TITLE PAGE

An Implementation Research to assess the Major challenges controlling dengue breeding sites under NVBDCP Program in Govindgarh

A Capstone project submitted to
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Master of Public Health (Implementation Science)

by

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Finally, I hope my daughter will one day be proud of me for giving up a healthier and better life f or another child.

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Abstract

Dengue fever is one of 17 NTDs listed by WHO in its 2020 NTD report (1). Half of the world's p opulation lives in areas where dengue fever is endemic and a major public health problem. The w orrying pattern is for human health and economy, with 264 DALYs of economic loss per million people per year. (2,3). Dengue fever is endemic in 10 countries out of 11 countries that are members of the WHO SEAR region (11 countries), including India.

The National Vector

borne Disease Control Program is a comprehensive program to control, prevention of six vector-borne diseases, including malaria, kala-

azar, LF, dengue fever, chikungunya, and Japanese encephalitis. This program is overseen by the Indian Ministry of Health and Welfare. This research is about IVM-

Dengue, Integrated Vector Management for Dengue, which aims to control breeding grounds of mosquitoes, which is an important tool for dengue control in countries. Data collection was done using mixed methods, including in-

depth interviews. Ask the audience questions to report cases of dengue fever.

During heavy rains, mosquitoes that develop into dengue fever have serious problems in controlli ng their breeding grounds in the target area. Various strategies have been developed to control br eeding grounds, as open sewerage must be paid for during an epidemic, which will have a major impact on dengue patients. The number of fogging should be increased. Various techniques are u sed to assess the development of IVM-dengue.

Introduction

Dengue is one of the vectors- borne conditions that's transmitted by Aedes Ae mosquito. aegypti or Ae. Albopictus, the four serotypes distributed as dengue infections beget DEN- 1, DEN- 2, DEN- 3 and DEN- 4. The mode of transmission of dengue fever from person to person is through the bite of an infected Aedes aegypti or Aedes albopictus mosquito. Humans are the main host of the contagion that causes dengue fever to be transmitted both to womanish mosquitoes and from mosquitoes to other people. Mosquitoes become contagious after an incubation period of 8 to 12 days then it can transmit DENV to other people. DENV cannot be transmitted through respiratory driblets, slaver, or sexual contact.

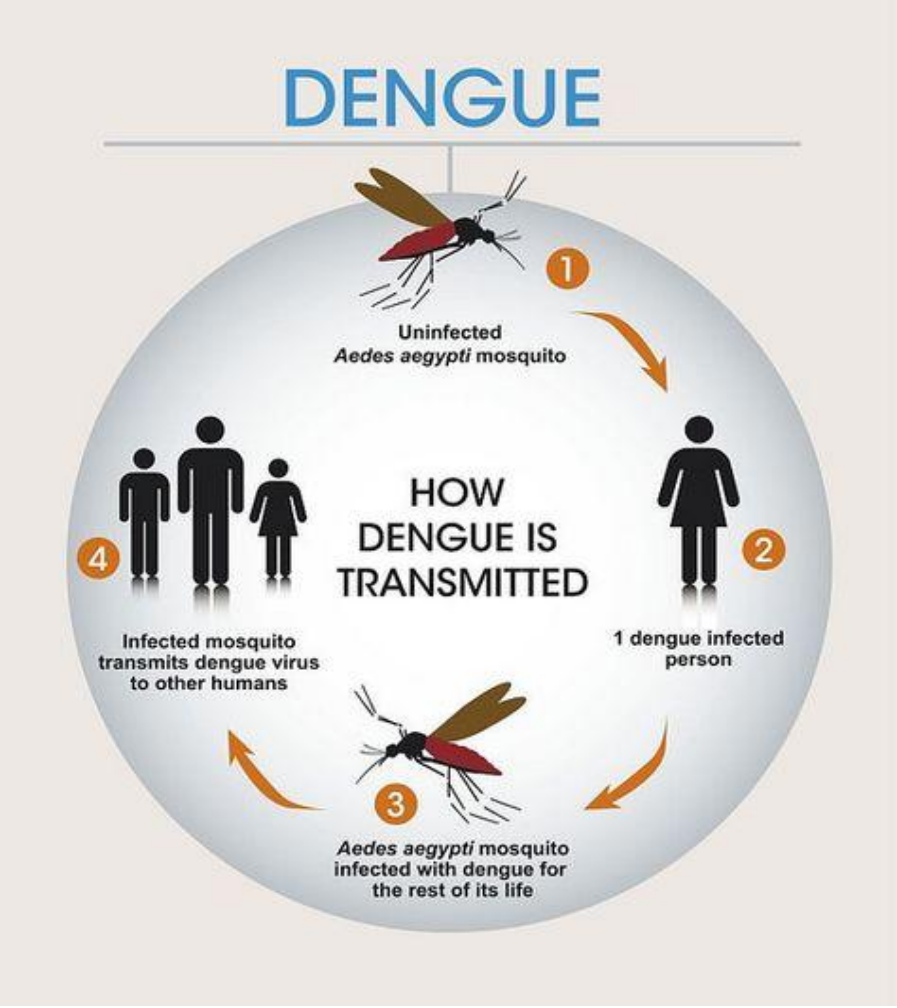


Fig 1: transimition of dengue

Until lately, dengue has no specific medicine that can be cured. Disease forestallment is the most applicable way to control infection. All the drugs handed are to strengthen the vulnerable system and to treat the symptoms caused by dengue fever. So forestallment comes from controlling mosquito parentage spots, which can help spread the complaint among the population. parentage point control is grounded on the description of integrated vector operation, which is a decision-making process for managing vector populations to reduce or intrude the transmission of vector-borne conditions. IVM aims to optimize and explain the use of vector control coffers and tools. It's characterized by a selection of styles grounded on knowledge of original vector biology, complaint transmission and morbidity; by using of a wide range of interventions, frequently in combination and synergistically; erecting trust and forging links within the health sector and with other public, private sectors that have an effect on vector parentage, working with original communities and other stakeholders; Public health nonsupervisory and legislative frame; Rational use of germicides; better operation practices. We can say that the stylish preventative measure for areas overran with the Aedes mosquito is to exclude mosquito parentage grounds this leads to a reduction in the number of adult mosquitoes and complaint transmission. exemplifications of parentage spots are collected rainwater in any sources, water storehouse tanks, discarded tires and sewage, and any place where water can be fluently collected.

Surveillance of dengue in India

After a large- scale outbreak in 1996, the Indian government established a program for unresistant protection against dengue fever, when 16,517 cases and 545 deaths were reported (13,21). surveillance contains complaint reporting by healthcare workers. They needed to inform about all cases of complaint. still, this barred private health care, which reduced its perceptivity for early

outbreak discovery. These sanctioned complaint surveillance systems have been approved by state/ original government, although the data is consolidated by the NVBDCP. NVBDCP is the government's central nodal agency for the forestallment and control of vector- borne conditions. Their liabilities were to report suspected and verified dengue cases, help and grease forestallment conditioning, health mindfulness and insure immediate response to outbreaks. also, NVBDCP developed guidelines for dengue forestallment and control with the help of state governments and original authorities with their programs (22). The Integrated Disease Surveillance Program (IDSP), is the main ideal of perfecting India's indigenous and public complaint surveillance and response to outbreaks (23). Its main thing is to enable surveillance of pandemics of susceptible conditions, track complaint trends, speed up the timing of response to outbreaks, as well as integrate data with state and public databases. Original authorities, similar as external pots, are commanded to take responsibility for the effective perpetration of vector control and complaint surveillance programmes. Aegypti mosquito is acclimated to the terrain as a common vector of dengue contagion. Vector control using germicides is one of the generally used styles of vector- borne complaint control in India. thermal fogging, common in numerous regions, especially during the thunderstorm season, other vector control measures include environmental operation that aims to identify and exclude mosquito parentage sources, operation of stored water, use chemicals inside parentage tanks, as well as public mindfulness and education the use of mosquito repellents and bednets (21). Community involvement and participation in relating mosquito parentage spots inside the neighborhood is an important part of reducing the mosquito population. With the help of integrated vector operation and environmental operation, this can lead to complaint control and

forestallment as a public health problem

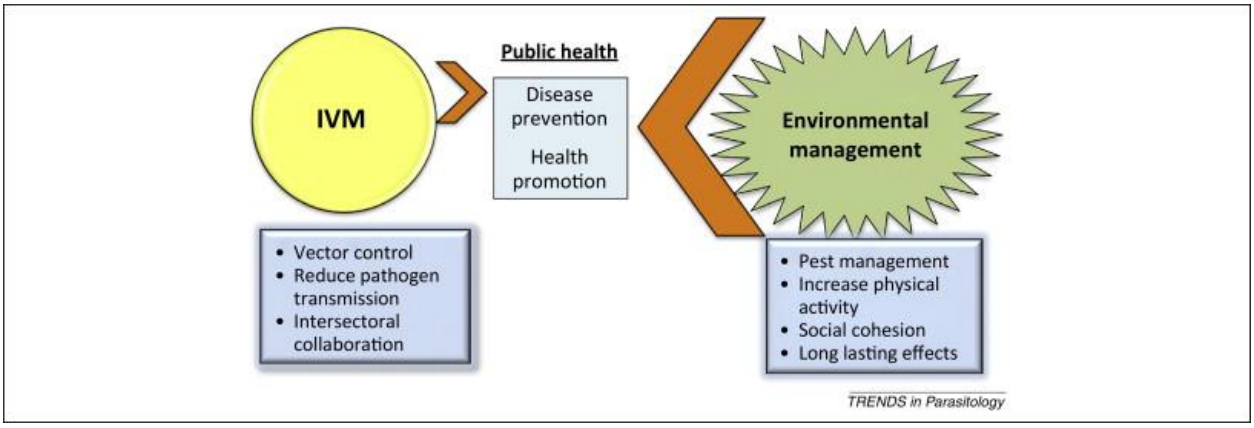


Fig2: showing importance of IVM and environmental management.

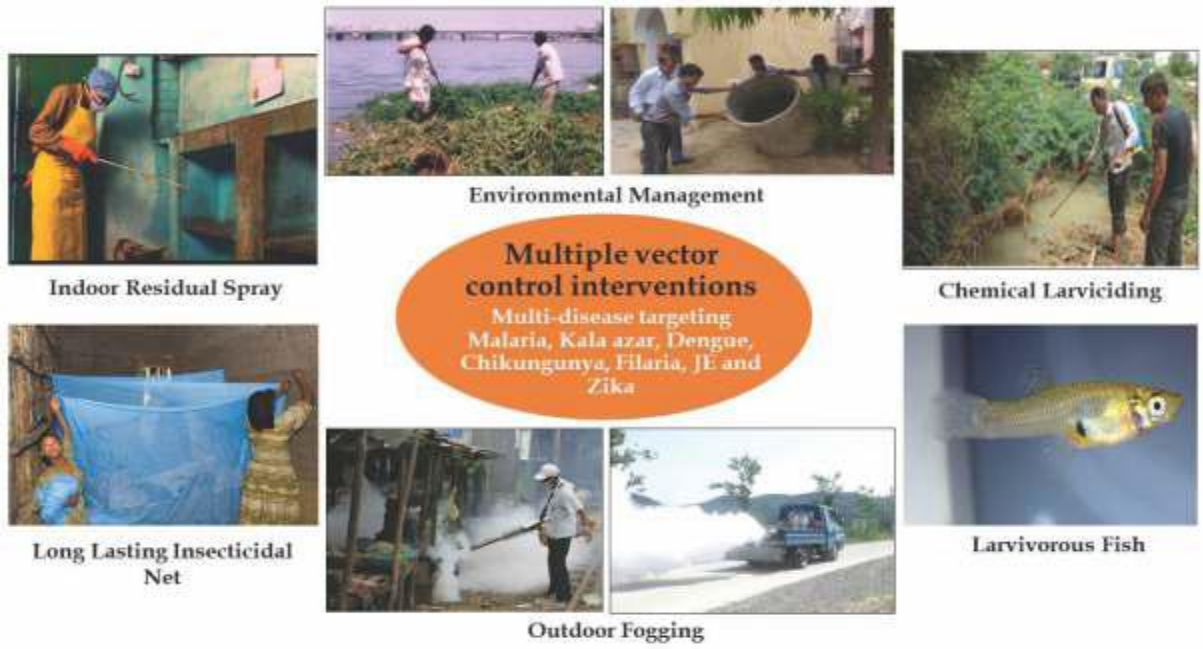


Fig3: ways of IVM

Schematic illustrations about NVBDCP

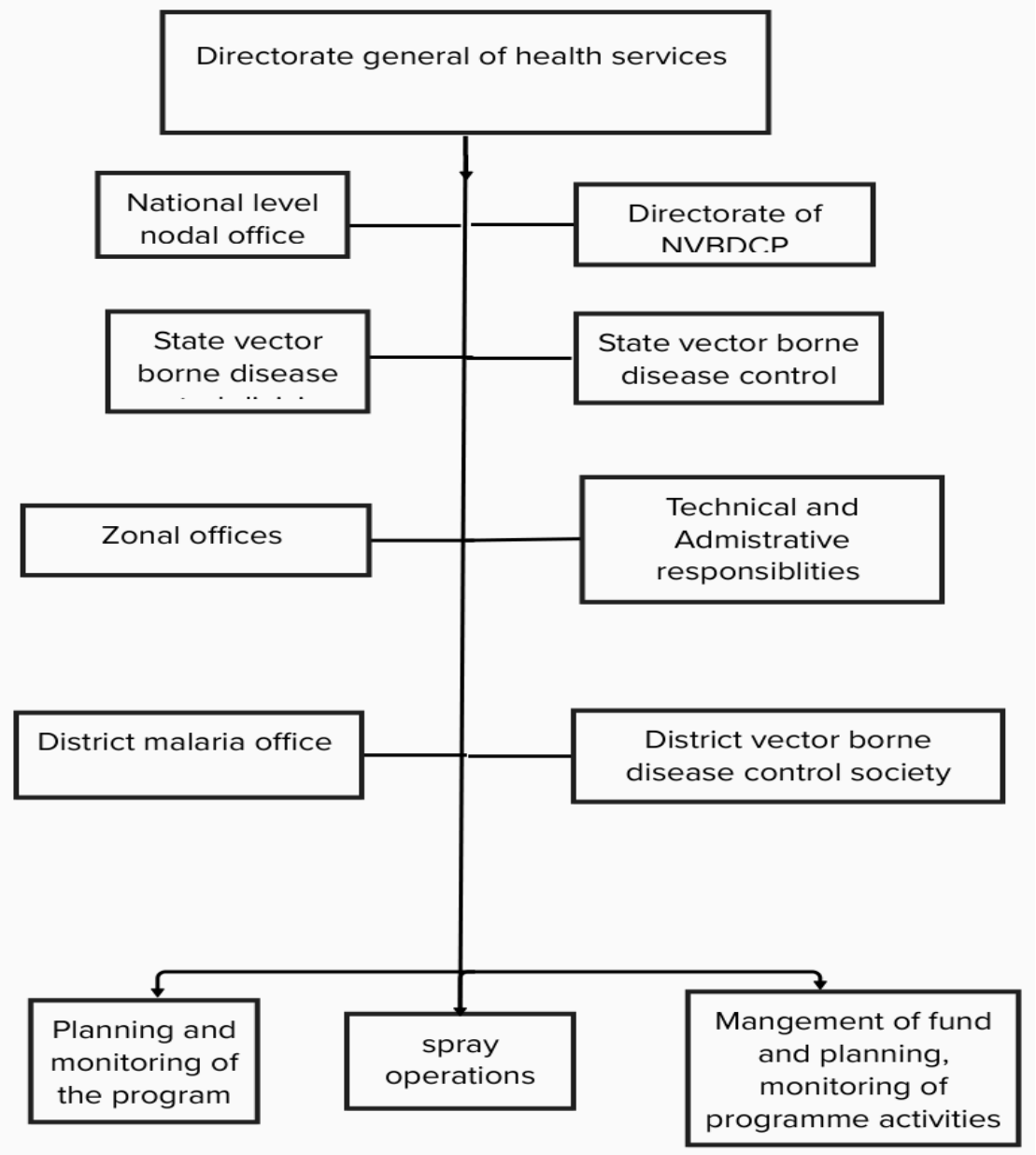


Fig4: schematic illustrations for NVBDCP

The main responsibilities for the directorate of national vector borne disease control program is to formulate policies, guidelines, providing technical guidance to all the states, implement plans then monitoring it and evaluate of these plans. They have a role in coordinating the activities across the

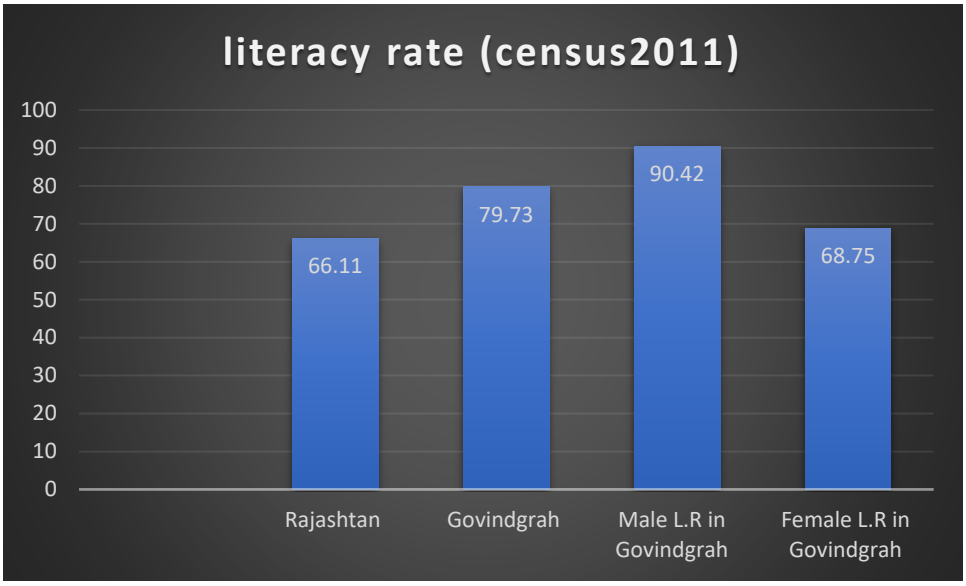
states and collaboration with international organization by the help of the later they coordinate control activities in inter-state and inter-country border areas. (4)

CWA and objectives of the capstone

"Prevention is better than cure" because there is no heal or vaccine for dengue, all that is offered is to treat symptoms. So, the only way is to control Aedes aegypti. IVM-dangue is Integrated Vector Management for Dengue. The main purpose of dengue control is to provide a means of controlling vector surveillance and control of Aedes mosquitoes through hum an safety, effective chemical use, chemical control, compliance with environmental regulations a s well as local and community legislation**.** Govindgarh is a town in the city of Jaipur in Rajasthan,India.The municipality of Govindgarh has a total population of 7,735 with 3,960 males and 3,775 females (2011 Census). The number of children aged 0-6 is 1079 people. The female sex ratio is 953 to 928.

Govindgarh has a sex ratio of 838, while Rajasthan averages 888, which is slightly above the stat e as a whole. Also, the literacy rate in Govindgarh is 79.73% more than the state average of 66.1 1%. It was distributed to around 90 male readers.

42% and female L.R is 68.75%. (2011 Census).



Graph1: literacy rate in Rajastan and Govindgrah

Govindgarh city has a total management of more than 1,331 houses. it provides basic amenities such as water and sanitation. They can also build roads within the city, levy taxes on properties within their jurisdiction.

CHC Govindgarh is a community healthcare facility providing OPD services, inpatient and outpatient medicine, immunization and various national programmes.

Fig5: Govindgarh CHC

Objectives:

1. To assess the knowledge of personal prophylactic measures used and health education in dengue management among population.
2. To explore the action of biological and chemical control, larvae survey done in CHC district
3. To examine the Environmental management for source of mosquito breeding sites reduction
4. To suggest recommendation to control mosquito breeding sites in CHC district

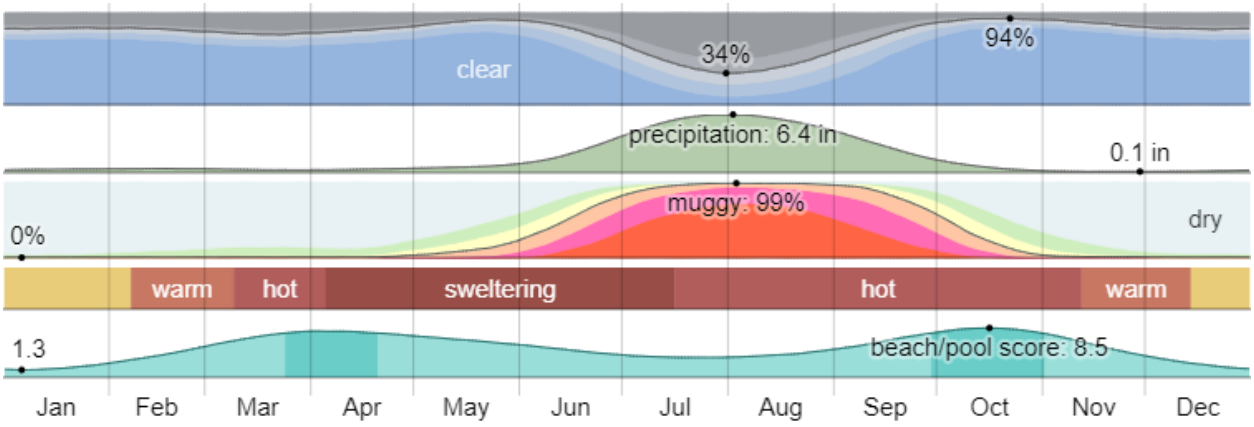
Study Design

In this study descriptive method is used which was more suitable for this study as it is a systematic process of observing and describing without influencing the workflow of CHC

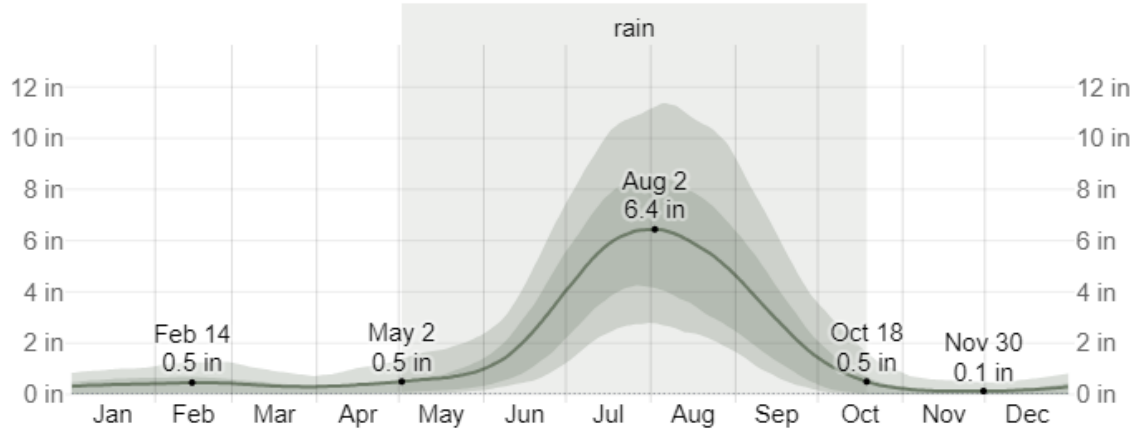
Study Area

Fig6: place of Govindgarh district

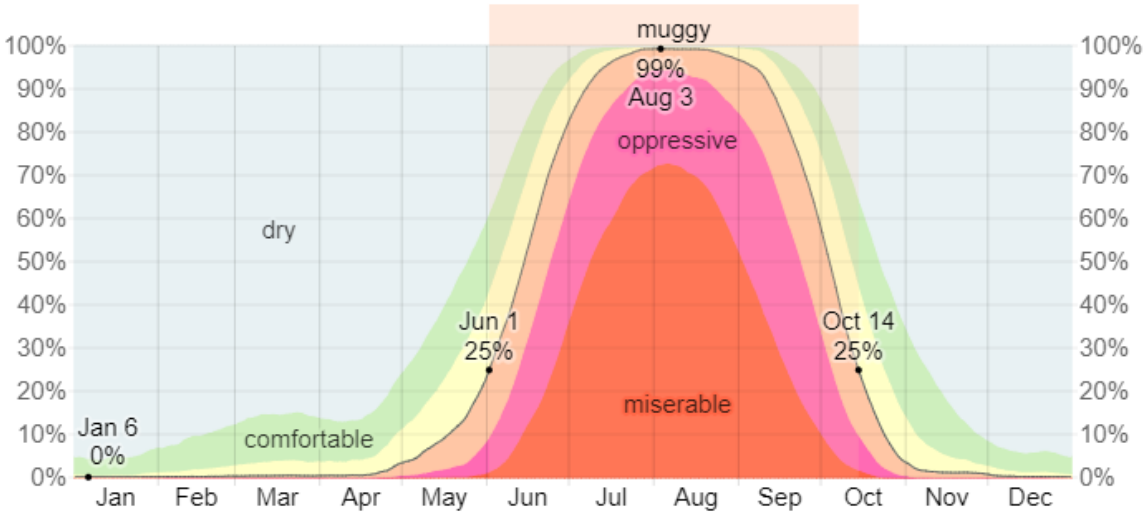
Govindgrah district is a place which can be a fertile place for mosquito breeding as mostly in time of rainy seasons and after rainy season high humid and high temperature is present which helps and assist in increasing the number of mosquitos and increase the chance of infection for the population in this district.



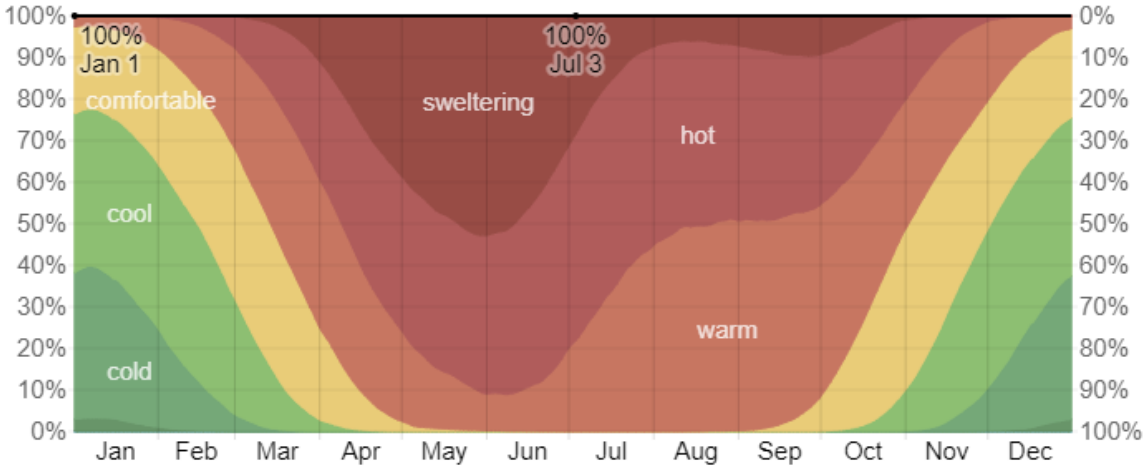
Graph2: Climate in Govindgrah



Graph3: Rain falls in Govindgrah

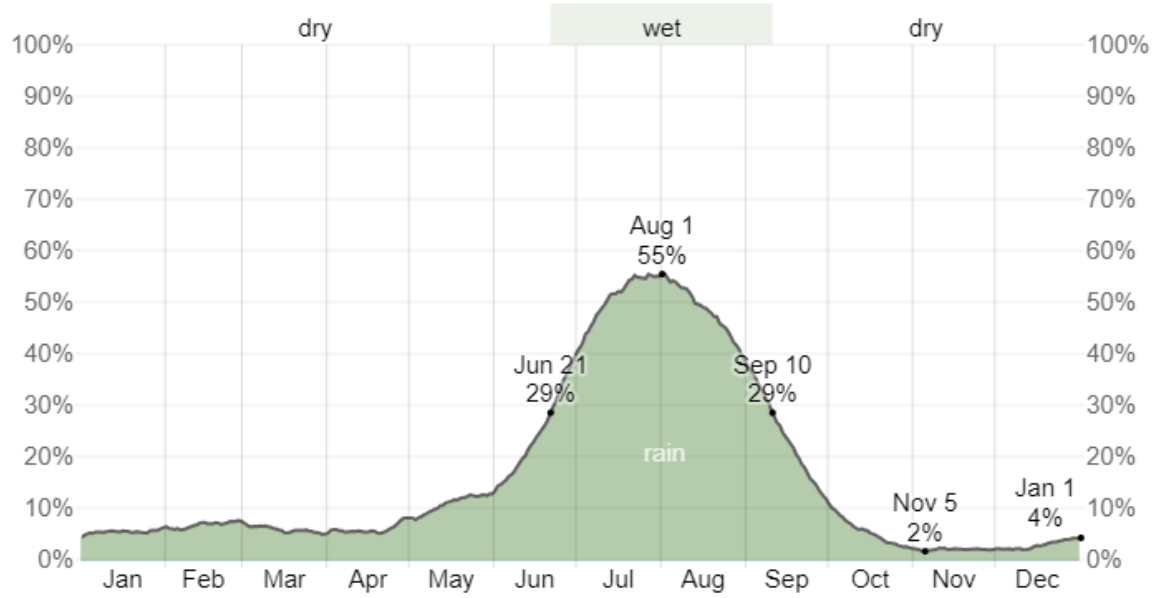


Graph4:Humidity in Govindgrah



Graph5: Time spent for weather bands during the year

b



Graph6: from JUN 21 till Sep 10 (wet season for Govindgrah)

Data Collection:

Method for data collection was mixed method as varies from collecting reports and in-depth interviews with health work force community work force and some patients. Providing questionnaire and surveys for them to see the effectiveness of integrated vector management for dengue.

Quantitative data collection: with collecting number of dengue cases through last three years, number of outpatient and inpatient, percentage of cases infection in this district. Counting the number of breeding sites surrounding the CHC.

Qualitative data collection: in-depth interviews is done with health workforce and patients; surveys and questionnaires are given for them. Also focus group discussion is done with the medical officer.

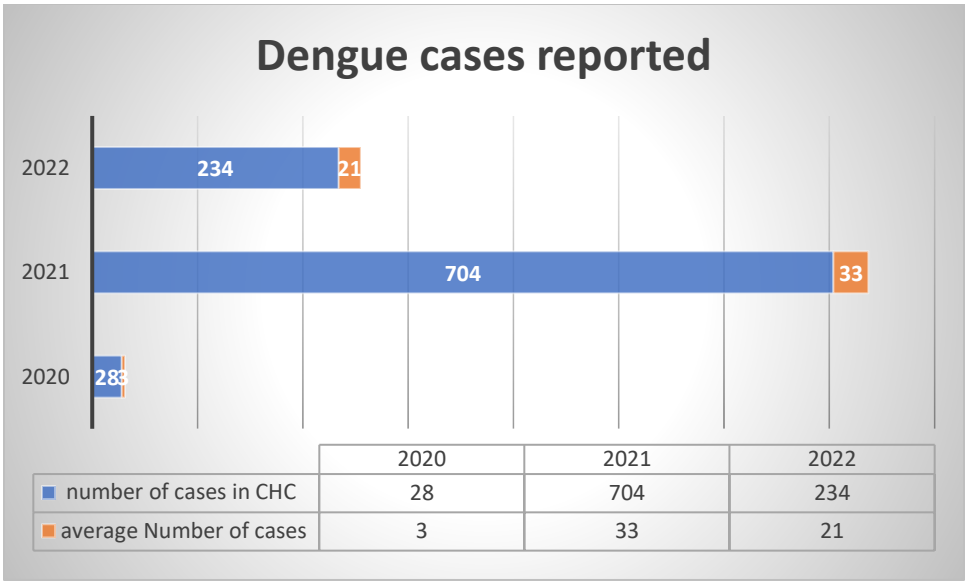
Field visit documentation

Activity Description: questionnaire and surveys are prepared to see the impact of integrated vector management in the CHC district. how they take actions towards breeding sites of mosquitos, their knowledge about the personal prophylactic measures and how they assess in applying it from the population. The available process done for integrated vector management and what, why is missing. Four field visits have been conducted to the CHC for data collection the timing of the visits was mainly in the working times of the CHC mainly from 10 am to 2 pm which are at the working times of the CHC during those visits data collected from various targeted population for this research by using mixed method of data collection for qualitative analysis by two ways in-depth interviews and providing questionnaire for quantitative analysis reports are given to see numbers of cases, and other data required for the research. At the first day of visit in-depth interviews is conducted with the medical officer, community officer, medical laboratory supervisor then we have gone to one of the associated subcenters to the selected CHC at that time we interviewed one ASHA, one ANM, we got reports about dengue cases, inpatient and outpatient cases who came to the CHC. At the second visit we have interviewed the pharmaceutical officer, one previous dengue case where we visited in his own house with the help of ASHA, and we interviewed another ASHA. Third visit we have interviewed other two previous dengue cases and some medical lab technicians. At the fourth and the last visit we have visited the reporting office in the CHC to complete the data collection and assure that all the data required are done. We again re-interviewed the medical officer for further information missing. During all four visits consent forms has been taken from all the interviewees and assure the privacy of the personal data provided. All data collected are assured that it is only for the purpose of research only. By the end of the four visits many data collected and analyzed to find the major challenges facing the region

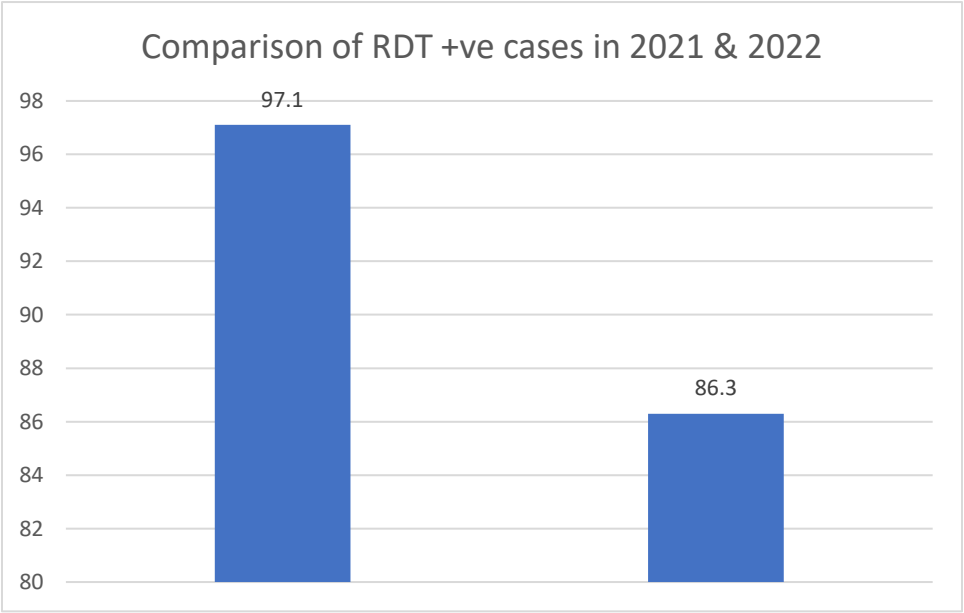
for IVM-dengue and the following findings has been conducted and listed. Noting that all the collected data will be provided in the part of annexures and the pictures taken for this research.

Findings and challenges

Service Statistics



Graph7: reporting of dengue cases



Dengue Case Reporting	2020	2021	2022	
II. Dengue	**28**	**704**	**234**	
1. RDT Test +ve	**1**	**684**	**202**	
2. Elisa Test +Ve	**0**	**0**	**0**	
3. Patients Treated for Dengue as outpatients	**1**	**300**	**190**	
4. Patients Admitted for Dengue	**1**	**384**	**22**	
5. Deaths due to Dengue	**0**	**0**	**0**	

23	**Rajasthan**	8427	14	9587	10	13706	17	2023	7	20749	96	13491	10

From the collected data through field visit and data from NVBDCP website it is found that in Rajasthan state there are 34 district hospitals, 5 satellite hospitals, 19 sub-divisional hospitals (SDH) and 571 CHC total of 629 facilities all are responsible for reporting dengue cases by comparing and analyzing average number of cases can be reported per each facility for the years of 2020,2021,2022 it is found that in the year of 2020 average cases should be reported per each facility should be 3-5 cases in the selected CHC it is reported 28. In the year of 2021 which there was an outbreak of dengue because of heavy rain average cases should be reported per each facility is 32-35 in the selected CHC it is reported 704 cases. Year of 2022 average cases should be reported per each facility is 21-25 cases while the selected CHC reported 234 cases. By comparing the CHC data and the average data selected we can find that year of 2020 number of cases in the selected CHC where 8 times the average per each facility. year of 2021 (outbreak time) number of cases

were 21 times the average by the year of 2022 number of cases were 11 times the average per each facility. This gives an indication that there are many breeding sites present for the mosquitos which gives the big gap between the average and the reported cases. It can be said that Govindgarh is an endemic area for dengue. As CHC is in a place which is slightly below the street level so it can be gathering place for rain. So, a longitudinal sewage canal in front of the CHC. Inside the CHC patient waiting area there are 3 squared sewages also a place for hand wash (washroom) and a water cooler Infront of them another sewage. Also, they have covers but the space between each iron rod is about 5 cm up to 10 cm gaps which is now forming an open sewage risk. These gaps can permit colonies of mosquitos to settle. Inside the CHC itself there are four DC (desert cooler) which are not regularly cleaned. In other words, we can say that the CHC itself contains mosquito breeding sites which can be one reasons of high number of infections.

Knowledge on Personal Prophylactic Measures:

There was no provision for distribution of bed nets inside CHC and to the population and according to community dress code and tropical climate no full sleeves wearing and using of repellent cream is not used for economic status not all population can afford so the personal prophylactic measures is very low. Social awareness is present people know many things about dengue as a viral infection coming from mosquitos and common and people have recovery no appeared stigma towards dengue, but timing of dengue and precautions are not well known.

Fig7: Presence of bed nets in other CHC in India but no provision in Govindgrah CHC

Chemical and Biological Control:

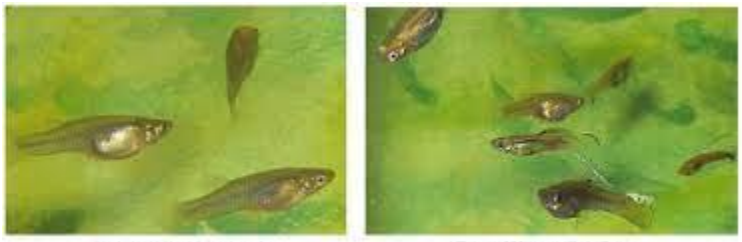


Fig8: biological control

There is no report for monitoring larval indices as number of houses probed (house index), number of containers probed (container index), Brateau index (number of mosquito positive containers per100 houses), number of breeding sites checked. Monitoring is conducted only in abounded

land inside the district. The number of times fogging conducted is not sufficient as in 2020 it is done (2) times, 2021 (2) times (including outbreak times), 2022 (1) time. According to the guidelines in times of outbreaks it should be done every 7-10 days. And fixing fogging machine was also not working. There is no mention of using larvivores fishes in ornamental tanks, and no use of biocides so biological control is not applied. MLO is widely used by ANM, ASHA and community officers but no reporting for the places used in it. No indoor space spray done as no house index done so one house can be a cause of many cases. No wide use of chemical larvicides like abate in big breeding containers.

Environment Management and health education

fig9: various breeding sites of mosquito

Fig10: One of the subcenter attached to the CHC open containers presents inside the facility.

Environmental management has done as detection of breeding sites, management of roof tops and sunshades, awareness towards covering stored water but long time ago no reports shown estimation was before covid-19 and no observation and monitoring is done. Only 3 posters for NVBDCP 2 inside the CHC and one outside the CHC compared to other programs posters which is at least 4-5 for NCDs as an example and more than 5 for maternal and child health program. Community participation for detection of mosquitos breeding place is so weak.

Challenges Related to Following Guidelines of Mosquito Control:

No NVBDCP guidelines manual is present in the CHC. No assigned officer for the program follows up inside the CHC. Monthly meetings are done by NVBDCP for ANM and ASHA but without giving update for data or guidelines. 2 workshops were held for ASHA, ANM 3or 4 years

ago from the side of NVBDCP. The staff of the CHC are 40 permanent staff 20 contracted staff. 5 are aware of the guidelines of dengue others are not aware of guidelines. 1 out of 5 are aware of updating the guidelines. Manual reporting for dengue cases which can be suspected to be human errors.

Synthesis sheet:

Based on the field service statistics, field interactions with providers, frontline workers and community members / patients and observations related to the service provision and resource availability, discuss among the groups to identify the major challenges & enablers and list them here.

Challenges
• **Open sewage present in the CHC**
• **No use for biological control**
• **No use for chemical control**
• **Fogging is done but not as per guidelines recommendations**
• **No provision for bed nets distributions**
• **Awareness about methods of protection from mosquitos is not sufficient**
• **Gaps between trainings and workshops done**
• **Knowledge among health workforce is not deep and not conducted to the guidelines**
• **No use for indoor residual sprays**
• **No wide use for awareness posters compared to other programs**
Enablers

• **Use of MLO as a cost-effective method for controlling the breeding sites**
• **Common health education is present about the disease which gives the chance for increasing**
• **Presence of fogging machine**
• **Monthly meetings done for ASHA and ANM.**
• **Literacy rate of population is high with give the chance for community participation**

Recommendations:

1. Importance for availability of NVBDCP guidelines inside CHC
2. Quick action to cover the opened sewage inside CHC and surveillance for open sewage across the district.
3. Strengthen and following the actions done towards IVM through the CHC district.
4. Increasing awareness campaigns for how to control mosquitos breeding sites.
5. Alarming campaigns before rain seasons for the population.
6. Reactivating the workshops and training done for health workforce with updating for the information.
7. Training work force for proper detecting for breeding sites and using various method for controlling the breeding sites.
8. Encouraging community to use neem leaves and coconut shells as cost effective mosquito repellent.

9. Monitoring and surveillance to detect the breeding site of mosquitos and how we can end it.
10. Monitoring for the reports of IVM as they are not done effectively.
11. Engage and mobilize communities towards detection of breeding sites informing about them.
12. Strengthen inter and intersectoral collaboration and coordination as engaging new stakeholders as civil society which will help in having effective IVM control.
13. Mobilize the health work force towards SDGs and the relation between SDGs and controlling of VBDs.

Fig11: controlling dengue by controlling water collection

Fig12: awareness about dengue

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Annexures:

Dengue Cases and Deaths in the Country since 2017

Sl. No.	Affected States/UTs	2017		2018		2019		2020		2021		2022	
		C	D	C	D	C	D	C	D	C	D	C	D
1	**Andhra Pradesh**	4925	0	4011	0	5286	0	925	0	4760	0	6391	0
2	**Arunachal Pradesh**	18	0	1	0	123	0	1	0	7	0	114	0
3	**Assam**	5024	1	166	0	196	0	33	0	103	0	1826	2
4	**Bihar**	1854	0	2142	0	6712	0	493	2	633	2	13972	32
5	**Chattisgarh**	444	0	2674	10	722	0	57	0	1086	0	2679	10
6	**Goa**	235	0	335	1	992	0	376	0	649	0	443	1
7	**Gujarat**	4753	6	7579	5	18219	17	1564	2	10983	14	6682	7
8	**Haryana**	4550	0	1898	0	1207	0	1377	0	11835	13	8996	18
9	**Himachal Pradesh**	452	0	4672	7	344	2	21	0	349	0	3326	1
10	**J & K**	488	0	214	0	439	0	53	0	1709	4	8269	18
11	**Jharkhand**	710	5	463	1	825	0	79	0	220	1	290	0
12	**Karnataka**	17844	10	4427	4	16986	13	3823	0	7393	7	9889	9
13	**Kerala**	19994	37	4083	32	4652	16	4399	5	3251	27	4432	29
14	**Lakshadweep**	0	0	0	0	0	0	0	0	1	0	67	0
15	**Madhya Pradesh**	2666	6	4506	5	4189	2	806	0	15592	11	3318	2
16	**Meghalaya**	52	0	44	0	82	0	4	0	129	0	26	0
17	**Maharashtra**	7829	65	11011	55	14907	29	3356	10	12720	42	8578	27
18	**Manipur**	193	1	14	0	359	0	37	0	203	0	503	4

19	**Mizoram**	136	0	68	0	42	0	67	0	83	0	1868	5
20	**Nagaland**	357	0	369	0	8	0	1	0	24	0	154	0
21	**Odisha**	4158	6	5198	5	3758	4	496	0	7548	0	7063	0
22	**Punjab**	15398	18	14980	9	10289	14	8435	22	23389	55	11030	41
23	**Rajasthan**	8427	14	9587	10	13706	17	2023	7	20749	96	13491	10
24	**Sikkim**	312	0	320	0	444	0	11	0	243	1	264	0
25	**Tamil Nadu**	23294	65	4486	13	8527	5	2410	0	6039	8	6430	8
26	**Tripura**	127	0	100	0	114	0	24	0	349	0	56	0
27	**Telangana**	5369	0	4592	2	13331	7	2173	0	7135	0	8972	0
28	**Uttar Pradesh**	3092	28	3829	4	10557	26	3715	6	29750	29	19821	33
29	**Uttrakhand**	849	0	689	3	10622	8	76	1	738	2	2337	0
30	**West Bengal**	37746	46			NR	NR	5166	0	8264	7	67271	30
31	**A& N Island**	18	0	49	0	168	0	98	0	175	0	1014	3
32	**Chandigarh**	1125	0	301	0	286	0	265	0	1596	3	910	1
33	**Delhi**	9271	10	7136	4	5077	0	1269	0	13089	23	10183	9
34	**D&N Haveli**	2064	0	493	0	1491	2	248	0	547	0	685	0
35	**Daman & Diu**	59	0	163	0	625	2	71	0	279	0	228	0
36	**Puduchery**	4568	7	592	2	2030	2	633	1	1625	1	1673	3
	Total	**188401**	**325**	**101192**	**172**	**157315**	**166**	**44585**	**56**	**193245**	**346**	**233251**	**303**

C=Cases | D=Deaths | NR=Not Reported

IVM KNOWLEDGE

Name:	Contact Phone:
Age:	posiotion: M.O

Questions	Rating Scale			
	Bad	Fair	Good	Excellent
personal prophalitic measures				●
use of larvivorus fishes and bicides	●			
detection and elimination of mosquito breeding sites		●		
health knowledge and education				●
using of chemical control		●		
community participation towards breeding sites detection		●		
training and workshops		●		
provision of bednets	●			
general knowledge about dengue				●

THANK YOU FOR YOUR TIME AND FEEDBACK

IVM KNOWLEDGE

Name:	Contact Phone:
Age:	position: C.O

Questions	Rating Scale			
	Bad	Fair	Good	Excellent
personal prophalitic measures			●	
use of larvivorus fishes and bicides	●			
detection and elimination of mosquito breeding sites		●		
health knowledge and education			●	
using of chemical control		●		
community participation towards breeding sites detection		●		
training and workshops	●			
provision of bednets	●			
general knowledge about dengue				●

THANK YOU FOR YOUR TIME AND FEEDBACK

IVM KNOWLEDGE

Name:	Contact Phone:
Age: 34	position: ASHA

Questions	Rating Scale			
	Bad	Fair	Good	Excellent
personal prophalitic measures			●	
use of larvivorus fishes and bicides	●			
detection and elimination of mosquito breeding sites		●		
health knowledge and education		●		
using of chemical control	●			
community participation towards breeding sites detection		●		
training and workshops	●			
provision of bednets	●			
general knowledge about dengue		●		

THANK YOU FOR YOUR TIME AND FEEDBACK

IVM KNOWLEDGE

Name:	Contact Phone:
Age:	position: ANM

Questions	Rating Scale			
	Bad	Fair	Good	Excellent
personal prophalitic measures			●	
use of larvivorus fishes and bicides	●			
detection and elimination of mosquito breeding sites		●		
health knowledge and education		●		
using of chemical control	●			
community participation towards breeding sites detection		●		
training and workshops	●			
provision of bednets	●			
general knowledge about dengue			●	

THANK YOU FOR YOUR TIME AND FEEDBACK

IVM KNOWLEDGE

Name:	Contact Phone:
Age:	position: M.L supervisor

Questions	Rating Scale			
	Bad	Fair	Good	Excellent
personal prophalitic measures			●	
use of larvivorus fishes and bicides	●			
detection and elimination of mosquito breeding sites		●		
health knowledge and education			●	
using of chemical control	●			
community participation towards breeding sites detection		●		
training and workshops		●		
provision of bednets	●			
general knowledge about dengue				●

THANK YOU FOR YOUR TIME AND FEEDBACK

IVM KNOWLEDGE

Name:	Contact Phone:
Age:	position: dengue case #1

Questions	Rating Scale			
	Bad	Fair	Good	Excellent
using of mosquito repllent cream	●			
wearing full sleeves		●		
use of bed nets during sleeping	●			
knowledge about breeding sites		●		
covering for stored water		●		
using of neem leaves or coconut shell	●			
seeing posters about dengue			●	
indoor spraying for mosquitos	●			
general knowledge about dengue			●	

THANK YOU FOR YOUR TIME AND FEEDBACK

IVM KNOWLEDGE

Name:	Contact Phone:
Age:	position: dengue case #2

Questions	Rating Scale			
	Bad	Fair	Good	Excellent
using of mosquito repllent cream	●			
wearing full sleeves		●		
use of bed nets during sleeping	●			
knowledge about breeding sites			●	
covering for stored water		●		
using of neem leaves or coconut shell	●			
seeing posters about dengue		●		
indoor spraying for mosquitos	●			
general knowledge about dengue			●	

THANK YOU FOR YOUR TIME AND FEEDBACK

National Vector Borne Disease Control Program
PART I- Service Statistics (This needs to be filled in by the concerned facility)

	2020	2021	2022	Remarks
I. Malaria				
A. Microscopy				
1. Total Blood Smear Examined for Malaria	**2160**	**3693**	**4636**	
2. Malaria (Microscopy -P Vivax Test +ve)	**0**	**0**	**0**	
3. Malaria (Microscopy -P Falciparum Test +ve)	**0**	**0**	**0**	
B. Malaria RDT				
4. RDT conducted for Malaria	**146**	**202**	**19**	
5. Malaria RDT Conducted P Vivax Test +ve)	**3**	**16**	**2**	
6. Malaria RDT Conducted P Falciparum Test +ve)	**0**	**0**	**0**	
7. Patients Treated on Outpatient Basis for Malaria	**3**	**16**	**2**	
8. Patients admitted with Malaria	**0**	**0**	**0**	
9. Deaths Due to Malaria	**0**	**0**	**0**	
II. Dengue	**28**	**704**	**234**	
1. RDT Test +ve	**1**	**684**	**202**	
2. Elisa Test +Ve	**0**	**0**	**0**	
3. Patients Treated for Dengue as outpatients	**1**	**300**	**190**	
4. Patients Admitted for Dengue	**1**	**384**	**22**	
5. Deaths due to Dengue	**0**	**0**	**0**	

Part III. B. Provider Interaction – ASHA / ANM

I. Demographics

Anita Danka (ASHA) Dhoblai Subcentre

1. Age: _34_Yrs

2. Current affiliation and designation: ASHA work experience (13 years)

3. आपने NVBDCP/मलेरिया/चकुनगुनिया/डेंगू इत्यादि के लए चलाये जा रहे राष्ट्रीय कार्यक्रम में कस तरह का कार्य कया है?/
What kind of work have you done in the national program being run for NVBDCP/Malaria/Chikungunya/Dengue etc.?

- Collection of slides
- Home visit
- Screening for fever
- Awareness to clean the cooler
- Cleaning water collecting source
- Education on using nets

4. इस कार्यक्रम के बारे में आप क्या जानती हैं? कुछ बताएं।/

What do you know about this program? Tell me something

- Signs and symptoms-fever, chills ,dizziness, muscle pain
- Vector : mosquito
- Stay away from patients
- Treat on time
- Use of net

1. आप गांव में लोगों में मच्छर जनित रोगों के प्रति जागरूकता बढ़ाने के लए क्या करती है?/

   What do you do to raise awareness about mosquito-borne diseases among the people in your village?

   - Awareness on not to store water in and around household
   - MLO use in collected water
   - Keep surrounds clean
   - ANM ,CHO and ASHA visit together in the village to raise awareness and seek the collected water source

2. **RDT** के बारे में आपको पता है? क्या आपको इसके इस्तेमाल की ट्रेनिंग मली है?/ Do you know about RDT? Have you received training in its use?

   Don't know about RDT

No training received on RDT

Only trained on blood sample collection

3. मच्छर जनित रोगों की रोकथाम में सबसे बड़ी समस्या आपको क्या लगती है?/
   What do you see as the biggest problem in the prevention of mosquito-borne diseases?
   - **People collect and store water around their house**
   - **People donot clean the surrounding time to time**
   - **All people don't have mosquito nets and those who have don't use them**
   - **Only awareness and counselling are being done.No specific focused awareness campaign**

Additional information

- **Incentives :Rs.15 for collecting slides and rs.75 if found positive**
- **Daily Visits :10 houses /per day**
- **Basic training :15 days**
- **Training on NVBDCP:Malaria 1 training for slide preparation before 2-3 yrs**

- **,no training after that**

Coverage area for the ASHA (Anita)

- **Population : 1127**
- **Household : 152**
- **Child less than 5 years: 109**
- **H Pregnant women:12-13**

Part of the visits done inside the subcenter and in the patient house and ASHA and ANM are present in both photos.