn distribute the supplements onward to the blocks. At the block level, staff distribute the supplements to the auxiliary nurse midwives during programme meetings prior to the round.

Most remote areas covered

Recently, the state of Odisha has focused on strengthening the biannual approach, by improving programme monitoring and supervision and expanding coverage in the hardest-to-reach areas. A partnership with medical colleges to provide support and supervision on the rounds, guide programme managers, facilitate planning sessions and review meetings in the districts has added to the effectiveness of the biannual approach. In addition, partnerships with local non-governmental organizations have helped to strengthen the delivery of vitamin A supplementation to remote rural areas and to children who belong to tribal communities or traditionally excluded groups

through enhanced communication and social mobilization activities.

As a result of this concerted effort, the full vitamin A supplementation coverage – two vitamin A doses per child per year – reached over 90 per cent in 2007; the state has sustained full coverage figures equal to or above 90 per cent since then. Importantly, the full vitamin A supplementation coverage in the 20 per cent of districts with the highest concentration of tribal children reached 90 per cent as well.

Odisha has been at the forefront of stepping up efforts to reach children with lifesaving vitamin A supplements through the biannual rounds, which has translated into high, equitable and sustained coverage of the state vitamin A supplementation programme. The reasons for the success include high political commitment and coordination across departments, good district level micro-planning, and effective programme supervision and monitoring.

UNICEF supported

- The state government to streamline the mechanism to procure vitamin A supplements and build the capacity of the government system to distribute the supplements in a timely manner to districts and blocks.
- The expansion of partnerships with local civil society organizations to improve the coverage of the vitamin A supplementation programme in the hard-to-reach areas through enhanced communication and social mobilization initiatives.
- The strengthening of programme supervision and monitoring by engaging medical colleges to guide programme managers, facilitate programme planning and review sessions in the districts before and after each vitamin A supplementation round.



Flagship feeding programmes ensure iodine intake among most vulnerable

Children and women benefit from meals with iodized salt in Madhya Pradesh

Highlights

01

The Universal Salt Iodization programme has made remarkable progress in Madhya Pradesh. However, in 2009 the proportion of households using adequately iodized salt was 50 per cent in the poorest wealth quintile in comparison to 86 per cent in the richest wealth quintile.

02

A decision was made to ensure the use of adequately iodized salt in two flagship programmes that target some of the most vulnerable children and women, namely the Supplementary Nutrition Programme (SNP) and the Mid-Day Meal (MDM) programme.

03

The experience in Madhya Pradesh indicates that the national flagship feeding programmes in India are an effective delivery platform to increase access to and use of adequately iodized salt among the most vulnerable and disadvantaged children and communities.

Without such interventions, preschool- and school-aged children from low-income families would have limited access to adequately iodized salt and remain at risk of the adverse consequences of iodine deficiency.

The salt iodization programme in India has made remarkable progress towards the achievement of Universal Salt Iodization (USI). The 2009 Coverage Evaluation Survey indicated that 71 per cent of Indian households were consuming adequately iodized salt. However, the survey also indicated that access to iodized salt improved steadily as households' wealth index increased, potentially leaving the most disadvantaged populations susceptible to iodine deficiency.

Madhya Pradesh is home to a substantial proportion of the economically and socially deprived, as 37 per cent of its people fall in India's lowest wealth quintile and 39 per cent belong to scheduled caste or scheduled tribe families. In 2009, the proportion of households using adequately iodized salt was 50 per cent in Madhya Pradesh's poorest wealth quintile in comparison to 86 per cent in the richest wealth quintile. As a result,

a decision was made to ensure the use of adequately iodized salt in two flagship programmes that target some of the most vulnerable population groups, namely the Supplementary Nutrition Programme (SNP) and the Mid-Day Meal (MDM) programme.

The SNP provides supplementary food in anganwadi centres in the form of dry take-home rations for children 6-35 months old, pregnant women and breastfeeding mothers, and hot-cooked meals for children 3-6 years old to enhance the caloric intake of children and women in low income communities. The MDM programme provides free lunch to children 6-14 years old, in order to enhance school enrolment and attendance, and improve children's nutritional status. Two directives were issued, one in 2009 by the Department of Women and Child Development and the other in 2011 by the Department of Panchayat and Rural Development, requiring that only adequately iodized salt be used for preparing the

hot-cooked meals for the anganwadi centres and schools. In addition, it was instructed that only adequately iodized salt be included in the preparation of the dry take-home rations for young children and pregnant and breastfeeding women. Government officials monitor programme implementation regularly and test the iodine content of the salt used.

Millions of children receive meals with iodized salt

Between June 2011 and March 2012, more than 28.5 million children (83 per cent) 6-35 months old enrolled in the anganwadi centres received take-home rations prepared using adequately iodized salt on a weekly basis; additionally, over 12 million children (89 per cent) 3-6 years old enrolled in the anganwadi centres received two hot meals a day, prepared using adequately iodized salt, for more than 21 days per month. Furthermore, between April 2011 and March 2012, some 5.7 million (78 per cent) primary school children and 2.7 million (79 per cent) secondary school children received hot cooked meals prepared using adequately iodized salt on a daily basis.

The programme experience confirms that the large-scale use of adequately iodized salt in the national flagship feeding programmes in India is a feasible and effective delivery platform to increase access to and use of adequately iodized salt among the most vulnerable and disadvantaged children and communities. Without such interventions, preschool- and school-aged children from low-income families would have limited access to adequately iodized salt and remain at risk of the adverse consequences of iodine deficiency.

Reaching the last 30 per cent of Indian households with adequately iodized salt will pose additional challenges as these socio-economically disadvantaged households are more difficult to reach; however, these challenges can and must be addressed through effective and innovative strategies. India has large-scale social safety net programmes aimed at the most deprived populations. Both national and state policies should mainstream the use of adequately iodized salt in these programmes for the benefit of all, especially the most vulnerable children and women.

UNICEF supported

- **Advocacy with the Department of Women and Child Development and the Department of Panchayat and Rural Development to issue directives mandating the use of only adequately iodized salt in their feeding programmes.**
- **The strengthening of programme monitoring by building the capacity of field workers to assess the iodine content of the salt using the Salt Testing Kit on a monthly basis and ensure that only adequately iodized salt is used in preparing meals for anganwadi centres and schools.**
- **The training of programme staff on the health and nutrition benefits of iodized salt, the correct methods of storing salt in the kitchen, and how to monitor the iodine content of the salt using the Salt Testing Kits.**



Deworming programme protects millions of underfives against undernutrition and anaemia

More than 75 per cent preschool children covered in Maharashtra

Highlights

01

Global evidence shows that periodic deworming of children 1-5 years old reduces intestinal worm infestation and anaemia, and enhances weight gain and growth.

02

Maharashtra was the first state in India to integrate deworming in the statewide preventive vitamin A supplementation programme for preschool-age children. The deworming programme was initiated in five tribal districts in 2006 and scaled up to Maharashtra's 35 districts in 2007.

03

In 2007, the state deworming programme covered 67 per cent of children 1-5 years old. Coverage reached 72 per cent in 2008 and 77 per cent in 2009. In 2010 and 2011 the coverage was sustained at 77 per cent and 76 per cent, respectively, benefiting 7 million preschool children.

The state of Maharashtra has demonstrated that bundling deworming with vitamin A supplementation is feasible and sustainable.

Despite sustained economic growth in recent years, child undernutrition remains a development challenge in the state of Maharashtra. In 2006, India's National Family Health Survey indicated that 37 per cent of children under five in Maharashtra were underweight and 63 per cent were anaemic. The causes of child underweight and anaemia are multiple; intestinal worm infestation resulting from poor hygiene and sanitation practices is one of them.

Worm infestation impairs the nutritional status of children by feeding on host tissues, including blood, increasing malabsorption of nutrients and causing loss of appetite. Fortunately, treating worm infestation is as simple as administering a deworming tablet. Global evidence shows that periodic deworming of children 1-5 years old reduces intestinal worm infestation and anaemia, and enhances weight gain and growth. Thus, the World Health Organization recommends that preventive deworming be bundled with biannual vitamin A supplementation to enhance the effectiveness of both interventions.

Maharashtra was the first state in India to integrate deworming in the statewide

preventive vitamin A supplementation programme for preschool-age children. The programme was initiated in five tribal districts in 2006 and was scaled up to cover the 35 districts of the state in 2007.

The state government entrusted the implementation of the programme to the Department of Public Health and Family Welfare while the oversight of the programme was given to the State Nutrition Mission. A joint committee was created to ensure overall programme coordination and planning, including the development of district level plans to reach out to rural communities, excluded families and vulnerable children. Funding for the programmes comes entirely from the state budget.

Successful integration of deworming

The biannual vitamin A supplementation with deworming programme is implemented in each village on a fixed day, fixed time, fixed place basis. Before each session, information, education and communication drives using billboards, newspapers, radio, television and community mobilizers encourage mothers, families and communities to

bring their children to the meeting point: the anganwadi centre, the health centre, or the school. There, trained frontline workers and volunteers deliver vitamin A supplements and deworming tablets to all eligible children, while counselling mothers on how to improve the vitamin A content of their children's diet and reduce the risk of worm infestation. At the end of the session the number of children covered is tallied and this information is transmitted to the district. From the district, a computerized information system is used to compile coverage data, which is then transmitted to the State Nutrition Mission for analysis.

In 2007, the state deworming programme covered 67 per cent of children 1-5 years old. The programme coverage reached 72 per cent in 2008 and 77 per cent in 2009. In 2010 and 2011 the coverage was sustained at 77 per cent and 76 per cent, respectively, benefiting 7 million preschool children.

The state of Maharashtra has demonstrated that bundling deworming with vitamin A supplementation is feasible and sustainable. High level political support, the involvement of the community volunteers and the close collaboration among the stakeholders involved in planning, supervision and monitoring are among the key success factors of the programme. Inspired by the experience in Maharashtra, seven other states have initiated the implementation of universal deworming programmes for preschool children in conjunction with vitamin A supplementation.

Ensuring an equitable coverage of deworming among children, particularly the most vulnerable – the youngest, the poorest, the hardest to reach and the socially-excluded – needs to be the focus of future programme expansion. Furthermore, it will be essential to consolidate the evidence of the programme impact on child nutritional status and reduction of anaemia.

UNICEF supported

- Advocacy efforts to convince the state government to integrate deworming in the statewide preventive vitamin A supplementation programme for preschool-age children, and scale up the bundling of vitamin A supplementation and deworming throughout the state.
- The state government in the processes of forecasting, procuring and distributing deworming tablets, and in developing and implementing district level plans for the timely and quality implementation of the deworming programme in the districts.
- The design and implementation of a comprehensive communication plan to raise awareness of the benefits of deworming for children and mobilize mothers, families and communities to bring their children to the programme delivery points and demand deworming services.

3. Improving nutrition and care for adolescent girls and women

Well-nourished, non-anaemic adolescent girls are more likely to enrol and stay in school, have better school performance and marry later. Pregnant women and breastfeeding mothers need to

eat a varied diet to ensure the energy and nutrients they need for a successful pregnancy and breastfeeding experience. Iron and folic acid supplements help prevent anaemia in adolescent girls and mothers.







Anaemia control programme's success leads to nationwide expansion

Nationwide programme to cover 130 million adolescents

Highlights

01

In India the dietary iron intake of adolescent girls is very low despite the increased iron needs associated with physical growth and puberty. India's 2006 National Family Health Survey indicated that 56 per cent of adolescent girls (i.e. 63 million) were anaemic.

02

Pilot programmes in several states indicated that after one year of programme implementation, the prevalence of anaemia in adolescent girls was reduced by an average 31 per cent while the prevalence of moderate-to-severe anaemia was reduced by 43 per cent.

03

Building on the lessons learned from the Adolescent Girls Anaemia Control Programme, the Government of India launched in 2012 the National Weekly Iron and Folic Acid Supplementation (WIFS) programme to universalize the control of anaemia among adolescents across the country.

In most programme sites, over 90 per cent of girls adhered to the programme and 80 per cent of them reported beneficial effects.

Adolescence is a period of transition from childhood to adulthood marked by a significant growth spurt. During adolescence, the iron requirements of girls increase significantly as a result of physical growth and the onset of menstruation. However, in India the dietary iron intake of girls during adolescence remains very low despite their increased needs, making adolescent girls susceptible to iron deficiency anaemia and its detrimental effects.

The 2006 National Family Health Survey indicated that 56 per cent of adolescent girls (i.e. 63 million) were anaemic. In response to this situation, UNICEF supported a number of state governments in assessing the effectiveness of an innovative approach for the control of anaemia in adolescent girls. The programme was implemented by three state government departments – Health, Education and Women and Child Development – using schools and anganwadi centres as the delivery platforms. The programme strategy included three essential interventions: 1) weekly iron and folic acid supplementation; 2) biannual deworming

prophylaxis; and 3) information, counselling and support for adolescent girls on how to improve their diets and prevent anaemia.

Programme evaluation indicated that this intervention was effective in reducing the prevalence and severity of anaemia among girls. After one year of programme implementation, the prevalence of anaemia was reduced by an average 31 per cent while the prevalence of moderate-to-severe anaemia was reduced by 43 per cent. In most programme sites, over 90 per cent of girls adhered to the programme and 80 per cent of them reported beneficial effects. The average cost of the programme was INR25 (US\$0.50) per adolescent girl per year.

Once the effectiveness of the programme was established, programme scale-up started. By 2011, the programme was being scaled up statewide in 13 states – Assam, Bihar, Chhattisgarh, Gujarat, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Tamil Nadu, Uttar Pradesh and West Bengal – and was reaching 27.6 million girls.

Success factors

Several success factors were identified, namely:

- Evidence-based advocacy to garner political support for pilot testing and subsequent scale up of the programme;
- Effective convergence between the departments of Health, Education and Women and Child Development at national, state and district levels;
- Clear definition of roles and responsibilities among the different government sectors at national and state levels;
- Involvement of all stakeholders including girls, parents, community leaders, teachers, principals, district level programme managers, state level policy makers and media to ensure programme uptake, coverage and ownership;
- An integrated package of interventions including anaemia control services, nutrition counselling and support and other relevant interventions for adolescent girls' growth,

development and empowerment including life skills education;

- Uninterrupted procurement and distribution of essential supplies;
- Periodic communication with adolescent girls, their families and communities about programme benefits and the potential undesirable but harmless effects of supplementation; and
- Simple tools such as individual self-compliance cards and class registers to monitor programme implementation.

Building on the lessons learned from the Adolescent Girls Anaemia Control Programme, the Government of India launched in 2012 the National Weekly Iron and Folic Acid Supplementation (WIFS) programme to universalize the prevention and control of anaemia among adolescents 10-19 years old. With a budget of US\$135 million in its initial phase, the programme will cover 130 million school-going and out-of-school adolescents across the country.

UNICEF supported

- **Government of India and state governments to initiate, consolidate and expand the Adolescent Girls Anaemia Control Programme using global and national evidence to garner political commitment and ownership.**
- **The planning and implementation of the Adolescent Girls Anaemia Control Programme, including building the capacity of health staff, teachers and community frontline workers to deliver, supervise and monitor the programme in schools and communities with quality.**
- **The design of the nationwide Weekly Iron and Folic acid Supplementation (WIFS) programme for adolescents, including the development of the policy framework and the operational and programmatic guidelines.**



India launches scheme to break cycle of undernutrition and deprivation

Essential services to improve nutrition of 20 million adolescent girls

Highlights

01

India is home to 115 million adolescent girls. An estimated 56 per cent are anaemic. The poor status of adolescent girls in India and their poor diets perpetuate a vicious cycle of nutrition deprivation that passes on from mothers to daughters, from one generation to the next.

02

SABLA – which in Hindi means ‘empowered woman’ – was launched in 2010 to improve the nutrition, health and development of nearly 20 million out-of-school adolescent girls in 205 districts with an integrated package of essential services.

03

After one year of programme implementation, the programme was reaching already an estimated 5 million adolescent girls, 92 per cent of whom were benefiting from weekly iron and folic acid supplementation for the prevention of anaemia.

Recognizing that adolescent girls hold the key to unlock India's nutrition challenge, the Government of India and state governments are putting adolescent girls at the centre of policy and programme action.

India is home to 115 million adolescent girls. An estimated 22 per cent of them have no education, 24 per cent have begun child bearing, 47 per cent are married, 55 per cent live in a household without toilet and 56 per cent are anaemic. The poor status of adolescent girls in India and their poor diets perpetuate a vicious cycle of nutrition deprivation that passes on from mothers to daughters, from one generation to the next. To address this inter-generational cycle of undernutrition and deprivation, the Government of India launched in 2010 the Rajiv Gandhi Scheme for the Empowerment of Adolescent Girls, known as SABLA.

In its initial phase, SABLA – which in Hindi means ‘empowered woman’ – aims at improving the nutrition, health and development of nearly 20 million out-of-school adolescent girls in 205 districts (one third of India's districts) with an integrated package of essential services that comprises supervised weekly iron and folic acid supplementation

for the prevention of anaemia, nutrition and health counselling, sexual and reproductive health education, and skills training in leadership, problem solving, decision making and use of public services such as the post office, bank and police station. Furthermore, over 11 million out-of-school adolescent girls will receive supplementary foods daily either as a hot cooked meal or as a take-home ration.

With the support of community-based anganwadi workers and civil society groups, adolescent girls are organized in groups called *Kishori Samoohs*. Each *Samooh* – led by a peer leader called *Kishori Sakhi* – meets five to six hours a week to receive programme services and function as a peer support group. The *Sakhis*, elected on a rotational basis by the adolescent girls in the group, are responsible for conducting awareness generation and skills building sessions. Every three months, on a fixed day and at a fixed site at an event known as *Kishori Diwas*, all

adolescent girls in the community – both school going and out of school – undergo a general health checkup that includes referrals to the primary health centre for medical problems that require specialized care. Every adolescent girl enrolled in SABLA receives a *Kishori Card*, which is an entitlement tool to monitor the girls’ access to and uptake of the services under SABLA.

Five million girls reached

An inter-sectoral programme, SABLA requires the convergence of services provided by different departments – Health, Education, Youth Affairs, Labour and Employment, and Panchayati Raj Institutions – to achieve its objectives. Such convergence is often a challenge. However, the analysis of the quarterly monitoring reports in the first year of programme implementation indicated that the programme was reaching already an estimated 5 million adolescent girls, of whom 92 per cent were benefiting from

weekly iron and folic acid supplementation for the prevention of anaemia, 98 per cent were receiving regularly supplementary food rations and over 85 per cent were receiving health and nutrition education and counselling. However, only 32 per cent were benefiting from the life-skills education component of the programme.

Recognizing that adolescent girls hold the key to unlock India’s nutrition challenge, the Government of India and state governments are putting adolescent girls at the centre of policy and programme action. SABLA will undergo an impact evaluation to assess its effectiveness in improving health, nutrition and empowerment outcomes for adolescent girls in the 205 districts covered in the programme’s initial phase. On the basis of the evaluation findings, appropriate adjustments will be introduced to SABLA’s design and implementation before the programme is subsequently universalized to all the districts in the country.

UNICEF supported

- **Government of India to conceptualize, plan, implement and monitor SABLA, a comprehensive programme that encompasses nutrition, health, hygiene, education and protection interventions to empower adolescent girls and reduce gender disparities and social inequities.**
- **Convergence among the Ministries of Women and Child Development, Education, Health and Youth Affairs and non-governmental organizations to implement adolescent friendly services, mainstream out-of-school adolescent girls into schools, and empower adolescent girls with information, skills and services.**
- **Advocacy and media coverage with Priyanka Chopra, a prominent Indian actress and UNICEF ambassador, to raise awareness of issues affecting adolescent girls, and advocating for the right of adolescent girls to health, nutrition, education, protection and equality.**



Cash incentive and counselling spur mothers to improve maternal and child care practices

Some 1.4 million women a year to benefit from new maternity protection scheme

Highlights

01

Stunting sets in during the 1,000-day period that spans conception to age two years. In view of this, the Government of India launched in 2010 the Indira Gandhi Matritva Sahyog Yojana (IGMSY), a conditional cash transfer programme to promote appropriate maternal and child care during pregnancy and lactation.

02

IGMSY provides INR4,000 as a cash incentive to pregnant women and breastfeeding mothers in three instalments so that they are not compelled to work in the last stages of pregnancy or soon after childbirth.

03

Within one year of programme implementation, the scheme was reaching nearly a quarter of the eligible women with cash transfers to women's bank accounts. In Gujarat and Madhya Pradesh, over 80 per cent of eligible women were reached.

The programme will be universalized across India to ensure that women have a healthy pregnancy, a safe delivery and a successful breastfeeding experience.

In India, 48 per cent of underfives (61 million children) are stunted due to chronic undernutrition. For most of these children, stunting sets in during the 1,000-day period that spans conception to age two years due to growth restriction during the prenatal period, poor feeding and care in the postnatal period, or both. There is increasing evidence that significant progress in reducing child stunting cannot be made without improving the nutrition of mothers before and during pregnancy.

In view of this situation, the Government of India launched in 2010 a conditional cash transfer programme – the Indira Gandhi Matritva Sahyog Yojana (IGMSY) – to promote appropriate maternal and child care practices and services during pregnancy and lactation. IGMSY builds on India’s experience with Janani Suraksha Yojana (JSY), a one-time conditional cash transfer to encourage women to give birth in a facility, which is credited with a positive impact on the coverage of prenatal care, the number of institutional deliveries and neonatal survival.

Under IGMSY, income incentives are given to pregnant and breastfeeding women so that they are not compelled to work in the last stages of pregnancy or soon after childbirth. Specifically, IGMSY provides INR4,000 (about US\$74) as a cash incentive to pregnant women and breastfeeding mothers above the age of 19 years.

The cash incentive is given in three instalments. The woman is given the first instalment at the end of six months of pregnancy if she has received at least one antenatal checkup, one tetanus-toxoid vaccination and iron and folic acid supplements. She receives the second instalment three months after delivery if she has weighed her child at least twice since birth and attended at least two counselling sessions on infant feeding. Finally, the mother receives the last instalment when her infant is six months old and she has practised exclusive breastfeeding for the first six months, introduced complementary foods on completion of six months, weighed her infant at least twice between three and

six months, attended at least two additional counselling sessions on infant feeding and completed all the required immunizations in the first six months of life.

A quarter of eligible women reached

IGMSY uses anganwadi centres as the delivery platform. At state and district levels, a state and district programme official is responsible for the implementation of IGMSY with support from two additional staff: a coordinator and a programme assistant. At the village level, the anganwadi worker is responsible for the implementation of the programme. At each of these levels, a committee monitors and oversees the effective implementation of the scheme.

Initially, the programme faced challenges in reaching out to the most marginalized women, as they had limited access to banking and post office facilities. Within one year of

programme implementation, the scheme was reaching nearly a quarter of the eligible women with cash transfers to their bank accounts. The analysis of the state-wise coverage of the scheme indicated that in Gujarat and Madhya Pradesh over 80 per cent of eligible women were covered; in Bihar, Karnataka, Kerala, Maharashtra, Odisha and Rajasthan the coverage was between 25 and 50 per cent; in Andhra Pradesh, Chhattisgarh, Jharkhand and Uttar Pradesh the coverage is below 25 per cent.

In its initial phase, IGMSY is implemented in 52 districts to reach out to an estimated 1.4 million mothers per year. The impact evaluation of the initial phase will inform the necessary corrections that need to be introduced in programme design and implementation. The programme will then be universalized across India to ensure that women have a healthy pregnancy, a safe delivery and a successful breastfeeding experience.

UNICEF supported

- Policy makers in designing IGMSY and programme managers in developing implementation plans to roll it out as a programme to promote appropriate maternal and child care during pregnancy and lactation particularly among women in the unorganized sector.
- Building the capacity of facility- and community-based workers to deliver essential services and support to ensure that women have a healthy pregnancy, a safe delivery, a successful breastfeeding experience and that their infants grow healthily.
- Strengthening the capacity of programme managers at national, state, district and block level to track programme coverage and the uptake and quality of the services offered to women, analyse programme data and monitor progress in programme implementation.



Public-private partnership brings nutrition services and counselling to adolescent girls

Adolescent girls' clubs play central role in tea gardens in Assam

Highlights

01

Data indicate that over 90 per cent of the women who live and work in Assam's tea communities are anaemic, largely because their diets are deficient in iron and other essential nutrients.

02

In 2011, UNICEF, the Assam Branch of the India Tea Association (ABITA) and Twinings launched a public-private partnership to deliver a package of essential nutrition interventions to 8,000 adolescent girls in 15 tea estates in Dibrugarh district.

03

The programme uses the Adolescent Girls' Clubs as the delivery platform and ensures supervised weekly iron and folic acid supplementation, monthly education sessions to improve girls' dietary intake, food diversity and food hygiene; and life skills education to build girls' self-confidence.

This partnership in support of the state government's flagship programmes for children and women has been critical in bringing services, counselling and support to adolescent girls in the tea communities of Assam.

In the state of Assam, an estimated half a million women work in the tea gardens, contributing to nearly 50 per cent of India's tea production. These tea garden communities are often excluded from mainstream development and their women have limited access to education and employment opportunities outside the tea estates. The nutrition situation of the women who live and work in these communities is also of concern. Data indicate that over 90 per cent of women in these communities are anaemic, largely because women's diets are deficient in iron and other essential nutrients. This situation is compounded by early and frequent pregnancies – a social norm explained by marrying young and lack of secondary education facilities – putting women and their children at a higher risk of poor health, nutrition and development.

To address the intergenerational cycle of undernutrition in the tea garden communities, UNICEF established a partnership with the

Assam Branch of the India Tea Association (ABITA), a federation of 276 large tea gardens across the state. The partnership reached out to nearly 7,700 school-going and out-of-school adolescent girls and supported them to form around 200 Adolescent Girls' Clubs. These clubs provide adolescent girls with a platform for peer interactions on societal issues affecting girls and women, help mainstream out-of-school girls into the school system, develop girls' self-confidence and provide girls with life skills to stand up for their rights.

Over 5,500 girls mobilized

With support by the Twinings corporate social responsibility programme, UNICEF and ABITA launched in 2011 an initiative that uses the Adolescent Girls' Clubs as the springboard for the delivery of a package of essential interventions to improve the nutrition status of 8,000 adolescent girls in 15 tea estates in Dibrugarh district. The package includes: supervised weekly iron

and folic acid supplementation; monthly nutrition and health education sessions on the importance of good diets for health, nutrition and development through the life cycle and how to improve dietary intake, food diversity and food hygiene; and life skills education to build skills on critical thinking, effective communication, problem solving, self-awareness, inter-personal relations, empathy and coping. A primary objective of the initiative is to reduce the prevalence of anaemia in adolescent girls and women by addressing its direct and underlying determinants.

Currently the initiative is reaching out to nearly 9,800 households comprising both permanent and seasonal tea garden workers and their families. Under this public-private partnership, more than 5,500 adolescent girls have been mobilized by peer motivators from the Adolescent Girls' Clubs to participate in the supervised anaemia control programme. Despite disruptions due to floods, programme monitoring reports indicated

that 69 per cent of the adolescent girls were taking iron and folic acid supplements regularly; in addition, nutrition education sessions were held to improve the dietary knowledge and practices of over 5,000 adolescent girls, including the use of locally grown and processed foods.

This partnership in support of the state government's flagship programmes for children and women has been critical in bringing services, counselling and support to adolescent girls in the tea communities of Assam. While an important first step has been taken, several challenges remain, including the need to strengthen the delivery and quality of basic services in the tea gardens – particularly the services aimed at children and women – and improve the convergence and synergy between the tea gardens' field workers and the frontline workers of government programmes. Additionally, ensuring that all girls enrol and stay in school until they complete secondary education needs to remain the key goal.

UNICEF supported

- The design of the public-private partnership among Twinings, the tea garden associations, local medical colleges and hospitals, the network of local non-governmental organizations and community groups to provide essential nutrition services to and build the life skills of adolescent girls.
- The convergence and synergy between the tea gardens' field-level workers and the frontline workers of the state government's flagship programmes to deliver essential nutrition services, counselling and support to the adolescent girls living in the tea communities.
- The formation and consolidation of adolescent girls' clubs as platforms for peer interaction on societal issues affecting girls and women so as to provide girls with life skills to stand up for their rights while helping mainstream out-of-school girls into the school system.



Anaemia control programme with equity focus reduces prevalence

Over 6 million adolescent girls given weekly supplementation in West Bengal

Highlights

01

In West Bengal the prevalence of anaemia among adolescent girls who belong to scheduled castes and scheduled tribes was above 90 per cent, largely due to the low iron content of girls' diets from early childhood.

02

The evaluation of a pilot programme for the control of anaemia in adolescent girls indicated, after 16 months of implementation, that the prevalence of anaemia in the supplemented groups was 28.5 per cent while in the non-supplemented (control) groups it was 52.7 per cent.

03

By 2011, the programme was covering more than 6.3 million adolescent girls in the 19 districts of the state using schools and anganwadi centres to reach out to both school-going and out-of-school adolescent girls. Almost one third of the girls reached belong to scheduled castes and tribes.

Among the girls who took the supplements, 94 per cent reported benefits associated with iron and folic acid supplementation.

India's 2006 National Family Health Survey indicated that anaemia was widespread among adolescent girls. In West Bengal – as in other states – anaemia was particularly prevalent among adolescent girls from scheduled caste and scheduled tribe families, with prevalence figures above 90 per cent. Such unacceptably high rates of anaemia are largely due to the low iron content of girls' diets from early childhood. Iron deficient diets – year after year – perpetuate the inter-generational cycle of anaemia whereby anaemic women give birth to children with low body iron stores, with devastating consequences to children's physical growth, mental development and school performance.

Between 1999 and 2006, the Government of West Bengal piloted the Adolescent Girls Anaemia Control Programme in selected blocks of five districts – Dakshin Dinajpur, Malda, Murshidabad, Purulia and Uttar Dinajpur – with technical support by UNICEF. The programme was implemented jointly by the Departments of Education, and

Panchayat and Rural Development. By 2006, over 580,000 adolescent girls in some 1,600 schools were benefiting from supervised weekly iron and folic acid supplementation to gradually build up their body iron stores and prevent anaemia. Additionally, adolescent girls and their families were given information on the causes and consequences of anaemia, the importance of weekly iron and folic acid supplementation and how to improve the iron content of diets through the consumption of locally available iron-rich foods.

The evaluation of the pilot programme indicated that 88 per cent of the girls took the iron and folic acid supplements and more than 80 per cent consumed at least three supplements per month. Among the girls who took the supplements, 94 per cent reported benefits associated with iron and folic acid supplementation. Importantly, impact data indicated that after 16 months of supplementation the prevalence of anaemia in the supplemented groups was 28.5 per cent while that in the non-supplemented (control) groups was 52.7 per cent.

Anaemia control programme scaled up

In view of the statewide data in 2006 on the prevalence of anaemia among adolescent girls, the Government of West Bengal decided to scale up the Adolescent Girls Anaemia Control Programme statewide. Initially (2006-2010), the programme was scaled up in all the blocks of the five pilot districts. From 2010 onwards, the programme was scaled up in the 19 districts of the state using schools and anganwadi centres to reach out to both school-going and out-of-school adolescent girls. Additionally, specific interventions addressing the needs of girls who belonged to vulnerable communities – scheduled castes and tribes, urban slums and/or minority groups – were implemented.

The programme was successful in scaling-up coverage from over 580,000 adolescent girls in 2006 to more than 6.3 million girls in 2011 with an adherence rate to the programme

of 80 per cent. Importantly, 29 per cent of the girls reached belonged to scheduled castes and tribes.

Several factors have contributed to the success of the programme: 1) evidence-based advocacy to garner political commitment; 2) programme scale up using a phased approach; 3) coordination and synergy between state government departments; 4) focused strategies to reach the most vulnerable girls; 5) regularity in supply procurement and distribution; 6) periodic programme monitoring; 7) disaggregated data to report on equity outcomes; and 8) periodic communication with adolescent girls and their families.

UNICEF continues to support the Government of West Bengal to expand programme coverage and impact using an equity-focused approach that prioritizes the delivery of services to the most vulnerable and marginalized adolescent girls.

UNICEF supported

- Collaboration and convergence between the Departments of Education, Women and Child Development, and Health to develop programme implementation plans with adequate budget allocations and ensure the training of frontline workers and an uninterrupted supply chain.
- Building the capacity of teachers and frontline workers to counsel adolescent girls and their families on how to prevent anaemia, minimize potential undesirable effects of supplementation and deworming, and adopt positive practices for anaemia control.
- The state government to monitor and review the programme using standardized data collection tools and methodologies in order to track girls' adherence to the programme and assess programme coverage through schools and anganwadi centres.



Conditional cash transfer programme encourages women to use essential services

Over 60 per cent of eligible women benefit from better care and nutrition in Odisha

Highlights

01

In Odisha – a predominantly tribal state of India – 61 per cent of women are anaemic. Poor diets from early childhood, prevailing social norms like child marriage, and frequent child bearing contribute to the high rates of anaemia and undernutrition in women.

02

In 2010-2011, the Government of Odisha launched a conditional cash transfer programme called MAMATA to improve maternal and child health, nutrition and care.

03

After a year of implementation, the programme was reaching 64 per cent of eligible women in the state and encouraging a growing number of women to use services that are essential to the health and nutrition of mothers and infants.

Additional efforts will be deployed to reach women who belong to migratory populations or live in backward areas and do not have access to bank or postal accounts.

In Odisha – a predominantly tribal state of India – 41 per cent of women are underweight and 61 per cent are anaemic. Poor diets from early childhood, prevailing social norms like child marriage, and frequent child bearing increase the risk of undernutrition in women. Additionally, poverty forces women to engage in physically demanding work even during pregnancy and lactation, resulting in poor maternal and child outcomes.

To ensure optimal care for women and their children during the most vulnerable periods – infancy, early childhood, pregnancy and lactation – the Government of Odisha designed a conditional cash transfer programme called MAMATA. Inspired by the Indira Gandhi Matritva Samridhi Yojana (IGMSY) – the national conditional cash transfer scheme for maternity protection – MAMATA was launched in a phased manner in 2010-2011 in 30 districts.

All pregnant women above 19 years of age are entitled to the scheme for the first two live births. In the first phase,

zero balance bank accounts were opened for all eligible pregnant women registered at the anganwadi centre. A cash incentive of INR5,000 (about US\$92) is e-transferred to the woman's bank account in four instalments.

The woman receives the first instalment of INR1,500 (about US\$28) at the end of the second trimester of pregnancy if she has registered her pregnancy and received at least one antenatal checkup, one tetanus-toxoid vaccination and iron and folic acid supplements. She receives the second instalment of INR1,500 three months after delivery if she has registered the child birth, weighed and vaccinated her child and attended at least two counselling sessions on infant feeding. The third instalment of INR1,000 (about US\$18) is given to the mother when her infant is six months old and she has practised exclusive breastfeeding for the first six months, introduced complementary foods on completion of the six-month exclusive breastfeeding period, weighed her child at least twice, attended at least two additional

counselling sessions on infant feeding and completed all the required immunizations. The fourth and final instalment is given to her when the child turns nine months old and has received his/her first vitamin A supplementation with the measles vaccine.

Half a million women covered

Using statewide videoconferencing, all Integrated Child Development Services and National Rural Health Mission workers were trained to implement MAMATA. Programme implementation started in 2010-2011 in two districts where over 6,500 anganwadi workers in as many anganwadi centres ensured the delivery of essential services to 54,000 pregnant women. Coordinated action between the Departments of Women and Child Development, and Health and Family Welfare ensured the timely provision of programme supplies, programme services, including during Village Health and Nutrition Days and Immunization Days, and joint programme monitoring using web-based information systems to ensure e-governance and programme transparency and accountability.

Eight banks and 396 post offices provided the zero balance accounts needed for the cash transfers. With the expansion of the scheme to the entire state, programme coverage increased from almost 54,000 pregnant women in December 2011 to more than 500,000 in August 2012. After a year of implementation, the programme is reaching 64 per cent of eligible women in the state and encouraging a growing number of women to use services that are essential to their health and nutrition and those of their infants and young children.

In the coming years the programme will be extended to include urban areas in addition to those in rural and tribal Odisha. Additional efforts will be deployed to reach women who belong to migratory populations or live in backward areas and do not have access to bank or postal accounts. The state government, with support by UNICEF and other partners, plans to pilot innovative approaches to reach these women, while supporting programme evaluation to assess the effectiveness of MAMATA in improving nutrition outcomes for children under two and their mothers.

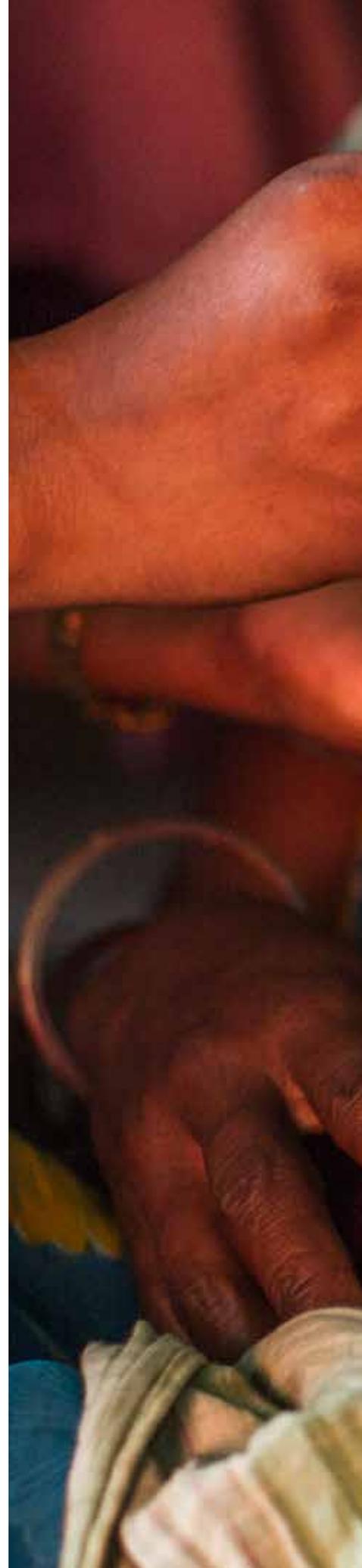
UNICEF supported

- The coordination of implementation plans by the Departments of Health and Family Welfare, and Women and Child Development to ensure the timely provision of programme services and supplies, including during Immunization Days and Village Health and Nutrition Days.
- Building the capacity of frontline workers and their supervisors to track mother-child pairs using the mother-child protection card, deliver services on time to ensure that mothers meet the programme cash transfer conditionalities, and record information for timely payments.
- The development of a web-based monitoring and programme tracking system at the block, district and state level for programme managers, supervisors and frontline workers to enter, collate and analyse information to ensure accuracy, transparency and accountability.

4. Providing nutrition and care for the most vulnerable children

Severely undernourished children, children who belong to socially-disadvantaged families and children who live in underserved communities are at a higher risk of death and poor growth

and development due to undernutrition. Special programmes and initiatives need to ensure that they and their families receive the services, information, counselling and support they deserve.







India issues guidelines to tackle severe acute malnutrition

Integrated programme could
provide care for 8 million children

Highlights

01

At any point in time an average 8 million Indian children are severely wasted. These children – one third of the severely wasted children worldwide – are dangerously undernourished to survive, grow and develop to their full potential.

02

In late 2011, the Government of India released the first ever *National Guidelines on Facility-Based Management of Children with Severe Acute Malnutrition* to reduce mortality among children with severe acute malnutrition, particularly those with medical complications.

03

The Guidelines recognize that with an estimated 8 million children with severe acute malnutrition, a community-based programme, which links to facility-based interventions, should be put in place simultaneously.

These Guidelines are an unquestionable sign of India's commitment to provide timely and quality care for severely undernourished children.

Globally, severe acute malnutrition remains a major killer of children, as mortality rates among children with severe wasting – the most widespread form of severe acute malnutrition – are nine times higher than those among well-nourished children. National surveys in India indicate that the prevalence of severe wasting in children is increasing. India's 1999 Family Health Survey indicated that 6.7 per cent of children 0-35 months old were severely wasted; in 2006, this figure had increased to 7.9 per cent. Therefore, despite an unprecedented economic growth, an average 8 million Indian children are severely wasted at any point in time. These 8 million children – one third of the severely wasted children worldwide – are dangerously undernourished to survive, grow and develop to their full potential, which is the same potential as that of children in developed countries.

The response to severe acute malnutrition in India is led by the Ministry of Health and

Family Welfare through the National Rural Health Mission, launched to improve the coverage and quality of basic health care services. This response has relied on a facility-based only model that provides care for children with severe malnutrition through a network of therapeutic feeding centres, known as Nutrition Rehabilitation Centres, where severely undernourished children receive therapeutic care following state-specific protocols based on guidelines by the Indian Academy of Pediatrics. This has led to a variety of state-level approaches to the provision of care for children with severe acute malnutrition of unequal quality and impact.

Guidelines on quality care

Cognizant of this situation, the Government of India released in late 2011 the first *National Guidelines on Facility-Based Management of Children with Severe Acute Malnutrition*. The objectives of the Guidelines, led by the Ministry of Health with technical support

by UNICEF and World Health Organization, are to:

- Reduce mortality among children with severe acute malnutrition, particularly among those with medical complications;
- Promote the physical growth and psychosocial development of severely undernourished children; and
- Build the capacity of mothers and caregivers to feed and care for their infants and young children at home.

The Guidelines are both operational and technical. The operational guidelines detail the required infrastructure, equipment, supplies, monitoring tools and human resources required whereas the technical guidelines provide criteria for the admission, monitoring and discharge of children, therapeutic feeding and treatment protocols, and programme indicators among others.

These Guidelines are an unquestionable sign of India's commitment to provide timely and quality care for severely undernourished children. Importantly, they acknowledge that

“with an estimated eight million children with severe acute malnutrition, addressing the problem through a facility-based approach alone is unfeasible. There is ample evidence suggesting that large numbers of children with severe acute malnutrition who do not have medical complications (85-90 per cent) can be treated in their communities without being admitted to a health facility... therefore a community-based programme, which complements and links to facility-based interventions should be put in place simultaneously”.

This vision has been confirmed by recent programme experience by the State Nutrition Mission and UNICEF in Madhya Pradesh demonstrating that existing health systems can be strengthened to provide effective care for children with severe acute malnutrition through an integrated model that comprises facility- and community-based therapeutic care. With an effective community-based programme for early detection and treatment, most children with severe acute malnutrition can be cared for by their mothers and families at home while Nutrition Rehabilitation Centres are reserved for children with severe acute malnutrition who have medical complications.

UNICEF supported

- **Advocacy with the Ministry of Health and Family Welfare for the development of national guidelines for the management of severe acute malnutrition in children so as to provide a national policy framework to guide state programmes for severely undernourished children.**
- **The Ministry of Health and Family Welfare in drafting the *National Guidelines on Facility-Based Management of Children with Severe Acute Malnutrition* on the basis of national and international evidence and better practices.**
- **The dissemination of the Guidelines to state-level decision makers and programme planners and their adaptation to the current and expected capacity of the state National Rural Health Mission to scale up the use of the Guidelines through a network of Nutrition Rehabilitation Centres.**



National guidelines provide for better care and support for children and adults affected by HIV

Better outcomes expected for 2.4 million people

Highlights

01

According to the National Aids Control Organization (NACO), India is home to an estimated 2.4 million people living with HIV, including some 105,000 children. Parent-to-child transmission remains the main cause of new HIV infections in children.

02

In 2012, two sets of national guidelines were finalized and issued by NACO: 1) *Nutrition Guidelines for HIV-Exposed and Infected Children (0-14 Years of Age)*; and 2) *National Guidelines for Providing Nutritional Care and Support for Adults Living with HIV*.

03

The implementation of the guidelines will lead to improved maternal and child survival, health and nutrition outcomes as part of a continuum of care and support for children and women living with HIV.

The release of these national guidelines exemplifies India's commitment to provide state-of-the-art counselling, care and support to children and adults living with HIV.

According to the National Aids Control Organization (NACO), the prevalence of HIV among adults in India is 0.31 per cent (2009 estimate). Although the prevalence is relatively low, India is nonetheless home to an estimated 2.4 million people living with HIV, including some 105,000 children. Parent-to-child transmission remains the main cause of new HIV infections in children.

Children and adults who are living with the HIV infection have specific nutrition needs both in terms of macro- and micronutrients (essential vitamins and minerals). If these needs are not met, nutritional deficiencies set in, the immune system weakens further – worsening the impact of the HIV infection – and the progression to AIDS accelerates.

Therefore, nutrition counselling and support needs to be an intrinsic component of the continuum of care for all children and adults

living with HIV. Nutrition care and support are particularly important for infants and young children, pregnant women and breastfeeding mothers as they have specific nutrition needs associated with growth, development, pregnancy and lactation.

Given the large number of people living with HIV, the significant pool of HIV infected and affected children and the recognition that nutrition counselling and support need to be part of the continuum of care for children and adults living with HIV, NACO initiated in 2009 the process of drafting national guidelines on nutrition and HIV.

NACO organized technical consultations with experts from the Ministry of Health and Family Welfare, Indian Academy of Pediatrics, UNICEF, World Health Organization (WHO), World Food Programme and other national and international partners to review a series

of subsequent guidelines drafts inspired by WHO recommendations on infant feeding and nutrition care, and support for children and adults living with HIV and AIDS.

Commitment to children and mothers

In 2012, two sets of national guidelines were finalized and issued; these guidelines were: 1) *Nutrition Guidelines for HIV-Exposed and Infected Children (0-14 years of age)*; and 2) *National Guidelines for Providing Nutritional Care and Support for Adults Living with HIV and AIDS*.

The Nutrition Guidelines for HIV-Exposed and Infected Children disseminate information on the interaction between HIV and nutrition in children and provide guidance to programme practitioners on feeding options and nutrition care and support for children infected by or exposed to HIV, including guidance on safer breastfeeding, replacement feeding,

and nutrition care and support for HIV-affected children and their mothers.

The National Guidelines for Providing Nutritional Care and Support for Adults Living with HIV and AIDS disseminate information on the nutritional requirements of people living with HIV – energy, protein, fat, micronutrients, water and fibre – and the specific requirements of pregnant women and breastfeeding mothers affected by HIV, guiding programme practitioners on how to provide nutrition counselling and support to women living with HIV.

The release of these national guidelines exemplifies India's commitment to provide state-of-the-art counselling, care and support to children and adults living with HIV. The implementation of the guidelines will lead to improved maternal and child survival, health and nutrition outcomes as part of a continuum of care and support for children and women living with HIV.

UNICEF supported

• The National Aids Control Organization (NACO) in the development, dissemination and

roll-out of the national guidelines on infant feeding and nutrition care and support for

children and adults living with HIV and AIDS.



Malnutrition Treatment Centers provide life-saving care for children with severe wasting

High survival rate in programme
in Jharkhand

Highlights

01

India's 2006 National Family Health Survey indicated that 12 per cent of underfives in Jharkhand suffer from severe wasting. This figure – the second highest in India – indicates that at any one point an average 600,000 children are severely undernourished.

02

In response to this situation, the Government of Jharkhand set up a network of 48 Malnutrition Treatment Centers (MTCs) where children with severe acute malnutrition receive care following protocols based on the guidelines by the Ministry of Health and the Indian Academy of Pediatrics.

03

MTCs provide life-saving care for children with severe acute malnutrition as demonstrated by the high survival rates seen in the programme. However, the protocols and therapeutic foods used need to be improved to reduce default rates and ensure the full recovery of all children.

Malnutrition Treatment Centers should be reserved for children with complicated severe acute malnutrition while uncomplicated cases should be admitted to a community-based programme, at a lower risk to children and lower cost to families and the health system.

India's 2006 National Family Health Survey indicated that 12 per cent of children under five in Jharkhand suffer from severe wasting, the most widespread form of severe acute malnutrition (SAM). This figure – the second highest in India – indicates that at any one point an average 600,000 children are severely wasted. In response to this situation, the Government of Jharkhand set up a network of 48 Malnutrition Treatment Centers (MTCs) where children with severe acute malnutrition receive care following feeding and treatment protocols based on guidelines by the Ministry of Health and the Indian Academy of Pediatrics.

The detection of children with SAM is ensured in the villages by the community frontline workers of the Integrated Child Development Services programme either as part of monthly growth monitoring and promotion sessions or through special community drives. In these sessions, all

children 6-59 months with bilateral pitting oedema, mid-upper-arm circumference below 115 mm and/or weight-for-height below minus 3 z-score of the Child Growth Standard by World Health Organization (WHO) are referred to the MTC.

At the MTC, these children are fed locally-prepared therapeutic milks and semi-solid therapeutic foods until discharge. A child is discharged from the MTC when the child is active and alert, has no sign of bilateral pitting oedema, fever and/or infection, has completed all age-appropriate immunizations, is being fed 120-130 kcal/kg weight/day, and the primary care giver has learnt about the care that the child needs to receive once back home.

MTCs only for children with complications

A study conducted to assess the effectiveness of the therapeutic care

provided to the children admitted to Jharkhand's MTCs from March 2009 to September 2010 indicated that 78 per cent of the children were in the age-group 6-23 months old, 55 per cent were girls and 69 per cent were from scheduled tribes or scheduled castes. Only 35 per cent of the children admitted had medical complications.

The programme achieved survival outcomes (<1 per cent child deaths) that compare favourably with national standards of care (<5 per cent child deaths). However, the proportion of children who defaulted (18 per cent) was higher than the recommended standard of care (<15 per cent). The average weight gain of the children discharged (9.6 ± 8.4 g/kg body weight/day) compared favourably with national and internationally-agreed upon minimum average weight gain (≥ 8 g/kg body weight/day) for programmes that treat severely undernourished children. However, only 40 per cent of the children discharged gained 15 per cent or more of their initial weight, the minimum weight gain recommended globally by WHO to discharge children as recovered.

In conclusion, MTCs provide live-saving care for children with severe acute malnutrition as demonstrated by the high survival rates seen in the programme. However, the protocols and therapeutic foods currently used need to be improved to reduce default rates and ensure the recovery of all children discharged. Two thirds of the children admitted to the programme did not have medical complications. For these children with uncomplicated severe acute malnutrition, facility-based care in a MTC can be dangerous because it encompasses a risk of cross-infection, has a high opportunity cost to the family, and is expensive to the state.

Therefore, community-based therapeutic care for children with uncomplicated severe acute malnutrition needs to become a key component of the continuum of care for severely undernourished children. MTCs should be reserved for children with complicated severe acute malnutrition while uncomplicated cases should be admitted to a community-based programme, at a lower risk to children and less cost to families and the health system.

UNICEF supported

- **The Government of Jharkhand in designing, implementing and evaluating the initial pilot programmes for the management of children with severe acute malnutrition – with and without medical complications – in Malnutrition Treatment Centers.**
- **The scale up of the programme for the provision of care to children with severe acute malnutrition by building the technical and managerial capacity of medical doctors, nurses and other staff in Nutrition Rehabilitation Centers.**
- **The collection and analyses of the data generated by the programme to assess the effectiveness of Malnutrition Treatment Centers in providing care for children with severe acute malnutrition according to national and international standards of care.**



Integrated care shows the way for children with severe acute malnutrition

Strengthened health system in Madhya Pradesh saves lives

Highlights

01

In Madhya Pradesh, an estimated 12.6 per cent of underfives – an average 1 million children at any point in time – are severely wasted. In response to this situation, the Department of Health and Family Welfare launched an integrated programme to care for children with severe acute malnutrition.

02

Between January 1 and December 31, 2010, some 44,000 children 6-59 months old were admitted to the programme. The admissions concerned for the most part very young children, as 79 per cent of the children admitted were in the age group 6-24 months old.

03

Survival rates were very high as less than 1 per cent children died while in the programme; 67 per cent of children completed the full 10 weeks and were discharged. Among the discharged children 65 per cent recovered while 35 per cent did not recover fully.

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



Severe acute malnutrition (SAM) remains a major killer of children as mortality rates in children with severe wasting – the most widespread form of SAM – are nine times higher than in well-nourished children. In Madhya Pradesh, an estimated 12.6 per cent of children under five – an average 1 million children at any point in time – are severely wasted. In response to this situation, the Department of Health and Family Welfare in Madhya Pradesh launched an integrated programme for the management of SAM.

Children with SAM are initially admitted to the facility-based phase of the programme in one of 270 Nutrition Rehabilitation Centres (NRCs) in the state. After completing a 14-day stay in the NRC, children move to the community phase of the programme, where they are followed up by frontline workers of the Integrated Child Development Services and National Rural Health Mission who ensure that children benefit from the Supplementary Nutrition Programme and

return for a follow up visit every 15 days for eight weeks (i.e. four follow up visits). At the follow up visits, children's growth is assessed and mothers and caregivers are counselled on child feeding and care.

Between January 1 and December 31, 2010, some 44,000 children 6-59 months old were admitted to the programme. The admissions concerned for the most part very young children as 79 per cent of the children admitted were in the age group 6-24 months old. On admission, 75 per cent of children had uncomplicated SAM (free of oedema and medical complications).

Survival rates were very high as less than 1 per cent children died while in the programme; 32 per cent of children defaulted as they left the programme before completing the 10-week protocol while 67 per cent of children completed the full 10 weeks and were discharged. Among the discharged children 65 per cent recovered as they gained 15 per cent or more of their initial weight

while the rest did not fully recover as they gained less than 15 per cent of their initial weight. The average weight gain in children discharged from the programme was 2.7 ± 1.9 g/kg body weight/day and their average length of stay was 75.8 ± 9.4 days.

Need to improve therapeutic foods

The experience in Madhya Pradesh demonstrates that existing health systems can be strengthened to provide care for children with SAM through an integrated model that comprises facility- and community-based therapeutic care. The programme provides effective life-saving care for children with SAM as indicated by its high survival rates. However, the high defaulter (32 per cent) and moderate recovery (65 per cent) 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 of the programme (1.6 ± 1.9 g/kg

body weight/day) is significantly lower than that observed in outpatient therapeutic programmes in other countries ($4-5$ g/kg body weight/day) indicating that the nutrient adequacy of the foods used in this phase of the programme are sub-standard to ensure appropriate weight gain and timely recovery.

While saving lives, the integrated programme in Madhya Pradesh is paving ways for the effective management of SAM in India. Four recommendations emanate from the experience in Madhya Pradesh: 1) Ensure active finding of children with SAM in the community with a particular focus on children 6-23 months old; 2) Admit to NRCs children with complications only; 3) Admit children with uncomplicated SAM directly to the community-based programme; and 4) Ensure that the therapeutic foods used both in the facility- and community-based phases of the programme are in line with the composition recommended by World Health Organization for the treatment of children with SAM.

UNICEF supported

- The Government of Madhya Pradesh with the design, implementation and evaluation of the pilot programmes that tested the effectiveness of the approach in providing timely and quality care for children with severe acute malnutrition (SAM) with or without medical complications.
- The scale up of the integrated programme for the management of SAM, with a particular focus on developing tools and training strategies to build the capacity of health staff to provide care for children with SAM in line with the national guidelines by the Ministry of Health.
- The analysis of the data generated by the programme to assess its coverage, performance and impact; using this evidence base, UNICEF is supporting the Government of Madhya Pradesh in introducing programme improvements on facility - and community-based care for children with SAM.



Innovative vitamin A supplementation strategy includes the excluded

Over 13 million children receive life-saving supplements every year in Bihar

Highlights

01

The Government of Bihar devised in 2007 an innovative strategy to increase vitamin A supplementation coverage, particularly among children of socially-excluded communities as undernutrition and mortality rates among these children are significantly higher.

02

The strategy reached an average 13.4 million children annually with life-saving vitamin A supplements. Over 95 per cent of children received at least one vitamin A supplementation dose per year and two thirds of them received two vitamin A supplementation doses annually.

03

Programme coverage was similar in the districts with the lowest and highest concentration of children from traditionally excluded social groups, indicating that the *equity lens* applied to the design and implementation of the strategy is paying the expected dividends.

It is feasible to undertake inclusive programming for child nutrition if efforts are made to understand who the excluded children are and where they live, and if political decisions are made to assign the human and programme resources needed to reach these children.

In India, vitamin A deficiency is widespread, particularly in rural areas, where up to 62 per cent of preschool-age children are vitamin A deficient. 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*. Many states in India have put the fight against vitamin A deficiency on a war footing; the state of Bihar – one of the poorest in India – is at the forefront of this fight.

In 2006, the National Family Health Survey indicated that only 51 per cent of preschool-age children were consuming foods rich in vitamin A regularly and a mere 26 per cent were benefiting from the state's preventive

vitamin A supplementation programme. In response to this situation, the Government of Bihar, in partnership with UNICEF, devised in 2007 an innovative strategy to increase 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-excluded communities – scheduled castes and minority groups – as undernutrition and mortality rates among these children are significantly higher.

District level planning has been a critical component of this strategy to include the children who were once excluded. More than 80,000 anganwadi centres and 11,000 primary health centres have been mapped out

to become the core distribution sites of the bi-annual vitamin A supplementation rounds. Additionally, small isolated communities located on the extreme periphery have been organized and grouped around more than 3,400 temporary sites to deliver vitamin A supplements with the help of trained volunteers from the community.

Equity lens pay dividends

To maximize programme coverage, community frontline workers and volunteers prepare lists with the names of all eligible children in each supplementation site. The needs of each district in terms of vitamin A supplements, communication materials and monitoring, and reporting formats are quantified to ensure the timely distribution and availability of supplies to the distribution sites. Additionally, intensive communication drives are undertaken at the state, district, block and distribution site level to raise community awareness about the benefits of vitamin A supplementation and mobilize families to bring their children to the nearest supplementation site. All village-based frontline workers and volunteers in the 38 districts have been trained to administer preventive vitamin A supplements to children

and counsel mothers on how to improve the vitamin A content of their children's diet.

The annual coverage data in Bihar indicate that between 2007 and 2011, the state government was able to implement eight bi-annual, statewide vitamin A supplementation rounds and reach an average 13.4 million children annually with life-saving vitamin A supplements. Programme monitoring data indicate that over 95 per cent of the eligible children received at least one vitamin A supplementation dose per year and two thirds of them received two vitamin A supplementation doses yearly. Importantly, programme coverage was similar in the districts with the lowest and highest concentration of children from traditionally excluded social groups, indicating that the *equity lens* applied to the design and implementation of the strategy is paying the expected dividends.

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

UNICEF supported

- Evidence-based advocacy: data were compiled and analysed to demonstrate that children of socially excluded communities – the poorest and most vulnerable – were not benefiting from the safety net of the state vitamin A supplementation programme.
- The Government of Bihar in designing the strategy to increase vitamin A supplementation coverage among children of socially-excluded communities – scheduled castes and minority groups – by applying an *equity lens* to the state vitamin A supplementation programme.
- The development of district level micro-plans to ensure that all households of eligible children be covered by the vitamin A supplementation rounds. This included mapping the temporary sites for the delivery of vitamin A supplements with the help of trained community volunteers.



Village Health and Nutrition Days boost children's growth

About 1.5 million children benefit monthly in Gujarat

Highlights

01

In Gujarat, child nutrition indicators have not matched the economic boom that the state has witnessed. India's 2006 National Family Health Survey indicated that 52 per cent of children under five were stunted and 70 per cent were anaemic.

02

In 2007, the Government of Gujarat launched *Mamta Abhiyan*, the Village Health and Nutrition Day, a joint strategy by the Departments of Women and Child Development, and Health and Family Welfare to deliver health and nutrition services as part of a common package.

03

Mamta Abhiyan is bringing counselling, support and services closer to mothers and children. Every month the nutritional status of 1.5 million children under three is monitored at *Mamta Abhiyan* and mothers are supported to ensure that children grow and develop to their full potential.

Gujarat's programme experience in geographical and programmatic synchronization between ICDS and NRHM can and should be used to inform the effective expansion of Village Health and Nutrition Days in other states.

The state of Gujarat is often referred to as India's economic engine due to its impressive growth. Paradoxically, child nutrition indicators have not matched this economic boom as the last National Family Health Survey indicated that 52 per cent of children under five were stunted and 70 per cent were anaemic. Poor feeding practices during the first two years of life are one of the major causes of child undernutrition in Gujarat.

An analysis of the District-Level Household Survey conducted in 2007 showed that only 19 per cent of mothers with a child in the age group 6-24 months old practised three critical feeding behaviours: start breastfeeding their newborn within one hour of birth; breastfeed their infant exclusively in the first six months of life (without giving any other food or liquid, not even water); and start feeding their child complementary foods once the six-month exclusive breastfeeding period is completed.

To improve this situation, the Government of Gujarat with technical support by UNICEF

launched in 2007 *Mamta Abhiyan*, the Village Health and Nutrition Day, a joint strategy by the Departments of Women and Child Development, and Health and Family Welfare to integrate health and nutrition interventions in a common delivery package. UNICEF supported the state of Gujarat in piloting the synchronization of services under *Mamta Abhiyan* in Valsad district. This comprised the harmonization of the geographical boundaries of the Integrated Child Development Services (ICDS) and National Rural Health Mission (NRHM), including the redistribution and rationalization of anganwadi and primary health care centres.

Each month, village-based workers organize *Mamta Abhiyan* and deliver on the same day and under the same roof three essential services: 1) monitoring the growth of children under three years of age and counselling mothers on how to feed their children to prevent undernutrition; 2) identifying children whose growth is faltering and counselling their mothers and families to

improve the quality of children's foods and feeding practices; and 3) providing essential services for children, adolescent girls and mothers such as immunization, vitamin A supplementation, iron and folic acid supplementation, fortified supplementary foods for children and iodized salt for pregnant and lactating women among others.

Successful model scaled up statewide

In 2007, more than 9,800 *Mamta Abhiyans* were organized in Valsad. Significant improvements in key indicators were documented, including the proportion of pregnant women benefiting from three antenatal check-ups, exclusive breastfeeding and timely complementary feeding rates and use of iodized salt in households. Moreover, *Mamta Abhiyan* became an effective platform for the delivery of other essential services such as the distribution of iodized salt to pregnant women and vitamin A supplements to children.

After a successful pilot phase in Valsad, the model was scaled up statewide. Since 2007, *Mamta Abhiyan* are bringing counselling,

support and services closer to mothers and children. The latest data by the Department of Health and Family Welfare indicate that the number of *Mamta Abhiyan* increased by 50 per cent, from about 260,000 days in 2007 to more than 390,000 in 2010, with an average 33,000 days each month. The proportion of children younger than three years attending growth monitoring and promotion sessions in the state increased from 25 per cent in 2006 to 65 per cent in 2010; this means that each month, the nutritional status of 1.5 million children is monitored and their mothers and families are counselled to help children grow and develop to their full potential.

The Government of India has adopted the concept of fixed-date, fixed-place for the delivery of a package of essential health and nutrition services through Village Health and Nutrition Days across the country. Gujarat's programme experience in geographical and programmatic synchronization between ICDS and NRHM can and should be used to inform the effective harmonization, coordination and expansion of Village Health and Nutrition Days in other states.

UNICEF supported

- **The design of *Mamta Abhiyan*, the Village Health and Nutrition Day, a joint strategy by the Departments of Women and Child Development, and Health and Family Welfare to integrate health and nutrition interventions in a common delivery package.**
- **Piloting the synchronization of services under *Mamta Abhiyan* in Valsad district, including the harmonization of the geographical boundaries of ICDS and NRHM and the redistribution and rationalization of anganwadi and primary health care centres.**
- **Building the capacity of district, block and village frontline workers to organize monthly *Mamta Abhiyan* and deliver on the same day and under the same roof essential services, counselling and support for child nutrition, growth and development.**

5. Advancing children's right to good nutrition

We know what works. During the 1,000-day window of opportunity – from conception to age two years – a set of proven interventions offer Indian children the best chance to grow and develop to their

full potential. Strengthening communication, building knowledge and improving governance are key to protect, promote and fulfill the right of Indian children to good nutrition.







Entertainment- education television weaves key nutrition information into drama

Over 145 million learn about maternal and child nutrition through soap opera

Highlights

01

Realizing that 100 million Indian households own a television set, the Ministry of Health and Family Welfare, UNICEF and Prasar Bharti, the public service broadcaster, joined hands to reach 145 million people with essential information for child survival and development through *Kyunki... Jeena*.

02

Kyunki... Jeena, an entertainment-education television soap opera, wove together elements of drama and education to communicate with women, families and communities. A total of 501 episodes were aired, making *Kyunki* the longest running entertainment-education programme in India.

03

The evaluation findings indicated that 87 per cent of *Kyunki* viewers recalled messages related to early initiation of breastfeeding and 85 per cent recalled messages on exclusive breastfeeding. The average cost per viewer was less than INR0.70 (approximately US\$0.02).

***Kyunki* established that entertainment-education is an ideal medium to engage and maintain audience attention, impart vital information on infant feeding, nutrition and care, and encourage dialogue between families and communities.**

India accounts for one third of stunted children in the world. Improving child nutrition has become a development priority for the Government of India, which is committed to strengthen the quality and coverage of essential nutrition services through its flagship programmes for children and women. At the same time there is a need for educating public opinion about maternal and child nutrition and related entitlements.

Realizing that 100 million Indian households own a television set – by far the most popular medium for communication and entertainment – and 45 per cent of rural households have access to television programmes, the Ministry of Health and Family Welfare, UNICEF and Prasar Bharti, the public service broadcaster, joined hands in 2007 to reach out to millions of women and families with essential information for

child survival, growth and development through *Kyunki*.

Kyunki... Jeena Issi Ka Naam Hai ('Because... this is what life is') was an entertainment-education television soap opera – a popular entertainment format with Indian audiences – that wove together elements of drama and education to communicate with women and families about key social issues. *Kyunki* drew its educational content from the *Facts for Life* global communication initiative created by a number of United Nations agencies.

Kyunki was launched on 7 April 2008 on World Health Day on the national television network, Doordarshan, a natural choice because of its large penetration even in the most remote corners of rural India. *Kyunki* was aired from 8.30 pm to 9.00 pm three times a week to entertain while sharing

information and influencing the knowledge, attitudes and practices of individuals, families and communities to foster positive individual and social change.

Most watched soap opera

A total of 501 episodes were aired between 2008 and 2011, making *Kyunki* the longest running entertainment-education-programme and most watched soap opera in India. The serial was watched by over 145 million people, 61 per cent of whom were women between the ages of 15 and 35 years, indicating that *Kyunki* achieved a unique balance between social messaging and prime-time entertainment.

Kyunki was backed by a robust monitoring and evaluation plan, which included concurrent monitoring, rapid assessments, and baseline and endline assessments for direct audience feedback. The evaluation findings indicated that 95 per cent of

the viewers exposed to *Kyunki* recalled messages on breastfeeding; 87 per cent recalled messages related to early initiation of breastfeeding and colostrum feeding; 85 per cent recalled messages on exclusive breastfeeding for six months and 67 per cent recalled messages about the introduction of complementary foods after the first six months. Importantly, the average cost of reaching a viewer through *Kyunki* was less than INR0.70 (approximately US\$0.02).

Kyunki established that entertainment-education is an ideal medium to engage and maintain audience attention, impart vital information on infant feeding, nutrition and care, and encourage dialogue between families and communities. UNICEF is collaborating with satellite and regional broadcasting networks to re-broadcast the show. A radio adaptation of the serial and its use for the development of short video clips for inter-personal communication and dialogue are also planned.

UNICEF supported

- The partnership with Doordarshan, India's national broadcaster, to create and produce *Kyunki*, a television serial strategically designed to foster positive behaviours and social norms and ultimately inspire and empower individuals and communities to transform their lives.
- The convergence and collaboration of a variety of agencies and institutions to develop the content of *Kyunki*, identify the right messages, connect information and entertainment, and ensure that the messages delivered were clear, factual, visually correct, actionable and appealing.
- Concurrent monitoring and evaluation to generate real time feedback from the viewers and help track *Kyunki*... *Jeena's* reach, coverage and impact, helping scriptwriters, producers and message developers design more impactful future episodes.



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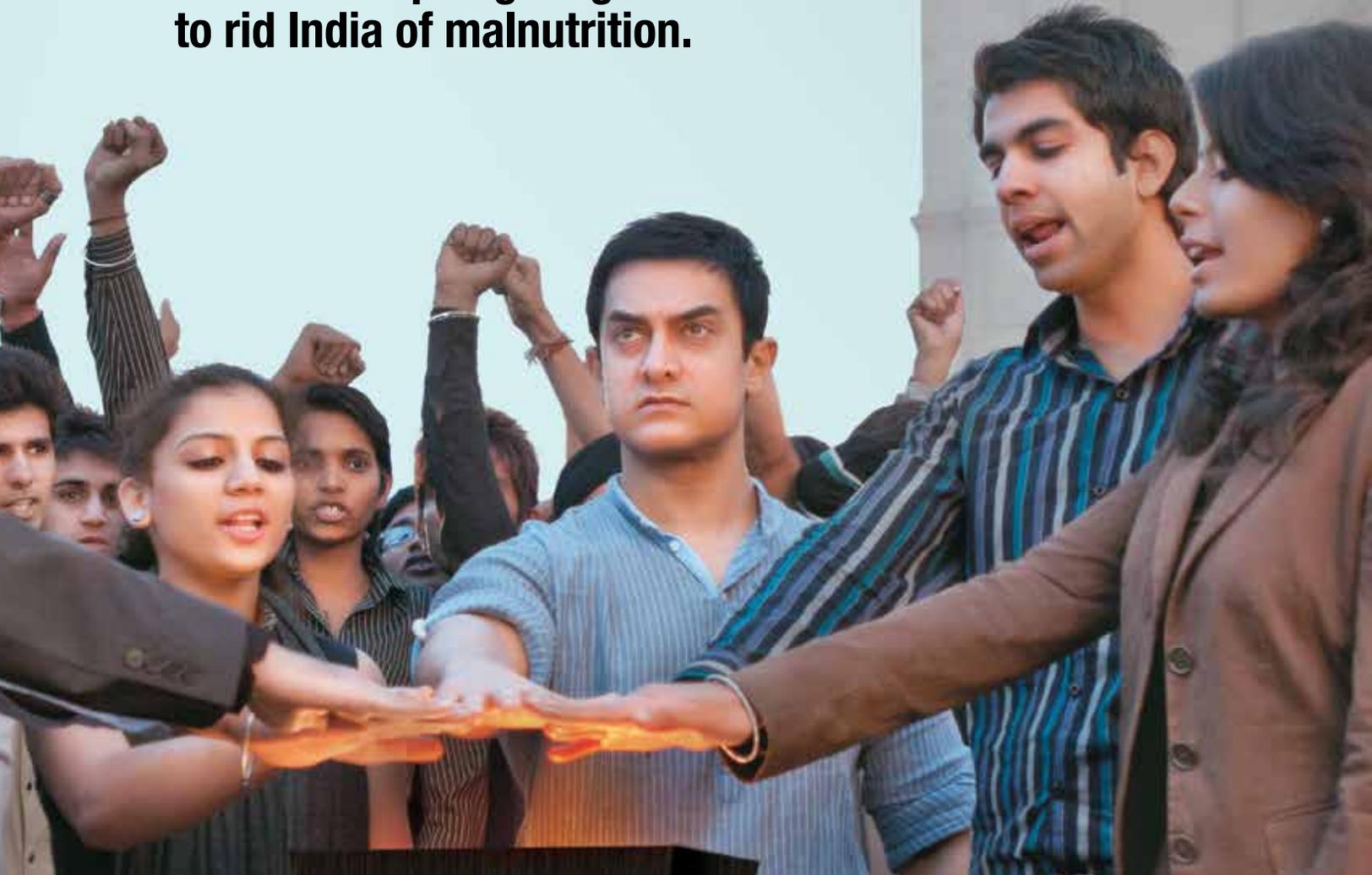
Towards a new dawn
Ministry of Women & Child Development
Government of India

Malnutrition Quit India

Many years ago, we had taken a pledge to become a free nation. And we succeeded. However, there's one thing that we are still to be free of - malnutrition. Malnutrition is an invisible killer that silently sneaks up on our children and permanently weakens them physically and mentally. And if our children are weak, how will our nation become strong? Malnutrition isn't going down without a fight, we all have to come together and wage a war against it.

Malnutrition is the lack of right nutrition. The time from conception till the age of two is when a child is extremely vulnerable to malnutrition. If proper care is taken during this period, our children can be saved from the dangers of malnutrition.

**Let's take a pledge together
to rid India of malnutrition.**



Malnutrition Quit India! A national communication campaign

Focusing on the first 1,000 days
to prevent undernutrition

Highlights

01

The Citizens' Alliance against Malnutrition approached India's Prime Minister to recommend that a large scale communication campaign be launched to promote optimal feeding, care and nutrition practices for children under two and their mothers.

02

The Ministry of Women and Child Development with technical support by UNICEF developed a two-year communication campaign with Aamir Khan – one of the most respected actors and entertainers from the Indian film industry – as the public face of the campaign.

03

The campaign, titled *Kuposahan Bharat Chodo!* (Malnutrition Quit India!), has been designed to resonate with the general population, national and local leaders and the youth. It was launched on 19 November 2012 by the President of India to reach over 116 million households.

Kuposahan Bharat Chodo! (‘Malnutrition Quit India!’) was launched on 19 November 2012 by the Honourable President of India to reach an estimated 116.4 million households with Aamir Khan as the public face of the communication campaign.

For most Indians, the word ‘malnutrition’ conjures up an image of starving children. As a result, the less visible but equally damaging forms of malnutrition such as stunting – with irreversible negative consequences on physical growth, brain development and school performance – go largely unrecognized. As an illustration, the HUNGaMA survey in 2011 indicated that more than 90 per cent of mothers interviewed in 100 of the poorest districts of India had never heard the word ‘malnutrition’ or a local equivalent: tragically, the survey also indicated that 59 per cent of underfives in these 100 districts had stunted growth due to chronic nutrition deprivation.

In India child undernutrition happens very early in life; for most children it happens either before birth or in the first 24 months of life. Therefore, there is a 1,000-day window of opportunity – from conception to age two years – to prevent child malnutrition. During these 1,000 days,

a set of proven nutrition interventions to improve feeding and care for children under two and their mothers can prevent malnutrition. After two years, this window of opportunity closes... and it closes for ever.

Based on this evidence, the Citizens’ Alliance against Malnutrition – an increasingly larger group of young Indian leaders, mostly parliamentarians from different political parties – approached India’s Prime Minister to recommend that a large scale communication campaign be launched to raise people’s awareness on the causes and consequences of child malnutrition and promote optimal feeding, care and nutrition behaviours and practices for children under two and their mothers.

Backed by support from the Prime Minister’s Office, the Ministry of Women and Child Development with technical support by UNICEF developed a two-year communication

campaign with Aamir Khan – one of the most respected actors and entertainers from the Indian film industry and a member of the Citizen’s Alliance – as the public face of the campaign. The campaign, titled *Kuposahan Bharat Chodo!* (‘Malnutrition Quit India!’), has been designed to resonate with the general population, national and local leaders and youth.

Campaign in four phases

Using a judicious mix of electronic, print and outdoor media for maximum coverage, the campaign is unfolding in four phases spanning 34 weeks. The first phase highlights the damaging consequences of child undernutrition, raising awareness about how undernutrition prevents children from attaining their growth and development potential, with an untold impact on national development. The second phase gives a clarion call for people to join the fight against malnutrition in India and pledge their contribution to push malnutrition out of the country. The third phase highlights four essential actions to prevent malnutrition in children: 1) adequate nutrition during pregnancy; 2) initiation of

breastfeeding within one hour of birth and colostrum feeding in the first three days; 3) exclusive breastfeeding for six months, no other foods or fluids not even water, only mother’s milk; and 4) continued breastfeeding with adequate complementary foods after the six-month exclusive breastfeeding period. The fourth phase informs families about where they can receive nutrition services and support through India’s flagship programmes for child health, nutrition and development.

The design of the campaign has been a two-year process, from the initial conceptual thinking sessions with Aamir Khan, McCann Erickson, Government of India and UNICEF until its finalization. Aamir Khan offered his services pro bono as UNICEF’s Ambassador for Nutrition; UNICEF provided the technical and financial support for the development of the campaign creatives and the Ministry of Women and Child Development leveraged INR2,500 million (US\$47 million) for the Campaign’s roll-out. *Kuposahan Bharat Chodo!* was launched on 19 November 2012 by the Honourable President of India Sri Pranab Mukherjee to reach an estimated 116.4 million households.

UNICEF supported

- The partnership by convening its members and building consensus on the communication priorities for improving nutrition outcomes for children under two and their mothers in India.
- The design of the creative materials of the communication campaign so that while being evidence- and science-based they resonate with different sectors of the population, including mothers, families, youth, opinion setters, policy makers and media.
- The planning for the roll-out of the campaign through electronic and digital media.



Common leadership agenda for action tackles undernutrition in children under two

Ten essential interventions address needs of children, adolescent girls and mothers

Highlights

01

The Coalition for Sustainable Nutrition Security in India called on an Expert Task Force on Infant and Young Child Nutrition to identify the 10 evidence-based interventions with the greatest potential to reduce undernutrition in children under two in India.

02

These 10 essential nutrition interventions not only address the needs of children under two but also those of adolescent girls and pregnant and lactating women, whose nutrition critically impact the nutrition of their newborns and infants.

03

These interventions have strong rooting in policy making and they are being operationalized through national and state programmes including India's flagship programmes for child survival, growth and development.

In India, child undernutrition happens very early in life; by age 18-23 months, 58 per cent of children have stunted growth due to undernutrition.

In India, child undernutrition happens very early in life; by age 18-23 months, 58 per cent of children have stunted growth due to undernutrition. Recognizing the centrality of the first two years of life to respond to India's nutrition challenge, the Coalition for Sustainable Nutrition Security in India chaired by Professor M.S. Swaminathan called on an Expert Task Force on Infant and Young Child Nutrition to identify 10 evidence-based interventions with the greatest potential to reduce rates of undernutrition in children under two in India.

The Expert Task Force led by UNICEF took the following steps: 1) agreed on the objectives: identify 10 evidence-based essential nutrition interventions with the greatest potential to reduce undernutrition in children under two in India; 2) agreed on the methodology: review global and national research and epidemiological and programme evidence; 3) agreed on the outcome: a 'Leadership Agenda For Action To Reduce Undernutrition In Infants And Young Children In India' that includes for each of the 10 essential nutrition interventions, a summary description (the 'what'), its rationale (the 'why'), and approaches for its scale up in India (the 'how'); 4) agreed on the timeline:

March-August, 2008; and 5) agreed on a no conflict of interest statement guided by the best interest of Indian children.

The Expert Task Force identified the following 10 essential nutrition interventions as those with the highest potential to reduce child undernutrition in India:

- 1) Early initiation of breastfeeding within one hour of birth;
- 2) Exclusive breastfeeding during the first six months of life;
- 3) Timely introduction of complementary foods at six months;
- 4) Age-appropriate complementary foods, adequate in quality, quantity and frequency for children 6-23 months;
- 5) Safe handling of complementary foods and hygienic complementary feeding practices;
- 6) Full immunization and bi-annual vitamin A supplementation with deworming;
- 7) Frequent, appropriate and active feeding for children during and after illness, including

oral rehydration with zinc supplementation during diarrhoea;

8) Timely and quality therapeutic feeding and care for children with severe acute malnutrition;

9) Improved food and nutrient intake for adolescent girls particularly to prevent anaemia; and

10) Improved food and nutrient intake for women during pregnancy and lactation.

Ten essential interventions endorsed

On 19 September 2008, the Coalition endorsed the 10 essential nutrition interventions as the evidence base of the *Leadership Agenda for Action to Reduce Undernutrition in Infants and Young Children in India*.

All expert group recommendations are influenced by the composition of the group. The members of the Task Force – most of them Indian nationals – are professionals with many years of advocacy, policy and

programme experience in public health nutrition in India and abroad. All the members contributed to the deliberations of the Task Force as professionals committed to the wellbeing of Indian children. The 10 essential nutrition interventions recommended by the Task Force build on the interventions recommended by the 2008 Lancet Series on Maternal and Child Nutrition, with the exception of the emphasis placed by the Task Force on the nutrition of adolescent girls; this was driven by the well-documented incidence of pregnancy among Indian adolescent girls and its implications for the nutrition of infants and young children.

Through the endorsement by the Coalition for Sustainable Nutrition Security in India and the vast majority of the members of the national and global nutrition community, these 10 essential nutrition interventions have strong rooting in policy making and they are being operationalized through national and state programmes including India's flagship programmes for child survival, growth and development, namely India's Integrated Child Development Services, National Rural Health Mission and Total Sanitation Campaign.

UNICEF supported

• The Coalition for Sustainable Nutrition Security in India chaired by Professor M.S. Swaminathan by

leading the Expert Task Force on Infant and Young Child Nutrition to identify 10 evidence-based interventions with

the greatest potential to reduce rates of undernutrition in children under two in India.



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UNICEF



Reform of child development services reaffirms critical importance of child nutrition

New mission prioritizes children under three and their mothers

Highlights

01

India's Integrated Child Development Services (ICDS) scheme, the world's largest community-based programme for early childhood nutrition and development, provides services to 80 million children below six years and 18 million pregnant women and breastfeeding mothers.

02

In September 2012, the Council of Ministers, Government of India's ultimate decision-making body, approved a budget of some US\$22 billion, nearly a three-fold increase, for the ICDS Mission – a reformed and strengthened ICDS – during India's 12th Development Plan period.

03

The ICDS Mission prioritizes children under three and their mothers, and recognizes counselling and support on maternal and child nutrition and care as a core service of the programme.

Great emphasis is given to infant and young child feeding counselling, growth monitoring and promotion, early stimulation, detection of development delays, and care and referral of children with severe undernutrition.

India's Integrated Child Development Services (ICDS) scheme is the world's largest community-based programme for early childhood nutrition and development. ICDS provides services to 80 million children below six years and 18 million pregnant women and breastfeeding mothers through a network of nearly 1.4 million community-level child development and nutrition centres called anganwadi centres. Each anganwadi centre is managed by an anganwadi worker, usually a local woman, who delivers a package of six services: immunizations, health check-ups, health referrals, supplementary food, preschool education and nutrition and health education.

Given the persistent high prevalence of child undernutrition in India, it was felt that ICDS needed to be reformed to address its design and delivery deficits and strengthen its impact. Two main drivers guided advocacy for reform: 1) the need for ICDS to be a flexible and decentralized programme

that allows states to design and implement state-specific approaches in response to state-specific needs; and 2) the need for ICDS to prioritize the delivery of high impact nutrition interventions for children under two and their mothers through a combination of home- and anganwadi-based interventions, as evidence indicates that children under two are the most vulnerable to undernutrition.

In November 2010, the Prime Minister's National Council on India's Nutrition Challenges made a policy decision to reform ICDS, requesting that special focus be given to children under three years of age, pregnant women and breastfeeding mothers through institutional convergence, decentralization and community ownership. In February 2012, the proposal for ICDS reform submitted by the Ministry of Women and Child Development, the nodal ministry for ICDS, received the approval of India's Planning Commission. In September 2012,

the Council of Ministers, Government of India's ultimate decision-making body, approved a budget of nearly US\$22 billion for the ICDS Mission – a reformed and strengthened ICDS – during India's 12th Development Plan period; nearly a three-fold budget increase for ICDS.

Convergence with other sectors

Programmatically, the ICDS Mission prioritizes children under three years of age and their mothers, and recognizes counselling and support on maternal and child nutrition and care as a core service of the programme. Therefore, great emphasis is given to infant and young child feeding counselling, growth monitoring and promotion, early stimulation, detection of development delays, and care and referral of children with severe undernutrition.

Operationally, the ICDS Mission prioritizes convergence with other sectors and programmes – particularly the National Rural Health Mission (NRHM) – to deliver services and support to children and mothers. The convergent work of ICDS and NRHM frontline workers at the village level is seen as critical in ensuring a continuum of nutrition care and support for children and mothers.

Evidence-based advocacy has propelled consensus building among all stakeholders through the reform process of ICDS. In 2013, the ICDS Mission is being rolled out in 200 high burden districts. In 2014 and 2015 its roll out will continue to expand the reform process in all the districts of the country. A long awaited dawn, ICDS reform reaffirms the centrality of child nutrition to India's economic growth, social development and international standing.

UNICEF supported

- The restructuring of ICDS through high level advocacy and technical support for policy formulation and programme design, building on UNICEF's global and national expertise on maternal and child nutrition and care.
- The technical capacity of the Ministry of Women and Child Development, the nodal Ministry for ICDS, to drive the process of ICDS reform and restructuring so as to include a renewed focus on evidence-based nutrition and care interventions for infants, young children and their mothers.
- Consensus building processes among development partners to identify the evidence-based high impact interventions at the core of the ICDS Mission for improved nutrition outcomes in infants and young children through better information, counselling and support services.



Citizen-owned survey shows large scale positive change in nutrition possible

Child undernutrition prevalence drops by 20 per cent in 100 poorest districts

Highlights

01

Between October 2010 and February 2011, the Naandi Foundation implemented the HUNGaMA (Hunger and Malnutrition) survey, a comprehensive assessment of the nutrition situation of children in the 100 districts of India with the poorest child well-being indicators.

02

HUNGaMA findings indicate that in these 100 districts there has been a 20 per cent reduction in the prevalence of child undernutrition over a six-year period with an average annual rate of reduction above 3 per cent per year.

03

This survey is a milestone as it proves that large scale positive change for nutrition in India is possible, including in the poorest states and districts of the country.

Child undernutrition remains a critical development challenge and special efforts will be vital for the most vulnerable children: the youngest, the poorest and the excluded.

India's 2006 National Family Health Survey reported that 43 per cent of the nation's underfives were underweight. The Prime Minister of India referred to levels of child undernutrition in the country as "a national shame". Since then, the Government of India, state governments and their development partners have been articulating policy and programme responses to address effectively India's nutrition challenge.

After five years, in 2011, an updated picture of the nutrition situation of children was needed to assess if current policies and programmes are bringing about improved nutrition outcomes, particularly among children who belong to the poorest and most vulnerable groups of Indian society.

The Citizens' Alliance against Malnutrition – an increasingly larger group of young Indian leaders, mostly young parliamentarians from different political parties – requested the Naandi Foundation, one of the largest and fastest growing social sector organizations

in India, to assess the nutrition situation of children in the poorest districts of India, ascertain progress and challenges, and provide an evidence base for future advocacy, policy and programme action.

Between October 2010 and February 2011, the Naandi Foundation implemented the HUNGaMA (Hunger and Malnutrition) survey, a comprehensive assessment of the nutrition situation of the most vulnerable children in India. The HUNGaMA survey collected data on the nutritional status of a representative sample of children under five and their mothers in the 100 districts of India with the poorest child well-being indicators.

The sample comprised more than 100,000 children and over 74,000 mothers. The 100 districts – home to 20 per cent of children under five (i.e. 25 million) – were selected using a composite child development index developed by UNICEF in 2009, which used national data on child health, nutrition, education, water, sanitation and safety.

A milestone survey

In January 2012, the Citizens' Alliance against Malnutrition and the Naandi Foundation released the HUNGaMA Report (in Hindi *hungama* is a 'stir') summarizing the survey findings.

The report shows that in these 100 districts child undernutrition is still widespread as 42 per cent of underfives are underweight. The survey results indicate that: 1) child malnutrition happens very early in life; 2) infant feeding and hygiene practices guided by cultural norms are very poor; 3) household socio-economic status and mother's education have a direct effect on child nutrition; and 4) the government's flagship programmes although widespread are not always efficient.

However the positive news is that in these 100 districts there has been a 20 per cent reduction in the prevalence of child undernutrition over a six-year period with an average annual rate of reduction above 3 per cent per year.

This survey is a milestone as it proves that large scale positive change for nutrition in India is possible, including in the poorest states and districts of the country. It also indicates that child undernutrition remains a critical development challenge and that "special efforts will be vital for the most vulnerable children: the youngest (from conception to age two years), the poorest (children of families in the lowest wealth quintiles) and the excluded (on the basis of gender or social identity)".

The HUNGaMA survey is the world's largest citizen-owned child nutrition survey, providing district-level data on children's nutritional status and maternal perceptions about child feeding, nutrition and care. The survey report was released in January 2012 by the Prime Minister of India in the presence of government officials, elected parliamentarians and prominent public and private sector representatives and received outstanding media coverage and public attention, demonstrating the political buy-in that young leaders and civil society organizations can bring about.

UNICEF supported

- Naandi Foundation in identifying the 100 districts of India with the poorest child well-being indicators using a composite child development

index developed by UNICEF in 2009, which used national data on child health, nutrition, education, water, sanitation and safety.

- Naandi Foundation with the interpretation and presentation of the data and survey findings.



Improved governance for nutrition reduces child stunting

Maharashtra's focus on children under two and their mothers pays off

Highlights

01

In its initial five-year phase (2005-2009), the major focus of the Maharashtra Nutrition Mission was to improve the effectiveness of the services delivered through the state's flagship programmes for child survival, growth and development.

02

In 2010, the second five-year phase of the Mission was launched with a primary focus on improving services for children under two and their mothers in light of global evidence on the 1,000-day window of opportunity – from conception to age two years – to prevent child undernutrition.

03

A statewide survey found that the prevalence of stunting in children under two decreased from 38.8 per cent in 2006 to 22.8 per cent in 2012. Importantly, the prevalence of severe stunting decreased from 14.6 per cent in 2006 to 7.8 per cent in 2012.

The Maharashtra Nutrition Mission has spearheaded a successful statewide assault on child stunting by promoting better governance for nutrition and a coordinated inter-sectoral strategy.

India's 2006 National Family Health Survey indicated that 39.2 per cent of children under two were stunted. With a prevalence of stunting in undertwos of 38.8 per cent, the state of Maharashtra – the wealthiest, second most populous and third largest in India – was not an exception to this rule despite high and sustained economic growth. With the release of these findings, it became clear that the Maharashtra Nutrition Mission, launched in 2005 to respond to reports of child undernutrition deaths in tribal districts, would need to lead a coordinated response to accelerate progress in reducing child undernutrition across the state.

In its initial five-year phase (2005-2009), the major focus of the Mission was to improve the effectiveness of the services delivered through the state's flagship programmes for child survival, growth and development, namely the Integrated Child Development Services

(ICDS) and the National Rural Health Mission (NRHM) programmes. Most of the State Nutrition Mission's work focused on ensuring that existing vacancies, particularly among frontline workers and supervisors, were filled and that frontline workers' knowledge, skills and motivation to deliver timely and quality services were improved. In 2010, the second five-year phase of the Mission was launched with a primary focus on improving the services, counselling and support for children under two and their mothers in light of global evidence on the 1,000-day window of opportunity – from conception to age two years – to prevent child undernutrition.

Stunting prevalence reduces significantly

In 2012, the Government of Maharashtra, commissioned a statewide nutrition survey to assess the progress made in improving the nutrition situation of children and identify

priority areas for future action. The survey was implemented by India's International Institute for Population Sciences (IIPS) with technical support by UNICEF. The survey findings indicated that the prevalence of stunting in children under two had decreased from 38.8 per cent in 2006 to 22.8 per cent in 2012. Importantly, the prevalence of severe stunting decreased from 14.6 per cent in 2006 to 7.8 per cent in 2012.

This significant reduction in the prevalence of child stunting is largely due to improvements in the way children are fed, the way they and their mothers are cared for, and the environments they and their families live in. For example, the survey findings indicate that the proportion of children 6-23 months old who are fed a minimum number of times per day increased from 35.8 per cent in 2006 to 76.5 per cent in 2012, the proportion of mothers who benefit from at least three antenatal care visits during pregnancy increased from 59.3 per cent to 89.6 per cent, the proportion of children under two living in

a household with a toilet facility increased from 53 per cent to 62 per cent and the proportion of those living in households with access to adequately iodized salt increased from 59.0 per cent to 78.3 per cent. However, the survey also indicates that less than 20 per cent of children 6-23 months old are fed complementary foods rich in essential nutrients, vitamin A and iron, with a minimum diet diversity to ensure children's optimal physical growth and cognitive development.

In summary, the Maharashtra Nutrition Mission has spearheaded a successful statewide assault on child stunting by promoting better governance for nutrition and a coordinated inter-sectoral strategy to bring about measurable results for children across programmes and sectors. The work continues; designing and coordinating the implementation of a statewide strategy to improve the quality of complementary foods and feeding practices for children 6-23 months old is the Mission's next challenge for the greater benefit of the children of Maharashtra.

UNICEF supported

- The Nutrition Mission's initial five-year phase (2005-2009) in defining the policy and programme actions needed and scaling up a statewide strategy to build the knowledge, skills and motivation of ICDS and NRHM frontline workers to deliver essential nutrition services.
- The Mission's second five-year phase (2010-2014) to prioritize the provision of services, counselling and support for children under two and their mothers in light of global evidence on the 1,000-day window of opportunity to prevent child undernutrition.
- Designing and implementing the 2012 Maharashtra Comprehensive Nutrition Survey to assess the progress made in improving the nutrition situation of children and identify the priority areas for future policy and programme action by the Nutrition Mission.



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