

Coverage Evaluation Survey of Mass Drug Administration (MDA) for Elimination of Lymphatic Filariasis in Datia District of M.P.

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Abstract

Background: Mass drug administration (MDA) means once-in-a-year administration of diethyl carbamazine (DEC) tablet along with single tablet of albendazole to all people (excluding children under 2 years, pregnant women and severely ill persons) in identified endemic areas. It aims at cessation of transmission of lymphatic filariasis.

Objective: What has been the coverage and compliance of MDA in Datia districts of Gwalior division during the campaign in Feb-March 2023.

Study Design: Cross-sectional population/Community based house-to-house survey visit.

Setting: 04 implementation Unit (IU) were considered from Datia District & 01 ward was selected from each Urban area and 03 villages were selected from each sub centre of rural area from each IU as per guideline.

Study Outcome: Coverage, compliance, effective coverage, coverage-compliance gap.

Analysis: Percentage and proportions.

Results: In MDA CES Datia- Out of 2509 eligible only 1553 ingested DEC plus albendazol, sufficiently. Hence effective coverage found only 61.9 % which is below than national target. Overall Compliance rate (ingestion of drug by those who received it) was 85% with lowest in Ward no.08 Mahaveer colony, Indergarh (48.2 %) and highest in IUs Datia city (100 %). A total of 260 persons accounted for this gap. The main reason for this was not given importance to medicine i.e. ignorant (n=80), fear of side effects (n= 67), forgot to take or misplaced the drug (n=60), and remaining (n=53) unaware of elephantiasis, so all these people did not taken medicine. Overall coverage was marginally better in rural areas than in urban areas. The compliance was found marginally larger in urban areas. The causes of poor coverage and compliance have been discussed and relevant suggestions have been made.

Keywords: MDA, DEC, Eligible population, Coverage compliance gap.

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Introduction

Assessment and analysis of MDA implementation will be helpful to identify coverage compliance and the reasons thereof for noncompliance. This will enable the programme to overcome shortcomings and improve the MDA implementation next year. Mostly, the MDA programmes depend upon the surveyed treatment coverage rates assessed through treatment coverage evaluation surveys (WHO, 2011) in representative blocks to judge the strength of the programme implementation. This is often supplemented with a collection of data on people's awareness of the programme, during the coverage surveys. The extent of evaluation of MDA implementation may depend upon the need. For example,

if a block reports consistently poor treatment coverage, the programme manager may undertake an in-depth evaluation and collect qualitative and quantitative information from communities and health centres to identify the lacunae and take steps to improve the programme. However, often such evaluation is cost-prohibitive and time-consuming, and, therefore, should be restricted to purposive or random sampling. WHO also conducts concurrent and consequent monitoring evaluations, and the data can also be used to review the activity. While the standard methodology is available to conduct coverage evaluation surveys, questionnaires need to be prepared to collect qualitative data. The coverage

evaluation survey details and qualitative data questionnaires are presented here.

Coverage Evaluation Survey

Achieving and sustaining good treatment coverage in MDA rounds is crucial to the success of LF elimination programmes. Low coverage may necessitate additional MDAs or if unnoticed, may lead to premature impact evaluations. Drug coverage is defined as the proportion of individuals who have ingested a drug or combination of drugs.

Surveyed Treatment Coverage (Compliance rate) is calculated by dividing the total number of individuals reporting to have taken the drug(s)/consumed in front of the Drug Administrators by the total number of individuals residing in the surveyed households, during the MDA. Although the main purpose of coverage surveys is to validate reported drug coverage, these surveys also provide an opportunity to collect information and data on other areas of interest, such as MDA delivery, sex, and age-specific coverage, drug adverse events, reasons for non-compliance and health education strategies (Worrell C and Mathieu, 2012). Ideally, coverage evaluation surveys should be carried out as early as possible to ensure good recall among community members participating in the MDA programme. Hence, the treatment coverage evaluation surveys should be carried out at least within one month of concluding the MDA programme implementation.

Filariasis is a global problem. Lymphatic filariasis impairs the lymphatic system and can lead to the abnormal enlargement of body parts, causing pain, severe disability and social stigma. It is a major social and economic scourge in the tropics and subtropics of Africa, Asia, Western Pacific and parts of the Americas. Lymphatic filariasis, commonly known as elephantiasis, is a neglected tropical disease. Infection occurs when filarial parasites are transmitted to humans through mosquitoes. Infection is usually acquired in childhood causing hidden damage to the lymphatic system.

The painful and profoundly disfiguring visible manifestations of the disease, lymphoedema, elephantiasis and scrotal swelling occur later in life and can lead to permanent disability. These patients are not only physically disabled, but suffer mental, social and financial losses contributing to stigma and poverty.

Currently, 886 million people in 52 countries are living in areas that require preventive chemotherapy to stop the spread of infection. [1] At least 36 million people remain with this chronic disease manifestation.

About 90 per cent of cases of lymphatic filariasis are caused by infection with *W. bancrofti*; other related parasites that infect humans are *Brugia malayi* in South-East Asia and *B. timori* in Indonesia.

The formal goal of the global lymphatic filariasis programme is to eliminate the disease "as a public health problem" and 2030 is the informal target date for interrupting transmission. The strategy to interrupt transmission of the disease calls for mass administration of a 2-drug regimen (ivermectin or DEC plus albendazole) administration as a single dose annually for 4-6 years.

Since 2000, the global programme provided a cumulative total of nearly 6.7 billion treatments to at least 1 billion people. It represents about 73 per cent of the 1.4 billion people at risk [2].

The current hypothesis is that reducing the prevalence of microfilaraemia in humans to < 1 per cent will stop transmission. One provisional set of guidelines for stopping treatment would require ≥ 5 annual rounds of MDA with coverage of ≥ 65 per cent of the total population [3].

Lymphatic filariasis is a public health problem in 8 states of India. Heavily infected areas are found in U.P., Bihar, Jharkhand, A.P., Odisha, Telangana, Maharashtra and West Bengal.

An estimated 630 million people are at risk of lymphatic filariasis infection in 256 endemic districts in 16 states and 5 UTs in India. Mapping was carried out using epidemiological data supplemented by data from filaria control units, filarial clinics, and survey units under the national filaria control programme. Morbidity surveys of filaria cases in the states/UTs revealed 8.7 lakh cases of lymphoedema and 3.8 lakh cases of hydrocele. The microfilaria survey reports received from 205 districts revealed a microfilaria rate of about 0.45 per cent [4].

Mass drug administration (MDA) is being implemented in India since year 2004. In 2007 India changed its strategy from delivery of DEC alone to delivery of DEC plus albendazole; since that time, the number of people treated with combination therapy has increased steadily. In 2014, about 86 per cent people at risk were treated with combination drug [4]. India has reduced the prevalence of microfilaria to less than 1 per cent in 192 out of 250 implementation units. In implementation units in Nalgandain Andhra Pradesh, the prevalence of microfilaria was reduced from 17 per cent in 2004 to 0.8 per cent in 2009. [5]

In order to achieve the end of the epidemic of lymphatic filariasis by 2030 as per 3.3 target of SDG, under the National Health Policy, National Filarial Day (NFD) was celebrated on 27th Feb 2023 in India [8]. Based on microfilaria surveys and the line listing of lymphoedema cases, Madhya Pradesh had identified 11 districts and accordingly they were included for observing MDA since 2004 due to consistent efforts by state health authorities now M.P. remaining total 05 endemic districts and our state is one of them. The present communication deals only

with the evaluation of coverage (distribution of drug to the community) and compliance (actual drug consumption) of MDA in February-March in endemic areas (Datia district) of Madhya Pradesh.

Materials and Methods

MDA was undertaken by district health authorities with the help of state health authorities of NCVBDC in identified endemic areas of M.P. in Feb-March 2023. Similar activities under MDA involved administration of DEC plus albendazole tablets to eligible population from endemic area by health staff and Integrated Child Development Scheme (ICDS) functionaries referred as drug distributors (DD) make house-to-house visits on during selected time duration Feb-March in 2023 were carried out in districts Datia & Niwari. DEC plus albendazole was administered to all people (excluding children under 2 years, pregnant women and severely ill persons) with the instruction to ingest the tablet preferably on the spot.

Selection of the Survey Area

Coverage surveys are conducted at the MDA implementation unit (IU) level, commonly a block/s of a district. Because surveys are not meant to provide an annual assessment of drug coverage in each IU, only a proportion of representative IUs are included in the coverage evaluation survey. Coverage evaluation surveys are meant to assist program managers in confirming if the reported treatment coverages are unbiased and if the program needs improvement.

Step 1 (Selection of blocks/Implementing Unit)

In a district, a total of five implementing Units (can be a Block/CHC/PHC/UPHC or Municipality/Mandal based on the list submitted by the state to NCVBDC for MDA) are to be selected purposively based on the reported coverage or DOT Coverage data (Compliance) in consultation with the concerned state/district officials. Selection of Implementing Unit can also be done based on the WHO monitoring data (wherever available) that reported high distribution percentage.

In each district, five Implementing Units are to be selected, out of which one should be urban. If there are more urban blocks in a district, the selection of the implementing units needs to be according to the proportion of the urban to the rural population.

If the district has less than 5 Implementing Units/blocks, then all the IUs/blocks need to be selected for Coverage Evaluation Survey.

In Datia district has total 04 Implementing Units/blocks so all the IUs/Blocks were selected for CES.

Step 2 (Selection of Sub centres/urban area)

In the selected implementing Unit, three sub-centers

are to be selected from the rural area and one ward from an urban area. This needs to be selected randomly from the overall list.

In case, if the implementing Unit is an urban area, then select four wards randomly from the list of all the urban wards.

Step 3 (Selection of Villages/Ward)

Out of the three sub-centers selected randomly, select randomly three villages and one urban ward from the list of villages/wards. (One Village from each sub-center/Ward)

But, if it is an Urban IU, select all 4 urban areas/Mohalla from the list of all urban wards.

Step 4 (Selection of Households)

In each implementing unit, 120 households (4*30 HHs) need to be selected and interviewed for the coverage evaluation survey. 30 households from each village or ward.

Calculating the sample interval: Once the villages/wards or urban areas are selected, Systematic random sampling needs to be used for the selection of 30 households in each village/urban area.

For a desired sample size of the households, assign a regular interval number (Dividing the total households of that selected village/urban with 30 households) to arrive at the sampling interval for the selection of households in the respective village for conducting interviews. Based on the sampling interval 30 households were to be interviewed.

Conducting Interviews of the selected households

Interview all family members in the selected house & note findings in the attached format. For example, in a household, if there are 5 members, all 5 members should be enumerated, and the data collected for all five individuals. Even if some household members are not present at the time of the survey, their drug consumption details should be collected from the person interviewed by the survey team.

If the selected house is locked or no one is available to share information, visit the immediate next house and conduct the interview and complete 30 houses in each village.

Interview of individuals

In each selected household, the interviewer should extend greetings and introduce himself/herself to the head of the household. He should explain the purpose of the survey clearly and in simple language. Using the survey form, he should fill in all the names of the household members in the survey form. He should call the family members one by one and solicit information on treatment details and fill in the form: [6]

All the data were collected in a predesigned and

structured proforma. After data collection, analysis was done with the help of Epi Info.

General Objective: To study the coverage and compliance of MDA in Datia district during the campaign in Feb- March 2023?

Specific Objectives:

The objectives of the coverage evaluation survey under NPELF are as follows:

- 1) To independently get coverage and compliance and to find out the reasons for non-compliance among the households surveyed.
- 2) To recommend corrective measures to enhance the treatment coverage in future rounds of MDA.

Place of Study:

Four IUs/Blocks were selected as per above mentioned methodology in district Datia –

1. IU/Block Indargarh
2. IU/Block Bhandar
3. IU/Block Unnao
4. IU Datia City

In the IU Indargarh, three sub-centers Chhikau, Dheerpura & Ekona have selected from the rural area. Out of the three sub-centers selected randomly, have selected randomly three villages, Raruarai, Dheerpura and Sunderpura one Village from each sub-center and and one urban ward ward no. 08, Mahaveer colony Indargarh from the list of wards from an urban area.

In the IU Bhandar, three sub-centers Vinchhodana, Dalapatpur & Saletera have selected from the rural area. Out of the three sub-centers selected randomly, have selected randomly three villages, Vinchhodana, Hasapur & Saletera one Village from each sub-center and and one urban ward, ward no. 03, Bhandar from the list of wards from an urban area.

In the IU Unnao, three sub-centers Erai, Belhari & Kurthara have selected from the rural area. Out of the three sub-centers selected randomly, have selected randomly three villages, Erai, Belhari &

Kurthara one Village from each sub-center and and one urban ward, no. 02, Badoni Urban from the list of wards from an urban area.

In implementing Unit Datia City is an urban area, So we have selected four

wards/Colonies/Mohallas, 29th Battalion, Vidya Bihar colony, ward no. 34 Veer Bihar colony and ward no. 21 randomly from the list of all the urban wards/Colonies.

These Sub-centers & wards have been selected randomly from the overall list. In each implementing unit, 120 households (4*30 HHs) were selected and interviewed for the coverage evaluation survey. 30 households from each village or ward.

Formula used for calculation of coverage, compliance and effective coverage and C-C Gap are as following-

(*Distribution coverage = population which has been distributed / total number of eligible population *100

**The percentage for compliance was calculated after taking total number of people of who had received DEC tablets as denominator. [Compliance in percentage = Number of who ingested sufficient dose of DEC tablets / Total people who had received the DEC tablets *100.]

***The percentage for effective coverage was calculated after taking total number of eligible populations as denominator. [Effective coverage = Number of who ingested sufficient dose of DEC tablets / total number of eligible populations *100.]

****Compliance Coverage Gap = drug distributed population minus drug ingested population / total eligible population.)

Observations and Discussion

In Datia District total 4 IUs including 1 from urban and 3 from rural areas were studied. Together, these 4 IUs covered a total of 480 Households, 120 Households from each IUs (90 rural and 30 urban) and yielded a population of 2571 (1494- rural and 1077-urban). In the studied IUs, in our sample population 97.5% were eligible for MDA [Table 1].

Table 1: Distribution of population of surveyed Datia District

Surveyed IUs	Total Population	Eligible Population		Distribution coverage (out of eligible)	
		N	%	N	%
I. IU Datia City	573	559	97.5	280	50.0
1. 29 th Battalion Datia	115	110	95.6	27	24.5
2. Vidya Bihar Colony	155	152	98.0	81	53.3
3. Ward No. 34, Veer Bihar Colony	144	141	97.9	21	14.9
4. Ward No. 21	159	156	98.1	151	96.8
II. IU/Block Bhandar	692	677	97.8	620	91.6
1. Village Vich dana	177	174	98.3	162	93.1

(SHC- Vichondana)					
2. Village Hasapur (SHC-Dalapatpur)	207	205	99.0	170	82.9
3. Village Saletera (SHC-Saletera)	154	150	97.4	144	96.0
4. Ward No. 03, Bhandar	154	148	96.1	144	97.3
III. IU/Block Indergarh	656	636	96.9	489	76.9
1. Village Dheerpura (SHC-Dheerpura)	151	148	98.0	148	100
2. Village Sunderpura (SHC-Eikona)	175	163	93.1	163	100
3. Village Raruarai (SHC-Chhikau)	148	146	98.6	93	63.7
4. Ward No.08, Mahaveer Colony, Indergarh	182	179	98.3	85	47.5
IV. IU/Block Unnao	650	637	98.0	424	66.6
1. Village Erai (SHC-Erai)	178	173	97.1	92	53.2
2. Village Belhari (SHC-Belhari)	150	147	98.0	116	78.9
3. Village Kurthara (SHC-Kurthara)	154	152	98.7	86	56.6
4. Ward No.02, Badoni urban	168	165	98.2	130	78.8
Total	2571	2509	97.5	1813	72.2

Adhering to the criteria of NCVBDC, the eligible population in all four IUs of Datia district was 97.5% varied between 93.1% and 99%. The rest 62 (i.e.2.5%, non eligible) were either below 2 years of age (n=40), pregnant females (n=09) or severely ill (n=13.)

Against overall coverage rate of 72.2 %, it was highest in Dheerpura Village (SHC-Dheerpura) & Sunderpura Village (SHC-Eikona) of Indergarh IUs/Block (100%) and lowest in Veer Bihar colony Ward no. 34, Datia urban (14.9.0%). IUs wise highest coverage rate (91.6%) in Bhandar IUs/Block and lowest coverage rate in IUs Datia city (50.0%). Out of 2509 eligible, 1813 received drug, and remaining (n = 696) although eligible did not get the drug for various reasons. The common reasons

where DD did not visit, followed by houses were locked, people were not available or mostly people were outside All these problems require powerful advocacy tools and strategies.

The 72.2% distribution coverage observed by us was very poor but under the MDA, the target was to ensure effective coverage of 85%. While effective coverage was found only 61.9 % in our study. The main reasons for low coverage were that DD did not visit house and the main reason for low effective coverage was ignorant /careless people about why drug should be taken during MDA rounds. It can be improved by making efficient micro-plans, improved supervision and emphasizing more strongly the selection criteria in training.

Table 2: Compliance rate, coverage-compliance gap and effective coverage rate in Datia District

Surveyed IUs	Eligible Population	Drug Given By Dd	Consumed (Compliance Rate)		Coverage – Compliance Gap	Effective Coverage Rate
			N	%		
I. IU Datia City	559	280	280	100	0.0	50.0
1. 29 th Battalion Datia	110	27	27	100	0.0	24.5
2. Vidya Bihar Colony	152	81	81	100	0.0	53.3
3. Ward No.34, Veer Bihar Colony	141	21	21	100	0.0	14.9
4. Ward No.21	156	151	151	100	0.0	96.8
II. IU/Block Bhandar	677	620	538	86.8	12.1	79.5
1. Village Vichondana (SHC- Vichondana)	174	162	117	72.2	25.9	67.2
2. Village Hasapur (SHC- Dalapatpur)	205	170	168	98.8	1.0	81.9

3. Village Saletera (SHC-Saletera)	150	144	123	85.4	14.0	82.0
4.Ward No. 03, Bhandar	148	144	130	90.3	9.4	87.8
III. IU/Block Indergarh	636	489	364	74.4	19.6	57.2
1.Village Dheerpura (SHC-Dheerpura)	148	148	126	85.1	14.9	85.1
2.Village Sunderpura (SHC-Eikona)	163	163	128	78.5	21.5	78.5
3.Village Raruarai (SHC-Chhikau)	146	93	69	74.2	16.4	47.3
4.WardNo.08, Mahaveer Colony, Indergarh	179	85	41	48.2	24.6	22.9
IV. IU/Block Unnao	637	424	371	87.5	8.3	58.2
1.Village Erai (SHC-Erai)	173	92	74	80.4	10.4	42.8
2.Village Belhari (SHC-Belhari)	147	116	109	94.0	4.8	74.1
3.Village Kurthara (SHC-Kurthara)	152	86	76	88.4	6.6	50.0
4.Ward No.02, Badoni urban	165	130	112	86.1	10.9	67.9
Total	2509	1813	1553	85.7	10.36	61.9

Out of 2509 eligible only 1553 ingested DEC plus albendazol, sufficiently. hence effective coverage found only 61.9 % which is below than national target [Table 2].

Overall Compliance rate (ingestion of drug by those who received it) was 85% with lowest in Ward no.08 Mahaveer colony, Indergarh (48.2 %) and highest in IUs Datia city (100 %).

A total of 260 persons accounted for this gap. The main reason for this was not given importance to medicine i.e. ignorant (n=80), fear of side effects (n=67), forgot to take or misplaced the drug (n=60), and remaining (n=53) unaware of elephantiasis, so all these people did not take medicine.

Effective coverage rate is the end product of coverage by the health system and compliance by community. It was 61.9% less than the target (85%) (Table-2). In fact this should be 85% or above for the elimination of disease. Poor effective coverage in presence of good distribution coverage is of little

use. But here both Effective coverage & distribution coverage are poor.

(Distribution coverage = population which has been distributed / total number of eligible population *100

**The percentage for compliance was calculated after taking total number of people of who had received DEC tablets as denominator. [Compliance in percentage=Number of who ingested sufficient dose of DEC tablets/Total people who had received the DEC tablets*100.]

***The percentage for effective coverage was calculated after taking total number of eligible population as denominator. [Effective coverage =Number of who ingested sufficient dose of DEC tablets/ total number of eligible population *100.]

**** Compliance Coverage Gap = drug distributed population minus drug ingested population /total eligible population.)

Table 3: Drug coverage and compliance rates in Datia urban and rural settings Urban and Rural distribution:

Area	Total surveyed population	Eligible Population (%)	Distribution (coverage out of eligible) (%)	Drug ingested (compliance) (%)	Coverage-Compliance Gap %	Effective coverage %
			639(n=1051),			
Urban	1077	1051 (97.6)	60.8%	563(88.0)	7.2	53.6
			1174(n=1458)			
Rural	1494	1458 (97.6)	80.5%	990 (84.3)	12.6	67.9
Total	2571	2509 (97.6)	1813(n=2509) 72.2 %	1553(85.7)	10.4	61.9

Both distribution coverage marginally better in rural areas (80.5 %,) than in urban areas (60.8 %, and compliance rate was marginally better in urban than rural(88% and 84.3% respectively), [Table 3]. Compliance Coverage Gap helps to understand why people fail to consume the drug. It was around 10.4% and needs to be bridged with side by side efforts through IEC from all possible channels to motivate people for ingestion (preferably on the spot or before distribution of drug) of the drug. Mainly it can be rectified by behavior Change Communication (BCC) with target group before planned MDA days. It seems that LF is not perceived as a serious public health problem or people think that they will not be affected by this disease. All these point out to one thing that there is no resistance in the community for DEC plus albendazole; however, more important is to emphasize on supervised “on the spot” DEC consumption. [6]

One reason commonly given by the community for not consuming DEC plus albendazole on the spot was that it causes gastric upsets and so they prefer to take it after the meal. In this regard, a suggestion came to us that DD may carry small packets of biscuits (costing Rs. 2) to facilitate spot consumption of DEC plus albendazole. As such, the side effects were very few and they were also minor, transient and drug-specific. However, they also need to be addressed as they constitute the cause of noncompliance. Information about the Rapid Response Team (RRT) must be widely publicized in order to increase the faith of people and will indirectly result in better compliance.

Reasons of non-compliance in Datia District :

Reason of non compliance	N = 260(not ingested)(not received)	% out of eligible (N=2509)
Lack of awareness or ignorant	80	3.2
Forgot or misplaced the drug	60	2.4
Fear of side effects	67	2.7
Improper counseling	53	2.1
Total	260	10.4

Among the people, 2509 who did not consume tablets – 260 i.e.,. The main reason for this was not given importance to medicine i.e. ignorant (n=80, i.e. 3.2%), fear of side effects (n= 67 i.e. 2.7%), forgot to take or misplaced the drug (n=60, i.e.2.4%), and remaining (n=53, i.e.2.1%) unaware of elephantiasis and due to improper counseling i.e. informed not properly about why and how much they should consume. So almost 41.5% people did not consume because of inadequate information from drug distributors.

Adverse reactions among study population were only 0.5%, which is negligible. The following adverse reactions noted were giddiness, vomiting, gastric irritation, etc., which were mild. Even though adverse reactions were negligible, people should be

One more thing about the side effects of DEC plus albendazole is to be explain during drug distribution that if following complaints are reported after consumption like nausea, vomiting, giddiness, abdominal pain, headache, generalized bodyache, he / she is suspected to be carrier of microfilaria, that person need to be notified to higher center for special investigation followed by 12 days chemotherapy. In an study conducted at Satna M.P. by Trivedi & Adhikari et. al., coverage and compliance were 90.15 % 88.05 % respectively. [7]

Coverage and Compliance of Mass Drug Administration for Elimination of Lymphatic Filariasis in Endemic Areas of Bijapur district, Karnataka by Dr. Ravish K.S. *et al.* also observed that the survey coverage rate was 85.9% in the study population. The difference of 14% could be attributed to people not having received tablets either because they were not at home when distributors visited or distributors having not visited their houses at all. Distributors have not visited few houses because of confusion in area demarcation. In that study compliance rate was 45.9%. There was hardly any stress on supervised “on the spot” consumption of tablets. Compliance rate was bit better where health staff was deputed for drug distribution. [8]

In Satna district study done by Kumar Sanjeev et al area Coverage rate of 90.9%, is well above to 85% but effective coverage rate of 79.9% is below the target. Mishra Ambrish et al also found coverage rate of 91.02 % & Effective Coverage rate 77.06 % in Rewa district. [9, 10]

made aware of it through IEC, because only sustained high compliance can lead to elimination of Filariasis.

MDA coverage evaluation survey for LF in Bagalkot and Gulbarga districts by Prakash Kurubarahalli Patel in their study found that Approximately 79% in Bagalkot and 39% of the study subjects in Gulbarga district reported that they actually consumed both DEC and albendazole tablets. The remaining were, either who did not consume at all or consumed inadequate dosage of the tablets, the prime reasons for not consuming the tablet was, not received tablet (27.9%), followed by not present at home (18.4%) and drug given at home but no information (9.5%) in Bagalkot district. However, the main reason in Gulbarga district was fear of side

effects (51.2%) and did not receive tablets (15.2%). Only 8% of people who consumed tablets in Bagalkot district and 2.3% in Gulbarga district actually experienced side effects. [11]

Conclusions and Recommendations

1. Coverage better in rural areas and compliance were marginally better in urban areas in Datia district. Coverage-compliance gap was around 10.4% as whole (7.2% in urban and 12.6 % in rural areas) in Datia district. There was hardly any resistance in the community for the program and no one refused to accept drug. Similarly, refusal to taking drug for fear of side effects accounted for about (n= 67 i.e. 2.7%) in Datia district. Efforts are needed to reduce this gap before increasing the coverage. It needs motivating and sensitizing the community through strong and focused IEC by one to one approach during and before MDA days specially in the areas of where cases of lymphatic filariasis are still present.
2. DD hardly insisted on supervised “on the spot” administration of drugs; therefore, supervised drug intake poor and the commonest answer was “will take after meal”. Efforts should be made to insist on “on the spot” consumption. This alone can bring down the coverage-compliance gap considerably.
3. In some places DD is not distributing drugs with its importance hence training of DD in future should focus on the point that anybody who is above 2 years of age, non pregnant and not critically ill (having some acute illness or hospitalization) must receive the drug to eliminate a very long chronic disease.
4. Various modes of pre-MDA IEC can be utilized such as radio, TV, cable, newspapers, recorded messages, orientation sessions of key stake holders or SMS (mobile or landline phones) and should be done just few days before the campaign. IEC should focus on the following:
 - a. Threat perception of Filariasis was very poor among people as it is not a visible disease, but still it is a threat as many people are at risk.
 - b. The single-dose DEC once in a year is an effective preventive tool while in treatment a person may have to take it for 12 days. Even many practicing doctors are also not clear about it.

5. There must be a mid term correction of MDA in areas where coverage found poor.
6. There must be a special emphasis on drug distribution in city areas as it was found lower coverage in city areas.

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