



Research Article

Role of National Filaria Control Programme (NFCP) Units in Elimination of Lymphatic Filariasis in Uttar Pradesh, India

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A B S T R A C T

All 51 lymphatic filariasis (LF) endemic districts of eastern Uttar Pradesh are being targeted for elimination of lymphatic filariasis (ELF) and accordingly, mass drug administration (MDA) had to be observed for consecutive five years by administering only Di-ethyl Carbamazine Citrate (DEC) once in a year. However, the human resource deployed in the state under NFCP is not optimally involved and utilised for the purpose. Instead, one more drug albendazole (400 mg) was added along with DEC and was administered to all age groups above 2 years of age since 2008 to have an effect on the adult worm too together with mf and therefore, the parasite was destroyed preventing the infected person from developing clinical manifestation. This had to be assessed by conducting a transmission assessment survey (TAS) thrice at an interval of two years.

Out of 51 filaria endemic districts of the state, 42 districts have been subjected to TAS since 2015, of which only one district, i.e. Rampur, has cleared TAS-1, TAS-2 and TAS-3 and is under post MDA surveillance. 09 districts were subjected to TAS-1 twice, but could not clear the TAS-1 level, while 09 other districts could not qualify to proceed further for TAS-1. The state is yet to achieve the elimination of LF and has to conduct more MDA rounds beyond the scheduled five rounds required for the elimination of the disease. The various reasons for not achieving the target in programme implementation have been raised in the present paper.

Keywords: NFCP, Filaria Control Unit, Filaria Clinic, Microfilaria, DEC

Background History

Among vector-borne diseases, lymphatic filariasis (LF) is a major public health problem not only in Uttar Pradesh but in other regions as well. It is transmitted by mosquitoes that breed only in polluted water. The National Filaria Control

Programme (NFCP)¹ was launched in 1955 in India as an independent programme, for the control of bancroftian filariasis, which constitutes more than 99% of the problem together with brugian filariasis, which constitutes less than 1% of the problem, restricted to some foci in the Kerala

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state of India. The objectives of the programme remained: (i) delimitation surveys in known endemic areas, (ii) large scale control measures in selected areas, and (iii) training of personnel required for manning the programme. The disease is endemic in 255 districts belonging to 21 states and Union Territories (UT) and is responsible for the second-highest cause of deformity. Chhattisgarh state and Dadra & Nagar Haveli union territory have not established NFPC units to date. The available data reflects that both urban and rural areas in India are contributing lymphatic filariasis (LF) problem. India contributes more than 70% of LF problem to the total LF problem of South East Asia (SEA) and 38% to the global problem. Out of 51 LF endemic districts of eastern Uttar Pradesh, which constitute 20% of the total country's filariasis endemic districts, 31 districts of eastern Uttar Pradesh have a very good set-up of the National Filaria Control Programme (NFPC). These LF endemic districts have an increased density of people in comparison to the country's population and as such 112 million (95 million in rural areas and 17 million in urban areas) inhabit LF endemic districts. Thus, about one-fourth population inhabits in one-fifth area of the country, preventing them to go to work or school.

The disease lymphatic filariasis had to be eliminated from the globe by the year 2020 and India set its goal of Elimination of Lymphatic Filariasis (ELF) by 2015, which was later set to 2020. The basic elimination strategy of LF comprises twin pillars which includes: (a) transmission control through single yearly mass drug administration (MDA) of the drug to all the eligible population living in an endemic area, and (b) community and home-based morbidity management and disability prevention (MMDP) of persons suffering from different clinical manifestations of LF. The programme was turned into the Global Programme for Elimination of Lymphatic Filariasis (GPELF) in the year 2015-16 with a commitment to eliminate the disease from the globe.

In spite of more than 15 rounds of MDA, the state has yet to achieve the elimination of LF and has to conduct more MDA rounds beyond the scheduled five rounds required for the elimination of the disease. Various reasons for not achieving the target in programme implementation have been discussed in the present paper, of which proper involvement and utilisation of NFPC set-up in the various ELF activities is of prime concern. A brief update on NFPC set-up and its role has been discussed in detail in this article.

National Filaria Control Programme (NFPC) Set-up in UP

Proper surveys were undertaken prior to establishing the regular programme for control of filariasis throughout the state, and NFPC units for undertaking anti-larval measures at weekly intervals and conducting routine night blood surveys

in the identified areas were established in 29 districts. Districts Kanpur and Allahabad had urban malaria units operating anti-larval measures similar to filaria control units had one filaria clinic each. Thus, 31 districts of eastern Uttar Pradesh have NFPC¹ establishment (Table 1 and Figure 1) but as a result of the division of some parent districts into two or three districts, the number of filarial endemic districts has raised to 51 (Figure 2). 18 new districts were created from these parent districts (two districts were created each from Basti namely Siddharthnagar and Sant Kabirnagar, two from Varanasi namely Sant Ravidas Nagar (Bhadohi) and Chandauli, while one district each, Kanpur Dehat from Kanpur Nagar, Kannauj from Farrukhabad, Kaushambi from Allahabad, Chitrakoot from Banda, Shrivasti from Bahraich, Balrampur from Gonda, Ambedkarnagar from Faizabad, Amethi from Sultanpur, Auraiya from Etawah, Sonbhadra from Mirzapur, Kushinagar from Deoria, Mahrajganj from Gorakhpur, Mau from Azamgarh and Mahoba from Hamirpur, are under elimination of lymphatic filariasis (ELF)). District Etawah and Mau have been sanctioned to establish NFPC set-up by the Govt of India but posts in these units could not be filled up for want of administrative approval from the State Government. District Bareilly was not having NFPC set-up but it was included in the 51 LF endemic districts as it was surrounded by filarial endemic districts, Rampur in the north-west, Pilibhit in the east, and Shahjahanpur in the south. There are 34 Filaria Clinics (FC) in the state, one each in the Filaria Control Unit (FCU) except Filaria Control Unit, Rampur, which is devoid of a Filaria Clinic. Some FCUs like Gorakhpur, Faizabad, Barabanki, and Jaunpur have two Filaria Clinics. There were two Filaria Survey Units in Gorakhpur and Bahraich, which were abolished in the middle of the last decade of the 20th century. The proposal for establishing the FCU and FC in the newly created districts was submitted to the state government, which is pending to date. Thus, the state has 29 FCUs including one Rural Research cum Training Centre at Lucknow and 34 FCs. The district NFPC monthly technical reports revealed that the human resource under set-up,¹ is not conducting the routine surveys properly and not collecting blood smears according to the NFPC guidelines, in which each clinic of the unit has to collect and examine stipulated number of blood smears per month. The NFPC staff deployed for NBS prior to MDA, reported more than 1% microfilaria rate in the area of the jurisdiction of FCU, which was reporting less than 1% microfilaria rate in routine monthly surveys. As per the national Guidelines for ELF, there is a provision for cross-checking of blood smears by the Regional Offices of Health & Family Welfare (ROH & FW) of the Government of India located in various state capitals, to ensure quality check of the work, but no NFPC clinic in the state is sending blood slides of NBS to the ROH & FW for cross-examination. The feedback from ROH & FW

will certainly improve the quality of NBS including smear preparation, staining, and microscopic examination.

16 districts in western Uttar Pradesh, which have been raised to 24 districts (Figure 3) by creating Shamli from Muzaffarnagar, Gautam Buddha Nagar and Hapur from

district Ghaziabad, Baghpat from Meerut, Amroha and Sambhal from Moradabad, Hathras from Aligarh and Kasganj from Etah did not qualify for establishing the NFCP set-up due to the absence of congenial environmental conditions like humidity and temperature required for active transmission of the disease (LF).

Table I. Human Resources Deployed & Working under National Filaria Control Programme (NFCP) in Uttar Pradesh

S. No	Name of FCU	Filaria Control Officer			Biologist			Filaria Inspector			Laboratory Technician			Insect Collectors			Sup. Field Workers		
		S	P	V	S	P	V	S	P	V	S	P	V	S	P	V	S	P	V
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.	Gorakhpur	1	1	0	0	0	0	6	3	3	2	2	0	4	1	3	8	2	6
2.	Deoria	0	0	0	1	1	0	2	2	0	1	1	0	1	1	0	2	0	2
3.	Basti	0	0	0	1	0	1	3	2	1	2	1	1	4	3	1	2	1	1
4.	Azamgarh	0	0	0	1	1	0	3	3	0	1	1	0	4	0	4	2	2	0
5.	Ballia	0	0	0	1	1	0	3	2	1	2	2	0	4	4	0	2	2	0
6.	Mirzapur	1	1	0	0	0	0	3	3	0	2	1	1	2	2	0	11	6	5
7.	Ghazipur	0	0	0	1	0	1	3	2	1	1	1	0	4	1	3	2	2	0
8.	Jaunpur	1	0	1	0	0	0	3	3	0	1	1	0	4	0	4	3	2	1
9.	Varanasi (Ram Nagar)	0	0	0	1	1	0	2	2	0	1	0	1	1	1	0	3	2	1
10.	Pratapgarh	0	0	0	1	1	0	2	1	1	1	0	1	1	0	1	2	1	1
11.	Fatehpur	1	0	1	0	0	0	2	2	0	2	2	0	1	0	1	6	4	2
12.	Raebareli	0	0	0	1	0	1	2	2	0	1	1	0	1	1	0	2	0	2
13.	Unnao	0	0	0	1	1	0	2	2	0	1	0	1	1	0	1	2	1	1
14.	Lucknow	1	1	0	0	0	0	3	4	0	1	1	0	4	4	0	2	2	0
15.	Hardoi	0	0	0	1	0	1	2	2	0	1	0	1	1	1	0	2	2	0
16.	Sitapur	0	0	0	1	0	1	2	0	2	1	1	0	2	0	2	4	3	1
17.	Lakhimpur Kheri	0	0	0	1	0	1	3	3	0	1	1	0	2	2	0	4	4	0
18.	Faizabad	1	1	0	0	0	0	3	3	0	2	2	0	4	2	2	6	5	1
19.	Sultanpur	0	0	0	1	1	0	2	1	1	1	1	0	1	0	1	1	1	0
20.	Gonda	0	0	0	1	1	0	2	2	0	1	1	0	1	1	0	2	0	2
21.	Barabanki	1	1	0	0	0	0	3	3	0	1	1	0	4	2	2	2	2	0
22.	Bahraich	1	1	0	0	0	0	3	3	0	1	0	1	4	3	1	3	2	1
23.	Pilibhit	0	0	0	1	0	1	3	2	1	1	0	1	2	2	0	4	3	1
24.	Shahjahanpur	0	0	0	1	0	1	5	4	1	1	0	1	4	3	1	8	7	1
25.	Rampur	0	0	0	1	0	1	4	4	0	0	0	0	4	3	1	8	8	0
26.	Farrukhabad	0	0	0	1	0	1	3	2	1	2	0	2	2	0	2	4	0	4
27.	Jalaun	0	0	0	1	1	0	4	0	4	1	1	0	3	0	3	4	3	1
28.	Banda	0	0	0	1	0	1	3	3	0	1	1	0	2	1	1	4	1	3
	Chitrakoot*	0	0	0	0	0	0	1	0	1	0	0	0	1	1	0	1	1	0
29.	Hamirpur	0	0	0	1	0	1	2	2	0	1	0	1	1	1	0	3	1	2

	TOTAL (A)	8	6	2	21	9	12	84	67	17	35	23	12	74	40	34	109	70	39
	Only clinic																		
	Allahabad	0	0	0	0	0	0	1	1	0	1	1	0	0	0		0	0	0
	Kanpur Nagar	0	0	0	0	0	0	1	1	0	1	1	0	0	0		0	0	0
	TOTAL (B)	0	0	0	0	0	0	2	2	0	2	2	0	0	0		0	0	0
	GRAND TOTAL (A + B)	8	6	2	21	9	12	86	69	17	37	25	12	74	40	34	109	70	39

S: Sanctioned, P: Posted and V: Vacant

Officer I/C of FCU: FCO in 8 units (6 non-medical and 2 medical), Biologists in 21 units.

*Banda FCU earlier had its sub-unit at Chitrakoot, which needs full strengthening.

Filaria Control Officer Post in District Lucknow and Mirzapur are from medical cadre.

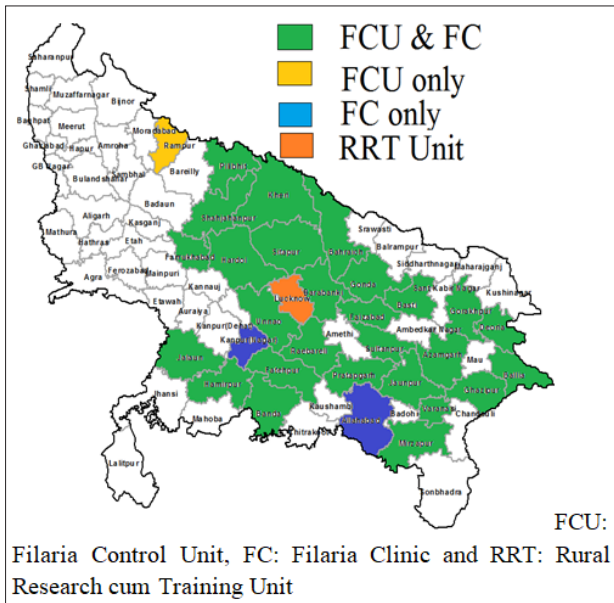


Figure 1.NCFP Set-up in UP



Figure 3.Filaria Endemic Districts in UP

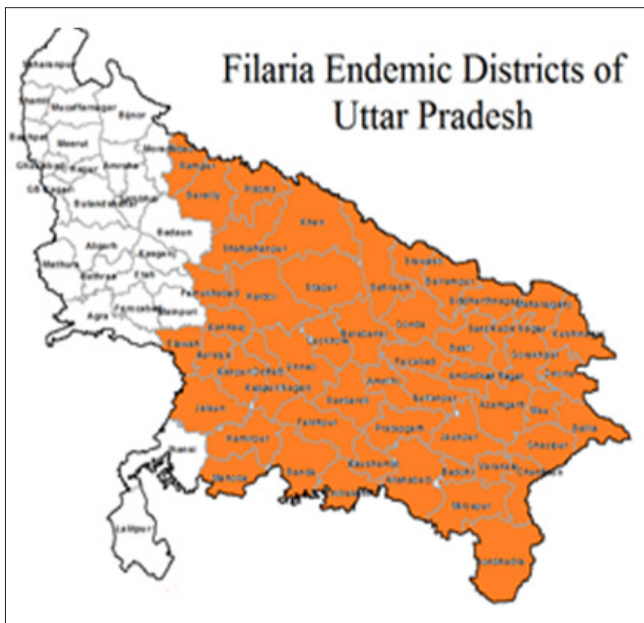


Figure 2.Filaria Endemic Districts in UP



Figure 4.District Rampur cleared TAS-3

Elimination of Lymphatic Filariasis through Mass Drug Administration (MDA) in Uttar Pradesh

The activities pertaining to the Elimination of Lymphatic Filariasis (ELF) programme were launched in the state for the first time in 2004 independently. The overall programme was monitored by the Additional Director (Mal & VBD), who was also the state programme officer under the department of Medical & Health of the Government of Uttar Pradesh. On the directives of the National Vector Borne Disease Control Programme (NVBDCP), Govt of India, a detailed proposal was submitted by SPO in 2003 for conducting MDA in 50 endemic districts of the state (as district Amethi was created in July 2010). After a thorough exercise of experts at the national level, 20 districts of Uttar Pradesh namely, Varanasi, Gorakhpur, Basti, Jaunpur, Ghazipur, Lakhimpur Kheri, Ballia, Kushinagar, Shahjahanpur, Raebareli, Allahabad, Barabanki, Bahraich, Faizabad, Gonda, Deoria, Pratapgarh, Mahrajganj, Sitapur and Hardoi were selected to conduct MDA in 2004. However, due to various constraints and issues, NVBDCP, Government of India, directed the state to include the remaining districts in future MDA rounds, while scaling up the districts for MDA. The coverage and compliance of the population under MDA from 2004 to 2018 have been presented in Table 2. It does not tune the coverage of 85% of the targeted population as WHO/ NVBDCP guidelines

envisage that administration of the drug to the 65% of the total population or 85% of the targeted population for five consecutive years will bring down the microfilaremia to < 1% among the population, ultimately leading to the elimination of the disease. This is further assessed by conducting the transmission assessment survey (TAS) thrice at an interval of two years among the virgin/ protected group of children i.e., 6-7 years' age group. The transmission assessment survey (TAS)⁴ is conducted after ensuring a less than 1% prevalence of microfilariaemia (mf) in 10 additional sites selected randomly for each implementation unit (district).

At the Central level, the programme was monitored and overall supervised by the Director, NCVBDC erstwhile NVBDCP, Delhi with one Senior Officer (Joint Director) as the Nodal Officer & National Programme Officer (NPO). The programme was launched with great enthusiasm considering that the transmission of the filariasis disease can be interrupted.

It is pertinent to mention here that District Amethi came into existence in July 2010, and was created from District Sultanpur and some parts of District Raebareli that were already observing MDA. With this MDA launch, no district of Uttar Pradesh was subjected to double drug therapy. This double drug therapy, i.e. albendazole @ 400 mg to > 2 years age group along with DEC in Uttar Pradesh, was administered since 2008 under the MDA programme.

Table 2. Drug Coverage and Compliance of Population under MDA in Uttar Pradesh from 2004 to 2018

S. No.	Year	No. of LF Endemic Districts Covered	Total Population at Risk	Eligible Population	Covered Population	% Drug Compliance Coverage against Eligible Population	% Drug Compliance coverage against total population
1	2	3	4	5	6	7	8
1.	2004	20	66095557	58171536	38628588	66.4	58.44
2.	2005	50	129098055	113359584	80524028	71.03	62.37
3.	2006	50	131977848	115673236	87880300	75.97	66.59
4.	2007	50	136400266	117409513	93775777	79.87	68.75
5.	2008	50	136056859	117547788	97979211	83.35	72.01
6.	2009	0	138404387	119965504	MDA not conducted		
7.	2010	50	138605680	121884012	98337004	80.68	70.95
8.	2011	14	137422992	33572698	27010429	24.43	19.65
9.	2012	51	140184041	118989824	98940253	83.15	70.58
10.	2013	51	145515968	121034492	85554741	70.69	58.79
11.	2014	51	147512101	124345787	103989192	83.63	70.5
12.	2015	33	98227893	82823361	74096929	89.46	75.43
13.	2016	15	35852778	30218783	25571132	84.62	71.32
14.	2017	47	144681937	122894557	106152809	86.38	73.37
15.	2018	50	148091728	126289182	105129927	83.25	70.99

After observing 10 MDA rounds instead of 5 effective consecutive rounds, 18 districts out of 51 districts reflected < 1% microfilariaemia (mf), which were proposed for TAS-1. These 18 districts conducted an additional microfilaria survey through Night Blood Smear (NBS) in 10 additional randomly selected sites in each district as per WHO/NVBDCP guidelines. A total of 500 blood smears were scheduled to be collected and examined from each such site. Thus, at least 5000 blood smears are to be collected and examined by each district in an additional survey. Each of the 18 districts performed NBS in 10 additional random sites, and two districts, Prayagraj (erstwhile Allahabad) and Bareilly, reflected > 1% microfilariaemia (mf) in at least one additional survey site, and hence were excluded at the initial stage of conducting TAS. Remaining 16 districts qualified for TAS-1 as no additional survey site reflected > 1% microfilariaemia (mf). Some districts were subjected to cluster testing of targeted children with ICT card test and majority of districts were subjected to cluster testing of targeted children with Filaria Test Strip (FTS) card test. The TAS guidelines issued by NVBDCP were followed. The districts were divided into evaluation units (EUs), each with a population not exceeding two million. Four districts namely, Chandauli, Etawah, Kaushambi, and Rampur cleared TAS-1, while 12 districts could not clear TAS-1 and were again subjected to conduction of MDA in the ensuing year. Similarly, another 18 districts, other than the previous 18 districts of 2015-16, were subjected to conduction of TAS-1 in 2016-17 after fulfilling the criteria but all 18 districts reflected > 1% microfilariaemia (mf) in at least one survey site out of 10 additional random survey sites of each district. Hence no district could clear the criteria for conducting TAS-1, yet TAS-1 was conducted in districts Varanasi and Hardoi on the directives of local authorities of WHO. Among the two districts, Varanasi reflected 7.11% of antigenemia positivity, while Hardoi reflected 10.58% of antigenemia positivity, which was much higher than the permissible limit of 2%. Another 03 districts namely Azamgarh, Barabanki, and Sonbhadra, other than the previous 18 districts of 2015-16 and 2016-17, were subjected to the conduction of TAS-1 in 2017-18 after fulfilling the criteria but all 03 districts reflected > 1% microfilariaemia (mf) in at least 05 surveyed sites out of the 10 additional random survey sites of each district. Hence no district could clear the criteria for conducting TAS-1.

Another 08 districts namely, Mirzapur, Ghazipur, Pratapgarh, Sultanpur, Fatehpur, Auraiya, Pilibhit, and Kannauj were subjected to conduction of TAS-1 in 2018-19 after fulfilling the criteria but these districts conducted additional mf survey in 10 randomly selected sites with the help of FTS

in lieu of NBS. These districts were directed to conduct an additional survey with FTS by performing at least 300 tests on each sentinel site. Thus, at least 1200 tests had to be conducted with FTS for filarial antigenemia in all 04 sentinel sites (03 rural & 01 urban) of each district. These 08 districts reflected 15.49% (8.36% to 22.71%) filarial antigenemia, which was very high as compared to the permissible limit of 2% filarial antigenemia. Thus no district could qualify for TAS-1. Moreover, TAS-2 was conducted in districts Chandauli, Etawah, Kaushambi, and Rampur during this year. The 02 evaluation units of district Rampur could clear TAS-2, as the EU- & EU-II reported only 07 and 04 antigenemia positives, which were found far below the critical cut off number. Districts Chandauli, Etawah, and Kaushambi reflected high filarial antigenemia positivity and could not clear TAS-2. Thus only one district Rampur has cleared TAS-2 out of 51 districts to date.

Four districts namely, Bahraich, Jaunpur, Lucknow, and Shahjahanpur were subjected to the conduction of TAS-1 in 2019-20 after fulfilling the criteria. The districts were directed to conduct additional mf survey with FTS by performing at least 300 tests on each site with FTS for filarial antigenemia in all 04 sentinel sites (03 rural & 01 urban) of each district. These 04 districts reflected 17.22% (13.80% to 20.55%) filarial antigenemia, which was very high than the permissible limit of 2% filarial antigenemia. Thus none of the 04 districts could qualify for TAS-1. During 2020-21 (June 2020), district Sultanpur was subjected to TAS-1. The district this time was divided into 04 evaluation units (EUs) and each EU consisted of 02 to 05 PHCs. 10 villages were selected from each EU and at least 300 tests with FTS were performed in each village/ site. The district reflected 6.63% (3.89% to 8.80%) filarial antigenemia, which was very high than the permissible limit of 2% filarial antigenemia. Thus, the district could not qualify and proceed for TAS-1 (Table 3).

It is pertinent to mention here that out of 51 districts, 42 districts have been subjected to TAS, 04 districts cleared TAS-1, and only one district Rampur could clear TAS-2 (Figure 4). 09 districts (Auraiya, Bahraich, Ghazipur, Fatehpur, Jaunpur, Lucknow, Pratapgarh, Sultanpur, and Kannauj) have been subjected twice to TAS-1. Districts Auraiya, Bahraich, and Ghazipur conducted TAS-1 in 2015-16 but could not clear TAS-1. These districts were selected a second time after observing some more MDA rounds for conducting TAS-1, but could not clear additional survey as they reflected high filarial parasitaemia (microfilaria or antigenemia). The interesting thing found here was that out of 09 districts, 07 districts (except districts Auraiya and Kannauj) have a very good NFCP set-up. Another 09 districts (Balrampur, Farrukhabad, Faizabad, Lakhimpur Kheri, Mau, Sitapur, Shravasti.

Table 3. Details of Transmission Assessment Survey (TAS) Conducted in Uttar Pradesh from 2015 to 2020

Year of TAS	Districts Eligible for TAS	Total Number of Districts Eligible for TAS	Number of Districts Qualified to Conduct TAS-I	Number of Districts Not Qualified to Conduct TAS-I	Number/ Name of Districts Clearing TAS-I	Number of Districts Not Clearing TAS-I	Reasons for Not Clearing/ Not Qualifying for TAS-I
2015	Ambedkar Nagar, Allahabad, Auraiya, Bahraich, Bareilly, Ballia, Basti, Chitrakoot, Chandauli, Etawah, Ghazipur, Jalaun, Kaushambi, Kushinagar, Mahoba, Maharajganj, Rampur, Sidharth Nagar	18	16	2	04 (Chandauli, Etawah, Kaushambi, & Rampur)	12	These districts reflected high filarial antigenemia which was above the permissible limit of 2%.
2016	Amethi, Bareilly, Banda, Deoria, Fatehpur, Gonda, Gorakhpur, Hamirpur, Hardoi, Jaunpur, Kannauj, Kanpur Dehat, Kanpur Nagar, Lucknow, Pratapgarh, Raebareli, Unnao, Varanasi	18	0	18	0	0	None of the districts qualified to conduct TAS-I due to more than 1% of mf rate in the additional mf survey.
2017	Azamgarh, Barabanki, Sonbhadra	3	0	3	0	0	-do-
2018	Auraiya, Fatehpur, Gazipur, Kannauj, Mirzapur, Pilibhit, Pratapgarh, Sultanpur	8	0	8	0	0	-do-
2019	Bahraich, Jaunpur, Lucknow, Shahjahanpur	4	0	4	0	0	-do-
2020	Sultanpur	1	0	1	0	0	-do-

Sant Kabir Nagar, and Sant Ravidas Nagar Bhadohi) have not qualified even once for conducting TAS-1, when Farrukhabad, Faizabad, Lakhimpur Kheri, and Sitapur have very good NFCP set-up. To achieve the targeted coverage of drug administration in the community, governance of the programme managers together with the capability and interest of the human resource is of prime importance. The under-coverage of the population in drug administration may increase the probability of left-over children, which are subjected to the test with FTS in conducting TAS-1.

Keeping in view the foregoing description, it is clear that after the completion of 15-20 MDA rounds (Districts Gorakhpur and Varanasi observed at least 05 MDA rounds during the pilot study and district Chandauli remained as part of District Varanasi), only one district Rampur could clear TAS-3 out of 51 districts and considering the timeline of elimination of the disease, the decision was taken at the national level to implement triple-drug by adding a third drug i.e. ivermectin, the addition and administration of which will help in eliminating parasitaemia in two or three rounds only. Thus, after double drug therapy, a third drug, ivermectin has been added to the two drugs according to the height of the individual (according to height, ivermectin dose schedule is: no drug < 90 cms individuals; 03 mg or 01 tablet to 90-119 cms individuals; 06 mg or 02 tablets to 120-140 cms individuals; 09 mg or 03 tablets to 141-158 cms individuals; and 12 mg or 04 tablets to \geq 159 cms) in district Varanasi in February 2019. The other four districts selected under the triple-drug therapy included Arwal (Bihar), Shimdega (Jharkhand), Nagpur (Maharashtra), and Yadgir (Karnataka). The number of districts was further scaled up in Uttar Pradesh as 11 more districts (Lakhimpur Kheri, Hardoi, Sitapur, Unnao, Prayagraj (erstwhile Allahabad), Fatehpur, Pratapgarh, Kanpur Dehat, Kanpur Nagar, Chandauli, and Mirzapur) were subjected for IDA along with District Varanasi in 2020. Thus, 12 districts of Uttar Pradesh are under IDA at present and the triple-drug administration scheduled in April 2021 could not be observed due to the prevailing COVID-19 pandemic. In order to achieve the target, various partners like WHO, Bill & Melinda Gates Foundation (BMGF), Project Concern International (PCI), Programme for Appropriate Technology for Health (PATH) are also supporting the state in enhancing drug compliance through various methods.

Though the MMDP is a regular process, yet the prevalence of hydrocele cases among the community as reported by the state's data is not fair on the part of the department. Provision of availability of funds for undertaking hydroselecomy has been made by the state health authorities.

Possible Bottlenecks in Achieving Elimination Targets

Considering the implementation of the NFCP programme

and MDA has been done for such a long duration in the state, it is a fair assumption that the elimination of the disease must have been achieved as it was launched with great enthusiasm in the state but the fate is clear from the description but where did the state could not maintain the pace with the functionaries at the peripheral level, is a matter of concern, so that the action can be instituted to achieve the goal of ELF. It is imperative from the results, that the activities of MDA were not monitored properly and technically qualified manpower⁵ available in the NFCP set-up of the state was not properly involved to implement, monitor and assess the programme activities. This may be attributed to the following reasons:

- The existing NFCP was involved least in the state as is evident from the functioning of the units in the routine programme and collection of authentic baseline data of disease problem magnitude in the district, whence they should be made accountable for identified duties according to stipulated targets, not only in their own district of NFCP unit but in the new district too, which has been part of and created from parent district, where they are discharging their duties
- The self-check and assessment of the achievements by undertaking the night blood survey were ever conducted seriously. Had it been assigned to the NFCP units to present qualitative data in the area of their jurisdiction since the beginning, the scene would have been somewhat different
- 09 districts, Balrampur, Farrukhabad, Faizabad, Lakhimpur Kheri, Mau, Sitapur, Shravasti, Sant Kabir Nagar, and Sant Ravidas Nagar Bhadohi could not qualify even once for conducting TAS-1, when Farrukhabad, Faizabad, Lakhimpur Kheri, and Sitapur have very good NFCP set-up in the district
- 09 districts (Auraiya, Bahraich, Ghazipur, Fatehpur, Jaunpur, Lucknow, Pratapgarh, Sultanpur, and Kannauj) have been subjected twice to TAS-1. Districts Auraiya, Bahraich, and Ghazipur conducted TAS-1 in 2015-16 but could not clear TAS-1. These districts were selected a second time after observing some more MDA rounds for conducting TAS-1, and could not clear additional survey as reflected either high mf rate or antigenemia. The interesting thing found here is that out of 09 districts, 07 districts (except districts Auraiya and Kannauj) have a very good NFCP set-up
- The MDA coverage data reflected average under-coverage by the districts, and also largely reflects the lack of quality training of drug administrators and supervisors, which is an important component of the MDA programme as the supervision was completely lacking at the peripheral grass root level
- The convergence and acceptability of the drug by the community are lacking due to inadequate and

improper IEC activities, which should be around the year irrespective of the date of MDA

- The higher-level supervision revealed that the drug administrators at many places have been replaced without any orientation of the new person regarding LF/ MDA. Such practices need to be avoided. The supervisor is engaged with the other duties, paying the least attention to MDA
- The possible reason for lacking interest of the drug administrator and supervisor has remained due to the fact that they did not receive the honorarium from PHC/ district fund managers. This practice is to be abolished by making timely payments to them, for which officials dealing with funds at the district level must be made accountable
- Due to partial coverage with single-dose DEC, it is not possible to achieve the goal of elimination of LF. Whether it be achieved by adding additional drugs and many more institutions, is a matter of great concern. The single drug DEC is recommended and is being used in the routine programme, proving its efficacy but when it is being administered at the mass level, the consumption/ compliance of the drug is declined. If the targeted people take initiative to consume the single-drug in adequate dosages, it will not necessitate the additional drug combination, for which various technologies/ tools are to be practiced to generate the felt-need of the drug among the community. Moreover, keeping in view the half-life period of the DEC retained in the human body, the schedule of administering the drug DEC may be shifted to evening or at bedtime, very close to the time of activity of microfilaria, in order to have a better effect of the drug
- The under-coverage of the population in drug administration may increase the probability of leftover children, which are subjected to the test with FTS in conducting TAS-1
- There is a need for integration of NFCP units with district VBD units, as the VBD control activities are structurally district-based and looked after by an identified Health Officer
- It is worth mentioning here that when Kala-azar and malaria are proposed for elimination by 2020 and 2030 respectively, they are being supplemented with anti-vector measures as a strategic pillar. Similarly, ELF may be incorporated with anti-vector measures in rural areas. It is a matter of great concern to all thinking to eliminate the disease either in Uttar Pradesh or in other states. The resurgence of malaria from most of the Indian subcontinent is an evidential instance

Summary and Conclusion

As per programme guidelines, the anti-vector measures are to be continued in the NFCP unit areas, which are restricted

to urban areas only. The dual standard will not be helpful for the programme; either it is the urban or rural area. Some feasible anti-vector measures may be incorporated for both types of areas, at least which can be adopted and implemented by the community itself. For want of such measures, the vector could have succeeded in making infective bites and accordingly transmitting the parasite to the youngsters subjected to blood smear examination. Further, since the launch of the MDA Programme in 2004, the NFCP units in the state are working in isolation, which is neither in the interest of the programme nor the public. Therefore there is an urgent need for functional integration of all the NFCP units in the state with the district VBD units. It is further suggested that NFCP unit staff needs to be deployed for mf survey, updating of line list, and morbidity management under ELF. They can also be effectively utilised during MDA operations which will pave way for improved compliance and consumption rates and also help the respective districts to generate quality data on all aspects of MDA and MMDP.

The date of National Filaria Day (NFD) was fixed for conducting MDA at one time, for which time-framed activities were chalked out to be followed by states/ UTs, but it has been observed that MDA is not keeping pace with national guidelines. There is no fixed date for conducting MDA. It is largely governed by the availability of funds, availability and procurement of Drugs (DEC/ Albendazole/ Ivermectin), and local situations viz. floods, elections, holidays etc. Uncertainty for MDA leads to delay in timely preparation and implementation of micro-plan of state and district as per the National guidelines. Delayed release of funds/ logistics/ supplies and quality of supplies have resulted adverse effect in programme implementation. The delay in submission of SOE/ UC by the districts to states and from state to Centre dislocates the availability of funds for ELF activities. Many a time, states cannot send SOE/ UC for non-receipt of the same from districts. Lack of proper logistics (good quality microscopes, slides, stains, chemicals, and other supplies) and mobility support also adversely affect the quality of work. There is an urgent need for adequate and round the year training with proper orientation to health, NGO, and other supporting partners, and continued orientation of state and district level officers by the Central team as per National Guidelines for LF elimination. In addition to this, intensive and sustainable IEC activities (in different forms) at different levels of programme implementation are also needed to make the MDA programme more successful and to enhance compliance.

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