



CNTD Annual Report Progress and Results October 2016

Introduction and context

Lymphatic filariasis (LF), sometimes called elephantiasis, is a mosquito-borne parasitic infection that is endemic in 73 countries. At the beginning of the LF Elimination programme it was estimated that 120 million people were infected and at least 1.4 billion were at risk. The parasitic filarial worms in most LF infections in the world are of the species *Wuchereria bancrofti* and these are transmitted by both *Culex* and *Anopheles* species of mosquitoes; the other, less common filarial parasite involved in LF are of the *Brugia* species. The adult worms live in a person's lymphatic system where they grow, distort the vessels and induce lymphatic insufficiency. This in turn causes lymphoedema and the grossly swollen limbs and scrotums that are the hallmarks of this disease; another very significant feature of LF symptomatology is the recurring acute systemic attacks which are disabling and usually interfere with the daily activities of the patients. The new born larvae pass from the females into the lymph and then into the general vascular system where they are ingested by biting mosquitoes; these vectors carry the infection to new individuals during a subsequent blood meal. The vast majority of infected people are asymptomatic, but virtually all of them have subclinical lymphatic vessel damage, and as many as 40% have damaged kidneys with resultant proteinuria and haematuria.

LF is a major cause of disability and is responsible for the loss of more than 5.8 million Disability Adjusted Life Years (DALYs) worldwide each year. Current estimates are that globally 15 million people are suffering from lymphoedema (elephantiasis) and 25 million men from swelling of the scrotum (hydrocele).

With funding from UKAid (DfiD) and End Fund, CNTD's LF Elimination Programme forms part of WHO's Global Programme to Eliminate Lymphatic Filariasis (GPELF) which has two aims:

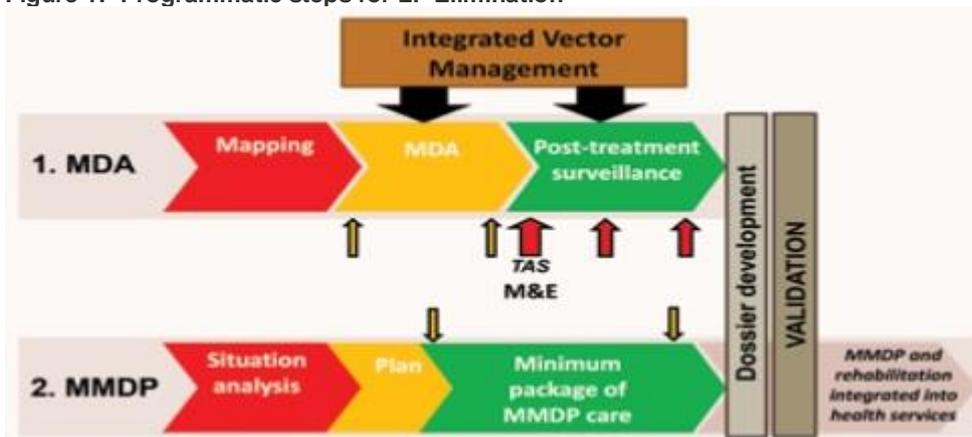
1. Stop the spread of infection: interrupt transmission by mass drug administration (MDA).
2. Reduce the suffering caused by the disease: morbidity management and disability prevention.

It also contributes to the wider global effort to control a group of diseases known as neglected tropical diseases (NTD's) that disproportionately affect the poorest communities and populations, mainly in developing countries. Working directly with national ministries of health and their NTD control teams, the programme focus is on supporting large scale preventive chemotherapy campaigns, monitoring and evaluation, disease surveillance and increasingly alternative treatment strategies and morbidity management and disability prevention. The programme countries are Bangladesh, Burkina Faso, DRC, Ethiopia, Ghana, Guinea, Liberia, Malawi, Mozambique, Nepal, Tanzania and Zambia. The measure of success for a country where LF is endemic will be in fulfilling the aims of the GPELF and the achievement of 'elimination' status.

The contribution of the programme to the global goal of elimination of LF as a public health problem by 2020 is for project countries to achieve the GPELF aims, through supporting and delivering:

- Geographical coverage of mass drug administration (MDA) in LF endemic areas;
- Monitoring and evaluation;
- Context appropriate transmission surveillance strategies;
- Effective training for drug distributors and national LF teams;
- Burden assessments of lymphoedema and hydrocele cases;
- Training for lymphoedema care and case management;
- Contribution to the evidence base for LF elimination;
- Enhanced evidence for effective implementation in the field;
- Improving the quality of national NTD laboratories.
- Production of the necessary documentation for WHO elimination assessment (programme dossier).

Figure 1: Programmatic steps for LF Elimination



Summary of CNTD LF Elimination Programme progress to date.

- 33.76 million people have been treated with preventive therapy in this reporting period (October 2015 to September 2016), with a total of 117.3 million treated since 2013 and over 200 million treated since the start of the LF programme in 2009.
- MDA has re-started in both Guinea and Liberia following the suspension of their NTD programmes during the ebola virus outbreak.
- Treatment campaigns target the whole population in districts identified as 'at risk' for LF, children under 5, pregnant women and the very sick are not eligible for treatment. The greatest percentage of uptake of treatment continues to be from females, with an average of 48% male and 52% females across 12 countries.
- Reported coverage numbers are independently verified with surveys carried out within the first quarter after an MDA.
- MMDP activities are underway or in the final stages of planning in ten of the project countries.

Table 1: Status of each programme by project country:

Starting	Control	Elimination
MDA – scale-up	National MDA	MDA scale down, TAS, surveillance, targeted treatments
DRC	Ethiopia	Bangladesh
	Guinea	Burkina Faso
	Liberia	Ghana
	Mozambique	Malawi
	Tanzania	Nepal
	Zambia	

Programme outline

Country support

Partnerships in country are fundamental to the success of the programme. CNTD's role is to support each country's national strategy for LF elimination and all implementation and interventions take place as part of and through the national Ministry of Health programmes with CNTD's contributing at the central, provincial, district and community levels. We have strong relationships with our counterparts in country and our approach to support is tailored to what suits each individual programme.

The key role for CNTD is to add value to the national programme cycle by sharing evidence of best practice and learning from our programmatic experiences and providing input for the improvement of structures and systems that can strengthen the health system in the long term.

Key points:

117.3 million people treated with preventive therapy since 2013.

Health systems strengthening with the continuous improved delivery of the LF programme at district and national levels.

Building capacity of national governments through training and mentorship of national programme teams, on a peer to peer basis from within the region wherever possible, to develop knowledge and skills in treatment, case detection, monitoring and evaluation as well as planning and budgeting.

National training of health workers and community distributors for nationwide roll-out of treatment campaigns as well as patient care, support and rehabilitation.

Strengthening NTD management information systems through the provision of databases and mobile tools for data collection, analysis and reporting.

Initiating morbidity management and disability prevention activities across all project countries.

Developing and piloting m-health tools for rapid reporting including community based surveillance systems using SMS technology to capture MMDP case information in real time.

Performance and progress towards outcome

Table 2: People protected from risk of LF

2013	2016
No. of people in 'at risk' population	No. of people removed from 'at risk' population
83,435,241	60,111,503
Progress towards outcome	72%

Table 3: Progress towards expected outcome

Expected Outcome	Achieved 2016
10 million cases of LF averted	11,736,855
1.7M disabilities averted	1,995,265
700,000 DALY's averted	821,580

Table 4: Progress towards expected outcome – by project country

Country	No. of people treated			Total in reporting period	Cases averted	No of DALYS averted	No. of disabilities averted
	Oct 13 - Sept 14	Oct 14 - Sept 15	Oct 15 - Sept 16				
Bangladesh	7,133,685	2,791,478	2,445,218	12,370,381	1,237,038	86,593	210,296
Burkina Faso	1,382,992	1,247,946	-	2,630,938	263,094	18,417	44,726
DRC	-	2,856,229	9,641,978	12,498,207	1,249,821	87,487	212,470
Ethiopia	1,422,298	1,459,029	-	2,881,327	288,133	20,169	48,983
Ghana	2,382,786	-	-	2,382,786	238,279	16,680	40,507
Guinea	1,653,431	-	1,327,120	2,980,551	298,055	20,864	50,669
Liberia	2,445,275	-	1,513,233	4,230,580	423,058	29,614	71,920
Malawi	12,569,510	-	-	12,569,510	1,256,951	87,987	213,682
Mozambique	11,467,739	13,732,623	14,972,505	40,172,867	4,017,287	281,210	682,939
Nepal	-	-	-	-	-	-	-
Tanzania	3,428,090	4,346,867	3,861,948	11,636,905	1,163,691	81,458	197,827
Zanzibar	764,233	801,843	-	1,566,076	156,608	10,963	26,623
Zambia	692,309	10,756,111	-	11,448,420	1,144,842	80,139	194,623
	45,342,348	37,992,126	33,762,002	117,368,548	11,736,855	821,580	1,995,265

Table 5: October 2015 – September 2016, Gender split of MDA

Country	Oct 15 - Sept 16	Number individuals ingesting tablets - MALES	% of total treatments	Number individuals ingesting tablets - FEMALES	% of total treatments
Bangladesh	2,445,218	1,225,787	50.13%	1,219,431	49.87%
DRC*	9,641,978	-		-	
Guinea	1,327,120	628,455	47.35%	698,665	52.65%
Liberia	1,513,233	727,183	48.05%	786,050	51.95%
Mozambique	14,972,505	7,226,499	48.27%	7,634,319	50.99%
Tanzania	3,861,948	2,142,813	55.49%	1,719,135	44.51%
	33,762,002	11,950,737		12,057,600	

* DRC: No data available yet on gender split of MDA.

Table 6: Number of people treated since 2009

Country	Oct 09 - Sept 13	Oct 13 - Sept 16	Total since start of project	Cases averted	No of DALYS averted	No. of disabilities averted
B'desh	9,530,279	12,370,381	21,900,660	2,190,066	153,305	372,311
Burkina Faso	5,111,903	2,630,938	7,742,841	774,284	54,200	131,628
DRC	-	12,498,207	12,498,207	1,249,821	87,487	212,470
Ethiopia	1,072,343	2,881,327	3,953,670	395,367	27,676	67,212
Ghana	6,639,871	2,382,786	9,022,657	902,266	63,159	153,385
Guinea		2,980,551	2,980,551	298,055	20,864	50,669
Liberia	2,217,320	4,230,580	6,447,900	644,790	45,135	109,614
Malawi	46,377,492	12,569,510	58,947,002	5,894,700	412,629	1,002,099
Moz	13,833,301	40,172,867	54,006,168	5,400,617	378,043	918,105
Nepal	-	-	-	-	-	-
Tanzania	-	11,636,905	11,636,905	1,163,691	81,458	197,827
Zanzibar		1,566,076	1,566,076	156,608	10,963	26,623
Zambia	-	11,448,420	11,448,420	1,144,842	80,139	194,623
	84,782,509	117,368,548	202,151,057	20,215,106	1,415,057	3,436,568

Table 7: Number of staff/community drug distributors trained in MDA, by project country:

Country	Oct 13 - Sept 14	Oct 14 - Sept 15	Oct 15 - Sept 16	Total to date
Bangladesh	100	7,600	165	7,865
Burkina Faso	4,400	4,400	4,206	13,006
DRC	-	86,549	74,329	160,878
Ethiopia	-	5,936	5,065	11,001
Ghana	6,000	-	-	6,000
Guinea	-	-	2,659	2,659
Liberia	10,000	-	5,253	15,253
Malawi	28,644	-	-	28,644
Mozambique	3,622	4,235	3,150	11,007
Nepal	-	-	-	-
Tanzania + Zanzibar	4,972	4,210	1,797	10,979
Zambia	-	24,693	-	24,693
Total	57,738	137,623	96,624	291,985

Table 8: Progress on Morbidity Management and Disability Prevention (MMDP)

Activity	2016 Progress
No. of hydrocele surgeries done	6,739*
No. of community care workers trained in managing lymphoedema	5,357

*Total number of surgeries carried out in project countries – 12,739, with 6,000 additional surgeries done in Nepal on cost share basis with CNTD.

Key points:

Patient searching and burden assessments CNTD’s SMS based tool for recording cases of hydrocele and lymphoedema has been used in Bangladesh, Ethiopia, Liberia, Malawi, Nepal and Tanzania.

- **8,227 health care workers** have been trained in patient searching

Hydrocele surgeries - training delivered in a cascade format, starting with ‘Training of Trainers’.

Beneficiary feedback: Pre and post-surgery surveys to assess quality of life and socio-economic status patients carried out in Malawi and followed-up at 3 and 6 month intervals.

Nepal:

- 11,000 surgeries done, 5,000 totally funded from the LF Programme (DFID) and 6,000 cost-shared with the Ministry of Health.
- 71 surgeons re-trained/refresher trained.

Burkina Faso: 1,100 surgeries done.

Ethiopia: 170 surgeries done, 20 as part of ‘training of trainers’ and 150 surgeries cost-shared with USAID.

Training in managing lymphoedema:

Training is delivered in a cascade format at the provincial, district and community levels, starting with clinical officer and/or nurses.

- 442 clinical officers trained (Burkina Faso and Liberia)
- 629 nurses trained (Burkina Faso and Ethiopia)
- 5,357 community care workers trained (Bangladesh, Burkina Faso, Ethiopia, Liberia and Malawi)
- 1,576 patients trained in self based care (Nepal).

Lymphoedema referral:

5,833 Health care workers, community health volunteers and traditional healers have been trained to refer patients to the nearest health facility.

Abbreviations and acronyms	
ALB	Albendazole
APOC	African Programme for Onchocerciasis Control
ASTMH	American Society of Tropical Medicine and Hygiene
CBM	Christian Blind Mission
CDD	Community Drug Distributors
CNTD	Centre for Neglected Tropical Diseases
COR-NTD	Coalition for Operational Research on NTDs (COR-NTD)
DFID	Department for International Development
DRC	Democratic Republic of Congo
FY	Financial year
FGD	Focus Group Discussions
FTS	Filarial Test Strips
GAELF	Global Alliance for the Elimination of Lymphatic Filariasis
GPELF	Global Programme for the Elimination of Lymphatic Filariasis
GSK	Glaxo Smith Kline
ICOSA	Integrated Control of Schistosomiasis and Intestinal Helminths
IVM	Ivermectin
LF	Lymphatic Filariasis
LoA	Letter of Agreement
LSTM	Liverpool School of Tropical Medicine
M&E	Monitoring and Evaluation
MDA	Mass Drug Administration
MDG	Millennium Development Goal
MMDP	Morbidity management and disability prevention
MF	Microfilaria
MTR	Mid Term Review
MoH	Ministry of Health
NNN	Neglected Tropical Disease NGO Network
NTD	Neglected Tropical Diseases
PCT	Preventive chemotherapy and transmission control
PENDA	Programme for the Elimination of Neglected Diseases in Africa
PZQ	Praziquantel
SAE	Serious Adverse Event
SCH	Schistosomiasis
SCI	Schistosomiasis Control Initiative
STH	Soil-transmitted Helminths (intestinal helminths)
TAS	Transmission assessment survey
TOR	Terms of reference
VFM	Value for money
WHO	World Health Organization