

CAIA-MNCM

CANADA-AFRICA INITIATIVE TO ADDRESS MATERNAL, NEWBORN AND CHILD MORTALITY

PROJECT FINAL EVALUATION: Ethiopia (2016 – 2020)



ACKNOWLEDGEMENTS

This report is an extraction from the baseline and final assessments completed by the Centre for Global Child Health at The Hospital for Sick Children (SickKids) on the Canada-Africa Initiative to Address Maternal, Newborn and Child Mortality (CAIA-MNCM). The report focuses on the project carried out by Children Believe in the Oromia Administrative Zone of the Ahmara Region in Ethiopia from March 2016 to March 2020. Funding for the project was provided by the Government of Canada.

Children Believe would like to recognize our CAIA-MNCM partners, Amref Health Africa and WaterAid Canada, and SickKids for their tremendous work undertaking detailed studies both before and after the implementation of the project.

We would also like to extend our deepest appreciation to Dr. Bereket Yakob, consultant, who prepared this summary report.

This is the first detailed study on the key findings and achievements from the CAIA-MNCM project in Ethiopia and it launches a brand new series of reports produced by Children Believe. The series will share knowledge and lessons learned from our programs in Ethiopia designed to improve health services, facilities and attitudes towards accessing healthcare and reducing maternal, newborn and child mortality.

Finally, a very special thank you to Children Believe's Ethiopia team and our local, regional and government partners who actively participated in designing and carrying out this project.

Children Believe, 2021



Front cover image: Community members from project-supported woredas, the district administration of an area in Ethiopia, participating in Community Conversations (CCs). These sessions were initiated through the CAIA-MNCM project to raise awareness and encourage demand for Reproductive, Maternal, Newborn and Child Health (RMNCH) services.

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ABBREVIATIONS, ACRONYMS AND KEY TERMS

ANC	Antenatal Care
ARI	Acute Respiratory Illnesses
BCC	Behavioral Change Communication
BEmONC	Basic Emergency Obstetric and Newborn Care
CAD	Canadian Dollar
CAIA-MNCM	Canada-Africa Initiative to Address Maternal, Newborn and Child Mortality
CCs	Community Conversations
CLTSH	Community-Led Total Sanitation and Hygiene
EDHS	Ethiopia Demographic and Health Survey
FEFOL	Ferrous Sulphate and Folic Acid
HDA	Health Development Army
HEWs	Health Extension Workers
HFA	Health Facility Assessment
HTPs	Harmful Traditional Practices
IMNCI	Integrated Management of Newborn and Childhood Illnesses
Kebele	The smallest administrative unit of Ethiopia, similar to a ward or neighbourhood
LM	Logic Model
MNCH	Maternal, Newborn and Child Health
NGOs	Non-Governmental Organizations
ORS	Oral Rehydration Salts
PMF	Performance Measurement Framework
PMTCT	Prevention of Mother-to-Child Transmission
PNC	Postnatal Care
PWCs	Pregnant Women's Conferences
RMNCH	Reproductive, Maternal, Newborn and Child Health
RUTF	Ready-to-Use Therapeutic Food
SPMC	Stakeholders Project Management Committee
TBAs	Traditional Birth Attendants
WASH	Water, Sanitation and Hygiene
Woreda	The district administration of an area in Ethiopia

FOREWORD

Children Believe puts children and women at the centre of its program interventions. We support thriving communities through promoting health as we believe healthy and strong communities can raise healthy and educated children. This report on a four-year (March 2016 to March 2020) project entitled Canada-Africa Initiative to Address Maternal, Newborn and Child Mortality (CAIA-MNCM) highlights how addressing the health needs of mothers, newborns and children in marginalized, rural communities in Ethiopia brought about a positive impact for mothers and children.

While there are enormous social, cultural and economic challenges related to maternal and child health, there are also incredible opportunities to help solve the problems. Our approaches and the outcomes of our efforts are evidence of this. Critical to our success have been the partnerships we established with concerned government sectors and the genuine and meaningful participation of the communities we worked with. They helped pave our pathway to improve the quality and coverage of essential healthcare services for mothers, pregnant women, newborns and children under five years of age.

I am proud of the results we achieved. Through this project, the capacity of healthcare providers has grown, healthcare-seeking behaviour has changed, there has been an increase in skilled health professionals providing antenatal and postnatal care as well as supporting births, and the nutritional status of children and mothers has improved. All these changes culminated in the lives of numerous mothers and young children being saved. It was also gratifying to see a significant increase in men supporting access to maternal and child health services, which is changing deep-rooted gender inequality in rural communities.

None of these achievements could have been attained without our dedicated collaborators: the Government of Canada, Amref Health Africa, the Centre for Global Child Health at The Hospital for Sick Children, WaterAid Canada, local government and communities, and the staff of Children Believe Ethiopia.

However, the success of this project cannot end here. We must use the momentum and scale up the project, taking local contexts and lessons learned into account. Children Believe remains committed to advancing sexual and reproductive health and rights in developing countries, and we call upon our sponsors, donors and partners to do the same. Large-scale issues like poor health are daunting to face alone. But we do not exist in isolation, and the proof we have of the impact of collaboration buoys our conviction that together, we have the power to change any situation.



Fred Witteveen
Chief Executive Officer, Children Believe

EXECUTIVE SUMMARY

The Canada-Africa Initiative to Address Maternal, Newborn and Child Mortality (CAIA-MNCM) project in Ethiopia was carried out by Children Believe in rural, remote and marginalized communities in the Oromo Administrative Zone of Amhara National Regional State. It spanned over four years (March 2016 to March 2020) and was supported by the Government of Canada, through Global Affairs Canada (GAC), with a budget of \$4.5 million CAD.

The project is part of CAIA-MNCM's broader program, which was implemented across 20 districts in Ethiopia, Kenya, Malawi and Tanzania, and aimed to contribute towards reducing the mortality of mothers, newborns and children under the age of five.

The CAIA-MNCM project is a partnership among four Canadian organizations: Amref Health Africa, the Centre for Global Child Health at The Hospital for Sick Children (SickKids), WaterAid Canada and Children Believe (formerly, the Christian Children's Fund of Canada).

This report focuses on the project work in Ethiopia and the results from the activities of Children Believe.

The objectives of the project were:

1. To improve the delivery of essential health services to mothers, pregnant women, newborns and children under five years of age;
2. To improve the use of essential health services by mothers, pregnant women, newborns and children under five; and
3. To increase the consumption of nutritious food and supplements by mothers, pregnant women, newborns and children under five.

Upon its completion, a total of 408,433 people benefited from the project, the majority being mothers and children who were the primary target groups. This was achieved through an integrated approach focusing on strengthening health systems, reducing the burden of disease and improving nutrition.

To ensure benefit to the community, **suitable approaches** were considered and applied for the project interventions. The approaches included establishing **partnerships** with key stakeholders, taking into account factors related to both the demand- and supply-side of **integrating interventions, innovation**-designing with local materials, **value-driven and locally-contextualized** interventions, **tracking performance and learnings**, and ensuring the **sustainability** of the project results.

The interventions developed and applied include capacity building for the health workforce, improving health facilities and services through training and providing medical equipment and supplies, installing solar power systems and constructing maternity waiting blocks and Water, Sanitation and Hygiene (WASH) facilities. The project also implemented demand-creation activities (social and behavioural change communication) in the community. Nutrition interventions (provision of micronutrients and ready-to-use food) targeting children and women were also carried out.

Children Believe explicitly and systematically integrated gender-equity strategy considerations at all stages of the project, including at the activity, budgeting, outputs and results levels, and undertook various activities that contributed to promoting women's and children's rights.

We also employed a short-term environmental specialist who undertook an environmental impact assessment and provided necessary recommendations that we followed through the course of the project's implementation. The recommendations were to deliver training to health facility staff on healthcare waste management, infection prevention and patient safety, and to establish a system to ensure governance in all processes of planning, implementation, monitoring and evaluation.

Factors that led to the success of the project included the relevance of the interventions and systems put in place to ensure sustainability, partnerships, innovative approaches, appropriateness of resources used and informed and timely action taken during the course of the project's implementation.

Key results

The CAIA-MNMC project in Ethiopia has made significant achievements in reducing maternal, newborn and child mortality. Key results drawn from the baseline and end-line assessment reports (assessments were conducted in 2016 and 2020, respectively) are highlighted below.

Improved quality and provision of essential healthcare services for mothers, pregnant women, newborns and children at health facilities.

- ▶ Antenatal Care (3rd ANC visit to health facilities increased from the baseline of 24 percent to 40 percent at end-line.
- ▶ Ninety-eight percent of the Antenatal Care (ANC) patients in exit interviews reported that their privacy was respected and the service provider explained procedures to them well, as compared to 84 percent who received such services four years ago.
- ▶ Births attended to by skilled health professionals increased from 50 percent in 2016 to 64 percent in 2020 (the national average was 48 percent in 2019).
- ▶ One-hundred percent of the health facilities have been routinely practicing and offering newborn delivery services, including delivery to the abdomen and drying and wrapping the newborn.

Increased use of health services and men's support for the use of maternal and child health services at health facilities.

- ▶ Home delivery reduced from the baseline of 53 percent to 46 percent at end-line.
- ▶ Deliveries (birth) at health centres increased from the baseline of 39 percent to 46 percent at end-line.
- ▶ Percentage of fathers who made advanced preparations related to the place of delivery increased from 23 percent in 2016 to 56 percent in 2020.

Increased consumption of nutritious food and supplements by mothers, pregnant women, newborns and children under five years of age.

- ▶ The prevalence of being underweight among children under five years reduced from 24 percent in 2016 (28 percent for the Amhara region) to 21 percent in 2019 (EDHS 2019).
- ▶ The rate of exclusive breastfeeding has shown progress from the baseline value of five percent of babies to 44 percent of babies at end-line.
- ▶ An improvement in the early initiation of breastfeeding was seen with the percentage of babies who were breastfed within one hour of birth, increasing from 87 percent (baseline) to 93 percent at the end of the project.

Lessons learned

1. **Proper project planning for better results:** A participatory needs assessment and proper planning before implementing any aspect of the project were major factors in ensuring the quality of the project activities and achievement of the intended results.
2. **Partnership and collaboration ensure project sustainability:** To implement the CAIA-MNMC project in Ethiopia, we worked collaboratively with various government offices, Non-Governmental Organizations (NGOs), community organizations and community members during all stages from designing to implementation and monitoring and evaluation. This process encouraged the feeling of ownership, fostered commitment from stakeholders and contributed to ensuring the sustainability of the project.

3. **Community Conversation (CC) and contextualized knowledge delivery to bring about behavioural change among the communities:**

Gender inequality and the power imbalance between women and men cripples women's decision-making power in affairs related to their health and often results in the delayed decision to visit health facilities. This has been the main contributor to maternal and child mortality in Ethiopia.

Using Community Conversation (CC) sessions proved to be effective for increasing awareness, bringing about changes in attitudes and practices, enhancing the participation of both women and men in decision-making and reducing the pervasiveness of Harmful Traditional Practices (HTPs).

We also found that reaching out to rural, low-literacy communities using educational audio-visuals (videos) and practical demonstrations (knowledge-and-skills-delivery mechanisms) brought about successes in nutrition intervention and significantly reduced the prevalence of child illness.

4. **Innovation solves transportation challenges and prevents delays in reaching health facilities:** The inaccessibility of health facilities due to the mountainous and rugged topography, and poor roads are major challenges for pregnant women in accessing emergency obstetric care in case of complications. In rural, hard-to-reach areas with these difficult topographies, the communities used heavy and cumbersome beds or local stretchers to carry pregnant women from the village to health facilities. The stretchers were not comfortable for either the pregnant woman or those caring her.

Encouraging local communities to bring their own ideas for improving the challenges of transporting pregnant women to health facilities led to innovative solutions.

Accordingly, innovative and ergonomic stretchers were designed, tested and produced based on the local context. They significantly improved the delivery to health facilities and consequently saved the lives of mothers and newborns in hard-to-reach areas. The modified stretchers were locally produced, eco-friendly and made of lightweight metal that is easy to carry and comfortable for mothers to be transported on.

5. **Integrating local stretchers and ambulances for effective referral services:** The CAIA-MNCM project provided ambulances and improved local stretchers. These improvements created synergy, particularly when there was a lack of paved roads for ambulances to reach the homes of mothers and newborns in need of emergency transport. In these situations, locals carried women and newborns on improved stretchers to the awaiting ambulance, which facilitated and expedited the process of reaching health facilities.

INTRODUCTION

The Canada-Africa Initiative to Address Maternal, Newborn and Child Mortality (CAIA-MNCM) is a partnership among four Canadian organizations: Amref Health Africa, the Centre for Global Child Health at The Hospital for Sick Children (SickKids), WaterAid Canada and Children Believe (formerly, the Christian Children’s Fund of Canada).

With \$24.9 million in funding support from the Government of Canada (85 percent of the total project budget), this four-year project (2016 to 2020) aimed to directly reach 1.7-million women, children and men across 20 districts in Ethiopia, Kenya, Malawi and Tanzania.

The primary goal was to contribute to the reduction in mortality of women, newborns and children under the age of five.

The project sought to do this by strengthening the delivery of essential health services to mothers, pregnant women, newborns and children; increasing the use of these health

services and improving the consumption of nutritious food and supplements.

Children Believe carried out the Ethiopia component of CAIA-MNCM (with an allocation of \$4.5 million CAD from March 2016 to March 2020, targeting rural, remote and marginalized communities in the Oromia Administrative Zone of the Amhara Region.

A “**three delays model**” was employed to assess factors linked to low awareness, delays in seeking healthcare services and the implementation of essential and life-saving reproductive, maternal, newborn and child health services. **The model proposed that mortality is due to delays in: one, women deciding to seek appropriate medical help for an emergency; two, reaching an appropriate health facility; and three, receiving adequate care when a facility is reached.**

The CAIA-MNCM project was co-created with the target communities as well as government and development partners. It tackled factors from both the demand- and supply-side that caused low awareness of, access to and use of health services.



Ashura, with her newborn baby, safely delivered at a health center.

PROJECT GOAL, OBJECTIVES AND APPROACHES

Project goal

CAIA-MNCM in Ethiopia was focused on contributing to the reduction in mortality of mothers, newborns and children under the age of five in five districts of the Oromia Administrative Zone in the Amhara Region. The strategy developed to achieve this was based on an integrated approach of strengthening health systems, reducing the burden of disease and improving the consumption of nutritious food and supplements.

Project objectives

There were three intermediate objectives for the project (Diagram 1, which would contribute to the ultimate goal of reducing maternal, newborn and child mortality. Each of the three objectives had immediate outcomes that helped in the identification and implementation of activities targeting mothers, pregnant women, newborns and children under age five.

DIAGRAM 1: OBJECTIVES OF CAIA-MNCM



Project relevance

Children Believe designed the CAIA-MNCM project based on community health needs through a detailed initial assessment and engaging government partners at the regional, zonal, district and sub-district levels.

The Amhara National Regional State, the Finance and Economic Development Cooperation, the Regional Health Bureau and the Women’s and Children’s Affairs Bureau reviewed the project proposal for relevance and potential benefit to the community, and granted their approval.

A Health Facility Assessment (HFA) in hospitals, health centres and health posts was also completed. The assessment involved and consulted with community members and explored their views and perceptions towards women’s and children’s health. Additionally, national and regional documents (strategies, policies and guidelines) on maternal, newborn and child health in Ethiopia were reviewed.

The findings from the assessments and reviewers were then applied to the design of the CAIA-MNCM project interventions.

Project location and service populations

The project sites were selected in consultation with relevant government offices. Compared to other zones and woredas (the district administration of an area in Ethiopia) in the Amhara Region, the selected Zone and its five districts had significant challenges related to their ability to access health services. As a result, they showed poorly in Reproductive, Maternal, Newborn and Child Health (RMNCH) indicators.

The CAIA-MNCM project was implemented by Children Believe in five districts in the Oromia Administrative Zone of the Amhara Region in Ethiopia, namely in Bati, Dawe Harewa, Dawa Chefe, Artuma Fursi and Jille Timuga.

DIAGRAM 2: THE AMHARA REGION IN ETHIOPIA WHERE CHILDREN BELIEVE IMPLEMENTED THE CAIA-MNCM PROJECT.



During the life of the project, CAIA-MNCM benefitted 408,433 people in the five districts of the Oromia Administrative Zone, Amhara Region.

outcomes and ultimate outcomes. With the LM as our guide, we established a strategy to ensure the effectiveness of our efforts to reduce the mortality of mothers, newborns and children under age five. The key activities involved improving the delivery and use of essential services and increasing critical food and micronutrient consumption.

Since the objectives were broad and to support the sustainability of the results, we worked collaboratively with the community (primary service population), sector offices (health, administrations, women’s and children’s affairs, and finance) and other Non-Governmental Organizations (NGOs).

The number of individuals directly and indirectly impacted by the project totalled 195,606 and 212,827, respectively. Of those who were directly impacted, 163,672 (83.7 percent) were adults (107,042 women and 56,630 men) and 31,934 (16.3 percent) were children (20,214 girls and 11,720 boys). Of those who were indirectly impacted, 143,457 (67.4 percent) were adults (45,357 women and 98,100 men) and 69,370 (32.6 percent) were children (28,720 girls and 40,650 boys). Females comprised 65.1 percent of all those who experienced direct benefits and 34.8 percent of those who experienced indirect benefits.

Project logic

For the CAIA-MNCM project, a Logic Model (LM) was developed and the various levels of results were identified, including outputs, immediate outcomes, intermediate

Through this project, we also sought to improve infrastructural challenges that negatively affected access to and use of essential health services (space issues for health facilities, lack of amenities for care and transportation issues). In planning the execution of the objectives, the CAIA-MNCM project incorporated existing national and international policy and implementation

guidelines and developed tools that aligned. Proven interventions were carried out to tackle factors from both the demand-side (community awareness, health-seeking behaviour and caring practice) and supply-side (access, acceptability, quality and feasibility of health services).

To assist with monitoring and evaluating the project's performance, Children Believe developed a Performance Measurement Framework (PMF) that showed the levels of results, indicators for each result level, frequency of data collection, the data collection method and the means of verification.

The PMF also captured project findings from annual reviews and the baseline and end-line assessments.

Project approaches

Several approaches were used to implement the project interventions and benefit the community.

Co-creation: A needs assessment was conducted to identify gaps and the main areas of community needs in the development of the project plan. To identify the most crucial interventions required, we involved and consulted with relevant government officials, NGO representatives and community members.

Partnership: Children Believe implemented the CAIA-MNCM project in partnership with the health sector, administrations, regulatory bodies and the communities in which we worked. Effort was made to ensure that the government and community owned the project from planning to implementation and monitoring and evaluation.

Integration: Interventions focused on factors from both the demand- and supply-side that contributed to the low status of RMNCH services and poor nutrition in the targeted areas. A combination of critical response tactics were deployed aimed at identifying and mitigating the drivers of poor access

to health services, low quality of care, lack of awareness from the community about maternal and newborn risk factors, behavioural issues and reduced community involvement in health matters at the household level.

Innovation: Through the project, health needs were identified and innovative solutions to address them were developed in collaboration with the community, government and partners. Solutions included, an improved stretcher made from locally available materials, a rooftop water harvesting mechanism for health facilities lacking a connection to the water grid and education opportunities for the community on how to make a handwashing facility from local materials.

Value-driven: High-impact interventions that were locally appropriate, programmatically sound and innovative were implemented. The interventions contributed to reductions in the mortality of mothers, newborns and children under age five, and improved the quality of care in health facilities. The interventions also led to behavioural changes concerning personal and environmental hygiene, health-seeking and community empowerment.

Tracking and learning: Children Believe developed an LM, set performance indicators, routinely collected data on the indicators and evaluated performance against them. Regular review meetings were held to track performance, provide feedback and continuously make adjustments for improvements.

Sustainability: From the inception of the project, Children Believe focused on the steps required to sustain the interventions. We engaged the health system, community members and NGOs in co-creation, implementation, monitoring and evaluation. The capacity of healthcare providers at district health facilities and community members was built through joint implementation, training and creating reflection sessions.

A substantial investment was made to resolve institutional and infrastructural challenges (electricity, water, space and transportation) and sustain project gains.

PROJECT INTERVENTIONS

Delivery of essential health services

The CAIA-MNMC project deployed the following activities to improve the delivery of essential health services for mothers, pregnant women, newborns and children under age five.

Capacity building for the health workforce

Given that providing essential care and improving the quality of maternal, newborn and child health services require trained healthcare professionals, CAIA-MNMC prioritized capacity-building activities for health facility staff. As a result, the knowledge and ability of staff to deliver essential services were enhanced. Nationally organized and standardized training documents to instruct and improve confidence and competency were employed to address the quality of RMNCH services. Among the competencies, healthcare providers were taught to provide respectful services to mothers and children.

Basic emergency obstetric and newborn care training

One hundred and forty-nine healthcare providers, including nurses, midwives and health officers, were trained on Basic Emergency Obstetric and Newborn Care (BEmONC) and routine maternity healthcare. The training aimed to increase

the awareness and skills of healthcare providers in recognizing and managing essential routine and emergency services for pregnant and labouring women, postnatal women and newborns. The trainers demonstrated the vital skills of BEmONC to trainees and mentored them in practice with patients.

Prevention of mother-to-child transmission of HIV

To improve the availability and quality of HIV/AIDS care (prevention and control) for women and newborns, 146 healthcare providers were trained on Prevention of Mother-to-Child Transmission (PMTCT).

This included how to assess, counsel and test pregnant women for HIV/AIDS and provide appropriate care during pregnancy, labour and postpartum. In addition, healthcare providers received instruction on immediate and late newborn care. Similarly, 190 providers were educated on Integrated Management of Newborn and Childhood Illness (IMNCI). The IMNCI training aimed to build the capacity of healthcare providers in identifying and managing priority newborns and childhood illnesses (malaria, diarrhea, pneumonia, HIV/AIDS and others), and reduce missed opportunities.

IMNCI is a proven strategy that reduces morbidity, disability and mortality, and improves child growth and development through an integrated approach in low-resource settings like the project areas in which we worked.

Moreover, 152 healthcare providers (nurses, health officers and environmental health officers) were trained on Water, Sanitation and Hygiene (WASH) to enhance the practice of universal precautions and sanitation in healthcare



A trainer providing a demonstration during a BEmONC training session for healthcare providers.

settings. The training prioritized the safety of patients as well as care providers. It improved providers' knowledge of the safe handling and disposal of healthcare waste and ensured equipment and supplies used were kept clean. The healthcare providers, in turn, cascaded the training to 2,100 mothers in the community, resulting in the construction and use of latrines, protection of drinking water sources, practicing of handwashing at relevant and critical times, and reduction of open defecation. For instance, the end-line assessment showed that open defecation decreased to 46 percent from 56 percent in the baseline.

Improving infrastructure, equipment and logistical support for health facilities

Medical equipment and supplies

Together with government partners, the CAIA-MNCM project conducted a rapid assessment of equipment and supply needs among the targeted woredas' health facilities. Based on the findings, we purchased and provided essential medical equipment and supplies to 83 health facilities, which made a considerable impact on the availability and quality of services.



Medical equipment and supplies distributed to project-supported health facilities.

Solar power systems

The needs assessment showed that 10 health facilities had no connection to the primary electric power grid and had difficulties in providing delivery, immunization, laboratory and postnatal care services. At the time, the targeted centres were storing their vaccines in other health centres that had electric power, thus requiring staff to retrieve and



A solar power system that was installed at one of the health facilities supported by the project.

deliver the vaccines on immunization days. In addition, the lack of power affected computers and applications for data processing and decision-making. Healthcare providers also faced difficulties in charging their mobile phones and other needed electronics. To address this, CAIA-MNCM installed solar power systems in all 10 targeted health centres.

Maternity waiting blocks

In the needs assessment, three health facilities were found to lack the space needed to accommodate childbirth services for high-risk pregnant women from distant and hard-to-reach areas. CAIA-MNCM constructed maternity waiting blocks for the three facilities to help provide women-friendly accommodation and delivery services. High-risk mothers stayed in the maternity blocks until delivery in order to mitigate delays in reaching health facilities for emergency obstetric and newborn care. Furthermore, the maternity waiting blocks aimed to address the shortage of rooms needed to provide quality maternal and child health services in the targeted health facilities.



A fully functional maternity waiting block constructed in the Dulecha Health Centre.

Healthcare waste management

The lack of appropriate and standard waste disposal solutions posed health threats to staff and patients in five health facilities. Through the project, five incinerators, five septic tanks and five placenta pits were constructed and delivered to these facilities. Prior to construction, Children Believe conducted environmental impact and waste management assessments. The project also provided training to healthcare providers on waste management. These strategies were implemented to improve the handling of healthcare waste and prevent health facility-related infections.



Incinerator built in the Artuma Health Centre, Artuma Fursi district.

Water harvesting

Water shortages and the lack of connection to a water supply grid in 15 health facilities posed a number of challenges. Not having running water in delivery rooms



A 10,000-litre water harvesting structure built at a health facility in the project area.

made care substandard and caused difficulties in maintaining cleanliness among the service areas for staff. As a result of discussions with government offices (mainly Health), CAIA-MNCHM built water harvesting structures on the premises of the 15 facilities requiring support.

Strengthening the health management information system

Health management information system

The CAIA-MNCHM project targeted health facilities lacking essential equipment, such as computers and accessories to process data for health program management.

The dearth of existing computers and printers negatively affected the timely tracking and reporting of health data for the facilities and office staff.

Moreover, healthcare workers, health informatics professionals and Health Extension Workers (HEWs) lacked the knowledge and skills to use the computers to record, process and report data. In response, CAIA-MNCHM purchased and provided 25 desktop computers and 10 printers to 25 facilities to strengthen their management of information. The project also provided training on electronic and community-based health management information systems to 215 healthcare workers, information technology experts and HEWs.



Computers and accessories being organized for delivery to the health facilities in the project-supported woredas.

Referral systems and continuum of care

A poorly functioning referral system was identified as one of the significant barriers to the accessibility and quality of gender-sensitive RMNCH services in the project areas. Almost all the health facilities performed poorly with regards to referral services, which negatively affected the care provided to mothers, pregnant women, newborns and children under age five.

Training was provided to 36 staff from health facilities as well as district health offices (35 men and one woman). The training equipped participants with the knowledge and skills needed to connect the community to healthcare facilities. Two ambulances were also donated to further facilitate access.

Improved local stretchers

An ambulance is a viable solution when paved roads are present in the community. However, there were several remote and hard-to-reach locations in the project implementation areas. In these areas and in the absence of a better option, the communities used makeshift stretchers. For this reason, in addition to donating ambulances to assist with the prevailing transportation problem, CAIA-MCNM re-designed and improved the local stretchers used to transport women, newborns and children in emergency situations.

Community members were consulted on the requirements for a local stretcher, such as comfort, convenience and safety for the mothers and newborns/children being transported as well as for the people carrying the stretchers.

Community members were also engaged in discussions on maintaining cleanliness, storage and the protocols for using and returning the stretchers. The project then developed a prototype before final mass production. The approved final prototypes were produced, and 850 stretchers were donated. The community members were educated on how to use the improved local stretchers.



A demonstration session on how to use an improved local stretcher for a community in the project area.

Improve the use of essential health services

Community members in the project-supported woredas were not well aware of health services for mothers, newborns and children under age five. They had poor environmental and personal hygiene, women's empowerment was low and there was limited male involvement in maternal health.

Combined with poor access to essential health services, these behavioural and awareness issues meant people in the communities did not readily identify health problems or seek or use health services.

In response, the CAIA-MNCH project, in consultation with community members and government offices, designed and implemented community-based Behavioral Change Communication (BCC) strategies to address the gaps. The project team also reviewed national documents and social mobilization guides during the development of facilitation guidelines for Community Conversations (CCs) and Pregnant Women's Conferences (PWCs). Audio-visual educational material (video) and a Maternal, Newborn and Child Health (MNCH) education calendar were developed and disseminated.

Training on the BCC strategies was provided to community members, including model mothers, Health Development Army (HDA) members, Traditional Birth Attendants (TBAs) and influential local community members, to help increase awareness and use of essential health services as well as dispel misconceptions about the health and healthcare of mothers, newborns and children under age five.

Community conversations

Community Conversations (CCs) were held to create and increase community demand for RMNCH services at the health facilities. Accordingly, four to six CC groups were formed in each kebele (smallest administrative unit in Ethiopia), with 40 to 45 people in each group in the project woredas. Each CC group conducted 12 sessions tackling such topics as Antenatal Care (ANC), Postnatal Care (PNC), delivery care, maternal and child nutrition, male involvement in RMNCH services, gender equality and Water, Sanitation and Hygiene (WASH).

The CC groups were mixed-gendered, with men and women conversing together, and sessions occurred every two weeks or months at the participants' convenience. The project team developed a CC facilitation manual and session aids that include pictures, which were easy for community members to use.



A mix-gendered Community Conversation (CC) session in a project-supported kebele.

Pregnant women's conferences

CAIA-MNCM designed and implemented Pregnant Women's Conferences (PWCs) in each sub-district.

Through the conferences, pregnant women were educated about the importance of attending ANC visits, delivering their babies at health facilities and appropriate feeding for themselves and their babies.

The PWCs addressed misconceptions about pregnancy, delivery, postnatal care and newborn and child feeding. The project obtained PWC facilitation manuals from the Ministry of Health and distributed them to each health facility in the project area. Additionally, on-the-job orientations about facilitating and documenting PWCs were provided to midwives and HEWs. A total of 4,978 pregnant women (1,236 aged 10 to 19 years, and 3,742 aged 20 years and older) attended the PWCs at least once a month during their pregnancy.

Audio-visual educational material

A consultant was hired to develop audio-visual educational material (video) that was context-sensitive and covered essential topics related to newborn and child health. The material promoted positive actions to improve child health and prevent malaria, diarrhea, pneumonia and malnutrition.

The video was tested with small groups before its broader dissemination. Furthering this effort, an orientation was provided to 237 people on how to use and share the video as a teaching and sensitization tool for the community. A guideline developed by CAIA-MNCM accompanied the distribution.

Facilitators reached out to communities in the project-supported woredas and showed the video to 66,687 people in total.

Increase access to gender-sensitive community-level health services

Based on the findings of the needs assessment, community-level training was conducted with the woreda health offices and community health workers. The training addressed community-based misconceptions and gaps in male participation in essential health service sessions related to mothers, pregnant women, newborns and children under age five. The training also included WASH interventions. The project delivered the training with materials approved by the Ministry of Health, Ethiopia. Demonstrations and reflection opportunities ensured the trainees gained the required knowledge and skills.

Community-led total sanitation and hygiene

CAIA-MNCOM organized and delivered training on various topics relevant to community members. These members included model mothers, TBAs, HDA members and influential community leaders.

A total of 2,084 women were educated on Community-Led Total Sanitation and Hygiene (CLTSH), which focuses on the importance of avoiding open defecation and encourages proper personal and environmental hygiene practices in the community.

The training also promoted the use of toilets and handwashing facilities, and explained how to make them from locally available materials. The project team held post-training reflection sessions to assess how much the trainees had learned and, as a result, the degree to which they wanted to promote hygiene and sanitation in their community.

Increase community demand for RMNCH services in health facilities

Community training on promoting the use of RMNCH services

To promote the timely seeking and use of Reproductive, Maternal, Newborn and Child Health (RMNCH) services provided in the health facilities, CAIA-MNCOM trained

2,796 people (845 men and 1,951 women), including HDA members, model mothers, TBAs and local influential people (community leaders).

Trainees learned about the types of essential health services provided in health facilities, the importance of these services to women's and children's health, how and where to access them and when to use them. Since TBAs and HDAs had substantial influence within the community, especially on the choice of where to deliver a baby, emphasis was placed on encouraging the use of institutional delivery services.

Taking this further, awards were given to well performing TBAs and HDAs to incentivize them to reach more pregnant women, teach them about the importance of facility delivery, encourage them to deliver their babies in health facilities and use postnatal care.

The TBAs and HDAs identified pregnant women, accompanied them to the health facilities or connected them with HEWs, and educated the community about the dangers of Harmful Traditional Practices (HTPs).

Training on the management of community programs and structures

A total of 1,381 women (345 aged 10 to 19 years, and 1,036 aged 20 years and older) were instructed on the management of community-based programs and structures. This enabled the women to use community-based networks and work with, educate and influence them to participate in CCs and PWCs. The participants (TBAs, HDAs and model mothers) worked with HEWs. They also obtained mentoring and supervisory support from the project team to mobilize more women.

Regular review meetings with community members

CAIA-MNCOM conducted quarterly review meetings with HEWs, TBAs and HDA groups in each district throughout the project's lifespan. We involved them in review meetings and on-field observations to keep them motivated and educate the women and community members about RMNCH

services. Review meetings included recognition and awards for the best performing TBAs and HDAs. The HEWs reviewed the performance and achievements of the TBAs and HDAs, and also provided feedback.

Increase community awareness of RMNCH services, gender inequality and harmful practices

In the project woredas, community awareness of RMNCH services was low and there were many misconceptions.

Moreover, male involvement in the use of maternity care services was low, and many women were not empowered to make decisions about healthcare use or consuming household resources.

HTPs were prevalent and contributed to the low use of RMNCH services. To enhance community awareness of RMNCH services, promote gender equality and prevent the perpetuation of HTPs, we coordinated with health offices and other partners to train 2,226 people (508 men and 1,718 women). Trainees included TBAs, HDAs and opinion leaders from the project woredas. The selection of these groups was based on the intention to have the community itself lead its own attitudinal and behavioural change.

The CCs promoted the involvement of men as partners in utilizing RMNCH services. They discussed the importance of men accompanying wives to health facilities for ANC, delivery care and PNC. Through this effort, we engaged 14,557 people (4,729 men and 9,828 women) on key RMNCH, gender equality and HTPs topics over 12 sessions.

The project trained capable people whom the HEWs and health facilities identified, based on their influence and acceptability within the communities. The HEWs, project staff and health facility representatives supervised and mentored

the CC facilitators to ensure the project met its objectives.

Increase consumption of nutritious food and supplements

CAIA-MNCM planned nutrition interventions to identify and treat mothers and children under age five who were experiencing nutrition problems.

Health facility staff educated the mothers on age-appropriate feeding at home and provided them with Ready-to-Use Therapeutic Food (RUTF) and micronutrient supplements.

Training on appropriate child and maternal feeding practices, early initiation of breastfeeding, exclusive breastfeeding and feeding for lactating mothers was cascaded to model mothers through community health promoters. The strategy reached 30,290 mothers, delivered key nutrition messages and educated the community as a whole.

The CAIA-MNCM project also provided hands-on training on child feeding to 1,050 mothers as well as how to prepare proper food for themselves and their children. The moms demonstrated age-appropriate food preparation with the most nutritious food available to the family. Trainees obtained feedback from fellow trainee mothers and trainers on how they performed and areas for improvement. The project provided all trainees with cooking demonstration materials as a giveaway to encourage them to continue practicing what they had learned.

Increase community knowledge and skills related to appropriate newborn and child feeding practices, and maternal nutrition

To increase community knowledge and skills related to age-appropriate child feeding and maternal nutrition, CAIA-MNCM employed activities involving both women and men. The CCs and PWCs included nutrition intervention topics (age-appropriate child feeding, food preparation, maternal nutrition and micronutrient supplementation) in their sessions.

Community sensitization events and training were hosted and incorporated audio-visual educational material (video) to promote exclusive breastfeeding, complementary feeding, early initiation of breastfeeding and maternal feeding during pregnancy and lactation.

The video shared messages about preventing childhood illnesses, including malaria, diarrhea and pneumonia, and appropriate maternal and child feeding practices. The project considered timely and proper management of common childhood illnesses as necessary interventions because they often led to child malnutrition. Women were instructed on age-appropriate child feeding, maternal nutrition and food preparation.

Additionally, the project prioritized nutrition interventions in quarterly review meetings with women, HEWs, HDAs and other community health workers.

Increase access to and use of nutritional products and services

CAIA-MNCM, in collaboration with government partners, sought out children under age five and pregnant and lactating women to provide them with supplementary foods, such as RUTF. Working with health facilities, eligible individuals were identified with the Middle-Upper Arm Circumference measurement, per the standard set by the Ministry of Health, Ethiopia.

A total of 16,731 women and children received supplementary food monthly for three consecutive months as part of the project's therapeutic support aimed to improve the nutritional status of the mothers and children.

Ferrous Sulphate and Folic Acid (FEFOL) was also provided to health facilities for distribution to pregnant women in an effort to prevent iron deficiency anemia. The facilities provided FEFOL to 2,500 pregnant women, and healthcare workers counselled pregnant women on how to take and store FEFOL. The project team screened candidates and distributed supplementary nutrition



A child screened for malnutrition in a health centre.

supports with the involvement of health partners at the district, kebele and facility levels. The interventions were done in collaboration with government partners, ensuring sustainability.

Improve stakeholder coordination and connections to enhance nutrition interventions

CAIA-MNCM established a Stakeholders Project Management Committee (SPMC) in each district to enhance networking and collaboration between the different nutrition actors. The SPMC advised the project design and the implementation of context-sensitive, useful and acceptable nutrition, and other interventions in the project woredas. SPMC members met quarterly, evaluated performance, reviewed the interventions' effectiveness and proposed potential solutions for difficulties encountered.

The project team presented to the SPMC on the progress made and challenges faced. The SPMC sought advice on nutrition interventions, including screening and admittance to the RUTF program, and community education on age-appropriate child feeding and maternal nutrition. The information and feedback from SPMC members were then included in key messages for audio-visual educational material on appropriate feeding practices for mothers and children.

PROJECT ACHIEVEMENTS

Ultimate outcomes

- o Decreased prevalence of underweight children who are aged five and under (percent of children under five who had a Z-Score for Weight for Age <2)
- o Reduced newborn mortality

Ethiopia’s 2019 mini-Demographic and Health Survey showed decreases in undernutrition for children under age five in the Amhara Region from 28.4 percent in 2016 to 26.7 percent in 2019. National data also showed that newborn mortality remained the same or slightly increased from 29 per 1,000 live births in 2016 to 30 per 1,000 live births in 2019. However, under-age-five mortality showed a substantial decrease from 67 per 1,000 live births to 55 per 1,000 births.

Delivery of essential health services

The following sections identify the contributions of the CAIA-MNCH project on improving the availability and delivery of essential services for mothers, pregnant women, newborns and children under the age of five in project woredas.

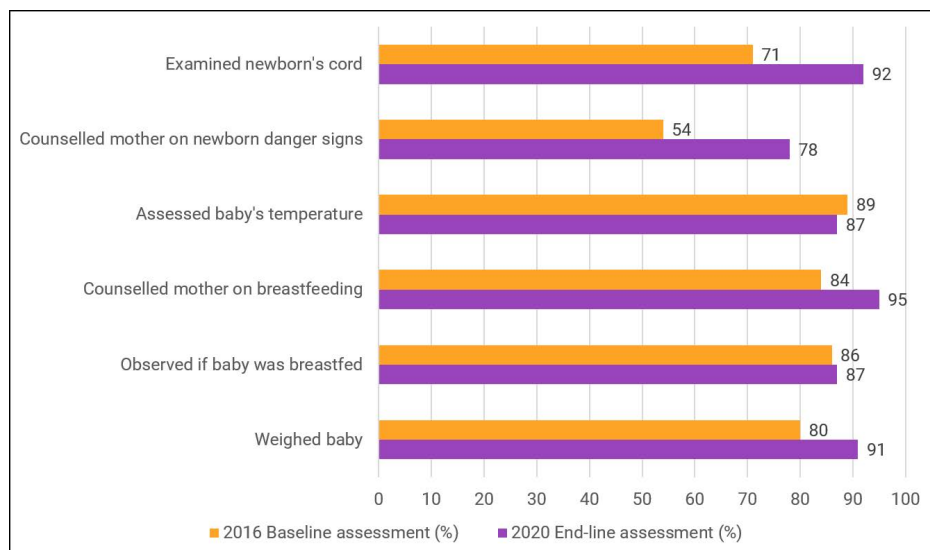
Improved capacity to provide essential services in health facilities

Building the capacity of healthcare providers

Included in the training (BEmONC, PMTCT and WASH) for healthcare providers were pre-and post-training assessments to determine if the trainees gained the intended knowledge and skills. In this regard, trainees confirmed that their knowledge and skills had improved substantially after the training sessions.

The average pre- and post-test training assessments showed that the sessions increased healthcare providers’ awareness and competence.

They also showed an improvement in delivering essential Reproductive, Maternal, Newborn and Child Health (RMNCH) services and practicing universal infection prevention and sanitation. For example, the results from the final assessment revealed that the health providers’ performance of BEmONC improved on five of the six signal functions of the newborn Postnatal Care (PNC) (Chart 1).



**CHART 1:
PERFORMANCE
OF HEALTHCARE
PROVIDERS IN
SIGNAL FUNCTIONS
WITHIN THE
PROJECT AREA**

Availability of basic emergency obstetric and newborn services

The annual Health Facility Assessment (HFA) conducted at 25 health facilities supported by the project showed that the majority offered BEmONC signal functions in the three months prior to the end-line assessment. For instance, all of the health facilities (100 percent) administered parenteral antibiotics and conducted newborn resuscitation at the end-line (Chart 2).

Additionally, in the end-line assessment, 40 percent of the health facilities performed all seven signal functions in the last three months, whereas only 33 percent performed all functions in the baseline assessment.

Availability of essential newborn care supplies

The annual HFA conducted in years two to four showed that the availability of infant scales and newborn bags remained

high (88 percent to 100 percent) during the project life.

Antibiotic eye ointments improved substantially from 44 percent in year two to 96 percent in year four. However, baby towels and blankets remained low. Overall, the availability of all essential newborn care supplies improved from 12 percent in year two to 28 percent in year four (Chart 3).

Availability of essential medications for childhood illnesses

Results from the HFAs demonstrated that the availability of essential medications for childhood illnesses remained high or improved in project-supported health facilities. For instance, packets of Oral Rehydration Salts (ORS) were always available (100 percent), there was 88 to 100 percent availability of first-line oral drugs for childhood pneumonia and dysentery, 92 to 100 percent availability of the first-line antimalarial and 84 to 96 percent availability of Vitamin A supplementation. The availability of all-five medications ranged from 64 percent in year three of the project to 96 percent in year four (Chart 4).

CHART 2: HEALTH FACILITIES PERFORMING BASIC EMERGENCY OBSTETRIC AND NEWBORN CARE SIGNAL FUNCTIONS

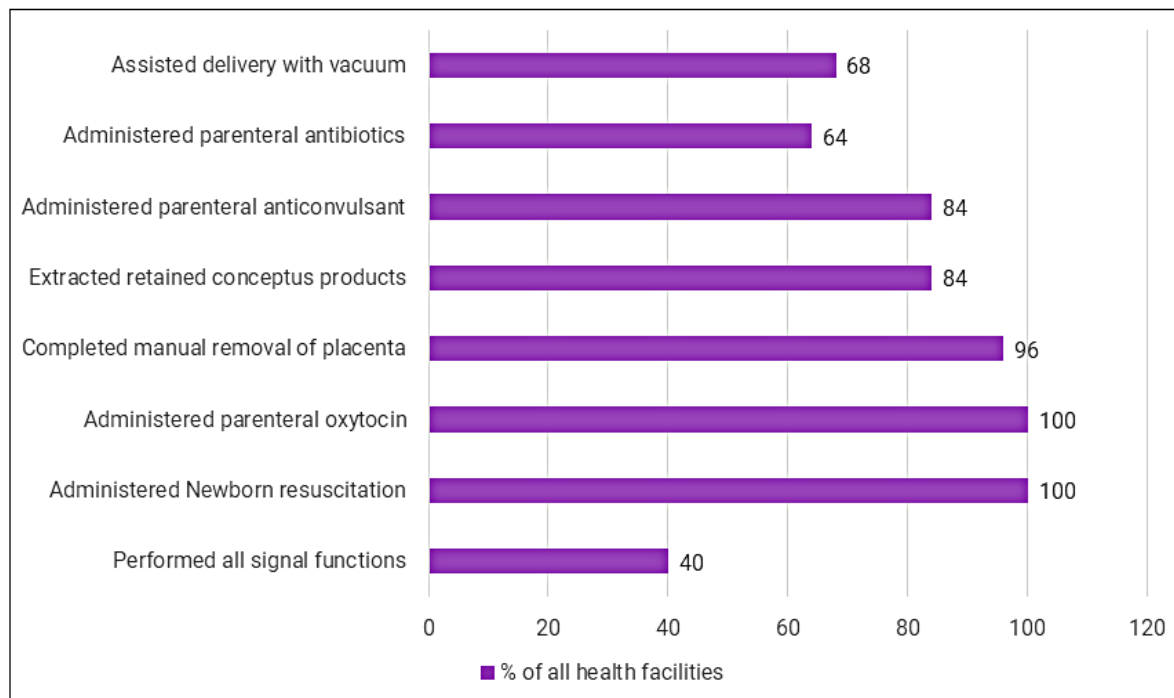


CHART 3: AVAILABILITY OF ESSENTIAL NEWBORN CARE SUPPLIES IN HEALTH FACILITIES

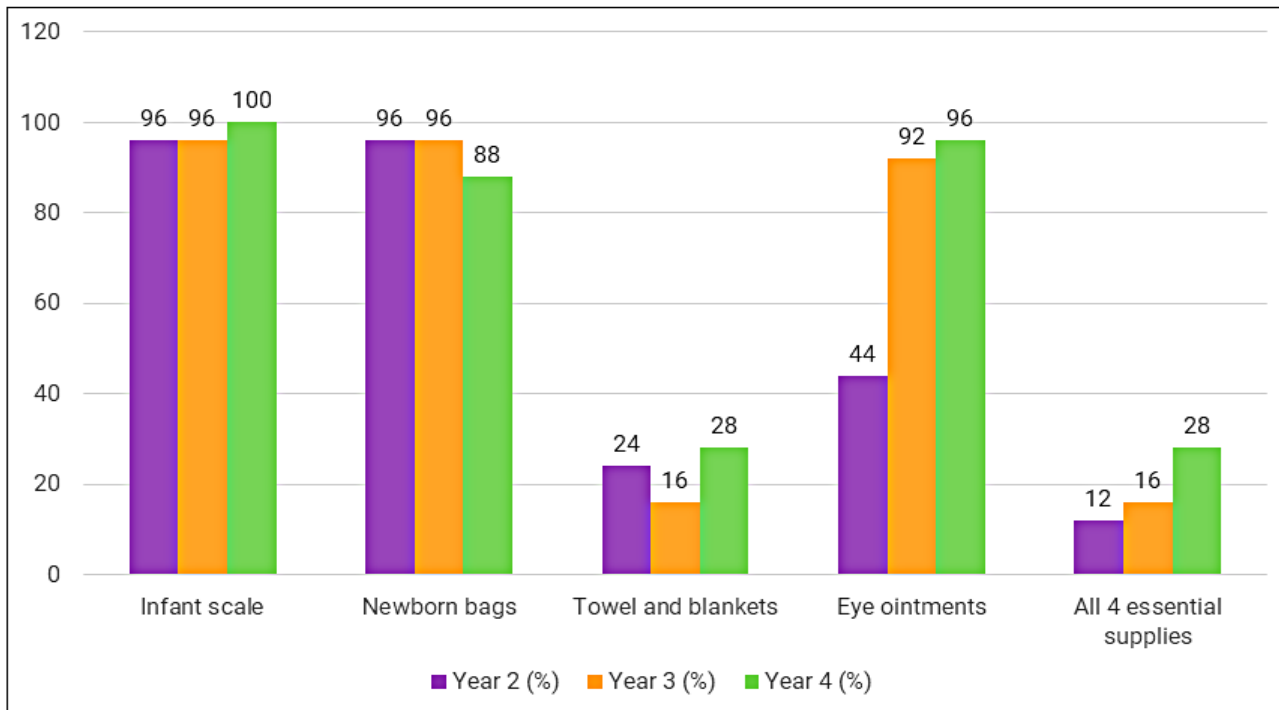
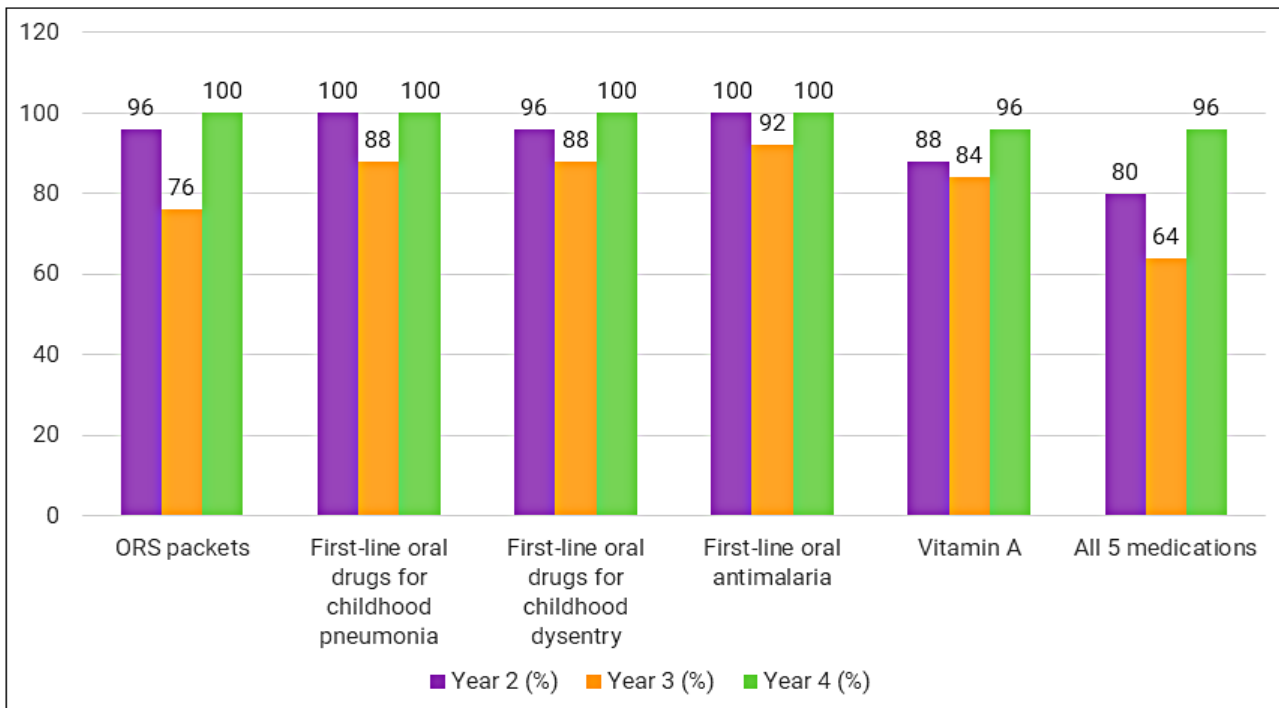


CHART 4: AVAILABILITY OF ESSENTIAL MEDICATIONS FOR CHILDHOOD ILLNESSES IN HEALTH FACILITIES



Availability of nutritional supplements in health facilities

In the end-line HFA, all 25 health facilities had conducted growth monitoring for the children under five years of age who had come in for sick child consultations. Similarly, all 25 facilities conducted routine growth monitoring during immunization and growth monitoring programs.

Referring to the Growth Monitoring Chart, healthcare providers counselled every caregiver on appropriate child feeding and nutrition. Mothers were also screened for malnutrition and provided with nutritional supplements if needed.

Of the 25 health facilities, 44 percent had combined micronutrient mix powder and 92 percent had Ready-to-Use Therapeutic Food (RUTF) for needy mothers and children under age five in the fourth year of the project. The availability of these items improved over the years. For example, the high availability of RUTF was maintained at 96 to 100 percent and there was significant improvement in the availability of combined micronutrient mix from two percent in year two to 44 percent in year four.

Improved infrastructure, equipment and logistical support for health facilities

Availability of water in the health facilities

The end-line assessment showed that 22 of the project-supported health facilities (88 percent) had running water.

It was noted that all water sources at the end-line were improved, and no health facility reported an unimprovement at the end-line.

The most common water source at the end-line was water piped into the facility (52 percent), and this increased from 24 percent at the baseline. Other common sources of water were a public standpipe (16 percent), a tanker truck (12 percent), a protected dug well on the grounds (eight percent), rainwater (eight percent) and a borehole on the grounds (four percent).

Availability of equipment and supplies for infection control

End-line HFA data revealed that 100 percent of the health facilities offering delivery services had items for infection control, such as soap and running tap water, a sharps waste container, disinfectant and latex gloves.

From the baseline value of 67 percent for three health facilities, this is a strong indication that the project made good progress. Of the 25 facilities assessed, 68 percent had soap available in their delivery rooms and 56 percent had running water.

Moreover, 92 percent of delivery rooms had alcohol-based hand disinfectants and all delivery rooms in the 25 health facilities had a waste receptacle with a lid and plastic bin liner.

Availability of equipment and supplies for delivery and postnatal care

In end-line HFA, 100 percent of the health facilities were offering delivery services with all four essential supplies: newborn bags and masks, an infant weighing scale, antibiotic eye ointment and baby wraps.

This was an improvement from the baseline data, which showed that although 100 percent of the health facilities had an infant scale, 88 percent had newborn bags and masks, and 96 percent had antibiotic ointment, only 28 percent of the facilities had wraps.

The end-line results also showed that 24 of the 25 facilities (96 percent) had essential supplies for child health services. Additionally, all 25 health facilities had ORS packets, first-line oral drugs for pneumonia, dysentery and antimalarial, and 96 percent provided Vitamin A to children.

Strengthened health management information system

Improved delivery, record keeping and referral systems

The end-line HFA showed that the project-supported health facilities providing delivery services maintained up-to-date and reliable deliveries, including birth outcomes. In the baseline HFA, only 67 percent of the facilities kept complete delivery records, while all 25 (100 percent) did in the end-line.

For obstetric referral forms, there was an improvement in completion with end-line results showing that, on average, 84 percent of referral forms were completed. Furthermore, the project established referral links for the communities to the health posts, health centres and hospitals, and vice versa.

Improved use of essential health services

Through the CAIA-MNCM project, a variety of services essential for the health of mothers, newborns and children, along with the attitudes towards these services, were improved with education, training and the provision of resources. The details from these achievements are provided in the following sections.

Increased access to gender-sensitive community-level health services

Improved child diarrhea management

Compared to data from the Ethiopia Demographic and Health Survey (EDHS) 2016 for the Amhara Region, the end-line assessment showed that the percentage of children under age five who had diarrhea in the two weeks before the survey decreased by nearly 50 percent (from 13.7 percent to seven percent). Also, the proportion of children with diarrhea who were given more fluids, ORS, Zinc and Zinc with ORS increased substantially in project-supported woredas (Annex I).

Use of medical care for child fever and acute respiratory illnesses

Compared to the baseline indicators (primarily the EDHS 2016 data for the Amhara Region), the end-line HFA data

showed improvements in the prevalence and management of Acute Respiratory Illnesses (ARI) and fever among children under the age of five in the last two weeks before the survey. Overall, the end-line assessment showed significant improvements in all the relevant variables of the assessment (Annex II).

Increased use of antenatal care

Results from the end-line assessment presented a much higher proportion of women who made first, second and third visits (four percent, 11 percent and 40 percent, respectively) as compared to the baseline (one, five and 24 percent). The assessment also revealed that of the men surveyed ages 15 to 54, more than half accompanied their wives to an Antenatal Care (ANC) visit at least once. This was significantly higher than the baseline value of 33 percent.

In terms of the contents of ANC, the critical contents had improved by the end-line in the project areas compared to the baseline indicators obtained from EDHS for the Amhara Region in 2016 (Chart 5).

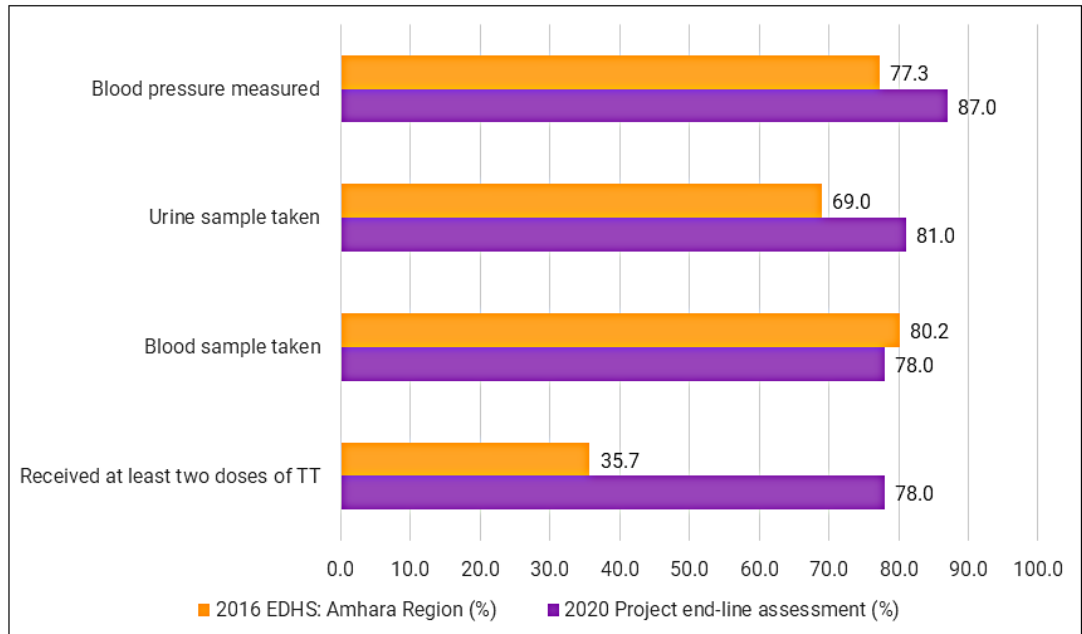
Increased use of delivery care in health facilities

CAIA-MNCM interventions contributed to an improvement in delivery service quality and an incremental demand for service from the community in the project-supported woredas.

Health facility delivery increased from 47 percent (baseline) to 54 percent (end-line), and 85 percent of all deliveries occurred specifically at health centres (end-line) in comparison to the baseline value of 83 percent.

In the end-line assessment, the age disaggregation showed that 50 percent of young women aged 15 to 19 years, and 63 percent of adult women aged 20 to 49 years who had live births in the last two years preceding the survey, had skilled attendants present at birth.

**CHART 5:
CRITICAL
CONTENTS OF
ANTENATAL
CARE
COMPARED
AGAINST THE
BASELINE IN
PROJECT-
SUPPORTED
WOREDAS**



These figures at the baseline were 55 percent and 51 percent for the respective ages. Due to the project interventions and mobilization, home delivery decreased from 53 percent (baseline) to 46 percent (end-line) (Annex III).

Prevention of mother-to-child transmission of HIV

The Prevention of Mother-to-Child Transmission (PMTCT)

training given to healthcare providers improved their knowledge and performance. Along with this, the project also educated the community members to raise their awareness and encouraged them to use PMTCT services in the health facilities. Medications and other logistics were additionally delivered to the health facilities by the government. These efforts were successful.

BOX 1: SUCCESS STORY – HALIMA’S HEALTHY BABY BOY



Halima Adem with her son being counselled by a healthcare provider.

Halima, 28, is a mother of three children and lives in Artumafursi Woreda, Chereti town. After returning from Saudi Arabia, she got married and later became pregnant. When she went to a health facility for ANC, the care provider offered counselling and obtained consent to take a blood sample to test for HIV. The test result was positive.

After receiving counselling from the care provider, Halima was enrolled in the PMTCT program and was followed up by a trained healthcare provider. She gave birth to an HIV-negative boy who is doing well. He tested negative on the 45th day and 18th month. As a result of this outcome, Halima says she was thrilled that she used the PMTCT service.

Availability and access to immediate newborn care practices

Since the CAIA-MNCH project, the practice of essential immediate newborn care remained consistently high from year two to four. For instance, all of the health facilities (100 percent) practiced delivery to the abdomen, dried and wrapped the newborns to keep them warm and initiated breastfeeding within one hour of delivery.

The practice of applying tetracycline eye ointment on newborns' eyes improved from 84 percent in year two to 100 percent in year four of the project. Overall, all facilities practiced the four essential immediate newborn care practices (Annex IV).

Increased use of newborn postnatal care in health facilities

CAIA-MNCH contributed to improvements in Postnatal Care (PNC) services used in project-supported woredas.

The end-line HFA showed that use of PNC among women increased from 25 percent (baseline) to 34 percent (end-line) ($p < 0.05$).

Similarly, 34 percent of the newborns received PNC in the end-line. Over a quarter of the PNC visits (26 percent) occurred within two days of delivery, while this indicator was only 18 percent in the baseline survey ($p < 0.05$). After seven days from delivery, eight percent of newborns received PNC, and although low, this value is an increase from the baseline of two percent ($p < 0.05$).

Improved sanitation and hygiene practices

Through the project, Water, Sanitation and Hygiene (WASH) training was conducted for 2,084 women and involved expert preparation as required based on findings from the needs assessment. The Community-Led Total Sanitation and Hygiene (CLTSH) approach was employed, adhering to the training facilitator's guides and using the required materials and aids for training.

The CLTSH approach educated the community on the risks of open defecation, promoted toilet use and encouraged building and using handwashing facilities from local resources. The post-training reflections showed that the



Children practicing handwashing at a locally-made handwashing facility.

knowledge and skills of community members improved. Most of the trainees constructed latrines with handwashing facilities for their households and showed these to other community members.

Post-training evaluations demonstrated that participants were equipped with the required knowledge and changed their attitudes about critical maternal and child health services, particularly birth preparations and WASH.

Increased community demand for RMNCH services in health facilities

Respectful RMNCH services

The end-line assessment measured the level of respectful ANC services in health facilities as perceived by the women who used the services, and the results demonstrate that the project contributed to improvements. According to ANC exit interviews, in year four of the project, almost all ANC patients had their privacy respected (98 percent). Furthermore, the providers explained procedures (98 percent), presented results (95 percent) and used respectful language (98 percent).

In the exit interviews, 93 percent of ANC patients reported having all of these experiences. In comparison, only 88 percent in year two and 84 percent in year three experienced the same.

Women's satisfaction with antenatal care services

The end-line assessment showed that 99 percent of ANC patients (100 percent for young women aged 15 to 19, and 99 percent for adult women aged 20 to 49) were "satisfied" or "very satisfied" with the services. In further detail, 88 percent of adolescent ANC patients (15 to 19 years) and 85 percent of adult ANC patients (20 to 49 years) were "very satisfied" with the ANC services.

Reorientation of traditional birth attendants as birth companions

With support from the CAIA-MNCM project, the percentage of health facilities that had reoriented Traditional Birth Attendants (TBAs) as birth companions increased from 33 percent in the baseline assessment to 88 percent in the end-line. As a result, the role of the TBAs had changed from assisting births at home to accompanying labouring women to health facilities where they could access skilled birth services.

Increased community awareness of RMNCH services, gender inequality and harmful practices

CAIA-MNCM conducted community mobilization activities using Behavioral Change Communication (BCC) strategies. The strategies improved community awareness of Reproductive, Maternal, Newborn and Child Health (RMNCH) services, dispelled misconceptions, empowered women, enhanced male involvement in RMNCH services and reduced Harmful Traditional Practices (HTPs). The improvements observed from the results of household surveys and Health Facility Assessments (HFAs) in the project-supported woredas are presented below.

Men's support for antenatal and delivery care

Compared to 70 percent in the baseline household survey, in the end-line, 96 percent of men believed that a woman with pregnancy and childbirth-related health problems should seek assistance from a skilled healthcare provider. Similarly, in the end-line survey, 84 percent of men did not object if the delivery was assisted by a male care provider,

which substantially improved from 55 percent in the baseline ($p < 0.001$).

Another positive gain in the project areas was that, in the end-line survey, 81 percent of men believed that men should accompany their wives for ANC visits and 95 percent believed men should accompany for deliveries.

Furthermore, 57 percent of men wanted to be more involved in their wives' and children's healthcare. However, the end-line survey also showed that 30 percent of the male respondents believed that women in their community did not want to be accompanied by male partners or husbands to these visits (Annex V).



A model husband accompanying his wife for postnatal care at a health facility.

Men's and women's attitude towards facility delivery

Compared to the baseline household survey, the end-line showed positive changes in women's and men's attitudes towards health facility delivery.

For instance, the percentage of women who believed it was not customary or that it was unnecessary to deliver in health facilities was significantly lower at the end-line compared to the baseline, 35 percent vs. 3 percent ($p < 0.001$), and 20 percent vs. 10 percent ($p < 0.05$), respectively.

Similarly, there were significantly fewer men who believed it was not customary (28 percent at baseline vs. zero percent at end-line, $p < 0.001$) or that it was unnecessary (33 percent at baseline vs. 10 percent at end-line, $p < 0.05$) to deliver at a health facility. Comparison of the survey results also revealed that more men were willing to accompany their wives to a health facility for delivery care.

Male involvement in antenatal care visits

A significant percentage of men reported accompanying their wife/partner to at least one ANC visit. According to the women interviewed, the end-line household survey showed that the percentage of fathers present for at least one ANC visit increased from 33 percent (baseline) to 54 percent (end-line). In the HFA conducted in 2020, the percentage of women attending ANC accompanied by their husbands/partners showed an even higher figure (77 percent).

Improved women's decision-making power about contraception

The end-line survey showed that women's decision-making power regarding use of contraception improved in the project-supported woredas. The percentage of women that made a contraception decision by themselves increased from zero percent (baseline) to 18 percent (end-line), and joint decisions with the husband or partner had decreased from 97 percent (baseline) to 67 percent (end-line).

Furthermore, the percentage of women using contraception without the husband's/partner's knowledge decreased from 20 percent (baseline) to four percent (end-line), indicating an improvement in discussions with partners/husbands regarding contraception use.

Birth preparedness among women and men

Birth preparedness is a critical activity to ensure pregnant women access BEmONC services at the earliest time possible to prevent complications and the death of mothers and newborns. The end-line survey showed that the community's birth preparedness increased for all indicators but one (identifying a blood donor) in the project woredas. The end-line results showed substantial improvement

among women and men in making transportation arrangements (60 percent women and 40 percent men), setting aside funds for delivery (95 percent and 71 percent) and choosing a care provider (51 percent and 32 percent) and the place for delivery (78 percent and 56 percent) (Annex VI).

Increased consumption of nutritious food and supplements

The CAIA-MNCM project provided training to Health Extension Workers (HEWs), Health Development Army (HDA) members, Traditional Birth Attendants (TBAs) and model mothers on preparing nutritious food, child feeding and the use of supplemental food. Health facilities were also supported with supplies of supplementary food, Ready-to-Use Therapeutic Food (RUTF) and micronutrients. The outcomes of are shared in the following sections.

Increased community knowledge and skills related to appropriate newborn and child feeding practices, and maternal nutrition

In addition to training mothers and community members on preparing nutritious food and child feeding, the project used Community Conversations (CCs) and Pregnant Women's Conferences (PWCs) as platforms to educate the community about child and maternal nutrition.

Through these channels, community awareness was raised, and the misconceptions about child feeding and maternal nutrition were dispelled. Efforts made to promote personal hygiene and sanitation also contributed to improving the nutritional status of children and mothers.

The end-line assessment showed that exclusive breastfeeding of babies up to six months in age in project woredas increased tremendously from the baseline average of five percent (eight percent of male babies and four percent of female babies) to 44 percent at the end-line (58 percent male and 34 percent female) (Annex VII).

It also showed that 93 percent of babies born within two years ahead of the survey being conducted were breastfed within one hour of birth. This was good progress from the baseline value of 87 percent. The data at the end-line on the percentage of six- to 23-month-old babies who were breastfed and ate solid, semi-solid or soft foods (34 percent of male babies and 36 percent of female babies) showed a decline from the baseline (65 percent male and 61 percent female).

Since the baseline survey was conducted in more urban areas, the end-line survey favouring rural areas could be counted as a cause for the indicators' decline. The fragile security challenges in the last two years of the project also had an impact on the project's performance.

Increased access to and use of nutritional products and services



Supplemental food delivered to health facilities for distribution to pregnant and lactating women, and children under the age of five.

Data was collected on the percentage of health facilities with micronutrient supplements and RUTFs available for children on the day of the survey. It was noted from the end-line HFA that micronutrient supplements were available in 44 percent of the 25 surveyed health facilities, which showed excellent progress from the baseline data of 25 percent of the eight surveyed health facilities.

An increase was similarly seen with about 92 percent of the surveyed facilities in the end-line assessment having RUTFs available on the day of the survey, in comparison to 63 percent of the eight surveyed facilities in the baseline. In terms of growth monitoring being conducted at the facilities offering curative services, this remained the same at 100 percent for both the 25 facilities assessed at the end-line and the 17 at baseline.

Improved stakeholder coordination and connections to enhance nutrition interventions

Stakeholders project management committee

The Stakeholders Project Management Committee (SPMC) established by CAIA-MNCM was composed of members from the bureaus and offices of Finance and Economy, Health, and Women's and Youth Affairs; health facility heads and woreda administrators in each project woreda. The SPMC conducted quarterly review meetings where the CAIA-MNCM team presented the project overview and strategy, progress made and challenges encountered, and the SPMC proposed solutions to difficulties.

The SPMC members guided the project and provided relevant input that helped steer interventions in the community's interest and without losing focus and acceptability. They contributed to selecting candidates and participants for the different initiatives implemented by the project. The members also advised on setting action plans when security issues were encountered, which helped ensure the security and safety of staff, and solutions for any anticipated delays.

The end-line assessment showed that the SPMC members contributed to the project's success with the planned interventions, building the community's capacity to manage and monitor projects and programs, and ensuring the sustainability of the gains from the project.

Quarterly review meetings with community members

CAIA-MNCM conducted quarterly review meetings with the HEWs, TBAs as well as HDA members.

Through these regular meetings, the awareness and scope of the project were discussed, which assisted community actors in facilitating the activities.

The discussions helped community actors identify and screen target groups for nutrition support, recognize and encourage women for PWCs and strengthen the monthly conferences by co-facilitating midwives' sessions. The review meetings provided an excellent opportunity to track progress, convey key messages to the community and build community members' capacity on RMNCH services.

Go-NGO forum

The CAIA-MNCM team actively participated in Go-NGO (Governmental and Non-Governmental Organizations) forums led by the Oromia Administrative Zone Finance and

Economy Department. The CAIA-MNCM team presented progress the project made and challenges faced.

The forum provided solutions to the challenges, general support and assisted in the coordination and creation of connections and partnerships for a common goal of improved RMNCH services.

Project progress reporting

Regular activity and financial progress reports were provided to government partners, including government bureaus and offices at regional, zonal and woreda levels. The government counterparts to whom Children Believe submitted progress and evaluation reports included the Finance and Economic Cooperation, the Health Department, woreda health offices and Women's and Children's Affairs. Regular reporting created better communication with government partners about the project's progress and any changes being made.



A mother brings her child to a health centre to be screened for malnutrition.

CHALLENGES, CROSS-CUTTING ISSUES AND SUSTAINABILITY

Challenges of implementation

Inflation: A devaluation of the local currency by at least 15 percent resulted in a hike in costs for construction materials and the workforce. Inflation caused a 20 percent increase in total construction costs. As a result, the CAIA-MNCM team consulted with Children Believe management and colleagues in the Canadian office and requested budget revisions to account for the inflation. Children Believe approved the request.

Fragility of peace and security:

Peace and security issues in Ethiopia severely affected the outcomes and during the last two years of the project life, in particular.

There were temporary delays in construction and community participation in training, Community Conversations (CCs), Pregnant Women's Conferences (PWCs), orientation sessions and review meetings. This, in turn, affected activity results. Overall, peace and security problems negatively impacted the achievement of project targets.

Low performance on some project targets: The fragile security situation and turnover of HEWs impacted community-based interventions and led to the low achievement of some performance indicators. Furthermore, methodological limitations of the baseline assessment (i.e. pro-urban sampling of locations and participants that resulted in setting highly exaggerated targets) caused lower performance rates in the end-line assessment which was pro-rural for most of the target areas. The project team met with woreda and Zone officials to delay specific interventions and conducted catch-up activities to compensate for the variance.

Cross-cutting issues and sustainability

Gender equality: The CAIA-MNCM project identified the community's major gender inequality issues through the needs assessment and designed acceptable interventions to effectively address them. We mobilized the community through CCs, PWCs and training sessions to dispel misconceptions and encourage male involvement in Reproductive, Maternal, Newborn and Child Health (RMNCH) services. We also raised the community's awareness of the risks of Harmful Traditional Practices (HTPs) and the importance of avoiding them.

Men and women were educated on the importance of women's empowerment and enhancing women's decision-making on health-seeking behaviour and household resources.

The interventions yielded positive results, as presented in the relevant section on project achievements. The achievements were disaggregated by gender and age (whenever applicable) to see if there were inequalities in key indicators.

Human rights protection: CAIA-MNCM implemented various activities that contributed to promoting women's and children's rights. Women and children were our primary targets.

The project promoted the right to health for women and children, and improved access to timely, acceptable, quality and affordable healthcare. Health providers were trained on critical lifesaving and gender-sensitive services such as Basic Emergency Obstetric and Newborn Care (BEmONC), Prevention of Mother-to-Child Transmission (PMTCT) and infection prevention and sanitation.

The project also promoted the rights of women and men to receive respectful health services.



Hawa with her healthy baby who was delivered in a project-supported health centre.

Through the project activities, the health sector became more aware of the right to health; access to health services; reproductive health (informed choice); the right to access safe, clean water and sanitation; children's rights (immunization, protection) and the right to deliver a baby with dignity.

Environmental sustainability: Environmental considerations were taken into account when developing and implementing the project interventions. We conducted an Environmental Impact Assessment (EIA) when planning and constructing healthcare waste management solutions. The EIA showed the anticipated environmental

consequences of the construction, such as ground excavations and leveling, transportation of project construction materials and equipment, and healthcare waste generation. Based on the EIA, the project prepared Environmental Management Plans and implemented the key recommended actions stipulated in the plans.

For the health facilities, we organized and provided training on healthcare waste management, infection prevention and patient and staff safety.

Technical support was also provided to 20 health facilities by hiring an environmental specialist who visited each of the facilities and conducted a meeting with 108 people, including healthcare workers and staff from the district health offices.

CONCLUSION

Over a four-year period (March 2016 to March 2020) and with financial support from the Government of Canada, Children Believe implemented the Canada-Africa Initiative to Address Maternal, Newborn and Child Mortality (CAIA-MNCM) project in the Oromia Administrative Zone of the Amhara National Regional State, Ethiopia.

The overall objective was to contribute to the reduction in mortality of mothers, newborns and children under the age of five through an integrated approach of health system strengthening, reducing the burden of disease and improving the consumption of nutritious food and supplements.

Upon completion, the project benefited a total of 408,433 people, the majority being mothers and children in rural, remote and marginalized communities.

Establishing partnerships with key stakeholders, integrating interventions, innovation and value-driven and locally-contextualized solutions were among the key approaches used to implement the project. Tracking performance and learning, and ensuring sustainability of the project results were also critical aspects. Additionally, Children Believe promoted gender equity and environmental sustainability throughout all stages of the project implementation.

Through a combined effort, the CAIA-MNCM project was successfully implemented and made significant achievements. The quality and coverage of essential health service delivery was improved, there was an increased use of health services, an increase in men's support for the use of maternal and child health services at health facilities and a greater consumption of nutritious food and supplements by mothers, pregnant women, newborns and children under age five. **Over the four years of the project, the following are a few key results.**

Health services:

- Antenatal care increased from 24 to 40 percent;
- Births attended by skilled health professionals increased from 50 to 64 percent; and
- One-hundred percent of the health facilities have been routinely practicing and offering newborn delivery services.

Use and support of services in health facilities:

- Home birth deliveries reduced from the baseline of 53 to 46 percent;
- Deliveries specifically at health centres increased from 39 to 46 percent; and
- The involvement of fathers in facilitating health facility deliveries increased from 23 to 56 percent.

Nutrition:

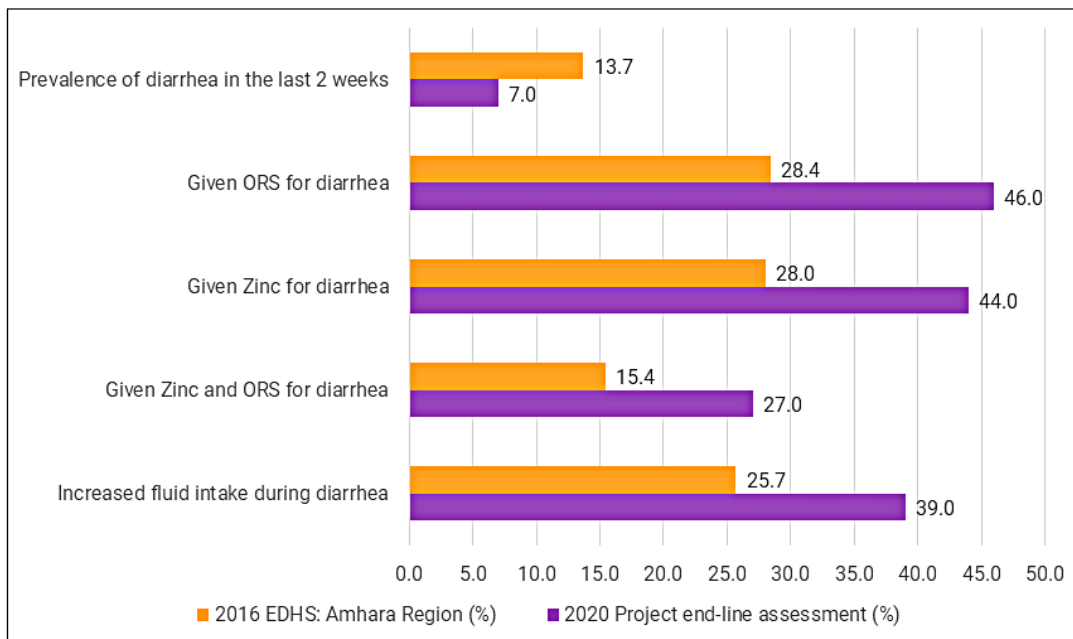
- The prevalence of underweight children among those under five years old reduced from 24 to 21 percent; and
- The rate of exclusive breastfeeding increased from five to 44 percent.

Robust project planning contributed to smooth project implementation and tangible results. Furthermore, establishing and strengthening partnerships and collaboration with stakeholders will help ensure the sustainability of the project. We also learned that Community Conversations (CCs) as well as contextualized knowledge delivery brought about the behavioural change we were seeking among the communities in using maternal and child healthcare services. From our experiences and the results of the CAIA-MNCM project in Ethiopia, we recommend that a similar project be replicated in parts of the country taking into account the lessons learned and adapting solutions and innovation to the specific local context.

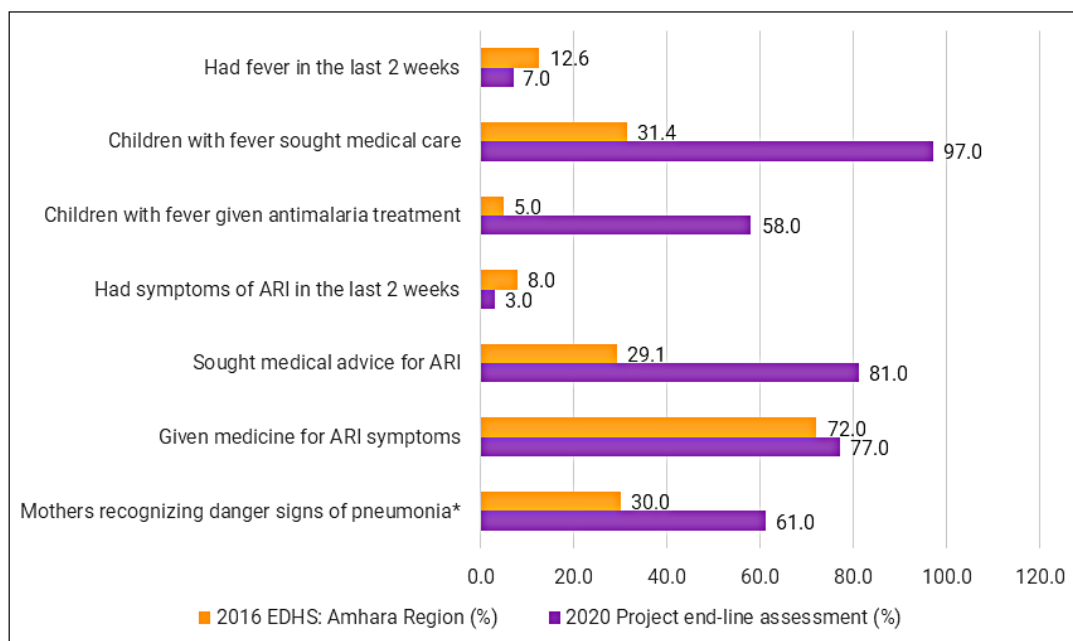
Taking these steps will improve access to essential and quality health services for women, newborns and children in hard-to-reach rural areas.

ANNEX

ANNEX I – PREVALENCE AND MANAGEMENT OF DIARRHEA AMONG CHILDREN AGED 0-59 MONTHS



ANNEX II – PREVALENCE AND MANAGEMENT OF ACUTE RESPIRATORY ILLNESSES AND FEVER

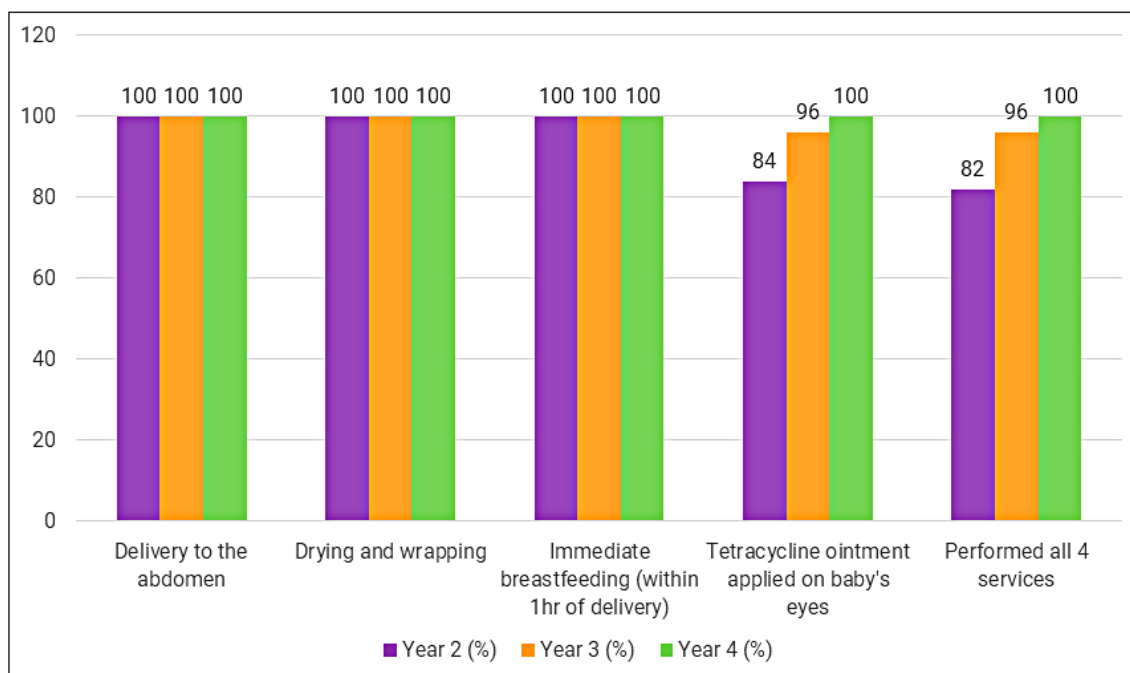


* knew one or both warning signs of pneumonia

ANNEX III – PLACE OF DELIVERY, OROMIA ADMINISTRATIVE ZONE, AMHARA REGION

Place of child delivery	2016 Baseline Assessment (%)	2020 End-line Assessment (%)
Home delivery	53	46
Hospital delivery	4	3
Health centre/ clinic delivery	39	46
Health post delivery	4	5
Skilled attendants: adults (20-49)	51	63
Overall skilled attendants at delivery	50	64
C-section	2	3

ANNEX IV – PRACTICE OF ESSENTIAL IMMEDIATE NEWBORN CARE IN HEALTH FACILITIES

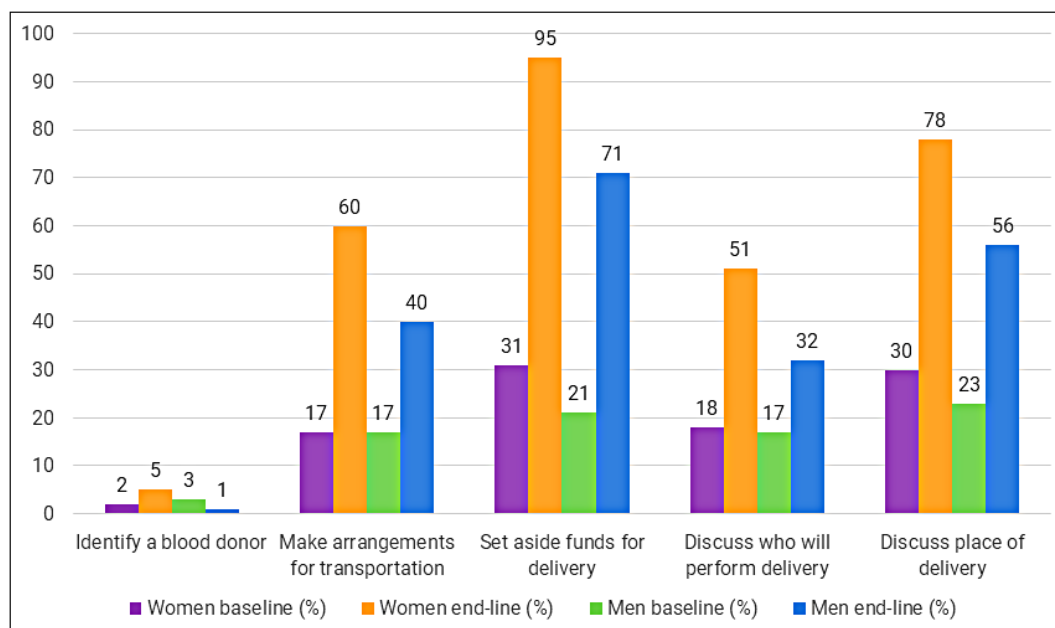


ANNEX V – MEN’S INVOLVEMENT IN AND SUPPORT OF ANTENATAL AND DELIVERY CARE

Men’s response to statements intending to assess their involvement in and support for antenatal and delivery care	2016 Baseline Assessment (%)	2020 End-line Assessment (%)
A pregnant woman should seek assistance from a skilled healthcare provider if she had a severe health problem related to pregnancy and childbirth.*	70	96.0
Matters related to childbirth are mostly a woman’s domain. Men are not supposed to be very involved.*	6	32
Preparing for childbirth is mostly a woman’s responsibility. Men do not usually make these preparations.*	10	26
Would accept if a wife/partner was to be assisted by a male healthcare provider during childbirth.*	55	84
A man should accompany his wife/female partner for antenatal care visits.		81
A man should accompany his wife/female partner for delivery.		95
I would like to be more involved in the care of my wife/female partner and children, but I do not know how.		57
Women in my community do not want to be accompanied by their husband/male partner for antenatal care visits/delivery.		30

*p<0.001 baseline vs. end-line

ANNEX VI – BIRTH PREPAREDNESS OF WOMEN AND MEN IN PROJECT-SUPPORTED WOREDAS



ANNEX VII – AGE-APPROPRIATE CHILD FEEDING AND NUTRITION, OROMIA ADMINISTRATIVE ZONE, AMHARA REGION

Breastfeeding and nutrition for 0 to 23-month-old babies, Amhara region	2016 Baseline Assessment (%)	2020 End-line Assessment (%)
Immediate breastfeeding within 1 hour of birth*	66.0	93.0
Exclusive breastfeeding up to 6 months	5.0	44.0
Age-appropriate breastfeeding	52.0	47.0
Male children 6-23 months who were breastfed and ate solid, semi-solid or soft foods	65.0	34.0
Female children 6-23 months who were breastfed and ate solid, semi-solid or soft foods	76.0	45.0
Adolescent mothers (15-19 years) who received nutrition counselling from HEWs in the past 6 months	47.0	0.0
Adult mothers (20-49 years) who received nutrition counselling from HEWs in the past 6 months	22.0	21.0
Vitamin A supplementation in the past 6 months*	47.8	44.0

* Baseline data for these indicators were from EDHS 2016 (for Amhara Region)

ANNEX VIII – LIST OF PARTNERS AND ACKNOWLEDGEMENTS

Name of partner	Sector	Geographic area
Regional Health Bureau	Health	Amhara National Regional State, Bahir Dar
Regional Bureau of Finance and Economic Cooperation	Finance	Amhara National Regional State, Bahir Dar
Regional Women, Children and Youth Bureau	Social	Amhara National Regional State, Bahir Dar
Zonal Health Department	Health	Oromia Administrative Zone
Zonal Finance and Economic Cooperation Department	Finance	Oromia Administrative Zone
Zonal Department of Women, Children and Youth	Social	Oromia Administrative Zone
Woreda (District) Health Offices	Health	Five districts (woredas) of Oromia Administrative Zone
Woreda (District) Finance and Economic Cooperation office	Finance	Five districts of Oromia Administrative Zone
Woreda (District) Women, Children and Youth	Social	Five districts of Oromia Administrative Zone



Children Believe works globally to empower children to dream fearlessly, stand up for what they believe in – and be heard. For 60+ years, we've brought together brave young dreamers, caring supporters and partners, and unabashed idealists. Together, we're driven by a common belief: creating access to education – inside and outside of classrooms – is the most powerful tool children can use to change their world.

Children Believe is a member of ChildFund Alliance, a global network of 12 child-focused development organizations working to create opportunities for children and youth, their families and communities. ChildFund helps nearly 23-million children and their families in more than 70 countries overcome poverty and underlying conditions that prevent children from achieving their full potential. We work to end violence against children; provide expertise in emergencies and disasters to ease the harmful impact on children and their communities; and engage children and youth to create lasting change and elevate their voices in decisions that affect their lives.

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