Overview:
In February 2015, CARE, supported by Johnson & Johnson, initiated the Integrated Water, Sanitation and Hygiene (WASH) Implementation Models for Neglected Tropical Disease (NTD) Prevention project (I-WASH/NTDs) to investigate barriers to and success in WASH and NTD collaboration. The project was initiated to support the government of Ethiopia in its efforts to combat NTDs that are endemic to 746 woredas nationally.

In Ethiopia, approximately 75 million people are at risk of infection with at least one of the NTDs – a set of chronic, disabling diseases that disproportionately affect the world’s poorest communities. In particular, 32 million children in Ethiopia between the ages of 1 and 15 are at risk of infection with soil-transmitted helminthiasis (STH), or intestinal worms, which can cause chronic pain, blood loss, anemia, nutritional deficiencies, stunting, and hindered cognitive growth. In addition, according to Ethiopia’s country profile for NTDs, 8.23 million school aged children and 74.2 million people need treatment for schistosomiasis and trachoma respectively. Lymphatic filariasis (LF), another NTD, affects an estimated 5.75 million people in Ethiopia, causing debilitating enlargement of the legs, feet and lower extremities.

WASH is intricately related to prevention of STH, LF, schistosomiasis and trachoma. Sustaining the gains made by de-worming and reducing the risk of STH infection or reinfection requires adequate access to water and sanitation and the adoption of key hygiene behaviors. Availability of clean water for face washing and limb washing for trachoma and LF, respectively, is critical for preventing and reducing the severity of these diseases. Water management and sanitation can also reduce the breeding sites for mosquitoes that transmit LF and reduce the risk of exposure to schistosomiasis. An integrated WASH and NTD prevention approach and collaboration between the WASH and NTD sectors are needed to ensure long-term, sustainable reduction of NTD infections.

What is different about the I-WASH/NTDs program?
As a part of this pilot, supported by Johnson & Johnson, CARE has added NTD prevention elements and activities to its longstanding water, sanitation and hygiene program in the South Gondar Zone of the Amhara region. Thus, in addition to improving WASH access and behaviors, the I-WASH/NTD program helped CARE and partners to focus deliberately on NTD prevention and work with government and other relevant stakeholders to ensure a holistic approach to NTD prevention and control. Key program elements included increased access to WASH, support for mass drug administration, increased knowledge and practice of specific prevention behaviors at the community-level and increased coordination between local government offices, community members, and health and research institutions working in WASH and NTD prevention and control.
Our approach

CARE has many years of experience working to enable sustainable water service provision, sanitation and hygiene. However, the I-WASH/NTDs program required a different approach to address the underlying factors of NTD infections. Some of the key and innovative components of the I-WASH/NTDs program were the development of educational and behavior change communication materials and strategies for NTD interventions, particularly around NTD-sensitive hygiene and sanitation promotion. The project also provided tailored WASH/NTD trainings and conducted targeted assessments throughout the program cycle.

In reflecting on the program’s successes in enabling holistic, multi-stakeholder approaches to NTD prevention and control, and in influencing adoption of WASH and NTD-prevention behaviors at scale, the program team concluded that the following factors were pivotal to success:

1. Putting our heads together
The first critical step taken by CARE was bringing all actors together by providing training for regional, zonal and woreda government staff and officials as well as health extension workers and health development armies. The training was key to creating a common understanding of the importance of integrating WASH and NTDs and coordinating support to facilitate the success of the pilot project. The detailed implementation action plans developed during these trainings laid the foundation for collaboration across the different levels of government in a way that ensured ownership by the Ministry of Health so that the project was not purely driven by CARE. This will be critical for the long-term sustainability of the project.

2. Re-visit hygiene promotion approaches
The entry point for prevention and control of NTDs is change in the knowledge, attitudes and practices of communities in relation to WASH and NTDs. However, the team recognized that sustained progress towards NTD control and elimination would require a more robust approach that went beyond developing new educational materials. To ensure a more rigorous hygiene promotion approach, CARE engaged religious leaders, local performance artists, health extension workers, school clubs, teachers and students to reinforce hygiene and NTD messaging through multiple platforms. This facilitated retention of key messages and change in hygiene behavior and sanitation practices among the community members. This was evidenced by the number of kebeles declared Open Defecation Free (ODF) in and beyond the project target area, as well as the magnitude of change in attitudes and practices of behaviors such as shoe wearing and face-washing.

3. Using existing community and government structures
The primary task of government-trained health extension workers and “Health Development Armies” is the promotion of health, hygiene and sanitation practices at the community level. Health extension workers are widely used to provide care for a broad range of health issues, including hygiene and sanitation. In the I-WASH/NTDs pilot, CARE provided specific training for both health extension workers and “Health Development Armies” on how to facilitate and promote hygiene and sanitation behavior change to prevent NTDs and to relate hygiene messages more effectively by connecting hygiene to the impacts of NTDs, which are widely visible in the target communities.

Integrating NTDs to WASH required CARE to:

- Incorporate NTDs into hygiene and sanitation tools, like behavior change communication materials;
- Ensure that our hygiene promotion strategies included specific hygiene behaviors that reduce risk of infection of STH, trachoma and schistosomiasis;
- Integrate NTDs into training content for community Health Extension Workers and district government to encompass sanitation, hygiene promotion, and NTD prevention;
- Support zonal and district government to institutionalize procedures to ensure regular deworming and STH/NTD prevention work, identifying and addressing blockages;
- Integrate NTDs into training content for Health Development Army volunteers at the community-level; and
- Incorporate program indicators that capture change in systems and approaches to achieve sustained impact on NTDs.
4. Religious leaders
To reinforce key hygiene and sanitation messages at the community level, CARE supported the training of influential community members, including religious leaders. Apart from sensitizing and educating their followers about personal and environmental hygiene and sanitation from the perspective of the Bible, religious leaders acted as role models by constructing latrines in church compounds. They have been instrumental in promoting behavior change by speaking regularly about NTDs on Sundays to their congregations and followers. Religious leaders later developed a pocket manual of hygiene messages supported by biblical passages that can has been used by religious leaders in communities beyond the I-WASH/NTDs program area.

5. School Hygiene and Sanitation Clubs
The I-WASH/NTD project established and trained school clubs to promote and monitor hygiene and sanitation activities within the school community, and to reach out to parents and communities in adjacent villages. Training for the clubs included basic facts about WASH-related NTDs, transmission and prevention methods, symptoms, consequences and treatment methods. The club then started teaching the rest of the pupils in the school and established systems to monitor and influence student’s hygiene behavior, such as face washing and shoe wearing, cleanliness of the classrooms and the school compound. Schools were provided with materials to develop and display behavior change messages in the school compound. The key messages focused on face washing, shoe wearing, proper waste management, improved latrine construction and management, and WASH-related NTD transmission, prevention and control methods. This activity was also linked with school empowerment program which included establishment of a mini market in the school compound to help sustain access to sanitation and hygiene-related materials such as soaps, sanitary pads and shoes. The approach not only helped to bring significant behavior change among the school community, but also encouraged parents and communities to do the same.

6. WASH-NTD Promotion through Local Amateur Artists
The project supported a local artists group called Guna from the town of Debre Tabor to help them engage in hygiene and sanitation promotion work. To do this, the club members were briefed about the basics of hygiene and sanitation including WASH/NTD key terms. The artists then developed scripts focusing on social barriers and norms that affect positive sanitation and hygiene behaviors, and travelled to communities using entertaining approaches such as dramas, poems, songs, and music to engage and teach communities at large gatherings such as bazars, public meetings, conferences, and market places. Using local artists as hygiene and sanitation promoters helped to reach more people, and reflections from the community show that people like this way of promotion as the messages were transmitted in an entertaining manner and stayed longer in the minds of community members.

7. Review meetings as monitoring tools
In addition to field supervision and regular monitoring by CARE and government staff, quarterly reviews were organized by CARE and the government at the kebele, district and zone level to monitor progress of project activities, changes in behaviors among the community, and impact on NTD prevention. Moreover, experience-sharing visits between school hygiene and sanitation clubs created positive sense of competition and boosted school hygiene and sanitation performance.

What have we achieved?
At the end of the project period, CARE conducted a clinical survey to see changes or progress made on the prevalence of helminths (Ascariasis, Hook worm and Trichuris) and schistosomiasis among school age children, and prevalence of trachoma among adults. Results from these parasitological surveys are under review by the Amhara Regional Bureau of Health and will be made public in early 2019. Additionally, CARE conducted an endline analysis of knowledge, attitudes, and practices related to WASH and NTD prevention behaviors. The results demonstrated a significant increase in
knowledge about NTDs, their impacts and WASH-related prevention strategies, as well as improved attitudes towards mass drug administration for treatment of NTD infections.

I-WASH/NTD Key Achievements

- 243 and 503 water points were constructed and rehabilitated in the four intervention woredas, serving 17,753 people with safe, clean water;
- Access to hygiene and sanitation facilities reached 100 percent in all intervention schools, with a significant improvement at community and household levels as observed through the construction of hygiene and sanitation facilities;
- Latrine use at the community increased from 85 percent to 96 percent from the baseline survey;
- Shoe wearing practice among the community increased from 24 percent to almost 100 percent;
- Regular hand washing practice has improved from 10 percent and 17 percent to 76 percent and 100 percent after defecation and before eating, respectively;
- Regular face-washing increased to twice per day for 75 percent of school students and their families;
- About 88 percent of the respondents keep their nails clean and short as compared to 42 percent before the intervention; and
- About 90 percent of the respondents confirmed that they regularly clean their home and compound as compared

The endline survey showed significant increases in key NTD prevention behaviors such as shoe-wearing (to prevent exposure to STH) and face-washing (to prevent trachoma infection). The endline analysis also demonstrated improved coordination and increased capacity of local government in the intervention woredas and region. A good example of this is in Farta woreda, where woreda government has included shoe wearing and face washing as critical actions within their “Model Kebele” intervention plans.

Financing I-WASH/NTDs

Funding for WASH and NTD project implementation in the 12 kebeles targeted in this project was provided by the Johnson & Johnson Foundation and matching funds from communities, governments and other donors. The overall estimated cost of adding the NTD-specific elements to CARE’s ongoing WASH program was 10 percent in the first year, when startup and training costs were highest, and between 5-8 percent in subsequent years. This shows that adding NTDs to existing WASH programs requires only a small budget increase but can have tremendous impact on the health of participating communities.

Considering the cost-effectiveness of integrating NTD awareness into WASH programs and the compounded health impact achieved in doing so – CARE recommends that WASH actors consider integrating NTDs into their ongoing WASH programming in NTD endemic areas. To this effect, the role of the Ministry of Health and the donor community in supporting and strengthening the WASH-NTDs taskforces at different levels is pivotal. Also, programs under Ethiopia’s One WASH National Plan should regularly use the selection criteria developed by the National WASH-NTD working group to prioritize NTD endemic woredas, and allocate funds not only for WASH, but also for integration of WASH and NTDs.

CARE Commitments

CARE will continue incorporating NTDs as a cross-cutting issue into WASH programs in NTD endemic areas. In doing so, we commit to including budget line items for NTD-related activities in all funding proposals in NTD endemic areas in Ethiopia and commit to monitoring relevant outcomes in partnership with NTD organizations. We will also include NTD prevalence as one of our criteria for the site selection for future WASH programs.
### Key Messages and Recommendations

#### For NTD Actors and donors

- Approach NTD prevention in collaboration with WASH programs. This can be done by:
  - Subsidizing the 5-10 percent budget increase to include NTD prevention in areas with high NTD burden;
  - Supporting and strengthening hygiene and sanitation approaches already used within WASH programs;
  - Driving additional investment to sanitation and hygiene (which is systemically underfunded).
- Ensure NTD control approaches incorporate WASH.

#### For WASH Actors

- Adding NTDs to existing WASH programs is cost-effective and has a high return on investment in terms of health impact. Including NTDs also helps strengthen hygiene and sanitation approaches and improve outcomes.
- Push for greater WASH investments in NTD endemic areas. Allocating WASH budget to NTD endemic communities ensures budget allocation to the poorest of the poor.
- To sustainably change hygiene and sanitation behaviors, we must ensure that behavior change approaches are more comprehensive and appealing. Supplementing the CLTSH approach with local performance artists, school WASH clubs, and working through existing structures are some ways to increase effectiveness of hygiene and sanitation approaches in Ethiopia.
- Working with and using existing government structures is both cost effective and essential to sustainability and scale of WASH as well as NTD outcomes.
  - Leverage government resources for WASH and NTDs and ensure that programs strengthen government capacity to sustain WASH and NTD outcomes in the long term.

#### For Local and National Government

- Successes at the national level need to be cascaded at all levels; government needs to play the coordination role, especially at the woreda level.
  - A system for integration is already in place with the regional and national task forces on NTDs, including the focal unit at the Ministry of Health and assigning focal persons at the regional level.
- Prioritize finalization and roll-out of implementation guidelines and minimum standards to support regional, zonal, and woreda-level efforts
- Take small, practical steps, such as:
  - Providing additional training for all HEWs and government health staff on NTDs;
  - Replicating successes in other woredas and zones, including budgeting for school WASH approaches and engaging performance artists to support behavior change initiatives; and
  - Establishing a focal point for NTDs at kebele, woreda, and zone levels, to coordinate with key stakeholders and regional experts.