



Annual Highlights 2014

The Accomplishments of The Mectizan Donation Program in its 27th Year



Message from the Director

Dr. Adrian Hopkins

In 2014 we saw some major developments in the onchocerciasis (river blindness) and lymphatic filariasis (elephantiasis) elimination programs in the Americas, Africa, and Yemen.

In the Americas there has been further success in eliminating transmission of onchocerciasis. Ecuador received the official verification from the World Health Organization that it was free of onchocerciasis following on from Colombia's verification in 2013. Mexico and Guatemala have both completed three years of post treatment surveillance after Mectizan treatment was stopped, and we hope they will receive verification in 2015. These results are really encouraging for the final elimination of the river blindness in the Americas. The largest foci in Venezuela have also stopped treatment and are in the post treatment surveillance phase. There now remains just one endemic area on the border between Brazil and Venezuela in the Yanomami Indian communities where some transmission is still ongoing. But even in this difficult to reach population, the results are showing marked improvements thanks to the commitment and collaboration between the governments of Brazil and Venezuela and to the heroic efforts of the health workers who distribute Mectizan four times per year. This area has been undergoing treatment four times per year, which will speed up elimination. In 2014, Brazil and

Venezuela signed an historic agreement to work together on eliminating river blindness in the region. It is hoped this will open the way to improve coordinated efforts to eliminate transmission in the last focus in the Western Hemisphere.

In Africa, scale up for LF continued in 2014 in many areas but faster progress is needed if 2020 elimination targets are to be met. Mapping for LF will be completed by the end of 2015 and countries that are not yet under treatment with Mectizan and albendazole will need to start treatment by January 2016 in order to complete the required 5 treatment cycles necessary to stop LF treatment by the end of 2020. Several countries have completed 5 treatment cycles and now need to complete the evaluation studies needed to confirm that treatment can be stopped. These include the Pre TAS (Transmission Assessment Surveys) and the TAS itself. Nigeria was one of the largest countries to scale up treatment and has demonstrated excellent progress toward LF elimination. Mapping has been completed in the Democratic Republic of the Congo (DRC), another country with millions of patients. As in Ethiopia, the mapping results in DRC demonstrated that the prevalence of LF may not be as high as was originally estimated.

In Africa APOC has continued to facilitate the scale up of treatment for river blindness and introduced

treatments for other NTDs, particularly LF, despite funding difficulties. Treatment figures in 2013 exceeded expectations with over 100 million people and it is expected that treatment figures will exceed 120 million in 2014 when the data are finalized. With the push towards elimination of river blindness in Africa, APOC has also been refining transmission zones, primarily in hypo-endemic areas that were not treated previously as the strategy prioritized meso and hyper-endemic areas for treatment. APOC has also been conducting parasitological and entomological testing in some former Onchocerciasis Control Program countries in West Africa to determine whether treatment can be stopped. Further surveys are needed but results suggest that Niger, Mali, and Senegal may be able to stop treatment with Togo and Benin close behind. Malawi, Burundi and Chad are also ready for a full evaluation. If results in all of these countries indicate elimination has been achieved, an estimated 16 million people will no longer need Mectizan. This is a remarkable achievement that I am sure Merck never dreamed of in 1987 when they announced the donation of Mectizan to control river blindness. These fantastic achievements are enabling us to look further ahead. The attached chart shows target years for stopping treatment in African countries.

These targets are theoretically possible but countries must commit to achieving high treatment and geographic coverage if we are to reach these goals. The global partnership has 10 years to eliminate these diseases from Africa. Together we can do it. The drugs are there, new tools are available, but we must ensure they reach the people who need them.

APOC has also been very involved in the development of a new entity to manage NTDs in Africa. APOC will close at the end of 2015 and the new programme will expand from onchocerciasis control into NTD control and elimination. The countries present at the 2014 Joint Action Forum (JAF) gave a clear indication that they want the



Targets* for Stopping Treatment: Lymphatic Filariasis and Onchocerciasis

| | Lymphatic Filariasis | Onchocerciasis | Both |
|---------|---|--|---|
| 2015 | Gambia | Niger, Senegal | Malawi |
| 2016 | Burkina Faso, Niger | Burundi, Chad | Mali |
| 2017 | Comoros | Benin, Guinea, Guinea Bissau, Sierra-Leone, Togo | |
| 2018 | Ghana | Burkina Faso, Congo, Sudan | |
| 2019 | Benin, Cameroon, Côte d'Ivoire, Liberia, Senegal | Mozambique, Rwanda, Tanzania | Uganda |
| 2020 | Congo, Kenya, Madagascar, Mozambique, Nigeria, Sierra-Leone, Tanzania, Zambia, Zimbabwe | Cameroon, Côte d'Ivoire, Ethiopia, Ghana, Liberia, Nigeria | Angola |
| 2021-25 | Chad, Ethiopia, Eritrea, Guinea, São Tomé & Príncipe | | CAR, DRC, Equatorial Guinea, Gabon, South Sudan |

*Work with country programs is ongoing to develop new strategies and refine and accelerate target dates for stopping treatment.

programme (provisionally called PENDA) to take over from APOC in 2016, but concerns were expressed about what the programme should look like and how much it would cost.

There are many challenges and uncertainties ahead for onchocerciasis and LF elimination in Africa:

- The establishment of a new entity looks as if it may be delayed and may not be ready by the end of 2015. WHO, countries, donors, NGOs and other stakeholders are collaborating closely to find the way forward. It is imperative that MDA continues so that we do not lose the tremendous momentum achieved for both river blindness and LF elimination thus far.

- Thank you to all partners who responded to our survey about the funding needed for 2015 and 2016. We now have a clearer picture of what is needed for the remainder of 2015. For 2016 maintaining funding for implementation may be more difficult.

- Coordinating treatment for onchocerciasis and LF, where the two diseases are co-endemic, remains a major challenge. Though this should have been

one of the easiest areas to achieve scale up, gaps in mapping and defining the implementation unit have delayed the process. New strategies will be needed for starting, monitoring, stopping treatment, and combined post treatment surveillance are urgently needed. Improved coordination is also needed as expansion for all preventive chemotherapy NTDs continues in overlapping areas.

- Countries must take ownership of NTD control and elimination and work towards coordination and integration at the national level to strengthen results at the regional level. This will result in health systems strengthening at all levels in line with the Sustainable Development Goals (SDGs).

- The Ebola crisis in West Africa created further challenges. Firstly I would like to offer my sympathy to all those involved in the NTD programme who have suffered or lost family and friends. Many NTD staff were out in the community and were therefore on the front line in the fight against Ebola. When the situation returns to normal we will have to review the epidemiological impact on the Onchocerciasis and LF elimination programmes as well as the

need to boost human resources. At the moment it is difficult to predict.

- In Yemen where onchocerciasis and LF were both present, LF may have been eliminated. TAS surveys are due in 2015. Recent research supported by MDP has demonstrated the use of the OV 16 diagnostic tool for mapping of onchocerciasis in Yemen. Unfortunately the political insecurity there is delaying further developments.

Despite the barriers and constraints to achieving elimination of river blindness and LF, it is encouraging to reflect on the ongoing commitment and collaborative spirit of the many active partnerships engaged in reaching these goals. The WHO is working closely with stakeholders to create a new entity to coordinate NTD control / elimination. Various partners are actively researching critical issues related to NTD control and many governments are working to scale up their geographical and therapeutic coverage with the help of NGOs and other partners. 2015 and 2016 may be a difficult transition time but with the medicines available and all the stakeholders working together we will remain on track. ✨

Onchocerciasis Achievements

In 2014, 109.6 million treatments were approved for mass treatment for onchocerciasis control/elimination in 25 countries in Africa, Latin America and Yemen. These applications were approved to continue annual mass treatment in the majority of the existing communities. In some epidemiological settings, multiple rounds per year treatment are implemented. Approximately 5.36 million treatments were approved for the second round treatment in Burkina Faso, Ghana, Sudan (123,090), Togo, Uganda (2,080,288) and Yemen (216,923). In Venezuela where 4 times/year is ongoing, 119,530 treatments were approved to cover to cover 2014-2016). In Latin America, the only ongoing treatment is in a small but hard to reach focus on the border between Brazil and Venezuela where Mectizan is distributed four times per year to ensure everyone is reached.

Since the beginning of the programme, 1.4 billion treatments have been approved for the control/elimination of onchocerciasis globally. ✨



Lymphatic Filariasis Achievements

Treatments approved for LF

Twenty eight African countries and Yemen where onchocerciasis is endemic are eligible to use Mectizan in association with albendazole for mass drug administration (MDA) to interrupt the transmission of lymphatic filariasis (LF). Since the inception of the Program in 2000, more than 1.2 billion treatments have been approved in 25 African countries and Yemen.

In 2014, 218 million treatments were approved in 18 countries representing a 31% increase compared to 2013 approved treatments. Among the applications approved, one initial application was approved to start LF elimination in the Democratic Republic of Congo. Twelve applications were approved for the continuation of treatment in existing programme areas in Benin, Burkina Faso, Cameroon, Congo, Ghana, Guinea Bissau, Liberia, Malawi, Mali, Niger, Sierra Leone and, Uganda. Five re-applications were approved for important programme expansion in Cote d'Ivoire, Ethiopia, Nigeria, Senegal and Tanzania.

33% of the treatments approved in 2014 will be distributed in areas co-endemic with onchocerciasis.

Though the programme continues its steady growth year after year, an accelerated extension is required if we want to reach the 2020 elimination goals. ✨

LF Downscaling and Post MDA Surveillance



TAS 2 successful in the in the 23 IUs. Total population potentially free of LF: 2.5 million



Treatment stopped in 16 new districts which join 6 other currently under the past mda surveillance. Total population potentially free of LF: 7.7 million



Post MDA surveillance continue in 2 districts. Total population potentially free of LF: 0.7 million



30 districts in post MDA surveillance phase in Plateau and Nasarawa states. Total population potentially free of LF: 6.1 million



1 district under post MDA surveillance



The 7 endemic districts are under post MDA surveillance; TAS 3 scheduled for 2015. Total population potentially free of LF: 1.3 million



the 11 endemic districts are under post MDA surveillance. Total population potentially free of LF: 0.13 million

Ecuador Becomes 2nd Country to Eliminate Onchocerciasis from the Americas



The Mectizan Donation Program congratulated President Rafael Correa, Ms. Carina Vance, Ecuador's Minister of Health, The Carter Center and its Onchocerciasis Elimination Program for the Americas, the Pan American Health Organization, and the endemic communities in Ecuador for becoming the second country (after Colombia) to eliminate river blindness, one of the leading causes of preventable blindness worldwide.

Ms. Vance, made the announcement during the opening session of the 53rd Pan American Health Organization (PAHO) Directing Council in Washington D.C. on September 29. PAHO Director, Dr. Carissa Etienne, stated "This is an important success story for Ecuador and for other countries that are working to eliminate onchocerciasis. It shows what can be accomplished when countries undertake the sustained action that is

needed, with strong support from their governments and committed international partners."

This remarkable achievement can be attributed to Ecuador's commitment along with the efforts of the broad public-private partnership working to provide treatment with Mectizan including: Merck/MSD, the Mectizan Donation Program, the Carter Center's Onchocerciasis Elimination Program for the Americas, Ecuador's Ministry of Health, the people of the endemic communities, and Christoffel Blindenmission.

"We celebrate the achievement of this critical milestone with the people of Ecuador and the Mectizan Donation Program and its partners. The verification of Ecuador as the second country in the world to eliminate the transmission of river blindness is a highly motivating development because it reminds us of what is possible," said Kenneth C. Frazier, chairman and chief executive officer of Merck. "Merck is proud to be a part of a committed and effective alliance that continues to work toward the ultimate goal of eliminating river blindness globally." ✨

Ken Gustavsen Returns to lead Merck's Mectizan Donation Program

As many of you are already aware, Merck's point person for the Merck Mectizan Donation Program, Janet Vessotskie, left Merck at the end of 2014. We were sad to see her go and appreciate her contributions to both the onchocerciasis and lymphatic filariasis (LF) elimination efforts, but also to the greater NTD community.

Ken Gustavsen will now lead Merck's Mectizan Donation Program in his role as Executive Director, Corporate Responsibility. Many of you will remember Ken from his earlier work with the Mectizan Donation Program and its partners in his previous position at Merck between 2003-2011. Ken has a wealth of experience in global health and development initiatives from the corporate and non-profit sectors. In addition to leading Merck's collaboration on the Mectizan Donation Program, Ken also coordinates related NTD efforts and works to enhance Merck's relationships with international and multilateral organizations.

We are happy to welcome Ken back during this turning point for onchocerciasis and LF elimination. ✨

Brazil & Venezuela

In 2014, the governments of Brazil and Venezuela signed an MOU agreeing to work together to eliminate transmission of river blindness from the two remaining endemic foci in the Americas. Quarterly treatment with Mectizan is ongoing in Brazil and Venezuela to ensure the nomadic Yanomami populations will receive sufficient treatment to reduce transmission to a level that cannot be sustained by the black flies that transmit river blindness.

Guatemala & Mexico

These two countries halted treatment with Mectizan in 2012. Mexico completed the three-year post treatment surveillance phase and has submitted a dossier to WHO for verification of elimination. Guatemala is not far behind.

Mectizan Expert Committee (MEC) Highlights

In 2014, Dr. Mary Amuyunzu-Nyamongo joined the MEC to help fill the need for a social scientist on the Committee to help inform issues around community distributed treatment with ivermectin. Dr. Amuyunzu-Nyamongo is currently the Executive Director and co-founder of the African Institute for Health and Development (AIHD) based in Nairobi, Kenya. She is also the African Regional Coordinator for Health Promotion with the Global Program of Health Promotion Effectiveness, funded by the Centers for Disease Control and Prevention.

Dr. Frank Richards also joined the MEC in 2014. Dr. Richards is an expert in parasitic and tropical diseases who has worked extensively in Latin America and Africa. The health programs he directs at The Carter Center have helped to provide more than 250 million treatments for parasitic disease in 11 countries over the last 15 years. The malaria program helped provide nearly 20 million insecticide-treated bed nets in Nigeria, Ethiopia and Hispaniola.

Dr. Richards spent 23 years at the Centers for Disease Control and Prevention focused on parasitic disease control and eradication in the Americas and Africa. Dr. Richards has a wealth of expertise in onchocerciasis (river blindness) and the delivery of Mectizan. He worked with the Guatemalan

Mectizan distribution program since it began in 1987 and with the Nigerian Mectizan distribution program since 1992. He participated in the launching and operations of two major regional river blindness programs: the Onchocerciasis Elimination Program for the Americas and the African Program for Onchocerciasis Control. Dr. Richards left CDC to join The Carter Center in 2005, where he directs the River Blindness, Lymphatic Filariasis, and Schistosomiasis/Soil Transmitted Helminth Programs. He directed The Carter Center's Malaria Program from 2008-2014.

2014 MEC Recommendations

The committee endorsed the recommendations of the *Loa loa* scientific working group, which was held immediately prior to the MEC meeting.

APOC's Technical Consultative Committee (TCC) members reported on APOC's work to address treatment in onchocerciasis hypoendemic areas where LF is also endemic. The TCC also recommended a situation analysis of projects that were not performing well to determine whether new treatment strategies were needed.

The MEC congratulated OEPA on the verification by WHO of elimination of onchocerciasis in Colombia and Ecuador. The MEC noted that Guatemala and Mexico

are nearing the end of post treatment surveillance, which leaves only the Yanomami focus in Brazil and Venezuela.

The MEC noted progress in Ethiopia, Sudan, and Uganda on the creation of National Elimination Committees for Onchocerciasis.

The MEC approved the application for 14 million treatments to initiate the LF program in DRC if approved by the RPRG. It was noted treatments would be in CDTI areas where loiasis is not a problem.

The Yemen Elimination Program for Onchocerciasis had not progressed well since June 2014. The MEC fully supported re-structuring of the programme and agreed that a focal point for oncho and LF in the ministry is needed.

The Committee approved Mectizan for two rounds of treatment in two pilot onchocerciasis elimination projects areas in Yemen. However, it was noted that baseline studies are needed first, and extensive mapping of onchocerciasis is needed.

It was noted that Mectizan has been used experimentally for malaria vector control and that community wide studies were being planned. In addition, the use of long-lasting insecticidal nets (LLIN) is contributing significantly to LF and malaria control.

Plans for a new entity to coordinate onchocerciasis and LF in Africa post-2015 are moving in a positive direction. The MEC reiterated the need to remain involved as a key partner.

MDP will continue to provide technical support for country programs, specifically DRC, CAR, South Sudan, and Togo.

The MEC approved the Togo application for twice yearly treatment. Following the MEC, MDP met with representatives from Togo and began work on a plan to ensure optimal treatment coverage.

MEC noted all the work being done by APOC moving programs toward an elimination strategy.

The committee noted the scope of research being done in Cameroon on various projects related to loiasis and expressed appreciation for the significant progress made by the Centre for Research on Filariasis and other Tropical Diseases (CRFilMT).

The committee noted the supply chain issues particularly in Sudan and DRC. Ongoing work is needed to facilitate the process with all stakeholders. ✨



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Through the Mectizan Donation Program, Merck* donates Mectizan for the elimination of onchocerciasis as a public health problem in Africa, Latin America, and Yemen. For the elimination of lymphatic filariasis in Africa and Yemen where onchocerciasis is co-endemic, Mectizan is co-administered with albendazole, which is donated by GlaxoSmithKline.

*Merck is known as MSD outside the US and Canada. Mectizan is not approved for use in the United States.