

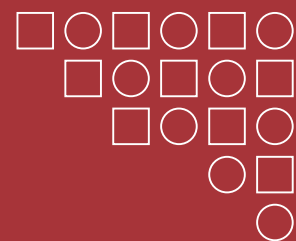
INTERVENTIONS IN ETHIOPIA



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MATERNAL AND NEWBORN HEALTH AND NUTRITION



In collaboration with the Federal Ministry of Health (FmoH), Nutrition International supports a Maternal and Newborn Health and Nutrition (MNHN) care package that includes:

- increased antenatal care (ANC) quality and attendance
- provision and consumption of iron and folic acid (IFA) supplements in pregnancy
- newborn and postnatal care (PNC) including facility delivery with skilled birth attendant, optimal timing of cord clamping, timely initiation of breastfeeding, cleaning the umbilical cord with chlorhexidine, and nutrition counselling.

The MNHN package uses the primary health care structure to promote and provide MNHN care. Nutrition International provides technical and financial support to the Regional Health Bureaus (RHBs) for implementation in Tigray, Amhara, Oromia and SNNP regions, as well as to Emory University to support the RHBs of Afar and Beneshangul-Gumuz regions.

Collaborative Quality Improvement (CQI) Approach to Improve MNHN Care Provision and Monitoring

The CQI approach is the FmoH's strategy to improve the quality of health service provision and health outcomes (NHCS, 2016). CQI is about analyzing problems and seeking solutions to find best outcome. It is based on the idea that improvement should be a natural part of the way people do their jobs every day. The approach also provides a platform for peer-to-peer learning and sharing.

Nutrition International used CQI to implement the Government of Canada-funded Community-based maternal and newborn health and nutrition (CBMNH) demonstration project between 2013 -2015, which informed the national strategy. Nutrition International adapted the CQI Approach to improve MNHN programming. This included the development of a training manual, a learning synthesis and sharing guide, quality improvement tools (process mapping, fishbone diagram, Plan-Do-Study-Act template, “database & run chart”, and coaching guide) and improvement package.

The general process is as follows:

1. Two people from each participating primary health care unit (PHCU) are formally trained on the CQI approach. They form a PCHU QI team that is a mix of health care managers and providers, the composition and number determined by the team of 5 - 8 people.
2. QI teams use a model for improvement that asks three fundamental questions:
 - What are we trying to accomplish?
 - How will we know whether a change is an improvement?
 - What changes can we make that will result in improvement?
3. The PHCU QI teams use:
 - a) QI tools to identify improvement areas including process mapping and root cause analysis
 - b) The Plan, Do, Study, Act (PDSA) cycle to test and implement changes in actual work settings
 - c) Regular meetings for sharing learning and to monitor progress against key indicators using “run charts”

Key Achievements in 2017

- Trained 1,760 staff
- Trained 483 program officers from Woreda Health Offices, Zonal Health Department and RHBs on using QI data to track change/improvement over time and to steer performance
- Formed and financed 13 PHCU learning collaborative teams to organize learning sharing workshops biannually
- 13 MNHN Quality Improvement Assistants supervised PHCUs, provided coaching to build their QI capacity, conducted SWOT analysis of the findings and provided briefing to the ZHD/RHB teams, and developed plans of action

Addressing Barriers to MNHN Care Practice Through Evidence Informed Behaviour Change Intervention (BCI) Strategy

Community-based platforms are used to reach pregnant women and their influencers with key MNHN messages, to increase demand and uptake of services, as well as to improve MNHN care practices at home. Nutrition International's behaviour change approach aims to change social norms around MNHN, improve self-confidence and efficacy of pregnant women and increase the support of their husbands, families and communities.

In collaboration with the FMOH, Nutrition International developed a package of community facilitation resources including a training manual, community facilitation guide for structured discussions, and program management and monitoring tools to implement a comprehensive behaviour change approach through uniform planning, structured discussions, implementation and monitoring. In addition, posters were developed to help care providers counsel pregnant women on IFA supplement use, perform optimal timing of cord clamping, and support women to initiate breastfeeding immediately after birth. Finally, an earlier poster on how to apply 4% chlorhexidine gel for cord care was updated and produced.

A community/family meeting facilitation process was adapted, which includes illustration-based storytelling to stimulate the guided discussion and message reinforcement. In Tigray, Amhara, Oromia and SNNP regions, the pregnant women conference (PWC) has been reoriented to a more facilitated dialogue to improve communication and participation.

Pregnant women and their families are identified early in pregnancy and encouraged to attend six monthly discussion sessions in their village. Whereas in Afar and Beneshangul-Gumuz regions, NI supports social mobilization for MNHN through Family meetings.

The MNHN "Take Action" booklet – a problem-based reference tool depicting key messages on MNHN care which was initially developed under the CBMNHN demonstration project – was revised to include a greater emphasis on maternal nutrition along with other changes. The booklet uses a problem analysis approach to find solutions, and contains four sections that promote key MNHN interventions.

Key Achievements in 2017

- a) Trained 151 program officers and 42 maternal and child health experts to supervise, support and monitor, and steer the community facilitation program performance
- b) Trained 2,102 midwives in community facilitation skills to organize and facilitate PWC
- c) Trained 936 community volunteers in community facilitation skills to organize and facilitate family meetings
- d) Produced 15,800 MNHN "Take Action" booklets, and distributed them to community volunteers and health facilities to be provided to pregnant women when identified and enrolled to family meeting sessions
- e) Provided job aids (posters) to 2,700 midwives at 900 PHCUs

Figure 1

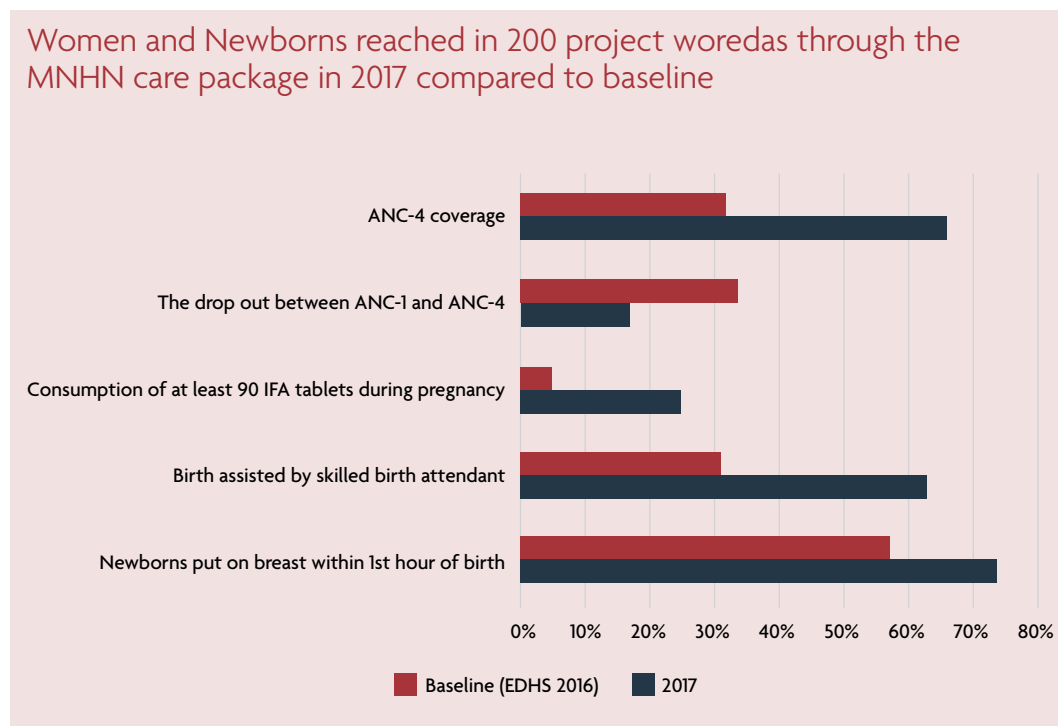
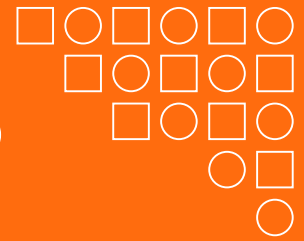


Table 1: Total number of pregnant women and newborns reached with the MNHN care package interventions in NI targeted Woredas, in 2017

Pregnant women attended at least one ANC visit	613,905
Pregnant women attended at least 4 ANC visits	483,971
Pregnant women received any IFA supplements	447,099
Pregnant women received 90 or more IFA supplements	222,204
Exposure to messages on prenatal IFA supplement consumption	229,125
Delivery assisted by skill birth attendant	465,746

INFANT AND YOUNG CHILD NUTRITION



Malnutrition in children under five years of age is one of the major causes of illness and death in Ethiopia. The Ethiopian Demographic and Health Survey (EDHS 2016) reports that the prevalence of stunting, wasting and underweight among this group stands at 38 per cent, 10 per cent, and 24 per cent respectively. Anaemia among this same group is high at 56 per cent. Nutrition International has been supporting the MoH with technical and financial assistance to implement the infant and young child nutrition (IYCN) program since 2012 with the goal of reducing malnutrition among children.

Nutrition International is supporting the revised National Nutrition Program (NNP II) and the different initiatives such as the Seqota Declaration, which contributes to better child nutritional status and reduction of stunting. In addition, Nutrition International has generated evidence through research and case studies that contributed to the development of a guideline for the use of micronutrient powders (MNPs). Nutrition International has also worked with the government and private sector to register MNPs in Ethiopia.

Currently, Nutrition International is working in targeted regions, Woredas and Kebele through existing health systems at the health post level, as well as using identified and experienced development partners to ensure continuous implementation of the IYCN project and close follow-up for quality program delivery. The program implementation at the Kebele level is managed by Health Extension Workers (HEWs), while women's groups provide support at village and household levels.

Key Project Components

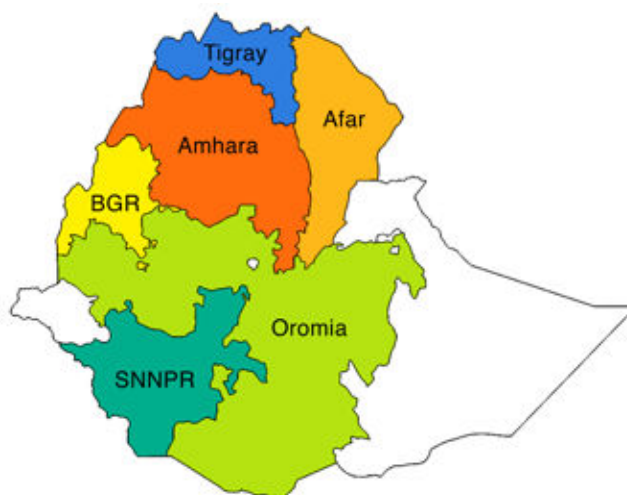
- Capacity building, training, coaching and provision of job aids for the HEWs to improve the quality of counselling for caregivers of children 0-23 months of age. Key messages and skill-building are focused on the support and promotion of exclusive breastfeeding, optimal complementary feeding to improve dietary diversity, and the establishment, monitoring and support of women's groups. Supervision of the HEWs is also a key component to provide ongoing support to the frontline health workers.
- Peer-to-peer discussions, cooking demonstrations, nutrition counselling during Growth Monitoring Promotion sessions, and inter-personal communication at the household level are used as communication channels to promote and support good IYCF practices among caregivers of children 0-23 months of age. The key platforms to reinforce skills and practices are the monthly cooking demonstrations at the health posts and the establishment of the women's groups in the Kebeles of all 89 Woredas. Leading the women's groups at the Kebele level are model mothers who were identified based on their positive performance on child health and nutrition practices, including appropriate child feeding, hygiene and sanitation, and growth monitoring participation. The women's groups are also used to facilitate identification of new mothers for the IYCN program and include regular involvement of fathers to encourage their role in child health and nutrition.

- In some targeted food insecure areas that are unable to optimize dietary diversity due to resource limitation, micronutrient powders (MNPs) are being distributed during the monthly cooking demonstration with follow-up household visits to ensure MNPs are being used at the household level.

Project Location

The IYCN program is implemented in a total of 89 Woredas across six regions:

- Tigray (12 districts)
- Amhara (23 districts)
- Southern Nation and Nationality People Region (SNNPR) (20 districts)
- Oromia (25 districts)
- Afar (5 districts)
- Benishangul Gumuz (BGR) (4 districts)



2017 Achievements

7,291 HEWs and supervisors trained in IYCN programming, monitoring and supervision, and program success story documentation.

12,876 women’s group members trained on HH counselling and monitoring, and local complementary food preparation for children using cereal, legumes, and varied food items including vegetables, fruits and animal source food.

45,500 (86 per cent) care givers of children 0-23 months received counselling on IYCF and growth monitoring participation.

7,000 CF demonstration sessions conducted in the 89 districts of the six target regions over a six month period, reaching approximately 140,000 mothers of children **6-23 months**.

Exclusive breastfeeding increased from 56 per cent to 80 per cent, resulting in an additional 117,250 infants being exclusively breastfed in 2017.

Increase from 7 per cent to 11 per cent of children 6-23 months of age being fed a minimum acceptable diet (MAD), resulting in an additional 28,800 children in that age group receiving an improved diet.

Male involvement has improved, with males starting to support the women’s groups by contributing eggs for the CF demonstrations and for the children to eat at home

After conducting monthly CF demonstrations, **6,200 model mothers** practiced appropriate IYCF (optimal breastfeeding and optimal complementary feeding practices), growth monitoring, and hygiene and sanitation.

Sustainability

Nutrition International will continue supporting the involvement of all mothers in the monthly child feeding demonstration sessions, and will work at the household level for sustainable behavioural change and change in practice on child food preparation and diet diversity.

Women's groups will continue to support the HEWs. The link between HEWs and women's group leaders will be strengthened.

To widen the scope and improve use of animal source food use, poultry production is being considered as part of the IYCN expansion plan.



Male involvement in child feeding in Afar, Ethiopia.



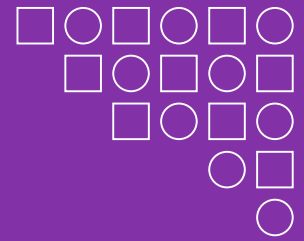
Caregivers participate in monthly cooking demonstrations to help promote and support good IYCN practices.

Key Partners

- Federal Ministry of Health at all levels:
 - Federal
 - Regional
 - Community (Woreda and Kebele)
- Relief Society of Tigray (REST)
- Amhara Development Association (ADA)
- Mothers and Children Multi-Sectoral Development Organization (MCMDO)
- Terepeza Development Association (TDA)
- EMORY University in Afar and Benishangul Gumuz regions
- Private Sectors such as Lions Group PLC



VITAMIN A SUPPLEMENTATION



According to the 2016 Ethiopian demographic and health survey (EDHS) under-five mortality in Ethiopia is 67 per 1,000 live births. In addition, vitamin A deficiency (VAD) is a significant public health problem in Ethiopia, causing 80,000 deaths per year and affecting 61 per cent of preschool children. The Government of Ethiopia has been working hard to reduce child mortality through high impact child survival interventions including scale-up of the vitamin A supplementation program established in 2004 through the Enhanced Outreach Service (EOS) delivery approach. EOS is a biannual distribution of vitamin A supplementation (VAS), deworming and nutritional screening for children under five. It was started in 54 drought-affected Woredas in the Southern Nations, Nationalities and Peoples' Region (SNNPR), and later expanded to more than 800 Woredas all over the country. In 2012, the FMoH, in collaboration with Nutrition International and other partners, started the transition of EOS to Community Health Days (CHD) and then to the routine Health Extension Program (HEP).



The Regional Health Bureau and the health extension workers explaining the VAS program to a Canadian Member of Parliament.

Nutrition International – in collaboration with UNICEF – provides the full national supply of vitamin A capsules every year to the FMoH. In 2012, the FMoH collaborated with Nutrition International to conduct a situational assessment to conceptualize and plan the transition of VAS delivery from the biannual EOS campaigns to integration into the government's HEP. Between 2012 and 2015, Nutrition International has supported the transition of VAS from EOS and CHD to routine HEP in four agrarian regions. By 2016, 460 out of 848 Woredas in the four agrarian regions and three administrative cities have been fully transitioned to deliver VAS to children 6-59 months of age through routine HEP contact. Nutrition

International has focused its support on strengthening the routine HEP VAS delivery through intensified capacity building and coaching of HEWs and health professionals and providing supportive supervision.

Nationally, an estimated eight million children (approximately 62 per cent) are being reached with two doses of VAS through a combination of the EOS, CHD and HEP programs. However, in the 460 Woredas delivering VAS through the HEP, coverage is over 93 per cent.

Approaches

- **Advocacy:** Nutrition International, in coordination with other partners, has been advocating to strengthen the health system and government ownership of the interventions.
- **Capacity building:** In collaboration with the FMoH, Nutrition International has been building the capacity of health workers, health extension workers and Zonal and Woreda Health Office workers.
- **Monitoring and evaluation:** Nutrition International-supported mentors and Nutrition International staff have provided frequent supportive supervision and conducted mentoring visits.

Key Results

In 2017, Nutrition International achieved the following results in coordination with the FMoH:

Advocacy

- Two doses of VAS for under-five children has been included in the Health Management Information System (HMIS) as an indicator of child survival interventions.
- All Woredas in the Amhara and Tigray regions transitioned from CHD to routine HEP
- FMoH decided to transition all of the Woredas in the Oromiya and SNNPR regions to routine HEP in the next Ethiopian fiscal year.

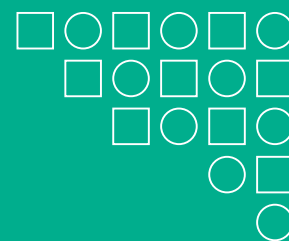
Capacity Building

- Conducted situational assessments in the zonal health departments and Woreda health offices to identify challenges and bottlenecks of the implementation of VAS through routine HEP.
- Supported 978 health posts and 202 health centres to improve quality and coverage of routine VAS, deworming and nutritional screening services.
- Built capacity of 1,584 health extension workers and 886 supervisors through regular mentoring and supportive supervision on planning, implementing, tracking and reporting of routine VAS programs and necessary logistics.
- Enabled facilities in the 88 Woredas of agrarian regions and administrative cities to implement routine VAS supplementation, deworming and nutritional screening services.
- Together with FMoH and other partners, Nutrition International has revised the HEP implementation guidelines and quick reference guide. The quick reference guide was translated to Oromifa and Tigrigna languages.

Key Partners

- Federal Ministry of Health
- Regional Health Bureaus
- UNICEF
- Maternal and Child Health Multisectoral Development Organization

ADOLESCENT NUTRITION



Ethiopia is a populous country in which a quarter of its 100 million citizens are estimated to be adolescents. After infancy, adolescence (10–19 years of age) is the most rapid period of growth with the highest nutritional needs. Many children in low- and middle-income countries enter adolescence already malnourished from early childhood, which can manifest as being thin, stunted and/or anaemic, and often display other micronutrient deficiencies. On the other end of the spectrum it can manifest as overweight and obesity. Some localized and recent studies in Ethiopia have reported significant levels of stunting (26.5 per cent), thinness (58.3 per cent), underweight (27.5 per cent) and anaemia (29 per cent) among adolescents – with a higher burden of anaemia among girls due to their greater biological need for iron.

Understanding these prevailing nutrition problems and their consequences, as well as the manifold benefits of addressing these issues, the Ethiopian government considers adolescence as a second window of opportunity in the life cycle approach for addressing nutrition. As such, the government designated adolescence to be the first strategic objective of the National Nutrition Program II (NNP II-2016-2020).

Through the Right Start Initiative, funded by the Government of Canada through Global Affairs Canada, Nutrition International is supporting the effective implementation of NNP II with an objective to reach nearly one million Ethiopian adolescents with a high-impact, cost-effective package of nutrition interventions designed for adolescent girls. Hence, Nutrition International aims to reduce anaemia in adolescent girls through weekly iron and folic acid supplementation (WIFAS) and to empower girls through nutrition counselling and education, as part of health education. Adolescent boys are also part of the nutrition education.

1. Weekly iron and folic acid supplementation (WIFAS) is an example of a nutrition intervention with proven effectiveness to impact adolescent girls, as evidenced through previous anaemia reduction programs in Asia.
2. Access to Education for females is one of the best long-term strategies to improve nutrition, yet girls face several gender barriers to attending school. Girls have described low social support for female attendance, menstrual hygiene management barriers, inadequate water, sanitation and hygiene (WASH) facilities, early marriage, pregnancy, personal safety and economic constraints of families. Even when girls are in school, anaemia can further hold them back from academic achievement, and potential future economic empowerment.
3. Nutrition International follows a gender mainstreaming process both for promoting gender equality and women's empowerment through policy and programs, using the “nothing about her without her” approach. Nutrition International works with adolescents in the design, implementation and evaluation of interventions, and also supports the empowerment of adolescent girls to advocate for their own health and nutrition.



Adolescent girls receiving WIFAS at school.

Current Project Location

- National Level: Policy support and advocacy
- Two Demonstration Project Woredas: Damote Gale (in Southern Nations, Nationalities, and Peoples' Region (SNNPR)) and Chifera (in Afar region)
- Four 1000 Days Plus Project Woredas: Kombollcha (in Oromia Region), Offa (in SNNPR), Raya Azebo (in Tigray region), and South Achefer (in Amhara region)

Program Approach

The adolescent nutrition intervention has a demonstration and scale-up phase to deliver WIFAS and nutrition education to adolescent girls (both in- and out-of-school), who are often among the most vulnerable in Ethiopia. The demonstration phase was implemented in two Woredas representing different socio-ecological conditions, and was completed in November 2017. Following the demonstration phase, the program was immediately expanded to four additional Woredas by using the government 1000 Days Plus project as a platform.

During the sub-national scale-up phase in 2018-2019, the program will cover an additional 90 Woredas in four agrarian regions (Amhara, Oromia, SNNPR and Tigray) and two pastoralist/ agro-pastoralist regions (Afar and Benishangul Gomez).

Program Implementation Model

- A National program implementation framework was developed using the key recommendations and evidence generated from the demonstration project on optimal delivery modalities to reach in-school and out-of-school adolescent girls in agrarian and pastoralist context of the country, integrating with the existing multi-sectoral nutrition coordination approaches and Comprehensive, Integrated Nutrition Services (CINS).
- The SBCC strategy was developed with insight from the formative research, including gender analysis. It positions WIFAS as supporting a girl with her studies and future aspirations. The overall guiding slogan of the strategy is: *Weekly Iron Folic Acid Supplementation: Matters for Your Body & Mind.*

Materials and Tools

The following are some of the materials and tools developed in English and four regional languages (Amharic, Afar afe, Oromiffa and Tigrigna), and are now being distributed to key intermediaries and service delivery points (e.g. schools and health posts).

- Competency Based Training (CBT) Facilitator Manual and Participants Handout
- Posters, sign boards, reusable water bottles (to aid in WIFAS consumption), danglers, quick reference counselling cards
- BCC and nutrition education materials (called a “nutrition passport”) for adolescent girls

Adolescents and Key Intermediaries Reached by the Program

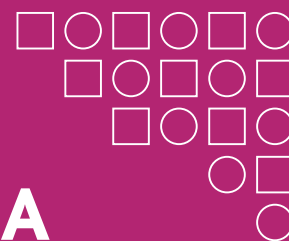
- Reached over 58,000 girls in Woredas that participating in the two demonstration projects or four 1,000 Days PLUS projects. The girls consumed at least one supplement, and were reached through 113 health posts and 229 schools in the six project Woredas.
- Over 14,000 girls consumed the full regiment of WIFAS in the two demonstration project Woredas. The girls consumed 12 or more WIFAS over six months, and were reached through 72 schools and 38 health posts in Damote Gale and Chifera.
- Reached over 29,000 adolescents (girls and boys) from two demonstration project Woredas with nutrition education.
- Improved capacity of over 1,000 key intermediaries from the demonstration projects and 1,000 Days PLUS project Woredas to provide quality and timely provision and tracking of WIFAS, and nutrition education through competency-based trainings. Intermediaries included: teachers, school principals, health extension workers, frontline health workers, health care providers, program managers and officers, and supervisors.

In 2018-2019 Nutrition International will continue supporting NNP II and aim to reach nearly one million in-school and out-of-school adolescent girls in 100 woredas with a package of WIFAS and nutrition education interventions. Service delivery points will include **2,801 schools, 1,624 health posts, and 149 Alternative Basic Education (ABE) centres.**

Key Partners

- Federal Ministries of Health and Education
- Addis Ababa University –School of Public Health
- Health and education bureaus and offices in regional and targeted Woredas
- Five implementing partners: Amhara Development Association, Mothers and Children Multisectoral Development Organisation, Relief Society of Tigray, Tigray Development Association (TDA) & Emory University

ZINC AND ORAL REHYDRATION SALTS FOR THE TREATMENT OF DIARRHOEA



Diarrhoea is still one of the three major causes of childhood mortality in Ethiopia. Even though the prevalence has shown a slight decline from 13 per cent in 2011¹ to 12 per cent in 2016², it is still accountable for the deaths of 8 per cent of children under the age of five in the country.³ The low coverage of safe water supply (57 per cent) and proper hand-washing practices (7 per cent) in the rural communities may contribute to the high burden of diarrhoeal diseases in Ethiopia (EDHS 2016).

In 2013, the Government of Ethiopia introduced rotavirus (RV) vaccination to protect children against the leading causes of diarrhoea. In addition, the Federal Ministry of Health (FMOH) revised the National Newborn and Child Survival Strategy (2015–2020) in March 2015 to scale up existing high impact interventions, such as treatment of diarrhoea with zinc and oral rehydration salts (ORS). The strategy aims to reduce the under-five mortality rate from 67 to 29 deaths per 1,000 live births over the next five years.



Zinc tablets

The Nutrition Intervention Monitoring System (NIMS) survey conducted by Nutrition International in 2017 found that 43 per cent of caregivers with children who had diarrhoea sought treatment outside the home, and that among those only 35 per cent of the episodes were treated with both zinc and ORS. Although there is significant improvement from 2016 – when coverage was only 17 per cent – the number of children treated with zinc and ORS for diarrhoea is still lower than it should be.

Since 2011, Nutrition International has been providing the government with technical and financial support towards the introduction and scale-up of zinc and ORS as a first-line drug treatment for childhood diarrhoeal cases treated in the public sector. In 2015, Nutrition International together with DKT Ethiopia, FMOH and other partners introduced co-packed ORS and zinc tablets in the private health sector under the brand name “Iemlem Plus.” The success of this, combined with strong advocacy to the government, helped Nutrition International and partners support the government in reclassifying zinc and ORS for the treatment of diarrhoea from a prescription drug, to an Over-the-Counter (OTC) treatment in 2016, which has improved access.

1 Central Statistical Agency [Ethiopia] and ICF International. 2012. Ethiopia Demographic and Health Survey 2011. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ICF International.

2 Central Statistical Agency (CSA) [Ethiopia] and ICF. 2016. Ethiopia Demographic and Health Survey 2016. Addis Ababa, Ethiopia, and Rockville, Maryland, USA: CSA and ICF.

3 Tracking Progress towards Universal Coverage for Reproductive, Newborn and Child Health: The 2017 Report. Washington, DC: United Nations Children's Fund (UNICEF) and the World Health Organization (WHO), 2017.

Since 2016, Nutrition International has taken the following approaches to improve the coverage and utilization of zinc tablets and ORS for the treatment of childhood diarrhoea in the country:

- Advocating with Federal and Regional governments for:
 - Improved service provision at primary health care levels of the health system, with a focus on the Health Extension Program (HEP).
 - Strengthened monitoring and reporting system, including the Health Management Information System (HMIS).
 - Secured and allocated adequate funds for the procurement of quality zinc tablets and proper quantities of ORS.
- Building capacity of health workers in both the private and public sectors to identify cases and treat uncomplicated childhood diarrhoea with zinc and LO-ORS as per the treatment protocols.
- Supportive supervision of Woreda and Kebele-level health workers in the four agrarian regions to follow up on supply availability, treatment according to protocols, and quality of counselling of caregivers on proper use of zinc tablets and ORS.
- Targeting behavioural change communication to caregivers to improve health-seeking behaviour and demand for zinc tablets and ORS as the first-line treatment.
- Conducting frequent supportive supervisions to the health facilities and their respective Zonal health departments and Woreda health offices found in the implementation areas.

Nutrition International, in coordination with the Federal Ministry of Health and other partners, achieved the following results in 2017:

- Treated approximately 5 million additional cases of diarrhoea with zinc and ORS. A total of 6.1 million diarrhoea cases in under-five children were treated with zinc and ORS in the public sector, of which 4.3 million (70 per cent) are considered to be additional in part due to Nutrition International's support. Furthermore, approximately 860,000 cases were treated with zinc and ORS through the private sector, of which 729,000 (84 per cent) are additional in part due to Nutrition International's support.

Advocacy

- Zinc was included in the HMIS reporting system which will allow tracking of the coverage.
- FMOH procured and distributed only co-packaged zinc tablets and ORS sachets, thus ensuring that both drugs are available in the right quantities for treatment.
- FMOH incorporated zinc and ORS along with other child health commodities into the Integrated Pharmaceuticals Logistics System (IPLS), thus allowing for better supply tracking and reducing stock-outs.
- FMOH registered zinc tablets as a revolving drug fund, a step toward a sustainable supply.

Capacity Building

- Nutrition International, together with Hawassa University, revised the pre-service curriculum for mid-level and lower level health professionals of three government-run educational institutions and one private higher educational institution to include improved modules on managing diarrhoea.

Behavioural Change Communication

- Nutrition International and partners supported the FMOH to revise the national behavioural change intervention (BCI) strategy for the treatment of diarrhoea with zinc and ORS, using the formative research conducted by Nutrition International in 2016.
- Nutrition International developed key messages expected to increase care-seeking behaviour and adherence to the treatment of diarrhoea with zinc supplements and ORS, which were transmitted through four national and regional TV stations and 12 radio stations with a total of 80 TV and 366 radio spots in seven languages.
- Approximately 3.9 million caregivers were reached with key messages on why, when, and where to seek treatment for diarrhoea, as well as on the benefits of ORS and zinc tablets for the treatment of diarrhoea.

Key Partners

- Federal Ministry of Health
- Regional Health Bureaus
- UNICEF
- Clinton Health Access Initiative
- Pharmaceuticals Fund and Supply Agency
- Results for Development (R4D)



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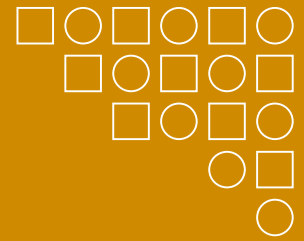


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UNIVERSAL SALT IODIZATION



In Ethiopia, adequate¹ iodization of salt became mandatory in 2011. However, by 2014/15, only 54 per cent of households had access to adequately-iodized salt.² Nutrition International has been working with the Government of Ethiopia, development partners, media and the private sector to support increased production and household consumption of adequately iodized salt. This support includes improvement in government's monitoring and enforcement of iodization law, advocacy for better policy and practices, strengthening the capacity of salt producers in proper iodized salt production processes and catalyzing the process of salt industry consolidation.

There are over 400 salt producers in the country, which are mainly concentrated in the Afar region where more than 90 per cent of the salt is produced. The large number of salt producers makes the monitoring and enforcement of adequately iodized salt more challenging. The continued advocacy of Nutrition International and other partners has resulted in construction of more than five Central Iodization Facilities (CIFs), which are able to produce high quality, adequately iodized salt. However, a significant share of produced salt does not comply with the national standard due to limits placed on production outputs through the government quota system. The Prime Minister's Office (PMO) has instructed relevant government ministries to ensure that small-scale salt processors sell their raw salt to the CIFs and not directly to the market. The PMO also revised the sale price, with fixed prices for the sale of raw salt to facilities and of refined salt to the market. But this is yet to be implemented properly and hence requires further intervention and direction from the PMO and other concerned ministerial offices.

Objectives

The objective of Universal Salt Iodization (USI) program in Ethiopia is to support the government of Ethiopia and salt producers to sustainably avail adequately iodized salt at a national level to reduce the prevalence of iodine deficiency disorders (IDD) in the country.

Project Location

The Nutrition International-assisted USI program in Ethiopia is implemented at national level, with activities concentrated in the Afar Region.

1 Adequately iodized salt is the salt iodized at ≥ 15 ppm (parts per million) of iodine in salt.

2 National salt iodization coverage towards Prevention of Iodine Deficiency Disorder in Ethiopia (2014), Dilnesaw Zerfu et.al.

Brief Description of Program Activities

Nutrition International collaborates with the government and other partners to support the enforcement of the salt iodization law, enhance adequately iodized salt production, and advocate for salt industry consolidation.

In the past years, the Nutrition International Ethiopia USI program has focused on the following key intervention areas:

1. Strengthen the enforcement of salt iodization legislation by building capacity of FMHACA
2. Support FMOI and FMOH for effective coordination of the national USI program and increase public awareness
3. Explore alternative feasible technology of iodizing salt for improved and consistent product quality as an interim solution
4. Support and promote the establishment of CIF as a sustainable solution



Salt

The key Nutrition International-supported activities during 2017 were:

1. Conducted national advocacy and communications activities: In April 2017, Nutrition International organized a national advocacy and communication workshop for participants from the government, private sector, academia, the media, and development partners. The purpose of the workshop was to promote the importance of adequately iodized salt.
2. Supported salt iodization barrier assessment: At the request of the PMO, Nutrition International provided financial support for iodization barrier assessment. The assessment was completed in 2017; the report is currently under review by the PMO.
3. Supported FMHACA in developing a plan to reinforce their capacity to implement enforcement: A plan to reinforce the capacity of FMHACA was developed to guide the support – including developing checklists and standard operating procedures (SOP), as well as training federal and regional inspectors to be provided by Nutrition International for strengthening enforcement.

Project Results

Because of the support Nutrition International has provided to the government and salt producers, there has been a significant change in awareness, commitment, capacity of key players involved in USI program including policy-makers, salt producers, quality controllers and researchers. After the salt iodization law was put in place in 2011, the coverage of adequately iodized salt has increased from 5 per cent in 2011 to 54 per cent in 2014/15 (as measured by $RTK \geq 15$ ppm, parts per million of iodine in salt). In addition, more than five central iodization facilities are either currently operating or in the process of becoming established. NI's support was possible due to the commitment of the government of Ethiopia, salt producers and support from other partners. With their support, the following key milestones were achieved over the past 10 years:

- Reached national consensus to establish the Central Iodization Facility in Ethiopia and major activities are underway
- Facilitated and advocated in support of 350 of the 400 salt producers, which have organized under a share business company
- Improved enforcement and capacity of salt producer, including FMHACA's capacity to conduct annual Post Market Surveillance (PMS) survey and control at different key stations including the Semera checkpoint
- Conducted two national household coverage studies and additional PMS, yielding ample information for evidence-based program implementation
- Supported training in universities and research centres to enable scholars to support USI program
- Supported research to assess the impact of iodine deficiency on cognitive development of children in the Amhara region
- Undertook series of studies to assess and evaluate salt flow in the country, conducted techno-feasibility study for establishment of CIF and evaluation of options for ownership and operation of a Centralized Salt Processing Plant
- Supported salt producers in conducting feasibility study and other activities to establish Central Iodization Facility
- Established KIO₃ cost recovery scheme, which assures consistent and self-sufficient year-round supply of KIO₃ for the salt producers
- Improved consumer awareness about IDD and USI program
- Revised the Iodized Salt Manufacturing Standards and Directives to increase the accessibility of salt

Key Partners

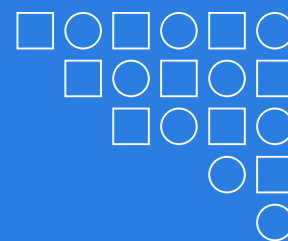
National:

- The Food, Beverage, and Pharmaceutical Industries Development Institute
- Federal Ministry of Industry
- The Ethiopia Public Health Institute
- Federal Ministry of Health
- The Ethiopia Standard Association
- Food, Medicine, and Health Care Administration and Control Authority
- The Federal Ministry of Trade
- The Ethiopian Conformity Assessment
- Partners:
 - UNICEF
 - Global Alliance for Improved Nutrition (GAIN)

Sub-national:

- Regional governments and related government departments in the Afar Region and salt producers

FOOD FORTIFICATION



High prevalence of micronutrient deficiencies is a major problem in Ethiopia. For example, 56 per cent of children aged 6-59 months and 40 per cent of children aged 48-59 months suffering from anaemia. Some 23 per cent of women aged 15-49 are anaemic. For both women and children, prevalence of anaemia is higher in rural locations than in urban areas.¹ Furthermore, prevalence of inadequate intake of iron and zinc is 12.9 per cent and 50.4 per cent respectively among (between the ages of 15 and 49).² As well as micronutrient deficiencies, dietary diversity is also a concern. Research shows that 38.4 per cent of women of reproductive age (WRA) consume zero to two food groups, and 49 per cent consume two to four food groups. Only 12.6 per cent of WRA consume five or more food groups.³

Food fortification offers low cost and high impact interventions to fight micronutrient deficiencies. Nutrition International has been working with government, private sector and development partners to promote wheat flour fortification in Ethiopia. Previously, Nutrition International supported food fortification program through Irish Aid funding that lasted from July 2014 to June 2016. Currently, Nutrition International is providing support under Right Start Initiative,⁴ which is funded by Global Affairs Canada and runs from 2016/17 to 2019/20. Through this program, there is a potential to reach four million WRA by the conclusion of the project.

Overall Positioning

Nutrition International works with the government of Ethiopia, partners and relevant key stakeholders to pilot and scale up the food fortification program in the country. Nutrition International's approach is to provide technical assistance to the Ministry of Industry, the Ministry of Health and other government partners to address the challenge regarding appropriate standards formulation, mandatory legislation, an enforcement system and demand creation. Nutrition International also works with selected flour mills across the country targeting those with a production levels above 50 metric tonnes (MT) per day to build their capacity.

Nutrition International's focus is to improve the enabling environment, specifically facilitating the development and endorsement of an edible oil and wheat flour fortification standard as mandatory. At the same time, Nutrition International supports activities to further enable the private sector and develop and implement BCI strategies for when the standard and mandatory fortification are legislated.

1 Central Statistics Agency, Ethiopia Demographic and Health Survey (EDHS), (2016), p. 34

2 Ethiopian National Food Consumption Survey 2013

3 Ethiopian National Nutrition Baseline Survey 2009

4 An initiative funded by the Government of Canada through Global Affairs Canada

Program Objectives

The overall intent of the program is to improve micronutrient status of the population and to protect adolescent girls and WRA from impairment due to micronutrient deficiency including iron, folate and vitamin A deficiency disorders by 2019/20. Specifically, NI aims to improve the coordination, capacity and commitment of the government and the private sector for high quality food fortification program and to increase demand for fortified food among the community.

Project Location

The food fortification program is implemented nationally. Specific mills in all regions are targeted for support along with the support for federal and regional enforcement agencies.

Brief Description of Program Activities Conducted by Nutrition International to Date

Since 2010, Nutrition International has conducted activities designed to create a conducive policy environment, enable the private sector and enforcement agencies and raise awareness among various key stakeholders.

To improve the policy and program coordination framework, Nutrition International supported the implementation and dissemination of the National Food Consumption Survey and Ethiopian National Micronutrient Survey and the development and endorsement of wheat flour and edible oil fortification standards. NI has also:

- Provided support to the FMoI to facilitate the development of National Food Fortification Plan of Action
- Conducted industry mapping survey of wheat flour mills currently existing and feasibility of food fortification program in Ethiopia
- Provided Technical Assistants to FMoI and FBPIDI to continuously improve the capacity of policy implementers to carry out food fortification program coordination

To enhance the capacity of enforcement agency and private sector, Nutrition International installed three micro-feeders to farmers' cooperatives and eight micro-feeders to private wheat millers and provided on-site training for the machine operators, production managers, and quality control professionals. Nutrition International also supported the FMoI and FBPIDI in developing a sector-wide food fortification program advocacy and social behaviour change communication strategy based on an intensive national formative assessment.

Key Results

Since 2010, support from Nutrition International and its partners has improved the policy, program and resource mobilization efforts of food fortification in Ethiopia. Some key results include:

- The development and endorsement of a National Food Fortification Plan of Action (NFF PoA) and Wheat Flour and Edible Oil fortification standards
- a revised techno-economic feasibility study
- the establishment of the food fortification unit within FMOI (and the hiring of three experts)
- a mapping of the fortified food manufacturing industries, and disseminated the results

Furthermore, capacity-building activities increased readiness and capacity of millers to fortify wheat flour. These activities include the installation of micro-feeders, training and familiarization workshops conducted with FMOI, FBPIDI, EPHI, FMAHCA and Ethiopian Millers Association. Nutrition International built awareness of the NFF PoA among millers and the media. Finally, Nutrition International developed a national, sector-wide food fortification advocacy and a Social Behaviour Change Communication strategy that will be used for further awareness creation and advocacy effort.

Future Directions

Nutrition International has been a massive support to the food fortification program in Ethiopia since 2010. The organization is keen to build up the gains made to date with additional support in the coming five years. In coordination with partners, Nutrition International plans to improve the policy framework through comprehensive and coordinated advocacy and support for endorsement of mandatory flour fortification and development of appropriate supporting documents for effective food fortification program coordination and enforcement systems.

To enhance provision of adequately fortified foods in the market, Nutrition International also plans to empower flour millers by establishing a revolving fund of premix and micro-feeders that will enable them to reach 1.4 million WRA by the end of 2018 and 4 million by 2020. In an effort to start flour fortification with the early adapters, Nutrition International will collaborate with partners to support the existing 12 millers that have micro-feeders in identifying a market for their fortified products. This initiative will create linkages between millers and government institutions like universities, as well as social programs to encourage early adopters.

Nutrition International also plans to conduct communication and advocacy work through a variety of different channels. This will enhance the awareness of policy-makers, wheat millers and female and male consumers, ultimately building commitment for the successful implementation of the wheat flour fortification program.

Key Partners

- Food Beverage and Pharmaceutical Industry Development Institute of the Federal Ministry of Industry
- Federal Ministry of Health
- Ethiopian Industrial Input Development Enterprise
- Ethiopian Millers Association
- Food, Medicine, and Health Care Administration and Control Authority
- The Federal Ministry of Trade
- The Ethiopian Conformity Assessment
- UNICEF
- Global Alliance for Improved Nutrition
- TechnoServe⁵

⁵ TechnoServe is a non-profit organization that works with the private sector to support poverty reduction

ABOUT NUTRITION INTERNATIONAL

Founded in 1992, Nutrition International (formerly the Micronutrient Initiative) is a global organization dedicated to delivering proven nutrition interventions to those who need them most. Working in partnership with countries, donors and implementers, our experts conduct cutting-edge nutrition research, support critical policy formulation, and integrate nutrition into broader development programs. In more than 60 countries, primarily in Asia and Africa, Nutrition International nourishes people to nourish life.

www.NutritionIntl.org

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We are grateful for Canada's longstanding commitment to our efforts over the past 25 years to improve the health and nutrition of the world's most vulnerable people. Through this support and the support of our other generous donors such as Irish Aid and DFID, we are helping to transform lives with better nutrition.

Nutrition International wishes to acknowledge its long-standing partnership with the Government of Ethiopia.

For more information:

Nutrition International Ethiopia
Nifas Silk - Lafto Sub City,
Kebele 04, H. No. 161/01
Addis Ababa, Ethiopia
T: +251-113-84 80 81
aderibew@nutritionintl.org

