INTRODUCTION

Neglected tropical diseases (NTDs) are a diverse set of communicable diseases that affect 1.74 billion people worldwide with impacts of NTDs felt most acutely in the poorest of populations (WHO, 2020). In addition to their negative impacts on physical and mental health, NTDs often cause severe disfigurement, and long-lasting or permanent disabilities, which frequently leads to social stigma and economic hardship. The United States Agency for International Development’s (USAID's) Act to End NTDs | East (Act | East) Program supports countries to sustainably control and eliminate NTDs. Recognizing that women, men, and hard-to-reach groups, including people with disabilities, ethnic or religious minorities, and transient populations, face multiple disparate barriers that affect their access to NTD prevention and treatment, the Act | East Program integrates strategies for gender equity and social inclusion (GESI) into its programming.

Trachoma is a public health concern in 44 countries and has caused irreversible blindness or visual impairment in an estimated 1.9 million people globally. As the leading infectious cause of blindness, trachoma is responsible for an estimated 1.4% of all blindness globally (WHO, 2022). Caused by recurrent ocular infection with chlamydia trachomatis (chlamydia), trachoma is transmitted by direct or indirect transfer of eye and nose discharges of infected people, especially young children, the main reservoir of infection. In 2020, global-level antibiotic coverage was 21% as the COVID-19 pandemic hindered programming (WHO, 2022).
Ethiopia has the highest known burden of active trachoma infection in the world, and trachoma is a leading cause of blindness in the country. According to a recent study, the overall prevalence of active trachoma among children in Ethiopia was 26.9% with regional variation (Gebrie et al., 2019). In Ethiopia, trachoma infection is often driven by socio-economic factors, such as large family sizes and the quantity of children aged 1-9 years living in a home, creating crowded living conditions, and increasing the likelihood of trachoma transmission (Nigusie et al., 2015). Since 2001, trachoma prevention efforts in Ethiopia have focused on mass drug administration (MDA), an intervention that provides preventive NTD medication to all eligible people, regardless of infection status, with prevention of risk factors, including surgery, antibiotics, facial cleanliness, and environmental improvements (SAFE).

To close the remaining gaps, it is essential to reach the "last mile"—meaning, those individuals or groups who are often missed during MDA. Adequate woreda-level treatment coverage can mask pockets of poor coverage, particularly in specific communities or in urban areas. It is essential to identify and reach those populations and consider the unique needs, priorities, contributions of, and impacts on women, men, girls, and boys, as well as people with disabilities—many of which are often GESI-related. To that end, the Act | East Program assisted the MOH to conduct a GESI assessment to determine potential strategies and approaches to improve the effectiveness of existing efforts and to better respond to the identified GESI-related constraints and opportunities to help address low MDA coverage and persistent transmission of trachoma in four woredas in Ethiopia.

RESULTS

Guided by the primary questions outlined in the methodology, numerous themes emerged from the four woredas: Wanthwa in Gambella region and Adaba, Dera, and Sodo Dachi, in Oromia region. These themes underscored the critical role of GESI in trachoma elimination. The themes that emerged from the assessment highlight the various GESI-related factors that influence knowledge and awareness of trachoma and MDA, access to and acceptance of MDA, social mobilization, influencers, and the NTD workforce and its performance.

KNOWLEDGE AND AWARENESS OF TRACHOMA AND MDA

Understanding communities’ knowledge of trachoma and MDA is key to planning MDA and social mobilization approaches. Overall, most community members demonstrated adequate knowledge of trachoma, including the risks for trachoma, how the disease is transmitted, and the importance of sanitation and hygiene measures in prevention. This level of understanding was seen in Adaba, Dera, and Sodo Dachi in Oromia and Wanthwa in Gambella. Despite respondents having relatively good knowledge about trachoma, multiple gaps emerged in information dissemination during MDA distribution. Respondents noted that the messaging was not tailored to different groups or individuals who may refuse or miss MDA for different reasons. Community meetings are a platform to share information about trachoma and MDA; however, those meetings are geared to men, and women are more likely to miss receiving that information directly, especially as women may experience less mobility outside of the home.

MDA’s message has been made available to all members of the community through hierarchical health professionals. They used the same message for all sections of the community. The message reached everyone, but there is no change in attitude and behavior.

– Woreda NTD Focal Point, Sodo Dachi

ACCESS TO AND ACCEPTANCE OF MDA

The assessment sought to identify and analyze patterns of who misses or refuses MDA. The results largely align with previous program assumptions about who missed or refused MDA, and the assessment added rich qualitative information to guide program approaches. It revealed important insights into variations that occur across the four woredas where the assessment took place.

Door-to-door MDA distribution was seen to greatly facilitate access for women, while limiting access for men. In general, women and children have better access to MDA, because they are more likely to be at home for MDA distribution during the day. In contrast, men often have less access to MDA as they are not at home during distribution, especially during farming and harvesting seasons. While respondents across all woredas perceived equal access to health services for men and women, some noted women’s closer or more frequent interactions with HEWs overall, as compared with men, which may facilitate their greater MDA access.

Since the MDA service is home-based, it is more likely to access both sexes. But when MDA distributors go to the house late, most of the time they don’t find men at home because they are mostly likely to move out of the house and go to the farms, cattle ranches, and businesses...

– Zonal NTD Focal Point, Adaba

Both women and men take medication equally. But if the man does not want to take the medicine, neither will the women nor the children will accept it. The decision is made by the husband, including persons with disabilities.

– MDA distribution team member, Sodo Dachi
Despite women and children's higher level of MDA access compared with men, decision making about MDA is often up to the male head of household, so women's and children's higher level of MDA access becomes less guaranteed if men are at home during distribution. This also points to the existence of certain gender barriers around decision making, which may have larger implications, not only for MDA access, but also for other health decisions and actions. Across the four woredas, there was variation in the extent to which decision making was either shared, or largely decided by men in the household.

Respondents described how door-to-door distribution facilitates access for people with disabilities. In Sodo Dachi, for example, community members and MDA distribution teams noted the ability of people with disabilities to access MDA, because the drugs were brought directly to their homes, rather than a central distribution point. Some respondents noted some exceptions to this level of accessibility. During a discussion with people with disabilities and their families in Dera, one respondent noted that despite door-to-door MDA, for those with a disability, another family member is often required to facilitate taking the drugs.

The assessment explored mobility, particularly among women, across the four woredas. Respondents indicated more pronounced limits on women's mobility in Adaba, Sodo Dachi, and Wanthwa, with men's permission often required for a woman to leave the home. While community members in Adaba noted that women do have some level of mobility, they specified that it is typically with conditions—meaning it does not interfere with traditional and gendered household and caretaking responsibilities in the home. In contrast, women in Dera appeared to have a greater level of mobility, with less dependence on men for decisions on when to leave home. Although these statements about mobility were more general, and not specific to MDA, they do align with women's relative level of decision-making about MDA in comparison with their male partners/heads of household. If MDA distribution is not always offered door-to-door, limits on mobility can impact MDA access and uptake among women.

**ACCEPTANCE AND UPTAKE OF MDA**

Despite respondents having knowledge of trachoma in the community in all four woredas, MDA misinformation and rumors related to the drugs, including fear of side effects and/or distrust of MDA, prevented acceptance and caused high refusals.

A lack of acceptance and susceptibility to rumors around MDA was noted as more common during times of political instability, particularly among youth in the community in Adaba and Sodo Dachi. In some instances, social media fueled these beliefs. Age also correlated with refusals across the four woredas, ranging from a low-risk perception among youth and the belief that because they are not sick, they do not need to take the drugs to the belief among the elderly that their advanced age makes the MDA not worth taking.

Seasonality is also a major consideration with wedding season, fasting, harvesting, or false banana season all contributing to community members missing or refusing MDA. Community members may prioritize social activities associated with those seasonal activities, over taking MDA. Furthermore, seasonal activities may be linked with higher levels of alcohol use, which can increase refusals and intensify side effects when taking distributed MDA.

It was 2008 when the MDA program began. Furthermore, the political situation in Ethiopia at that time was extremely tense and difficult in the woreda too. Initially when the MDA program began, the local community openly opposed the government and some activists announced to the community not to take the MDA drug because social media had spread rumors that the MDA had brought drugs to reduce the population. All these speculations have impact on community decision not taking MDA drug.

To expand and improve the scope of MDA distribution, the distribution season must be taken into account, the activity should not be scheduled during winter season. MDA distribution should be conducted when there is less work and social interaction, and less political activities.

What we need to do is to teach about MDA continually without stopping, our problem is we teach about MDA during the campaign and during the distribution time then we completely forget about it. We must change this type of attitude and work hard to create awareness about MDA.

– Community member refusing MDA, Adaba

– MDA distribution team member, Adaba

– Kebele Administrator, Adaba

Participants reported positive impressions of the NTD workforce, including CDDs and health workers.
Social Mobilization

Social mobilization is a key feature of MDA, with HEWs playing an important role. Many community members received information about MDA through moving vans, radio, social media, and through posters, leaflets, and brochures. Most respondents stated that they learned about MDA through door-to-door mobilization, led by HEWs, with support from community volunteers, and through social gatherings and community meetings, which are often used to share MDA information.

Respondents, particularly MDA distribution team members and supervisors, emphasized the importance and utility of engaging local structures and influencers in social mobilization. However, it can still be challenging to reach some communities, especially if they are scattered geographically, which affects the success of door-to-door mobilization.

MDA distribution teams and community members noted other challenges associated with short mobilization periods. They described that mobilization often occurs about 7 to 10 days before MDA starts, resulting in failed mobilization efforts. For those who used community meetings and gatherings to share information, this approach tended to miss women, as those meetings and gatherings are often only for men. Some participants described the need to share information about MDA and trachoma continuously, not just days ahead of distribution, while others noted that MDA messaging is often not tailored to specific groups and beliefs, especially those who refuse.

Gesi Considerations for the NTD Workforce

Communities across the four woredas largely accepted the NTD workforce, mainly the HEWs, health workers, volunteers, and field supervisors. Most community members did not comment on their impressions of or the relationship between the community and the NTD workforce.

However, when probed further, many community members preferred women distributors. They stated that, compared to men, women are more sensitive, people trust them more, they have better performance, and they are better at explaining or convincing community members to accept drugs. When probed further, however, many community members preferred women distributors, stating that, compared with men, women are more sensitive; people trust them more; they have better performance; and they are better at explaining or convincing community members to accept drugs. In cases where respondents expressed a preference for men distributors, it was typically in situations where distribution occurred in remote areas or if there were security concerns.

When it came to volunteers, who help mobilize the community to take MDA, the assessment found that more traditional, gendered household responsibilities prevented women from participating. Limited opportunities for women to serve as volunteers is a lost opportunity given the community acceptance, and in some cases, preference, for women distributors/MDA team members. This is especially the case in communities facing greater MDA resistance or where more efforts are needed to mobilize and convince the community.
INFLUENCES ON NTD WORKFORCE PERFORMANCE

MDA distribution teams identified several barriers to meeting MDA coverage goals. The highest-ranking barrier across all woredas concerned how tiresome and tedious door-to-door distribution can become, especially in more remote and harder-to-reach areas. In Adaba and Dera, participants described implementing MDA in difficult conditions, particularly during times of insecurity and political instability, as a significant barrier to reaching communities with MDA.

MDA distribution teams in Dera and Sodo Dachi also noted insufficient training for the skills needed to distribute drugs and mobilize the community. In addition, there was community resistance, because of misinformation and rumors, as well as expectations to distribute drugs during seasonal activities, such as weddings, harvesting, or fasting seasons, when community members are more likely to miss or refuse MDA. In Sodo Dachi, MDA distribution teams and woreda focal points noted a lack of proper planning for MDA, with zonal planning often not considering the unique needs or distribution considerations of woredas.

MDA distribution teams, along with some woreda and zonal focal points, also highlighted factors they felt helped improve their ability to distribute MDA and meet coverage goals. These factors included taking drugs in front of community members to encourage uptake and leveraging community leaders, including religious leaders, to assist with community mobilization. In cases where there was advance planning with the woreda health office and when MDA distribution teams had a stronger sense of collaboration, teams experienced more success in meeting MDA coverage goals.

SUMMARY & RECOMMENDATIONS

The table below presents a summary of key findings and recommendations to inform next steps to guide the Ethiopia NTD program. All recommendations align with the main assessment findings and implications on MDA coverage and NTD goals.

### KEY FINDINGS AND RECOMMENDATIONS

<table>
<thead>
<tr>
<th>Knowledge and Awareness of Trachoma and MDA</th>
<th>Key Findings</th>
<th>Recommendations</th>
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<tbody>
<tr>
<td>Misinformation and rumors can increase MDA refusals among certain groups, especially during times of insecurity or political instability or change</td>
<td>Engage local influencers such as community leaders and elders in MDA planning, training, and implementation to promote positive dialogue, information, and awareness around MDA. This is especially important to reach community groups that are commonly missed by, excluded from, or refusing MDA.</td>
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<th>Access to and Acceptance of MDA</th>
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<td>Community members are more likely to miss, or refuse, MDA when it conflicts with their participation in seasonal activities and celebrations</td>
<td>At the woreda-level, schedule MDA around seasonal activities, celebrations, and weather, by considering periods when community members may miss messaging or may be less likely to prioritize receiving social mobilization messaging and approaches, as well as MDA.</td>
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<th>Social Mobilization</th>
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<td>Pre-MDA mobilization periods are often too short, occurring about 7-10 days before MDA begins; this often fails to reach everyone in the community</td>
<td>Plan pre-MDA mobilization periods to ensure timing is sufficient to reach all community members and consider periods when community members may miss messaging or may be less likely to prioritize receiving social mobilization messaging and approaches, such as during seasonal activities or celebrations, or periods of political change and instability</td>
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<td>Traditional gender norms can limit women’s ability to serve as MDA volunteers, such as the expectation that women focus solely on household and other traditional gendered responsibilities</td>
<td>Engage communities, and men, to address traditional/painful gender norms that limit women’s ability to serve as MDA volunteers</td>
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<td>Youth, and others in the community, may be more likely to refuse MDA, because of misinformation and rumors around taking the drugs and MDA campaigns circulated on social media and in the community</td>
<td>Consult with youth and others in the community who refuse MDA because of rumors and misinformation to design and test social mobilization messages and strategies with them</td>
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<td>MDA distribution teams expressed that pre-MDA messaging is often not tailored to specific groups that miss or refuse and, as a result, acceptance of MDA may be a challenge</td>
<td>Make MDA messaging and distribution more strategic and geared toward groups who frequently miss or refuse MDA; for example, youth who are more likely to be exposed to or spread misinformation. Develop and test messaging with groups most likely to refuse MDA.</td>
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<td><strong>NTD Workforce</strong></td>
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<td>Door-to-door distribution, especially when communities are separated by long distances or more remote, is tiresome and time consuming for the NTD workforce, and transport options and incentives do not match the time required to distribute drugs</td>
<td>Make door-to-door distribution more strategic; establish plans to reach those households most in need, or most recognized to miss or refuse, with supplemental options for distributing drugs at fixed posts within points of interest in the community. Improve incentive and transport options to match distribution needs.</td>
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<td>Drug distribution teams felt existing training was not sufficient, and did not adequately cover issues of gender, inclusivity, and inequity and their impact on MDA access and uptake, including knowledge of barriers that groups may experience. Local leaders highlighted the need for continued support to reinforce training.</td>
<td>NTD workforce training should integrate gender, inclusivity, and equity related to MDA access and uptake, including knowledge of barriers that groups may experience. Training should include year-round continuous support and information about MDA.</td>
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<td>Most community members prefer women drug distributors because of their ability to sensitize, convince others, and gain the trust of community members to accept MDA</td>
<td>Increase opportunities for women to serve as supervisors and volunteers. Criteria for supervisors should eliminate any sort of requirement to operate a motorbike and have a motorbike license; this requirement is a barrier for women candidates.</td>
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### EVIDENCE IN ACTION

To eliminate trachoma, Ethiopia must establish a process to integrate and institutionalize GESI in the country’s NTD response. This includes disseminating key findings from this assessment and, critically, increasing awareness and steps to address GESI considerations at regional, zonal, and woreda levels. Moreover, it requires implementing behavior change efforts at the community level to identify underlying GESI gaps and encourage local solutions to increase trachoma MDA acceptance, access, and uptake. In Ethiopia, the Act | East Program has disseminated these findings at regional and woreda levels. The program also established and strengthened the capacity of a woreda GESI team to engage with communities, in one of the assessment woredas, Adaba, to further identify GESI-related gaps and barriers to MDA acceptance, access and uptake. The woreda GESI team also, and importantly, engages local influencers to establish behavior change teams that will develop and test solutions to improve MDA coverage outcomes in high-burden trachoma communities.

The GESI assessment in Ethiopia revealed that age can be a determinant in MDA refusals. Youth did not see themselves at risk for disease, while older populations accepted that risk.
References


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AUTHORS

Sara Pappa, WI-HER
Elena Ghanotakis, Independent Consultant
Hirpa Miecha, Oromia Regional Health Bureau

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Scott McPherson, RTI International
Molly Brady, RTI International
Tibebe Alemayehu, RTI International
Sabrina Eyob, RTI International
Mark Gudmastad, RTI International

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Oromia Regional Health Bureau and Gambella Regional Health Bureau

CONTACT US

701 13th Street, NW
Suite 750
Washington, DC 20005
www.ActEast.org
ActEast@rti.org

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