

Anti Filariasis Campaign Annual Health Bulletin 2022



Anti Filariasis Campaign – Ministry of Health
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1. Annual Morbidity Data- 2022

Table 1: Distribution of Morbidity data in year 2022

Morbidity Data- 2022											
District		No of Clinic Sessions	First Visit Lymphoedema patients				Subsequent Visit Lymphoedema patients				Hydrocele /TPE
			Lymphoedema without ADLA	Lymphoedema patients with ADLA	No. with H/O ADLA within last 4 weeks	Total No of new lymphoedema patients	Lymphoedema without ADLA	Lymphoedema with ADLA	No. with H/O ADLA within last 4 weeks	Total number of subsequent visits	
Colombo	AFC	91	36	8	4	44	656	59	19	715	0
	RAFU	165	56	3	1	59	605	21	9	626	0
Gampaha		102	103	0	0	103	585	12	2	597	*
Kalutara		99	77	11	1	88	938	3	6	941	0
Western Province		457	272	22	6	294	2784	95	36	2879	0
Galle		67	50	0	0	50	1163	3	8	1166	0
Matara		71	97	0	0	97	815	0	0	815	0
Hambantota		11	26	0	0	26	23	0	0	23	0
Southern Province		149	173	0	0	173	2001	3	8	2004	0
Kurunegala		50	18	2	2	20	146	5	5	151	*
Puttalam		78	65	1	0	66	1148	11	4	1159	0
North Western Province		128	83	3	2	86	1294	16	9	1310	*
Sri Lanka		734	528	25	8	553	6079	114	53	6193	*

A total of 553 lymphoedema cases were newly registered for 2022 at the Anti Filariasis Campaign and other regional AFUs out of which 33 lymphoedema cases had Acute Dermato-Lymphangio-Adenitis (ADLA). Even though there was a reduction in new lymphoedema patients (322) registered at the clinics in 2021 due to Covid 19 pandemic, in 2022 the number of new lymphoedema patients registered had increased.

There were 167 patients with symptoms of Acute Dermato-Lymphangio-Adenitis (ADLA) among subsequent visit group of 6193 patients. When compared to 2021, the number of lymphoedema patients with Acute Dermato-Lymphangio-Adenitis (ADLA) among subsequent visits has been decreased in 2022 (2022= 167 → 2021=206 → 2020= 145 → 2019=166).

Number of New Lymphoedema Patients by Staging

Table 2: Distribution of New lymphoedema patients by staging in 2022

Number of 1st Visit (New)Lymphoedema patients by Sex and the Stage of disease- 2022																					
Unit	AFC HQ		RAFU Colombo		Gampaha		Kalutara		Galle		Matara		Hambantota		Kurunegala		Puttalam		Total		Grand Total
Sex/ Stage	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
I	8	4	1	2	15	10	27	22	4	7	5	1	3	1	4	2	6	5	73	54	127
II	11	9	22	32	30	28	10	17	16	13	28	36	6	3	4	5	17	25	144	168	312
III	2	9	0	0	6	9	4	4	5	3	12	12	1	2	1	2	5	4	36	45	81
IV	0	0	1	0	1	1	1	0	1	0	2	0	3	1	0	0	0	0	9	2	11
V	0	0	0	0	1	2	1	0	0	0	0	0	0	2	0	1	1	2	3	7	10
VI	1	0	0	1	0	0	0	0	1	0	0	1	0	1	1	0	0	1	3	4	7
VII	0	0	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	5	0	5
Total by Sex	22	22	24	35	53	50	45	43	27	23	47	50	16	10	10	10	29	37	273	280	
Total by Stage	44		59		103		88		50		97		26		20		66				553

The number of new lymphoedema patients registered in 2022 was 553. Majority (n=312) of the new patients were in stage II, out of which 168 were females. The highest number of new patients were reported from Gampaha, Matara and Kalutara districts. The sex distribution among the above districts was almost equal.

Number of New Lymphoedema Patients by Age Groups- 2022

Table 3: Distribution of New lymphoedema patients by age group in 2022

Unit/Age (Yrs)	AFC HQ	RAFU Colombo	Gampaha	Kalutara	Galle	Matara	Hambantota	Kurunegala	Puttalam	Grand Total
1-10	0	0	0	0	0	0	0	0	0	0
11-20	0	0	1	0	4	7	0	0	3	15
21-30	3	2	7	3	0	7	0	1	4	27
31-40	2	4	12	8	5	11	2	4	12	60
41-50	11	14	26	13	15	19	7	5	13	123
51-60	11	18	25	18	9	18	3	3	16	121
61-70	17	10	21	31	10	18	10	6	15	138
71-80	0	10	9	13	7	16	2	1	2	60
over 80	0	1	2	2	0	1	2	0	1	9
Total by Unit	44	59	103	88	50	97	26	20	66	553

When considering the age group and sex of the newly registered lymphoedema patients, majority reported were above 41 years of age.

In order to reduce the progression of the lymphoedema and to improve the quality of life of the patients, Anti Filariasis Campaign (AFC) and Regional Anti Filariasis Units (RAFUs) deliver the essential care package to the lymphoedema patients by allowing access to;

- Treatment for episodes of Acute Dermato-lymphangio-adenitis (ADLA)
- Guidance in applying simple measures to manage lymphoedema to prevent progression of the disease and debilitating, inflammatory episodes of ADLA (Hygiene, Exercise, Elevation of the affected limb, Skin and wound care and wearing suitable footwear) by Morbidity Management and Disability Prevention
- Providing Anti Filarial medicines
- Surgery for hydrocele

In addition to the above package, delivery of health education and training on Morbidity Management and Disability Prevention (MMDP) and demonstration of bandaging techniques to both lymphoedema patients and health care staff are done by the regional units and the headquarters.

2. Parasitological Indices - 2022

Table 4: Distribution of parasitological indices by district in 2022

Parasitological Indices -2022 by Districts							
District	No. of slides examined	No. of slides positive	Species		Mf rate	No. of microfilaria	Mf density
			Wb	Bm			
Colombo	52144	4	3	1	0.01	34	188.93
Gampaha	53762	3	1	2	0.01	21	350.07
Kalutara	68269	1	0	1	0.00	1	16.67
Western Province	174175	8	4	4	0.00	56	233.38
Galle	72187	17	12	5	0.02	158	219.49
Hambantota	16703	1	1	0	0.01	6	100.02
Matara	60356	14	13	1	0.02	119	152.59
Southern Province	149246	32	26	6	0.02	283	181.45
Kurunegala	41299	0	0	0	0.00	0	0
Puttalam	14359	0	0	0	0.00	0	0
North Western province	55658	0	0	0	0.00	0	0
Total Island	379079	40	30	10	0.01	339	188.37
IOM & other migrants	1135	34	34	0	3.00	293	143.66
<i>Wb- Wuchereria bancrofti</i> <i>Bm—Brugia malayi</i> <i>Mf-Micro filaria</i>							

A total of 379,079 blood films had been examined in 2022, and 40 Microfilaria (Mf)-positive cases were detected in endemic districts. The Mf rate was 0.01%, and the Mf density was 188.37 for the whole country. The majority of positive cases (30) were *Wuchereria bancrofti*, and only 10 cases were reported as *Brugia malayi*.

The majority of the *Wuchereria bancrofti* (26) and *Brugia malayi* (06) cases were reported from the Southern Province.

Apart from the above cases, 34 *Wuchereria bancrofti* cases were detected among the 1135 migrants, which displayed a Mf rate of 3% and a Mf density of 143.66. The Mf rate among the immigrant workers has exceeded the elimination cutoff level of < 1%, which illustrates the threat to sustaining the elimination status of the country.

$$\text{Mf Rate} = \frac{\text{No. of positive persons}}{\text{Total no. of persons screened}} \times 100$$

$$\text{Mf Density} = \frac{\text{Total number of Mf count} \times 16.67}{\text{Total no. of blood films collected}}$$

3. Entomological Indices – 2022

Table 5: Distribution of entomological indices by district in 2022

District		No of premises examined	No of Premises positive for <i>Cx quin</i>	% positive	<i>Culex quinquefasciatus</i>			% Infection	% Infective
					Dissected	Infected	Infective		
Colombo	Routine	1569	718	45.76	2048(2)*	0	0	0.00(0.00)*	0.00(0.00)*
	Special survey				5564	0	0		
Gampaha	Routine	947	505	53.33	2434(21)*	33(0)*	0(0)*	0.41(0.00)*	0.00(0.00)*
	Special survey				8562(78)*	12(0)*	0(0)*		
Kalutara	Routine	7269	3920	53.93	12455	147	0	1.12(0.00)*	0.00(0.00)*
	Special survey				695(25)*	0(0)*	0(0)*		
Western Province		9785	5143	52.56	31758(126)*	192 (0)*	0(0)*	0.60(0.00)*	0.00(0.00)*
Galle	Routine	3779	1598	42.29	5107	17	8	0.30(0.76)*	0.17(0.76)*
	Special survey				4329(655)*	11(5)*	8(5)*		
Matara	Routine	2835	994	35.06	2022	20	1	0.80(0.00)*	0.04(0.00)*
	Special survey				600(4)*	1(0)*	0(0)*		
Hambantota		-	-	-	2571(434)*	0(0)*	0(0)*	0.00(0.00)*	0.00(0.00)*
Southern Province		6614	2592	39.19	14629(1093)*	49(5)*	17(5)*	0.33(0.46)*	0.12(0.46)*
Kurunegala	Routine	836	283	33.85	572	0	0	0.00(0.00)*	0.00(0.00)*
	Special survey				2204 (545)*	0(0)*	0(0)*		
Puttalam	Routine	1723	468	27.16	1176(21)*	5(2)*	0(0)*	0.43(2.17)*	0.00(0.00)*
	Special survey				(71)*	(0)*	(0)*		
North Western Province		2559	751	29.35	3952 (637)*	5(2)*	0(0)*	0.13(0.31)*	0.00(0.00)*
Sri Lanka		18958	8486	44.76	50339(1856)*	246(7)*	17(5)*	0.49(0.38)*	0.03(0.27)*
()* - <i>Mansonia sp.</i>									

Infection rate= $\frac{\text{Number of mosquitoes with any stage (mf, L1, L2 or L3) of the parasite} \times 100}{\text{Number of mosquitoes dissected}}$

Infective rate= $\frac{\text{Number of mosquitoes with L3 stage of the parasite} \times 100}{\text{Number of mosquitoes dissected}}$

Filarial entomological investigations were carried out in all endemic provinces in Sri Lanka during the year 2022 by entomological teams attached to the Anti Filariasis Campaign, Regional Anti Filariasis Units, and Medical Officer of Health Offices. A total of 18958 human dwellings had been examined in all endemic districts, of which 8486 (44.76%) were positive for filarial vectors, *Culex quinquefasciatus* female mosquitoes. Adult female vector mosquitoes were collected by these techniques; Hand collection, gravid trap collection, cattle baited net trap collection, and human landing night collection techniques. A total of 50339 (blood-fed, semi-gravid, and gravid) *Culex quinquefasciatus* and 1856 *Mansonia* species female mosquitoes were dissected in the laboratories of AFC and AFUs, of which 246 *Culex quinquefasciatus* mosquitoes were infected with filarial nematode stages, and the infection rate was 0.49%. There were 17 mosquitoes positive for the infective (L3) stage. The infective rate for major vector was 0.03% in 2022. Seven *Mansonia* female mosquitoes were infected with *Brugia malayi* parasites. The infection rate for *Mansonia* species was 0.38% in 2022.

4. Molecular Biological Assays -2022

Table 6: Results of PCR testing on mosquito pools (For *Wuchereria bancrofti* DNA)

Districts	<i>Culex quinquefasciatus</i>		
	No. of Pools Tested	No. of Pools Positive	Pool Positivity Rate (%)
Colombo	343	0	0.00
Gampaha	318	0	0.00
Kalutara	298	0	0.00
Galle	420	4	0.95
Matara	295	0	0.00
Hambantota	352	0	0.00
Kurunegala	387	0	0.00
Puttalam	231	4	1.73
Total	2644	8	0.30

The gravid trap collection method was used to collect semi-gravid and gravid female mosquitoes, *Culex quinquefasciatus*. Each pool consisted of 20–25 vector mosquitoes. According to the molecular biological assay, a total of 2644 mosquito pools were tested for *Wuchereria bancrofti*, of which 8 pools were positive

for the parasite. The mosquito pool positivity rate was 0.30% in 2022. Parasitological surveys were carried out in localities where positive pools were collected.