Study on Attitude and Practice of Health Provider and Health Seeking Behaviour of Kala Azar Patients

Internship Training
at
CARE India, Patna
(Feb 15-May 15, 2014)

By
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Under the guidance of
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Post Graduate Diploma in Hospital & Health Management
2012–14

IIHMR UNIVERSITY
Institute of Health Management Research
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TO WHOMSOEVER MAY CONCERN

This is to certify that Dr. Sweta Singh student of Post Graduate Diploma in Hospital and Health Management (PGDHM) from Institute of Health Management Research, Jaipur has undergone internship training at CARE India, District Patna from 15th February to 15th May, 2014.

The Candidate has successfully carried out the study designated to her during internship training and her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish her all success in all her future endeavors.

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The certificate is awarded to Sweta Singh in recognition of having successfully completed her dissertation in the Program SKAEP and has successfully completed her project on **"Study on Attitude and Practice of health providers and health seeking behaviour of patients regarding Kala Azar"** dated from 15th Feb till 15th May 2014 in CARE India, Patna district.

She is hard working and sincere person and I wish all the best for her future endeavours.

15/5/14

Program Manager

(Bhojpur Division)

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Dr. Sweta Singh
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Executive summary

Bihar has come in long way in the health indicators, which is what various health indicators reflect. But the burden on the state is with the disease Kala Azar where it is contributing the 80% of total cases from the country. The state is epidemic for Kala Azar. 33 out of its 38 district are Kala Azar affected with different level of severity. The contributing factors majorly are the socio-economic condition and low level of awareness regarding the service provided and hence low utilization of services provided. Being a disease which is transmitted from person to person, it is second most disease contributing mortality after malaria. Patna being the capital and one of the fastest growing states with all the better health services being provided, have 140 case recorded in years 2013. Dhanarua block being the highest in contributing the case in district with 63 cases. It was important to know the factors contributing in the patients seeking the health care and also the health providers' perspective towards Kala Azar. The rate of defaulters and patients called up for follow up are important component because Kala Azar patients might develop Post Kala Azar Dermal Leishminiasis. The present study was done in the above mentioned context with health providers and Kala Azar patients. The attitude and practice of health providers is tried to understand for Kala Azar. MOiC and front line workers were interviewed their understanding about the diagnostic features, the services provided in Kala Azar. Is any gender discrimination prevailing with any social stigma prevailing in community for Kala Azar. Condition of IEC for Kala Azar in the block, community acceptance for IRS round. Any problems faced by ASHA during community mobilization, in reducing refusal cases were the main aspects to be understood for bring the improvement later. From the community point of view their behaviour in seeking heath need during the Kala Azar, the block being the highest in case load are not much aware of the Kala Azar causes, vector, and its treatment availability at government facility. The diagnosis is made after 60 days of illness and with RMPs where is the maximum numbers of visits are made. As per endemicity the ratio of patients going to RMP is much higher in low endemic zone than those in high endemic zone.

Seeking treatment at PHC is not the first choice because of the fact that there is delay in treatment; medicines are not available and lastly not aware of that the treatment can be done PHC. Spending thousands of rupees on consultation and transportation they land into debt. They don't inform ASHA about their illness and contact them when they could not be treated from RMPs or other private doctors. None of the patients turned on to follow up. About the IRS round there is seen refusal and partial spray for the reasons because there comes bad smell and spots on the wall after spray. The knowledge about the spray being done need to be more known to community for its coverage. Re line listing can be done as many patients were found not register in line listing, this will reflect the real case load which can improve the programmatic approach. Timely incentives to ASHA for case diagnosis and treatment completion and for patients against the wage loss. Improving the knowledge of community by means of Nukkad natak and by electronic media which could be easily understood by them. Community program in endemic villages for face to face interaction. Improvement from both the side demand and supply with awareness generation is important for complete eradication of Kala Azar from Bihar.

CONTENTS:

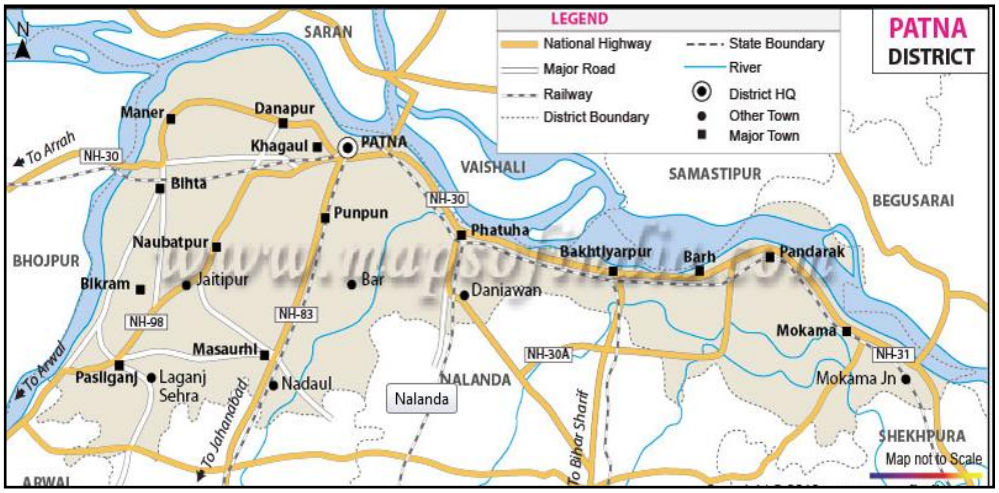
1. ABBREVIATION

ANM	Auxiliary Nurse Mid wife
APHC	Additional primary health centre
ASHA	Accredited social health worker
FLHW	Frontline health worker
KA	Kala Azar
MOIC	Medical Officer in Charge
NMCH	Nalanda Medical College and Hospital
PP	Private Practitioner
PHC	Primary health Centre
RMRI	Rajendra Medical Research Institute
RMP	Rural Medical Practitioner
SKAEP	Strengthening Kala Azar Elimination Program.
SC	Schedule caste
ST	Schedule Tribe
SDH	Sub Divisional Hospital
SFW	Superior Field Worker
VL	Visceral Leshminiasis

2. STUDY AREA: PATNA

Patna is one of the thirty-eight districts of Bihar state, as the district headquarters. Patna occupying an area of 3,202 square kilometres (1,236 sq mi) has its own history of evolution. The history and tradition of Patna go back to the earliest dawn of civilization. The original name of Patna was Patliputra and its history makes a start from the century 600 B.C.

Fig 1: Map of Patna



Patna as a state capital is fastest growing. Patna is further divided in 6 sub divisions that are:

- Patna Sadar
- Patna City,
- Barh
- Danapur
- Masaurhi,
- Paliganj

2.1 Demographic profile of district:

Number of Blocks: 23

Number of Revenue villages: 1398

Number of Panchayat: 331

Table 1: Demographic profile of Patna district

Particulars	Numbers	Particulars	Numbers/percentage
Number of Households	**726,364**	**Average Household Size (per Household)**	**6.0**
Population-Total	**4,718,592**	**Proportion of Urban Population (%)**	**41.6**
Population-Rural	**2757060**	**Sex Ratio**	**873**
Population-Urban	**1961532**	**Sex Ratio(0-6 Year)**	**923**
Population(0-6Years)	**818,994**	**Sex Ratio (SC)**	**886**
SC Population	**729,988**	**Sex Ratio (ST)**	**726**
ST Population	**9,236**	**Proportion of SC (%)**	**15.0**
Literates	**2,453,501**	**Proportion of ST (%)**	**0.0**
Illiterates	**2,265,091**	**Literacy Rate (%)**	**63.0**
Number of PHC	**23**	**Number of primary schools**	**12000**
Number of HSC	**393**	**Number of medical colleges**	**2**
Number of APHC	**60**	**Number SDH**	**6**
Number of Aanganwadi Center	**3652**	**Number of referral hospital**	**4**
Number of ASHA	**3004**	**Number of AWW**	**3233**

2.2 SWOT Analysis of the Patna district

STRENGTHS – WEAKNESSES – OPPORTUNITIES – THREATS:

STRENGTHS

1. Involvement of C.S: The C.S and ACMO take active interest, guiding in and monitoring every activity of the health plan and giving his valuable inputs and direction.

2. Support from District Administration: Janta Darbar is held on every Thursday where one to one interaction is done between DM and citizens take place. This platform has been used many a times for resolving issues related to health facility, incentives etc.

3. Well established DPMU and BPMU: All the members of DPMU & BPMU work harmoniously. Their offices have been equipped with internet facility for ease in reporting.

4.Facility of vehicles: The ambulance services which has been outsourced is being offered in all the PHCs by dialling 102 and 108 at a very nominal rate and bringing patients right from their doorstep to health care facilities.

5. Free medicines –Under the NRHM there is a provision of providing free medicines. A continuous supply of the medicines is being supplied at various facilities for easy accessibility and with no cost incurred to the poor

WEAKNESS

1. Lack of specialist and other human resources in health facilities- As per IPHS norms, there are vacancies of specialists in most of the PHCs. So many of the PHC do not fulfil the criteria of ideal referral centres and that cause force people to avail costly private services.

The HR structure is further crippled by the high attrition rate of staff; same is with Nurse Staffs in SDH and PHC.

2. Seasonal Migration In search of better opportunities and for good incomes have induces the people to migrate to other developed regions in search of livelihood. From many villages most of the families migrate to other parts of the state and neighbouring state. This tradition migration has so many adverse effects as below:

   A. Neglect of agriculture land owned by the migratory farmers. This leads to degradation of the land and low productivity.

   B. High dropout rate of school children and immunization

3. Lack of proper transport facility and motarable roads in rural area: - There are lacks of means of transport in rural areas. Many areas are covered by sand and it becomes very tough to travel at such places for providing services and also to seek services too.

4. Life style- Large number of people consumes TADI – traditional local liquor. This lad to laziness at large-scale and people are less enthusiastic towards progress based on hard work and new initiative. Dispersed living, illiteracy, low penetration of media has resulted in low level of awareness and attitude of from the world.

OPPORTUNITIES

1. Human Resource- The large group of population with productive age group can be bring in system for delivering services by providing scholarship and short term courses.

2. Improvement of infrastructure: -. With copious funds available under NRHM, there is good opportunity to make each health facility neat and clean, Well Equipped and Well Nurtured, availability of all the essential drugs.

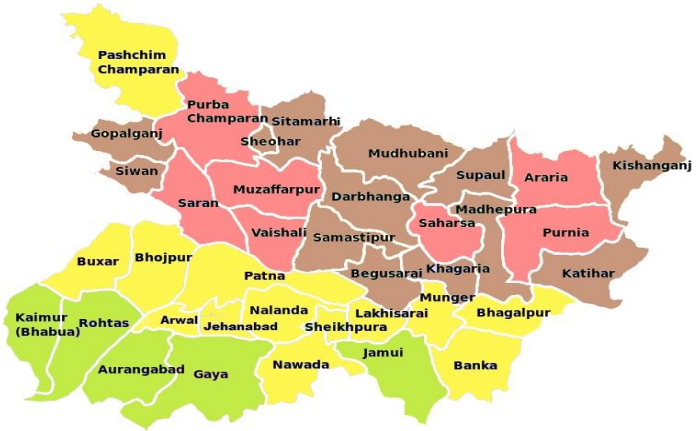
THREATS

1. Natural calamities like every year flood adversely affected the progress of Health Programme.

2. Illiteracy and taboos:-The literacy rate in rural area has still not reached considerable mark. This has caused an adverse effect on the health of people. The prevalence of various taboos that keep few communities from availing benefits of health services like immunization or ANC, institutional deliveries, family planning.

3. Kala Azar in Bihar: A Situation Analysis

Visceral Leismeniasis widely known as Kala Azar in India is a vector borne protozoal infection caused by *Leishmania donovani* and transmitted in human by *phlebotomine* (sandfly). Visceral Leismenisis comes in the category of Neglected Tropical Diseases (NTDs) given by WHO. The disease characterized by chilling fever, anorexia, hepatosplenomegaly, weakness and immuno-supression and malnourishment due to intracellular parasitic infections like HIV virus infections, TB etc. Kala azar is endemic in Bihar, Currently 33 of 38 districts in Bihar have different level of epidemicity and average of more than 90%of visceral leishmaniasis cases in India are reported from Bihar.



	Case %
	>= 5
	1-5
	>1
	No detected cases

Fig 2: Kala Azar Case Load in Bihar district wise

As shown in figure above, Patna contributes cases more than one percent.

4. KA in Patna: A Situation Analysis

Patna is a district with Meso- endemic for KA cases, with 21 blocks being affected by KA.

The case load since last five years is as shown in Tab.2

Table 2: Year Wise Kala-Azar Cases & Deaths in Patna District

Year	Cases	Deaths
2010	141	4
2011	170	3
2012	124	2
2013	140	0
2014(Feb 2014)	11	1

Factor contributing the occurrence of disease

1. Geography: Patna, capital of Bihar state. It is located on the southern bank of the river Ganga. Making the climate humid and alluvial soil which favours the breeding of P.argentipes. Along with being highly flood prone area.

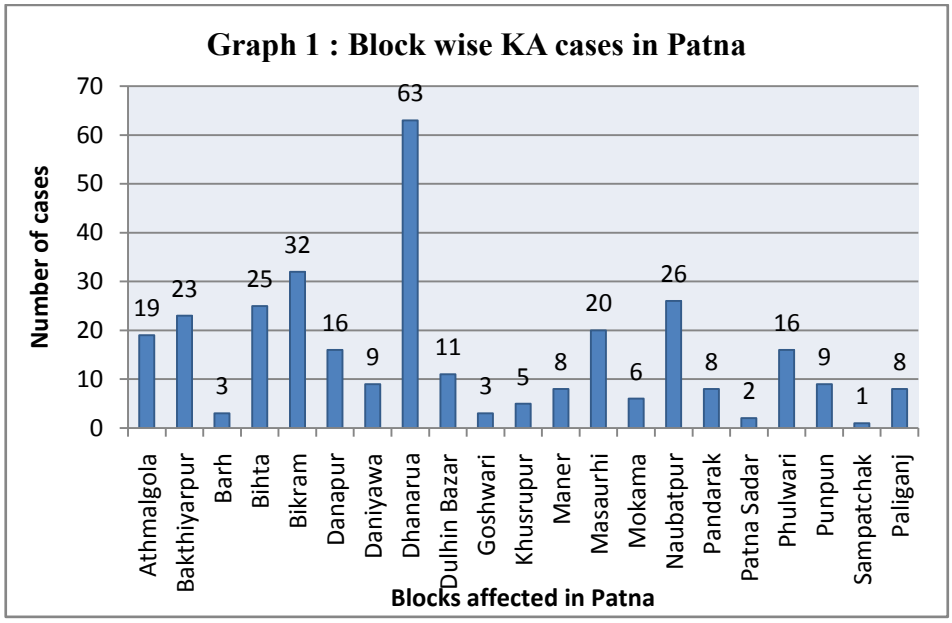
2. Demography: With the population of 2770099 male and 2426745 female, Patna is enormously populated. The living condition is not hygienic, people are just living there life for sake of employment.

3. Socio-economic status: Kala-azar is a local & focal disease mainly prevalent in rural areas. Musher community belonging to lower socio-economic status is most affected with the disease. This co-relates them for their living in mixed dwellings which is predominantly plastered with mud with cracks & fissures favouring sand fly breeding conditions.

(Source: District health action plan, Patna 2012-13)

4.1 Block wise case load in Patna Year 2012-2013 (till Aug)

Total of 313 cases, with Dhanarua being the highest with 63 and Sampatchak lowest with 1 patient, as seen in graph below



5.Literature Review

Visceral Leshminiasis in India, which results in an estimated loss of 400,000 disability-adjusted life years (DALYs) annually (Joshi, 2008). Out of the total cases of kala-azar reported annually in India, 90% of the cases are reported from Bihar alone.

Focal and sporadic cases of kala-azar have been occurring regularly in many districts of Bihar since 1977. Nearly 67.5 million people are at risk of this disease that pose a major public health concern in Bihar.[1]

A history of other diseases such as tuberculosis, hepatitis, or viral fever in the past year has a significant impact on the occurrence of Kala-Azar because these diseases may reduce the immune status of the host. The presence of kala-azar cases in the family might aid the transmission of this disease in the presence of sand fly vectors and other conditions favorable for completion of transmission cycle within the house.[2]

Spraying of DDT helped to control Kala-Azar; however, there are reports of the vector Phlebotomus Argentpes developing resistance. In India raises the possibility of a new vector or a variant of the disease. In Bihar may be difficulty in diagnosis and inappropriate treatment. In addition, reports of the organism developing resistance to sodium antimony g1uconate-the main drug for treatment-would make its eradication difficult.[3]

While several investigators have addressed the community perception of kala-azar, only a few have analyzed that of the health care provider. Ahluwalia et al pointed to the huge challenge health professionals faced in Bangladesh when specific kala-azar drugs were no longer available in that country. Passively waiting in poorly attended public health clinics will not bring the disease spread to a halt.[4]

5. Rationale

Cases of kala azar in India are highest for Bihar which contributes around 80% of cases in the country. Out of 33 affected districts, 11 are those having the highest percentage of Kala Azar cases, i.e Vaishali, Saran, Muzaafarpur, Darbhanga, East Champaran, Sitamari, Arariya, Purniya, Saharsa, Madhepura, Samastipur, also the cases in Patna is also highly significantly large in number. The cases of Kala Azar is constantly being increased in state, during 2010 a number of cases where 23084 and in 2011 it rises to 25222 , an increase of about 2138 cases. Kala Azar becomes fatal if not diagnosed and treated timely, kala azar relapse cases develop dermal manifestation known as “Post Kala-Azar Dermal Leishmaniasis” (PKDL).

In spite of the undertaking by state government still the Patna being the capital of Bihar bears load of Kala Azar cases. Climate and living condition of Patna do favor the breeding of sand flies. The lower socioeconomic strata uses cow dung as plaster material in houses which Ultimately provides a moist and suitable breeding site house In-house granary, proximity of houses to cowsheds, presence of organic debris and planting bamboo tree nearby surroundings proved to be the breeding ground for sand fly.

Also delay in diagnosis and treatment may lead to increased prevalence of Kala Azar patients. Availability of required drugs, long term treatment, lack of compliance by patients,non availability of doctors, low awareness regarding the spread of Kala Azar, the low detection rate of Post Kala Azar Visceral Leshminiasis which are the major reservoir for transmission of Kala Azar .

In the preview of above, present study is an attempt to understand how health providers and the patients deal with Kala Azar in the study area. The study will help in understanding the type of services delivered, the treatment seeking behavior of patients and reasons behind patients being defaulter.

6. RESEARCH QUESTIONS

1. What all services are being provided by health facilities?
2. How health providers deal with Kala Azar patients?
3. What are the components influencing the treatment seeking behavior of Kala Azar patients?

7. OBJECTIVES

1. To study the type of services being provided to under the Kala Azar Program.
2. To study the attitude and practice of health providers towards Kala Azar.

3. To know the health seeking behavior of patients.
4. To identify the defaulters and the reasons behind defaulter's non compliance for the treatment.

8. RESEARCH METHODOLOGY

9.1 Study Design

The present study is cross sectional descriptive study.

9.2 Study Area

The respective study was being conducted in Dhanarua block of Patna district of Bihar.

9.3 Study Respondents

Medical officer in charge of PHC, ANM, ASHA and Kala Azar patients including the defaulters within them were taken as respondents to collect the desired information for the study.

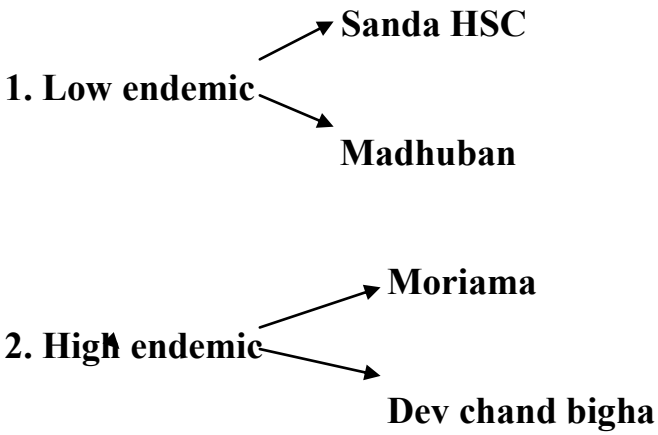
9.4 Sampling and sample selection

- Selection of blocks – purposive sampling
- Selection of HSC – stratification by endemicity.

- Selection of villages (2/HSC) – simple random sampling
- Sample Size – collected from 7 villages

In the district, with purposive sampling the block Dhanarua was being selected. As it have the highest number of KA cases in the district.

The block PHC of Dhanarua was selected and Medical Officers In Charge appointed at the PHC was interviewed in-depth. Area was identified on the basis of endemicity of kala azar. 4 sub centres within the block was selected which are: 2 from high endemicity and 2 from low endemicity.



Under these sub centres 8 villages are selected randomly where KA cases are being reported, 2 from each HSC respectively.

- HSC Madhuban :

  1. Tetri
  2. Shikoha

- HSC Sanda
  1. Sanda
  2. Kistipur
- HSC Moriama
  1. Moriyama
  2. Kukurbara
- HSC Dev chand bigha
  1. Dev chand bigha
  2. Kalli

Line list of patients was obtained from PHC and used as secondary data. 54 cases from the selected villages were included in study, but during field visit 13 more cases were identified, making total of sample size to 67.

Table no 3. Sample size.

Respondents	Sample
Medical officer in-charge	1
ANM	4
ASHA	7 (one ASHA not in position)
Patients/relative/immediate care taker	67

9.5 Data collection Approach

Both qualitative and quantitative methods will be used to collect the relevant information. Primary data was collected from medical officers, ANM, ASHA, patients and community

by in -depth and face to face interviews the table given below details out the data collection approach for the present study.

Table 4: Data Collection Approach

Respondents	Technique	Tool	Information to be collected
Medical officers	In depth interview	Interview guideline.	Kala azar services provided under Government program, Reason for Kala azar in the area, economic status, occupation, behavior of people regarding the disease, gender issues, Type of IEC/BCC activities, Status of DDT spray. Diagnosis of PKDL, reason for non compliance to treatment, stigma attached to kala azar.
ANM	In-depth interview	Interview guideline	Kala azar services provided Government program, The situation of kala azar spread in sub centre area, her knowledge regarding the spread of kala azar status of DDT spread ,community behavior and believes for kala azar, type of IEC/BCC activities organization of kala azar detection camp
ASHA	In-depth interview	Interview guideline	Knowledge of kala azar, case detection process, incentives, type of IEC/BCC activities, follows up's, gender discrimination.
Rural medical practitioners	In depth interview	Interview guideline	What is the average number of cases, treatment they provide to kala azar? What they think is a major cause of kala azar spread.
Kala azar patients	Face to face interview	Semi structured interview schedule	Mortality rate due to KA, Their preference for the treatment. Reason for not going to PHC for the treatment. Month with maximum number of cases. Referral and follow up services. Drugs, duration of treatment. Out of pocket expenditure, monetary support, status of DDT spray in their village, Opinion about IEC/BCC activities for IRS round. Reason of refusal for DDT spray.
Defaulter patients	Face to face interview	Semi structured interview schedule	Service related factors, disease and treatment related and socio-cultural Economic factors.

9. Limitations

Due to season of crop cutting many of the respondents were not available during the time of interview. This reduces the sample size at time of interview.

Asking date of starting treatment was removed from the question as it was not being remembered or they were not having any record of the same.

10. Findings

Finding of the study has been divided in two parts, 1st part will deal with the finding came from service providers i.e. Attitude and practice towards KA and its services.

And 2nd part will deal with the finding came from beneficiaries.i.e. Health seeking behaviour of Clients regarding KA.

11. 1. Attitude and Practice of health provider.

According to all 12 respondents the different services available at PHC for KA treatment are the rK 39 test, drug miltefosine for the patient diagnosed, organisation of Khoj Camp in month of Feb-March every year. All ASHA responded about Khoj camp but only 4 ASHA (57%) were able to elaborate about the purpose of organising the camp i.e. for KA detection and none of the ANM responded about Khoj Camp. Referral services were mentioned, whenever ASHA and ANM detect or suspect any patient may have KA fever they refer them to PHC. If patient is not recovering then they are sent to RMRI for treatment by PHC.

Regarding on question for Incentives, all were known to the Patients incentives of Rs 1400/- if the treatment is completed from PHC. And ASHA incentive of Rs. 200/-. ASHA incentives if they help in treatment completion. But the issue what came out from ASHA were that in spite of patient detection they don't get any incentives, hence it was easily being identified there less interest in the Program. Although they have got training about KA, they do bring patient to PHC but not received the incentives for their work makes them de motivated for the work.

All ANM and ASHA were having sound knowledge of KA vector i.e. Sand fly and method of controlling via IRS round twice the year as community level program for KA control.

ANM and ASHA were also asked about the way they diagnose the patient may have KA, almost all answered fever more than 2 weeks, swollen stomach and blackening of skin. The ANM did not know more of in depth knowledge like spleenomegaly, loss of weight, drug to be given.

When asked about the main reason for the Kala Azar in area, Majority responded that the Disease happens in the Mushar and Manjhi community more, it can either happen in any caste or religion but these are mostly affected, they don't have good hygienic living condition, they keep pig as pet. Illiterate hence they do refuse the spray in their houses; these are the main reason behind the spread of KA. Disease does not affect any particular age group rather any age group can be affected by KA.

When asked about the defaulter rate none of the response came about the discontinuation of treatment in between. All the respondents answered that once the treatment get started after the detection of KA it is being continued. Some get refer to RMRI, if

the condition is serious or the time if they don't get medicines from PHC.

About the behaviour and gender discrimination, there came no such any issues in any of the covered villages or in any specific community from any of the health providers. The only problem is that they don't inform ASHA about their Illness so that sign and symptoms could be detected and early treatment can be started and this problem is same with male and females both.

Only the ASHA from the village Moriama stated that "yes, Females do get late treatment, because they neglect their health and don't inform as. They had to look after the family and other responsibilities too. They go to quakes for temporary treatment, hence delay in diagnosis make the treatment delay"

Status of IRS round/DDT spray in the block, all answered about the round is done as part of eradication but there are loop holes in the System. The high rate of rejection due to no prior information about the spray; Bad smell of the DDT and illiteracy are the main causes of refusal as majority answered.

Regarding the IEC / BCC activities done at time of Khoj Camp and IRS round, the response quoted were that through Posters and Miking most of the IEC is done.

But all the ASHA answered that they don't get any incentive for KA work so they do not show much interest in IEC during IRS round. Only the ASHAs of Moriama and Kalli which are high endemic villages responded that they do move in village and inform the house to house about the spray.

When asked about the ways of improvement in the program and services, the answer were same from almost all the respondent, that maximum of IEC and BCC is required. As the community is not so literate for that IPC, street play and message through use of electronic media can be fruitful in spreading information regarding KA, Khoj camp and before IRS round. "As majority are illiterate in village so posters, stickers will not be an effective manner of IEC" as stated by ASHA of Moriama Village.

It was asked from ASHA and ANM only that if the involvement of MOIC in counselling of patients can make any effect on community awareness and early start of treatment at PHC, all answered that yes if MOIC get more involved apart from treatment part only the community will better accept about the KA control.

11.2 Health seeking behaviour of patients regarding KA.

Around 52 KA patients were interviewed and it was tried to know their health behaviour.

11.2.1 Mortality Rate:

Out of 52 patients the live respondents were 49 and rest were not alive at the time of interview. When asked about the cause of death from the family members and verified from ASHA, it was concluded that these patients died due to KA.

Hence Mortality rate was six percentages from the total sample.

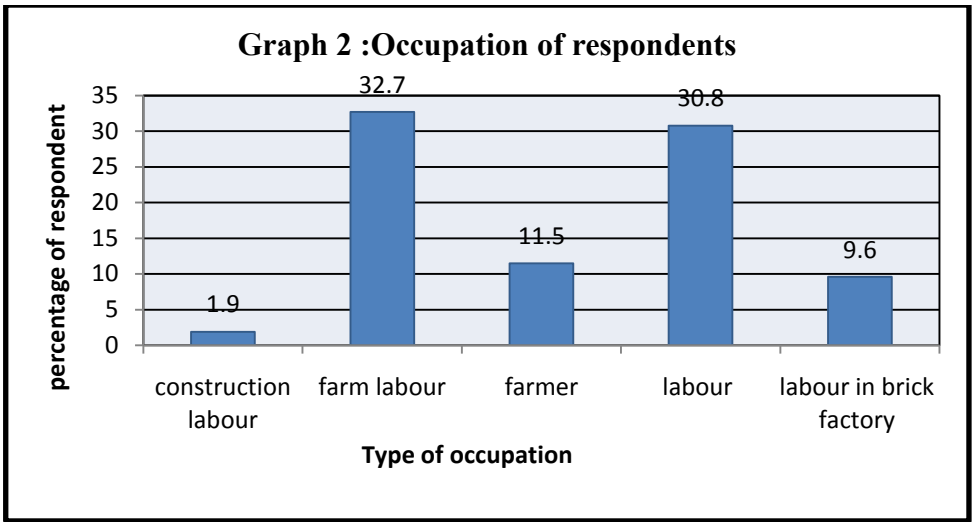
Table 5. Total alive respondents

	Frequency	Percentage
Alive respondents	49	94.2%

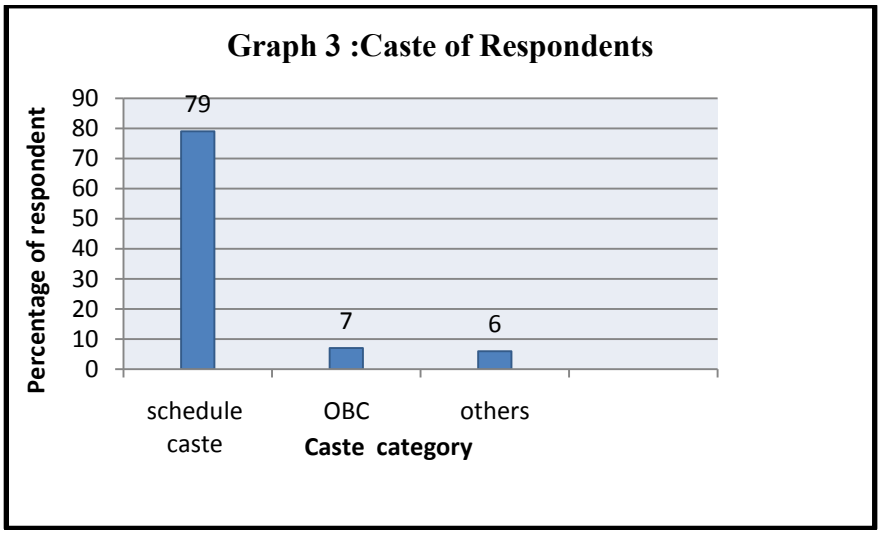
11.2.2 General Information about Occupation, Religion, Caste of the Patients:

When analysed about the occupation of the respondents family. Maximum, with 33% of response came for Farm Labour and next being the labour category, 31% those who do seasonally work in

different jobs. Below is the graph showing the respondents occupation

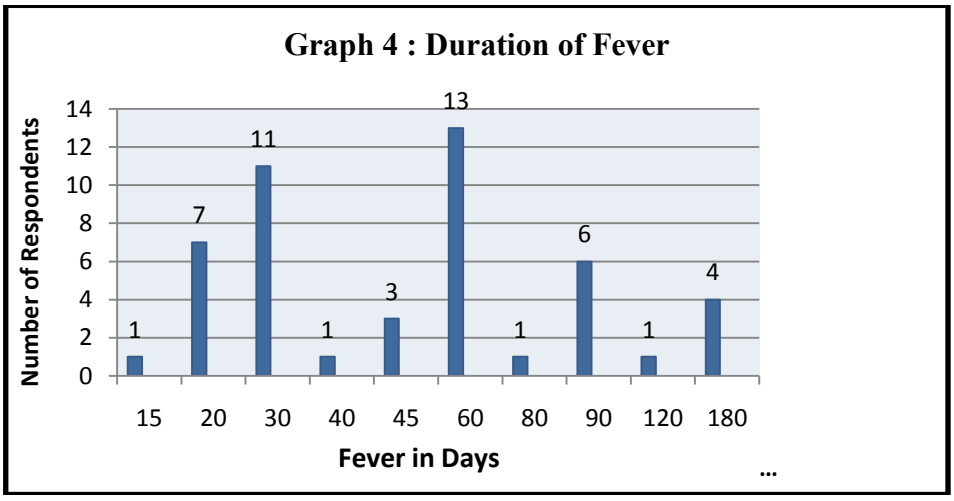


Around 98% respondents were Hindu by Religion and among that 79% belonged to schedule caste from Manjhi and Ravi Das.



11.2.3 Duration of Fever

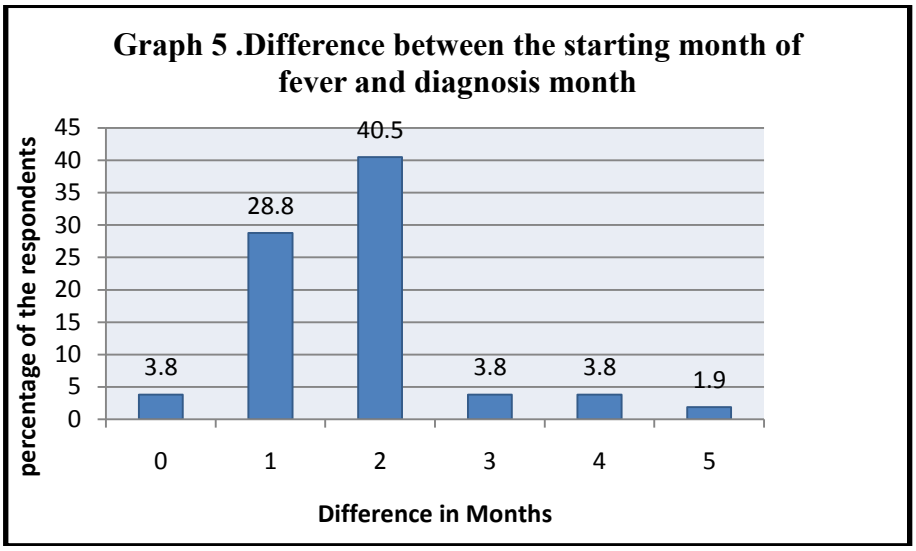
As of fever for more than 2 weeks i.e. for 15 days may be suspected of KA, in this context maximum have fever for 60 days, 25% followed by 21% who had fever for 30 days before they were being detected of KA. The range seen was from 15 days to 180 days. Hence this shows that patients were seeking treatment but other than for KA. Patients were unknown about the fact along with that the providers were not recommending the KA test after 15 days.



11.2.4 Difference between the month of starting fever and diagnosis done for KA.

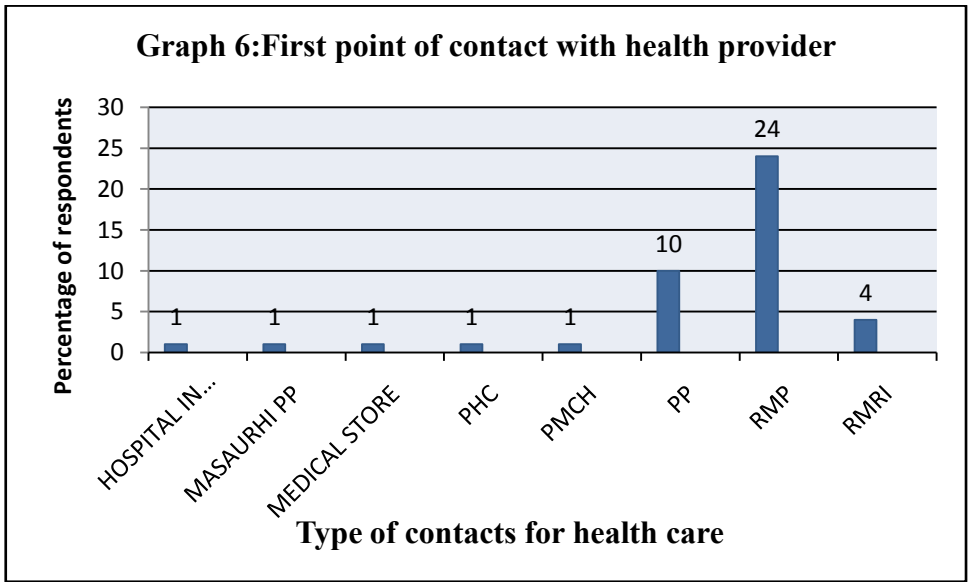
This analysis is done for knowing the total months after the patient was diagnosed with KA. This will show the awareness among the treating health provider about KA sign, because fever of more than 2 weeks may be KA fever.

Analysis shows that 40.5% of the patients were diagnosed after two months of having fever.



11.2.5 First contact with health provider:

Here it was tried to find out the first person the patients contacted after the start of illness. It was found that maximum number of respondent 24, first point of contact was with RMP in the village for taking treatment advice.

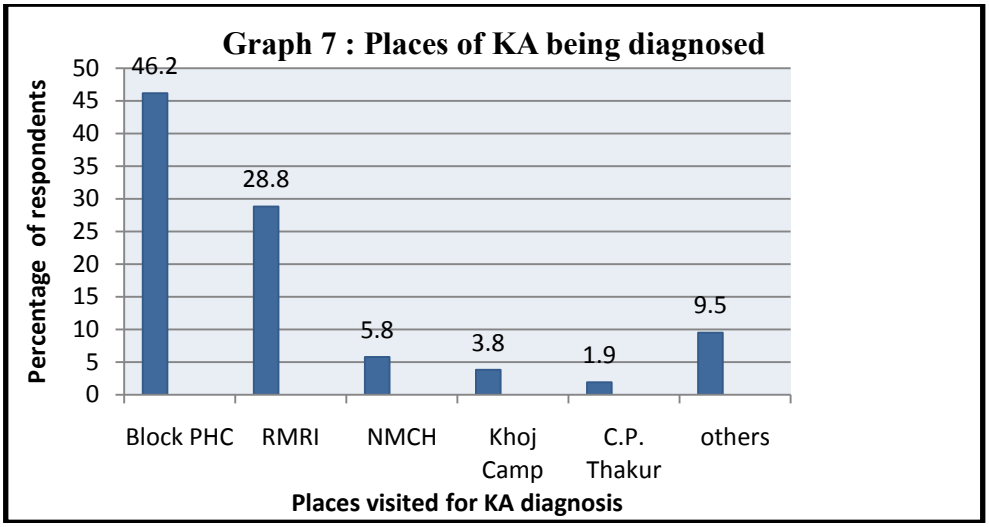


The relation between high endemic and low endemic zones with first place of visit was tried to co-relate. For this chi-square test was done between the two variables and result came was with P- Value 0.002, which show its significance at 95% level of confidence. Below is 2*2 contingency table showing the result.

	PHC	RMP	Private Practitioners	RMRI	Others	Total Number	P value
High endemic	20.6	23.5	26.5	23.5	5.9	34	0.002
Low endemic	0.0	80.0	6.7	0.0	13.3	15	
Total	7	20	10	8	4	49	

When asked to them about the reason why they did not went to PHC first for taking treatment, the answer came was “PHC don’t Have medicines, It takes time for diagnosis. Ultimately we have to spend money from our pocket only”.

But when it was asked where they had their KA got confirmed then maximum reply for around 46.2% was for Block PHC, followed by RMRI. They reported ASHA took them to PHC for treatment after not getting cured from seeking treatment from PP or other places. Either they went to RMRI after consultation from neighbour, PP or Lab.

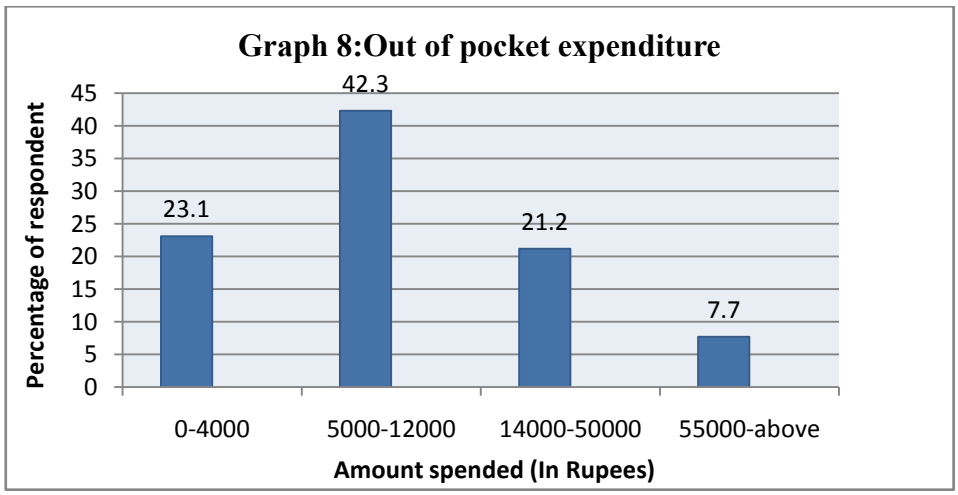


11.2.6 Out of pocket expenditure during the treatment

Although the treatment is being provided free of cost in Government facilities but as due to the pattern seen in Graph 6, 49% of the total preferred going to RMP. This behaviour of self referring lead to expenditure ranging from Rs 500- Lakhs even.

A common reply from most of ASHA came was that "The patients even suffering from fever for more than months don't inform as, so that we can take them to PHC".

The Average maximum expense which incurred ranged from Rs. 5000 to 12000. 42.3% of the family responded in this range for the out of pocket expenditure during the treatment phase.



.When asked from where they arranged money the reply came from maximum respondent was from debt or by selling their assets like land or jewellery. Condition is such that they still are paying the debt. Among them were some who went earlier to PHC or RMRI and got their treatment started at early without much of the money spent

11.2.7 Rate of defaulter

Out of 49 alive respondents, 46 i.e. around 94% have completed their full course treatment. The rate of defaulters is only 6%.

The respondent had completed their treatment without any break, they may get refer to RMRI in between the course but they have completed the total duration of treatment. The main reasons for the rest 3 defaulters were:

1. The patient did not go to PHC for getting the next dose.
2. One of the patients did not have medicine from PHC and hence stopped the medicines and went to RMRI for further treatment.

3. Patient was not getting well in spite of taking medicine and hence stopped the course in between.

11.2.8 Monetary support after treatment completion

The patients who have completed their treatment from PHC were asked about the incentives they have received or not. As per government guidelines there is provision of getting 1400 rupees for the patients after April 2012. Out of 25 only 9 have got the incentive i.e. 17%. This shows the delay in system for providing the monetary support which is given on the behalf of their loss in daily wages; patients are not getting what is their right. Some patients don't know about the scheme, some have not followed up for the same.

11.2.9 Referral services

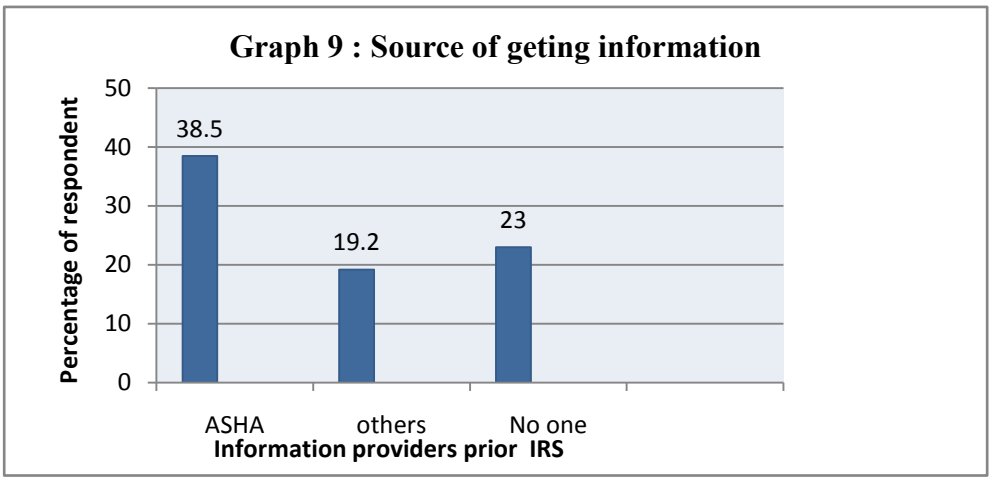
60% of the respondents were called up for follow up after treatment completion among them were maximum that patient who had their treatment completed at RMRI. But interestingly when asked them about if they went or not all response came was

11.3 COMMUNITY LEVEL CONTROL PROGRAMS

11.3.1 House being spread by DDT

81% response was in YES, their house was been sprayed, out of these 11.5% have allowed spray but only partially. The main reason that came out for partial spraying and refusal were bad smell, spots on the wall, there is no reduction in number of "mosquitoes" after spraying, also there are no prior information regarding the spray schedule in the village by ASHA or by any IEC activities.

Only 38.5% of respondents replied in YES, for involvement of ASHA in community information prior to the round and 19.2% response was for other sources that includes SFW.

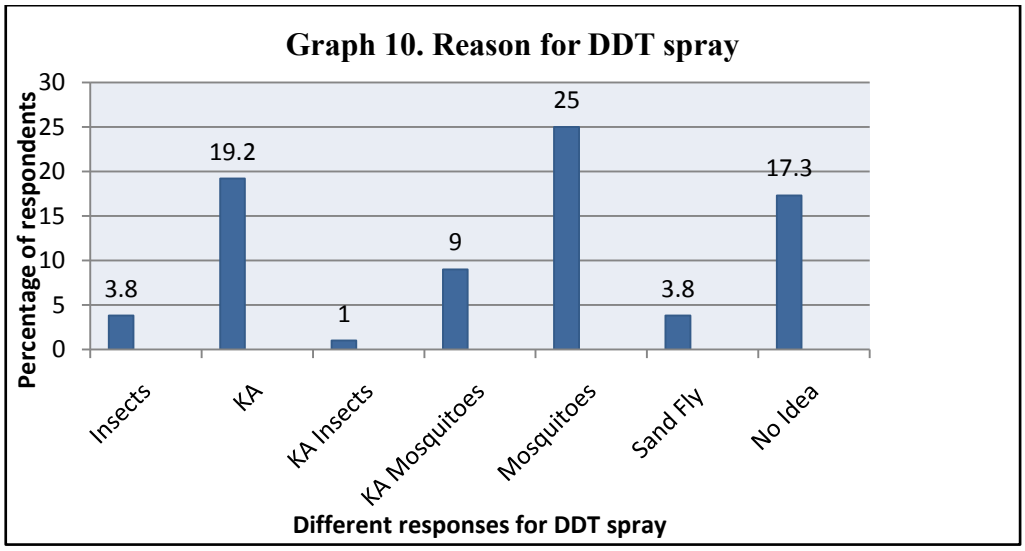


11.3.2 IEC /BCC activities prior IRS:

91% of respondent did not heard or seen any IEC activities in villages, in spite of being high endemic block there was not as such information provided to the community prior IRS.

11.3.3 Regarding reason of IRS round/ DDT spray:

Various answers were received while asking this question. 25 % answered the spray is being done for reducing the Mosquitoes. Out of total only four percent responses was for Sand Fly and 19.2% answered that spray is done for KA. 17.3% were those who were not having any idea about the reason behind why the spray is being done.



11. Summary and Conclusions:

The sign and symptoms of KA were known well to the FLWs, as the maximum of the patients were taken to PHC by ASHAs. ANM does not have any diagnostic and treatment facility at HSC level.

Availability of drugs and diagnostic services has improved since last few years as seeing the highest case contributing block and the program is also on priority in the block.

ASHA are less involved at field level for community awareness. They are the only source who can go to house to house and tell about the importance of IRS spray but it has been seen that ASHA are only not taking interest as they don't receive any payment for the program yet.

In spite of the most of diagnosis are done at PHC still it's not the place with first choice for seeking treatment. At 95% of confident interval there came a relation between endemic zones and first place for treatment advice.

Family spends thousands of rupees and it's seen that this disease happens commonly in poor's; hence they have to take debt for completing their treatment.

The disease is known to the community due to many a patient has been diagnosed with KA, especially in Kalli, Moriama and Tetri village but including these high endemic villages there is still need of awareness regarding the vector and mode of spread,

and how it can be controlled, or else the disease cannot be eradicated.

Control in KA incidence can be done only through timely spray of DDT, there appeared a loop hole from both the demand and supply side. Demand side has to be more knowledgeable regarding IRS as it is the only way of reducing the sand fly at community level and supply side should also maintain proper way of informing and maintaining quality of spray as per guidelines

As being completely unaware about the vector causing KA, they don't differentiate between sand fly and mosquitoes are two different entities. Hence mosquitoes has already being resistance to DDT don't show any effect , so people refuses directly that still after spray mosquitoes number don't reduce.

12. Recommendations

Supply side:

From the point of service delivery stock maintenance of diagnostic kit and medicine must be available at PHC so that patients don't leave the treatment in between due to unavailability of medicines at PHC.

Timely incentives to ASHA for case diagnosis and treatment completion and for patients against the wage loss.

Re line listing can be done as many patients were found not register in line listing; this will reflect the real case load which can improve the programmatic approach.

Involvement of MoIC in patients counselling or monitoring the IRS round.

Demand side:

Improving the knowledge of community by means it could be easily understood by them.

Community program in endemic villages for face to face interaction.

13. References

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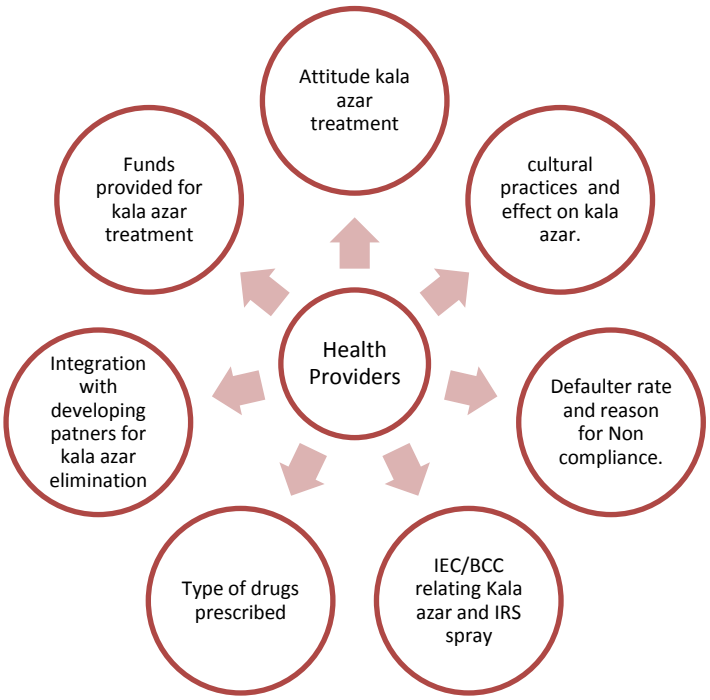
14. Instruments

Discussion guideline for health providers

Interview guides for health providers

The themes covered in this discussion guide



Structure of the Discussion Guideline:

- Introduction and consent
- Type of services being provided to under the Kala Azar Program.
- The attitude and practice of health providers towards Kala Azar.
- The health seeking behavior of patients.
- The reasons behind defaulter's non compliance for the treatment.

Namaste, My name is ……. and I am a student of IIHMR, Jaipur and as now I work in CARE India as DPO-VL in Patna District. I am doing a research on Kala Azar in respect to that I am conducting this interview in the community. Today I want to ask some questions for knowing the health seeking behavior and components influencing the treatment seeking behavior for Kala Azar.

It will take around 30 minutes to answer the questions that I want to ask you. The information provided by you will be only used for understanding the health services you are receiving.

For the purpose of analysis, we would be recording the details of this discussion. However, we would not be recording your names and the discussion would be kept completely confidential. Please feel free to talk, as there are no formalities, no right or wrong answers and your opinion is important. We would not be quoting you anywhere.… Would you be willing to participate? (If yes then proceed)

Signature of Respondent……

Start time ……..

End –time ……..

Date of Interview…….. Signature of Interviewer.....

Section A: Introduction & warm up The aim of this section is to make the participant comfortable with the investigator, so that they can talk freely. It is important to make the participant feel welcomed and at ease. A warm and humble introduction will help the participant to relax and express his/her thoughts easily. Before starting the interview.	
A1.	Do you belong to this place? If no, where are you from? How long have you been living here?
A2.	Since how long have you been working in this profession?
A3.	How long have you been working in this position? Do you have any specialization? If yes, what is your specialization? *(Ask for the duration of present service and previous job profiles)*
Section B: Attitude and Practice The aim of this section is to understand the attitudes and practice of the participant aout the KA issues.	
B1.	Can you discuss what all services are being provided by government for KA in Bihar? *PROBE: Drugs, Referral, Follow up, Incentive for patients and ASHA ,IEC materials, Khoj Camp,*
B2.	Do you think there are any issues like gender discrimination association with KA? *PROBE: Females do come late for treatment; follow up, more defaulter rate.*
B3.	What do you have to say about KA in this community? Does it vary amongst people of different caste/gender/class etc? *PROBE: occupation, living status, any special community, lesser knowledge about KA.*
B4.	*What are the various methods to eradicate KA at community level?* *PROBE: IRS round, Involvement of ASHA, AWW in KA program and during IRS round, community mobilization during Khoj Camp.*
B5.	What is the rate of defaulters PROBE: causes of defaulters, gender specific defaulter rate.
Section c: aim to know about the various IEC activities regarding KA.	
C1.	What is the best method to create awareness about KA use amongst the people of this community? *PROBE: Various forms of media like electronic, print, community sensitization meetings, songs, street plays etc.*
C2.	Do you think creating awareness among the community is sufficient to control spread of KA in community? Why do/don't you think so? What are the effective ways of motivating community to reduce the rate of rejection during IRS round? Do you think doctors/ health professionals play an important part? Do you think they can manage time to do such counseling? Who else can be an important catalyst in doing so?

Section D: Challenges and Sustenance	
D1	In your opinion, what is the future direction for KA programs of the government in this state? What more needs to be done?

Thank You

Semi-structured questionnaire schedule for qualitative data collection from KA patients.

Q. NO.	QUESTIONS AND RESPONSES
A1.	Name of the District? _____ (26)
A2.	Name of the Block? _____ (9)
A3.	Name of the Village? _____

Section A: Details of known patient

Q. NO.	QUESTIONS	CODING CATEGORIES	SKIP
A4.	Patient Code:		
A5	Name of Head of house hold		
A6.	Age	Age in completed years	
A7.	Sex	MALE	

		....1 FEMALE 2	
A8.	Occupation		
A9.	Religion	HINDU.....1 MUSLIM-.....2 OTHER.....-.3	
A10.	Caste	SCHEDULED CAST..... 1 OBC.....,.....2 OTHER.....3	
A11.	Type of Dwelling Unit	PUCCA.....1 SEMI PUCCA.....2 KUCHHA.....3 JHUGGI/JHOPADI.....4	
A12.	Is the patient alive	YES.....1 NO.....2	If answer is NO then the interview will be continued with the relative of the patient(HH)

Section B: Patient Information

B1.	Month of start of illness?		
B2.	What was the duration of fever? (Fever for more than 2 weeks and which is not being getting treated even after taking Anti-Malarial drugs may be suspected of KA)	Record fever in days	
B3.	List all treatments for the illness in correct sequence		

A. Name of doctor/Hospital	B. Date of starting Treatment	C. Duration of treatment	D. Was this for KA/PKDL?	E. Medicines given

B4	When was the patient diagnosed with KA?	DATE ☐☐ ☐☐ ☐☐☐☐ DAYS MONTH YEAR	
B5.	Where was the patient diagnosed with KA?	_____	
B6	What was the method of diagnosis?	rK 39 TEST KIT..... .....1 BIOPSY.....2 Others.....3	

B7	What was the average cost incurred during the treatment	……	
B8	Did treatment was completed?	YES ..... NO..... 2	If "YES" then go directly go to question no...
B9	What was the reason for non completion of treatment		
B10	What was the outcome?	CURED.....1 WELL./PKDL.....2 DIED.....3	
B12	Did you receive any monetary support after completion of treatment?	YES.....1 NO.....2	To be asked only to patient who have completed treatment from government facility .
B13	Were you have been called up for follow up by the Doctor.	YES.....1 NO.....2	

Section C Community level control programs.

C1	Was the house where the patient lives sprayed during the last round	YES.....1 NO.....2	
C2	Did Spraying was done in each of	YES.....1	

	the rooms?	NO.....2	
C3	Do your Cattle shed were sprayed?	YES.....1 NO.....2	
C4	Who inform you about IRS Spray	ASHA.....1 LINKWORKER.....2 AWW..... 3 OTHER..... 4	
C5	Do any IEC/BCC activity , through (community meeting, miking, posters or Banner,) was being done for IRS Spray	YES.....1 NO.....2	
C6	Do you know why the DDT spray is done?	Give reasons	