# REVIEW OF SUPERVISORY MECHANISMS FOR INDOOR RESIDUAL SPRAY STRATEGY UNDER KALA-AZAR PROGRAMME IN A DISTRICT IN BIHAR

PRESENTED BY

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# INTRODUCTION

- Visceral Leishmaniasis or Kala-Azar is a slow progressing indigenous disease
- Caused by a protozoan parasite *Leishmania (L.Donovani in India)*
- Second largest parasitic killer in the world
- Disease of poorest of poor.

# Across the Globe

- *KalaAzar* is spread over a large geographical area with yearly incidence 500,000 cases leading to loss of nearly 2.4 million disability-adjusted life years (DALYs) each year.

- Out breaks are reported from South East Asia.

- 60 percent cases are reported from India, Nepal and Bangladesh alone.

# In India

- Four states where KalaAzar is prevalent i.e., West Bengal, Jharkhand, Bihar and Uttar Pradesh.
- Bihar contributes to more than 80% of the cases.
- 9 districts out of 33 districts in Bihar contributes 65-70% of KalaAzar
- Poor living conditions
- Situation has improved over the years, still the poorest sections of the society e.g., the Musahar tolas, BPL families, SC and ST populations and other marginalized populations are at a higher risk.

# KalaAzar Vector in India

Prefer high relative humidity, warm temperature, high subsoil water and abundance of vegetation.

# Initiatives by Government

- GoI launched Malaria Control Programme in 1950 to introduce IRS so as to control KalaAzar .
- In 1970 due to reduction in IRS the number of cases surged up
- Thus in 1992, due to high incidence rate, centrally sponsored *KalaAzar* Control Programme was launched which was merged with NRHM in 2005 under NVBDCP.
- Government of India in 2002 National Health Policy had set a goal to eliminate *KalaAzar*by year 2010, which has been revised with an objective to eliminate KalaAzar by 2017 with the prevalence rate of 1 in 10000 at block level by 2017.

# Strategies involved in the elimination of KalaAzar

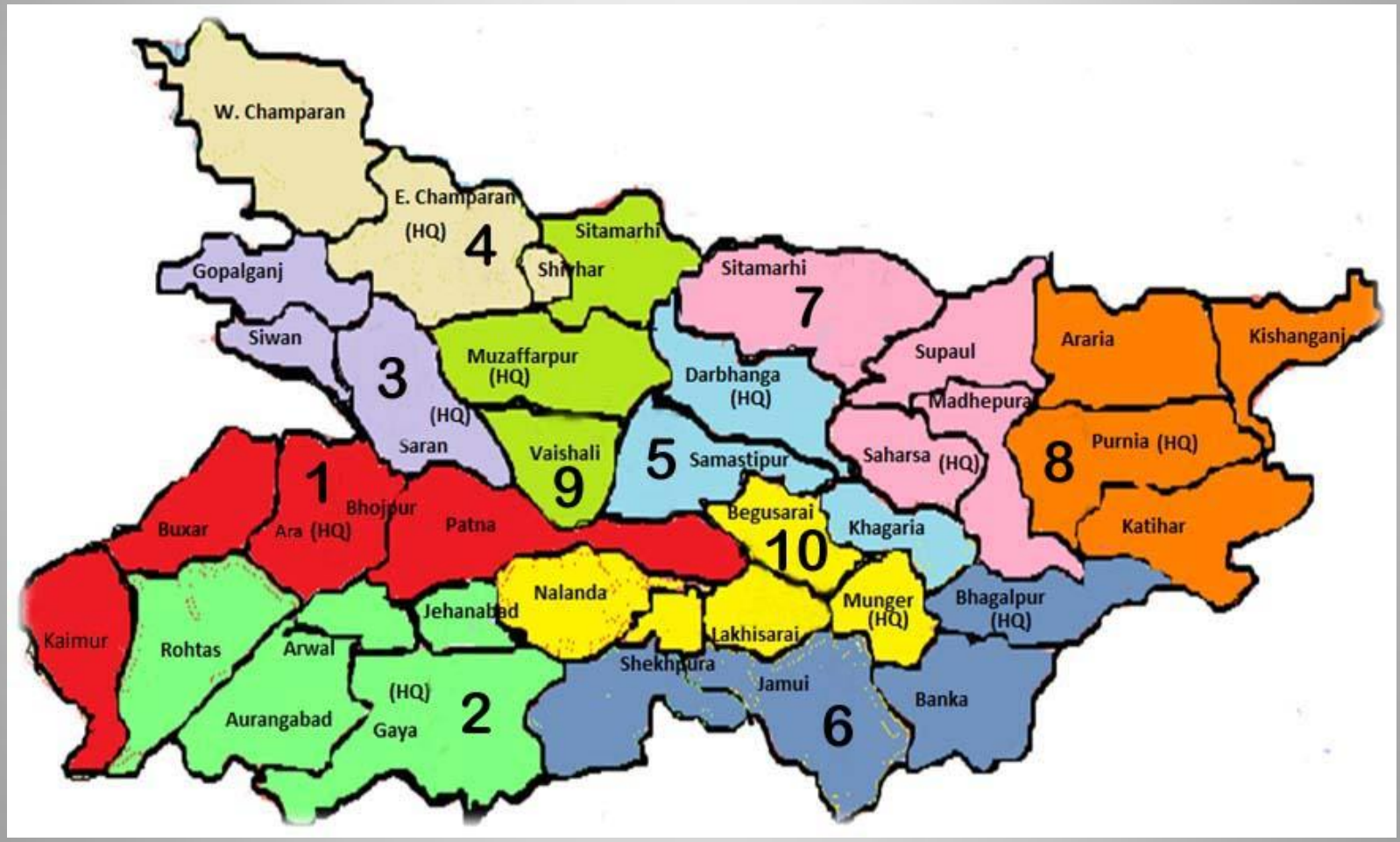
Vector control through IRS with DDT up to 6 feet height from the ground twice annually.

Early Diagnosis and Complete treatment

Information Education Communication.

Capacity Building

# In Bihar Program Areas

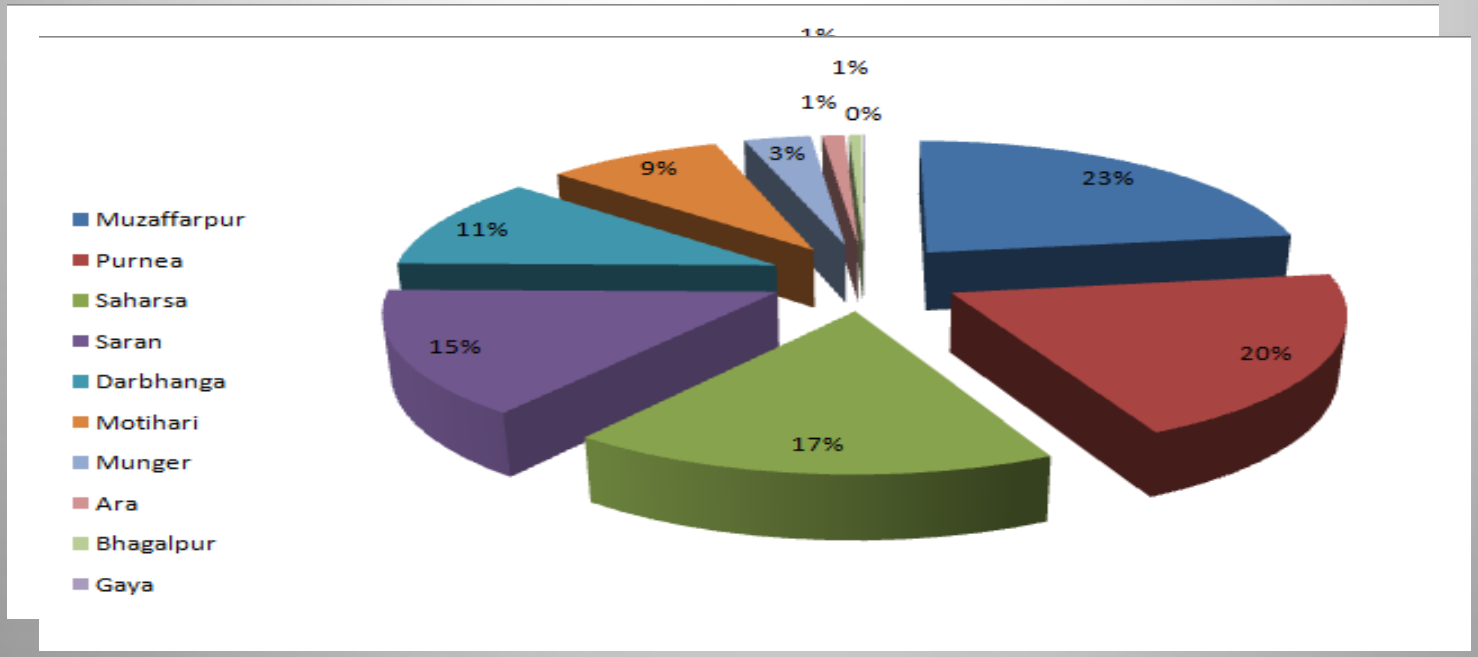


# District Wise Case-Load Distribution (Percentage)

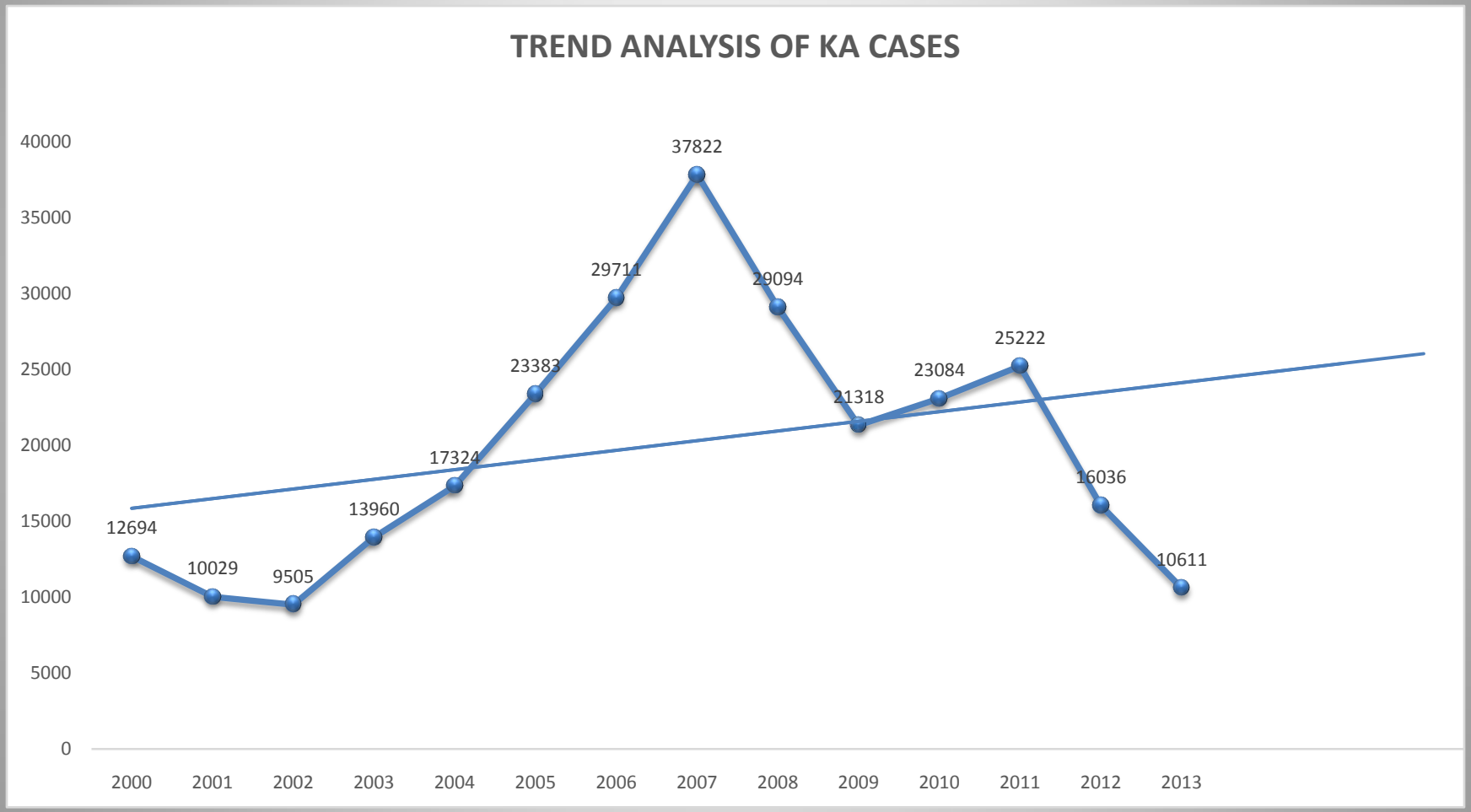

| | Case % |
|---|---|
| | >=5 |
| | 1 - 5 |
| | >1 |
| | No Detected Cases |

# Case load-Program area wise

| Sl No | Programe Area(HQ) | VL Case Load ( 2013*) |
|---|---|---|
| 1 | Muzaffarpur | 2295 |
| 2 | Purnea | 2023 |
| 3 | Saharsa | 1761 |
| 4 | Saran | 1502 |
| 5 | Darbhanga | 1128 |
| 6 | Motihari | 860 |
| 7 | Munger | 329 |
| 8 | Ara | 109 |
| 9 | Bhagalpur | 63 |
| 10 | Gaya | 7 |
| | TOTAL | 10077 |



# In Bihar…..


TREND ANALYSIS OF KA CASES
40000
35000
30000
25000
20000
15000
10000
5000
0
12694
10029
9505
13960
17324
23383
29711
37822
29094
21318
23084
25222
16036
10611
2000
2001
2002
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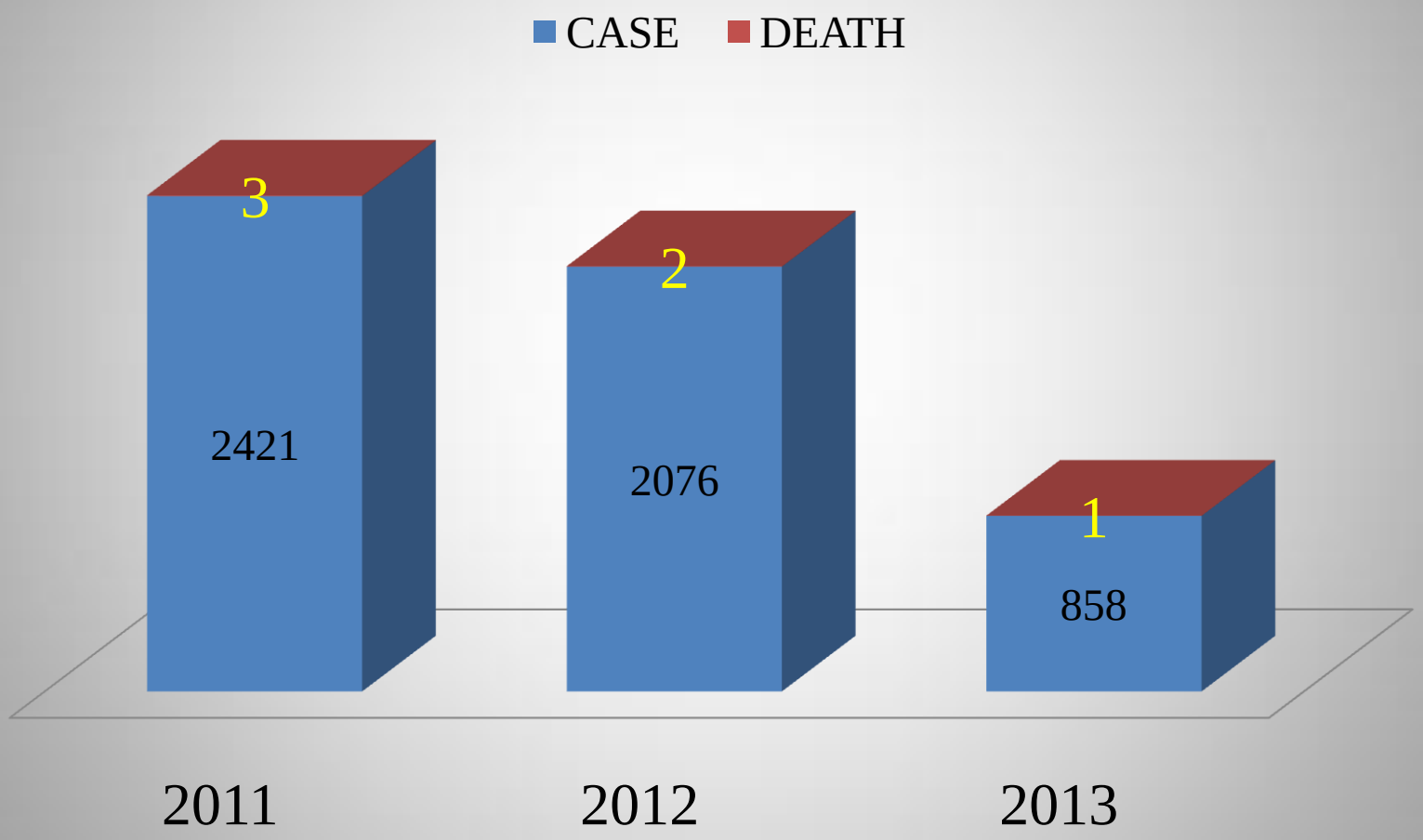
2005
2006
2007
2008
2009
2010
2011
2012
2013

# Case and death trend in Vaishali



# OBJECTIVES

**To review the supervisory mechanisms (roles and responsibilities, meetings, interactions, reporting, etc.) under IRS strategy under KalaAzar programme.**

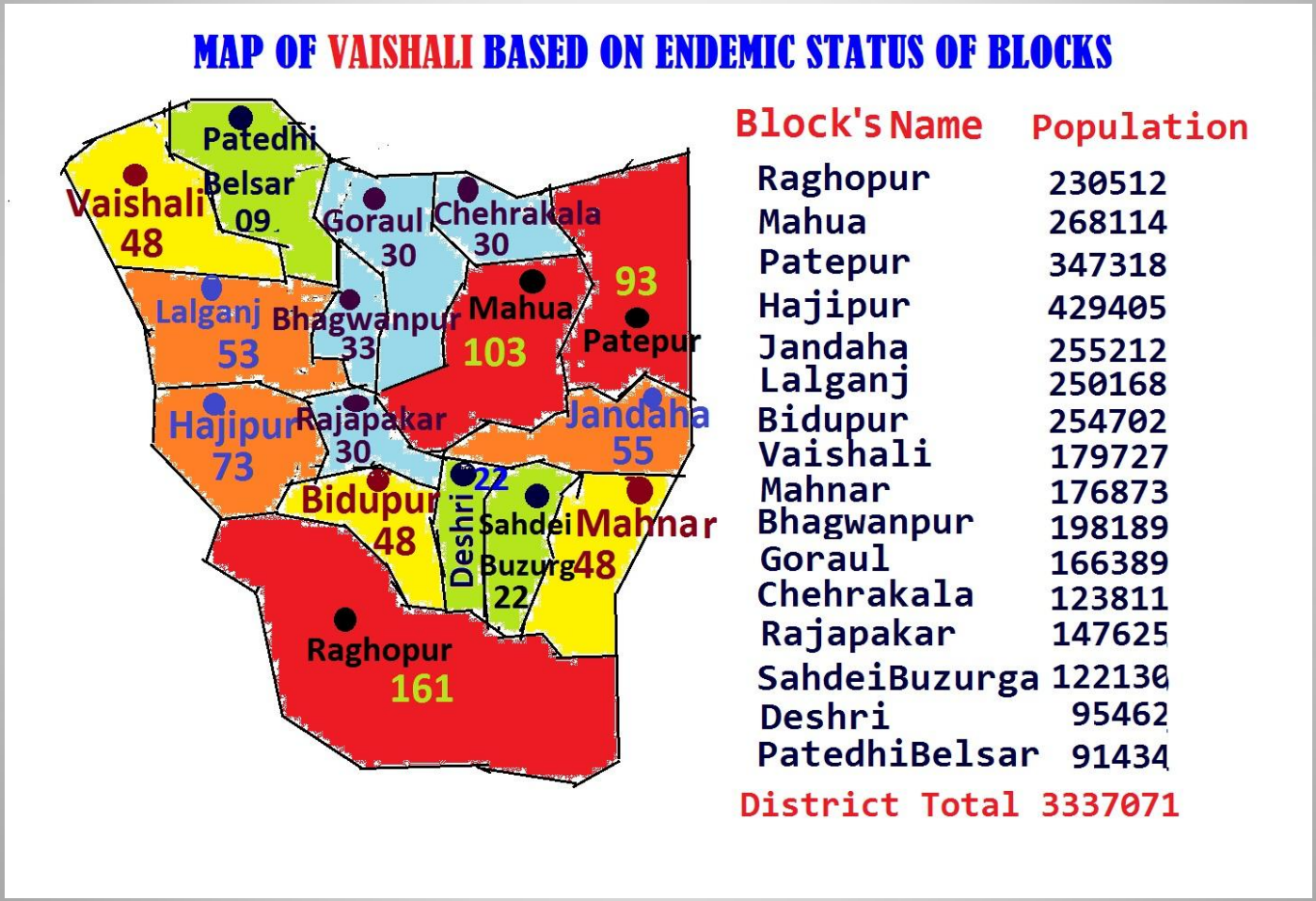
**To identify the other stakeholders and their coordination mechanism.**

**To analyze weakness of the indoor residual spray strategy to contribute in reduction of KalaAzar prevalence.**

# METHODS/ PROCESS

| | |
|---|---|
| **Study Design** | • Descriptive cross sectional study. |
| **Study Location** | • Vaishali District, Bihar |
| **Study Subject** | • Supervisors are government officials and supervisee that is squads working in field performing IRS for questionnaire |

# MAP OF VAISHALI




**Population of Vaishali-3,495,249**

# Sampling and Sample Size

| BLOCK | CATEGORY | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | SUPERVISOR | | | | | | | SUPERVISEE |
| | CS | DMO | DVBDC | DPO | KTS | MOIC | BHI | |
| DISTRICT | 1 | 1 | 1 | 1 | 3 | - | - | |
| BIDUPUR | | | | | | 1 | 1 | 3 |
| BHAGWANPUR | | | | | | 1 | 1 | 3 |
| CHERAKALA | | | | | | 1 | 1 | 4 |
| DESARI | | | | | | 1 | 1 | 4 |
| GORAUL | | | | | | 1 | 1 | 3 |
| HAJIPUR | | | | | | 1 | 1 | 3 |
| JANDAHA | | | | | | 1 | 1 | 3 |
| LALGANJ | | | | | | 1 | 1 | 3 |
| MAHNAR | | | | | | 1 | 1 | 3 |
| MAHUA | | | | | | 1 | 1 | 3 |
| PATEPUR | | | | | | 1 | 1 | 3 |
| PATEDHI BELSAR | | | | | | 1 | 1 | 3 |
| RAJAPAKAR | | | | | | 1 | 1 | 3 |
| RAGHOPUR | | | | | | 1 | 1 | 04 |
| SEHDEI BUJURG | | | | | | 1 | 1 | 02 |
| VAISHALI | | | | | | 1 | 1 | 3 |
| TOTAL(39) | 1 | 1 | 1 | 1 | 3 | 16 | 16 | 50 |

# Data Collection Tool

Interview schedule

Four telephonic interviews were conducted as MOICs were out-of station.

The interview was based on their roles and responsibilities to know their supervisory roles and various supervisory activities for IRS

# RESULTS

**Socio Demographic Characteristics of Population**

- **AGE**-Majority of supervisors and supervisee i.e., 46% belongs to the age group of 40-50 years.

- **EDUCATION-**62 % of supervisors are post graduate or above while 62% of supervisee are educated up to matriculation.

- **EXPERIENCE-**40% of supervisee are experienced up to 10-20 years.

# Roles and responsibilities of supervisors as perceived by the respondents

## DISTRICT

- Prepare action plan and budget at district level
- Receive and distribute logistics from state office for the district
- Monitor and evaluate activities at block level
- Selecting the villages to be sprayed
- Preparing the rosters
- Preparing a checklist of all activities
- Calculation of quantities of DDT required
- overall management of KalaAzar activities going on in the district. i.e. Planning, implementation and supervision of all activities and fixing targets to be achieved in each round.

## MOIC

- All except prepare action plan and budget at district level

## BHI

- Receiving and distributing logistics from state office for the block
- Selecting the villages to be sprayed
- Preparing a checklist of all activities
- Calculation of quantities of DDT required comes under their roles and responsibilities added to this to organize and to train squads prior to IRS however signatory authority is MOIC in all

# Roles and responsibilities of supervisors for KalaAzar……

## DPO

- To give technical assistance in all the activities and to facilitate the various activities with the help of their field forces to be completed within the given time line.

## CS

- To take the monthly updates in the various meetings and to inform the district officials and block officials about new guidelines and any other new intervention to be done in the district regarding the programme.

# Roles and responsibilities of supervisors for KalaAzar…….

- Four of 16 MOICs were not able to tell about their roles and responsibilities.

62 percent - able to tell their

10 percent - unable to tell

28 percent - partial knowledge.

# Ways of prevention of KalaAzar

- 74% -IRS
- 26%-Other ways of prevention like use ITNs, Maintenance of hygiene and clean environment etc.

# Supervision of IRS

## PRE IRS

- Diagnosis and treatment of KalaAzar patients.
- Setting up of Khoj camp and preparing line listing of patients
- Selection of villages to be sprayed
- Preparation for logistics
- Squads training
- prepatory meetings
- microplan preparation
- IEC awareness
- submission of SOE and UC financial budget approval (only district malaria office).

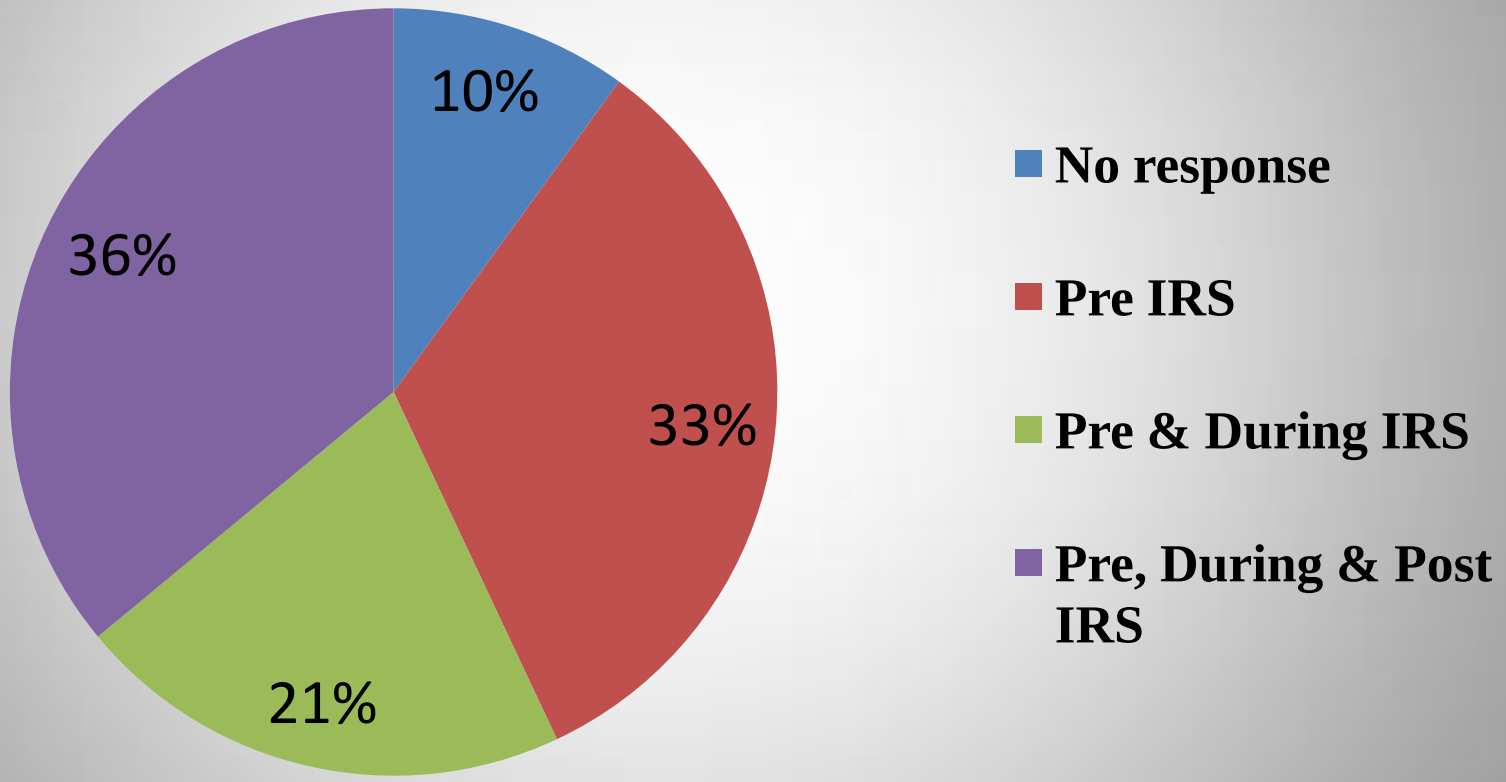
## DURING IRS

- Timely start of the spray.
- Day to day supervision of squads
- Checking their attendance and the work of squads and solving their problems coming across during their course of action on daily basis.
- Getting reports

## POST IRS

- Submission of reports and registers
- Maintenance of equipments

# Supervision of IRS…..



# Microplan preparation

- Microplan is prepared at the block level and is compiled at the district level.
- Out of 16 only eight blocks had microplan ready.
- Regarding the microplan preparedness 28 percent respondents gave information about non preparation of microplan

# Reason for non preparation of microplan

- More than 80 percent says that microplan is not ready due to lack of HR at PHC level like data entry operator.
- Only BHI is there doing activities and get overburdened.
- 10 percent were not clear about its preparation as per new format.
- Rest 10 percent had no answer for the non preparation of the microplan.

# Responsible persons for the preparation of Microplan

- 98 percent supervisors – said a team that involves MOIC, KLW, KTS ,BHI and Health manager prepares microplan.
- Team maximum responses were for BHI and KLW
- In all blocks some external stakeholders (KLW) helped in the formation of microplan.

- **Mode of preparation**
  They have preparatory meetings as a Mode of preparation.
- **Place of meeting**

  The district level meetings are held at CS office to be attended by
  CCS, DMO, DVBDC, all MOICs while at block level meetings are held at PHCs to be attended by MOICs, BHI, Health Manager

- **Frequency of meeting (**Only 15 percent remember the date of meeting)

| **Once in a month** | **13** |
|---|---|
| Twice a month | 69 |
| Weekly meetings | 8 |
| No meetings | 10 |

**Percent of supervisors mentioning frequency of meeting (n=39)**

- **Supervision of meeting**

  However MOIC is the signatory authority but actually BHI organized conducts the meeting

  46 percent respondents said that MOIC supervised meetings actually while 54 percent said BHI organized conducts the meeting.

# 97 percent supervisors had agenda of meeting

## MICROPLAN

- Readiness of microplan for the round
- Submission of microplan
- Line list of patients fIs the PHC planning to spray all the villages which had cases in the last three years in for three years
- Patients' houses in the villages identification by LWs / KTSs
- Date of spray activities to be decided for all endemic villages
- ASHA / village level workers to be informed of the date of spraying in their village

## EQUIPMENT AND MATERIAL

- PHCs have submitted requisition for insecticide, pumps, equipment
- Insecticide availability in PHCs
- Pumps availability at PHCs and their functionality
- Sufficient supportive equipment (buckets etc) availability at PHCs and their functionality

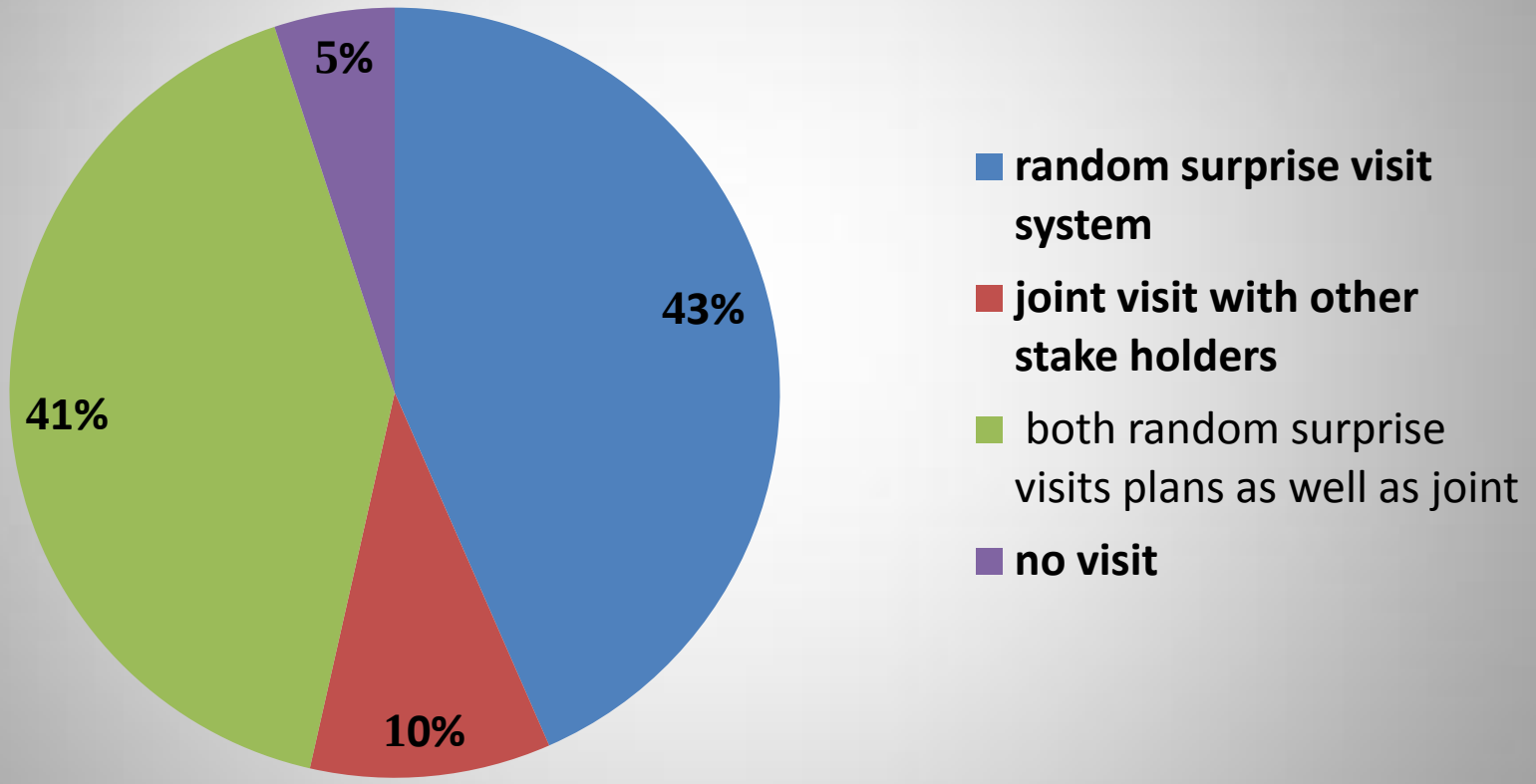
## SUPERVISION

- Training / Sensitization of spray squad
- Monitoring duty roster of MO and other staff
- Monitoring and supervisory teams formation
- Villagers informed of dates of spray

## IEC/BCC

- IEC activities (advocacy, meetings and spreading messages) plan
- IEC material like hand bills, posters, cards etc availability at PHC
- IEC / BCC / Awareness campaign to be planned for the IRS in the villages.

# Mode of checking of IRS



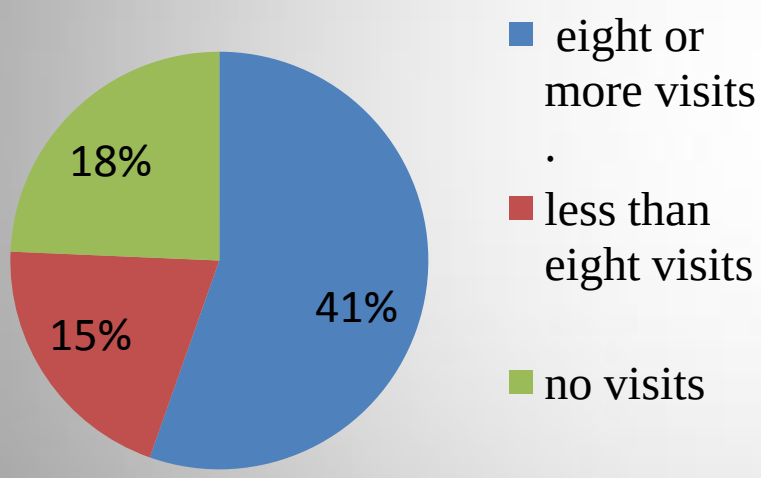

Percent of respondents for Supervision of IRS

# Roster preparation

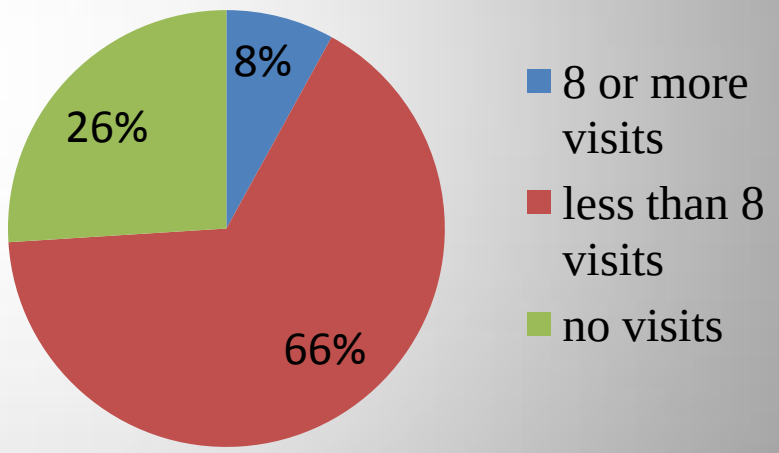
- All the respondents said that roster is formed but not followed.
- Duties are assigned date wise but it is not followed
- Reason –not possible to coordinate with daily departmental duties .
- Lack of financial power to support the activities
- Fearful of moving in fields where there are issue of release of wages of squads
- Other stake holders Care India made a roster which they strictly follow and had shared with government officials to assist them during their supervisory visits.

# Number of supervisory visits held during IRS

## SUPERVISOR



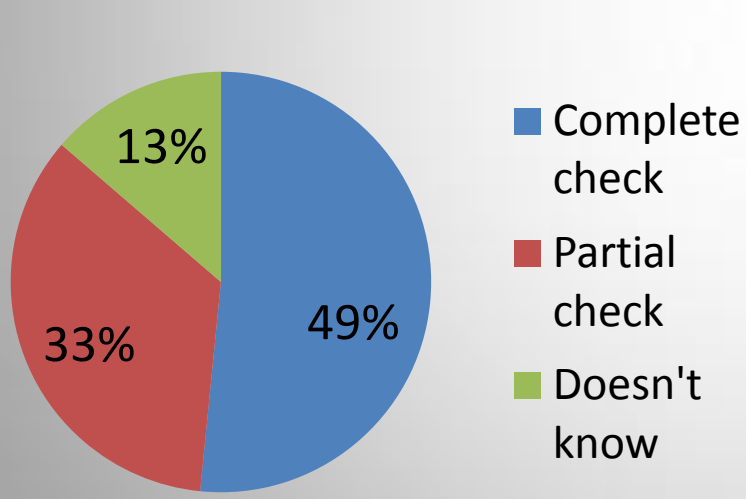

## SUPERVISEE



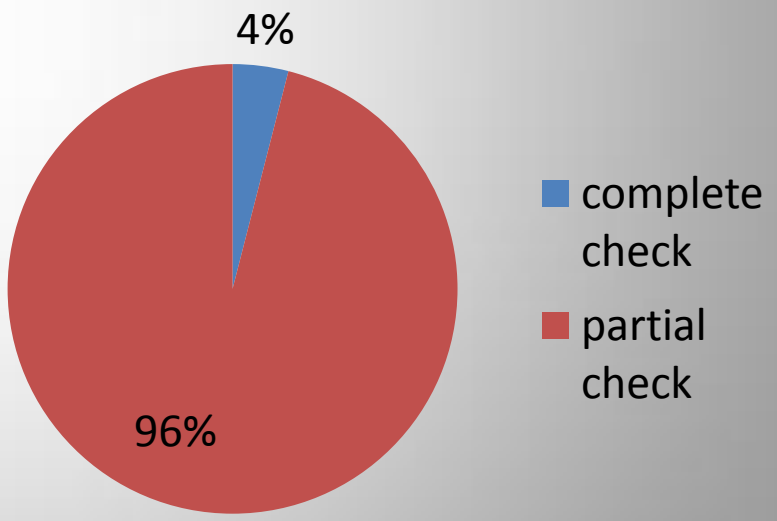
# Activities for which squads are supervised during visit

(Squads attendance, timings and techniques, PPE, microplan followed , refusals & conversion)

## SUPERVISOR

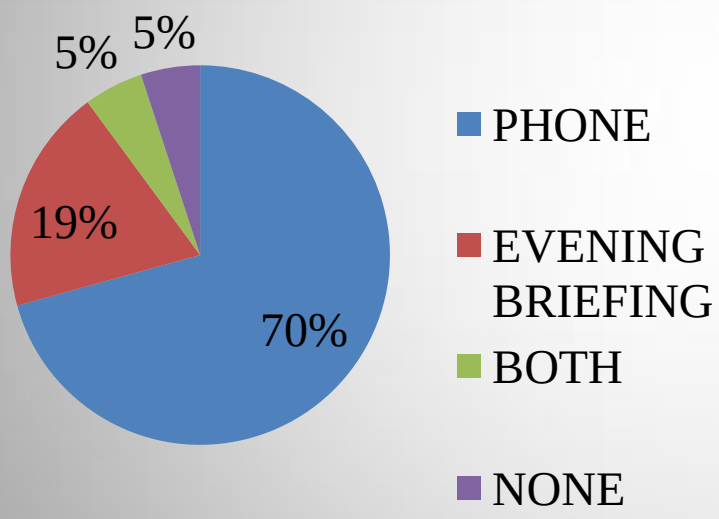



## SUPERVISEE



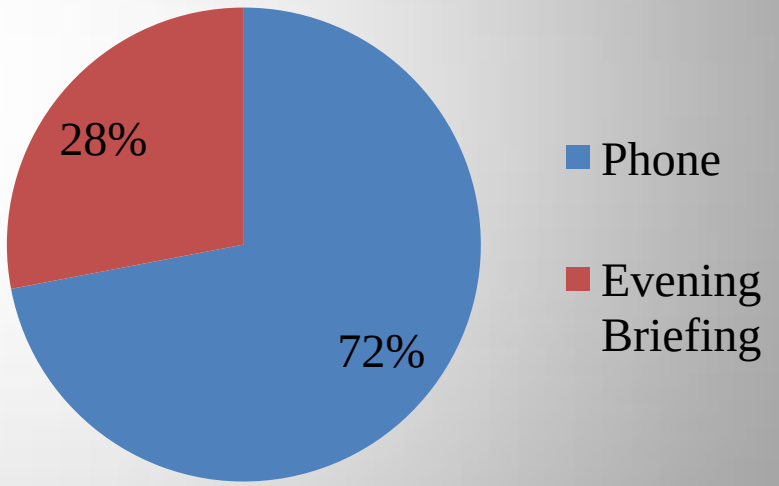
# Mode of Reporting

## SUPERVISOR



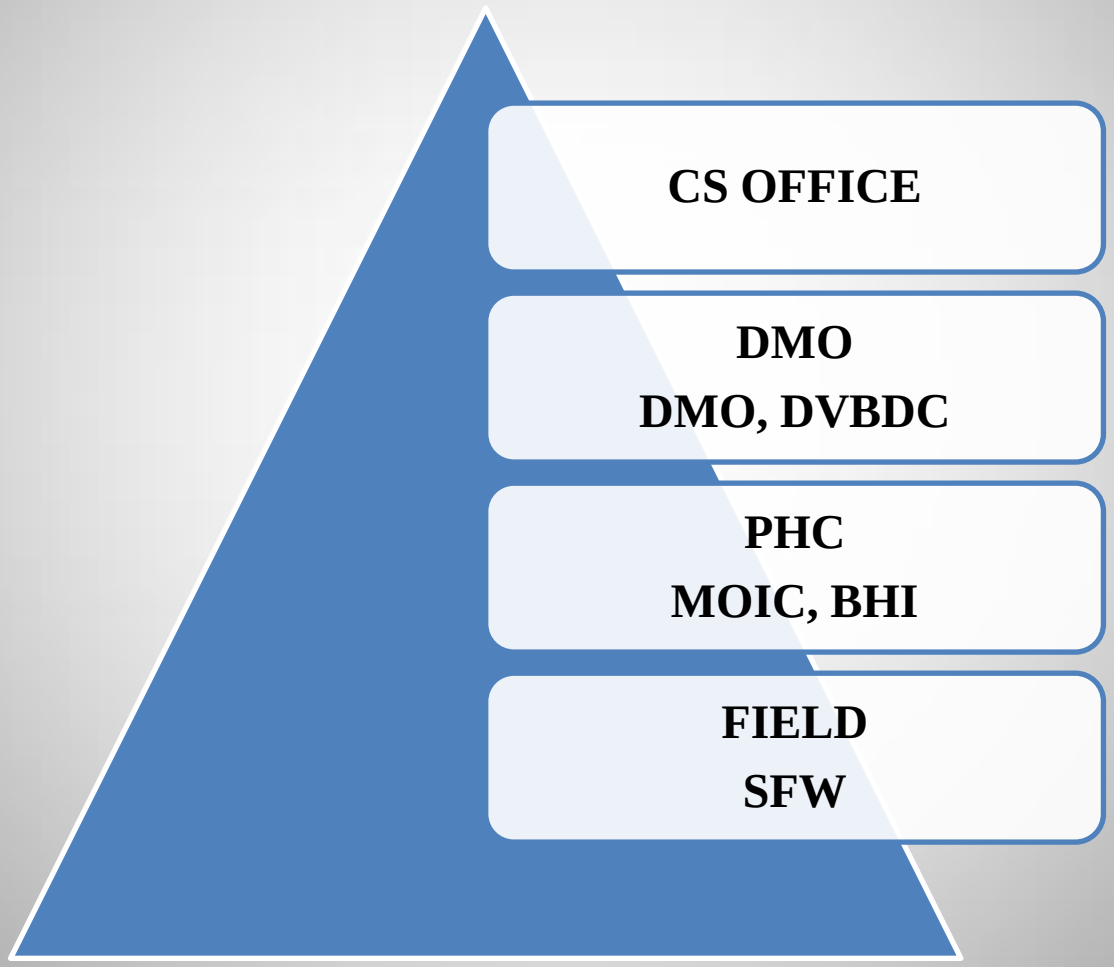

Percent distribution of supervisors responding for mode of reporting

## SUPERVISEE




- 26 percent of squads do self reporting 74 percent report only when asked by PHC people

# Reporting Process



## Report preparation

- At district level the report is obtained from PHCs and a report is prepared by DVBDC and signed by DMO. While at PHC the report is whole solely prepared by BHI
- CS obtain reports from the DMO
- DPOs reports on the basis of data and reports collected from field at all PHCs by their KLWs
- SFW prepares report for the complete IRS round happened

## Report Submission

- DMO submits report to RDD, State Malaria Office, NVBDCP office New Delhi and DM office and to CS office while PHCs submit their report at DMO.
- Report is submitted at PHC to BHI by SFW

# Problems solved at field level

| | |
|---|---|
| Block officials and KLW | **41%** |
| By block officials | **18%** |
| DMO | **55%** |
| Other stake holders (KLW OR DPO , CARE INDIA) | **33%** |
| No one solves the problems | **3%** |

# Post IRS activities

## SUPERVISOR

- Maintenance of equipments, records or registers and analysis of all activities .
- 85 percent said that the maintenance of records and registers are the activity that they do after IRS
- Three percent maintain records and equipments
- Eight percent (at DMO and other stake holders )do analysis and evaluating of all activities including maintenance of equipments and records and registers
- CS office people take updates from DMO
- No reply from three percent

## SUPERVISEE

All said that they complete the records and registers to be submitted at PHC.

- None of the respondents said about the maintenance of equipments or analysis of work done.

# Training of Supervisee

- **Training imparted to the supervisee**

  Majority of supervisee 96% trained

- **Training given prior to the IRS**

  A week before the training was given to the supervisee

- **Training imparted by**

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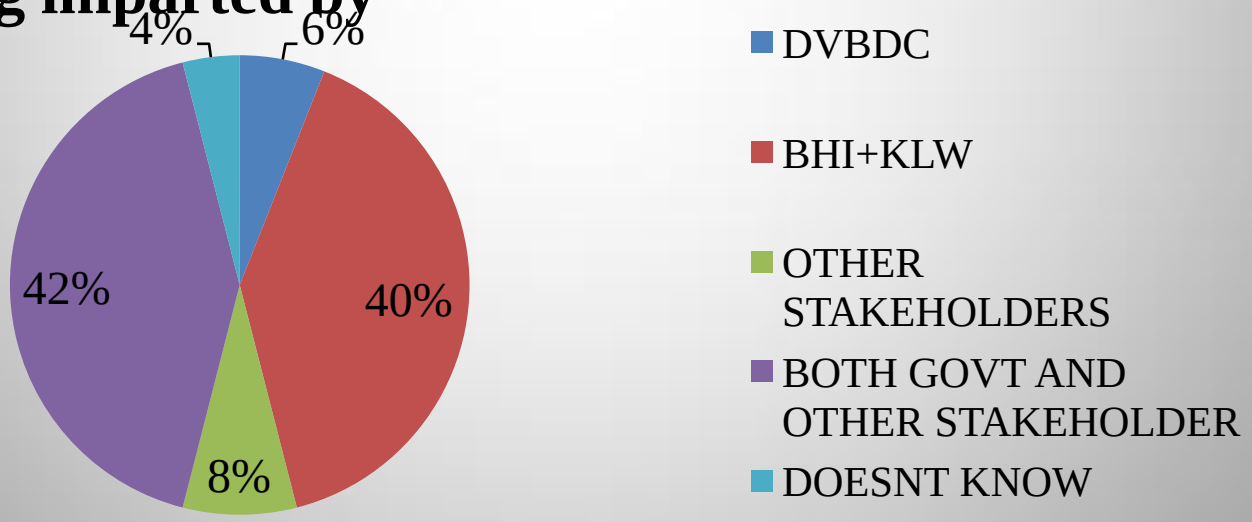
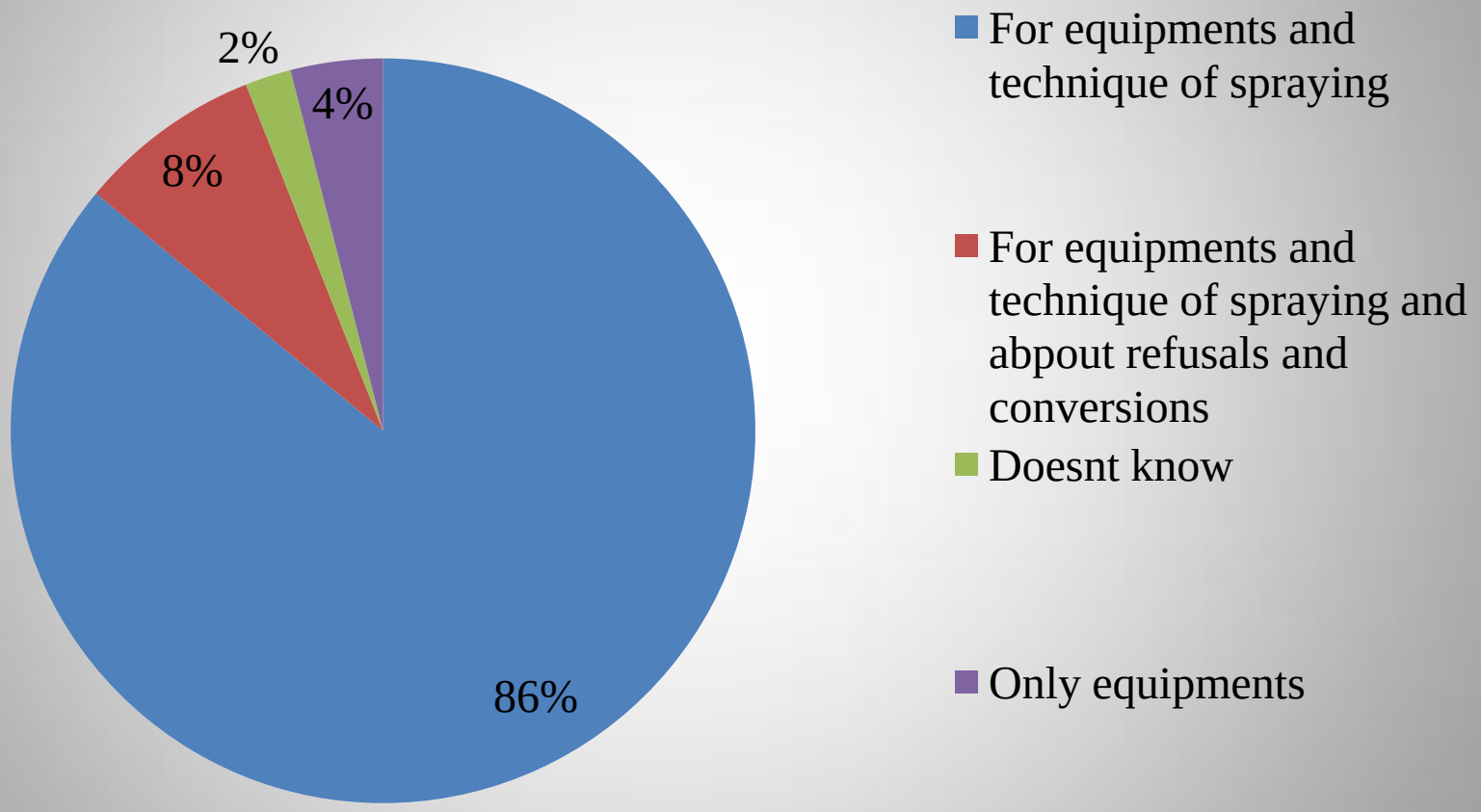


# Topics of training



# Supervised by

- District officials like DMO , DVBDC  26 percent visit randomly or along with other stakeholders like Care India officials
- Block officials MOIC, BHI  58 percent visit along with Other Stake holder like Care India Officials
- 16 percent that nobody came for supervision during IRS.
- The visits performed are surprise visits.

48 percent -one squad

30 percent -two squads

14 percent –three squads

Eight percent- no observation by officials.

# Challenges and Problems as perceived by

## SUPERVISOR

- **Lack of human resources**
- **lack of awareness**
- **Overburden o**f various departmental activities
- **No TA/DA**
- **Lack of attention** of senior officials
- **Lack of support** of general administration.
- **Lack of financial power -**no decentralization of funds
- **Issues of release of wages of squads**
- **No problem**

## SUPERVISEE

- **Old and non functional instruments**
- **Lack of transportation**
- **Less wages** paid to them , delayed payment of their previous wage
- **Less time given for**
- **No one from the government comes**

# CONCLUSION

- Established supervisory system exists

- One of the key stakeholders include Care India entered into the project and yet to establish the coordination at all levels however they facilitate by giving technical support.

- Supervisory system is present but not followed as per the established system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