GLOBAL INSTITUTE FOR DISEASE ELIMINATION

Medicines Development for Global Health
The Not-For-Profit Pharmaceutical Company

20 YEARS

SYMPOSIUM
From Pilot to Scale

IMPLEMENTING MOXIDECTIN
Where It Is Needed to Support Countries' Onchocerciasis Elimination Efforts

MEETING REPORT

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American Society of Tropical Medicine and Hygiene
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ABBREVIATIONS

ASTMH	American Society of Tropical Medicine and Hygiene
CDD	Community Drug Distributor
GLIDE	Global Institute for Disease Elimination
IVM	Ivermectin
LF	Lymphatic Filariasis
MDA	Mass Drug Administration
MDGH	Medicine Development for Global Health
NOEC	National Onchocerciasis Elimination Committee
NTD	Neglected Tropical Disease
PC-NTD	Preventive Chemotherapy for Neglected Tropical Disease
SAEs	Severe Adverse Events

Context

Moxidectin is the first new treatment for onchocerciasis in 30 years and presents significant opportunity to accelerate elimination efforts by improving microfilarial clearance and interrupting transmission. As countries move closer to elimination targets and optimize large-scale implementation, sustained advocacy is essential to translate emerging evidence into policy uptake and coordinated action.

In this context, innovation and collaboration remain critical to advancing onchocerciasis elimination efforts. With this momentum, Medicine for Development for Global Health (MDGH) and the Global Institute for Disease Elimination (GLIDE) hosted a symposium titled "From Pilot to Scale: Implementing Moxidectin Where It Is Needed to Support Countries' Onchocerciasis Elimination Efforts" at the American Society of Tropical Medicine and Hygiene (ASTMH) Annual Meeting in November 2025 in Toronto, Canada. This symposium built on earlier discussions initiated by MDGH and GLIDE notably a roundtable convened in November 2024 in the side line of ASTHMH Annual Meeting in New Orleans, Louisiana USA, which brought together strategic stakeholders for in-depth dialogue and actionable recommendations on positioning moxidectin as a complementary tool to accelerate onchocerciasis elimination. **Link**

Building on these prior exchanges, this symposium convened operational, social science and policy experts as well as funders to discuss lessons learned from pilot implementations, and emerging acceptability and feasibility data to reflect on how these findings can inform policy decisions. It also explored MDGH's strategic next steps and potential pathways for regulatory alignment, manufacturing scale-up, and sustained policy support.

Objectives of the symposium

The objectives of the symposium were to:

- Share implementation and operational lessons from early moxidectin pilots.
- Highlight key evidence to inform policy and programmatic decision-making.
- Discuss strategic considerations for the next phase of moxidectin implementation.
- Identify priorities and actionable recommendations to support country-led elimination efforts.

Participants and format of symposium

This 105-min symposium was structured in two parts:

Part I: Four presentations delivered by representatives from national NTD program and researchers leading the operational implementation and acceptability studies. These presentations highlighted emerging data and key lessons learned followed by a Q&A session with participants.

Part II: A panel discussion was opened with a brief presentation by MDGH outlining the moxidectin access plan. The panel featured key stakeholders including representatives from national NTD programs, donors, implementers, and policymakers. The discussion focused on identifying next steps to enhance access to moxidectin as an alternative treatment option. An open Q&A session allowed participants to engage directly with the speakers.

Key insights from the presentations

The first presentation highlighted Ghana's experience as the first country to pilot the rollout of moxidectin mass drug administration (MDA) for onchocerciasis in Twifo Atti Morkwa district in Central Ghana. This was followed by findings from an acceptability study conducted in the same pilot district, offering insights into community perceptions and factors influencing uptake.

Subsequent presentations expanded the perspective beyond a single setting. One speaker shared results from a multi-site study examining treatment acceptability for both onchocerciasis and lymphatic filariasis (LF), highlighting key drivers of uptake as well as persistent barriers. The final presentation described a large, multi-partner implementation trial in Angola comparing the effectiveness of moxidectin versus ivermectin (IVM) on Onchocerca volvulus infection and transmission.

Ghana pilot study

The pilot of moxidectin in Ghana was informed by persistent seropositivity (6.3%), despite long term ivermectin use, suggesting ongoing transmission and raising concerns that some areas might not meet WHO criteria for stopping MDA. The selected study sites reflected areas where these concerns were most evident. Moxidectin was considered a potentially more effective alternative to ivermectin for accelerating parasite clearance and reducing transmission.

The first phase of the pilot study took place between January and February 2025, targeting more than 65,000 people and achieving a high therapeutic coverage rate of 86.8%. Key successes included strong community engagement, the training of 199 community drug distributors (CDDs), community sensitization activities and stakeholder consultations, as well as robust safety monitoring, with 41 participants reporting mild adverse events and no severe adverse events (SAEs) associated with moxidectin intake recorded.

Despite these achievements, several contextual and operational challenges were identified including, population movement, illegal mining and industrialisation, limited accessibility in certain areas, delays in community-level data reporting, pockets of refusal.

To address these challenges, sustained community engagement and strengthened CDD networks were identified as critical to maintaining high-quality MDA implementation. Looking ahead, five additional rounds of MDA are scheduled as the next phase of the program.

Acceptability study findings

An acceptability study was conducted in the same district where the pilot was implemented. A mixed-methods design was used, including, quantitative surveys across 400 participants, four focus group discussion with CDDs and health workers, and 30 key informant interviews.

Overall, the results showed no significant difference in acceptability between ivermectin (IVM) and moxidectin. Acceptability was largely influenced by awareness, perceived community benefit, age and gender, and the choice of community communication channel.

In particular, lower acceptability was observed among women, young people and among those who received community education via television. Qualitative findings suggested misconceptions among women, particularly related to reproductive health concerns.

Based on these preliminary findings, the following recommendations were proposed:

- Improve targeted communication, particularly for adolescents and women
- Further investigate the negative correlation with television messaging
- Explore alternative communication channels including social media
- Conduct a follow-up acceptability study after the next MDA round.

Finally. It was noted that findings from Twiffo Atti Morkwa district may not be generalized nationally, given ecological zones and sociocultural variations across regions in Ghana.

Acceptability as a concept

A subsequent presentation framed acceptability as a central determinant of the successful introduction of new public health interventions, including vaccines, triple-drug therapy for LF[1], and moxidectin. An established nine statement indicator measurement tool, used in several studies on LF and onchocerciasis since 2017, was presented. This tool captures both knowledge and perceptions, providing a structured way to understand how communities interpret and respond to new interventions.

A key takeaway, consistent with findings from the acceptability study conducted in southern Ghana, was that acceptability is highly context-dependent and shaped by multidimensional factors, including social norms, values, and sociodemographic characteristics.

The presentation further highlighted that:

- **Mix methods research provided the most comprehensive understanding of community perceptions.**
- **Acceptability should be monitored over time rather than accessed at a single point.**
- **Pilot studies play a critical role in informing global policy decisions.**
- **Acceptability research enables data-driven corrective interventions.**

An example from Mali illustrated how targeted interventions, informed by acceptability data, led to measurable improvements in community uptake.

A cross-cutting challenge identified across settings and diseases was the systematic association between individuals who had never previously been treated[2] and lower acceptability scores. This underscores the importance of early engagement strategies.

Finally, the relevance of assessing acceptability during the development and introduction of new medicines was emphasized as a cost- and time-effective approach, helping to anticipate barriers and optimize implementation strategies.

[1]Guideline – Alternative mass drug administration regimens to eliminate lymphatic filariasis, https://www.who.int/publications/i/item/9789241550161

[2]Reaching never-treated people to eliminate neglected tropical diseases: a toolkit for national programmes, https://www.who.int/publications/i/item/9789240114944

Angola implementation trial

The final presentation showcased the first large-scale randomized trial evaluating both clinical and entomological outcomes of moxidectin MDA compared with IVM MDA. The study design includes approximately 52,000 participants across 80 villages, organized into 20 clusters, and engages 200 community drug distributors (CDDs) and local village focal points.

The trial is being conducted in a highly endemic area of Bengo Province, Angola, where routine MDA implementation has historically been inconsistent. Baseline entomological and parasitological surveys, completed in mid-2024, revealed that nearly one-third of participants were skin-snip positive, underscoring the intensity of transmission in the study area. Moxidectin is being administered to individuals aged ≥5 years and weighing ≥13 kg, while ivermectin follows Angola's standard national eligibility criteria.

This trial is particularly important because it moves beyond controlled efficacy settings to generate evidence on real-world programmatic impact, including transmission dynamics and operational feasibility at scale.

Looking ahead: Panel discussion

The second part of the symposium shifted the focus toward future directions, building on country experiences that demonstrated the feasibility of rolling out moxidectin through MDA. The discussion explored what is required to translate emerging evidence into sustainable programmatic adoption.

Panelists were invited to reflect on several strategic questions, including:

- How can Ghana consolidate its early experience with moxidectin?
- What policy and operational gaps remain, now that moxidectin has been added to the WHO Essential Medicines List and treatment guidelines are under development?
- How can National NTD Programs and Onchocerciasis Elimination Committees assess where and when to introduce moxidectin?
- What should the next steps be to support the introduction and scale-up of moxidectin?
- What role could moxidectin play within national onchocerciasis elimination strategies?
- What timeline should guide its integration into national program plans?
- Are current financing mechanisms sufficient to ensure sustainable access over the next 10–5 years as new tools emerge?

Context-Setting Remarks

Prior to the panel discussion, the co-host, MDGH, provided a brief overview of ongoing efforts related to moxidectin policy, regulatory processes and supply. Milestones included regulatory approvals in the United States and Ghana, inclusion in the WHO Essential Medicines List, and the near completion of a large safety study. Updates were also provided on the development of WHO treatment guidelines and ongoing operational studies in Ghana, Angola, and Cameroon.

Key insights from the panel discussion

There was broad consensus, particularly among country representatives, that moxidectin represents an important complementary tool for accelerating onchocerciasis elimination. While many countries expressed interest in piloting or scaling up its use, several enabling conditions were identified as prerequisites for broader adoption.

> **“After more than 20 years of treating with ivermectin and still seeing high prevalence, something must change and moxidectin gives us a chance to rethink how we reach the last mile.”**

These include broader integration within national NTD strategies, sustained advocacy and social mobilization at both national and community levels, clearer delineation of partner roles, adequate financing, regulatory approvals, and clear WHO guidance.

Beyond these enabling conditions, panelists underscored remaining policy gaps, particularly the need for clearer operational guidance and treatment algorithms specifying when, where, and how frequently moxidectin should be deployed. Additional evidence is needed on use in pregnant and breastfeeding women, co-administration with other preventive chemotherapies for NTDs (PC-NTD), and implementation in loiasis co-endemic settings, including clear guidance on when to test, treat, and monitor SAEs, alongside practical operational guidance for countries. Market transparency, including pricing, procurement pathways, and cost-effectiveness data, was also highlighted as critical for informed decision-making.

At the same time, country ownership emerged as a central theme. Decisions to adopt moxidectin must remain country-led, with National Onchocerciasis Elimination Committees (NOECs) playing a pivotal role. Upcoming “stop-MDA surveys” will provide important evidence on progress after two decades of IVM treatment and may help identify areas where alternative strategies are warranted.

Importantly, while moxidectin may offer advantages in hard-to-reach or persistently endemic settings, panelists emphasized that it should complement, not replace, other core strategies such as vector control and improved coverage.

Turning to the financing dimension, participants acknowledged that financing new tools is becoming increasingly complex, particularly as products move beyond traditional donation models. Many countries face constrained domestic budgets and are required to do more with fewer resources. Uptake will therefore depend on building compelling investment cases and clearly defined delivery pathways.

Closely linked to these financing considerations, market-shaping efforts were identified as necessary to reduce costs, streamline procurement processes, increase transparency, and stimulate country demand. While funders are navigating evolving market dynamics, there was agreement that resource constraints should not prevent promising innovations from reaching populations in need.

Additional reflections from the Q&A

The discussion during the Q&A broadened the lens beyond moxidectin itself. Overall, the exchange framed moxidectin not simply as a new drug, but as a catalyst to rethink how NTD tools are developed, financed, governed, and deployed, with stronger alignment between evidence generation, country needs, and sustainable funding models.

Ultimately, translating these efforts into sustainable access will depend on strong and sustained collaboration. Continued engagement with countries, policymakers, regulatory authorities, and partners was emphasized as essential to ensuring equitable and timely access.

Vaccines for onchocerciasis: A long-term prospect

While the idea of an onchocerciasis vaccine is widely seen as desirable, it was acknowledged to be a long-term goal. Vaccine development is complex, costly, and time-intensive; even for better-resourced diseases such as coronaviruses, progress has taken decades. A vaccine is therefore viewed as a long-term aspiration rather than a near-term solution for elimination.

The limited business case for NTD drug development

Speakers reflected on the structural challenge of developing drugs for diseases with minimal commercial markets. Moxidectin's journey illustrates how lengthy and partnership-dependent drug development becomes when profit incentives are weak. NTD innovation requires sustained public and philanthropic commitment.

Lessons from COVID-19

Participants noted that the COVID-19 response demonstrated how rapidly interventions can be developed when political urgency, financing, and coordination are aligned. In contrast, NTDs rarely benefit from comparable levels of urgency or funding, slowing innovation and scale-up.

The limits of the donation model

While historic donation programs, most notably for IVM have been transformative, they have also fostered dependency and obscured the true costs of delivery. For newer tools such as moxidectin, donations cannot be assumed. Alternative and more sustainable financing and access models will therefore be required.

Rethinking MDA as a system

The introduction of the first non-donated agent for onchocerciasis was seen as an opportunity to rethink MDA more holistically. Participants emphasized the need to better integrate:

- Serious adverse events reporting
- Acceptability and community trust
- Sustainable financing and procurement systems

There was a shared sense that these components have historically been addressed separately.

The central role of NOECs

Country experiences underscored the importance of national leadership. Ghana's example, identifying high prevalence following a stop-MDA assessment and subsequently engaging the NOEC to adopt moxidectin, was highlighted as a model of evidence-based, committee-led decision-making.

The need for context-specific decision algorithms

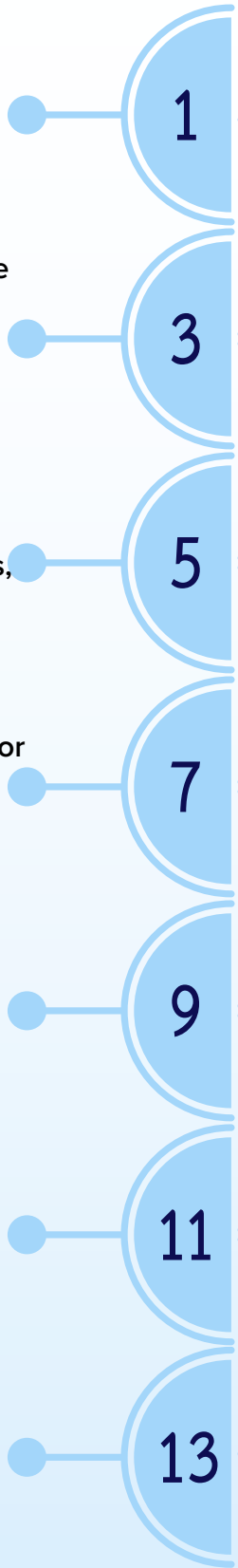
While WHO will provide global guidance, NOECs must determine where moxidectin is most appropriate, for example, in persistent hotspots or areas with high prevalence after many years of IVM. Moxidectin was repeatedly described as not being a "magic bullet" and weaknesses in core program performance must still be addressed.

Key recommendations:

The following recommendations emerged from the discussions and represent the overarching conclusions of the event:

- Develop clear deployment algorithms specifying when, where, and how frequently moxidectin should be used, including criteria for switching from ivermectin.
- Generate additional evidence on use during pregnancy and breastfeeding, as well as safety in Loa loa co-endemic settings.
- Establish simple operational guidance for co-administration with other PC-NTDs.
- Enhance market transparency, including clarity on suppliers, pricing structures, procurement pathways, and quality assurance mechanisms.
- Strengthen community adoption through social mobilization, evidence dissemination, and cross-country learning platforms.
- Align financing strategies with national priorities and explore third-party or blended funding mechanisms to bridge affordability gaps.
- Prioritize moxidectin deployment in persistent transmission hotspots, geographically hard-to-reach areas, and among mobile populations.
- Ensure robust post-MDA adverse event monitoring, particularly during the initial rounds of implementation.

LIST OF PARTICIPANTS



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