Neglected tropical diseases (NTDs): a diverse group of communicable diseases that prevail in tropical and subtropical conditions in 149 countries – affecting more than one billion people and costing developing economies billions of dollars every year (WHO)

ACRONYMS

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APOC African Programme for Onchocerciasis Control
ATCP Amhara Trachoma Control Programme
CAR Central African Republic
CBID Community Based Inclusive Development
CDD Community Drug Distributor
CDTI Community Directed Treatment with Ivermectin
DEC Diethylcarbamazine
DFAT Department of Foreign Affairs and Trade (Australia)
DfID Department for International Development (UK Aid)
DID Disability Inclusive Development
DMDI Disease Management Disability and Inclusion
DRC Democratic Republic of Congo
ESPIN Expanded Special Project for the Elimination of NTDs
F&E Facial cleanliness and Environmental Improvements
FCT Federal Capital Territory
GTM Grarbet Tehadiso Mahber
GET2020 Global Elimination of Trachoma by 2020
HANDS Health And Development Support
IADC Italian Agency for Development Cooperation
IDP Internally Displaced Persons
LF Lymphatic Filariasis
LGA Local Government Area (Nigeria)
MDA Mass Drug Administration
MDP Mectizan Donation Program
NNN NGDO NTD Network
OPD Organisations of People with Disability
ORDA Organization for Rehabilitation and Development of Amhara
PCT Preventive Chemotherapy
S&A Surgery and Antibiotics
SAFE Surgery, Antibiotics, Facial cleanliness and Environmental
SDGs Sustainable Development Goals
TT Trachomatous Trichiasis
WASH Water, Sanitation and Hygiene
WHO World Health Organisation

CBM gratefully acknowledges financial support from the following organisations

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Front cover: Little Jean, one of Berthine’s grandchildren being measured during Mectizan distribution in Kasai, DRC.
Our cover photo shows the grandchildren of Berthine, from Kasai, DRC being measured to receive Mectizan® against river blindness, while Berthine looks on. The treatment came too late for her – she had already lost her sight. However, her main concern is not for herself but for her grandchildren, that they would not suffer the same fate as she and so many others from her generation had done.

In this issue we take the opportunity to look back at CBM’s pioneering role in the start of mass drug treatment against onchocerciasis in several countries. We are grateful to Dr Adrian Hopkins for his recollections; he worked as an ophthalmologist with CBM in DRC and CAR in the 1990’s and he gives us a glimpse of the devastating impact of oncho at that time, and tells the fascinating story of how the first mass treatments started.

As we look back, we are also conscious that 2020 marks the halfway point toward the targets of the UN Sustainable Development Goals (SDGs) and toward the trachoma targets under the GET2020 declaration. Globally, progress is encouraging – in the last four years over 1 billion people were treated annually for at least one NTD, and close to 1 million surgical treatments for trachoma since 2014. 40 countries have also eliminated at least one NTD.

2020 also saw the launch of the second WHO NTD Roadmap. Recognising the challenge to finish the task, this provides a unifying vision for the way forward – with greater focus on impact, more emphasis on integration and cross cutting approaches as well as greater ownership and integration into National plans.

By 2020, some of CBM’s programmes had come to an end, while other countries offered opportunities for expansion. COVID-19 has now placed a question mark over the delivery of health services as ways will need to be found to deliver NTD services safely. In July, CBM supported the State NTD programme in Jigawa Nigeria to complete the 2019 MDA, using measures to protect against COVID-19. We hope the research will provide useful information, once the results are fully analysed.

Whatever the future holds, we owe it to families like Berthine’s, to do all we can to ensure treatment is available to give everyone a future free from the disabling effects of NTDs.

CBM would like to take this opportunity to acknowledge the role that our many supporters, donors and collaborators have played in the work described here.

Dr Babar Qureshi
Director Inclusive Eye Health & NTDs
DRC – first steps in combatting onchocerciasis

Onchocerciasis in DRC

For the last 50 years CBM has been working in DRC in the field of eye health. The realisation of the scale of blindness in parts of the country led to a drug distribution programme that now protects almost 50 million people from the debilitating effects of onchocerciasis (river blindness). Dr Adrian Hopkins, ophthalmologist and former Director of the Mectizan Donation Programme, tells the story of how it started.

Beginnings

‘In the early 1980s, CBM expanded its interest in DRC turning to eye work, and rehabilitation. Quite a few new programmes were starting at this time, and some of them happened to be in areas affected by onchocerciasis. At that time, a drug called diethylcarbamazine (DEC) was used to treat onchocerciasis. It seemed to be very effective, maybe too effective as it was also known to cause problems for those who took it. I had one patient who used to paddle me across one of the rivers with my motorbike when I was doing my public health work. There was a lot of onchocerciasis in the area, and he was treated at a local dispensary with DEC. He came in two days later having lost almost all his vision. We worked hard, we got some of his vision back, but he was never able to go back to work, although he was able to see light and vague shadows, he lost a good chunk of his vision through that treatment.

I remember getting a letter from CBM in the late 70s saying that because of the negative effects of DEC, it was no longer recommended for treatment of onchocerciasis. It was better to leave a patient with the disease and preserve their vision.

Mectizan® – beacon of hope

Without DEC, patients had no curative treatment open to them and it was several years later, at the end of 1987 that Mectizan (ivermectin) was approved for treatment. The drug had been tested in West Africa and became a beacon of hope for patients with onchocerciasis. It killed the microfilaria larvae in the skin, but there was no damage to the eye and over two months, the microfilaria disappeared.

The first time we received Mectizan was 1988, I was working at Yakusu, near Kisangani, close to the Tshoppo falls. The area had a high concentration of onchocerciasis and I was able to treat patients with the drug for the first time.

However, the drug was still only available for clinicians so if patients didn’t come to hospital, they didn’t get treated. It was becoming more apparent that whole populations needed Mectizan and making the transition from clinical to community-based treatment was imperative.

First Mass Treatment In DRC

The first mass treatment with Mectizan was carried out under the auspices of CBM in 1989 in Dimelenge. A team travelled to the village to conduct the cluster-based survey taking skin snips and observing the parasites under a microscope. Mectizan was then approved by the donation programme for mass distribution and a post treatment survey showed the microfilaria in the skin had reduced significantly. However, many other communities were in need of treatment, but the survey process was time consuming and costly – the question was, how to expand?

Survey breakthrough

Nodules are clumps of big adult worms and, unlike the microscopic microfilaria, you can feel them under the skin. It was discovered there was a direct relationship between the number of nodules and the results from costly skin snip surveys. This meant you could go into a village without having to take all your equipment, choose a group of villagers and...
simply check them for nodules. Then you knew that roughly twice the number of patients with nodules would have been positive with skin snips.

**Expansion**

A lot of the work started because CBM was establishing blindness rehabilitation programmes in areas of onchocerciasis. Little could be done for patients apart from rehabilitation, but then suddenly there was a new drug to prevent people going blind. Dr Tony Ukety was working for CBM in Nyankunde, in north east Congo and doing outreach eye work in Uele where there was a lot of onchocerciasis. He started MDA there with CBM support. A team in Kananga also started doing MDA in the Kasai Region and particularly in the Sankuru valley, CBM also supported treatment around Yakusu in the Tshoppo area. At the end of 1995, the Africa Programme for Onchocerciasis Control (APOC) was launched. With its approach of public health rather than just eye care, it was the basis of the original NTD programme – with CBM one of the major partners. Mapping for the disease was expanded and simpler public health strategies to implement MDA were born.

**Challenges**

Logistics was a major challenge – DRC is a massive country and transport and communications between areas has always been difficult. In addition, the lack of investment in the health system at that time meant it was a struggle to get treatment going. We consider that onchocerciasis work contributed to building the health system from the bottom up. The community-based treatment approach (CDTI) has been instrumental in this, getting the communities actively involved and taking control of their disease management. It’s not a programme where you chose someone in a community and say ‘OK, go and do that job and we’ll pay you for it,’ rather, community comes together to decide how they are going to do the treatment. All this required a lot of training and was built on to a medical infrastructure that was very weak.

**Achievements**

The main achievement has been continued support for MDA, sometimes in very difficult circumstances. During the civil war in the 90s, CBM support continued, more-or-less across the board in spite of major logistical challenges.

It’s a stand-out achievement for CBM that the organisation strives to continue work even when things prove tricky.

Working with CBM in the rebel held north-east, Dr Ukety was importing Mectizan through Uganda because he couldn’t get it through Kinshasa. CBM was the only organisation working on onchocerciasis in DRC until 1995 when APOC started, and in 1997 systematic mapping began and other organisations began taking on areas not yet being treated.

**Impact**

If you have onchocerciasis, the first symptoms affect the skin and the long-term itching has a massive impact on your life. Mectizan stops this. It also has an effect on other ailments and children benefit from better health due to the medication. Due to these immediate benefits, people have been very enthusiastic to take the drug. It’s hard for us to conceive of people being so chronically infected with parasites that they don’t know what normal health is – Mectizan has given them that new concept of ‘normal health’.

**Future perspectives**

For onchocerciasis, the only strategy that will keep it under control is to continue MDA; if we stop, the disease will return. It’s been remarkable that the donation of Mectizan has continued for 30 years and that Merck is even increasing donations because it’s now being used against Lymphatic Filariasis all over the world. In DRC, we would have hoped to stop treatment by 2030, but that will probably not be possible since where there is instability, treatment is often interrupted and, transmission of the disease continues. To maintain momentum, we need to make sure that programmes are integrated within a functional health system, with a focus on ‘leaving no one behind’. The hope will be if we can maintain MDA over the next 15 years, making use of potential new drugs, we can finally achieve the elimination of onchocerciasis in DRC.'
Beating River Blindness in CAR

In 1992, CBM assigned Dr Adrian Hopkins to the north west of Central African Republic (CAR) to work in a blindness rehabilitation programme in Bossangoa, but his plans were to change in the face of a devastating disease.

Dr Hopkins was expecting to be mainly treating cataract patients, but early on he took a trip along the river Guam. Within a short distance, he had counted 34 blind people – blind, not from cataracts but from River Blindness or onchocerciasis. ‘I couldn’t do anything for them. I thought I was going on a cataract recruitment drive but it wasn’t that at all,’ he said.

In some villages, near to the black fly breeding sites, it was found that up to fifty percent of adults were blind or severely visually disabled. It was a stark reminder of the devastating effect of onchocerciasis and a defining moment for the trajectory of CBM’s work in CAR over the following years. It was clear that unless something was done, many generations of children would suffer the same fate as their parents and grandparents.

In the communities themselves, the cause of the blindness was misunderstood and would need to be the subject of intensive education. ‘Don’t touch a blind person or you may go blind’ was a common belief – although children were considered immune. For others it indicated punishment for misdeeds or the result of a curse. Dr Hopkins recalled ‘When we started it became very apparent that if you have people with such strong beliefs and you say ‘take this tablet and you may not go blind’, it takes a major change of thought process to accept that a tablet can do that. We did get there but it took a long time.’

First treatments

Having surveyed the areas affected in CAR, it was noted that it was in the North West, near the borders with Chad and Cameroon, where onchocerciasis was highly prevalent, that the most cases of blindness were found.

Following a lot of sensitisation, the first experimental treatment with Mectizan was carried out in Bossangoa in a small village of about 200 people. Returning to check on the outcome three weeks later, the report from the village priest was not encouraging: ‘I don’t know what you have done but you have made 200 people itch!’

In a group discussion, the villagers confirmed that after taking the drug they had been sick for three weeks with fever, itching and swelling. Plucking up courage to ask if they would take the drug again next year, the immediate response came back: ‘Absolutely, we suffered for three weeks but now we know what good health is!’ Sudden relief from years of the chronic symptoms of oncho had given them new energy and transformed their lives.

In the communities themselves, the cause of the blindness was a mystery. ‘Don’t touch a blind person or you may go blind’ was a common belief.

National Programme

In 1993, CBM agreed with the MOH to start a national programme for onchocerciasis control, with Dr Hopkins as Technical Advisor. A three-year programme was agreed involving mass treatment with Mectizan. In the first year, over 240,000 people were treated – 85% of the population in the target areas in the north and south east of the country – an extraordinary result given the widespread misconceptions about the disease.
Not only did the distribution of Mectizan bring a new quality of life, it also lifted the risk of blindness. In 2015, visiting Bossangoa twenty years later, an old blind man who had been referred to CBM’s rehabilitation programme recognised Dr Hopkins’ voice. He was able to confirm that in his village, since the start of the distribution, there had been no new cases of blindness.

**Conflict**

However, by 1997, the future of CBM’s programmes were at risk as staff had been evacuated twice due to conflict. By that time treatment had been established in most areas it was needed. But as the civil unrest deteriorated, with distributions waiting to happen, the communities pressured the drug distributors not to wait for project staff – ‘treat us and afterwards we’ll see what we can do about paying you.’ It was very much a community effort and treatment went ahead because there was no fighting in that area. The CBM staff were evacuated but when they returned they found the community had treated themselves. This was a major step forward for the programme – the level of community demand and acceptance indicated how far the programme had come in just a few years.

Conflict simmered over the next few years. A flexible approach was needed to work when and where the conflict allowed. However, in December 2012 civil war erupted and staff were obliged to evacuate again. It would be almost 5 years, before CBM was once again able to engage with the Ministry of Health and provide support to the onchocerciasis distribution programme.

**Restarting**

From 2017, Johan Willems, Programme Manager led the re-establishment of CBM’s support to the Ministry’s NTD Programme, following a peace agreement. During the conflict, MDA could only be carried out on a very limited scale. Drugs would be sent to areas they were needed, and the community distributors left to do the distribution themselves.

Since 2017, serious efforts have been made to get the national health system back up and running, with investment from the World Bank, EU DfID and others. With this, there has been a significant change in commitment at the highest level and real progress.

In 2019, CBM with the MoH was able to treat 1.75M people for onchocerciasis (and LF) in 15 out of 19 endemic districts. Despite the fact that parts of the country are not in the control of the government, the Peace Agreement means that the MDA programme was able to operate in most areas.

Johan notes: ‘After the collapse of what we had built before, it’s very encouraging that we can see such progress again. It’s a process, working together in partnership, but with this approach, it’s possible to build functioning systems that work. After all this time, CBM’s objective is very clear – to continue to support until onchocerciasis is finally eliminated.’

CBM’s objective is very clear – to continue to support until onchocerciasis is finally eliminated.
The map represents areas covered by treatment in the campaign Jan – Dec 2019. CBM carries out additional TT surgeries under its Inclusive Eye Health programmes in these and other countries.

**KEY TO NEGLECTED TROPICAL DISEASES**

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<tr>
<th>Acronym</th>
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<td>ONCHO</td>
<td>Onchocerciasis</td>
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<td>Lymphatic Filariasis</td>
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<td>STH</td>
<td>Soil Transmitted Helminths</td>
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<td>TRA</td>
<td>Trachoma</td>
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**CBM NTD programmes**

CBM NTD REPORT 2020

**Nigeria**

1. Kano state
2. Jigawa
3. Yobe
4. Federal Capital Territory

**Nigeria - Diseases Covered**

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<td>TRACHOMA</td>
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INTEGRATED MDA: 4 states
TT surgery: 2 states
Funding: DFAT, DfID
Commonwealth/Accelerate (Sightsavers), END Fund, NZ Aid

**Chad**

**DISEASES COVERED**

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<td>TRACHOMA</td>
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Trachoma TT surgery in four regions.
Partner: Koumra Hospital.
Funding: CBM, Lions Club International Foundation

1. Tandjilé
2. Logone Oriental
3. Mandoul
4. Moyen-Chari

**CAR**

1. Ouham-Pendé
2. Ouham
3. Nana-Grébizi
4. Bamingui-Bangoran
5. Mambéré-Kadéï
6. Ombella-M’Poko
7. Kémo
8. Ouaka
9. Basse-Kotto
10. Mbomou
11. Sangha-Mbaéré
12. Lobaye

**CAR - Diseases Covered**

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<tr>
<td>ONCHO</td>
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MDA: 29 districts.
Funding: END Fund, CBM

**DRC**

1. Ubangi Sud
2. Mongala
3. Equateur
4. Tshuapa
5. North Kivu
6. Kasai
7. Kasai Central
8. Lomami

**DRC - Diseases Covered**

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<td>STH</td>
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<td>TRACHOMA</td>
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Integrated MDA: 120 Health Zones.
Funding: END Fund, CBM
The map represents areas covered by treatment in the campaign Jan – Dec 2019. CBM carries out additional TT surgeries under its Inclusive Eye Health programmes in these and other countries.

**ONCHO**

**LF**

**SCH**

**STH**

**TRA**

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### South Sudan

**DISEASES COVERED**

**ONCHO**

**LF**

**TRACHOMA**

Oncho/LF: 18 counties

TT surgery: in IDP camps

Funding: END Fund, CBM

- Raja
- Wau
- Jur River
- Nagero
- Tambura
- Ezo
- 7. Nzara
- 8. Yambio
- 9. Ibba
- 10. Wulu
- 11. Mvolo
- 12. Maridi
- 13. Mundri-West
- 14. Mundri-East
- 15. Terekea
- 16. Juba
- 17. Kajo-keji
- 18. Magwi

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### Pakistan

**DISEASES COVERED**

**TRACHOMA**

TT surgery and F&E.

**Partners:** Pakistan Sindh Institute of Ophthalmology, and COAVS. Funding: DfID & FHF

- Chitral
- Kambar Shahdadkot

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### Ethiopia

**DISEASES COVERED**

**TRACHOMA**

Covering 18 districts in SNNPR and Amhara Regions with strong focus on F&E.

**Partners:** ORDA, GTM.

Funding: CBM, IADC, DFAT, NZ Aid

- North Gondor
- South Gondor
- Waghemira
- South Wollo
- Gurage
- Silt’e

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### Burundi

**DISEASES COVERED**

**ONCHO**

**STH**

**TRACHOMA**

Oncho MDA: 11 districts

TRA surveillance: 11 districts

TRA impact survey & MDA: 1 district

- Mabayi
- Cibitoke
- Bubanza
- Mpenda
- Gashombo
- Mutaho
- Kiremba
- Gasboro
- Giteranyi
- Bogarama
- Rumonge
- Matana
- Bururi
- Rutana
- Butezi
- Kinyinya
- Gitobi
- Makamba
- Butezi

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### Kenya

**DISEASES COVERED**

**TRACHOMA**

**TRA MDA:** 1 district

**Partners:** AIChM, Meru County Government.

Funding: Commonwealth/ Accelerate (Sightsavers)

- Meru

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Tackling onchocerciasis in Nigeria

An interview with Chris Ogoshi, Coordinator of HANDS

CBM started working on onchocerciasis control in 1994 at the request of the Federal Ministry of Health. An office was set up in Abuja that year, but it was 1995 when the real implementation of the programme started. The government had asked for help after it was discovered that onchocerciasis was a very big problem in the country – they were not in a position to be able to fund a control programme, so reached out to international organisations.

‘CBM was approached because of the work it was doing in eye care. We targeted four states, Kano, Jigawa, Yobe and the Federal Capital Territory. Later in 1998, Taraba state was added to the list which was one of the most endemic states in Nigeria for the disease. While CBM served as a technical partner; the programme was led by the state, but CBM helped with training, administration and the request for drugs. At that time, no drug could be sent directly to a State until it had an NGO partner who would provide accountability – CBM acted in this role and the distribution of Mectizan began.

The problem was widespread – onchocerciasis was one of the major causes of blindness in Nigeria. When we started, more than 120,000 people were already blind. Millions of people were at risk and if nothing was done, more would lose their sight.

What were the challenges with these early programmes?
The biggest challenge was the lack of government funding. In addition, there were no structures able to manage the distribution of Mectizan effectively, so it fell to the NGOs to sit down, develop a protocol and system for managing the drugs. Now we have Federal, State and LGA NTD teams, as well as the community distributors. Over this time, the government has taken full responsibility for the programme although partners remain an important support.

How was the distribution managed?
It had to be managed by the community, since it was very clear from the beginning that the programme could not afford to pay the distributors – their role was always going to be voluntary. The community's role was to select people they trusted to supervise activities. Communities became stronger – we made sure they were part of the process and were monitoring activities themselves. The role of the community has been a strong and successful one.

Did everyone in the community accept the drugs?
Initially, we had issues with certain groups of people – some thought the drugs were part of a family planning initiative and rumours were circulating that the western countries wanted to reduce the population! But as soon as the wives fell pregnant, the husbands were satisfied it was not ‘that kind of pill’. Thankfully, we have passed the stage of refusals and people are more aware. When we started, there were also cases of adverse reactions which made others afraid to take the medication, but due to community participation, people's fears were calmed.

How has the work grown?
In 1995, we treated 193,000 people but today we are treating around 10 million people. It’s a huge achievement but until we eliminate the disease, there is still a need to increase the effort.
What has the impact of the programme been?
The biggest impact for us here in Nigeria is that we no longer have new cases of blindness from this disease. The drugs have been distributed for 15 years or more in these communities so when the black flies bite, the transmission of microfilaria is much less common – and we are so happy. Taraba State was one of the worst affected areas and the local government was struggling. There were so many people blind because of onchocerciasis, it was a huge burden to the communities. I remember back in the early 1990’s one particular family where the mother and three children were all blind from onchocerciasis – this situation had rendered them completely destitute. Now, after many years of Mectizan distribution and sensitisation, there is no new blindness and the fear of contracting the disease has gone. We have also seen economic improvements and mentally, people are much happier.

What are the challenges today?
One of the states we are working in is Yobe. This shares a boundary with Borno State where Boko Haram is active. Despite occasional incursions, we have been able to keep activities going. We have had to adapt the ways that we provide treatment in communities. We work closely with the local authorities to ensure staff and community members are not put at risk. COVID-19 has also come as a thunderbolt and taken everyone by surprise. The government is taking it very seriously and with partners we have put in place the necessary guidelines for social distancing, hygiene, etc. We hope we will be able to continue activities.

How close are you to elimination of onchocerciasis?
We are making significant progress. Last year we did an evaluation in Jigawa and Yobe States which are waiting to be analysed and which we hope will show that there is little or no ongoing transmission. An evaluation will also be done in FCT this year – which will tell us if we are able to finally stop distribution of Mectizan. Hopefully, we can soon reach the very end and achieve elimination.

Nigeria comprehensive programme
The SDG aspiration to ‘leave no one behind’ is universally accepted, but how to achieve it is more complex. The Nigeria Comprehensive Programme is a pilot programme, developed by HANDS with support from CBM. Its aim is to ensure that no one is excluded from NTD treatment and that care offered in communities is ‘comprehensive’ – meaning that services cater for the whole continuum of care: including treatment for morbidity due to NTDs, including their mental health effects. While new symptoms from onchocerciasis are no longer found in Nigeria, lymphatic filariasis (LF) is widespread, and its effects (e.g. elephantiasis) are highly disabling and stigmatising. The pilot aims to ensure that using the MDA platform, community volunteers can identify and refer LF cases to Front Line Health staff who are trained to provide the necessary support, promote self-care, and refer to other providers. The participation of OPDs will help ensure that the programme is designed in such a way that ‘leaving no one behind’ has a better chance of success. While the project cannot provide all the services needed, collaboration with other government and non-government organisations can help to ensure those in need get access to appropriate services.
In March 2020, COVID-19 was declared a global pandemic and the health sector globally was faced with a difficult balance – the urgent need to prevent the spread of the virus against the need to continue providing essential health services.

In Nigeria, standard procedures for safely conducting MDA were drawn up by the Ministry of Health, CBM and implementing partner HANDS. A risk assessment was carried out at the donor’s request and it was agreed to go ahead with MDA for trachoma in the 5 remaining LGAs in Jigawa State. Given the likely long-term impact of COVID-19, the MDA was expected to serve as an important learning exercise to inform future distributions. Protection measures were put in place to avoid the introduction and spread of the virus – for example, no one from outside the target area could be involved, and distancing, wearing of masks and hand hygiene were to be observed at all times – during training and during the distribution itself.

NTDs represent a broad range of disease and conditions which are controlled through a range of strategies – individual case management, vector control, WASH and preventive chemotherapy through community and school-based MDA.

MDA, like other campaigns, involves community volunteers visiting house to house, presenting obvious risks of spreading the virus. As a result, on 1 April, the WHO recommended that mass treatment campaigns and other large-scale community-based health interventions should be put on hold.

The timing of the pandemic was such that in CBM’s NTD target countries, the 2019 MDA had been completed in all but a few districts in Nigeria and DRC. In both areas, early lockdowns and travel restrictions meant that although there was limited testing, very few COVID-19 cases had been recorded in these areas and life was continuing much as normal. The Ministries of Health were keen to complete the MDA, but the question arose as to whether it could be done safely and what precautions were required.

In May, recognising the dynamic nature of the pandemic, the WHO updated its recommendations – that countries should monitor and regularly evaluate the need for ongoing delay. Any decision to restart should be based on a risk-benefit assessment taking into account the capacity to conduct safe interventions in the context of COVID-19.

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It was also planned to train the CDDs to provide basic messages on COVID-19 during MDA that would help to counter any myths or misconceptions.
South Sudan: Milestones in the fight against River Blindness

In 2002, the first mapping of onchocerciasis (River Blindness) in South Sudan was carried out by APOC and areas with higher endemicity (meso and hyper endemic) were put under treatment with Mectizan.

CBM's involvement started in 2006, soon after the Comprehensive Peace Agreement with Sudan, when it joined a partnership with the Ministry of Health and APOC to support the distribution of Mectizan. At that time, South Sudan’s autonomy from Sudan was established and this brought about wide-reaching changes to governance and to the health system. As elsewhere, the role of the community in controlling onchocerciasis was key and CDTI was promoted as the best way to achieve the highest possible coverage with preventive chemotherapy. By sensitising the communities about the disease and its treatment, they could take ownership of the prevention measures available. Each year, communities would send one person to go to the nearest health facility and pick up the drugs needed to treat the entire community. Despite the many challenges, this practice has been incredibly successful over the years.

The march toward independence from Sudan progressed and was confirmed following the 2011 referendum – supported by over 98% of the vote. CBM continued to provide technical and financial support, and with other international partners joining, South Sudan saw its programme evolve from a single disease control programme to a multi NTD elimination programme.

In 2013, with unrest affecting much of the country, many agencies found themselves unable to continue the same level of support. In 2017, following moves toward peace, CBM was once again able to restart its support to the NTD programme, initially to provide treatment for onchocerciasis to three counties. Each year has seen a further expansion and in 2019, with increased support from END Fund, MDA for onchocerciasis and LF was carried out in 18 counties.

The peace process and the newly installed unity government is creating opportunities to reach populations living in areas that previously were not accessible. This is bringing hope that those most at risk of onchocerciasis and other NTDs will have access to treatment. Improved health conditions will have an important socio-economic impact and contribute to overall development in the country.

The work has its challenges – South Sudan is ranked 187/189 on the UN Human Development Index and its health system remains under-resourced. Weak health infrastructure and limited logistics make for difficulties in reaching the most isolated communities.

However, CBM applauds the National NTD team for its commitment and enthusiasm. Despite the difficulties, coverage surveys showed that MDA in 2019 reached the required threshold in almost all the target areas. The National NTD team also continues to take a strong lead and provides effective coordination – a weekly team meeting with all partner organisations ensures information is shared openly and widely. In addition, it has developed a COVID-safe MDA protocol to enable drug distribution to be carried out in 2020. A strategic plan for NTDs has been developed with support from ESPEN, there is active cross border coordination of treatment and research into onchocerciasis related epilepsy is ongoing.

CBM and MoH hope to expand MDA to a further 29 counties from 2020, with support from DfID ASCEND and Crown Agents. DfID’s objectives mirror CBM’s focus on health system strengthening where investment in staff will contribute to a more effective health system. This support will not only help ensure protection from NTDs but will help build capacity in the wider health system and contribute to sustainable services.

**TREATED AGAINST ONCHOCERCIASIS IN 2019:**
1,516,412 MILLION
Trachoma surgery and comprehensive eye care in Chad

CBM's four-year involvement in providing trachoma surgery in Chad ended in 2019 – we look back on a successful programme that has completed over 5,400 surgeries and contributed to progress on the elimination of trachoma in Chad.

CBM had been present in Chad for many years before starting to work with the National Blindness Programme (PNLC) in 2014. The focus of this work was on eye care around the capital Niamey and in the south, where it supported Koumra Baptist Hospital (CHBK) with trachoma surgery and other eye health work.

In 2014, the Head of the National Blindness programme, Dr Dezoumbe, approached CBM to expand its working area for trachoma trichiasis (TT) surgery in the south. At that time, the scope of CBM's work was limited, and the programme worked in isolation. In 2016, CBM joined a consortium that would pool efforts under a national plan to eliminate trachoma in the whole country. CBM and CHBK benefited from funding from Lions Club International to expand the work in an area almost the size of England.

CHBK’s eye department in Koumra – designated a Regional Hospital – is long recognised for its contribution to eye health. Initially, all the TT surgeons came from CHBK, but learning from other consortium members, the need to train government surgeons and strengthen the national health system became apparent. This has now greatly increased access to TT surgery services in the region and meant that in the hand-over or transition phase following the end of CBM’s programme, government surgeons have been available to operate on any remaining cases identified – and over 50 people have benefitted from surgery in the last months.

Deserted by her husband when her trichiasis meant she could no longer cook, Marguerite’s life returned to normal after surgery

CBM’s policy over the years has been to invest in eye health so that our partners can offer comprehensive services. Stephanie Akweyu, CBM’s NTD Coordinator, explains how this benefitted the programme in Chad: “When an outreach comes to town, everyone with an eye problem will arrive regardless of what they have. Unlike most trachoma programmes, CHBK has been able to treat people with other eye health problems and not simply say ‘sorry, you don’t have TT – so we can’t help you’. This was the great advantage of working with an established eye hospital which has benefitted from decades of investment from CBM.”

But it is personal stories that bring home the importance of the programme – lives that were on hold but have been able to start again following successful surgery. IB had to stop carpentry but has now restarted and is able to provide for his family again and Marguerite whose husband left her when she couldn’t see properly to cook.

We look forward to the day when Chad has eliminated trachoma as a public health problem and these stories need never be told again.

MORE THAN 5,400 SURGERIES COMPLETED

IB is able to continue his carpentry work and provide for his family following surgery
Treatment Data: 2019

NUMBER OF PERSONS TREATED THROUGH MDA: 31,187,529

DISEASES TREATED:
- Onchocerciasis
- Lymphatic Filariasis
- Trachoma
- Soil Transmitted Helminths
- Schistosomiasis

PERSONS RECEIVING TREATMENT/EYE SURGERY

- Onchocerciasis: 21,721,080
- Lymphatic Filariasis: 13,287,774
- Trachoma: 10,633,949
- Soil Transmitted Helminths: 6,722,305
- Schistosomiasis: 4,671,108

Onchocerciasis
- NUMBER OF PERSONS TREATED WITH IVERMECTIN: 21,721,080

Lymphatic Filariasis
- NUMBER OF PERSONS TREATED WITH IVERMECTIN/ALBENDAZOL: 13,287,774

Trachoma
- NUMBER OF PERSONS TREATED WITH AZITHROMYCIN: 10,614,217

Soil Transmitted Helminths
- NUMBER OF PERSONS TREATED WITH ALBENDAZOL: 6,722,305

Schistosomiasis
- NUMBER OF PERSONS TREATED WITH PRAZIQUANTEL: 4,671,108
- NUMBER OF EYE SURGERIES: 19,732

DISEASES TREATED:
- Trachoma surgery
- and comprehensive eye care in Chad
Burundi Trachoma Update

Trachoma was first found in Burundi in 2007 with 12 districts identified as endemic. Of these, four required MDA with Zithromax, along with F&E interventions. Impact surveys in 2018 and 2019 have now confirmed that all districts are now below the 5% threshold for TF (trachomatous follicular inflammation). MDA has stopped and all districts are under surveillance. Burundi is therefore in its last mile to being certified as having eliminated trachoma as a public health problem.

Photo: Abdallah Binai from the Ministry of Health in Burundi applies tetracycline ointment in Claudine’s inflamed eyes as her mother watches during the 2019 trachoma impact survey in Gitwa Colline.