

Internship Training
At
CARE India,
1st Feb 2014 – 30st April 2014

**"KNOWLEDGE ATTITUDE AND PRACTICES (KAP) REGARDING KALA AZAR DISEASE IN ENDEMIC AREA
OF SIWAN,BIHAR".**

By

Kusum kumari

Under the guidance of

Dr.D.C.Jain

Post Graduate Diploma in Hospital and Health Management
(2012-2014)



**International Institute of Health Management Research
New Delhi**

(CARE India)

The certificate is awarded to

Kusumkumari

In recognition of having successfully completed her
Internship in the department of

**"KNOWLEDGE ATTITUDE AND PRACTICES (KAP) REGARDING KALA AZAR DISEASE IN ENDEMIC AREA
OF SIWAN, BIHAR".**

and has successfully completed her Project on

**"KNOWLEDGE ATTITUDE AND PRACTICES (KAP) REGARDING KALA AZAR DISEASE IN ENDEMIC AREA
OF SIWAN, BIHAR".**

1 February 2014 to 31 April 2014

CARE India, Bihar

She comes across as a committed, sincere & diligent person who has a
strong drive & zeal for learning

We wish her all the best for future endeavors



Training & Development

Zonal Head-Human Resources

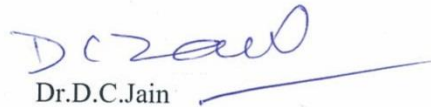
TO WHOMSOEVER MAY CONCERN

This is to certify that Kusumkumaristudent of Post Graduate Diploma in Hospital and Health Management (PGDHM) from International Institute of Health Management Research, New Delhi has undergone internship training at CARE India from 1 feb 31 April 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.



Dr. A.K. Agarwal
Dean, Academics and Student Affairs
IIHMR, New Delhi



Dr.D.C.Jain
IIHMR, New Delhi

Certificate Of Approval

The following dissertation titled **"KNOWLEDGE ATTITUDE AND PRACTICES (KAP) REGARDING KALA AZAR DISEASE IN ENDEMIC AREA OF SIWAN, BIHAR"** at **"CARE India"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **Post Graduate Diploma in Health and Hospital Management** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee for evaluation of dissertation.

Name

Name
Kirti Udaya
Anupama Rheema

Signature

Signature
Raj Wajai

Certificate from Dissertation Advisory Committee

This is to certify that **Ms. Kusumkumari**, a graduate student of the **Post- Graduate Diploma in Health and Hospital Management** has worked under our guidance and supervision. She is submitting this dissertation titled “**KNOWLEDGE ATTITUDE AND PRACTICES (KAP) REGARDING KALA AZAR DISEASE IN ENDEMIC AREA OF SIWAN,BIHAR**”.at “**CARE India,Bihar**” in partial fulfillment of the requirements for the award of the **Post-Graduate Diploma in Health and Hospital Management**.

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.



Institute Mentor Name,

Designation,

Organization



Dileep Mishra

District Manager,

CARE India,Bihar

**INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH,
NEW DELHI**



CARE INDIA
Solutions for Sustainable development
E 46/12, Okhla Industrial Area
Phase II, New Delhi - 110020
Tell : 91-011-49101100, 49101101
Fax : 91-011- 26385291/92
www.careindia.org

Date :- 15-05-2014

TO WHOMSOEVER IT MAY CONCERN

This is certify that Ms KUSUM KUMARI is a second year student of post graduate Diploma in Health and Hospital management (PGDHHM) of International institute o. health management Research (IIHMR), New delhi. She is working with the CARE India Bihar as a District Program officer (DPO) in Siwan District. She has successfully completed her dissertation from ...as a part of course curriculum from CARE India.

She is hard working and sincere towards her work. She has completed all the assignment task at the CARE India, Siwan (Bihar).

I wish her all the very best endeavors.


(Mr. Dileep Mishra)

District Manager
CARE India, Siwan

FEEDBACK FORM

Name of the Student: Kusumkumari

Dissertation Organisation: CARE India, Bihar

Area of Dissertation: "KNOWLEDGE ATTITUDE AND PRACTICES (KAP) REGARDING KALA AZAR DISEASE IN ENDEMIC AREA OF SIWAN, BIHAR".

Attendance: 100%

Objectives achieved: Proper planning for IRS & implementation of Kala Azar elimination program and Good initiative of IRS Control room.

Deliverables: Supervision and Coordination of IRS program.
- Also Conducted training of Spray Squads.

Strengths: Quick learner, Excellent time management
Hard working & knowledgeable.

Suggestions for Improvement: —



Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation)

Date: 15-05-2014

Place: Siwan

CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled "KNOWLEDGE ATTITUDE AND PRACTICES (KAP) REGARDING KALA AZAR DISEASE IN ENDEMIC AREA OF SIWAN, BIHAR and submitted by Kusumkumari Enrollment No. PG/12/040 under the supervision of Dr. D.C. Jain for award of Postgraduate Diploma in Hospital and Health Management of the Institute carried out during the period from 1 February 2014 to 31 April 2014 embodies my original work and has not formed the basis for the award of any degree, diploma, associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Kusum Kumari
Signature

Abstract

Background :

Visceral leishmaniasis (VL), commonly known as kala-azar is a systemic disease caused by parasitic protozoan species of genus *Leishmania* and transmitted by species of *Phlebotomus* (sand flies). It is a poverty-related disease and associated with malnutrition, displacement, poor housing, weakness of the immune system and lack of resources. This study was aimed to assess the knowledge, attitude and practice of residents.

Methods:

Community based cross-sectional study was conducted among 10 blocks of district from march to April 2014. A total of 100 residents households were selected by using simple random sampling techniques. Data was collected using structured Questionnaire. For knowledge, attitude and practice variables. Data were analyzed using SPSS-16 statistical software.

Results:

From a total of 100 study participants , 53% know about kala azar disease. And only 8% people exactly know about causing factor and 53% respond that kala azar is a infectious disease transmitted from one person to another. This shows low level of knowledge among people about kala azar in study area. Only 26 % taking kala azar disease as a very serious disease and as compared to malaria and about 47% have no idea about seriousness level. 56% have positive attitude towards community participation as a control of kala azar disease. They having positive attitude towards first reaction after suffering from kala-azar disease. And only 22% are using mosquito net as a preventive measure from kala azar disease. So Awareness is required for good practices.

Conclusion:

In general our findings showed that the residents had low level of awareness and favorable attitude about the disease, but their overall practice about prevention and control of the disease was low. Therefore, our investigation call for continued and strengthened behavioral change communication and social mobilization related activities.

ANM	Auxiliary Nurse Midwife
ASHA	Accredited Social Health Activist
AWC	Anganwadi Center
AWW	Anganwadi Worker
CHC	Community Health Center
DPM	District programme manager
FRU	First Referral Unit
ICDS	Integrated Child Development Scheme
MOHFW	Ministry of Health and Family Welfare
NRHM	National Rural Health Mission
PHC	Primary Health Center
PRI	Panchayati Raj Institutions
RNTCP	Revised National Tuberculosis Control Programme
VHAI	Voluntary Health Association of India
VHSC	Village Health and Sanitation Committee
CDC	Centers for Disease Control and Prevention
DDT	Dichlorodiphenyltrichloroethane
DMO	District malaria officer
DPHO	District public health officer
HH	Household
IEC	Information, education and communication
IRS	Indoor residual spraying
KA	Kala-azar
LN	Long-lasting insecticide treated net

M&E	Monitoring and evaluation
MI	Malaria inspector
MO	Medical officer
NVBDCP	National Vector Borne Disease Control Programme, India
PHC	Primary health centre
PPE	Personal protective equipment

ACKNOWLEDGEMENT

Words can never be enough to express my sincere thanks to **Mr Abhijeet Prasad Sinha** Program Manager, CARE India, Bihar his continuous guidance and support and who gave me the opportunity to be a part of CARE India.

I convey my gratitude and greatest thanks to **Mr Dilip Mishra**, District Manager, Siwan, CARE India, Bihar and **Dr.Nitin Gupta**, DCM, DHS, Siwan for his support and guidance to make this project possible.

I also express my thanks to my IIHMR mentor **Dr.D.C.Jain**, for extending his support. I would also thanks **Dr.A.K.Agarwal (Dean Academics, IIHMR)** without whom this project would have been a distant reality. Most of all, I pay my sincere offering to the almighty without whose grace I would not be able to add a new dimension to my life.

In the end, I am thankful from the core of my heart to my beloved parents who supported me throughout the course of study. Last but not the least; I am thankful to all the colleagues for their help and cooperation.

Kusum Kumari

Student, PGDHM, IIHMR

EXECUTIVE SUMMARY

This study was undertaken to assess the extent of community awareness and related practices about kala-azar undertaken by them to control the disease, in an highly endemic focus of Bihar, India. A household-based cross-sectional knowledge, attitude, and practices (KAP) survey consisting of quantitative components on knowledge, attitude, and practices concerning kala-azar was administered to heads-of-household through a semi-structured questionnaire. Data indicated that (53%) respondents know about kala azar , 8% had correct knowledge that sandfly bites caused kala- azar, 39% do not know any specific transmission agents for kala-azar. A majority (57%) do not know about breeding place of vector, 37% had no specific knowledge about the symptoms. All of them (98%) having positive attitude towards treatment of kala azar. Mostly (56%) were positive that the kala-azar can be controlled through community participation. A few (6%) suggested isolation of patients as care of patient in better manner. About 52% respondent about specific medicine for treatment of kala azar, and (51%) favored the utilization of the services offered by primary health centers or government hospitals. Only (22%) of the respondents were using prevention measures to avoid contacting disease. These results could prove to be useful for health planners in developing suitable control strategies.

ORGANISATION PROFILE

CARE has been working in India for over 60 years, focusing on ending poverty and social injustice. Through well-planned and comprehensive programmes in health, education, livelihoods and disaster preparedness and response. Overall goal is the empowerment of women and girls from poor and marginalised communities leading to improvement in their lives and livelihoods. We are part of the CARE International Confederation working in 84 countries for a world where all people live in dignity and security.

In India CARE focuses on the empowerment of women and girls because they are disproportionately affected by poverty and discrimination; and suffer abuse and violations in the realisation of their rights, entitlements and access and control over resources. Also experience shows that, when equipped with the proper resources, women have the power to help whole families and entire communities overcome poverty, marginalization and social injustice.

Towards a Program Approach:-

CARE understanding of a program approach is a way of working that has at its core long term commitments to key population groups. It involves a set of long term programs that are designed and implemented strategically and collaboratively with others actors to achieve deep and sustainable impact in the lives of specific population.

To create lasting change, program strategy works to enable people to free themselves from the generation cycle of poverty. We are committed to:

1. Working the poorest people such as Dalits, Tribals, Urban Poor migrants, minorities and women -headed household.
2. Making a long term commitment with a holistic approach towards addressing the underlying social, and economic causes of poverty.
3. Working in the Poorest states with the attention to emerging hotspots of exclusion and poverty.

OUTREACH

Interventions target those areas where poverty and socio-economic indicators are below the national average. CARE is currently working in 16 states across India, with the 6 core states of Bihar, Jharkhand, Uttar Pradesh, Orissa, Chhattisgarh and Madhya Pradesh, where poverty is most concentrated.

PARTNERSHIP

CARE is working to facilitate the development of strategic relationships that leverage the collective leadership capacity of multiple diverse organizations over time to trigger positive social change that addresses deeply rooted underlying causes of poverty. The marginalization at scale. This is based on the belief that such change cannot be triggered by any single organizations working in isolation;

Aim to draw from the best of the knowledge and experience of the work of CARE International, and that of other organizations in Indian civil society, to apply to current and emerging complex problems to achieve the greatest impact.

PROGRAMME AREAS:

HEALTH:

CARE health programme works to provide comprehensive solutions to address public health problems of the most vulnerable communities. We promote essential newborn care and immunisation, reduce malnutrition in children, prevent infant and maternal deaths, and protect those affected by or susceptible to HIV and AIDS and TB. We partner with stakeholders including the public sector, private sector, and civil society, to reduce health inequities by addressing the social determinants of health and revitalizing primary health care.

EDUCATION:

CARE works to help girls complete primary education and access formal schools, provides onsite academic support to enhance quality of teaching, and nurtures leadership skills amongst girls. CARE provides technical support to teachers and government schools, helps nurture school-community relationships, and offers alternative education opportunities for women and

adolescents who never enrolled or dropped out early. These alternative education program emphasise science, technology, and mathematics and challenge teachers, students and parents to critically consider their beliefs.

LIVELIHOODS:

CARE's livelihoods programme promotes microfinance "safety nets", supports small business - particularly owned by women and fosters links community collectives and financial institutions. CARE encourages the establishment of cooperatives, through which members can access emergency funds and technologies, enabling them to rebuild their lives in the event of future disaster. CARE also focuses on improved literacy, numeracy, and critical thinking skills as foundations of sustainable livelihoods.

DISASTER PREPAREDNESS AND RESPONSE:

CARE helps communities build their capacity to better cope with and recover from disasters. With a close network of local authorities, civil society, and community based partners, CARE acts quickly to fulfill community needs. Specifically, CARE provides immediate relief and essential supplies, offers rehabilitation support, and works to secure the long-term development of whole communities. Emergency response interventions address immediate vulnerabilities, as well as create new livelihood opportunities for the most severely affected.

There are following programme run by CARE India:

1. Girls' Education Programme

Location: Uttar Pradesh, Bihar, Odisha & Haryana

CARE's Girls' Education Programme (GEP) has been in operation for reaching out to 2 million women, girls, and other marginalised people to enhance their abilities to exercise , through their increased participation in formal and alternative education systems.

2. Udaan

Udaan (Flight) school was piloted in Uttar Pradesh in the year 1999 in the district of Hardoi, through an accelerated learning model, for older out-of-school girls, ages 9-14, which allows

students to complete primary school in 11 months in a residential setting. CARE has also now initiated Udaan in Orissa, Bihar and Haryana states.

3.Kasturba Gandhi Balika Vidyalayas (KGBV)

KGBVs are special residential schools started by the government under the Sarva Shaksha Abhiyaan (SSA) . CARE builds the capacity of KGBV teachers in Uttar Pradesh and Gujarat to deliver quality education in an equitable manner.

4.Girls' Leadership Initiative

CARE views education programmes for India's marginalised children as a critical component of the fight against poverty. Power Within aims to enable 10 million girls around the world to complete their primary education and develop leadership skills that will empower them to work with their families, communities and countries to overcome poverty.

5.Join My Village

CARE's program on maternal and newborn health with a focus on integrating gender interventions in 1000 villages covering a population of 11, 66,535 in 15 development blocks of Barabanki. Efforts include increasing community involvement in improving maternal and newborn health. In addition, there is a focus on strengthening and empowering the Village Health and Sanitation Committees (VHSC) .

6.Realisation of Citizenship through Good Governance

Location: Tamil Nadu & Odisha

The project has been initiated to address women's citizenship issues in the two states - Tamil Nadu and Odisha. This is done through an engagement with CBOs like Self Help Groups. To understand knowledge gaps that women face when attempting to realise their rights as voters in the Indian democratic system.

7.ECD

Location: Chhatisgarh

ICDS is the largest initiative of Government of India with a mandate of providing holistic services to young children for Pre-School Education, Health and immunization at the level of Anganwadi centers (AWC). The period of Early Childhood represents the most significant and demanding stage in the developmental continuum of an individual.

In Andaman & Nicobar Islands, the devastation caused by Tsunami affected the services of ICDS. CARE collaborated with the Department of Social Welfare towards restoring the ICDS centers. This included the pre-school education component. Through setting up of a team of local resource persons - Anganwadi workers, supervisors and the Child Development Project Officers (CDPOs) across the islands and building their capacity for regular onsite support, CARE India has ensured that technical inputs in ECCE are provided locally.

INTRODUCTION:

Visceral leishmaniasis, commonly known as kala-azar, is a systemic disease caused by parasitic protozoan species of genus *Leishmania*. It is a chronic systemic disease characterized by fever, hepatosplenomegaly, lymphadenopathy, pancytopenia, weight loss, weakness and, if untreated, death [1]. The ethological agents belong to the leishmania donovani complex, *L.d donovani*, *L.d infantum* and *L.d arachibaldi* in the Old world and *L.d chagasi* in the New world. The Old world species are transmitted by species of the genus *Phlebotomus* (sandflies). Human, wild animals and domestic dogs are known to act as reservoir hosts, the parasite enters macrophages, where it multiplies and establishes the infection. Currently, leishmaniasis occurs in four continents and is considered to be endemic in 88 countries, 72 of which are developing countries. Nineteen percent of all visceral leishmaniasis cases occur in Bangladesh, Brazil, India, Nepal and Sudan. In order to elaborate successful VL control programs it is essential to know the risk factors associated with it, and to understand the disease-related knowledge, attitudes, and practices (KAP) of the population. The factors associated with *Leishmania* infection in this area have already been described, being related to past history of VL in the household, house conditions or behaviors like sleeping outside, among others. The factors associated with the VL clinical manifestation in this area were sleeping outside or under an acacia tree were among others. Sixty per cent of the world's cases of visceral leishmaniasis (VL) or kala-azar occur in a well defined area in North-east India (mainly in Bihar State, extending to Jharkand and West Bengal), and in adjacent regions in Nepal and Bangladesh.

Review of Literature

1. Knowledge, attitudes, and practices about kala-azar and its sandfly vector in rural communities of Nepal

S. Koirala et.al did his study at B.P. Koirala Institute of Health Sciences, Dharan, Nepal, (Journal List ,Bull World Health Organ ,v.76(5); 1998 ,PMC230578) and during his study he found that The villagers had poor knowledge about the transmission of kala-azar, with most villagers perceiving that mosquitos, instead of sandflies, were responsible for transmission of the infection. Most also failed to recognize the common symptoms of kala-azar. The majority of the respondents, 78.9% in Titaria and 48.4% in Haraincha, were aware that the condition can be treated, while fewer than 2% believed that it cannot be treated at all. More than 58% of villagers in Titaria and 36.8% in Haraincha used bednets. The residents of both villages were highly responsive to a programme to spray houses with insecticides. Fewer than 5% of respondents slept outdoors in farm outhouses and these individuals did not take any personal vector control measures. The results of this study show the importance of understanding the beliefs and practices of communities in the successful planning and implementation of kala-azar control activities in Nepal.

2. Knowledge, Attitudes and Practices Related to Visceral Leishmaniasis in Rural Communities of Amhara State: A Longitudinal Study in Northwest Ethiopia.

López-Perea N et.al, (PLoS Negl Trop Dis 8(4): e2799. doi:10.1371/journal.pntd.0002799, Editor: Merce Herrero, Independent Consultant, Spain, Published: April 17, 2014) and during his he found that Visceral leishmaniasis (VL) is a vector borne disease that can be fatal if left untreated. In northern Ethiopia there was a VL outbreak in 2005, making the disease a public health challenge ever since. In order to promote the participation of communities in the control of the disease, it is essential to know how they perceive the disease and its management. There is a paucity of studies dealing with the knowledge, attitudes and practices (KAP) towards VL in the world in general and in rural Ethiopia in particular. We conducted two KAP studies at the beginning and at the end of a VL longitudinal study carried out between 2009 and 2011. The project included VL community talks and sensitization, and there were other interventions

implemented by different actors in this period. Our results showed that, among the rural communities surveyed, the knowledge regarding signs and symptoms, causes, and protective measures of the disease was very low. However, it improved substantially in the period studied, suggesting that knowledge was subject to change by community interventions. It also showed that VL patients and relatives can act as successful health agents and that the population had positive attitudes towards the implementation of preventive.

3. Socio-cultural aspects of Kala-azar among Masalit and Hawsa tribes.

This study deals with the socio-cultural aspects in relation to visceral leishmaniasis or Kala-azar. The objective of the study is to determine the social and cultural factors influencing knowledge, attitude and practices towards Kala-azar in two communities in the Eastern Sudan where Kala-azar is endemic, and to assess the knowledge about the disease and its transmission, symptoms, complication and prevention. The study is qualitative using focus small group discussion with villagers, personal Interviews with patients and direct observation. The target populations are members of Masalit and Hawsa tribes. Knowledge about the causative agent of the disease and means of transmission were lacking, but clinical manifestations are well recognised, particularly among the Masalit among whom the disease is more common than Hawsa.

In this study area, introduction of multi-drug therapy and health education, raising awareness and enriching knowledge of the people about the disease, changing of some culture and traditional behaviour can be of use for area prevention and control programme. Due to poor or non-existing medical services in these remote areas, some people use traditional treatment like mihaia, ground neem leaves and fish oil. The results, of this study shows that high prevalence of the disease exists among children at the age of 5-15 Years.

4. First survey on Knowledge, Attitude and Practice about Cutaneous Leishmaniasis among dwellers of Musian district, Dehloran County, Southwestern of Iran, 2011.

Ahmad Vahabi et.al (*Life Sci J* 2013;10(12s):864-868]. (ISSN:1097-8135) during his study " Knowledge, Attitude and Practice about Cutaneous Leishmaniasis among dwellers of Musian district, Dehloran County, Southwestern of Iran, and he found that knowledge, attitude and practice (KAP) on disease has not been studied in this area. This survey was carried out among

423 residents of 5 villages involved by disease. The study was a cross-sectional analytical survey. A questioner with 30 questions was prepared to evaluate the knowledge, attitude and practice of the respondents about cutaneous leishmaniasis. Altogether, 405 (95.7%) of respondents completed the questioners. One hundred and eighty (44.4%) of them were men and the rest (55.6%) were women. The mean \pm SD age of the cases were equal to 23.81 ± 14.83 years old. Only 47.9% of the population studied were aware about the disease. Less than 40% of the cases revealed that, sand fly is the vector of the disease. Almost, 47% of them had used drugs, insecticide sprays, repellents and bed net to protect themselves. Chi-square test indicated a significant difference between age and awareness about the disease ($p < 0.0001$). The results of present study revealed that it is necessary to prepare and organize a suitable health educational course for family members in this region.

5.Awareness about kala-azar disease and related preventive attitudes and practices in a highly endemic rural area of India.

This study was undertaken to assess the extent of community awareness and related practices about kala-azar undertaken by them to control the disease, in an highly endemic focus of Bihar, India. A household-based cross-sectional knowledge, attitude, and practices (KAP) survey consisting of quantitative components on knowledge, attitude, and practices concerning kala-azar was administered to heads-of-household through a semi-structured questionnaire. Data indicated that 61% respondents were illiterate, 4% had correct knowledge that sandfly bites caused kala-azar, 26% do not know any specific transmission agents for kala-azar. A majority (72%) of respondents were not able to recognize sandfly, 33% had no specific knowledge about the symptoms. All of them (100%) believed that this disease could affect his or her family income. Nearly all (95%) were positive that the kala-azar cases could be reduced with implementation of proper health measures. A few (11%) suggested isolation of patients to avoid contacting kala-azar while a high proportion (93%) of respondents favored specific allopathic medicine, and a majority (72%) favored the utilization of the services offered by primary health centers or government hospitals. Just over half (66%) of the respondents were not using any prevention measures to avoid contacting disease. These results could prove to be useful for health planners in developing suitable control strategies.

6. Knowledge, attitude, and practices related to Kala-azar in a rural area of Bihar state, India.

The Indian Government aspires to eliminate Kala-azar by 2010. Success of any disease control program depends on community participation, and there is no published data about the knowledge, attitude, and practices of the community about Kala-azar in endemic regions of India. For this knowledge, attitude, and practices (KAP) study, the heads of 3,968 households in a rural area, consisting of 26,444 populations, were interviewed using a pre-tested, semi-structured schedule. Most of the study subjects (97.4%) were aware of Kala-azar. Fever (71.3%) and weight loss (30.5%) were the most commonly known symptoms. The infectious nature of the disease was known to 39.9%. The majority believed that the disease spreads by mosquito bites (72.8%). For 63.6%, the breeding site of the vector was garbage collection. Only 23.6% preferred the public health sector for treatment, and 55.9% believed that facilities at primary health centers are not adequate. Poor knowledge of the study subjects about the disease and breeding sites of the vector underscores the need for health educational campaigns if the elimination program is to succeed

AIM

The aims of this study is to assess the knowledge, attitudes and practices of VL in households of a rural endemic area of Siwan District, Bihar.

METHODOLOGY

STUDY AREA AND STUDY POPULATION:

This study was conducted during the year 2014. The study was carried out in ten Blocks of Siwan District, Bihar State, India. Siwan, situated in the western part of the State, was originally a sub-division of Saran District. The present district limits came into existence only in 1972, which is geographically situated at 25°35 North and 84°1 to 84°47 east. The total area of the Siwan district is about 2219.00 Sq. Km. with a population of 21,56,428 as per the 1991 census. The district is bounded on the east by the Saran district, on the north by Gopalganj district and on the west and south by two districts of U.P. viz. Deoria and Balia respectively. The total population of the district was 3318176 according to census 2011.

Total male population is about 1672121 and female population is 1646055 and rural population is 3119095. There are total 19 primary Health Centers (PHCs) in the district.

STUDY DESIGN:

The design of the study was descriptive cross-sectional. A household-based (house-to-house) survey with quantitative components was carried out in the study. A multistage sampling technique was adopted for the selection of households. The study district and block were selected because of the previous five years of continuously high incidence of kalaazar, which represents a typically high endemic area of kala-azar for last two decades.

The head of each household (preferably male heads) was interviewed through a semi-structured questionnaire.

If no male was available for the survey, a female head of household was interviewed on the basis that decision about health and other related activities were, in any case mostly taken by

head of household. The interview consisted of various questions divided into different sections: knowledge about kala-azar, attitude related to kala-azar control, and practices related to kala-azar control.

SAMPLE SIZE:

A total of 100 respondents were interviewed, taking one respondent from each household. Data from structured questionnaire were analysed by SPSS 16 and EXCEL.

SAMPLE TECHNIQUE:

Direct interview

STUDY TOOL:

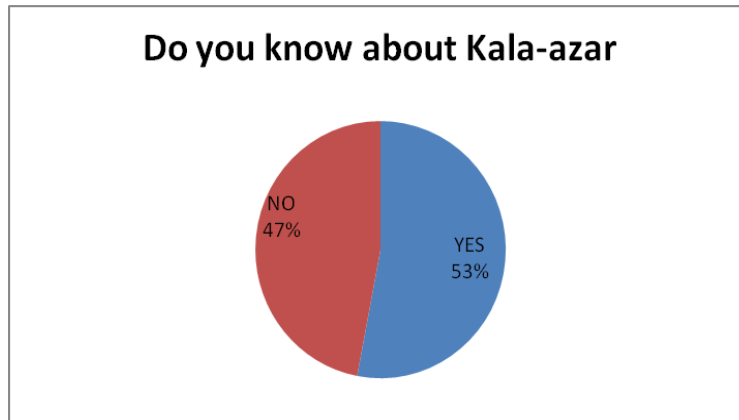
Structured Questionnaire related to KAP on Kala-azar

DISSCUSSION

Table no.1.1

Do you know about kala azar

	Frequency	Percent	Valid Percent
yes	53	53.0	53.0
no	47	47.0	47.0
Total	100	100.0	100.0



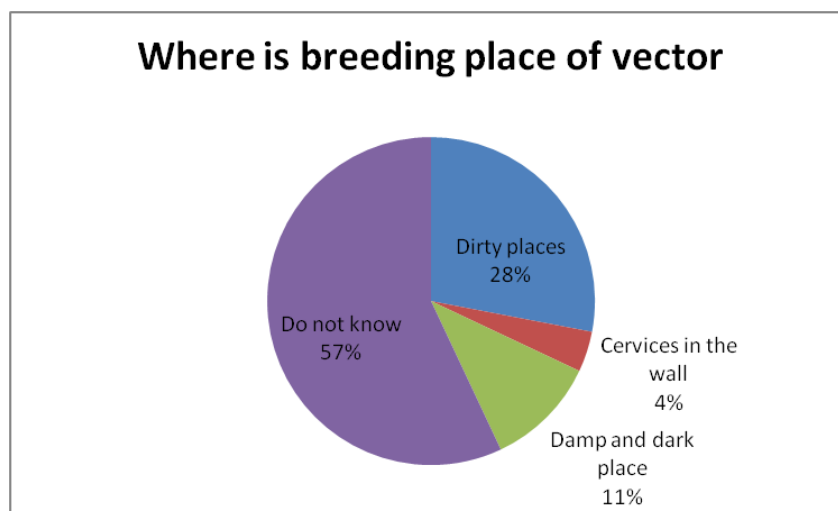
Interpretation: There are total 53 % people know about Kala-azar and total 47 % are unaware about Kala-Azar disease.

Conclusion: About 50% population aware about the Kala-Azar disease.

Table No.1.2

Where is breeding place of vector

	Frequency	Percent	Valid Percent
Dirty places	28	28.0	28.0
Cervices in the wall	4	4.0	4.0
Damp and dark place	11	11.0	11.0
Do not know	57	57.0	57.0
Total	100	100.0	100.0



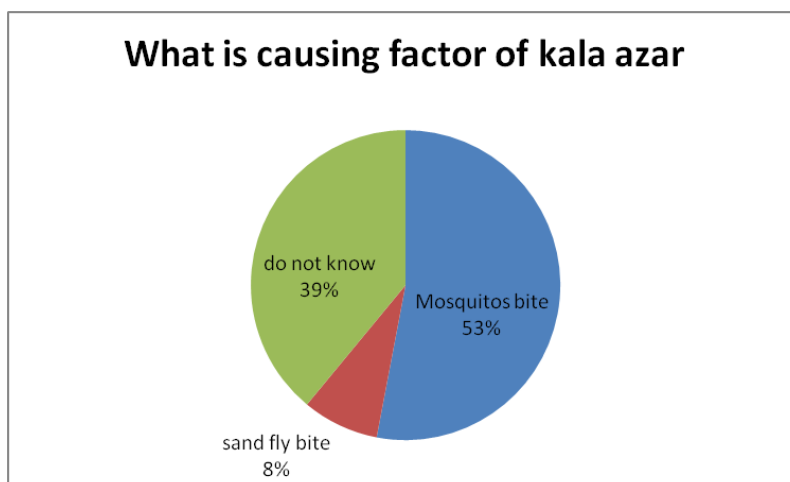
Interpretation: Total 57% people do not know about breeding place of vector, 28% are believe that breeding place is dirty place. only 11% people know about Damp and dark palce as a breeding place of vector. And only 4 % know about cervices in the wall.

Conclusion : Mostly people have no idea about breeding place. Few know about dirty places and dark places and very few know about cervices in the wall.

Table No 1.3

What is causing factor of kala azar

	Frequency	Percent	Valid Percent
Mosquitos bite	53	53.0	53.0
sand fly bite	8	8.0	8.0
do not know	39	39.0	39.0
Total	100	100.0	100.0



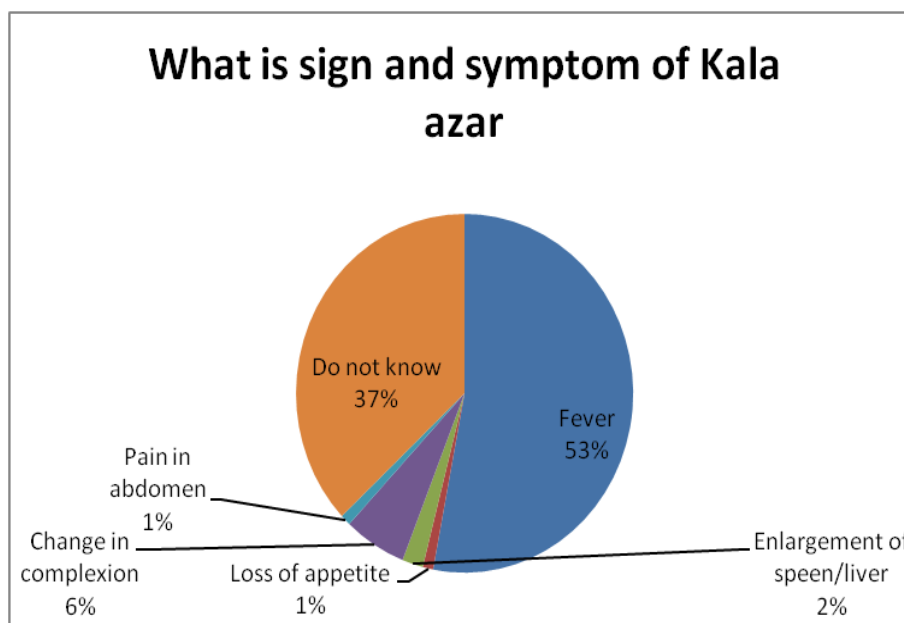
Interpretation: 53% know about mosquito bite as a causing factor of kala azar. 39% do not know about causing factor. And 8% know about sand fly bite.

Conclusion: Majority are perceive kala azar as a type of mosquito only. others have no idea about causing factor and only 8% people correctly know that sandfly is causing factor. Thus is very low.

Table No 1.4

What is sign and symptom of Kala azar

	Frequency	Percent	Valid Percent
Fever	53	53.0	53.0
Loss of appetite	1	1.0	1.0
Enlargement of spleen/liver	2	2.0	2.0
Change in complexion	6	6.0	6.0
Pain in abdomen	1	1.0	1.0
Do not know	37	37.0	37.0
Total	100	100.0	100.0



Interpretation: 53% know fever as a sign and symptom of Kala azar. About 37% do not know about sign and symptom of Kala azar. only 6% know about change in complexion, only 2% know about enlargement of spleen, and only 1% know about loss of appetite.

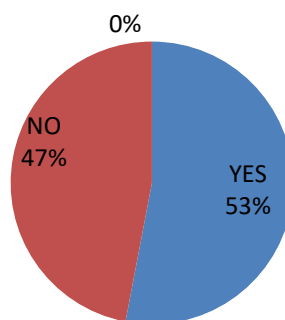
Conclusion: Mostly people perceive Kala azar through fever. And others have no idea about sign and symptoms. Only 6 % know about change in complexion in PKDL case and 2% know about enlargement of spleen which is a sign and symptom of Kala azar. And some one relate this by pain in abdomen.

Table No.1.5

Kala-Azar is infectious disease transmitted from one person to other

	Frequency	Percent	Valid Percent
yes	53	53.0	53.0
No	47	47.0	47.0
Total	100	100.0	100.0

**Kala-Azar is infectious disease
transmitted from one person to
other**



Interpretation:53% know that kala azar is infectious disease transmitted from one person to other.And 47 % do not know about this.

Conclusion: About 50% aware that kala azar is a infectious disease .

Table No.2.1

What is seriousness of disease as compared to malaria

	Frequency	Percent	Valid Percent
very serious	26	26.0	26.0
serious	27	27.0	27.0
ordinary	7	7.0	7.0
do not know	40	40.0	40.0
Total	100	100.0	100.0

What is seriousness of disease as compared to malaria



Interpretation: 40% do not know about seriousness of disease as compared to malaria. 26% consider this as a very serious and 27% consider this as serious and 7% consider this as ordinary disease.

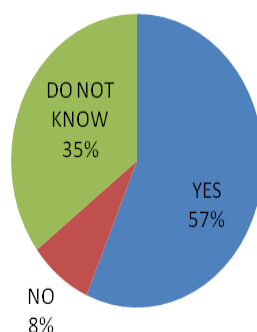
Conclusion: Maximum people have no idea about seriousness level of kala azar disease and others are taking this as a very serious and serious as compared to malaria. And some are taking this as an ordinary disease.

Table No.2.2

Kala-Azar can be controlled through community participation

	Frequency	Percent	Valid Percent
yes	56	56.0	56.0
no	8	8.0	8.0
Do not know	35	35.0	35.0
Total	100	100.0	100.0

Kala-Azar can be controlled through community participation



Interpretation:56% believe that kala azar can be controlled through community participation. And 35% do not know about it. And 8% believe that kala azar not controlled by community participation.

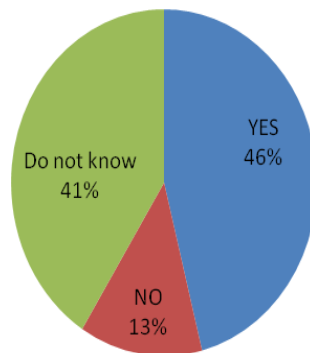
Conclusion: Mostly have positive attitude that there is effect in kala azar control by community participation. And others have no idea about it. And few have negative attitude regarding about community participation.

Table No.2.3

Complete cure of disease is possible

	Frequency	Percent	Valid Percent
yes	46	46.0	46.0
no	13	13.0	13.0
do not know	41	41.0	41.0
Total	100	100.0	100.0

Complete cure of disease is possible



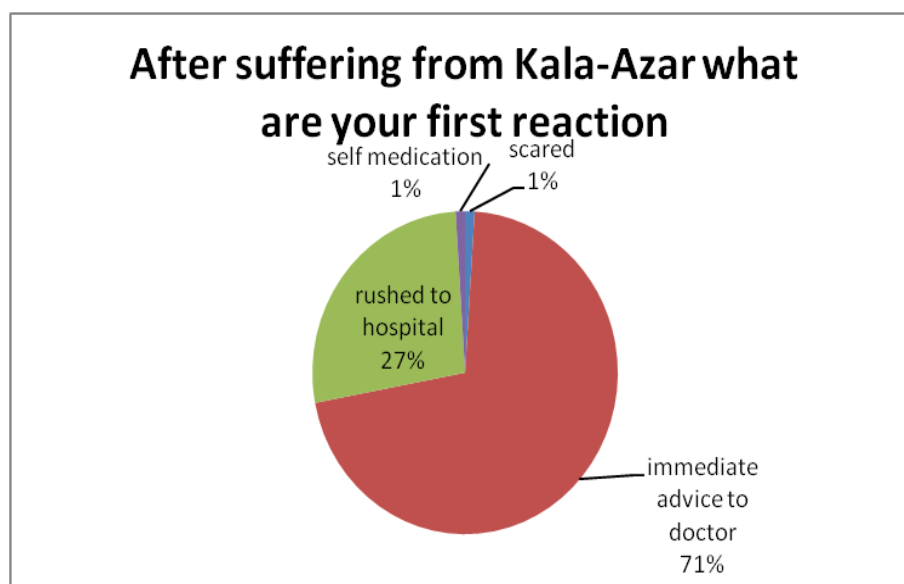
Interpretation: About 46% person having positive attitude regarding cure of disease and 41% do not know that cure is possible or not. And 13% believe that cure is not possible through community participation.

Conclusion: Maximum have postive attitude regarding cure of disease and others have no idea about cure of possible or not and some having negative attitude about cure of disease.

Table No.2.4

After suffering from Kala-Azar what are your first reaction

	Frequency	Percent	Valid Percent
scared	1	1.0	1.0
immediate advice to doctor	71	71.0	71.0
rushed to hospital	27	27.0	27.0
self medication	1	1.0	1.0
Total	100	100.0	100.0



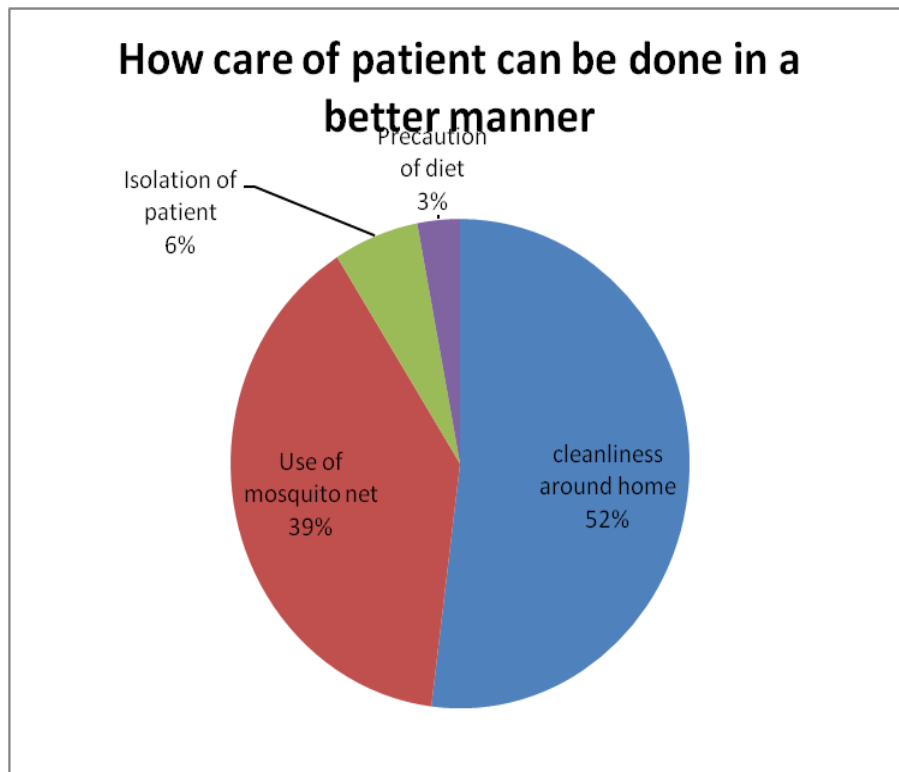
Interpretation:71% population response that they were take immediate advice to doctor and 27% response that they were rushed to hospital after suffering from kala azar.vey few response that they scared and some will take self medication.

Conclusion: maximum are aware about to take advice from doctor after suffering from kala azar.And some rushed to hospital for treatment of kala azar and very few were scared and will take self medication.

Table No.2.5

How care of patient can be done in a better manner

	Frequency	Percent	Valid Percent
cleanliness around home	52	52.0	52.0
Use of mosquito net	39	39.0	39.0
Isolation of patient	6	6.0	6.0
Precaution of diet	3	3.0	3.0
Total	100	100.0	100.0



Interpretation: 52% believe that care of patient can be done through cleanliness around home. And 39% believe by use of mosquito net care of patient can be done in a better manner. Some believe in isolation of patient and will care through taking precaution of diet.

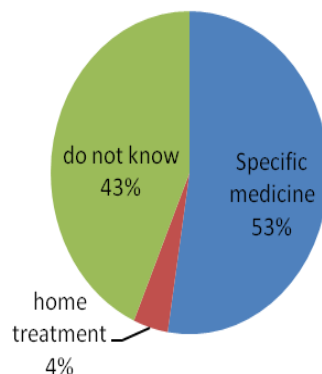
Conclusion: Mostly people respond about cleanliness around home maintain care of patient in a better manner. Some believe in using mosquito net for care of patient in a better manner. some believe in isolation of patient and precaution of diet can be useful for care of patient.

Table No.3.1

Drug preference for treatment of Kala-Azar

	Frequency	Percent	Valid Percent
Specific medicine	52	52.0	52.0
home treatment	4	4.0	4.0
do not know	43	43.0	43.0
Total	100	100.0	100.0

Drug preference for treatment of Kala-Azar



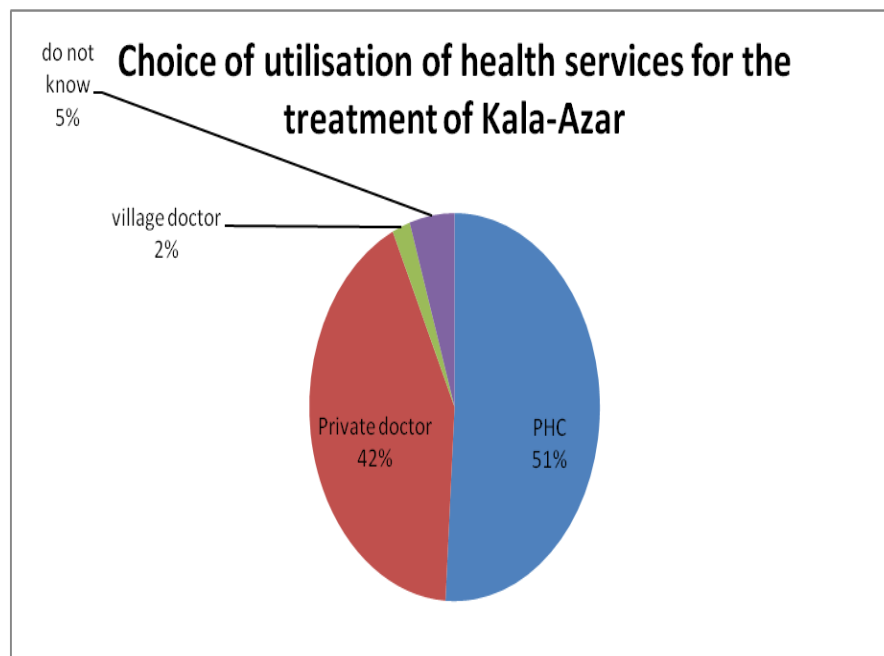
Interpretation: 52% people will prefer specific medicine for treatment of kala azar. And 43% do not know about it. 4% believe in home treatment for kala azar.

Conclusion: Mostly people believe in taking specific medicine as a drug preference for kala azar. 43% do not know about drug preference for treatment of kala azar.

Table No.3.2

Choice of utilisation of health services for the treatment of Kala-Azar

	Frequency	Percent	Valid Percent
PHC	51	51.0	51.0
Private doctor	42	42.0	42.0
village doctor	2	2.0	2.0
do not know	5	5.0	5.0
Total	100	100.0	100.0



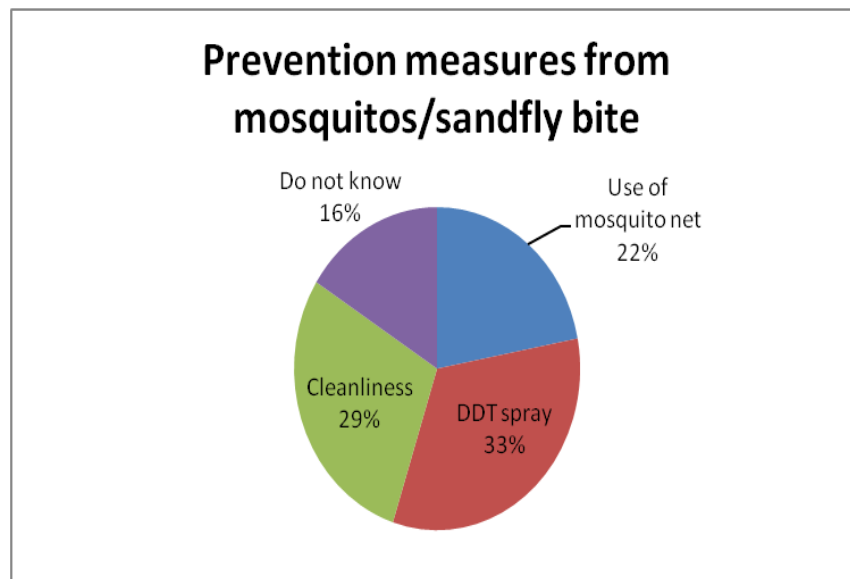
Interpretation: 51% believe in utilisation of health services for treatment of kala azar. 42% will consult a doctor for treatment of kala azar. And 5% do not know about treatment of kala azar. And 2% will believe in village doctor.

Conclusion: Mostly people will utilise PHC as a health services for treatment of kala azar.some will consult private doctor for utilisation of services. Few have no idea about utilisation of health services. And very few will consult a doctor for treatment of kala azar.

Table No.3.3

Prevention measures from mosquitos/sandfly bite

	Frequency	Percent	Valid Percent
Use of mosquito net	22	22.0	22.0
DDT spray	33	33.0	33.0
Cleanliness	29	29.0	29.0
Do not know	16	16.0	16.0
Total	100	100.0	100.0



Interpretation: About 33% population were aware of DDT spray as a preventive measure from mosquitos /sandfly bite. 29%believe through cleanliness prevention of mosquitos were done.22 % believe in use of mosquito net from prevention of mosquitos/sand fly.16 % do not know about prevention measure from mosquitos.

Conclusion: Some were know about DDT spray as a preventive measure from mosquito/sand fly.some are believe in cleanliness and use of mosquito net as a preventive measure.few have no idea about preventive measure.

DISCUSSION AND CONCLUSION:

KNOWLEDGE

1.53% people are aware about Kala azar Disease. But knowledge level should be increase.

2.Only 8% people correctly know that causing factor of Kala-azar is Sandfly. Knowledge about causing factor is too low.

3.About 53% People respond that Kala-Azar is infectious disease but Kala-azar is non-infectious disease. This also show about low level of knowledge.

4.57% People do not know about breeding place of vector. So they not able to take preventive measures to reduce this.

ATTITUDE

5.About 54% believe that Complete cure of Kala azar disease is not possible. But actually it is possible .So it shows that knowledge level is low.

6.Only 26% people taking this as a very serious disease as compared to malarai. Only 27 taking this as serious but about 47 % not taking this as a serious disease,But actually it is very serious as compared to malaria.

7.About 56% people believe that Kala azar can be control by community participation. This shows positive attitude towards community. This will also helpful in Planning any activity related to community participation.

PRACTICES

8.About 53% people know about Kala azar but only 39% people are using mosquito net, which is very preventive measure from kala azar. Even they knowledge but they are following that.

9.Only 51% people using PHC as a choice of utilisation of health services for the treatment of Kala-azar.In PHC drugs for Kala azar patient is freely availabe on PHC.And for treatment of ka azar PHC is a good choice but most people are unaware of this.

RECOMMENDATIONS

- Community Awareness program should be started.
- PRI members should be included in awareness.
- Awareness campaign at school,
- ASHA meeting and ANM meeting Kala-Azar should be discussed.
- VHSND (Village Health Sanitation and Nutrition Day) platform should be used for effective impact.

REFERENCES

1. WHO (2010) Control of the Leishmaniasis. Report of a meeting of the WHO Expert Committee on the Control of Leishmaniasis.
2. Alvar J, Velez ID, Bern C, Herrero M, Desjeux P, Cano J, Jannin J, den BM (2012) Leishmaniasis worldwide and global estimates of its incidence. PLoS One 7: e35671. [\[PMC free article\]](#) [\[PubMed\]](#)
3. Bashaye S, Nombela N, Argaw D, Mulugeta A, Herrero M, Nieto J, Chicharro C, Canavate C, Aparicio P, Velez ID, Alvar J, Bern C (2009) Risk factors for visceral leishmaniasis in a new epidemic site in Amhara Region, Ethiopia. Am J Trop Med Hyg 81: 34–39. [\[PubMed\]](#)
4. Ministry of Finance and Economic Development (MoFED) (2010) Ethiopia: 2010 MDGs Report: Trends and Prospects for Meeting MDGs by 2015.
5. Ministry of Health (2010) Health Sector Development Program IV 2010/11–2014/15.
6. Wijeyaratne PM, Arsenault LK, Murphy CJ (1994) Endemic disease and development: the leishmaniasis. Acta Trop 56: 349–364. [\[PubMed\]](#)
7. Custodio E, Gadisa E, Sordo L, Cruz I, Moreno J, Nieto J, Chicharro C, Aseffa A, Abraham Z, Hailu T, Canavate C (2012) Factors associated with Leishmania asymptomatic infection: results from a cross-sectional survey in highland northern Ethiopia. PLoS Negl Trop Dis 6: e1813. [10.1371/journal.pntd.0001813](#) [doi]; PNTD-D-11-01209 [pii] [\[PMC free article\]](#) [\[PubMed\]](#)
8. El Sayed SM, Ahmed SE (2001) Socio-cultural aspects of Kala-azar among Masalit and Hawsa tribes. Ahfad Journal 18: 51.
9. Koirala S, Parija SC, Karki P, Das ML (1998) Knowledge, attitudes, and practices about kala-azar and its sandfly vector in rural communities of Nepal. Bull World Health Organ 76: 485–490. [\[PMC free article\]](#) [\[PubMed\]](#)
10. Mondal D, Singh SP, Kumar N, Joshi A, Sundar S, Das P, Siddhivinayak H, Kroeger A, Boelaert M (2009) Visceral leishmaniasis elimination programme in India, Bangladesh, and Nepal: reshaping the case finding/case management strategy. PLoS Negl Trop Dis 3: e355. [\[PMC free article\]](#) [\[PubMed\]](#)
11. Gerstl S, Amsalu R, Ritmeijer K (2006) Accessibility of diagnostic and treatment centres for visceral leishmaniasis in Gedaref State, northern Sudan. Trop Med Int Health 11: 167–175 TMI1550 [pii]; 10.1111/j.1365-3156.2005.01550.x [doi] [\[PubMed\]](#)
12. Kolaczinski JH, Hope A, Ruiz JA, Rumunu J, Richer M, Seaman J (2008) Kala-azar epidemiology and control, southern Sudan. Emerg Infect Dis 14: 664–666. [\[PMC free article\]](#) [\[PubMed\]](#)