PARTICIPATORY GUIDE FOR PLANNING EQUITABLE MASS ADMINISTRATION OF MEDICINES (PGP)

TO TACKLE NEGLECTED TROPICAL DISEASES

NIGERIA MAM DOCUMENTATION

COUNTDOWN

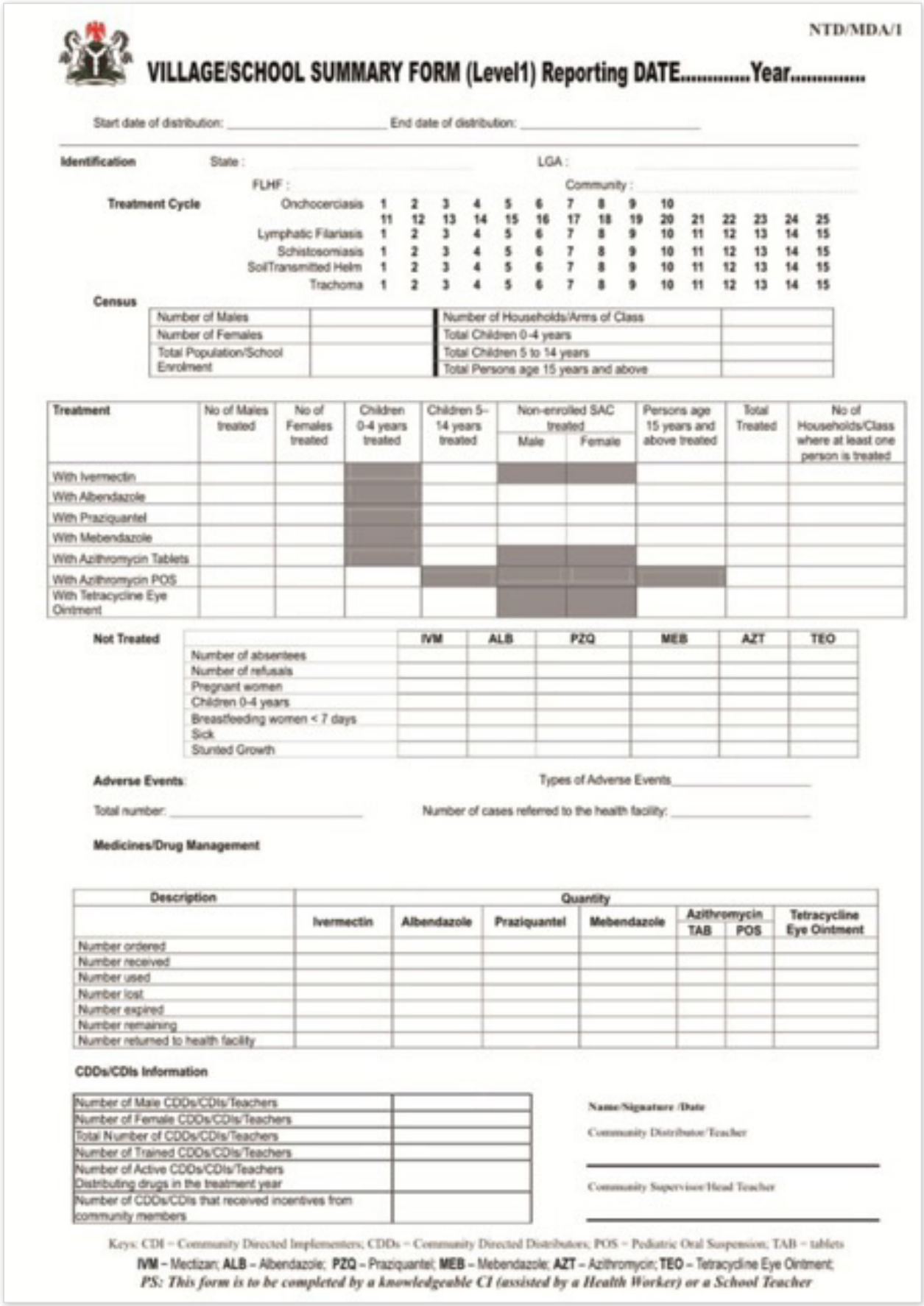
Calling time on Neglected Tropical Diseases

NIGERIA MAM DOCUMENTATION

INTRODUCTION

The following is a collection of documentation from the Nigeria NTD programme year 2021.
These documents relate to policies and the NTD Masterplan which change periodically.
Current documentation should be obtained from the federal ministry of health NTD programme.

SUMMARY FORM - LEVEL 1



NTD/MDA/1

VILLAGE/SCHOOL SUMMARY FORM (Level1) Reporting DATE.....Year.....

Start date of distribution: _____ End date of distribution: _____

Identification State : LGA :

FLHF : Community :

Treatment Cycle

Onchocerciasis	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Lymphatic Filariasis	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15										
Schistosomiasis	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15										
SoilTransmitted Helm	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15										
Trachoma	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15										

Census

Number of Males		Number of Households/Arms of Class	
Number of Females		Total Children 0-4 years	
Total Population/School Enrolment		Total Children 5 to 14 years	
		Total Persons age 15 years and above	

Treatment	No of Males treated	No of Females treated	Children 0-4 years treated	Children 5–14 years treated	Non-enrolled SAC treated		Persons age 15 years and above treated	Total Treated	No of Households/Class where at least one person is treated
					Male	Female			
With Ivermectin									
With Albendazole									
With Praziquantel									
With Mebendazole									
With Azithromycin Tablets									
With Azithromycin POS									
With Tetracycline Eye Ointment									

Not Treated

	IVM	ALB	PZQ	MEB	AZT	TEO
Number of absentees						
Number of refusals						
Pregnant women						
Children 0-4 years						
Breastfeeding women < 7 days						
Sick						
Stunted Growth						

Adverse Events: Types of Adverse Events_____

Total number: _____ Number of cases referred to the health facility: _____

Medicines/Drug Management

Description	Quantity						
	Ivermectin	Albendazole	Praziquantel	Mebendazole	Azithromycin		Tetracycline Eye Ointment
					TAB	POS	
Number ordered							
Number received							
Number used							
Number lost							
Number expired							
Number remaining							
Number returned to health facility							

CDDs/CDIs Information

Number of Male CDDs/CDIs/Teachers	
Number of Female CDDs/CDIs/Teachers	
Total Number of CDDs/CDIs/Teachers	
Number of Trained CDDs/CDIs/Teachers	
Number of Active CDDs/CDIs/Teachers Distributing drugs in the treatment year	
Number of CDDs/CDIs that received incentives from community members	

Name/Signature /Date

Community Distributor/Teacher

Community Supervisor/Head Teacher

Keys: CDI = Community Directed Implementers; CDDs = Community Directed Distributors; POS = Pediatric Oral Suspension; TAB = tablets

IVM – Mectizan; **ALB** – Albendazole; **PZQ** – Praziquantel; **MEB** – Mebendazole; **AZT** – Azithromycin; **TEO** – Tetracycline Eye Ointment;

PS: This form is to be completed by a knowledgeable CI (assisted by a Health Worker) or a School Teacher

NTD Unit, Federal Ministry of Health, Nigeria.

SUMMARY FORM - LEVEL 2

NTD/MDA/2

Neglected Tropical Diseases Division, Federal Ministry of Health, NIGERIA.

ID Number..... **Front Line Health Facility/Zonal Education Office SUMMARY FORM (Level 2)**

State name: _____ LGA name: _____ Name of FLHF/Zonal Education Area: _____ Treatment Period: _____ to _____

Reporting Date: _____ Number of Villages/Schools in the area _____ Number of Villages/Schools targeted _____

		List of Villages/Schools names (indicate urban areas by having this sign *)						Total
CI/School teacher	Male CDD/CIs/teachers trained/retrained							
	Female CDD/CIs/teachers trained/retrained							
	Total CDD/CIs/teachers reporting treatment							
Census	No of Households/Arms of Class							
	No of Females							
	No of Males							
	Total Population/School enrolment							
	Pop 0 - 4 yrs							
	Pop 5-14 yrs							
	Pop 15 yrs and above							
Treatment – IVM	No. of Males treated							
	No. of Females treated							
	5-14 yrs treated							
	Pop 15 yrs and above treated							
	Total treated							
Treatment – ALB	No. of Males treated							
	No. of Females treated							
	5-14 yrs treated							
	Pop 15 yrs and above treated							
	Total treated							
Treatment – PZQ	No. of Males treated							
	No. of Females treated							
	5-14 yrs treated							
	Pop 15 yrs and above treated							
	Total treated							
Treatment – MEB	No. of Males treated							
	No. of Females treated							
	5-14 yrs treated							
	Pop 15 yrs and above treated							
	Total treated							
Treatment – AZT	No. of Males treated							
	No of Females treated							
	Less than 5 yrs treated							
	5 yrs and above treated							
	Total treated							
Treatment – TEO	No. of Males treated							
	No of Females treated							
	Less than 5 yrs treated							
	5 yrs and above treated							
	Total treated							
Medicines/Drugs inventory – Ivermectin	Tablets brought forward							
	Tablets received							
	Tablets used							
	Tablets missing/lost							
	Tablets spoilt/wasted/damaged							
	Tablets remaining & returned to LGA							
Albendazole	Tablets brought forward							
	Tablets received							
	Tablets used							
	Tablets missing/lost							
	Tablets spoilt/wasted/damaged							
	Tablets remaining & returned to LGA							
Praziquantel	Tablets brought forward							
	Tablets received							
	Tablets used							
	Tablets missing/lost							
	Tablets spoilt/wasted/damaged							
	Tablets remaining & returned to LGA							
Mebendazole	Tablets brought forward							
	Tablets received							
	Tablets used							
	Tablets missing/lost							
	Tablets spoilt/wasted/damaged							
	Tablets remaining & returned to LGA							
Azithromycin tabs	Tablets brought forward							
	Tablets received							
	Tablets used							
	Tablets missing/lost							
	Tablets spoilt/wasted/damaged							
	Tablets remaining & returned to LGA							
Azithromycin POS	Bottles brought forward							
	Bottles received							
	Bottles used							
	Bottles missing/lost							
	Bottles spoilt/wasted/ damaged							
	Bottles remaining & returned to LGA							
Tetracycline Eye Ointment	Tubes brought forward							
	Tubes received							
	Tubes used							
	Tubes missing/lost							
	Tubes spoilt/wasted/damaged							
	Tubes remaining & returned to LGA							
AE	Number of Cases							
	Number referred to health centre							

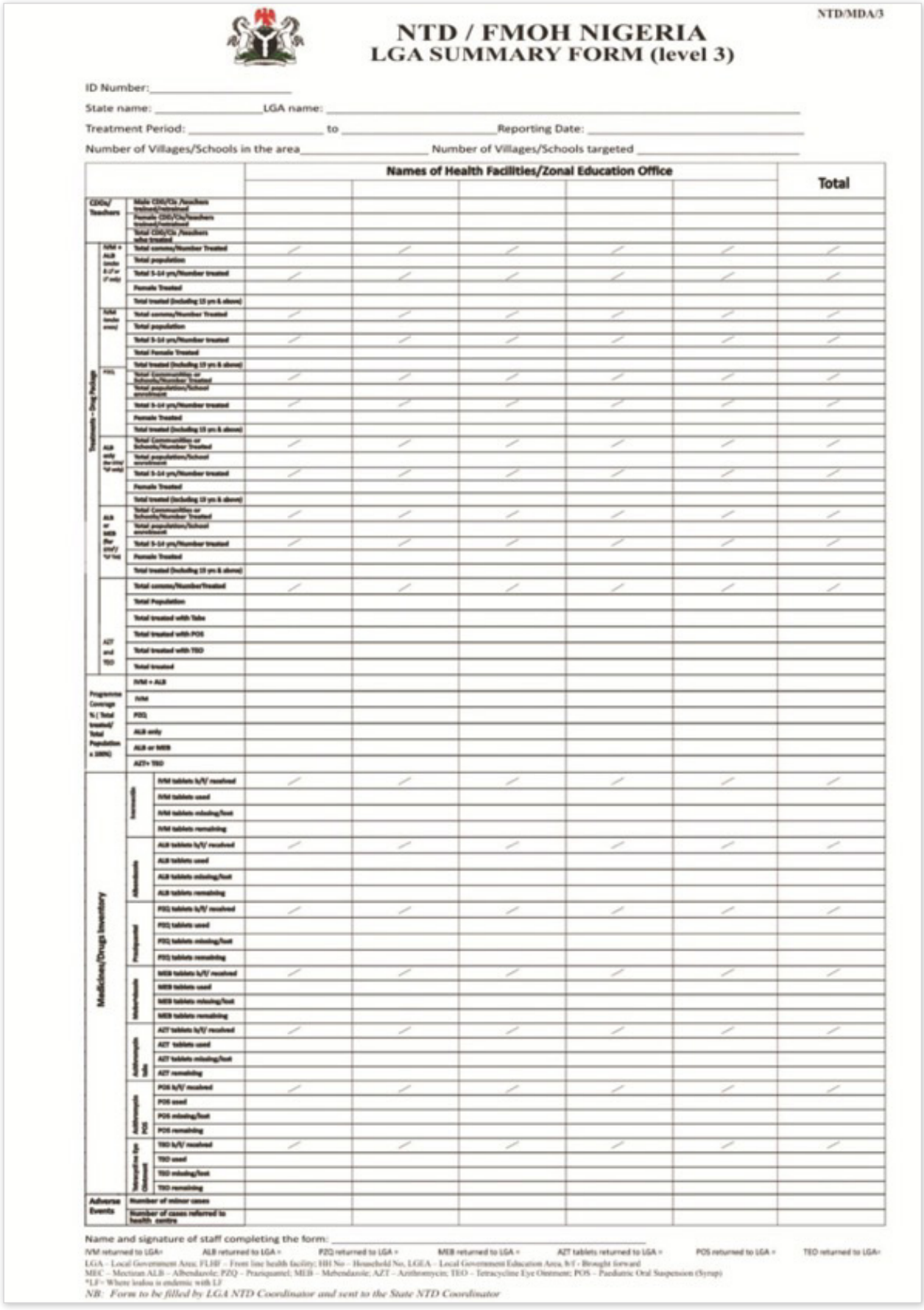
NB: This form should be filled by Facility Health Worker or Zonal Education staff and sent to the State through the LGA NTD Coordinator or LGA Education Secretary

Name and Signature of Staff completing the form: _____

LGA - Local Government Area; FLHF - Front line health facility; HN No - Household No
IVM - Ivermectin ALB - Albendazole; PZQ - Praziquinantel; MEB - Mebendazole; AZT - Azithromycin; TEO - Tetracycline Eye Ointment; POS - Paediatric Oral Suspension (Syrup), CDD - Community Directed Distributor, CI - Community Implementer, AE - Adverse Events.

NTD Unit, Federal Ministry of Health, Nigeria.

SUMMARY FORM - LEVEL 3



NTD/MDA/3

NTD / FMOH NIGERIA
LGA SUMMARY FORM (level 3)

ID Number:_____

State name: _____LGA name: _____

Treatment Period: _____ to _____Reporting Date: _____

Number of Villages/Schools in the area_____ Number of Villages/Schools targeted _____

		Names of Health Facilities/Zonal Education Office					Total
CDDs/ Teachers	Male CDD/Cle /teachers trained/Sensitized						
	Female CDD/Cle/teachers trained/Sensitized						
	Total CDD/Cle /teachers who treated						
Treatments – Drug Package	Total census/Number Treated	/	/	/	/	/	/
	Total population						
	Total 5-14 yrs/Number treated	/	/	/	/	/	/
	Female Treated						
	Total treated (including 15 yrs & above)						
	Total census/Number Treated	/	/	/	/	/	/
	Total population						
	Total 5-14 yrs/Number treated	/	/	/	/	/	/
	Total Female Treated						
	Total treated (including 15 yrs & above)						
	Total Communities or Schools/Number Treated	/	/	/	/	/	/
	Total population/School enrolment						
	Total 5-14 yrs/Number treated	/	/	/	/	/	/
	Female Treated						
	Total treated (including 15 yrs & above)						
	Total Communities or Schools/Number Treated	/	/	/	/	/	/
	Total population/School enrolment						
	Total 5-14 yrs/Number treated	/	/	/	/	/	/
	Female Treated						
	Total treated (including 15 yrs & above)						
	Total census/Number Treated	/	/	/	/	/	/
	Total Population						
	Total treated with Tabs						
	Total treated with POS						
	Total treated with TEO						
	Total treated						
Programme Coverage % (Total treated/ Total Population x 100%)	IVM + ALB						
	IVM						
	PZQ						
	ALB only						
	ALB or MEB						
	AZT+ TEO						
Medicines/Drugs Inventory	Ivermectin: IVM tablets b/f/ received	/	/	/	/	/	/
	IVM tablets used						
	IVM tablets missing/lost						
	IVM tablets remaining						
	Albendazole: ALB tablets b/f/ received	/	/	/	/	/	/
	ALB tablets used						
	ALB tablets missing/lost						
	ALB tablets remaining						
	Praziquantel: PZQ tablets b/f/ received	/	/	/	/	/	/
	PZQ tablets used						
	PZQ tablets missing/lost						
	PZQ tablets remaining						
	Mebendazole: MEB tablets b/f/ received	/	/	/	/	/	/
	MEB tablets used						
	MEB tablets missing/lost						
	MEB tablets remaining						
	Azithromycin tabs: AZT tablets b/f/ received	/	/	/	/	/	/
	AZT tablets used						
	AZT tablets missing/lost						
	AZT remaining						
	Azithromycin POS: POS b/f/ received	/	/	/	/	/	/
	POS used						
	POS missing/lost						
	POS remaining						
	Tetracycline Eye Ointment: TEO b/f/ received	/	/	/	/	/	/
	TEO used						
	TEO missing/lost						
	TEO remaining						
Adverse Events	Number of minor cases						
	Number of cases referred to health centre						

Name and signature of staff completing the form: _____

IVM returned to LGA= ALB returned to LGA = PZQ returned to LGA = MEB returned to LGA = AZT tablets returned to LGA = POS returned to LGA = TEO returned to LGA=

LGA – Local Government Area; FLHF – Front line health facility; HH No – Household No; LGEA – Local Government Education Area; b/f - Brought forward

MEC – Mectizan ALB – Albendazole; PZQ – Praziquantel; MEB – Mebendazole; AZT – Azithromycin; TEO – Tetracycline Eye Ointment; POS – Paediatric Oral Suspension (Syrup)

*LF= Where loaloa is endemic with LF

NB: Form to be filled by LGA NTD Coordinator and sent to the State NTD Coordinator

NTD Unit, Federal Ministry of Health, Nigeria.

SUMMARY FORM - LEVEL 4

NTD/MDA/4

NTD / FMOH NIGERIA
STATE SUMMARY FORM (level 4)

ID Number:_____ Zone: _____State name: _____

Treatment Period: _____ to _____Reporting Date: _____

			LGAs					Total
CDDs/ Teachers	Male CDD/Cls /teachers trained/Oriented							
	Female CDD/Cls/Teachers trained/oriented							
	Total CDD/Cls /Teachers who treated							
Treatments - Drug Package	IVM + ALB (only 5-14 yr of (1 only)	Total comms/Number Treated	/	/	/	/	/	/
		Total population						
		Total 5-14 yrs/Number treated	/	/	/	/	/	/
		Female Treated						
		Total treated (Including 15 yrs & above)						
	IVM (only 1 yr)	Total comms/Number Treated	/	/	/	/	/	/
		Total population						
		Total 5-14 yrs/Number treated	/	/	/	/	/	/
		Total Female Treated						
		Total treated (Including 15 yrs & above)						
	POS	Total Communities or Schools/Number Treated	/	/	/	/	/	/
		Total population/School enrolment						
		Total 5-14 yrs/Number treated	/	/	/	/	/	/
		Female Treated						
		Total treated (Including 15 yrs & above)						
	ALB only (for 1Dry Yr only)	Total Communities or Schools/Number Treated	/	/	/	/	/	/
		Total population/School enrolment						
		Total 5-14 yrs/Number treated	/	/	/	/	/	/
		Female Treated						
		Total treated (Including 15 yrs & above)						
	ALB or MEB (for 2IVF) Yr Yrs)	Total Communities or Schools/Number Treated	/	/	/	/	/	/
		Total population/School enrolment						
		Total 5-14 yrs/Number treated	/	/	/	/	/	/
		Female Treated						
		Total treated (Including 15 yrs & above)						
	AZT and TEO	Total comms/NumberTreated	/	/	/	/	/	/
		Total Population						
		Total treated with Tabs						
		Total treated with POS						
		Total treated with TEO						
		Total treated						
Programme Coverage % (Total treated/ Total Population x 100%)	IVM + ALB							
	IVM							
	PZQ							
	ALB only							
	ALB or MEB							
	AZT+ TEO							
Medicines/Drugs Inventory	Ivermectin	IVM tablets b/f/ received	/	/	/	/	/	/
		IVM tablets used						
		IVM tablets missing/lost						
		IVM tablets remaining						
	Albendazole	ALB tablets b/f/ received	/	/	/	/	/	/
		ALB tablets used						
		ALB tablets missing/lost						
		ALB tablets remaining						
	Praziquantel	PZQ tablets b/f/ received	/	/	/	/	/	/
		PZQ tablets used						
		PZQ tablets missing/lost						
		PZQ tablets remaining						
	Mebendazole	MEB tablets b/f/ received	/	/	/	/	/	/
		MEB tablets used						
		MEB tablets missing/lost						
		MEB tablets remaining						
	Azithromycin tabs	AZT tablets b/f/ received	/	/	/	/	/	/
		AZT tablets used						
		AZT tablets missing/lost						
		AZT remaining						
	Azithromycin POS	POS b/f/ received	/	/	/	/	/	/
		POS used						
		POS missing/lost						
		POS remaining						
	Tetracycline Eye Ointment	TEO b/f/ received	/	/	/	/	/	/
		TEO used						
		TEO missing/lost						
		TEO remaining						
Adverse Events	Number of minor cases							
	Number of cases referred to health centre							

Name and signature of staff completing the form: _____

ALB returned to State = PZQ returned to State= IVM returned to State = AZT tablets returned to State = POS returned to State = TEO returned to State =

FLHF – Front line health facility; HH No – Household No, b/f - Brought forward

MEC – Mectizan ALB – Albendazole; PZQ – Praziquantel; MEB – Mebendazole; AZT – Azithromycin; TEO – Tetracycline Eye Ointment; POS – Paediatric Oral Suspension (Syrup)

NB: Form to be filled by State Staff and sent to FMOH electronically and hard copy. Zonal office to be copied.

NTD Unit, Federal Ministry of Health, Nigeria.

RETURN/TRANSFER FORM

FEDERAL REPUBLIC NIGERIA

NEGLECTED TROPICAL DISEASES PROGRAM

INTERIM DRUG RETURN FORM

Serial No: _____

State: LGA: _____

Receiving Facility: _____

Drugs Returning Facility: _____

S#	Item Description, Strength & form	Unit	Lot / Batch No:	Expiry Date	Quantity in units	Reason for Return
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Item(s) returning officer		Item(s) return Approving officer
Name		Name
Signature		Signature
Date		Date

Transport Company Representative:

I CERTIFY THAT the above quantities for return were received by me:

Name: _____ Signature: _____ Date: _____

I CERTIFY THAT the above quantities for return were received by me:

Name: _____ Signature: _____

_____ Date: _____

Comments: _____

_____

UKaid

UNITED Sightsavers

CROWN AGENTS

NTD Unit, Federal Ministry of Health, Nigeria.

STOCK ALLOCATION

FEDERAL REPUBLIC OF NIGERIA
NEGLECTED TROPICAL DISEASES PROGRAM

STOCK ALLOCATION / ISSUE / RECEIPT VOUCHER

State:_____

Name Of Issuing Facility:_____ LGA:_____ Serial No: 17951

Name Of Receiving Facility: _____ Date:_____

For Issuing Facility Use								*For Receiving Facility Use*	
S#	Item (Description Strength & Dosage From)	Unit* (e.g Tablet, Bottle, Tube)	Quantity Allocated	Lot/ Batch No.	Exp. Date	Quantity Issued	Remarks	Quantity Received	Remarks
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

Goods Checked & delivered in good condition except items detailed in the above discrepancy remarks

APPROVED BY:	ISSUED BY:	DELIVERED BY:	RECEIVED BY:	WITNESSED BY:
Name: _____	Name:_____	Name:_____	Name: _____	Name: _____
Designation:_____	Designation:_____	Designation:_____	Designation:_____	Designation: _____
Signature: _____	Signature:_____	Signature:_____	Signature:_____	Signature: _____
Date:_____	Date:_____	Date: _____	Date:_____	Date: _____
Phone No: _____	Phone No:_____	Phone No: _____	Phone No:	Phone No: _____

NTD Unit, Federal Ministry of Health, Nigeria.

NTD Unit, Federal Ministry of Health, Nigeria.

STOCK STATUS REPORT

FEDERAL REPUBLIC OF NIGERIA
NEGLECTED TROPICAL DISEASES PROGRAM
STOCK STATUS REPORT

Month..... Year.....

Serial No. 11001

State:_____ LGA: _____

Quarter 1(Jan-Mar) [ ]
Quarter 2(Apr-Jun) [ ]
Quarter 3(Jul-Sept) [ ]
Quarter 4(Oct-Dec) [ ]

Reporting Facility: _____

S/N	Item Description	Opening Balance	Quantity Received	Quantity Issued	Losses	Adjustment	Closing Balance

Report Prepared By: _____ Designation: _____ Date: _____ Signature: _____

STORE LEDGER

FEDERAL REPUBLIC OF NIGERIA

NEGLECTED TROPICAL DISEASES PROGRAM

STORE LEDGER

5901

Serial No. _____

LGA: _____

Item Code: _____

Unit of Issue: _____

(e.g Tablet, Bottle, Tube)

State: _____

Name of facility: _____

Item Description: _____

Date	Received from / Issued to:	Transaction Voucher No.	Batch No.	Expiry Date	Quantity Received	Quantity Issued	Losses	Adjustment	Stock Balance	Signature/ Remarks

NTD Unit, Federal Ministry of Health, Nigeria.

COMMUNITY LEVEL SUPERVISION CHECKLIST

NEGLECTED TROPICAL DISEASE (NTDs) PROGRAMME			
COMMUNITY LEVEL SUPERVISION CHECKLIST			
State:	**LGA:**	**Frontline Health Facility:**	**Community:**

Name/Designation of Supervisor(s):	**Date of present visit:** ..... /..... /.....
	Date of last visit: ..... /..... /.....

S/N	Supervision Questions	Yes	No	Comment/Action Point
	RECORDS	Indicate (Y)	(N)	
1	Is there community/school based treatment register available and easily accessible?			
2	Are entries in the community/school based treatment register correct?			
3	Has census been updated for this calendar year?			
4	Is CI supervision regular? (Answer yes if supervision checklist sighted)			
	TRAINING			
5	How many CI in this community?			
6	How many CI has stopped working?			
7	How long have you been a CI?			
8	Have you been trained? (If yes, when was the last training?)			
	INTERVENTION SUPPLIES			
9	Do you have dose poles for mectizan/praziquantel and azithromycin? (If yes, verify)			
10	Is the dose pole properly calibrated? (Verify using tape measurement)			
11	Does CI know how to use dose pole to determine dosage?			
12	Did you miss anybody because you did not have sufficient quantity of drugs?			
13	Mention 3 side effects of the drugs you distribute			
14	Did anybody complain of side effects when you last distributed? (If yes, what did you do?)			
15	Where do you collect your drugs from?			
16	Do you have any drug remaining? (If yes, check expiry date)			
17	Where do you keep the drugs?			
18	Does community have any safe water source?			
19	Does community have latrines?			
	LOGISTICS/OWNERSHIP			
20	Who selected you to be a CI?			
21	Are you supported by community in cash or kind for distributing the drugs? (Verify from the community head)			
22	Did you meet with and agree with the community on the venue and dates for the last distribution?			
	SURVEILLANCE			
23	Sample 5 households to assess community awareness of key messages			
24	Does CI have poster of the NTDs with the case definitions?			
25	Can CI say case definition of any 3 NTDs?			
26	Are any NTDs posters seen displayed in the community?			

SUMMARY		
Action points	**By whom**	**Timeline**

Name and Signature of Supervisor(s):	**Name of Community Implementer/Focal person:**
	Signature and date:
	Name of HF Designated staff/Focal person:
Date:	**Signature and date:**

NTD Unit, Federal Ministry of Health, Nigeria.

HEALTH FACILITY LEVEL SUPERVISION CHECKLIST

NEGLECTED TROPICAL DISEASE (NTDs) PROGRAMME		
HEALTH FACILITY/SCHOOL LEVEL SUPERVISION CHECKLIST		
State:	**LGA:**	**Frontline Health Facility:**
Name/Designation of Supervisor(s):	**Date of present visit:** ..... /..... /.....	
	Date of last visit: ..... /..... /.....	

S/N	Supervision Questions	Yes	No	Comment/Action Point
	RECORDS	Indicate **(Y)**	**(N)**	
1	Are Community/Schools Summary Forms (level 1) available and neatly filed?			
2	Are HF/School Summary Forms (level 2) available and neatly filed?			
3	Are entries in the Community/Schools Summary Forms and HF Summary Forms correct?			
4	Is drugs inventory register available and correctly filled?			
5	Is supervision checklist available? (Answer yes if supervision checklist sighted)			
	TRAINING			
6	How many health workers/Teachers in this HF/School?			
7	Are health workers/Teachers in this HF/School trained on NTDs? (If yes, how many health workers/teachers trained?)			
8	When was the last training?			
9	Are training materials (especially training manual) available?			
10	Were you one of the trainers of the CI/teachers in the last training?			
11	Mention key training messages			
	INTERVENTION SUPPLIES			
12	Does this HF/School have dose pole for NTDs?			
13	Does the Health worker/teacher know how to use dose pole to determine dosage?			
14	Did this HF/teachers receive sufficient quantity of drugs for distribution this year?			
15	Did you receive side effects report of the drugs from any community? (If yes, what type?)			
16	Do you have any drugs remaining? (If yes, check expiry date)			
17	Where do you keep the drugs?			
18	Do communities/Schools under your H/F have any safe water source? (If yes, what type?)			
19	Do the communities/school under your H/F have latrines? (If yes, what type?)			
	LOGISTICS/OWNERSHIP			
20	Who selected CI in the community(ies)?			
21	Are the CI given incentives by the community?			
22	Did you mobilise and sensitise the community for drugs distribution this year?			
	SURVEILLANCE			
23	Does this HF/School have posters of the NTDs with the case definitions?			
24	Can health worker/teacher mention case definition of any 3 NTDs?			
25	Are any NTDs posters seen displayed in the HF/Schools?			

SUMMARY		
Action points	**By whom**	**Timeline**
Name and Signature of Supervisor(s):	**Name of HF Designated staff/Focal person:**	
Date:	**Signature and date:**	

NTD Unit, Federal Ministry of Health, Nigeria.

LOCAL GOVERNMENT LEVEL SUPERVISION CHECKLIST

NEGLECTED TROPICAL DISEASE (NTDs) PROGRAMME				
LOCAL GOVERNMENT LEVEL SUPERVISION CHECKLIST				
State:	**LGA:**	**Frontline Health Facility:**		
Name/Designation of Supervisor(s):		**Date of present visit:** ..... /..... /.....		
		Date of last visit: ..... /..... /.....		
S/N	**Supervision Questions**	**Yes**	**No**	**Comment/Action Point**
	RECORDS	Indicate **(Y)**	**(N)**	
1	Are HF Summary Forms (level 2) available and neatly filed?			
2	Are LGA Summary Forms (level 3) available and neatly filed?			
3	Are entries in the LGA Summary Forms and HF Summary Forms correct?			
4	Is drugs inventory register available and correctly filled?			
5	Is supervision checklist available? (Answer yes if supervision checklist sighted)			
6	Do you have NTD workplan for this year?			
	TRAINING			
7	How many NTDs team members in this LGA?			
8	Are the NTDs team members in this LGA trained on NTDs? (If yes, how many trained?)			
9	When was the last training?			
10	Are training materials (especially training manual) available?			
11	Were you one of the trainers of the health workers in the last training?			
12	Ask the team member being interviewed to mention some training key messages			
	INTERVENTION SUPPLIES			
13	Did this LGA receive sufficient quantity of drugs for distribution this year?			
14	Did you receive side effects report of the drugs from any HF? (If yes, what type and what did you do?)			
15	Do you have any drug remaining? (If yes, check expiry date)			
16	How do you keep the drugs safe?			
	LOGISTICS/OWNERSHIP			
17	Did you mobilise and sensitise communities for NTDs activity implementation? (If yes, how many?)			
18	Did you receive financial support from government? (If yes, how much?)			
	SURVEILLANCE			
19	Does this LGA have posters of the NTDs with the case definitions and in sufficient quantity?			
20	Can any of the team member mention case definition of any 3 NTDs?			
21	Are any NTDs posters seen displayed in the LGA office?			
SUMMARY				
Action points		**By whom**		
Name and Signature of Supervisor(s):		**Name of Designated LGA staff/Focal person:**		
		Signature and date:		
		Name of DSNO:		
Date:		**Signature and date:**		

NTD Unit, Federal Ministry of Health, Nigeria.

STATE LEVEL SUPERVISION CHECKLIST

NEGLECTED TROPICAL DISEASE (NTDs) PROGRAMME				
STATE LEVEL SUPERVISION CHECKLIST				
State:				
Name/Designation of Supervisor(s):		**Date of present visit:** ..... /..... /.....		
		Date of last visit: ..... /..... /.....		
S/N	**Supervision Questions**	**Yes**	**No**	**Comment/Action Point**
	RECORDS	Indicate **(Y)**	**(N)**	
1	Are LGA Summary Forms (level 3) available and neatly filed?			
2	Are State Summary Forms (level 4) available and neatly filed?			
3	Are entries in the LGA Summary Forms and State Summary Forms correct?			
4	Is drug inventory register available and correctly filled?			
5	Is supervision checklist available? (Answer yes if supervision checklist sighted)			
6	Do you have NTD workplan for this year?			
	TRAINING			
7	How many NTDs team members in this State?			
8	Are the NTDs team members in this State trained on NTDs? (If yes, how many trained?)			
9	When was the last training?			
10	Are training materials (especially training manual) available?			
11	Were you one of the trainers of the health workers in the last training?			
12	Ask the team member being interviewed to mention some training key messages			
	INTERVENTION SUPPLIES			
13	Did this State receive sufficient quantity of drugs for distribution this year?			
14	Did you receive side effects report of the drugs from any HF? (If yes, what type and what did you do?)			
15	Do you have any drug remaining? (If yes, check expiry date)			
16	How do you keep the drugs safe?			
	LOGISTICS/OWNERSHIP			
17	Did you mobilise and sensitise communities for NTDs activity implementation? (If yes, how many?)			
18	Are you supported for NTD work? (If yes, what type?)			
	SURVEILLANCE			
19	Does this State have posters of the NTDs with the case definitions and in sufficient quantity?			
20	Can any of the team members mention case definition of any 3 NTDs?			
21	Are any NTDs posters seen displayed in the State office?			
SUMMARY				
Action points		**By whom**		**Timeline**
Name and Signature of Supervisor(s):		**Name of Designated State staff/Focal person:**		
		Signature and date:		
		Name of DSNO:		
Date:		**Signature and date:**		

NTD Unit, Federal Ministry of Health, Nigeria.

COUNTDOWN

Calling time on Neglected Tropical Diseases

FMOH TRAINING MANUALS FOR NTDs

TRAINERS OF FRONTLINE HEALTH FACILITY STAFF (FLHFs)

ON NEGLECTED TROPICAL DISEASES (NTDs) CONTROL AND ELIMINATION

WHO IS THIS MANUAL FOR?

This manual has been produced for use by members of the Federal Ministry of Health, State NTDs teams, LGA NTDs teams, stakeholders and partners to train Frontline Health Facility Staff (FLHFs) and eye care practitioners on Neglected Tropical Diseases (NTDs).

OBJECTIVES OF THE MANUAL

The objective of this manual is to help trainers train the FLHFs to effectively conduct the following activities:

- Assist in NTD program planning and implementation.
- Build partnerships between the communities, the health service and other external partners.
- Approach, sensitise and mobilise communities.
- Inform and educate the community.
- Train community implementers (CIs) to distribute NTDs medicines.
- Management of severe adverse events (SAEs).
- Effectively monitoring and supervising medicine distribution.
- Record keeping and reporting.

NTD Unit, Federal Ministry of Health, Nigeria.

PART ONE: A BRIEF ON NTDs IN NIGERIA

WHAT ARE NTDs?

Neglected Tropical Diseases (NTDs) are diseases that kill slowly and can take many years to develop. People do not pay attention to them as they do to other diseases that kill quickly, e.g. malaria. Neglected tropical diseases include Schistosomiasis (Bilharzia), Lymphatic Filariasis (elephantiasis), Guinea worm disease, Trachoma, Soil Transmitted Helminths (intestinal worms), Leprosy, Buruli ulcer, Leishmaniasis, Sleeping sickness and Onchocerciasis (river blindness).

WHY SHOULD NTDS BE TAKEN SERIOUSLY?

- About 100 million Nigerians are infected.
- These diseases affect human health and lead to reduced productivity.
- These are diseases of poverty which are found among poor people living in rural areas.
- These diseases if untreated could lead to disability and stigmatisation.
- Trachoma and river blindness, if not treated, could lead to blindness.
- In the case of river blindness vast farmlands are abandoned leading to food insecurity.
- High dropout rate, absenteeism and poor performance in school are attributed to NTDs.
- Schistosomiasis and soil transmitted Helminth scan result in anaemia.

The following pages provide a brief on the NTDs of public health significance in Nigeria.

LYMPHATIC FILARIASIS

INTRODUCTION

Lymphatic filariasis is a major public health problem in Nigeria and Africa. The disease is spread through bites from infected mosquitoes which transmit the parasitic worms called *Wuchereria bancrofti*. Where this disease exists, everybody in the community and LGA stand the risk of getting it. The disease causes elephantiasis of the limbs, breast and enlarged scrotum. Those with such kind of complications are stigmatised in the society.

DISTRIBUTION

The disease is present in all the 36 States and the Federal Capital Territory (FCT) of the federation. Prevalence studies with immunochromatographic test (ICT) have been completed in all the LGAs of 35 States and FCT. The results show that out of the 761 LGAs, 574 of them are LF endemic. Over 114 million Nigerians are at risk of the disease.

TRANSMISSION (HOW IT IS SPREAD)

Lymphatic filariasis is transmitted from an infected person to non-infected person by mosquitoes. During human blood meal, the mosquito picks up the microfilaria. Inside the mosquito, the microfilaria develops into the infective stage in a process that usually takes 7 – 21 days. The larva then migrates to the mosquitoes' biting mouth-parts, ready to enter the punctured skin following the mosquito bite, thus completing the cycle.

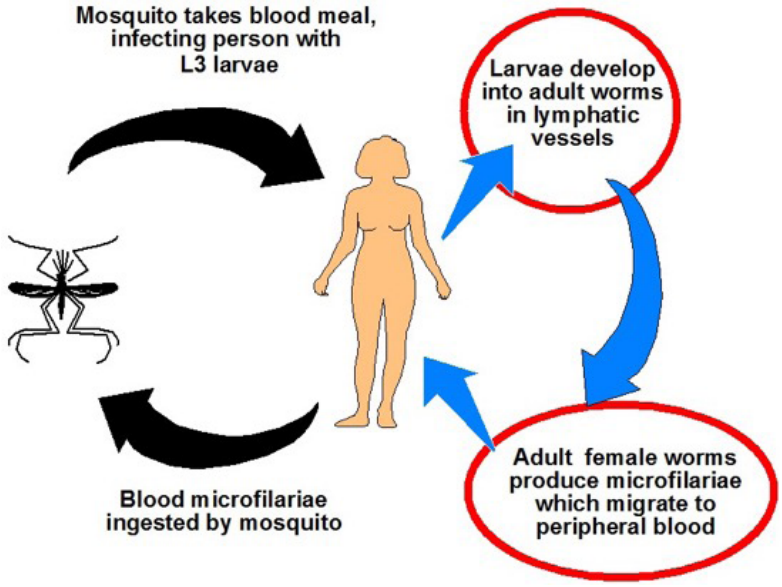


Fig 1: *Life cycle of lymphatic filariasis*

SIGNS AND SYMPTOMS

Though the infection can be acquired early in childhood, the disease may take years (up to 10 years) to manifest. The major chronic stages of the disease are elephantiasis (of the legs, arms, vulva, or breast) and hydrocele (enlarged scrotum). Serious incidences of local swelling involving skin, lymph nodes and lymphatic vessels often accompany the chronic elephantiasis. Some of these are caused by the body's immune response to the parasite, but most are the result of bacterial infection of skin where normal defences have been partially lost due to underlying lymphatic damage. Other local symptoms of elephantiasis are warmth, redness, extreme pains of the affected areas, fever, chills, headache and weakness.

DIAGNOSIS

The standard method for diagnosing lymphatic filariasis infection is the identification of microfilariae in a blood smear by microscopic examination. The microfilariae that cause the disease circulate in the blood at night (i.e. nocturnal). Because of this, blood collection is usually done at night to coincide with the appearance of the microfilariae.

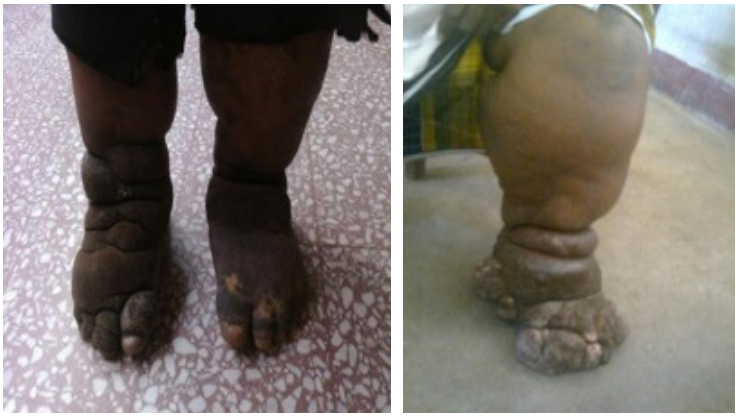


Fig 2: *Elephantiasis of the legs*

Another method for diagnosing the infection is the antigenaemia method. It is a rapid assessment method and very specific in detecting the antigen. It uses a simple diagnostic tool {Immunochromatographic Test (ICT) card} to detect circulating parasite antigens without the need for laboratory facilities and using only finger-prick blood droplet taken anytime of the day.

TREATMENT

Both ivermectin (mectizan) and albendazole medicines are used for the treatment of people living in lymphatic filariasis endemic LGAs. These medicines are given at the same time once a year through mass drug administration (now referred as mass distribution of medicines) in all communities of affected LGA by community directed implementers (CDIs). Those persons that cannot take the medicines during distribution are pregnant women, children less than 90 cm by height or less than five (5) years old, very sick persons and breast-feeding mothers of less than seven (7) days after delivery.

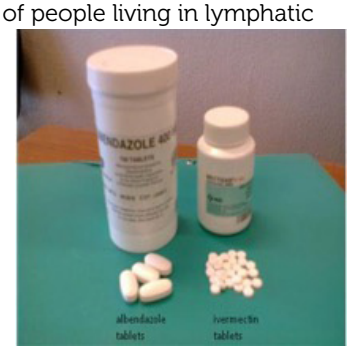


Fig 3: *Albendazole and Ivermectin (Mectizan) tablets*

Simple hygiene can be used to alleviate the suffering of those with elephantiasis. Wash affected part of the body with normal clean water and soap at least twice a day. This will minimise infection and promote lymph flow, which also results in the reduction of both the frequency of attacks of filarial fever and in the size of the elephantiasis. Those with enlarged scrotum (hydrocele) need to be referred to the hospital for corrective surgery.

PREVENTION AND CONTROL

The best way to prevent lymphatic filariasis is to avoid mosquito bites. The various ways to avoid mosquito bites are:

- to sleep under long lasting insecticide treated nets (LLINs).
- use mosquito repellent.
- use indoor residual spray.
- wear long sleeves and trousers when sleeping at night.

Another way to prevent the disease is to treat every eligible person in all communities of an endemic LGA with the medicines once every year through mass distribution of medicines. This way the levels of worm larvae in the blood of infected persons are reduced.

ONCHOCERCIASIS

Fig 14: Blackfly (Simulium damnosum)

INTRODUCTION

Onchocerciasis (River Blindness) is a parasitic disease caused by a round, thread-like filarial worm (*Onchocerca volvulus*). It is spread from person to person as a result of the bite of an infected female blackfly (*Simulium damnosum*).

DISTRIBUTION

River blindness (onchocerciasis) is found mostly in areas with fast flowing rivers and streams. These rivers support the breeding of the blackfly, the vector of the causative agent. Onchocerciasis is endemic in all the 36 States including the Federal Capital Territory. However, its endemicity in Bayelsa, Rivers, Katsina and Lagos States is not of public health significance. Nevertheless, in some parts of these States interventions will be necessary given the shift from control to elimination of transmission.

TRANSMISSION (HOW IT IS SPREAD)

It is spread from person to person as a result of the bite of an infected female blackfly (*Simulium damnosum*).

SIGNS AND SYMPTOMS

- Constant itching of the body, pain, fever and headache.
- Painless swelling (nodule) under the skin on various parts of the body.
- Development of white patches on the legs (called *Leopard skin*) and hard skin (*lizard skin*).
- Blurring of vision and if not treated, total blindness.
- Hanging groins.
- Enlargement of the scrotum.

DIAGNOSIS

Onchocerciasis is diagnosed by identifying the parasite in a skin snip viewed under a microscope. The signs and symptoms are also good indicators of the disease.

TREATMENT

Treatment is with ivermectin (Mectizan) once a yearly for 15-25 years. The medicine is to be taken by all those living in endemic areas whether they are infected or not. This reduces the worm load in infected persons (who may or may not know they are infected) and reduces the rate of transmission until the blackfly can no more pick up any parasites. Treatment with ivermectin is free. The medicine is not to be bought or sold.

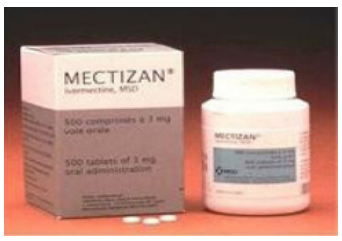


Fig 15: A bottle of Mectizan tablets

Those who should not take ivermectin are:

- Children younger than 5 years old.
- Pregnant women.
- Women who delivered babies in the past one week.
- People who are seriously sick or too weak to walk.

PREVENTION AND CONTROL

- Treatment with (ivermectin) once yearly for 15-25 years.
- Wearing of protective clothing.
- Spraying of breeding sites with environmental friendly insecticide.
- Mosquitoes cannot pick and transmit the worms from one human to another.

PREPARING FOR COMMUNITY DIRECTED INTERVENTION (CDI)

COMMUNITY DIRECTED INTERVENTION (CDI)

CDI is a health intervention that is undertaken at the community level under the direction of the community itself. The concept of Community-Direction is introduced by the health services and its partners (NGDOs) in a participatory manner, highlighting community ownership from the onset. From then on, the community takes charge of the process, usually through a series of community meetings combined with implementation by selected community members.

The process through which CDI is best established includes six basic steps below:

STEPS TO PREPARE FOR CDI

1. Approaching the Health Service: In order to build a partnership between community and health service, the FLHFS at the health post nearest the community should assume the following activities as part of the scheduled tasks:

- Storage of adequate number of medicines based on the estimate of population to be covered prior to the initial training of CIs, and subsequently based on census figures.
- Linking the training team with the community.
- Assisting with the training of CIs.
- Supervision of medicine distribution.
- Management of cases of severe reaction and referrals, if necessary, of these cases to health centres better able to handle them.
- Record keeping and reporting to the Local Government Area (LGA).

2. Approaching the Community: The way and manner the training team approach the community will strongly influence the success of the programme. The FLHFS should be responsible for making the first contact with the communities. He/she through a key informant should meet with the chief or traditional leader to briefly explain the programme and to ask for an appointment to come back with other external partners to provide more information about the programme to the community leaders and community.

3. Meeting with community leaders: Every visit involves an initial paying of respect to the chief. It is important that the training team is not late to this and subsequent meetings. The traditional and cultural beliefs and rules should be closely respected and adhered to. It is also important for the training team members to give thought to the way they are dressed when the community is approached. For example, traditional dress should be worn where appropriate, and women should wear little or no cosmetic make-up and the minimum of jewellery.

The following are the suggestions of what the training team should not do when approaching communities.

- Do not go to the village with too many vehicles.
- Do not present yourself as being rich.
- Do not bypass the local authority.
- Do not impose yourself, your ideas.
- Do not promise payment for CIs.

At the first meeting with the chief and community leaders, give an overview of the programme in clear and concise terms. Then request that the community select distributors (if they do not have already). Explain carefully the tasks of the distributors. Emphasise that trusted and reliable members of the community that will remain in the community as distributors be selected, and that the community is free to increase the number of (or change) distributors before the next training or retraining.

Invite people to comment and ask questions. Patiently respond to their comments and answer all the questions during the community meeting.

4. Participating in a village meeting: At this meeting, the training team is introduced to the community by the chief. The team should repeat all the points presented to the chiefs and elders to the community gathering. Use the local names of the diseases.

5. Selecting Community Implementers: The people who will be trained as distributors are villagers who have been selected by their communities to carry out the task of distributing medicines to other members in their communities. At least two persons should be selected by each community of 200 persons. As many distributors as possible should be trained in each community to reduce the workload on the current CIs. Encourage the communities to select both men and women

6. Training Community Implementers: An in-depth explanation of training community implementers is provided in the following section.

TRAINING COMMUNITY IMPLEMENTERS

The following section provides step-by-step instructions and resources for training community implementers.

PREPARING FOR THE TRAINING

You will find out how many CIs are selected by each community to be able to plan the training in an optimal way and to avoid having too many participants in one course. To make both male and female CIs comfortable during the training, a mixed team of trainers is also preferable.

ARRANGING TIME FOR THE TRAINING

The health worker returns to the community to meet the CIs and agree on time and venue for the training. Where possible, the date and venue for the training is agreed upon during the meeting with the community members.

HOW MANY TRAINERS ARE NEEDED?

It is suggested to have one trainer per five participants. You should not have more than 10 participants in a course like this, as the main purpose is to ensure that everybody is gaining and practicing the necessary skills.

CHOOSING THE TRAINING SITE

The training should be at the community level, preferably near or in the chief's compound. Do not assemble CIs from one community to a central point in other communities. After the training start distribution with the CIs in that community so that they can make mistakes and you will correct there.

Note: Remember to tell them that a CI is one trusted by the community to distribute medicines or other health commodities to his/her people and help them stay healthy.

Use a place that is familiar and comfortable to the CIs, e.g. under a tree in the community square or in the school compound, or in the compound of the chief. Sit in a circular arrangement, and put a bench or a table at the side.

REFRESHMENT DURING TRAINING

Ask the chief or traditional leader to provide refreshment for his people.

TRAINING MATERIALS: WHAT DO YOU NEED?

- Flipcharts
- Pencil
- Eraser
- Trachoma grading card
- Perforated water can for trachoma
- Two Sticks (two meters long)
- Posters
- Pencil sharpener
- Marker (for shading/marking tablets on the measuring stick)
- The NTDs training Manual
- Tape (two meters long)
- Data collection forms

TRAINING CONTENT: WHAT WILL THEY LEARN?

- General overview of the diseases (onchocerciasis, lymphatic filariasis).
- Distribution of the disease.
- How the disease is spread/life cycle.
- Signs and symptoms.
- Diagnosis.
- Community census & treatment.
- How the NTDs can be treated and how to distribute the medicines.
- Management of serious adverse events.
- Prevention and control.
- Any other requirement for training on NTDs.

TRAINING METHODS: HOW WILL YOU TEACH?

You are training people who are not used to learning in school or in a course. They are used to learning from practical examples, from people showing them how something works, or from discovering themselves what is the best way of doing something. If you use this methods - in training terms called "demonstration" and "problem-solving method" - your participants will most likely be able to follow your course well.

It is important to know that the CIs are not used to training of this kind, and will need frequent breaks.

PROCESS OF TRAINING

Begin with what people are familiar with. Do not suddenly introduce ideas that may be strange to the participants. Make sure all participants have practised and are comfortable with one skill before you introduce the next one. Be patient with all participants, especially those who may be slow to understand. Invite participants to ask questions. Be generous with words of encouragements. Give feedback often. Ensure participants that they are doing OK. Do not treat them as school children whom you have to correct if they make a small mistake.

Skills' training is "learning through doing".

YOUR BEHAVIOUR AS A TRAINER

Show respect to the participants. Do not look down on them. The way the trainers feel about villagers will influence the training. Do not treat them as if they are not very intelligent, but rather build their confidence to empower them to effectively distribute medicines in their own community.

KEY HEALTH EDUCATION MESSAGES

Throughout the training, it is important to emphasise the following key health education messages:

- The diseases are present in this community, and absence of the signs and symptoms does not mean that they are not present.
- The physical disabilities of these diseases cause pain and great discomfort, affect self-esteem, lower productivity and consequently increase poverty levels. Note that some of the conditions arising from these diseases like swollen limbs and blindness are irreversible, while some conditions will require surgical operation.
- The medicines for the treatment of the diseases such as Ivermectin, albendazole, Rifampicin, streptomycin praziquantel and azithromycin are free, and should neither be bought nor sold. Remember, if anyone buys them they may be taking FAKE medicines that may have harmful health effect.
- The medicines are safe and effective, but if anyone reacts to them, it is a sign that the medicines are working. Most mild adverse reactions will disappear after 1 – 3 days, moreover if the reaction persists, report to a frontline health facility officer or community distributor.
- Those who have developed swollen limbs (elephantiasis) should regularly wash them and keep them free from being infected. They should also raise the legs regularly while sitting.

STEPS TO FOLLOW IN THE TRAINING

It is important to remember that CIs are not likely to be used to training programmes of this kind, and will need frequent breaks. Be aware of when people seem tired and take a brief break at those points during the training.

1. INTRODUCE THE TRAINING

Spend some time before the official training starts to talk informally with them. The opening statement in the formal programme is important. For example:

> ***You are welcome to…(village). For the next three hours we will talk about neglected tropical diseases that cause… We will talk about how members of the community will be treated to prevent those diseases.***

Ask them the local names of the disease(s). Wait for response and follow up with a lively discussion.

2. ENCOURAGE DISCUSSION

You should act as a facilitator, rather than a lecturer. Invite people to give their opinions, their questions, and their ideas. Give every participant the opportunity to make a contribution to the discussion.

It is very important that you do not interrupt unnecessarily, or make any negative comments or judgements about what participants say, even if it is "wrong" in your opinion.

In this first discussion, you set the "tone" for the whole course. If the participants feel that their opinions and ideas are valued, their questions are welcomed and they are not judged negatively for their contributions, then they will feel free to participate throughout the training.

3. TEACH THEM HOW TO TAKE AND RECORD AN ACCURATE CENSUS

The trainer needs to emphasize that it is very important to carry out a census before the first treatment takes place. This will give an idea of how many people live in the community and help to calculate the quantities of medicines and commodities needed depending on the target groups. Everybody should be counted including pregnant women and children.

After that first treatment and before every other treatment the census should be updated. The following should be noted in taking and recording an accurate census:

- All the families living in the village should be included with the list of a family starting on a fresh page.
- Each family is allocated a minimum of 2 pages in the record book but this depends on the number of persons in the family. Room should be left to record new/additional family members.
- For each family the name of the household head is recorded first followed by the names of the first wife and her children (in order of decreasing age), then the second wife and the children. After these the names of others sharing the household's daily meal (nephew, grandchild, mother-in-law) are recorded.
- For each family member the name, sex, and age should be recorded.

THE FOLLOWING STEPS SHOULD BE COMPLETED FOR EACH MEDICINE THAT WILL BE DISTRIBUTED DURING THE UPCOMING MDA. A PAGE GIVING THE DOSAGES FOR EACH DISEASE FOLLOWS THE STEPS BELOW.

4. SHOW THEM THE MEDICINE

Explain that they will be given free of charge and is not to be bought or sold. Explain how the medicine will be distributed. Tell them that you will now discuss how to decide who will get the medicine, how many tablets they will get, and who will NOT get the medicine.

5. PAUSE AND LET THEM LOOK AT THE MEDICINE

Invite them to ask questions. If they ask questions about issues you will deal with later, give a brief answer, and explain you will be dealing with this later.

6. EXPLAIN THAT DOSAGE DEPENDS ON HEIGHT

In some communities, measurement of height with stick is associated with death. Marking the wall may be acceptable. Ask the CIs what should be used to determine the height of people.

7. WAIT FOR SUGGESTIONS

Explain some options to measure height, such as standing against a wall, tree or stick. Ask what they think will be the best method for the distribution system in their community (i.e. house-to-house distribution, central point distribution, etc.). Discuss the advantages of different options and choose one together.

8. ASK ONE OF THE PARTICIPANTS TO ASSIST YOU

To mark the wall/tree/stick using your tape measure and marker.

9. EXPLAIN TO THE PARTICIPANTS

That the marks on the wall/tree/stick represent people's heights. The lowest one shows the height a person must be before they can be given the medicine. Anyone who does not reach this height should not be given the medicine. Describe the number of tablets each person should get depending on their height (refer to the pages showing the medicines and dosages for each disease below). Draw symbols of tablets between marks to remind the CIs of how many tablets should be given for each height.

10. ASK THEM HOW MANY TABLETS YOU SHOULD GET

If somebody gives a wrong answer, do not say he/she is wrong, but ask if other participants have different suggestions. Let the group come to an agreement about how many tablets you should be given.

11. MAKE SURE THAT TABLETS ARE SWALLOWED

Explain that after determining the number of tablets the person will receive, they should be given the tables and some water, and asked to take the tables **in front of the CI, who should ensure they are actually swallowed**.

12. LET ALL PARTICIPANTS TAKE TURNS

To measure how many tablets they should get. Ask one person to stand at the wall/stick/tree, and another to tell how many tablets he or she should be given. Then repeat the procedure with another participant, until everybody has been measured. Ask a child to join you and ask the participants to assess her/his age and to determine the number of tablets to be given.

13. WHEN YOU ARE SATISFIED THAT EVERYBODY HAS UNDERSTOOD AND IS ABLE

To determine the dosage by height, ask the participants to make their own measuring tool. Ask them to use their own ideas to make symbols on a stick to indicate the number of tables, etc. on the corresponding spaces on the stick. This should be a lively session with a lot of activity.

14. EXPLAIN THE NEED TO RECORD THE TREATMENT

Emphasise the importance of the community knowing how many of its members have received tablets and that the health authorities need to know how many people have been treated so that they can plan effectively.

15. COPY ON PAPER

Give participants blank sheets of paper and pencils. Ask them to work in pairs, with one person measuring and one person writing down the numbers of tablets that they would give to patients on the paper. Use other people in the group, yourself and bystanders to 'test cases' to be measured.

16. GUIDE EACH PERSON GENTLY

Remember that for some of the participants, this may be the first time that they are handling paper and pencil again after many years. Show each person how to enter the numbers on paper against the medicines' names.

17. PRAISE THEM FOR THEIR EFFORTS

You could say, for example, that they are learning faster than you had expected, and that their group is one of the best you have worked with. It is very important to let them know, as often as possible, that you think they are doing well and to encourage them at every opportunity. This will enable them to continue learning without being worried about what you think about their "performance."

Explain that their community will provide them with the notebook for recording and the medicines for their village will be collected by the person or persons assigned by the village leaders to do so.

18. REPEAT THE EXERCISE

When the participants have finished the first task, ask them to repeat the exercise with the other person in the pair doing the recording (if the first practice was carried out by only one of the pair). Ask them to choose the number of people to be treated with different dosages, and then record this in the notebook or pictorial form.

19. EXPLAIN THAT SOME COMMUNITY MEMBERS WILL NOT BE TREATED

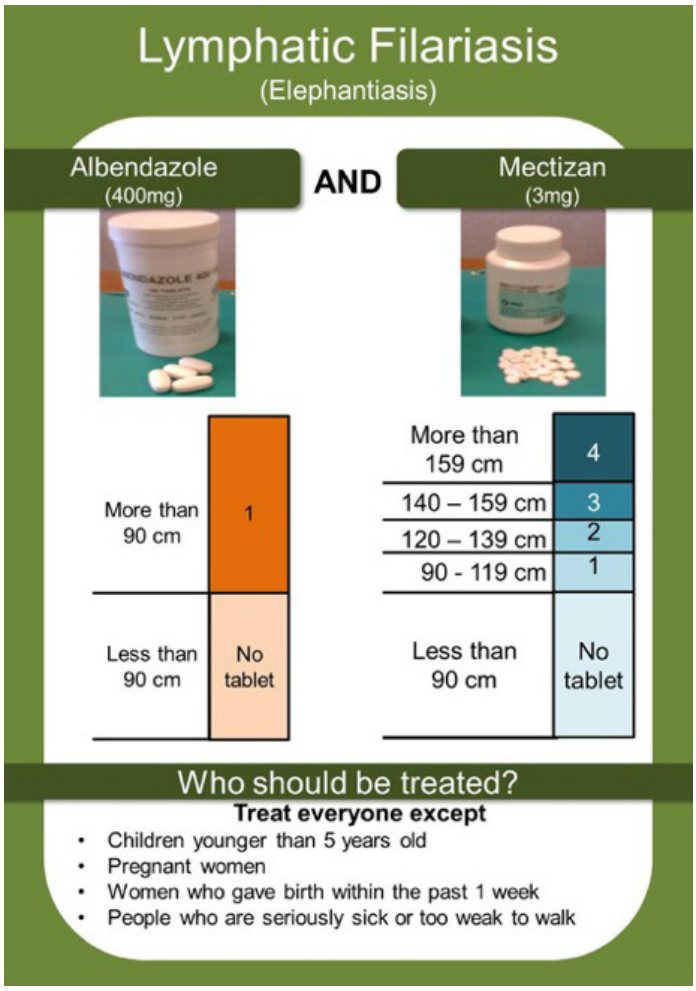
Explain who should not be treated for each medicine based on the individual pages below. Also, a person traveling outside the village will not be able to take the medicine, and neither will a person who refuses to take the medicine(s).

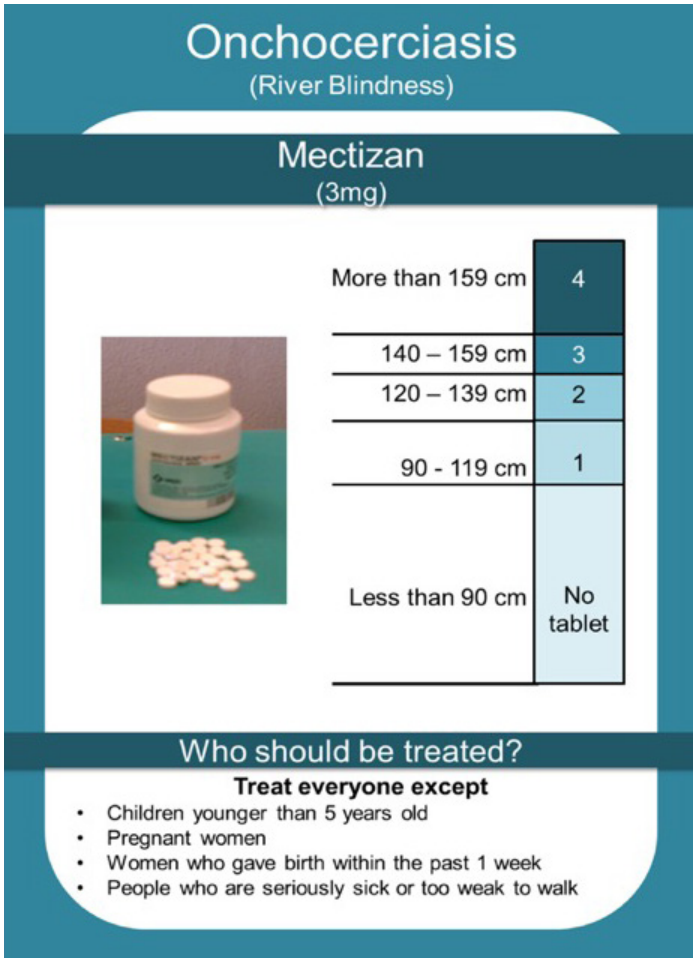
20. EXPLAIN THAT SOME WILL BE TREATED LATER

Explain that some people will be treated later:

- Sick people when they are well again.
- Anyone away from the village at the time of the medicine distribution, when he or she returns to the village.

Explain that after the main distribution is finished, the CI will reserve some tablets (for an additional period) to be given to those absentees who return for treatment after some time. Explain that this distribution should also be recorded in the notebook used for recording the main distribution.





A TRAINING GUIDE FOR TRAINERS OF COMMUNITY IMPLEMENTERS (CIs)

ON NEGLECTED TROPICAL DISEASES (NTDs) CONTROL AND ELIMINATION

DECEMBER 2014

TRAINING CONTENT

CASE DEFINITION, LIFE CYCLE AND DIAGNOSIS OF PCT NTDs

A. ONCHOCERCIASIS (RIVER BLINDNESS)

CASE DEFINITION

In an endemic area, any person with painless nodules (swellings) under the skin and/or leopard skin.

LIFE CYCLE

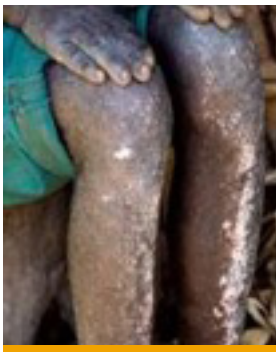
When a female blackfly bites an infected person to take blood, baby worms under the person's skin are transferred to the blackfly. The baby worms in the blackfly are then injected into the skin of other people when the blackfly bites them.

- The male and female adult worms in the skin swellings can live up to 15 years producing millions of baby worms every day. That is why the medicines are taken every year, 15 years or more.
- The baby worms move around the body under the skin and cause skin rashes, intense itching and skin depigmentation (leopard skin).
- When the baby worms enter the eye, they cause blindness.

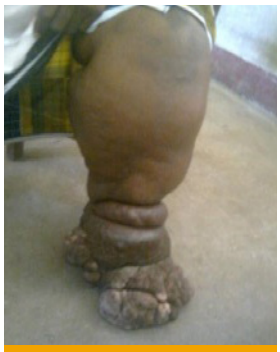
Black fly vector

DIAGNOSIS

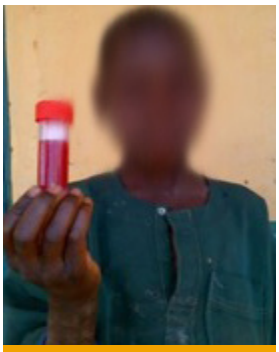
- A small pinch of skin is taken from the waist and examined under the microscope for baby worms.
- Palpation for nodules under the skin.



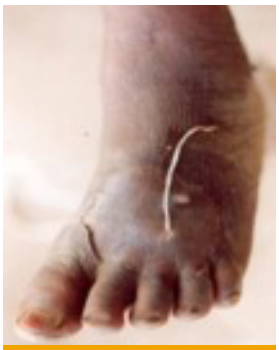
Leopard skin



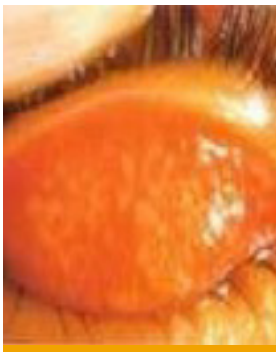
Elephantiasis



Blood urine



Guinea worm

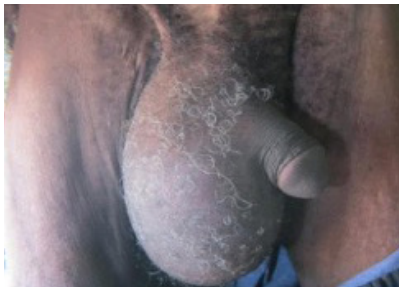


Active Trachoma

Excreting worms

NTD Unit, Federal Ministry of Health, Nigeria.

B. LYMPHATIC FILARIASIS (ELEPHANTIASIS)



Hydrocoele

CASE DEFINITION

In an endemic area, any person with swelling of the limb or scrotum.

LIFE CYCLE

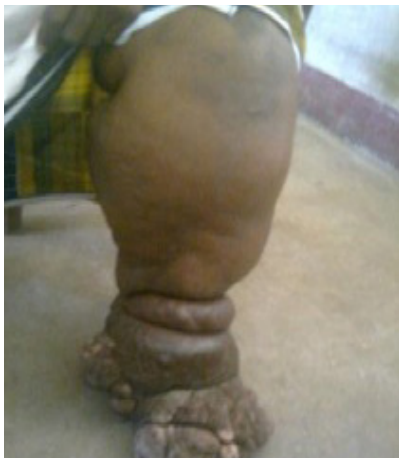
When a female mosquito bites an infected person to take blood, baby worms under the infected person's skin are transferred to the mosquito. When the mosquito bites another person, the baby worms are injected into the skin.

- The baby worms migrate to the blood stream and mature into adults within six months and start producing millions of baby worms.
- Adult female worms can live up to seven years producing millions of baby worms every day.
- The baby worms block the blood stream and cause swelling in the legs and scrotum.

Mosquito vector

DIAGNOSIS

A small amount of blood is taken and examined under the microscope for baby worms.



Elephantiasis of the leg

WHAT ARE THE KEY INTERVENTIONS FOR THESE PCT NTDs?

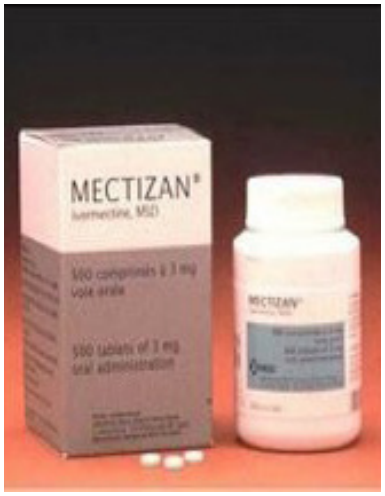
As the name implies, mass distribution of medicines for NTDs is the key intervention for control and elimination of the PCT NTDs.

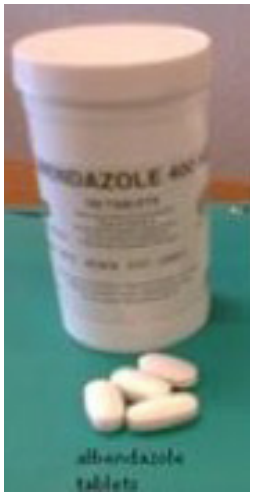
A. ONCHOCERCIASIS (RIVER BLINDNESS)

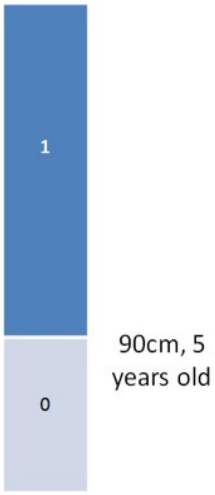
Mectizan tablets are given once every year to every person in the endemic community. The number of tablets an individual will take depends on his/her height and age. The following persons should not take Mectizan:

- Pregnant women.
- Breast feeding mothers of less than seven (7) days after delivery.
- Children less than five (5) years old.
- Very sick persons.

NTD Unit, Federal Ministry of Health, Nigeria.







B. LYMPHATIC FILARIASIS (ELEPHANTIASIS)

Mectizan tablets **PLUS** one tablet of Albendazole are given once every year to every person in the community. The number of tablets an individual will take depends on his/her height and age. The following persons should not take Mectizan:

- Pregnant women.
- Breast feeding mothers of less than seven (7) days after delivery.
- Children less than five (5) years old.
- Very sick persons.

Distribute treated nets to every household to avoid mosquito bites.

Wash and raise the affected part of the body with clean water and soap at least twice a day. This will minimise infection, increase lymph flow, reduce frequent attack of filarial fever and reduce the size of the elephantiasis. Those with swollen scrotum should be referred to the hospital for corrective surgery.

ADVERSE EVENTS OF NTD DRUGS

Ivermectin (Mectizan):

- Fever
- Shaking or trembling
- Rapid heartbeat
- Swelling of the face, hands, arms, feet, or legs
- Loss of appetite
- Nausea and vomiting
- Itching or skin rash
- Headache
- Dizziness
- Sleepiness

Albendazole/Mebendazole:

- Abdominal pain
- Dizziness
- Nausea and vomiting
- Diarrhoea
- Headache

DRUG STORAGE

All drugs must be kept in a cool, dry place away from sunlight.

WHAT ARE THE RESPONSIBILITIES OF COMMUNITY IMPLEMENTERS (CIs)?

- Conduct census (including absent household members) using community treatment register.
- Regularly visit households to discuss key health education messages.
- Inform community members in advance of distribution.
- Treatment of community members including follow up of absentees, refusals, pregnant and breastfeeding mothers one week after delivery.
- Recording of treatments in the community treatment register for onchocerciasis (river blindness), lymphatic filariasis (elephantiasis), schistosomiasis (snail fever), soil transmitted helminths (intestinal worms), trachoma.
- Entry summary of treatment data in the community summary form and submission to the supervisor.
- Surveillance and reporting of case management (IDM) NTDs.
- Promptly refer any SAEs.
- Yearly census update.

PRACTICE SESSION

A. DETERMINATION OF DOSES FOR DIFFERENT DISEASES

Lean against the dose pole and ask how many tablets you should get for ivermectin, azithromycin and Praziquantel. Discuss the answers in the group.

Ask a child to lean against the dose pole and ask how many tablets he should get for ivermectin, azithromycin and Praziquantel. Discuss the answers in the group.

Let all implementers take turns to measure how many tablets they should get. Ask one person to stand or stick against the wall, and another person to decide how many tablets he or she should be given for the different interventions that are based on height. Then repeat the procedure with another participant, until everybody has been measured.

B. CONDUCTING COMMUNITY CENSUS

Emphasise that it is very important to carry out a census before the first treatment takes place. This will give an idea of how many people live in the community and help to calculate the quantities of medicines and commodities needed for each disease.

The first task in any village is to count and register the number of people (census-taking).

The CDI should be supervised to conduct the census in at least 10 households using the community treatment register.

C. RECORDING AND REPORTING – COMMUNITY TREATMENT REGISTER AND COMMUNITY SUMMARY FORM

Distribute the forms and explain every entry item.

Practice recording in the two forms

Ask participants to practice recording in the registers to show people who are not to be treated. Give them practical tasks for each intervention to be carried out. Example:

> ***"You registered 5 women, 10 men, 2 very sick people; 11 children under 90 cm, and you were also informed by one family that their three sons were absent. How will you record this?"***

KEY HEALTH EDUCATION MESSAGES

- The diseases are present in this community. Absence of the signs and symptoms does not mean that the diseases are not present. Remember that some of the signs cannot be seen with the naked eye.
- If a person does not take medicines for these diseases in time, the person may become blind or have elephantiasis and therefore becomes poorer.
- The drugs such as Mectizan, Albendazole, Praziquantel and azithromycin are free, and should not be BOUGHT nor SOLD. Remember, if anyone buys them he may be taking FAKE drugs that could harm his health.
- The drugs are SAFE, but if anyone reacts to them, it is a sign that the drugs are working. After 1 – 3 days the reactions will disappear. In any case see your community distributor.
- Those who have developed swollen limbs (elephantiasis) should regularly wash them and keep them free from being infected. They should also raise the legs regularly while sitting.
- The environment should be kept clean. Urine and faeces should not come in contact with food and drinking/ bathing water.
- Hands should be washed before meals, and after urinating and defecating. Faces should also be regularly washed.

MESSAGE CONTENT FOR COMMUNITY MOBILISATION

What the community members need to do:

- Take the medicines that the government is providing free of charge:
  - For Elephantiasis the medicines are Ivermectin (Mectizan) and Albendazole.
  - For River Blindness the medicine is Mectizan.
  - For Bilharziasis the medicine is Praziquantel (Bilarcil).
  - For Intestinal Worms the medicine is Albendazole or Mebendazole.
- Agree to distribute the medicines by themselves from house to house.
- Hold a meeting to select members of the communities to distribute the medicines from house to house.
- Agree on what to give the selected community members who will distribute the medicines from house to house. **Government will not pay the community members selected for distributing the medicines from house to house.** Make sure that the medicines are given to all community members within 10 days of receiving the medicines.

PRE AND POST TEST FOR ONCHOCERCIASIS/LF FOR HEALTH WORKERS

KADUNA STATE NTD PROGRAMME

1. State 2 symptoms of Onchocerciasis:

a. | b.

2. State 2 symptoms of Lymphatic filariasis:

a. | b.

3. The drug used for the treatment and prevention of Lymphatic filariasis is:

☐ Albendazole ☐ Praziquantel ☐ Mebendazole ☐ Mectizan

4. The drug used for the treatment and prevention of Onchocerciasis is:

☐ Albendazole ☐ Praziquantel ☐ Mebendazole ☐ Mectizan

5. List four (4) materials you will need to administer drugs in the community:

a. | b.

c. | d.

6. How do you determine Mectizan and Albendazole dose to give to each child?

7. Why do you think CDDs are in the best position to administer these drugs in the community?

8. What is the minimum age that should be treated?

☐ 2 ☐ 7 ☐ 5 ☐ 4

9. Are there categories of people that should not be treated?

☐ Yes ☐ No If yes, state:

10. Mention 2 adverse events that can arise as a result of the use of the drug of choice for the treatment and prevention of Onchocerciasis/LF:

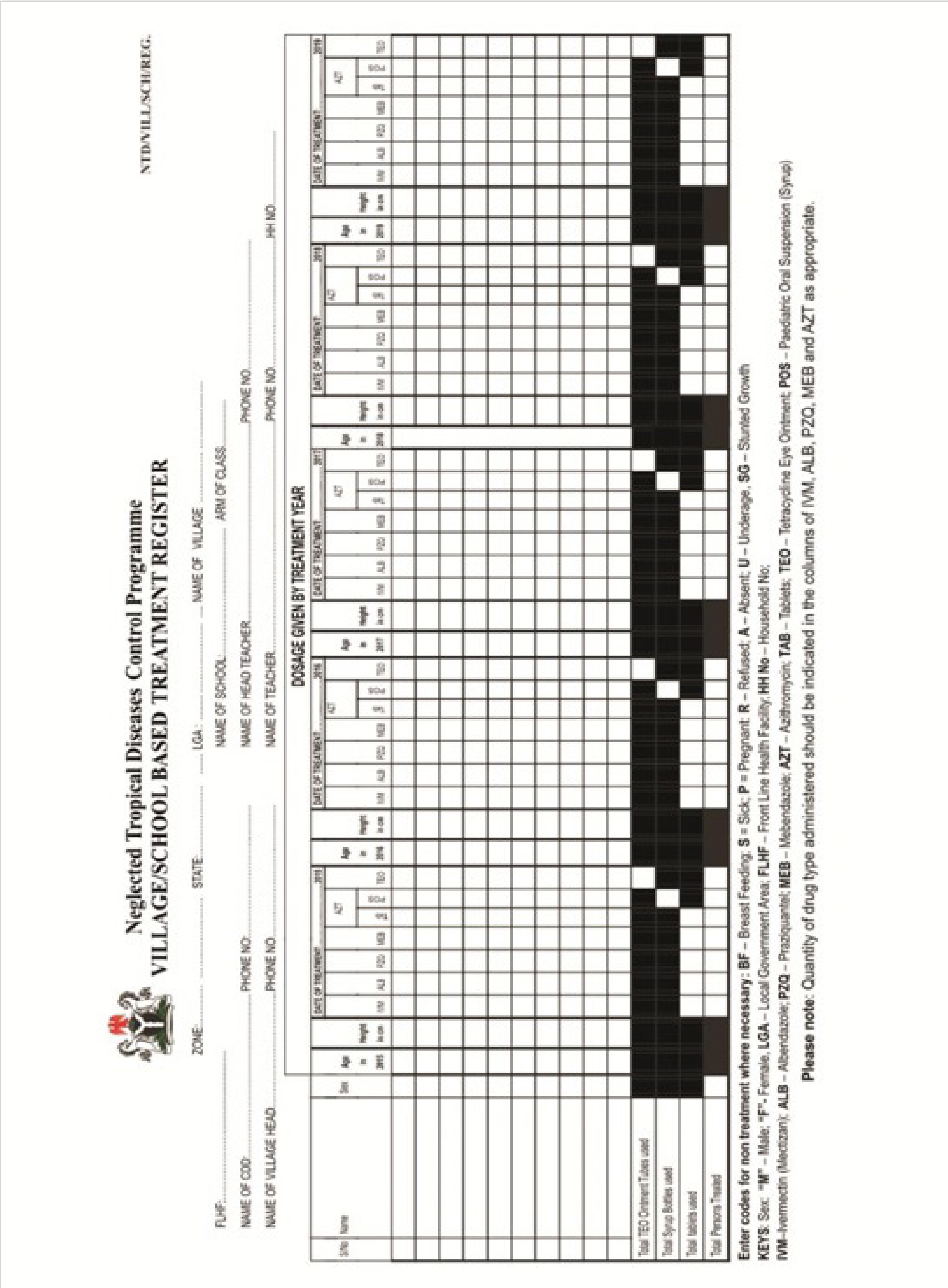
a. | b.

11. Using the information provided below you will answer a set of questions.

SN	FLHF	Total Population	Target Population	Number of IVM required	Number of Albendazole required
1	Koriko PHC	4,505			
2	Kpobi Dispensary	2,455			
3	Shintaku Health Post	4,850			
4	Mozun PHC	3,205			
5	Odugbo PHC	1,245			

NTD Unit, Federal Ministry of Health, Nigeria.

COMMUNITY TREATMENT REGISTER



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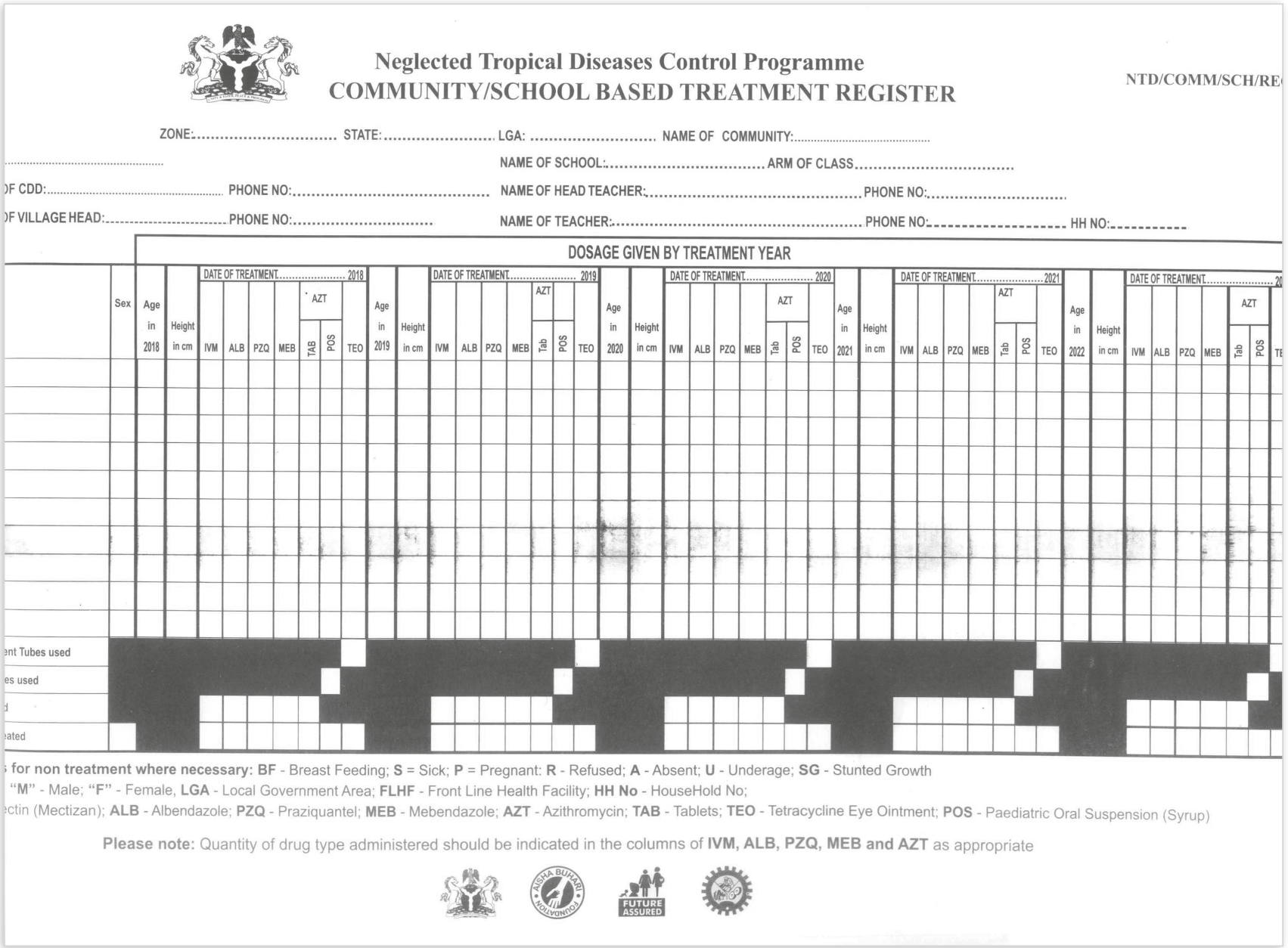
COMMUNITY AND SCHOOL TREATMENT REGISTER



Neglected Tropical Diseases Control Programme
COMMUNITY/SCHOOL BASED TREATMENT REGISTER

NTD/COMM/SCH/RE

ZONE:..... STATE:..... LGA: ..... NAME OF COMMUNITY:.....

NAME OF SCHOOL:..... ARM OF CLASS.....

OF CDD:..... PHONE NO:..... NAME OF HEAD TEACHER:..... PHONE NO:.....

OF VILLAGE HEAD:..... PHONE NO:..... NAME OF TEACHER:..... PHONE NO:..... HH NO:.....

DOSAGE GIVEN BY TREATMENT YEAR

	Sex	Age in 2018	Height in cm	DATE OF TREATMENT..... 2018							Age in 2019	Height in cm	DATE OF TREATMENT..... 2019							Age in 2020	Height in cm	DATE OF TREATMENT..... 2020							Age in 2021	Height in cm	DATE OF TREATMENT..... 2021							Age in 2022	Height in cm	DATE OF TREATMENT..... 20						
				IVM	ALB	PZQ	MEB	AZT		TEO			IVM	ALB	PZQ	MEB	AZT		TEO			IVM	ALB	PZQ	MEB	AZT		TEO			IVM	ALB	PZQ	MEB	AZT		TEO			IVM	ALB	PZQ	MEB	AZT	
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for non treatment where necessary: **BF** - Breast Feeding; **S** = Sick; **P** = Pregnant: **R** - Refused; **A** - Absent; **U** - Underage; **SG** - Stunted Growth

"**M**" - Male; "**F**" - Female, **LGA** - Local Government Area; **FLHF** - Front Line Health Facility; **HH No** - HouseHold No;

ectin (Mectizan); **ALB** - Albendazole; **PZQ** - Praziquantel; **MEB** - Mebendazole; **AZT** - Azithromycin; **TAB** - Tablets; **TEO** - Tetracycline Eye Ointment; **POS** - Paediatric Oral Suspension (Syrup)

Please note: Quantity of drug type administered should be indicated in the columns of **IVM, ALB, PZQ, MEB and AZT** as appropriate

NTD Unit, Federal Ministry of Health, Nigeria.

STANDARD OPERATING PROCEDURES (SOPs)

FOR NEGLECTED TROPICAL DISEASES (NTDs) ELIMINATION IN NIGERIA

PREVENTIVE CHEMOTHERAPY (PC) NTDs

LYMPHATIC FILARIASIS (LF)

DISEASE DEFINITION: Caused by a thread-like parasitic worm *Wuchereria bancrofti* in Nigeria and spread through mosquito bites. The adult worm lives inhuman lymph vessels and has a life span of 4-6 years. The microfilaria (immature worm) circulates in the peripheral blood with a marked nocturnal periodicity. Major chronic stages of LF are elephantiasis and hydrocele.

SIGNS AND SYMPTOMS: The signs and symptoms of LF are mainly elephantiasis (leg, arm, vulva or breast) and hydrocele (swollen scrotum). Others may include: fever, headache, pain and chyluria (milky urine).

INTERVENTION MEASURES: The Local Government Area (LGA) is LF endemic when a selected community has at least one (1) person in 100 recruits with immune chromatographic test (ICT). The intervention measures for LF after mapping are: Baseline survey, Mass Distribution of Medicines (MDM), surveillance, long lasting insecticide treated nets (LLIN) distribution, health education, hydrocoelectomy and personal hygiene practice for elephantiasis victims. Stakeholder/Partner implementing or supporting LF Programme in the State should have plans for adequate resources for a minimum of six (6) years before starting LF MDM in endemic LGA(s).

TARGET POPULATION FOR MASS ADMINISTRATION OF MEDICINES (MAM): The target population for LF MDM is 80% of the at-risk population of endemic LGA. The annual projected National Population Commission (NPC) figure of the LGA is the at-risk population for LF.

ELIGIBILITY: People who can take the LF medicines (Ivermectin and Albendazole tablets) are those that are ≥90cm in height or ≥ 5years of age living in endemic LGA. Those people that cannot take the medicines include those that are <90cm or <5 years of age, pregnant women, lactating mothers within the first 7 days and seriously sick people.

MANAGING ADVERSE REACTIONS: Adverse reactions that may occur when a person takes Ivermectin and Albendazole medicines may include: headache, fever, body aches, dizziness, decreased appetite, malaise, nausea, itching (urticarial), vomiting, wheezing and bronchial asthma. However in areas where *Loa loa* is co-endemic with LF, there may be severe adverse reactions such as 'encephalopathy'. Affected person should go to the **nearest health facility**. In areas where *Loa loa* is co-endemic, treatment with Albendazole medicine and adequate LLIN distribution should be used. Adverse reactions in LF MAM are common.

ELIMINATION THRESHOLDS: Impact assessment after 5 rounds of effective MAM at sentinel site(s) is <1% mf (microfilaria) or <1% CFA (circulating filarial antigen). Thereafter, LGAs must pass Transmission Assessment Survey (TAS) as in prescribed algorithm. LLIN distributions and other surveillance activities must continue in areas that have passed TAS (i.e. TAS1, TAS2 and TAS3) until the country is verified and certified LF free.

FOR FURTHER INFORMATION CONTACT:
Head, Neglected Tropical Diseases, Department of Public Health, Federal Ministry of Health, Abuja, Nigeria

ONCHOCERCIASIS (RIVER BLINDNESS)

DISEASE DEFINITION: Caused by a filarial worm known as *Onchocerca volvulus*. The disease only infects humans and is transmitted through the bite of an infected black fly of the *Simulium* genus, predominantly found around fast flowing rivers and streams. These flies transmit immature larval forms of the parasite from person to person. The parasites on maturing into adult female worms, can live up to 14 years and produce thousands of microfilariae

SIGNS AND SYMPTOMS: The adult worms are found in nodules located in the subcutaneous tissue under the skin. Migration of the microfilaria through the skin and eye is responsible for the major symptoms experienced by infected persons. The conditions include skin lesions (scaly or leopard skin), skin rashes accompanied by intense itching and resultant scratching (causing a condition commonly known as craw-craw), hanging groin, and ultimately, blindness.

INTERVENTION MEASURES: Endemicity is determined using nodular palpation or skin snipping methods. Currently, prevalence of 10% and above of an area identified using REMO requires mass distribution of Ivermectin, a microfilaricide. Annual doses of the medicine for a period of up to 20 years reduce drastically the symptoms of the disease and interrupts transmission. Through the Community Directed Treatment with Ivermectin (CDTI) strategy, Community Directed Distributors (CDDs) selected by endemic communities treat eligible persons. Vector control is no longer considered cost-effective.

TARGET POPULATION FOR MASS ADMINISTRATION OF MEDICINES (MAM): The target population is 80% of the total population at risk in an endemic community. The population at risk is the whole population in identified groups of villages or communities and not necessarily an entire LGA.

ELIGIBILITY: All persons ≥ 5 years in an endemic community is required to use an annual dose of Ivermectin with the exception of children <5 years or <90cm in height, pregnant women, lactating mothers within 7 days of delivery and severely ill persons.

MANAGING ADVERSE REACTIONS: Adverse reactions are rare and reactions can occur in form of headaches, dizziness, body aches, fever, nausea and itching. The affected person should be taken to the nearest health facility.

ELIMINATION THRESHOLDS: The disease is said to be eliminated when the infectivity rate of black flies is <5%/1000.

SCHISTOSOMIASIS (SCH)

DISEASE DEFINITION: Known as bilharziasis or snail fever, caused by the larvae of one or more of five types of flatworms or blood flukes known as schistosmiasis such as *Schistosoma mansoni, S. mekongi, S. japonicum, S. intercalatum, S. haematobium*. Eggs are excreted in human urine or faeces and, in areas with poor sanitation, contaminated fresh water sources. The eggs break open to release miracidia. Fresh water snails become infected with the miracidium which multiply inside the snail and after about a month matures into new larvae (cercariae) that the snail ejecting to the water. The cercariae, which survive outside a host for 48 hours, quickly penetrate unbroken skin, and travel to the liver where they grow and sexually mature. Mature male and female worms pair and migrate either to the intestine or the bladder where egg production occurs.

SIGNS AND SYMPTOMS: Many individuals do not experience symptoms. The first symptom of the disease may be a general ill feeling. Within twelve hours of infection, an individual may complain of tingling sensation or light rash, commonly referred to as "swimmer's itch", due to irritation at the point of entrance. The rash that may develop can mimic scabies and other types of rashes. The disease can also start with blood in urine or stool, anaemia, or problem with growth and development of children, and eventually become life threatening due to health effects such as bladder cancer, kidney and liver problems. Other symptoms include fever, aching, cough, diarrhoea, or gland enlargement.

SCHISTOSOMIASIS (SCH)

INTERVENTION MEASURES: The intervention measures for endemic LGAs are mass distribution of Praziquantel among school age children in LGA with prevalence ≥1%, including adults in LGA with prevalence 20% - 50%, surveillance; health education; basic sanitation and personal hygiene practices; and focal snail control in endemic communities. For LGAs with prevalence ≥10% Praziquantel is to be distributed annually while for LGAs with prevalence ≤10% but >0% Praziquantel is to be administered every other year. Intervention is for a minimum of four (4) years.

TARGET POPULATION FOR MASS ADMINISTRATION OF MEDICINES (MAM): The target population is school age children and adults in high risk communities of endemic LGA. 28% of the annual projected National Population Commission (NPC) figure of the LGA is the at-risk population for school age children in low and medium risk communities.

ELIGIBILITY: People who can take Praziquantel tablets are those that are between 5 and 15 years of age and not less than 110cm, include adult in high risk LGAs. Ineligible are pregnant women and children who are ill on the treatment day. This is not because of any danger of side effects, but to prevent the potential misperception that the deworming drug(s) have caused the illness. These children can be given the medicines later when they are well again.

MANAGING ADVERSE REACTIONS: Adverse reactions that may occur when a person takes Praziquantel tablet may include: mild headache, fever, body aches, dizziness, decreased appetite, malaise, nausea and vomiting. However, these reactions are rarely experienced provided medicines are taken after meal. Person who experiences adverse reactions should go to the **nearest health facility**.

ELIMINATION THRESHOLDS: Impact assessment is conducted after 3-5 years of uninterrupted MAM with Praziquantel. Parameters assessed include:

1. Parasitological Indicators (prevalence of infection, intensity of infection measured indirectly by counting worm eggs excreted in faeces expressed as eggs/gram of faeces); all measured against pre-intervention data.
2. Morbidity Indicators (lesion of urinary tract or liver caused by schistosomiasis which will require use of ultrasound machine, digital haemoglobin meter, etc.).
3. Water Sanitation and Hygiene (WASH) Indicators (Knowledge, Attitude and Practice – KAP), presence, adequacy and conditions of safe water supply and sanitation; improved school attendance, retention and performance). Conduct of impact assessment in at least five sentinel sites per senatorial district. 50% of the sentinel sites maintained and used to monitor the impact intervention over the years while 50% of schools are changed every year. Collection of data from children of the same age and those in their third year of school. Reduction in diseases transmission is evaluated using first year children who normally have not been exposed to treatment.

SCH is regarded as eliminated as a public health problem if: Prevalence of heavy infection in school-aged children in endemic areas is <1% (Heavy infection: Egg intensity ≥100eggs/gram for *S. mansoni* or ≥50 eggs/10ml of urine for *S. haematobium*) or reduction of pattern B fibrosis is less than 10% and absence of pattern C fibrosis on ultrasonography for *S. mansoni* and prevalence of bladder lesions less than 10% in *S. haematobium*.

Transmission of SCH is regarded as interrupted if: Zero prevalence of Schistosomiasis among school-aged children for three consecutive years and absence of symptomatic infection.

FOR FURTHER INFORMATION CONTACT:
Head, Neglected Tropical Diseases, Department of Public Health, Federal Ministry of Health, Abuja, Nigeria

DISEASE DEFINITION: Intestinal worms infecting humans that are transmitted through contaminated soil (*Ascaris lumbricoides*, sometimes called just "Ascaris"), whipworm (*Trichuris trichiura*), and hookworm (*Ancilostaoma duodenale* and *Necator americanus*) are the major STH.

SIGNS AND SYMPTOMS: People with light soil-transmitted helminth infections usually have no symptoms. Heavy infections can cause a range of health problems, including abdominal pain, diarrhoea, blood and protein loss, rectal prolapse, and physical and cognitive retardation. Soil-transmitted helminth infections are preventable and treatable with medication prescribed by health care provider.

INTERVENTION MEASURES: LGA is STH endemic when the average prevalence of the five selected communities in the LGA has at least twenty percent (20%) positive using standard diagnostic procedures (Kato-Katz/microscopy). The intervention measures for STH after mapping are annual Mass Distribution of Medicines (MDM) in LGA with prevalence ≥20% and <50%, bi-annual Mass Distribution of Medicines (MDM) in LGA with prevalence ≥50%, surveillance, health education, water, sanitation and personal hygiene practice in endemic communities.

TARGET POPULATION FOR MASS ADMINISTRATION OF MEDICINES (MAM): The target population for STH MAM is at least 75% of the at-risk population [Pre School Age Children (PSAC), School Age Children (SAC) and Women of Child Bearing Age (WCBA) in endemic LGAs. 28% of the annual projected National Population Commission (NPC) figure of the LGA is the at-risk population for STH.

ELIGIBILITY: People who can take the STH medicines (Albendazole and Mebendazole tablets) are Pre School Age Children (PSAC) 1-4 years, School Age Children (SAC) 5-15 years and Women of Child Bearing Age (WCBA) 16-44 years. Those people that cannot take the medicines include children who are ill on the treatment day. This is not because of any danger of side effects, but to prevent the potential misperception that the deworming drug(s) have caused the illness. These children can be given the drug(s) later when they are well again.

MANAGING ADVERSE REACTIONS: Adverse reactions that may occur when a person takes Albendazole or Mebendazole tablet may include: mild headache fever, body aches, dizziness, decreased appetite, malaise, nausea and vomiting. However, these reactions are rarely experienced. Any person who experiences any of the above adverse reactions after taking the medicines should go to the **nearest health facility**.

ELIMINATION THRESHOLDS: Impact assessment is concluded after 3-5 years of uninterrupted MAM with Mebendazole/Albendazole. Parameters assessed include:

1. Parasitological Indicators (prevalence of infection measured indirectly by counting worm eggs excreted in faeces expressed as eggs per gram of faeces); all measured baseline or pre-intervention data.
2. Morbidity Indicators (Malnutrition, anaemia and its consequences).
3. Water Sanitation and Hygiene (WASH) Indicators (Knowledge Attitude and Practices – KAP), presence, adequacy and conditions of safe water supply and sanitation; improved school attendance, retention and performance). The impact assessment is conducted in at least five sentinel sites selected per senatorial districts. 50% of the sentinel sites should be maintained and used to monitor the impact of intervention over the years while 50% of schools are changed every year. Data should be collected from children of the same age and those in their third year of school are preferred. Reduction in disease transmission is evaluated using first year children who normally have not been exposed to treatment.

If their assessment prevalence is <2% no further intervention is needed; if 2-10% then PC once every 2 years; if 10-20% PC is annual; if 20-50% maintain existing frequency of PC with an additional round targeted at SAC; if ≥50% then increase the frequency of PC to 3 times annually.

TRACHOMA

DISEASE DEFINITION: A potentially blinding infectious disease caused by a micro-organism called *Chlamydia trachomatis* spread by direct or indirect contact with infected individuals.

SIGNS AND SYMPTOMS: Discharge from the eyes, reddening of the eyes, deformity of the eyelids, inability to see properly and eventual blindness.

INTERVENTION MEASURES: The strategy endorsed by the WHO is **SAFE:**

S - Surgery trachomatous trichiasis.

A - Antibiotics to treat active infection.

F - Facial cleanliness to reduce disease transmission.

E - Environmental improvement particularly improving access to clean water and sanitation.

DECISION MAKING FOR THE ANTIBIOTIC TREATMENT: Baseline $TF_{1\_9} \geq 50\%$ = ≥ 7 rounds of MDA; Baseline $TF_{1\_9} \geq 30$ – 49.9% = ≥ 5 rounds of MDA; Baseline $TF_{1\_9} \geq 10$ – 29.9(% = ≥3 rounds of MDA; Baseline $TF_{1\_9} \geq 5$ – 9.9% = Targeted treatment, one round of MDA; Baseline $TF_{1\_9} < 5$ = no MDA.

TARGET POPULATION FOR MASS ADMINISTRATION OF MEDICINES (MAM): The target is to treat the entire population.

ELIGIBILITY: Two types of antibiotics are given: Azithromycin and tetracycline eye ointment (TEO). Although in Nigeria children <6 months of age and self-reporting pregnant women are ineligible and given TEO (2 tubes each). Children 6 months - 5 years are given Paediatric Oral Suspension (POS). Children ≥5 years are given Zithromax tablet.

MANAGING ADVERSE REACTIONS: Zithromax is well tolerated with a low incidence of adverse events, but reactions such as nausea, vomiting, diarrhoea or constipation may occur. People should eat before taking the medicine and should drink plenty of liquids (water, tea or milk) before and after treatment. Adverse reaction should be reported to the nearest Health Centre.

ELIMINATION THRESHOLDS: After impact assessments if results are $TF_{1\_9} \geq 30\%$ = ≥ 5 rounds of MDA; if $TF_{1\_9} \geq 10$ – 29.9% = ≥ 3 rounds of MDA; if $TF_{1\_9} \geq 5$ – 9.9% = ≥ 1 round of MDA. WHO has declared the elimination of blinding trachoma to be equivalent to a prevalence of trachomatous inflammation-follicular (TF) in children age 1–9 years to be <5% after two years of surveillance.

FOR FURTHER INFORMATION CONTACT:
Head, Neglected Tropical Diseases, Department of Public Health, Federal Ministry of Health, Abuja, Nigeria

INNOVATIVE DISEASE MANAGEMENT (IDM) NTDs

BURULI ULCER *(Non ulcerative & ulcerative forms)*

CASE DEFINITION: A chronic debilitating skin and soft tissue infection that can lead to permanent disfigurement and disability.

CAUSATIVE ORGANISM: *Mycobacterium ulcerans.*

DIAGNOSIS: Histopathological staining of skin lesion and polymerase chain reaction.

STRATEGIES FOR ELIMINATION:

1. Advocacy, health education, social mobilisation.
2. Surveillance, case detection and reporting.
3. Chemotherapy using recommended drugs.
4. Case containment and management.
5. Safe water supply.

GUINEA WORM DISEASE

CASE DEFINITION: Any person with a wound and guinea worm emerging from the wound.

CAUSATIVE ORGANISM: Guinea worm *(Dracunculus medinensis).*

VECTOR: Cyclops.

DIAGNOSIS: Emergence of the adult worm from boils or skin blisters.

STRATEGIES FOR ELIMINATION:

1. Same as in Buruli ulcer.
2. Vector control.

HUMAN AFRICAN TRYPANOSOMIASIS

CASE DEFINITION: A parasitic infection that attacks the central nervous system, causing severe neurological disorders that result in sleeping sickness or even death.

CAUSATIVE ORGANISM: *Trypanosome gambiense.*

VECTOR: Tsetse fly.

DIAGNOSIS: Microscopic detection of parasite in body fluids and PCR.

STRATEGIES FOR ELIMINATION:

1. Same as in Buruli ulcer.
2. Vector control.

FOR FURTHER INFORMATION CONTACT:
Head, Neglected Tropical Diseases, Department of Public Health, Federal Ministry of Health, Abuja, Nigeria

NTD Unit, Federal Ministry of Health, Nigeria.

LEISHMANIASIS

CASE DEFINITION: A parasitic disease that is spread by the bite of sand flies infected with the protozoa. *Leishmania*. The most common being cutaneous (skin sores) and visceral leishmaniasis (known as kalazar) which can be fatal and affect internal organs of the body.

CAUSATIVE ORGANISM: *Leishmania sp.*

VECTOR: Sandfly.

DIAGNOSIS: Microscopy and PCR.

STRATEGIES FOR ELIMINATION: Same as in buruli.

LEPROSY

CASE DEFINITION: A slowly progressing bacterial infection that affects the skin, peripheral nerves in the hands and feet and mucous membranes of the nose, throat and eyes. Destruction of the nerve endings causes to lose sensation. The fingers and toes become mutilated and fall off, causing the deformities.

CAUSATIVE ORGANISM: *Mycobacterium leprae.*

DIAGNOSIS: One or more hypo pigmented, anaesthetic skin patches; one or more thickened peripheral nerves; a positive skin smear.

STRATEGIES FOR ELIMINATION: Same as in Buruli ulcer but has nothing to do with water.

RABIES

CASE DEFINITION: An infectious viral disease of animals e.g. dogs, cats, etc., transmitted to humans by the bite if the infected animal and usually fatal if prophylactic treatment is not administered. In Nigeria as elsewhere in the world, rabies is recognized as 'mad dog' disease.

CAUSATIVE ORGANISM: Rabies virus of the genus lyssaviruses of rhabdoviruses family.

DIAGNOSIS: Rabies is diagnosed in animal using DFA (direct fluorescent antibody test) or using the field test of Drit (direct rapid immune histohistochemistry test) to look for the presence of rabies virus antigens in the brain tissue.

STRATEGIES FOR ELIMINATION:

1. MDV (mass dog vaccination) at source.
2. PEP treatment to exposed persons.
3. Advocacy/Awareness creation on rabies elimination.

YAWS

CASE DEFINITION: A contagious disease caused by a bacterium that enters skin abrasions and gives rise to small crusted lesions which may develop into deep ulcers.

CAUSATIVE ORGANISM: *Treponema palladium pertenue.*

DIAGNOSIS: Dark field microscopy of skin and polymerase chain reaction.

STRATEGIES FOR ELIMINATION: Same as in Buruli ulcer.

NTD Unit, Federal Ministry of Health, Nigeria.

PROTOCOL FOR MULTIPLE MASS ADMINISTRATION OF MEDICINE (MAM) IN COMMUNITIES/SCHOOLS

	CO-ENDEMICITY SCENARIO	INTERVENTIONS AND FREQUENCY OF TREATMENT
1.	**Where LF is Endemic…**	
1a.	**…and Oncho is present with Trachoma**	
i.	If an LGA is endemic for LF + Oncho + Trachoma + SCH + High STH (2ce a year).	Treat with IVM + ALB + AZT (Communities); After 2 weeks, treat with PRQ only (Schools); After 6 months, treat with ALB or MEB in schools.
ii.	If an LGA is endemic for LF + Oncho + Trachoma + SCH + Moderate STH (1ce a year).	Treat with IVM + ALB + AZT (Communities); After 2 weeks, treat with PRQ only (Schools); (ALB would have taken care of 1ce a year treatment for STH).
iii.	If an LGA is endemic for LF + Oncho + Trachoma + SCH + Low STH (no treatment).	Treat with IVM + ALB + AZT (Communities); After 2 weeks, treat with PRQ only (Schools); Low STH is considered as no STH.
iv.	If an LGA is endemic for LF + Oncho + Trachoma + High STH (2ce a year) and no SCH.	Treat with IVM + ALB + AZT (Communities); After 6 months, treat with ALB or MEB in schools (no need to treat with PRQ because no SCH).
v.	If an LGA is endemic for LF + Oncho + Trachoma + Moderate STH (1ce a year) and no SCH.	Treat with IVM + ALB + AZT (Communities); (ALB would have taken care of 1ce a year treatment for STH).
vi.	If an LGA is endemic for LF + Oncho + Trachoma + low STH (no treatment) and no SCH.	Treat with IVM + ALB + AZT (Communities); Low STH is considered as no STH.
1b.	**…and Oncho is present without Trachoma**	
i.	If an LGA is endemic for LF + Oncho + SCH + high STH (2ce a year).	Treat with IVM + ALB (Communities); After 2 weeks, treat with PRQ only (Schools); After 6 months, treat with ALB or MEB (Schools).
ii.	If an LGA is endemic for LF + Oncho + SCH + moderate STH (no treatment).	Treat with IVM + ALB (Communities); After 2 weeks, treat with PRQ only (Schools).
iii.	If an LGA is endemic for LF + Oncho + SCH + low STH (no treatment).	Treat with IVM + ALB (Communities); After 2 weeks, treat with PRQ only (Schools).
iv.	If an LGA is endemic for LF + Oncho + high STH (2ce a year) and no SCH.	Treat with IVM + ALB (Communities); After 6 months, treat with ALB or MEB (Schools)
v.	If an LGA is endemic for LF + Oncho + moderate STH (1ce a year) and no SCH.	Treat with IVM + ALB (Communities) (ALB would have taken care of 1ce a year treatment for STH).
vi.	If an LGA is endemic for LF + Oncho + low STH (no treatment) and no SCH.	Treat with IVM + ALB (Communities).
1c.	**…but Oncho and Trachoma is not present**	
i.	If an LGA is endemic for LF + SCH + high STH (2ce a year) and no Oncho.	Treat with IVM + ALB (Communities); After 2 weeks, treat with PRQ only (Schools). After 6 months, treat with ALB or MEB (Schools)
ii.	If an LGA is endemic for LF + SCH + moderate STH (1ce a year) and no Oncho.	Treat with IVM + ALB (Communities); After 2 weeks, treat with PRQ only (Schools).
iii.	If an LGA is endemic for LF + SCH + low STH (no treatment) and no Oncho.	Treat with IVM + ALB (Communities); After 2 weeks, treat with PRQ only (Schools).

	CO-ENDEMICITY SCENARIO	INTERVENTIONS AND FREQUENCY OF TREATMENT
1.	**Where LF is Endemic…**	
1c.	**…but Oncho and Trachoma is not present**	
iv.	If an LGA is endemic for LF + high STH (2ce a year) by no Oncho and SCH.	Treat with IVM + ALB (Communities); After 6 months, treat with ALB or MEB (Schools).
v.	If an LGA is endemic for LF + moderate STH (1ce a year) but no Oncho and SCH.	Treat with IVM + ALB (Communities).
vi.	If an LGA is endemic for LF + low STH (no treatment) but no Oncho and SCH.	Treat with IVM + ALB (Communities).
2.	**Where LF is not Endemic…**	
2a.	**…but Oncho is present with Trachoma**	
i.	If an LGA is endemic for Oncho + Trachoma + SCH + high STH (2ce a year).	Treat with IVM + AZT (Communities); After 2 weeks, treat with PRQ + MEB or ALB (Schools); After 6 months, treat with ALB or MEB (Schools).
ii.	If an LGA is endemic for Oncho + Trachoma + SCH + moderate STH (1ce a year).	Treat with IVM + AZT (Communities); After 2 weeks, treat with PRQ + MEB or ALB (Schools); (ALB or MEB would have taken care of 1ce a year treatment for STH).
iii.	If an LGA is endemic for Oncho + Trachoma + SCH + low STH (no treatment).	Treat with IVM + AZT (Communities); After 2 weeks, treat with PRQ + only (Schools) Low STH is considered as no STH.
iv.	If an LGA is endemic for Oncho + Trachoma High STH (2ce a year) and no SCH.	Treat with IVM + AZT (Communities); Treat with MEB or ALB (Schools); After 6 months, treat with ALB or MEB in schools (no need to treat with PRQ because no SCH).
v.	If an LGA is endemic for Oncho + Trachoma + moderate STH (1ce a year) and no SCH.	Treat with IVM + AZT (Communities); Treat with MEB or ALB (Schools). (ALB would have taken care of 1ce a year treatment for STH).
vi.	If an LGA is endemic for Oncho + Trachoma + low STH (no treatment) and no SCH	Treat with IVM + AZT (Communities); Low STH is considered as no STH.
2b.	**…and Oncho is present without Trachoma**	
i.	If an LGA is endemic for Oncho + SCH + high STH (2ce a year).	Treat with IVM (Communities); After 2 weeks, treat with PRQ +ALB or MEB (Schools); After 6 months, treat with ALB or MEB (Schools).
ii.	If an LGA is endemic for Oncho + SCH + moderate STH (1ce a year).	Treat with IVM (Communities); After 2 weeks, treat with PRQ (Schools).
iii.	If an LGA is endemic for Oncho + SCH + low STH (no treatment).	Treat with IVM (Communities); After 2 weeks, treat with PRQ (Schools).
iv.	If an LGA is endemic for Oncho + high STH (2ce a year) and no SCH.	Treat with IVM (Communities); Treat with ALB or MEB (Schools). After 6 months, treat with ALB or MEB (Schools).
v.	If an LGA is endemic for Oncho + moderate STH (1ce a year) and no SCH.	Treat with IVM (Communities); Treat with ALB or MEB (Schools). (ALB would have to be taken care of once a year for treatment for STH).
vi.	If an LGA is endemic for Oncho + low STH (no treatment) and no SCH.	Treat with IVM only (Communities).

	CO-ENDEMICITY SCENARIO	INTERVENTIONS AND FREQUENCY OF TREATMENT
2.	**Where LF is not Endemic…**	
2c.	**…but Oncho and Trachoma is not present (this applies to SCH and STH only endemic areas)**	
i.	If an LGA is endemic for SCH + high STH (2ce a year) and no Oncho.	Treat with PRQ + ALB + MEB (Schools); After 6 months, treat with ALB or MEB (Schools).
ii.	If an LGA is endemic for SCH + moderate STH (1ce a year) and no Oncho.	Treat with PRQ + ALB or MEB (Schools).
iii.	If an LGA is endemic for SCH + low STH (no treatment) and no Oncho i.e. SCH only LGA.	Treat with PRQ only (Schools).
iv.	If an LGA is endemic for high STH (2ce a year) but no Oncho and SCH i.e. high STH only LGA.	Treat with ALB or MEB (Schools). After 6 months, treat with ALB or MEB (Schools).
v.	If an LGA is endemic for moderate STH (1ce a year) but no Oncho and SCH i.e. moderate STH only LGA.	Treat with ALB or MEB (Schools).
vi.	If an LGA is endemic for low STH (no treatment at all) but no Oncho and SCH i.e. NTD free LGA.	No Mass Administration of Medicines.

POINTS TO NOTE:

1. If an LGA has high prevalence of >50% for SCH, it should be remembered that adults in communities are to be treated also. In these cases, community implementers are also to treat with PRQ only 2 weeks after any previous MDA have occurred.
2. Proper mobilisation must therefore be carried out in both schools and communities so that SAC enrolled ad treated in schools will not use PRQ again in communities.
3. LF co-endemic area with Loa loa-use Albendazole medicine and vector control (LLIN distribution and in door residual spray).
4. Tablet pole is a long piece of wood marked with height intervals corresponding to the number of Praziquantel or Mectizan tablets needed to treat school age children for schistosomiasis, onchocerciasis and lymphatic filariasis.

FOR FURTHER INFORMATION CONTACT:

Head, Neglected Tropical Diseases, Department of Public Health, Federal Ministry of Health, Abuja, Nigeria

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Calling time on Neglected Tropical Diseases

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RESEARCH ASSISTANTS IN BOTH STATES:

Azeez Abolaji
Sadiq Abubakar
Joshua Adams
David Adekunle
Awayi Namo Angela
Mathew Ayegboyin
Akintunde Albert Ayodeji
McRae Ayuba
Adedoyin Ademola Bernard
Adewumi Taiye Christiana
Filimon Musa David
Sogbuyi Imisioluwa Elijah
Bello Elizabeth
Chigaiti Faith
Hannah Ojone Hussaini
Damina Ibrahim
Adeniran Adebola Ismail
Shiabu James
Emmanuel Kachiro
Adebanji Adedayo Mathew
Oluwasewa Ogunkoya
Busola Ogunlana
Bukola Olagunju
Adeniran Gideon Olusanjo
Foluke Oluyemi
Olasupo Esther Opeyemi
Ozigi Emmanuel Samuel
Ide Siddi
Sodimu Samuel Sunday
Jimoh Nimot Temitope
Stella Udu
Dupe Yahemba

RESEARCHERS FROM SIGHTSAVERS:

Tosin Adekeye
Samson Ayuba
Ruth Dixon
Noela Gwani
Sunday Isiyaku
Gideon Kevin
Luret Lar
Damian Lawong
Akinola Oluwole
Bolanle Surakat
James Yashiyi

RESEARCHERS FROM LSTM:

Efundem Agboraw
Pamela Bongkiyung
Laura Dean
Julie Irving
Kim Ozano
Helen Piotrowski
Kelly Smyth
Sally Theobald
Rachael Thomson
Eve Worrall

ORGANISATIONS / INSTITUTIONS:

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