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“A Study of Incidence and Control of Malaria in Tribal Population” – with Special Reference to Khammam District of Telangana State, India

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Abstract:

Undivided khammam district is located mostly on the banks of the river Godavari bordering Odisha , Chhatisgarh and Andhra Pradesh and 27.4 percent of the total population of the District comprises tribals inhabiting the agency mandals . Vector –borne diseases like Malaria, Dengue and Chikungunya affect the agency people regularly with the onset of the monsoon every year. The district administration and health personnel have taken meticulous precautions by providing health care measures due to which the incidence of Malaria has been declining. However, Dengue has become a challenge and the surrounding areas within the radius of 30 kilometers have witnessed alarming levels of Dengue incidence attracting the special attention of state Government . The district administration and the Health department have deployed more personnel

Keywords: Tribal areas, seasonal, malaria positives, preventive measures, innovative measures

1. Introduction

Tribes increased in number from 8.43 crores in 2001 to 10.43 crores in 2011 and the decadal growth rate was 23.7 percent. Majority of them live in hilly and forest area facing region specific problems. Poverty, illiteracy and illness are their close companions. They suffer from high levels of morbidity due to nutritional deficiency. The Tribes need special attention in terms of general health, reproductive and child care. Monsoon (July onwards) every year with copious rains create health hazards to the tribals in the form of Malaria, Dengue, Typhoid and other water borne diseases. Khammam district has the largest Tribal population (27.4 percent) and it is under the NAMP with district level officers and field staff. This year (2014) the onset of North-East monsoon was delayed and rains started only from September with heavy rains during the first two weeks of September and health problems in the Tribal areas erupted. This research study takes place in Khammam district of the Telangana State where S.T. Population is 27.4 percent, the highest among the districts of South India. The tribal districts of the State are on the edges of the river Godavari. Khammam district is located close to Chhattisgarh and Odisha where the incidence of malaria is relatively high. Moreover, infected migrants to the district from the border states are high during November – February. The study analyses the cases of malaria in the district between 2001-2015 (up to September), extending over a period of 15 years. There are ups and downs in the number of cases though the maximum is 4811 in 2010 and the minimum is 803 in 2003. The district administration has taken different innovative measures by organizing health – camps where the needed tests are conducted. Fever survey, awareness programmes at the village level, free transportation of the malaria positive persons for treatment, distribution of medicines freely, specialist doctors to treat the Patients and free supply of food to the patient’s families besides initiating preventive measures like spraying ACM 5%. (Irs spray), Supply of mosquito nets (LLIN) and mosquito coils. Community as a whole has been motivated to tackle the challenge of malaria.

2. Objectives of the Study

1. To find out the trend in the incidence of vector borne diseases in the study area
2. To compare the prevalence of the diseases between the tribal (agency) and non-tribal (plain) areas
3. To probe into the causal factors for the variations in the incidence to offer policy measures and intervention

3. Methodology

Surveillance & diagnosis is 1, RDT kit method 2, microscopic slide method, 3. House to house survey by Active surveillance, passive surveillance in Govt. hospital / PHC level / SC level / Village level

Data is purely primary collected from the PHC, Village elders, and private clinics and Para medical staff through interviews. The records and notes of the district officers and the PHC are also used as secondary data. Analysis is through simple averages and percentages

4. Materials and Methods

Data has been collected with regards to three vector borne diseases namely Malaria, Dengue and Chickengunya as to their incidence from the district authorizes for the period between 2011 and 2015. Data for 2016 upto august has been collected from the 58 public health centers (phcs) of the district of which 38 are in the tribal areas While the remaining 18 are in the plain areas. data for 2016 is related exclusively to malaria and for the sake of comparison data pertaining to malaria in 5 2015 is also collected phc wise simple techniques of analysis like percentages and ratios are used in the study.

Sl. No	Year	No. of BS Collected from January to December	Malaria								
			Slide Positive			RDT Positives			Total Positives		
			Pv	Pf	Total	Pv	Pf	Total	Pv	Pf	Total
1	2011	423040	17	1823	1840	23	1308	1331	40	3131	3171
2	2012	425513	6	730	736	3	414	417	9	1144	1153
3	2013	400285	24	1166	1190	0	507	507	24	1673	1697
4	2014	467319	50	1986	2036	43	911	954	93	2897	2990
5	2015	399359	19	1318	1337	13	472	485	32	1790	1822

Figure 1: Epidemiological Situation of Malaria in Khammam district from 2011 – 2015

PF refers to plasmodium falciparum species of mosquitoes causing malaria through their bites mostly in the tribal areas where as PV refers to plasmodium vivax present in the non-tribal areas causing malaria. Data in the table with regard to malaria shows that positive cases were 3171 in 2011 out of 423040 blood samples accounting for 7.5 per cent. They decreased in absolute numbers to 1153 in 2012 and increased to 1697 in 2013. Again, they increased 2990 in 2014 and decreased to 1822 in 2015. A jig-jag trend is evident in the prevalence. However, between 2011 and 2015 total positive cases of malaria have decreased by 42.5 percent in the district. Further, the data reveals that PF positives representing tribal areas have been abnormally higher when compared to PV positives representing non-tribal areas. It implies that the incidence of malaria in tribal areas poses a threat to the health of people. However, the decrease in positive cases between 2011-2015 in the tribal areas is 42.83 per cent against 20 percent in the non-tribal areas. The ratio of malaria incidence between non-tribal and tribal areas is 1:78 in 2011 and it decreased to 1:56 in 2015. It can be stated that the incidence of malaria, though high, has been decreasing both in tribal and non-tribal areas.

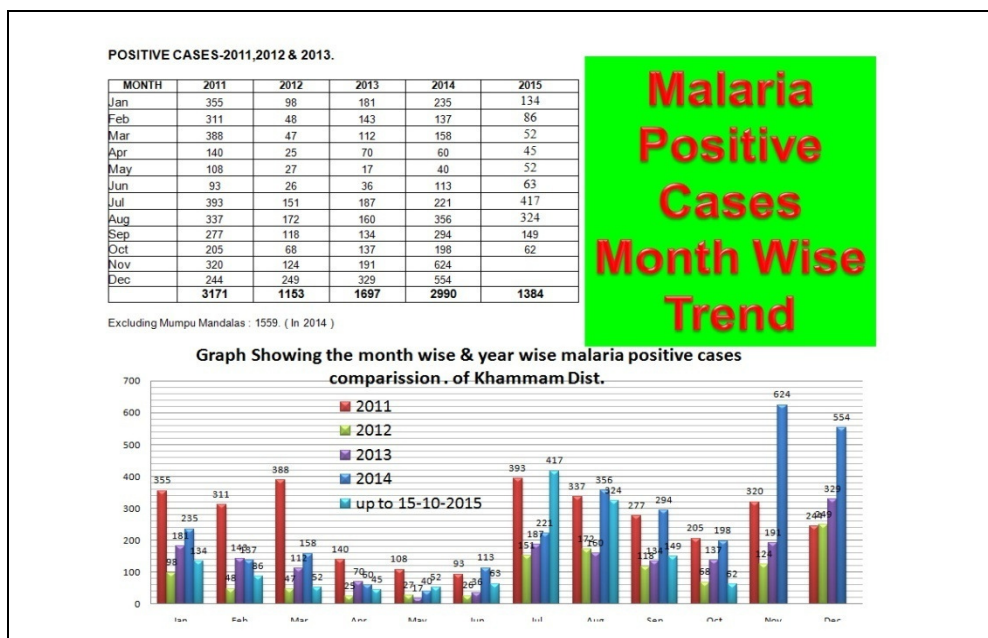


Figure 2

Sl. No.	Name of the PHC	2015 - Positives			2016 - Positives		
		Pv	Pf	Total	Pv	Pf	Total
1	S.N. Puram	0	101	101	1	13	14
2	Cherla	0	90	90	1	16	17
3	Edira	0	39	39	2	26	28
4	Wazeed	0	44	44	0	23	23
5	Peruru	0	36	36	1	9	10
6	Narasapuram	0	25	25	3	30	33
7	Dummugudem	0	34	34	4	4	8
8	Parnasala	1	80	81	0	2	2
9	Pinapaka	0	60	60	0	22	22
10	Karakagudem	0	212	212	2	68	70
11	Janafhpeta	0	49	49	1	14	15
12	Manuguru	0	150	150	0	37	37
13	Aswapuram	0	97	97	1	41	42
14	M.P. Banjara	1	27	28	1	17	18
15	Sulhanagar	0	35	35	0	7	7
16	Gundala	0	46	46	0	21	21
17	Allapalli	0	55	55	2	5	7
18	Gandampalli	0	2	2	0	0	0
19	Bayyaram	0	6	6	0	0	0
20	Mulkanuru	0	5	5	0	0	0
21	Rompedu	3	11	14	1	2	3
22	Komararam	6	31	37	1	2	3
23	Kamepalli	0	1	1	0	0	0
24	Singareni	0	10	10	0	1	1
25	F. rragunta	0	12	12	0	5	5
26	Chandrugonda	0	0	0	0	0	0
27	Julurupadu	0	4	4	2	0	2
28	Enkuru	1	7	8	0	0	0
29	Regalia	2	56	58	4	27	31
30	Sujathanagar	0	2	2	0	0	0
31	Penagadapa	0	4	4	1	2	3
32	Ulvanoor	1	34	35	1	19	20
33	Jaganadhapuram	1	24	25	2	9	11
34	Mangapeta	7	180	187	3	58	61
35	Vinayapuram	2	81	83	7	23	30
36	Gummadavalli	0	20	20	0	10	10
37	Dammapeta	1	17	18	0	8	8
38	Patwarigudem	2	36	38	3	31	34
	Tribal Area Total Malaria Positives	28	1723	1751	44	552	596

Table 2: PHC Wise Malaria Positives for the Year 2015 and up to 10.08.2016

Sl. No.	Name of the PHC	2015			2016 (up to August)		
		Positives			Positives		
		Pv	Pf	Total	Pv	Pf	Total
39	Kalluru	1	4	5	0	1	1
40	Lankasagar	0	0	0	0	0	0
41	Thallada	0	3	3	0	1	1
42	Vemsoor	0	0	0	0	0	0
43	Gangaram	0	0	0	0	0	0
44	Banigandlapadu	0	1	1	0	0	0
45	Maturupeta	0	2	2	0	1	1
46	Wvra	0	0	0	0	0	0
47	Bonakallu	0	0	0	0	0	0
48	Tirumalayapalem	0	3	3	0	0	0
49	Subiledu	0	0	0	0	0	0
50	MV Palern	0	14	14	0	1	1
51	Kusumanchi	0	4	4	0	0	0
52	Nelakondapalli	0	1	1	0	0	0
53	Mudigonda	0	4	4	0	0	0
54	Konijerla	0	2	2	0	0	0
55	Pedagopathi	0	5	5	0	0	0
56	Chintakani	0	5	5	0	0	0
57	Manchukonda	1	9	10	0	1	1
58	Khammam(T)	2	10	12	0	0	0
59	Chennuru	0	0	0	0	0	0
60	Bodalabanda	0	0	0	0	0	0
	Non-Tribal Area - Total Malaria Positives	4	67	71	0	5	5
	GRAND TOTAL	32	1790	1822	0	46	46

Table 2

Source: Office of the DMO, Khammam

5. Results & Discussion

The study reveals that rainy season is crucial in the agency areas where Tribes live since it brings Malaria, dengue and other health problems in its fold.

6. Conclusion

Community and Community leaders need health education. It is a recurring phenomenon every year.

7. References

- i. Hand Book of statistics, Khammam District, Telangana State. (2012)
- ii. Katis, S. Mohindra (2016), "Public Health Research and Scheduled Tribes: An Ethical Lens"; Indian Journal of Public Health, Vol 60/ Issues 3 / July – September.
- iii. Radha Krishna M (2009), "Starvation among Primitive tribal groups", Economic and political weekly, Vol. XIIIV, 13-6.
- iv. Archana Sinha (2006), "Economic Empowerment and Amelioration of Tribals in India", Kuruksheetra, July.