A enumerator having his temperature checked
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1 INTRODUCTION

1.1 Message from The Director

In my 24 years as a medical doctor, and 12 years as the Director of BICO, I would like to say 2020 has been the most challenging year. It is amazing that at BICO can report successes achieved during this extraordinary year. After COVID -19 was first reported in Wuhan, China end 2019, life was usual in Malawi during the first 3 months of 2020, with Corona Virus infections only being reported in China. That meant BICO rolled out its projects, the main ones being 1) the Deworm3 project in Namwera, Mangochi– where albendazole drugs are distributed in schools and communities for hookworm treatment as part of an ongoing 6 year multi-country 6 year study; and 2) the Childhood Blindness Project in Northern Malawi, targeting to correct all children with visual problems in the region, where children with eye problems are identified by teachers, given glasses, low vision devices, medications or referred for surgery.

Both projects were on track in March, when a lot of field and research activities were conducted. Come 2nd April, Malawi recorded the first case of corona Virus infection (COVID -19) and immediately the government action started impinging on all projects. The announcement that all schools would be closed meant that we could not continue implementing both projects. From April to June, no field work was done, but after June, the World Heath Organization (WHO) came with guidelines on how to implement that neglected Tropical Diseases (NTDs) in the context of COVID -19, and since the Mangochi project was targeting one of the NTDs, work resumed in June—and the team has to catch up with 3 months of piled work.

As for the Northern Region project, schools remained closed since October, and no activity was done. The re-opening of schools in October meant the whole years planned work had to be done within 3 months, and miraculously, this was achieved.

As if this was not all, towards the end of the year, BICO was awarded a contract to assist the Ministry of Health in distributing drugs for Onchocerciasis (River blindness), another NTD, in 8 districts in southern Malawi, using community mass drug administration (MDA) with Ivermectin (the claimed drug to treat for COVID-19), and I am proud to report that this was achieved by the end of the year.

I would like to thank my BICO team for the dedication they showed, despite the challenges and risk posed by COVID -19.

Four years ago, BICO strategic plan changed, with the plan to expand our scope to cover more Neglected Tropical diseases. I am pleased to report that BICO is now the only local supporting partner that is covering all the major NTDs (Trachoma, Onchocerciasis, Lymphatic filariasis, soil Transmitted Helminths and Schistosomiasis) in Malawi, and fully supporting Ministry of Health in implementing community targeted activities for these, throughout Malawi.

BICO remains committed to support Ministry of Heath, and to work with any interested partners, to continue improved the health of many Malawian in rural Malawi, who many not even be aware that these long-neglected diseases have provable demonstrable effective interventions, and that most of these are preventable through the use of Community Mass Drug administration (MDA).
Finally as this report shows, BICO has also started attending to other infectious diseases projects, such as HIV/AIDS, as long as they target the most poorly marginalized populations.

The coming year (2021) is likely to be a challenge as well, as the entire global community has gone into the second wave of Corona virus infection. We can only hope that at some point things may return to normality, and at this point the best we can do is to leave everything in the hand of God.

I leave you with this Bible verse from Philippians 4 versus 6-7

Do not be anxious about anything, but in everything, by prayer and petition, with thanksgiving, present your requests to God. And the peace of God, which transcends all understanding, will guard your hearts and your minds in Christ Jesus. ... And the God of peace will be with you.

May you have a wonderful time as you read this report.

Professor Khumbo Kalua

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1.2 About BICO

1.2.1 Mandate

Blantyre Institute for Community Outreach (BICO) exists to champion community health projects in Malawi and the region in order to achieve extraordinary improvements in community health service delivery for the prevention and control of avoidable blindness and other neglected Tropical diseases (NTDs) in Malawi and the region.

1.2.2 Vision

‘Quality and affordable community health services for neglected Tropical diseases for everyone’

1.2.3 Mission Statement

To improve the quality of lives of people through facilitation and/or the provision of quality and affordable community services, NTD and eye care operational research, capacity building in community health and advocacy and partnership.
BICO would like to thank the following people whose generous and insightful contributions made the 2020 BICO Annual Report possible.

1. BICO Staff: Dr. Khumbo Kalua, David Chinyanya, James Simwanza, Rejoice Msiska, Wongani Lungu, Rose Wilson, Hastings Mangawah, Hendrine Nyondo, Mahebere Chirambo and Glory Marah.
2. BICO’s Board of directors for all the guidance during the year under review
3. Mr Lazarus Juziwelo (program manager for schistosomiasis and STH in the ministry of Health) for his support in the implementation of the deworm3 project.
4. Mr. Laston Sitima (Program Manager for Onchocerciasis in the Ministry of health) for his contribution in the implementation of the National Onchocerciasis control programme
5. Mangochi District Health Office and staff for all the support during the deworm3 project implementation in the year under review

Furthermore, BICO would like to thank acknowledge the financial and technical support from the following development partners:

a) London School of hygiene and Tropical Medicine for deworm3 project
b) Natural History Museum London and university of Washing for Deworm3 project
c) USAID – Child blindness project and Wilde Ganzen for the Northern region project
d) ASCEND for Onchocerciasis control programme.
e) University of Strathcylyde for Impact of COVID-19 on health centres service delivery
f) University of Sheffield for HIV Caregivers Digital Health study
g) Task Force for Global health (USA) for the FGS study.
3 ACRONYMS

AEHO  Assistant Environmental Health Officers
ASCEND  Accelerating the Sustainable Control and Elimination of Neglected Tropical Diseases
BICO  Blantyre Institute for Community Outreach
CBP  Child Blindness Project
CDD  Community Directed Distributor
CDTI  Community Directed Treatment Intervention
CE2  Census Update 2
CEO  Chief Executive Officer
COVID-19  Coronavirus Disease 2019
DEC  District Executive Committee
DEM  District Education Office
DHO  District Health Office
DHSS  Director of Health and Social Services
DOC  District Onchocerciasis Coordinator
EHO  Environmental Health Officers
EU  European Union
HCW  Health Care Workers
HSA  Health Surveillance Assistance
HI  Hearing Impairment
ICT  Information Communication Technology
ICTC  International Coalition for Trachoma Control
LD  Learning Difficulty
LSHTM  London School of Hygiene and Tropical Medicine
MASM  Medical Aid Society of Malawi
MBC  Malawi Broadcasting Corporation
MDA  Mass Drug Administration
MOH  Ministry of Health
NABMAS  National Bank of Malawi Medical Scheme
NGO  Non Governmental Organisation
NHM  Natural History Museum
NTD  Neglected Tropical Diseases
PEA  Primary Education Advisor
PPE  Personal Protective Equipment
PSAC  Pre-School Aged Children
RESMED  Reserve Bank of Malawi Medical Scheme
SAC  School Age Children
SBD  School Based Deworming
SFS  School Facility Survey
SUCOMED  Sugar Corporation of Malawi Medical Scheme
TDC  Teachers Development Centre
TF  Trachoma Follicles
TI  Trachoma inflammation
TT  Trachoma Trichiasis
UNIMED  University of Malawi Medical Scheme
USA  United States of America
USAID  United States Agency for International Development
VI  Visual Impairment
WASH  Water, Sanitation and Hygiene
WHO  World Health Organization
Student taking drugs during SBD3
4 DEWORM 3 PROJECT

Introduction

The Deworm3 project is funded by Bill and Melinda Gates Foundation through Natural History Museum and the London School for Hygiene and Tropical Medicine and implemented in Mangochi, Malawi, by Ministry of Health through BICO in collaboration with College of Medicine. It is a 5 year programme which aims at determining whether community wide mass drug administration (MDA) of Albendazole can interrupt the transmission of soil transmitted helminths (STH).

The trial includes a package of implementation science research designed to assess the feasibility and sustainability of the MDA approach to STH control through stakeholder analysis, qualitative and quantitative formative research and process mapping.

This part covers all the main activities that were done in the year 2020 in Namwera, Mangochi at the deworm3 study site in Malawi. These activities are Census update, mass drug administration phase 5 and 6, and school-based deworming.

4.1 Sensitization

In preparation for the Deworm3 activities in Mangochi, Malawi study site, sensitization activities were carried out as awareness-raising activities that targeted district administrative authorities, traditional authorities, and community members. The awareness campaign included information, educational and communication (IEC) tools in appropriate local languages through drama and public address (PA) system. This was to inform the communities of impending DeWorm3 census update (CE3) and MDA activities. Following the COVID-19 pandemic, BICO took up responsibility to raise awareness on COVID-19 throughout the study area.

4.1.1 Covid-19 Response Activities

BICO reached out to partners in Mangochi district for help in preparing for the new infectious disease; COVID-19. The district COVID-19 response team was set up, and this included the Ministry of Health (MoH), the Ministry of Education (MoE), and Non Governmental Organisations. BICO was one of the partners that joined the district COVID-19 response team and pledged support in the fight against COVID-19.

BICO worked with the district COVID-19 response team in coordinating all planned activities in the fight against COVID-19. These activities included community sensitization through vehicle mounted PA system, COVID-19 contact tracing, distribution of personal protective equipment (PPE) and training of health care workers (HCWs).
4.1.1.1 Community sensitization

BICO conducted community sensitization activities in Namwera between 27th April and 10th May 2020. The National Health Education unit shared a standard message which was played during all activities. A mobile PA system was playing a broadcasted message which focused on transmission/spread, signs and symptoms, risk groups, management and prevention of COVID-19. As the standard messages were being played through a mobile PA system, Health Surveillance Assistants (HSAs) were making comments on COVID-19. A local radio, Touch of Faith, was also used to sensitize the community. BICO also helped deliver presentations at Namwera police station with main focus being raising awareness of gender-based violence due to COVID-19.
4.1.1.2 Sensitization of health workers

The district health office was not able to train/brief all HCWs on COVID-19 due to lack of funding. Therefore, all health center staff in Namwera, who were not previously trained/briefed on COVID-19, were included in a training/briefing done by BICO.

Ground laborers, security guards, hospital/patient attendants, data clerks and HIV/AIDS counselors were all briefed using a single presentation which focused on general COVID-19 information that included history, cause, transmission/spread, signs and symptoms, management, risk groups, assessment procedures and prevention.

Medical assistants and nurses were also briefed on health center preparedness protocol, contact tracing and case management. This activity was done in conjunction with the Mangochi COVID-19 district hospital team. The briefings were conducted at various health centers. Measures to prevent the transmission of COVID-19, including social distancing and hand washing, were followed during these presentations.

Sensitization of police and immigration officers

Police and immigration officers were also briefed on COVID-19. Namwera zone is on the border with Mozambique, and the police departments in Malawi and Mozambique work hand in hand in securing the borders. Hence, it was important to provide the COVID-19 briefings for officers working in both countries. There are a lot of unchartered routes from Mozambique into Malawi through some villages in Namwera.

Some individuals migrate from South Africa to their homes in Namwera. Due to lack of coordination between village leaders and Police/immigration officers, enforcement of quarantining protocols of those returning has proved to be difficult. The briefing of police/immigration officers and TAs was conducted to ensure that quarantine protocols were adhered to and to cement the relationship that already exist between police and communities.
4.1.2 Donation of equipments

BICO also donated an infra-red thermometer worth MK120,000.00 to Namwera Health Center to help in daily COVID-19 assessment of clients attending services.

<table>
<thead>
<tr>
<th>COVID-19 Screening Questions</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you have cough or flue?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have difficulties in breathing?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Do you have fever?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you travelled to a country with COVID-19 cases in last 14 days?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Have you been in contact with a COVID-19 case?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

__IF YES – please isolate client and contact District Coordinator ASAP who will facilitate referral for diagnosis__

Figure 1: COVID-19 assessment tool
4.2 Census Update (CE3)

The purpose of this exercise was to update the existing socio-demographic database that constitutes the sampling frame for DeWorm3 activities and provide an up-to-date quantification of the population size of the DeWorm3 study site.

4.2.1 Training of enumerators

In March 2020, enumerators were trained on data collection using SurveyCTO (data collection platform that works offline) before the indefinite closure of the study site due to the COVID-19 pandemic. The questionnaire covered household roster information, housing information and asset ownership and WASH information. Depending on what data was previously collected from households, the form required enumerators to confirm existing information or add new data that was not previously recorded. A group of 65 enumerators was recruited for the activity. The training was facilitated by BICO staff at the study site in Namwera.

4.2.2 CE3 Field work

The process of CE3 was however, interrupted because indefinite closure of the Deworm3 Namwera study site from COVID-19 restrictions that were put in place by the government.

The study resumed in May 2020, after consultations with different stakeholders, to train BICO staff on COVID-19 guidelines. The training was conducted to orient staff on measures that have been put in place by BICO in the fight against COVID-19. The training included all enumerators, drivers, two community advisory board representatives who work daily with the community. The training covered general information on COVID-19 which included causes, the spread of the virus, signs and symptoms, preventive measures and national intervention strategies.
Field work of the DeWorm3 census update resumed on Tuesday 26th May 2020 under supervision of all Assistant Environmental Health Officers (AEHOs). This was to ensure that all staff from BICO, the MoH and village volunteers were following COVID-19 preventive measures. Through these individuals, the community was informed on how the census update exercise would be implemented under COVID-19 without putting their lives in danger.

During the census update, the following measures were being implemented:

- Personal Protective Equipment (PPE):
  - Two face cloth masks were being given to all staff members and they were instructed to wear them at all times to protect themselves and also those who are in contact with them.
o All enumerators were given bottles of hand sanitizer to use in the field or in the office.
- Every employee or visitor coming to BICO offices was having his/her temperature checked and was advised to wash hands on arrival.
- Every day before work each enumerator submitted a COVID-19 declaration form assessing potential COVID-19 symptoms and recording their measured temperature.
- Teams of enumerators worked in shifts to avoid congestion at the office and in vehicles. The introduction of shifts made social distancing possible since there were only a few people around the office each hour. This was easy to manage.
- There was minimal physical presence of staff in the office as only team leaders were allowed to submit queries. Phones and any forms were collected by supervisors.
- Phones were cleaned with alcohol every day before and after field work.
- Vehicles were washed and disinfected every day after field work. No vehicle was allowed to leave the BICO offices after cleaning until the next day when going to the field with staff.
- Vehicles had reduced occupancy so that the physical distancing could be followed.

4.2.3 CE3 Results

According to the Deworm3 CE3 report 25,900 households in total were censused. These included 122,826 individuals plus ~8,500 individuals previously found in the household who were found to be permanently migrated (n=4,556), moved to another household (n=3,451), or deceased (n=558).

Participation was very high in the census with no newly discovered households refusing to consent while seven previously censused households chose not to participate in this round of the census. The most common reasons households were not included in the census were, vacant household (n=2,029), household not located (n=133), household not visited (n=46), and no adult at home (n=23 households). Demographic household and individual characteristics were similar between the three censuses. One notable difference is that the number of households reporting lack access to any form of sanitation increased from 2.4% in CE1 to 8.5% in CE2 back down to 1.2% in CE3.
4.3 Mass Drug Administration Phase 5 (MDA5)

MDA5 was implemented in a different manner as compared to previous MDAs due to the Coronavirus pandemic. Enumerators, HSAs and community volunteers were orientated on COVID-19 preventative guidelines. They were given masks and hand sanitizers when going to the communities to distribute drugs.

HSAs delivered treatment door-to-door under the supervision of a BICO enumerator, who recorded treatment at individual level using a SurveyCTO form ‘MDA Treatment Log’ and was responsible for transporting the study drug between the office and community every day.

Since MDA5 started soon after CE3 exercise, challenges arising from migration were insignificant and that led to the teams covering almost all targeted households. Where households were hard to trace, a map marking their site would then be presented to enumerators to track them down.

According to the Deworm3 MDA5 report, in total, we achieved 92.3% coverage per-protocol (91.8%) with a cluster range of 88.0% to 96.3%. Excluding individuals marked as migrated during the census in five clusters (it was discovered these individuals were not on the treatment list partway through), coverage increased to 92.7%. Coverage was highest among PSAC and SAC (94.8% and 95.1% respectively, compared to 90.0% in adults). Among those 629 eligible individuals who were marked as migrated during the census and added to the treatment list, half were treated during MDA4 (50.1%). Similar coverage (50.9%) was observed among individuals who reported living away from the household more than six months in the previous year during the census.
In the coverage survey, 93.7% of individuals 2+ year old in MDA clusters reported receiving a tablet and 92.9% reported swallowing a tablet. Among those who received a tablet, the 40.2% were aware of the MDA program. In the control arm 1.1% of sampled and visited participants reported receiving and swallowing a tablet most of whom came from cluster 2 (19.8% coverage).

4.4 **School Facility Survey (SFS3)**

Following school closures due to COVID-19 pandemic, Deworm3 study aimed to inform a better understanding the implementation of COVID-19 control measures in primary schools, and the short and long term effects of school closure, by leveraging two planned activities due to be conducted in school-facility survey 3 and community coverage 6. Specifically, the project had the following objectives; 1. Assess the implementation of COVID-19 control measures by schools, 2. Describe the short-term effects of school closures on previously school-age children, 3. Explore the long-term impact of school closures on educational participation.

The first objective was addressed through a short series of questions aligned to national guidelines and building on data tool that was developed and delivered within the School Facility Survey 3. These questions focused on the feasibility, implementation, and sustainability of key COVID-19 preventive measures (e.g. physical distancing, disease monitoring), and how these have impacted on the delivery of teaching.

The second objective was addressed through a module delivered to a random sample of school-going children as part of household surveys conducted during the Community Coverage 6 survey. This comprised a short questionnaire to assess the effects of school closure on children in terms of (i) education (e.g. participation in distance learning), (ii) health (e.g. access to ‘take home’ school-feeding rations) and (iii) child protection (e.g. participation in child labour).

The third objective was addressed using data collected during previous School Facility Surveys on reported enrolment and observed attendance. A sample of classes in all schools was used to explore whether school closure has impacted on expected trends in educational participation.

The annual school survey was conducted in all 58 schools located in the 40 trial clusters (both intervention and control clusters). The aim of the survey was to geo-position all schools located in the trial clusters and to assess the status of water, sanitation and hygiene (WASH) facilities in schools.

About 65 enumerators were recruited and trained on how to collect data using SurveyCTO. They were also trained on COVID-19 preventive measures.

According to the SFS3 report, since SFS2, the number of schools with toilet access increased (from 98.3% to 100%), the number with cement floors increased (from 84.7% to 98.4%), and access to internet and computer resources remained largely unchanged. In total there were 57,111 students enrolled in 61 schools (up from 52,773 in 59 schools last year).

4.5 **School Based Deworming (SBD3)**

School based deworming aimed at distribution of Albendazole and Praziquantel to all pre-SAC and SAC aged 2-14 years / 1-19 years / 5-14 years whether enrolled in school or not.
Schools were closed in March 2020 due to coronavirus, and reopened on the 12th October 2020. Selected prevention measures were encouraged during SBD in schools to reduce potential spread of coronavirus. The measures included; hand washing with soap before administering treatment, use of disposable spoons, physical distancing of children when queueing for treatment, conducting treatment outdoors, and distanced height measuring of children.

SBD3 was implemented as per the routine programme, in which of all enrolled and present children are treated at primary schools for three days, followed by any absent or non-enrolled SAC treated in a community ‘mop-up’ for two days. Treatment was administered at each school by the link HSA, with administrative support from two school teachers and the headteacher. Treatment at both school and community mop-up was observed by a BICO officer using a paper checklist, and who was also responsible for transporting the study drugs between the office and school on each day.

The major challenge to SBD is the dependence on a single HSA to administer treatment to a relatively large number of children. While the study team suspects that in truly routine practice drugs are also administered by teachers or volunteers, this is not policy and was therefore not permitted during SBD3.
Another major challenge to SBD is the inclusion of Praziquantel. In addition to the negative perception of Praziquantel relative to the study drug (Albendazole), the scarcity of school feeding programmes and recommendation to have taken a heavy meal before treatment resulted in HSAs only being willing to treat up to mid-morning, reducing the number of children who could be treated per day.

The study team endeavoured to implement the intervention with high fidelity, which included extensive training and sensitisation with teachers, additional administrative support during SBD via the BICO officer, and (in the case of primary schools with enrolment ~2000) supported additional days of HSA work, to ensure that treatment coverage was as high as could reasonably be achieved during routine implementation.

During the community-based SBD mop-up, study officers also accompanied every HSA to ensure that treatment was administered only to school-age children. Observations from this were captured in the SurveyCTO form ‘Malawi SBD3 Treatment Log’.

The interruption of the school term due to COVID-19 had an impact on the number of children attending school as well, with many headteachers reporting a large number of absent students.
4.6  Mass Drug Administration Phase 6 (MDA6)

MDA6 targeted the 20 clusters in the intervention arm of the study. Training was done with 65 enumerators as they were already conversant with mass drug administration protocols and COVID-19 preventive measures.

Sensitization was done at all levels i.e. from national to village level by the BICO staff and the CAB members.

Due to increased familiarity by both HSAs, enumerator and study communities following the previous round of MDA5, MDA6 was implemented with minimal challenges.

According to MDA6 report, in total, we achieved 89.2% per-protocol coverage (87.3% DOT) with a cluster range of 79.0% to 94.8%. Excluding individuals marked as migrated during the census, coverage increased to 90.7%. Coverage was highest among PSAC and SAC (92.8% and 93.1% respectively), compared to 86.0% in adults and women had higher coverage than men (91.5% compared to 86.6%). Among those 2,537 eligible individuals who were marked as migrated during the census and added to the treatment list, half were treated during MDA6 (51.9%). Similar coverage (50.6%) was observed among individuals who reported living away from the household more than six months in the previous year during the census.
In the coverage survey, 96.9% of individuals 2+ year old in MDA clusters reported receiving a tablet and 96.6% reported swallowing a tablet. In control clusters, 38.2% of children 2-19 years of age reported receiving and swallowing a tablet. Among those who received a tablet in intervention clusters, 56.9% were aware of the MDA program.
5 NATIONAL ONCHOCERCIASIS CONTROL PROGRAM

Introduction

BICO in collaboration with the Ministry of Health and financial support from ASCEND has implemented the National Onchocerciasis Control Program in 2020. This program aims at eliminating Onchocerciasis as a public health disease by the year 2030.

This covers all the major activities that have been undertaken under the Malawi National Onchocerciasis Control Program in 2020.

5.1 Background

Onchocerciasis is one of the Neglected Tropical Diseases (NTDs) which is vector-borne and transmitted by blackflies. It is caused by parasitic worms called Onchocerca volvulus transmitted from an infected person to another through bites when sucking blood. These worms cannot be treated but can be control before effects become worse. Onchocerciasis is also called river blindness, it can lead to irreversible changes of the skin for example development of leopard or lizard skin and skin nodules.

5.1.1 Diagnosis

Onchocerciasis can be diagnosed through a variety of means including; Conducting a serological Ov16 test as conducted in the year 2000 in children under 10 years; Conducting skin snip or biopsy; Performing a 1-0-150 PCR pool screening test on blackflies to check the infectivity rate in them; Removing and examining nodules and checking the presence of adult worms; and some prevalence surveys have also been used to check the extent of the disease in communities.

Picture 12: Skin nodules (L) and leopard skin (R)
5.1.2 Control of the Onchocerciasis disease

There are 2 possible ways of controlling the spread of Onchocerciasis as a public health concern which are:

- Vector control by spraying breeding sites of blackflies with insecticides
- Mass drug administration with Ivermectin

5.2 Mass Drug Administration with Ivermectin

In Malawi, the MDA approach has been adopted targeting the 8 endemic districts which are Blantyre, Mulanje, Thyolo, Chiradzulu, Phalombe, Mwanza, Neno and Chikwawa. Since Ivermectin does not cure but controls by killing larvae, there is a need for repeated treatment to correspond with lifespan of the worms in the body.

In the implementation of the program, a lot of activities were carried out which included sensitization meetings, data collection review meeting, trainings, supervisions, and data consolidation activities.

5.3 Sensitization

Sensitization activities were held in advance to inform key stakeholders and community leaders on upcoming events in the onchocerciasis control program.

5.3.1 District level sensitization

A team of BICO officers led by the Programs Manager, Mr. David Chinyanya, conducted a series of meetings with District directors of health and social services (DHSS), District onchocerciasis coordinators, Pharmacists as well as Environmental health officers (EHOs). The aim of these meetings was to introduce BICO to the districts and the roles it will be playing in the onchocerciasis control program. Meetings were done in all districts where onchocerciasis activities were to be conducted.

5.3.2 Community level sensitization

Sensitization meetings were held with ADC at strategic venues. The leaders included Traditional Authorities, Councilors, Chiefs, Religious leaders and members of developmental committees. The main messages at these meetings were the census being conducted by Community directed drugs (CDDs) as well as door to door MDA to follow. Leaders were advised on their roles in the program. Village criers were also involved during MDA.

5.3.3 Mass media awareness

Jingles placed in various local radio stations were used as a means of disseminating information. Some of the radio stations were; Times, Mzati, Malawi Broadcasting Corporation, Nyathepa. The choice to use the national radios like MBC was to ensure wide coverage of the message and national appeal of the programme.

5.4 Data Management

5.4.1 Review Data Collection Tools

Since the start of the program, no major review to the data collection tools was done resulting in using archaic content. In view of this, a meeting was held in Mulanje to review the content and a final documentation was adopted by the program to be used from 2020 onwards.
5.4.2 Training

BICO was entrusted with the role to support capacity building of health workers in census and administration of MDA Onchocerciasis drug. Trainings were held in a cascade manner with the following cadres; National trainer of trainers, District supervisors, HSAs, Pharmacy assistants and health centre in-charges and CDDs. The table below shows the number of people per district by sex.

Table 1: Number of people trained in census and drug administration per cadre

<table>
<thead>
<tr>
<th>District</th>
<th>Cadres</th>
<th>No of Health facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>District Supervisors</td>
<td>P.A &amp; In-Charges</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Blantyre</td>
<td>37</td>
<td>56</td>
</tr>
<tr>
<td>Mulanje</td>
<td>29</td>
<td>32</td>
</tr>
<tr>
<td>Thyolo</td>
<td>37</td>
<td>62</td>
</tr>
<tr>
<td>Chiradzulu</td>
<td>15</td>
<td>14</td>
</tr>
<tr>
<td>Phalombe</td>
<td>23</td>
<td>9</td>
</tr>
<tr>
<td>Mwanza</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>Neno</td>
<td>26</td>
<td>34</td>
</tr>
<tr>
<td>Chikwawa</td>
<td>18</td>
<td>20</td>
</tr>
<tr>
<td>TOTAL</td>
<td>201</td>
<td>236</td>
</tr>
</tbody>
</table>

Targeted content was used in all trainings to match with the roles expected of all trainees. The materials included information on Onchocerciasis as a disease, the Community Directed Treatment with Ivermectin (CDTI) concept, data collection tools and treatment coverage target as well as sustainability of the program.

CDDs were supplied with stationery materials including Family treatment registers which will be used for recording census and treatment data from 2020 onwards and were taught on the usage of the same. The registers were a step up from the previous, less durable, notebooks being used.
5.4.3 Supervision

Supervision activities were planned at all points of program implementation to make sure all activities are being performed according to the Onchocerciasis control program protocol. All other cadres were tasked with supervising CDDs to make sure census data is being collected and correctly recorded in the registers. Community visits were made across all Onchocerciasis endemic districts throughout the program. This was extended to MDA to ensure the treatment protocol was being followed and also no one is left behind in this years’ program. CDDs were also motivated by the visits.
5.5 Data Consolidation

5.5.1 Census data consolidation

BICO officers and national supervisors embarked on an exercise to consolidate all Onchocerciasis census data in all districts. This exercise was done immediately after CDDs had registered all families in the communities. The table below shows a summarized census data collected.

Table 2: Population data

<table>
<thead>
<tr>
<th>Districts</th>
<th>No of Households</th>
<th>Under 5</th>
<th>Total population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
<td>total</td>
</tr>
<tr>
<td>Blantyre</td>
<td>110794</td>
<td>31714</td>
<td>35641</td>
</tr>
<tr>
<td>Mulanje</td>
<td>132336</td>
<td>33577</td>
<td>36340</td>
</tr>
<tr>
<td>Thyolo</td>
<td>179357</td>
<td>48633</td>
<td>51443</td>
</tr>
<tr>
<td>Phalombe</td>
<td>10864</td>
<td>3032</td>
<td>3382</td>
</tr>
<tr>
<td>Chikwawa</td>
<td>25089</td>
<td>8752</td>
<td>7629</td>
</tr>
<tr>
<td>Chiradzulu</td>
<td>15537</td>
<td>1449</td>
<td>4817</td>
</tr>
<tr>
<td>Mwanza</td>
<td>75028</td>
<td>9225</td>
<td>9763</td>
</tr>
<tr>
<td>Neno</td>
<td>36985</td>
<td>11285</td>
<td>13124</td>
</tr>
<tr>
<td>TOTAL</td>
<td>585990</td>
<td>150367</td>
<td>162139</td>
</tr>
</tbody>
</table>

5.5.2 MDA treatment data consolidation

After the completion of Ivermectin treatment, an exercise to collect consolidated MDA data from health facilities was instituted. Teams comprising of BICO and MOH officers were sent into the 8 districts to visit each facility. At the end of the exercise, the data was aggregated to represent district level and national level.
Table 3: Consolidated treatment data at district level

<table>
<thead>
<tr>
<th>District</th>
<th>Treated population</th>
<th>Treatment Coverage(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Males</td>
<td>Females</td>
</tr>
<tr>
<td>Blantyre</td>
<td>197289</td>
<td>212369</td>
</tr>
<tr>
<td>Mulanje</td>
<td>208273</td>
<td>232990</td>
</tr>
<tr>
<td>Thyolo</td>
<td>304363</td>
<td>346403</td>
</tr>
<tr>
<td>Phalombe</td>
<td>19485</td>
<td>22498</td>
</tr>
<tr>
<td>Chikwawa</td>
<td>48720</td>
<td>49248</td>
</tr>
<tr>
<td>Chiradzulu</td>
<td>26561</td>
<td>30860</td>
</tr>
<tr>
<td>Mwanza</td>
<td>54130</td>
<td>58637</td>
</tr>
<tr>
<td>Neno</td>
<td>65783</td>
<td>73646</td>
</tr>
<tr>
<td>TOTAL</td>
<td>924604</td>
<td>1026651</td>
</tr>
</tbody>
</table>

5.6 MDA in Time of Covid-19

Considering the programme is being implemented in the middle of the Covid-19 pandemic, there was a need to be in line with the set National preventive measures. As such, physical distance of 1 meter was stressed during all gatherings. A handwashing station was also set at entry points to venues where meetings were happening. Considering the huge number of CDDs to be trained, the number of sites was increased so as to have less number of CDDs assembling at a venue. Disposable masks were used during all trainings excerpt during CDDs meeting where washable face masks were distributed. During MDA, a door to door approach was employed to avoid people assembling at one central point where it would be difficult to follow Covid-19 preventive measures.

Picture 15: Participants wearing face masks during Blantyre supervisors’ training
5.7 Drug Supply

The Ivermectin drug used in the program is freely supplied by Merk Sharp Dohme to the Ministry of Health. Drug orders are made based on the total population of the district as in;

Total drugs required = total population X 2.5

During the MDA, about 5,768,261 tablets were received by the districts with a total of 5,062,235 being distributed. Drug collection from health facilities is yet to be conducted from where the total number of tablets remaining will be known.

5.8 Results

From the data collected from all districts the following results were obtained;

- Of the targeted 28,000 CDDs for training, 23,822 were trained representing an 85% coverage
- A total of 2,343,148 individuals were censured this year with 13% being children. Of these, 1,232,901 were females representing 52% of the total population.
- During MDA, 1,951,255 individuals were treated with Ivermectin representing an 83% treatment coverage in this year’s programme

5.9 Observation

Throughout the implementation of the Onchocerciasis control program in all the districts, it was observed that the distribution of registers motivated the CDDs and will also ensure safety of Onchocerciasis data. Secondly, the involvement of key stakeholders in the program was fundamental to the smooth operation of activities as it brought a sense of ownership. Moreover, the level of commitment to achieve a task shown by BICO and MOH officers was exceptional. Lastly, more people have been treated with Ivermectin unlike in the previous years as evidenced by the treatment coverage attained this year.

5.10 Challenges

The program had its fair share of challenges. Some of the challenges are;

- Lack of baseline data on the number of CDDs in a district affected the financial aspect of the program. In most districts, the number of CDDs found in sites was different to that provided at district level
- Delayed funding affected the smooth operation of the programme as other planned activities were either not done in time or according to the plan.
- Lack of supportive supervision on CDDs led to errors in data collected.
- Insufficient information on Onchocerciasis by villagers led to refusal.
5.11 Recommendations

- Districts to provide actual number of CDDs for planning purposes.
- The program and IP to ensure smooth flow of funds in upcoming activities.
- There is a need for extended supervision when CDDs are executing their roles in the communities to make sure high quality data is collected.
- There is a need to have a radio and Television program where people can fully learn what Onchocerciasis disease is and how important it is to take Ivermectin.

5.12 Conclusion

The National Onchocerciasis control program this year has been successfully implemented with the interventions BICO has brought.
6 IMPACT OF COVID-19 ON HEALTH SERVICES DELIVERY STUDY

6.1 Background

The Impact of COVID-19 on health services delivery Project was funded by the University of Strathclyde in Collaboration with WASHTED and BICO as a sub-contractor, implemented in 31 Health Centers in Blantyre District. It was a three-month program which aimed at determining how health service delivery in Malawi are being conducted during the COVID-19 Pandemic. In Malawi, the community health centers are strategically placed throughout districts to offer primary and maternal health services. These facilities are limited in both infrastructure and capacity, but are the most accessible for the majority of the population seeking health care services. As such they are key in providing both continuing health services, and the first line of defense against COVID-19.

To follow up results on how prepared the 31 health facilities in Blantyre were for COVID-19 and how the pandemic affected service delivery, visits were made between August and October for assessments.

6.2 Study Assessments

6.2.1 Material checklist

During the 1st and 2nd visits to the facilities, a stock record of materials to help in controlling the spread of Covid-19 at health facilities was done. The following table shows the results out of 31 health facilities under study.

<table>
<thead>
<tr>
<th>Stock Name</th>
<th>1st Visit Availability</th>
<th>2nd Visit Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soap</td>
<td>21</td>
<td>26</td>
</tr>
<tr>
<td>Hand Sanitizer</td>
<td>19</td>
<td>22</td>
</tr>
<tr>
<td>Hand washing Buckets</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>Maternity Aprons</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Plastic Aprons</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>Face Shields</td>
<td>26</td>
<td>25</td>
</tr>
<tr>
<td>Gloves</td>
<td>31</td>
<td>30</td>
</tr>
<tr>
<td>Face Masks</td>
<td>31</td>
<td>29</td>
</tr>
<tr>
<td>Gumboots</td>
<td>23</td>
<td></td>
</tr>
</tbody>
</table>

6.2.2 Observations

- Some health care workers, nurses and auxiliary staff in some facilities were found not putting on face masks even when they were available in stock.
- Four facilities out of 31 had no handwashing facilities.
- Maximum number of hand washing facility per health center was 4 with a minimum of 1.
• Out of 31 health facilities, 20 facilities had a hand washing facility stationed at the Out Patient Department (OPD) and 10 facilities stationed the hand washing facilities at the entrance/gate. No facility had a hand washing facility stationed near or at the toilet.
• Very few health facilities had set up isolation rooms

6.2.3 COVID-19 Information Education and Communication

As part of health talks, Covid-19 information formed part of the message being delivered at health centers. The COVID-19 health talks were to be delivered at least once in a day in the morning before they start providing health services. The health talks provided covered topics on physical distancing, handwashing, signs and symptoms, general COVID-19 information, wearing masks and vulnerable population. It was discovered that all 31 health facilities were providing COVID-19 health talks and had posters on Covid-19.

Despite physical distance being stressed in the facilities, very few individuals were adhering to it at various service spots. Masks and other waste at facilities were being thrown into a pit or bin then burned outside.

6.2.4 Case Identification

Health facilities were trained on how to identify a suspected Covid-19 case by checking body temperature. Out of the 31 Health Facilities only 8 had and were using thermometers, in which only Limbe Health Facility was conducting temperature check at the entry point while the rest was in consultation room.

6.2.5 Case Management.

Nineteen health facilities out of 31 indicated that they had received at least one suspected COVID-19 case. Of these, thirteen facilities indicated that they isolated the cases and called COVID-19 team at DHO after giving the suspect a face mask.

6.2.6 Use of personal protective equipment

As wearing of masks reduces the spread and acquisition of Covid-19, wearing of face masks was assessed among health care workers, nurses, auxiliary staff, patients, guardians, and visitors. As earlier mentioned, most were not putting on masks. Patients, guardians, and visitors without masks were denied access to health facility services.

6.2.7 Delivery of services

The study also assessed if healthy service delivery has been affected by Covid-19 pandemic. The services assessed include:

• OPD
• Maternal and Family Planning Services
• STI services
• Tuberculosis
• Community Health Activities
• Inpatients
• Post abortion care services
• ART, HIV/AIDS Testing and Counselling services
• Cancer screening
Most affected service is cancer screening which has been suspended in 19 Health Facilities.

We assessed if health service delivery has been affected by COVID-19 pandemic. Most affected service is cancer screening which has been suspended in 19 health facilities. The most affected health center is Makhetha which has suspended seven health services because of COVID-19 pandemic.

6.3 Challenges

- Lack of IEC materials at facility level
- Insufficient stock e.g., soap, sanitizer
- Lack of supervision at health facility level from DHO
- Non-response to suspected Covid-19 cases found at the Health Facilities by the responsible officers from DHO

6.4 Recommendation

- DHSS should encourage temperature check on arrival by ensuring that all health facilities have infrared thermometers or digital thermometers with the ability to disinfect between clients.
- DHSS should ensure that all facilities and supplied with Covid-19 leaflets written in local language e.g. Chichewa. These leaflets should be given to patients and clients who visit the facility to increase awareness on COVID-19 pandemic.
- DHSS should make frequent visitations to the Health Facilities to check if Covid-19 measures are being followed.
7 CHILD BLINDNESS PROGRAM (CBP)

7.1 Introduction

The Child Blindness Program is a school-based project being implemented in the northern region of Malawi with support from the American people through the United States Agency for International Development (USAID). Its focus is in helping school-going children with any eye related help they may need such as medication, eye glasses, surgeries and counselling. The year 2020 was another busy year as BICO was determined to achieve its targeted milestones and performance indicators. Below are some of the activities that have been implemented;

7.2 School eye screenings

BICO has been screening learners both in schools and resource centers in Chitipa, Karonga, Rumphi, Nkhatabay, and Mzimba districts. From 9th to 17 March 2020, BICO embarked on a major eye screening in different schools in the north where 1138 learners were screened from 96 schools. This was done by identifying a zone where all other learners from nearby schools would come to be screened under the guidance of their school teachers. These teachers were earlier trained on how to identify learners with visual impairment and were given resources for doing preliminary screening. They were advised to make a list of all learners identified so that the BICO team can screen them later with the help of eye health officers from district hospitals. All learners with low vision go through a low vision assessment by Low Vision Therapists who recommend the right magnifying device to use with their prescribed spectacles.

Since the onset of the programme in October 2019, BICO has managed to screen a total of 2229 learners. Of these 1111 are male and 1118 are female. This has been achieved through eye screenings in schools and resource centers including the BICO resource center established at Mzuzu Central hospital. A total of 406 learners have benefited with eye glasses and some with low vision with magnifying devices.
7.3 Teacher Trainings on Visual Impairment

From 5th to 9th October 2020, BICO managed to train 80 teachers from Chitipa, Karonga, Rumphi, Nkhatabay and Mzimba. The aim of the training was to impart knowledge and skills to teachers on how to identify learners with visual problems in various schools in the northern region and make proper referrals to district or central hospitals. In addition to inclusive and regular teachers, the following cadres of specialist teachers were trained; Visual Impairment (VI), hearing impairment (HI), Learning Difficulties (LD), Deaf and Blind.

Table 5: Summary of Teachers Trained by Cadre

<table>
<thead>
<tr>
<th></th>
<th>VI</th>
<th>HI</th>
<th>LD</th>
<th>Deaf and Blind</th>
<th>Inclusive</th>
<th>Regular</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mzimba North</td>
<td>3</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>6</td>
<td>4</td>
<td>18</td>
</tr>
<tr>
<td>Nkhatabay</td>
<td>0</td>
<td>1</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Mzimba South</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Karonga</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>Chitipa</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Rumphi</td>
<td>2</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL</td>
<td><strong>9</strong></td>
<td><strong>8</strong></td>
<td><strong>21</strong></td>
<td><strong>3</strong></td>
<td><strong>10</strong></td>
<td><strong>29</strong></td>
<td><strong>80</strong></td>
</tr>
</tbody>
</table>

To follow COVID-19 preventive measures, the team of 80 was divided into 2. One set of 40 teachers from Mzimba and Nkhatabay were trained in Mzuzu. The other set of 40 from Rumphi, Chitipa and Karonga was trained in Karonga.

Picture 17: Some of the teachers that were trained in Mzuzu
7.4 Surgeries

BICO organized a pediatric camp for children aged 0 to 16 years at Mzuzu Central Hospital who were diagnosed with cataract and squint. The exercise, which was headed by a pediatric surgeon, Dr Chatonda Manda, based in Namibia was done from 23rd to 27th November 2020. All parents/guardians and leaners were advised to start camping at Mzuzu Central Hospital from 16th November in preparation for the camp. These children are leaners who were identified during school eye screenings, those that visited the Mzuzu Central Hospital/Resource Center from the time the project was launched and others who were referred through district hospitals. The surgery team comprised of BICO team, Mzuzu Central Hospital (MZCH) team, Queen Elizabeth Central Hospital (QECH) team and Dr Manda (Pediatric Surgeon). This was a team of Ophthalmologists, Nurses, Anesthetists, Optometrists, Patient attendants, Health Diagnostic Assistance, Lab Technicians, and the Project Coordinator.

In total, 30 children were operated on; 20 males and 10 females. The table below summarizes the conditions seen:

Table 6: Summary of surgeries that were carried out on different conditions

<table>
<thead>
<tr>
<th>CONDITION</th>
<th>MALE</th>
<th>FEMALE</th>
<th>TOTAL</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cataract</td>
<td>15</td>
<td>7</td>
<td>22</td>
<td>8 had bilateral cataracts, all eyes were operated on</td>
</tr>
<tr>
<td>Squint</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Corneal Perforation</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td>1 suture removed, 2 wash outs &amp; 1 Corneal Repair</td>
</tr>
<tr>
<td>EUA</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>To confirm the diagnosis</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>20</strong></td>
<td><strong>10</strong></td>
<td><strong>30</strong></td>
<td></td>
</tr>
</tbody>
</table>

Other conditions were referred to Queen Elizabeth Central Hospital for further management.
Picture 18: Part of the surgical team in theatre

Before

After

Picture 19: A happy client after being freed from the blinding condition
8 HIV/AIDS CAREGIVERS SUPPORT GROUPS DIGITAL HEALTH PROJECT

8.1 Introduction

BICO is working with University of Sheffield in UK and Namwera Aids Coordinating Committee (NACC) a local NGO in the area. This is a community digital health program. We send health messages to 5 selected HIV Caregivers Support in TA Jalasi, Namwera, Mangochi using recorded voices. The program addresses health messages gap in HIV caregiver groups especially now when COVID-19 is a global problem and people with comorbidities are at a high risk than those who have not. In the long run we would develop an application that would be generally used.

8.2 Briefings

BICO in conjunction with Namwera AIDS commission (NACC) conducted briefings with HIV/AIDS support group representatives from 5 groups under TA Jalasi. These briefings were aimed at informing representatives on digital health to improve quality of life and to discuss the possibilities and challenges of the idea. This included the concept of sending messages via WhatsApp to support groups and getting feedback through it.

8.3 Monthly Audio Messages

These were to be recorded on a monthly basis. Two enumerators were involved in the development of the official recorded messages on HIV/AIDS. The final recorded message was then sent to selected support groups in the area.
8.4 **Community Awareness**

Meetings were held at two ADCs which are Malombola and Jalasi. This was done to brief community representatives on the project that is being implemented in their community. The meetings comprised of TA Jalasi, Ward Counsellors and ADC members.

As one of the comments, members wanted to know how 5 support groups were selected for pilot exercise which was done randomly.

![Picture 21: Malombola Area Development Committee Briefing](image)

8.5 **Resources**

8.5.1 **Mini-Speakers**

Mini-speakers were delivered to all selected groups to amplify sound of phones which would be used during meetings when listening to the audio health messages. It was agreed that these will be kept by treasurers of the support groups.

![Picture 22: Community Advisory Board Chairman handing over mini-speakers at Somba and Chingwenya, in Mangochi](image)

8.6 **Lessons and Recommendations**

Some of the lessons learnt and recommendations are;

- This is a great opportunity to reach out with health messages to low literacy levels communities which could be developed into a national wide program.
- There is also a need of collaborating with local organizations like NACC in these assignments for good working relationships and sustainability of activities.
9 FEMALE GENITAL SCHISTOSOMIASIS ACCESS TO CARE

9.1 Introduction

BICO Malawi received funding from Foreign, Commonwealth, and Development Office (FCDO) in conjunction with Zambart in Zambia and Catholic University of Health and Allied Sciences in Tanzania to conduct an assessment of the challenges women face when accessing female genital schistosomiasis health care services. The project started and is going to close in September 2021.

Background

Schistosomiasis is a trematode infectious disease affecting millions of individuals in the world, it is second to malaria [MacManus 2018]. Sub-Saharan Africa bears 85% of schistosomiasis global burden with intestinal and urogenital as the common forms [WHO Epidemiology Factsheet, 2018].

Human schistosomiasis is transmitted by skin contact with infested waters [WHO FGD Atlas, 2015]. FGS is associated with infertility, dyspareunia and symptoms mimicking sexually transmitted infections (STIs). It is a risk factor for HIV transmission (Downs et al, 2011, Kjetland et al, 2006, Wall et al, 2019), and is associated with human papillomavirus (HPV) and cervical cancer (Rafferty et al., in preparation).

9.1.1 Problem

Schistosomiasis is regarded as disease of the poor. Mwai et al (2016) in Mwea Kirinyaga county in Kenya found a significant association with an increase in schistosomiasis infections; handwashing after visiting toilet (p=0.001); Households affected by floods during rainy season (p=0.001); visiting rice fields (p=0.037) and sources of water in a household (p=0.047).

Schistosomiasis is male gendered disease. Kukula et al (2019) did a study around communities along Lake Volta in Ghana; schistosomiasis as a disease of boys and girls would get it through sexual intercourse; if a girl identifies blood stains in her urine, that will be associated with her menstruation or STIs than FGS.

There is limited health care workers capacity to tackle the problem. Most of the times health care workers would misdiagnose FGS condition. MGS is poorly reported, much understudied and often misunderstood [Kayuni et al (2019)].

9.1.2 Objective

To collect qualitative baseline data to inform the design of community-based teaching intervention that will include community-based teaching methodology for and with girls, women and health workers that focuses on FGS, cervical cancer, HPV, HIV and STI prevention and anti-stigma education by the end of 10 months.
Specific Objectives

- to understand women contact with water sources, household sanitation options and practices in Koche catchment area.
- to learn popular knowledge and history of schistosomiasis, stigma linked to symptoms and transmission assumptions in Koche catchment area and among health care workers.
- to understand women among health care workers screening, diagnosis and care at Koche health facility.

9.2 Methodology

The assessment will employ qualitative research methods to collect the data and inform the community based teaching platform; these are observations and interviews. We will interview key informant using in-depth interview data collection tools and community members using Focus Group Discussion guides.

We are going to have 5 FGDs, 10 Key informant and make 8 days observations. This will be done in 2 months at Koche health centre catchment area.

9.3 Work Plan

Table 7: Work plan

<table>
<thead>
<tr>
<th>No.</th>
<th>Initial Period</th>
<th>Adjusted Period</th>
<th>Planned Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Nov-Dec 2020</td>
<td>Feb-Mar 2021</td>
<td>Qualitative Research Work</td>
</tr>
<tr>
<td>2</td>
<td>Jan-Feb 2021</td>
<td>Apr-May 2021</td>
<td>Entry and Analysis</td>
</tr>
<tr>
<td>3</td>
<td>Mar-Apr 2021</td>
<td>June-July 2021</td>
<td>Intervention Training</td>
</tr>
<tr>
<td>4</td>
<td>May-June 2021</td>
<td>Aug-Sept 2021</td>
<td>2 Months Intervention</td>
</tr>
</tbody>
</table>

Note: The adjusted time period is the ideal situation ceteris paribus.
10 BICO EYE CLINICS AND OPTICAL CENTRES

BICO has well established optical centres and eye clinics in various districts around the country as part of its mission of strengthening eye care services in Malawi.

10.1 Services Offered

In all BICO Clinics, the following services are on offer;

- Free computerised eye test
- Expert advice on frame and lenses to meet your specific needs
- A wide range of latest frames e.g. Ray ban, Gucci, Tom ford, Lacoste etc.
- A variety of lenses: PGXT, S.S.MAR, Bifocal and progressive etc.
- Sunglasses
- Repair of metal and plastic frames

All Frames and lenses are offered at subsidized costs in all BICO clinics and Optical centres.

Many school going children get free glasses if their parents cannot afford a contribution. Funds received from paying clients are used to subsidise or completely pay for clients who can not afford to pay. The motto is “get from those who can afford and help those who cannot.”

Picture 23: An eye specialist examining a client at Blantyre BICO clinic

Picture 24: Some of the designer frames at BICO optical centres
10.2 **Price Range**

BICO accepts cash and medical scheme payment on products on sale. One can access Sunglasses and Reading glasses with as low as MK 5,000. Our low range and medium range frames are sold starting from MK30,000 and MK40,000 respectively while Designer frames can be bought from MK 60,000 above. The following table shows the schemes that can be used in all clinics.

10.3 **Medical Schemes**

Table 8: Medical Schemes accepted at BICO clinics

<table>
<thead>
<tr>
<th>No.</th>
<th>SCHEME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Medical Aid Society of Malawi (MASM)</td>
</tr>
<tr>
<td>2</td>
<td>Liberty Healthy</td>
</tr>
<tr>
<td>3</td>
<td>National Bank of Malawi Medical Aid Scheme (NABMAS)</td>
</tr>
<tr>
<td>4</td>
<td>University of Malawi Medical Scheme (UNIMED)</td>
</tr>
<tr>
<td>5</td>
<td>MEDHEALTH</td>
</tr>
<tr>
<td>6</td>
<td>HORIZON HEALTH</td>
</tr>
<tr>
<td>7</td>
<td>Electricity Supply Corporation of Malawi (ESCOM)</td>
</tr>
<tr>
<td>8</td>
<td>Central Health Medical Aid (CHMAID)</td>
</tr>
<tr>
<td>9</td>
<td>Wella Medical Aid Society (WEMAS)</td>
</tr>
<tr>
<td>10</td>
<td>Reserve Bank of Malawi Medical Aid (RESMAID)</td>
</tr>
<tr>
<td>11</td>
<td>SUCOMED</td>
</tr>
<tr>
<td>12</td>
<td>PRECIOUS MEDICAL SCHEME</td>
</tr>
<tr>
<td>13</td>
<td>Water Board</td>
</tr>
</tbody>
</table>

10.4 **General Observations**

In the course of the year, the advertisements on Facebook have helped a lot in boosting the sales. The adverts reached out to a lot of people and the audience responded positively. Most people were able to know the location of clinics, working hours as well as prices of some of the products on sale at BICO clinics and optical centres.

Stocking of latest exquisite designer frames also wooed a lot of customers in return boosting sales. Covid-19 pandemic worked in our favour by increasing the number of customers visiting our clinics as most of optical competitors closed during this time.
10.5 **Location and Contact Details for BICO Clinics**

The following are locations and contact numbers for personnel in various BICO clinics;

Table 9: Location and contact details for BICO clinics.

<table>
<thead>
<tr>
<th>District</th>
<th>Locations</th>
<th>Contact no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Blantyre</td>
<td>BT town behind old kips near AXA bus service</td>
<td>+265 994 896 442</td>
</tr>
<tr>
<td></td>
<td>Chinyonga, Plot no. 37</td>
<td>+265 885 285 444</td>
</tr>
<tr>
<td>2 Ntcheu</td>
<td>Along M1 road near Engen Filling station</td>
<td>+265 888 599 206</td>
</tr>
<tr>
<td>3 Lilongwe</td>
<td>Daeyang Luke Hospital</td>
<td>+265 888 171 010</td>
</tr>
<tr>
<td></td>
<td>Partners in Hope</td>
<td>+265 880 147 040</td>
</tr>
<tr>
<td>4 Mangochi</td>
<td>Near NBS bank</td>
<td>+265 882 895 465</td>
</tr>
<tr>
<td>5 Zomba</td>
<td>Behind Zomba bus depot near Dr. Ntata's clinic</td>
<td>+265 881 517 008</td>
</tr>
<tr>
<td>6 Mzuzu</td>
<td>St John of God mission hospital</td>
<td>+265 884 250 433</td>
</tr>
</tbody>
</table>
11 BICO SOCIAL NEWS

11.1 The Four-year Journey at Domasi College of Education: The story of Sylvester Mhone

My name is Sylvester H. O. Mhone from Lisale village in Nkhatabay. I would like to report on how the journey started at Domasi college of Education to complete bachelor’s degree in Education (Humanities). As you can see from the picture, I was born with albinism and I have severe visual problems, such that I have challenges when reading and studying.

I sincerely express my gratitude to Prof. Khumbo Kalua and the entire BICO family for giving me scholarship to continue with my studies. Am grateful to the entire BICO management for being there throughout the journey. The journey started in 2015 when I sat for MSCE and got sixteen points (16) from Mzimba secondary School, but was not selected to any of the University of Malawi campuses, despite being a severe visual impaired child. By the Grace of God, on 6th November 2015, during golden jubilee ceremony at Mzimba Secondary school, I met Prof. Kalua who was an alumnus attending the occasion. He was interested to assist me with glasses and visual aids, and upon further enquiry he learnt that I was not selected to university. He made a promise to privately pay for my tuition fees to any university in Malawi, wherever I wanted to attend further education. This became true in 2016 when I was
selected to Domasi College of Education in Zomba, to pursue a degree in education, which was my dream. From that moment, my future changed completely. While at Domasi, I was enrolled for a Bachelor’s degree in Education (Humanities). My combination was History and Theology and Religious Studies (HIS/TRS). This means that I am now a qualified history and Bible Knowledge teacher.

Once selected, Prof. Kalua tirelessly paid school fees of K250,000 per year and that was done throughout the four-year period without missing a single semester. This helped me to complete my studies without experiencing fees problems. Professor KK also kindly provide pocket money throughout the journey to make my college life easy and simple. Prof was always there to encourage and motivate me throughout the journey. It was not easy on my own to complete my studies without his presence and kindness.

Currently, I am out of Domasi College of education pending Teaching Practice (TP) for one term from January to April 2021. After this, I will have completed with my requirement for graduation.

11.1 Acknowledgement to Prof. Kalua

I am very glad today for the remarkable job Prof Kalua has done to me and you did what Napoleon failed to achieve in that juncture. My success is dedicated to you Prof. It is my wish and plea to do the same to other students as well, in future.

God bless you all and wishing you more years of success.

11.2 Other news

Sarafina Nkuliwa, Optometry technician got married on the 1st August 2020.

11.3 Social responsibility

BICO has donated assorted items to hospitals including.

- A microwave was donated to QECH, Lions Eye Hospital
- BICO joined Blantyre DHO in the fight against Covid-19 by donating Infra-red thermometers, Microwave, Kettle and other kitchen utensils to be used at Kameza Isolation Center
- Mzuzu Central Hospital Eye department the following items; Theatre equipment, masks, sanitizer etc.
STAFF RECRUITMENT AND TURN OVER

In the year 2020, the following members were recruited under different projects;

- McCarthy Mandala as Optometry technician intern on 9th March, 2020
- Mr. David Chinyanya returned as the Programme Manager for Oncho control programme
- Mwaiwathu Mukawa joined as a clinic nurse on 5th October, 2020
- Dagrous Magombo joined as Pharmacy technician under Oncho Project
- Chawanangwa Mahebere Chirambo joined as Research Program Manager for Female Genital Schistosomiasis and also continuation for endline Deworm3 data collection.
- Jessie Chadza joined as an M&E intern for a short period of time.

The following officers left BICO;

- Providence Nindi who was the Research Officer- IS Deworm3.
- Fanny Mbewe who was an Optometry Technician, Lilongwe.
- Lyson Zikani who was an Optometry Technician, Zomba.
- Victor Mulewa who was the Technician, Chinyonga clinic.

On a sad note, Chikumbutso Tambulasi, a Research Officer who was working parttime under Deworm3 Implementation Science passed on last week of December 2020.
## 12 ANNEXES

### 12.1 BICO STAFF 2020

Table 10: BICO Staff as at 31st December 2020

<table>
<thead>
<tr>
<th>No</th>
<th>NAME</th>
<th>POSITION</th>
<th>EMAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Prof Khumbo Kalua</td>
<td>Director</td>
<td><a href="mailto:director@bicomalawi.org">director@bicomalawi.org</a></td>
</tr>
<tr>
<td>2</td>
<td>David Chinyanya</td>
<td>Onchocerciasis Program consultant</td>
<td><a href="mailto:dchinyanya@bicomalawi.org">dchinyanya@bicomalawi.org</a></td>
</tr>
<tr>
<td>3</td>
<td>Wongani Lungu</td>
<td>Accountant</td>
<td><a href="mailto:wongani@bicomalawi.org">wongani@bicomalawi.org</a></td>
</tr>
<tr>
<td>4</td>
<td>James Simwanza</td>
<td>Project Coordinator - Deworm</td>
<td><a href="mailto:jamessimwanza@bicomalawi.org">jamessimwanza@bicomalawi.org</a></td>
</tr>
<tr>
<td>5</td>
<td>Rose Wilson</td>
<td>Projects Officer</td>
<td><a href="mailto:rosewilson@bicomalawi.org">rosewilson@bicomalawi.org</a></td>
</tr>
<tr>
<td>6</td>
<td>Chikondi Chikotchicala</td>
<td>Accountant</td>
<td><a href="mailto:chikondi@bicomalawi.org">chikondi@bicomalawi.org</a></td>
</tr>
<tr>
<td>7</td>
<td>Chawanangwa Mahebere</td>
<td>Research Program Manager – FGS, Deworm3 IS</td>
<td><a href="mailto:chawanangwa@bicomalawi.org">chawanangwa@bicomalawi.org</a></td>
</tr>
<tr>
<td>8</td>
<td>Hastings Mangawah</td>
<td>Projects Officer</td>
<td><a href="mailto:hastings@bicomalawi.org">hastings@bicomalawi.org</a></td>
</tr>
<tr>
<td>9</td>
<td>Rejoice Msiska</td>
<td>Assistant Data Manager</td>
<td><a href="mailto:rejoice@bicomalawi.org">rejoice@bicomalawi.org</a></td>
</tr>
<tr>
<td>10</td>
<td>Ranneck Singano</td>
<td>Logistics Assistant</td>
<td><a href="mailto:rsingano@bicomalawi.org">rsingano@bicomalawi.org</a></td>
</tr>
<tr>
<td>11</td>
<td>Fraser Chisale</td>
<td>Driver and Logistics</td>
<td><a href="mailto:fraserchisale@bicomalawi.org">fraserchisale@bicomalawi.org</a></td>
</tr>
<tr>
<td>12</td>
<td>Hendrine Nyondo</td>
<td>Optometry technician &amp; Clinics Coordinator</td>
<td><a href="mailto:hendrina@bicomalawi.org">hendrina@bicomalawi.org</a></td>
</tr>
<tr>
<td>13</td>
<td>McCathy Mandala</td>
<td>Optometry technician</td>
<td><a href="mailto:mccathy@bicomalawi.org">mccathy@bicomalawi.org</a></td>
</tr>
<tr>
<td>14</td>
<td>Ester Solomoni</td>
<td>Optometry technician - Mzuzu</td>
<td><a href="mailto:esta@bicomalawi.org">esta@bicomalawi.org</a></td>
</tr>
<tr>
<td>15</td>
<td>Willy Majiya</td>
<td>Technician – Mangochi</td>
<td><a href="mailto:willy@bicomalawi.org">willy@bicomalawi.org</a></td>
</tr>
<tr>
<td>16</td>
<td>Sara Mwasulama</td>
<td>Receptionist – Lilongwe</td>
<td><a href="mailto:saramwa@bicomalawi.org">saramwa@bicomalawi.org</a></td>
</tr>
<tr>
<td>17</td>
<td>Zione Mwabile</td>
<td>Receptionist- Zomba</td>
<td><a href="mailto:zione@bicomalawi.org">zione@bicomalawi.org</a></td>
</tr>
<tr>
<td>18</td>
<td>Elliot Light</td>
<td>Technician – Zomba</td>
<td><a href="mailto:elliot@bicomalawi.org">elliot@bicomalawi.org</a></td>
</tr>
<tr>
<td>19</td>
<td>James Daka</td>
<td>Garden boy - BICO Head Office</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Samson Charles</td>
<td>Optometrist – Blantyre</td>
<td><a href="mailto:samson@bicomalawi.org">samson@bicomalawi.org</a></td>
</tr>
<tr>
<td>21</td>
<td>Lyson Zikani</td>
<td>Optometry technician - Zomba</td>
<td><a href="mailto:lysonzikani@bicomalawi.org">lysonzikani@bicomalawi.org</a></td>
</tr>
<tr>
<td>22</td>
<td>Karen Chinwa</td>
<td>Asst. Coordinator – Chinyonga Clinic</td>
<td><a href="mailto:karen@bicomalawi.org">karen@bicomalawi.org</a></td>
</tr>
<tr>
<td>23</td>
<td>Yusuf Fatch</td>
<td>Intern – Zomba Clinic</td>
<td><a href="mailto:yusuf@bicomalawi.org">yusuf@bicomalawi.org</a></td>
</tr>
<tr>
<td>24</td>
<td>Angela Katole</td>
<td>Receptionist - Ntcheu Clinic</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>Edina Matumbila</td>
<td>Receptionist – Lilongwe Clinic</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Robert Silungwe</td>
<td>Optometry Technician Intern</td>
<td><a href="mailto:robert@bicomalawi.org">robert@bicomalawi.org</a></td>
</tr>
<tr>
<td>27</td>
<td>Glory Marah</td>
<td>ICT Project Assistant &amp; PA Director</td>
<td><a href="mailto:glory@bicomalawi.org">glory@bicomalawi.org</a></td>
</tr>
<tr>
<td>28</td>
<td>Tiwonge Gondwe</td>
<td>Accounts Assistant</td>
<td><a href="mailto:tiwonge@bicomalawi.org">tiwonge@bicomalawi.org</a></td>
</tr>
<tr>
<td>29</td>
<td>Hajira Godeni</td>
<td>Optometry Technician Intern</td>
<td><a href="mailto:hajira@bicomalawi.org">hajira@bicomalawi.org</a></td>
</tr>
<tr>
<td>30</td>
<td>Catherine Chilomba</td>
<td>Optometry Technician Intern</td>
<td><a href="mailto:catherine@bicomalawi.org">catherine@bicomalawi.org</a></td>
</tr>
<tr>
<td>31</td>
<td>Sarafina Mkuliwa</td>
<td>Optometry Technician Intern</td>
<td><a href="mailto:sarafina@bicomalawi.org">sarafina@bicomalawi.org</a></td>
</tr>
<tr>
<td>32</td>
<td>Sidreck Nkomela</td>
<td>Garden Boy - Namwera Field Office</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Tembo -- Guard</td>
<td>Guard - BICO Head Office</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Wilson Matiki</td>
<td>Guard - BICO Head Office</td>
<td></td>
</tr>
</tbody>
</table>
12.2 ACCOUNTS

Table 11: Summary of income and expenditure for 2020

<table>
<thead>
<tr>
<th></th>
<th>Kwacha (MK)</th>
<th>Dollar ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total BICO Project Funds pledged</td>
<td>1,224,566,560</td>
<td>1,617,657</td>
</tr>
<tr>
<td><strong>EXPENDITURE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project Field work</td>
<td>765,567,785</td>
<td>1,011,318</td>
</tr>
<tr>
<td>Salaries</td>
<td>146,950,000</td>
<td>194,122</td>
</tr>
<tr>
<td>Project Administration</td>
<td>147,174,155</td>
<td>194,418</td>
</tr>
<tr>
<td>Total expenditure</td>
<td>1,059,691,940</td>
<td>1,399,857</td>
</tr>
<tr>
<td>Deficit/Surplus for the year</td>
<td>164,874620</td>
<td>217,800</td>
</tr>
<tr>
<td>Opening Project Fund Balance</td>
<td>486,910,847</td>
<td>781,453</td>
</tr>
<tr>
<td>Closing Project Fund Balance</td>
<td>651,785,467</td>
<td>999,253</td>
</tr>
</tbody>
</table>

![EXPENDITURE Diagram](image-url)
Table 11: Summary of income and expenditure for 2020

<table>
<thead>
<tr>
<th>Type</th>
<th>Amount (Kwacha)</th>
<th>Amount ($ USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>INCOME</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total BICO Project Funds pledged</td>
<td>1,224,566,560</td>
<td>1,617,657</td>
</tr>
<tr>
<td><strong>EXPENDITURE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>765,567,785</td>
<td>1,011,318</td>
</tr>
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<td>194,122</td>
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<tr>
<td>Project Administration</td>
<td>147,174,155</td>
<td>194,418</td>
</tr>
<tr>
<td><strong>Total expenditure</strong></td>
<td>1,059,691,940</td>
<td>1,399,857</td>
</tr>
<tr>
<td><strong>Deficit/Surplus for the year</strong></td>
<td>164,874</td>
<td>620</td>
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<tr>
<td><strong>Opening Project Fund Balance</strong></td>
<td>486,910,847</td>
<td>781,453</td>
</tr>
<tr>
<td><strong>Closing Project Fund Balance</strong></td>
<td>651,785,467</td>
<td>999,253</td>
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</tbody>
</table>