

Capstone Report
on

Involvement of ASHAs in Active Case Surveillance in Malaria Elimination Program at Govindgarh CHC, Jaipur Rajasthan

A Capstone project submitted to
IIHMR University
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1. Background

In India, malaria is notified as an important public health problem, which is essential to be eliminated by strengthening prevention and control. Malaria program interventions are very cost effective and had one of the best returns on investment. India has seen an increase in investment for malaria elimination, which benefitted in reduction in poverty, advancing health equity, and development among endemic nations. (1)

In the South-East Asia Region, India contributes 70% malaria cases and 69% malaria deaths. But according to WHO projections, malaria trend showed a decline by 50–75% in 2015 (compared to the baseline year of 2000), indicating that the nation is on track to reduce case incidence between 2000 and 2015. (1)

India has taken significant steps in decreasing malaria load. India has achieved a decrease in malaria burden about 17% between 2018 and 2019, and the API decreased by 27.6% in 2017 and 18.4% in 2018. India has sustained an API less than one from 2012. (2)

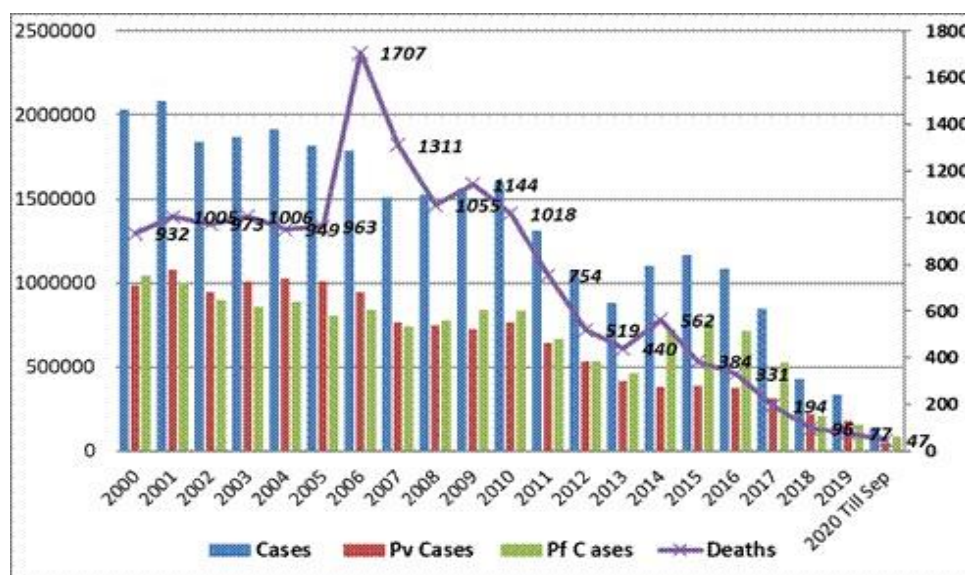


Figure 1 Epidemiological trends of Malaria in India (2000-2019) Pv; & pf

India achieved a reduction of 83.34% in malaria morbidity and 92% in malaria mortality between the year 2000 (20,31,790 cases, 932 deaths) and 2019 (3,38,494 cases, 77 deaths), thereby achieving Goal 6 of the Millennium Development Goals (50-75% decrease in case incidence between 2000 and 2019)(2)

Malaria Elimination efforts were initiated in the India in 2015. After the launch of National Framework for Malaria Elimination (NFME) in 2016 Malaria Elimination efforts were intensified. National Strategic Plan

for Malaria Elimination (2017-22) was launched by the Health Ministry in July, 2017 which laid down strategies for the next five years.

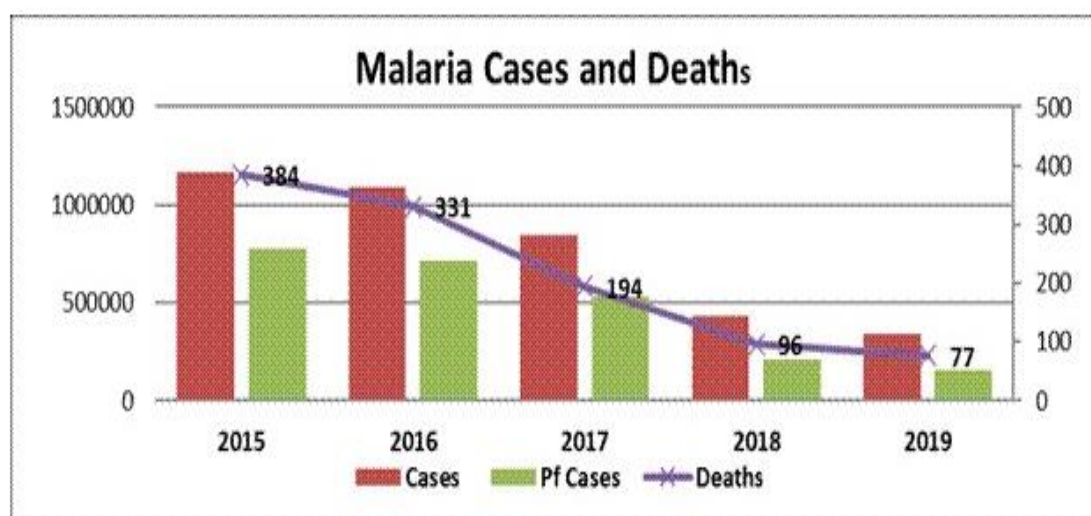


Figure 2 Malaria cases and deaths in India (2015 – 2019)

The first two years after the launch of NFME (2016-2030) there is a 27.7% decline in cases and 49.5% reduction in fatalities; 11,69,261 cases and 385 deaths in 2015 to 8,44,558 cases and 194 deaths in 2017.

Malaria has been made notifiable in 31 states/UTs (Andhra Pradesh, Arunachal Pradesh, Assam, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jammu & Kashmir, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Manipur, Mizoram, Nagaland, Odisha, Punjab, **Rajasthan**, Sikkim, Tamil Nadu, Telangana, Tripura, Uttar Pradesh, Uttarakhand, West Bengal, Puducherry, Chandigarh, Daman & Diu, D&N Haveli and Lakshadweep) and decline has been observed in the hitherto high endemic states. (2)

1.1 National Framework for Malaria Elimination in India 2016-2030(1)

Vision:

Eliminate malaria nationally and contribute to improved health, quality of life and alleviation of poverty.

Goals

The goals of the National Framework for Malaria Elimination in India 2016–2030 are:

- Eliminate malaria (zero indigenous cases) throughout the entire country by 2030; and
- Maintain malaria-free status in areas where malaria transmission has been interrupted and prevent re-introduction of malaria.

Objectives:

The Framework has four objectives:

- Eliminate malaria from all 26 low (Category 1) and moderate (Category 2) transmission states/union territories (UTs) by 2022;
- Reduce the incidence of malaria to less than 1 case per 1000 population per year in all states and UTs and their districts by 2024;
- Interrupt indigenous transmission of malaria throughout the entire country, including all high transmission states and union territories (UTs) (Category 3) by 2027; and
- Prevent the re-establishment of local transmission of malaria in areas where it has been eliminated and maintain national malaria-free status by 2030 and beyond

Target:

As per the Framework “to sustain zero deaths due to malaria while maintaining fully functional malaria surveillance to track, investigate and respond to each case by 2024”.

Strategic Approach of NFME 2016-2030:

The four strategic approaches include:

- (i) Program phasing
- (ii) District as the unit of planning and implementation
- (iii) Focus on high transmission areas and
- (iv) Special Strategy for *Plasmodium vivax* elimination

1.2 Malaria Elimination Program Design and Service Delivery

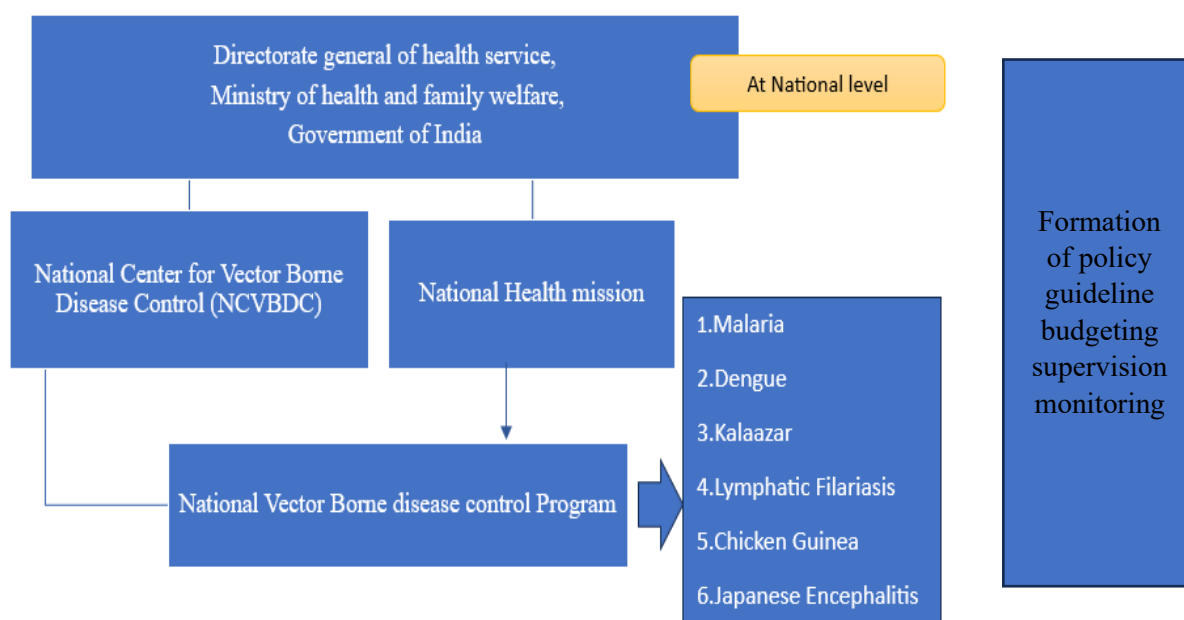


Figure 3: NVBCP at National level

At national level, the Directorate of NVBDCP is an umbrella program for the prevention and control of six vector-borne disease that are malaria, lymphatic filariasis, kala-azar, Japanese encephalitis, dengue and chikungunya. NVBDCP is one of the essential program of India's National Health Mission (NHM). The NVBDCP is in charge of formulating technical recommendations and regulations that would direct the states towards implementing disease-specific preventive and control measures. Additionally, NVBDCP is responsible for organising and budgeting for the central sector's logistics. Additionally, it offers states financial and material support for programme operations in accordance with a predetermined plan. The obligation for carrying out the programme rests with the states. The Directorate occasionally evaluates how well a programme is being implemented. (1)

At Regional level, Regional Offices for Health and Family Welfare (ROHFW) run by the Indian government. Each ROHFW has a state or states under its purview that it covers. These offices are essential for supervision of National Vector Borne Disease Control Programme (NVBDCP) activities in their respective states. Together with the National Institute of Malaria Research (NIMR), they work with the states to carry out entomological research and therapeutic efficacy studies. Additionally, the regional offices cross-check blood slides to maintain quality control and help states expand their capacity. Additionally, they are responsible for supervision and monitoring vector-borne diseases.

The Rajasthan State Programme Officer is responsible to implement the vector borne control program according to the Government of India guidelines, like supervision and monitoring. In addition, there are State Health Society and District Health Society for planning, monitoring and allocating budget of

programme. At district level, the programme was earlier managed by the District Malaria Officer (DMO) but now a days, the Deputy Chief Medical and Health Officer (CMHO) looks after all the national health programs under the supervision of CMHO of the district. This program, under the umbrella of National Health Mission, is implemented and monitored through the district health society where district collector act as a chairperson. The programme is also monitored under National Health Mission through the District Health Society under the chairpersonship of the District Collector. Within the district, the staff under primary health care system is involved in implementation at block level through community health center (CHC), primary health center (PHC), sub-center (SC) and village level. Local leaders like village panchayat members who are part of the Village Health Sanitation & Nutrition Committees (VHSNCs) and Accredited Social Health Activists (ASHAs) along with ANMs are involved at the grassroots level.

1.3 Malaria Elimination Program in Rajasthan

According to National Framework for Malaria Elimination in India (2016-2030) Rajasthan state is classified in the Elimination Phase i.e., the states/Union Territories, which have an Annual Parasitic Incidence less than one, and all the districts in the state with Annual Parasitic Incidence (API) <1 falls under the elimination category. District Jaipur is categorized as “category 1” district as it is reporting API less than one and is in elimination phase. Rajasthan is adopting specific objective and key interventions for category 1 as per Operational Manual for Malaria Elimination 2016

Specific Objective and Key Intervention for Rajasthan:

Specific objectives	Key interventions of Category 1 states/UTs
• Interrupt transmission of malaria • Immediately notify each detected case • Detect any possible continuation of malaria transmission. • Determine the underlying causes of residual transmission. • Forecast and prevent any unusual situations related to malaria; ensure epidemic preparedness and respond in a timely and efficient manner to outbreak situations. • Prevent re-establishment of local transmission of malaria • Ascertain elimination of malaria	• All efforts will be directed at interrupting local transmission in all active foci of malaria. • Mandatory notification of each case of malaria from the private sector, other organized government sectors or any other health facility • Adequate case-based surveillance and complete case management established and fully functional across the entire country to handle each case of malaria. • Investigation and classification of all foci of malaria • A strict total coverage of all active foci by effective vector control measures • Early detection and treatment of all cases of malaria by means of ACD and/or PCD to prevent onward transmission. • State and national level malaria elimination database established and made operational. • Implementation of interventions for effective screening, management, and prevention of malaria among mobile and migrant populations • Establishment of an effective epidemic forecasting and response system • Ensuring rigorous quality assurance of all medicines and diagnostics • Setting up a national-level reference laboratory to serve following two functions: ○ All positive and a fixed percentage of negative slides will be referred to this laboratory for confirmation of diagnosis and cross-checking. After elimination has been achieved in each State/UT, 100% of cases will be notified to this laboratory for confirmation of diagnosis. The laboratory will be notified immediately on all positive cases of malaria by each state/UT through either SMS, e-mail, or telephone with information on name, gender, address (village and district), date and type of testing and type of parasite for each positive case of malaria so that a national level database can be maintained. ○ Training of master trainers and accreditation/certification of microscopists as per Indian Public Health Standards shall also be undertaken at this laboratory. • During investigation of foci, all suspected cases of malaria are to be screened for malaria. These could include household members, neighbors, schoolchildren, workplace colleagues and relatives. • Surveillance of special groups, migrant populations or populations residing in the vicinity of industrial areas are also to be covered under surveillance operations

One of the key interventions is detection of cases at early stage by active and passive case detection followed by complete treatment of all cases. This intervention will prevent malaria transmission in the community. For Active Case detection ASHAs are playing important.

1.4 Epidemiological Situation of Malaria in India and Rajasthan (2020-2022)(3)

Blood slide examination is an important key intervention for the effective program implementation. Rajasthan is progressing on blood slide examination by active case detection and passive case detection.

The blood examination number of Rajasthan has been increased in 2022 compared to 2021 and 2020 and slide positivity has decreased in 2021 from 0.02 to 0.01 and maintained at 0.01 at 2022.

Year	State/ Country	Blood Slide Examination	Positive Cases %	PF Cases	PF%	Slide Positivity Rate %	Slide Falciparum Rate	Deaths
2020	Rajasthan	4778346	0.02	106	10.1	0.02	0	0
2020	India	90951598	0.20	115142	63.32	0.2	0.13	63
2021	Rajasthan	6632314	0.01	119	12.86	0.01	0	0
2021	India	114391977	0.14	101566	62.79	0.14	0.09	90
2022	Rajasthan	10250383	0.01	104	10.14	0.01	0	0
2022	India	139672021	0.12	99849	57.39	0.12	0.07	64
Source: MoHFW, 2023								

1.5 Govindgarh Community Health Centre, Jaipur

Govindgarh CHC is situated in Jaipur I district in Rajasthan State. This CHC have total 30 beds and 60 staff to cater **29,690** population in the catchment areas. There are six HWCs and subcentres under this CHC caters about 4000-5000 population, and about 30 ASHAs work in the areas.

1. Dhoblai Health & Wellness centre
2. Malikpur Health & Wellness centre
3. Narsingpura Health & Wellness centre
4. Shyao Sub Centre
5. Kannipura Sub Centre
6. Sitarampura Sub Centre

This CHC is providing variety of services from medical care services to other preventive services in free of charge. The range of services include:

- Provision of OPD, IPD and Emergency care services
- Maternal-child health services
- Immunization Services
- Family Planning
- Surveillance of local endemic diseases including vector borne diseases

- Recording and reporting of vital events and related statistics
- Awareness and malaria education
- Implementation of National health program
- Referral services
- Capacity building of ASHAs and frontline workers
- Basic laboratory Services
- Supervision and monitoring of Health and wellness centre as well as sub centres

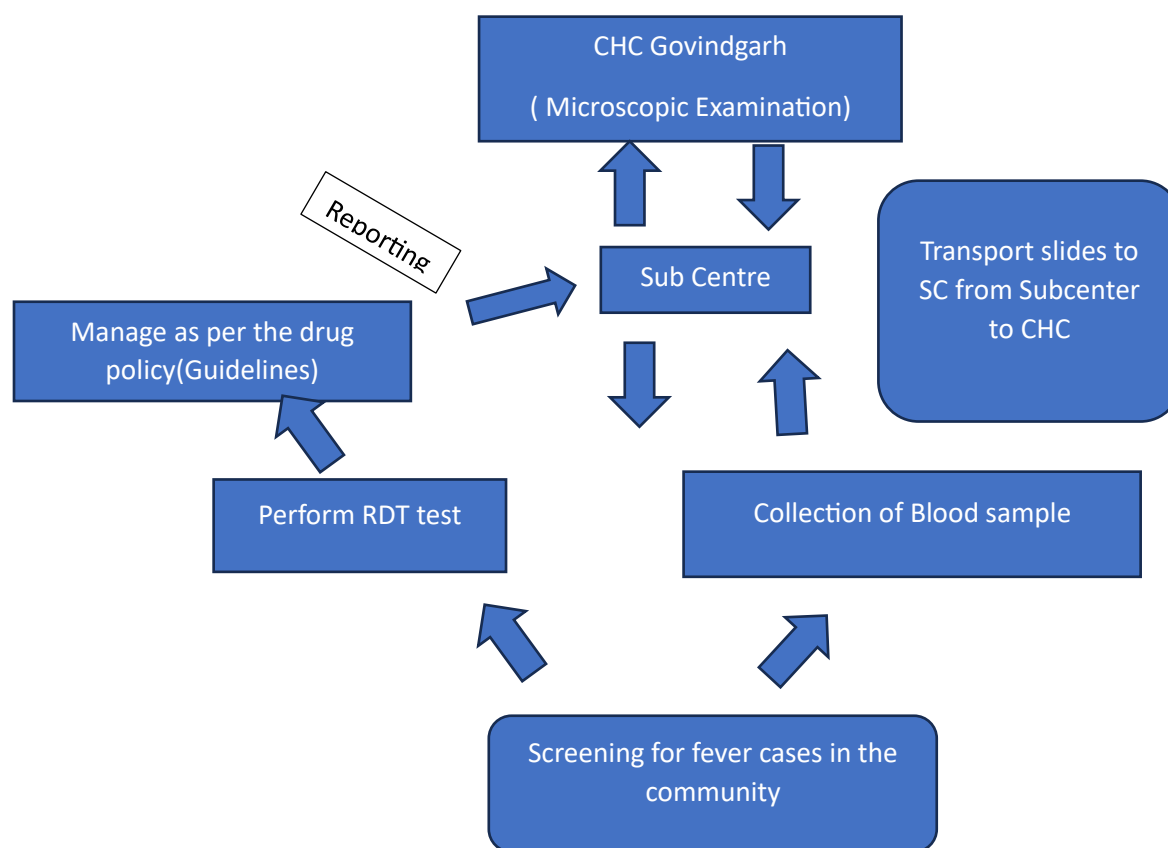


Figure 4 Malaria Service Flow at CHC level

2. Capstone Work Area and the Objectives

The capstone topic is to investigate the involvement of ASHA workers in surveillance activities, including active case detection and reporting, which will help in malaria elimination in Govindgarh catchment area.

Accredited Social Health Activists (ASHAs) are female health volunteers and act as a mediator between the health system and community. Her responsibilities include counselling, community

sensitization, provision of drugs, escorting pregnant women, and other patients, diagnosis of malaria, tuberculosis, diarrhea, survey of health and related events.

2.1 ASHAs Roles and Responsibilities related to Malaria Elimination

ASHAs conduct malaria diagnosis and treatment in their respective communities on a day-to-day basis. According to the guidelines, they should screen all fever cases in the community who might be suffering from malaria by using RDT and prepare blood slide (on an average 10-15) along with timely transportation and administer antimalarial medicine after training. Incentives are given to ASHAs for providing these services at the rate of INR 15 for slide collection and INR 75 for every positive case (4).

2.2 Objectives of Capstone:

The objectives of the Capstone are as follows:

- To review roles and responsibilities of ASHAs in active case detection and treatment of Malaria
- To study involvement of ASHAs in active case detection
- To identify the enablers for involvement of ASHAs in malaria elimination
- To identify the challenges faced by ASHAs

The capstone has a mixed methods approach using with participatory exploration of relevant information by involving Health workers in Govindgarh CHC and Dhoblai HWC as well as ASHAs and patients on the National Vector Borne disease control program. The quantitative data was collected in terms of service statistics as per the data sheet provided by SDG SPH.

A total of six key informant interviews using checklist and guide were conducted with: Senior Medical Officer (1), Senior Lab Technician (1), ANMs (2), ASHAs (2).

In addition, observations were made using observation checklist to observe OPD, lab, pharmacy, store, and other units.

Senior Medical Officer was responsible for Vector Borne Disease Prevention and Control Program at Govindgarh Community Health Center and has been working at the facility for last eight years. His responsibilities included field visits for monitoring and supervision in the catchment areas. The laboratory staff is responsible to perform the microscopic test for Malaria case diagnosis. They

impart training on regular basis, and on daily basis receive the slides from CHCs, HWC, SC as well as from ASHAs. While visiting to Dhoblai health and wellness centre, two ASHAs and two ANMs were interviewed.

3. Field Visit Documentation

All total 4 field visits were made by me to CHC Govindgarh with five members in the team. Brief description of field visit is as follows:

- Field Visit 1: The first field visit was done on 24th March 2023. At first administrative work with the help of research officer Mr. Haidar. Then introduction and meeting with senior medical officer, lab staffs and other staffs. Then we visited different units of the CHC. After that we had interaction with laboratory staff. We collected some of Service statistics with the help of lab staffs. We got opportunity to study of register for malaria and dengue. After that a CHO was appointed by the MO to coordinate our visit to a nearest sub-center (Dhoblai Sub-Center) to observe the Maternal and Child Health Day. In the sub-center, the team interacted with the CHO, ANM and one ASHA. Observations were made in and around the sub-center, and specifically stock of medicines, kits, and collection of blood smear from patient and its storage. Interview with the ANM and ASHA was also conducted. Overall, it was an introductory visit.
- Field visit 2: The second field visit was done on 29th March 2023. We have encountered doctor's strike due to the Right to Health Bill, and the CHC was functional with only one emergency pediatric doctor, which affected and reduced patients visit to the hospital. This situation affected the execution of the plan for the day. To continue our observation, the team has initiated assessment and clarifications of the service statistics collected in the last visit with the lab in-charge and lab assistant and requested to provide the statistics from HMIS. The team has also conducted observation and organization of services in the lab, OPD and in pharmacy.
- Field visit 3: The third field visit was done on 31st March 2023. We conducted interview with senior medical officer, and an ANM. We have also collected the HMIS statistics. We have visited to community searching for old patient of Dengue with help of ASHA. We Interview of Patient of Dengue
- Field visit 4: The last field visit was done on 20th May 2023. This visit was conducted to complete the doctor's interview as well doubt clearance regarding service statistics.

4. Findings

4.1 Assessment of the service statistics

From the service statistics collected from Govidagadh CHC, it shows that the blood smear examination has been increased to 4636 in 2022 from the previous years 2020 and 2021 which were 2160 and 3693 respectively. The blood examination is less in 2020 and 2021 due to covid pandemic.

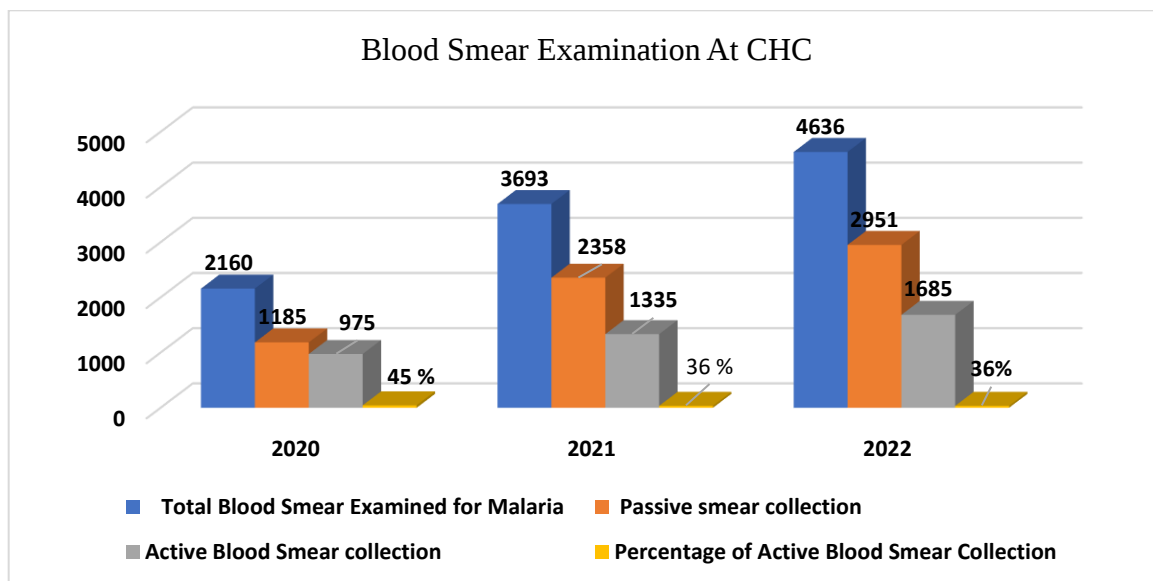


Figure 5 Total Blood Smear Collection and Examined

The blood smear examination includes both passive and active collection. The passive smear collection is 1,185, 2,358 and 1,685 in year 2020, 2021 and 2022 respectively which shows an increasing trend.

Active sample collected from ASHAs visiting the households are 975 (45%), and 1,335; 1,685 (36% each) in year 2020, 2021 and 2022 respectively. Interestingly ASHAs contribution was better during the COVID 19.

4.1.1 Annual Blood Examination Rate (ABER):

ABER is one of the measures of Malaria program's operational effectiveness. The Annual Blood Examination Rate (ABER) is determined by the prevalence of fever cases in the community. The number of fever cases in the community varies from month to month. The ABER also affects the

annual parasite incidence (API). To determine an accurate API, a significant quantity of blood slides should be routinely acquired and checked for the malaria parasite.(5)

The accurate malaria endemicity in the population may be determined using the monthly blood examination rate (MBER). All suspected patients are tested for malaria if the MBER is equivalent to the community's fever rate. The formula for calculating ABER is as follows(5):

$$\frac{\text{Total number blood smears examined during the year.}}{\text{Population covered under surveillance}} \times 100$$

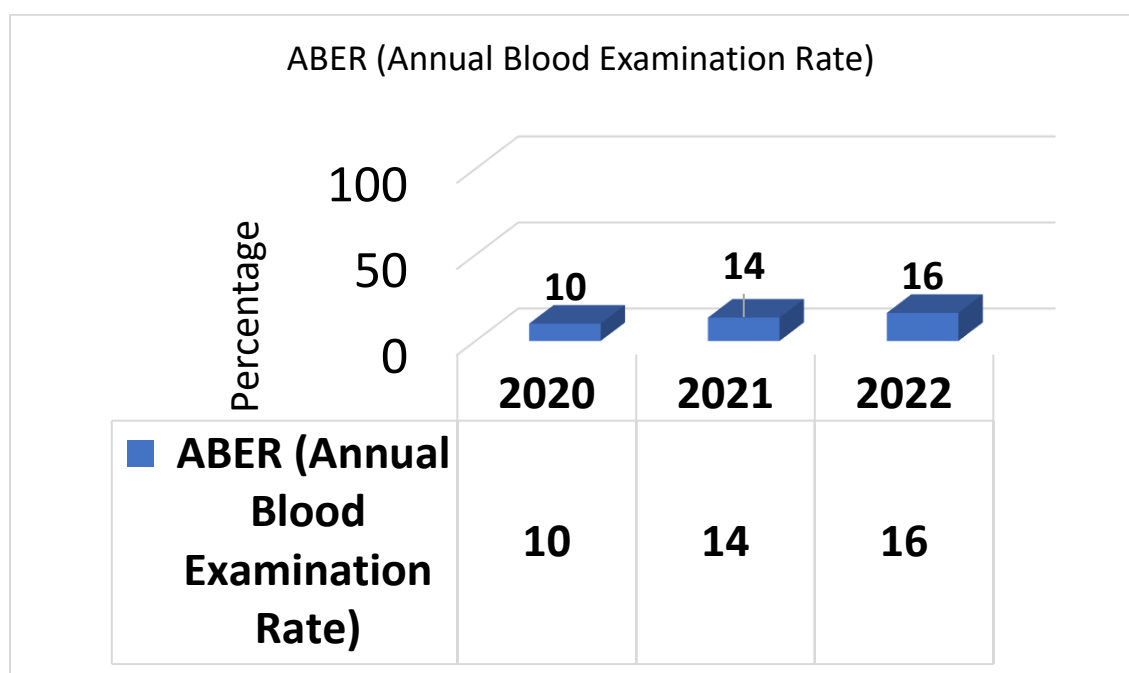


Figure 6 ABER of Govindgarh CHC

The ABER of Govindgarh is in increasing trend that is 16.33 in 2022 compared to 13.59 in 2021 and 10.08 in 2020. The ABER of all health facility should be at 12%. Govindgarh CHC have achieved its target in 2021 and 2022, but in 2020 due to covid pandemic the CHC could not achieve the target.

4.1.2 Annual Parasitic Incidence (API) and Slide Positivity rate (SPR)

Annual parasitic incidence is an important indicator to measure the malaria incidence in the community. API is basis to categorize the area as high, moderate and low risk area. To calculate accurate API sufficient number of blood slide should be examined collected by active and passive surveillance.

From the collected secondary data there is no cases confirmed as malaria positive from microscopic examination from 2018. This means API and SPR is zero (0) as well as there are no deaths due to Malaria for last 5 years.

4.1.3 RDT Tests:

Refer to the secondary data 146, 202 and 19 RDT test were conducted in 2020, 2021 and 2022 respectively. A total of 3,16 and 2 cases were found Plasmodium vivax positive. These diagnosed cases were managed at the CHC while the guidelines suggest to treat the microscopic positive cases only where the lab facility is available.

4.2 Availability of services and resources

To carry out any program successfully, it is important to assess availability of services and resources at the CHC and ASHAs. The services and resources available at OPD, Laboratory and Pharmacy are assessed and analysis of those indicators are described below (refer observation checklist).

It was observed that the Lab Technicians were available for eight working hours a day and have a maximum testing load for malaria 20 per day on average. They do blood smear examination using Microscopy. They take 6 hours to provide report to the OPD patients while the reports are available next working for the field samples. The registers were maintained and updated. RDT is available for CHC and HWC but not with ASHAs.

All the LTs were trained within the past two years. Resources like microscopy, reagents, glass slides, lancets, RDTs, injection needles were found available. Bio-waste management was in practice by using appropriate bins with color coding. Laboratory is found to be fully equipped and sufficient chemicals.

Information, education and communication materials were available in the forms of posters, flex with common message on transmission process, sign and symptoms, etc. All drugs and medicines used for malaria treatment were available except one (Injection Artesunate)

4.2 ASHAs Involvement in Malaria Elimination:

ASHAs were trained for their specific roles in malaria elimination: home visits, screening for fever cases, and preparing blood slides. However, there was no regular refresher training (*I have received training on blood slide preparation 2-3 years ago. After that I haven't received any refresher*

training). It was noted that they were not imparted training for using RDTs (*I have not heard of RDT and I have not received any training on use of RDT*). On being asked for incentives related to malaria, they mentioned that there is provision of incentive for their active involvement (*I receive INR 15 for each slide collection and INR 75 if the sample is positive and receive full treatment but they provide money very late*).

Interview with the senior Lab Technician it was reflected that the role of ASHAs in active surveillance and sample collection is very important to catch the disease at early stage which prevent the disease transmission and complete treatment (*total blood smear sample for malaria has increased in this CHC because of involvement of ASHA but the sample send by them are not good quality so that finding out the parasite from the slide becomes difficult*).

4.3 Challenges and Enablers

Based on the quantitative and qualitative information collected during the field visits, analyzed and synthesized later, a summary of enablers and challenges are worked out.

Problems/Challenges	Enablers
Focus has been made on NCDs by the GoR, therefore, less attention was observed for Malaria Elimination	ASHAs Mobilization for active surveillance
Inaccuracy in data recording and reporting	Incentivisation of ASHA in Malaria program
Training is a continuous phenomenon, which is not happening. ASHAs were not trained on RDT, lack of competence among ASHAs in preparation of blood slides	Basic knowledge on prevention of Malaria among ASHAs
Delay in release of incentives to ASHAs	Availability of logistics and resources, availability of microscopic examination at CHC
Lack of clarity in malaria specific responsibilities among staff (ANMs as supervisor to ASHA)	Trained and qualified Lab staff

Program guideline is not found in OPD and not followed properly (Clinical Mgt)	Integrated program for Vector borne diseases
	Rapid response team is formed before/during outbreak
	Pachayat's active involvement in solving issues proposed by the sub-centre

Major Problems

Shortlist of Five most important Problems/Challenges	
1	Focus has been made on NCDs by the GoR, therefore, less attention was observed for Malaria Elimination
2	Training is a continuous phenomenon, which is not happening. ASHAs were not trained on RDT, lack of competence among ASHAs in preparation of quality blood slides
3	Inaccuracy in data recording and reporting
4	Delay in release of incentives to ASHAs
5	Lack of clarity in malaria specific responsibilities among staff (ANMs as supervisor to ASHA)

For the above shortlisted five most important problems/challenges, following are the suggestive actions which are further assessed on the basis of two criteria: feasibility (in terms of the efforts required in terms of complexity, resources needed like finance, human resources, infrastructure, equipment, consumables, etc and operational aspects), and priority. The feasibility grade of suggestive actions classified into three categories:

- Swift: Readily doable in terms of financial and field implementation and possible to execute in less than a year.
- Challenging: Doable but expected to require serious efforts and support from Stakeholders.
- Difficult: Perceived difficulty in approvals / funding, may require sustained advocacy for convincing the Key Stakeholders / Government and may require a long time to implement

Priority: After establishing the feasibility grades, the priority of each recommendation has been classified as Red (Top Priority), Yellow colour (Intermediate Priority) and Grey (Low Priority). Red (Top Priority) for those which are expected to be more effective in removing the bottlenecks even if they are Challenging. Use Yellow colour (Intermediate Priority) to depict those which should be taken up and are considered to improve the functioning although to a lesser extent than the grey ones. Grey (Low Priority) is marked for the group which considers lot of efforts but yield minimal results.

Suggestive Actions for identified problems

Problems	Suggestive Actions	Feasibility	Priority
1. Lack of attention on Malaria Elimination at local level	• Increase functionality of VHSNC, SHGs for active participation	Swift	Red
	• Sensitization of teachers and school children for malaria preventive activities	Swift	Yellow
2.Lack of RDT training and refresher training	• Continuous training on RDT and refresher training for Blood smear preparation for ASHAs	Swift	Red
	• Quality check of slides prepared by ASHAs	Swift	Yellow
	• Onsite mentoring by lab staff for skill building	Challenging	Red
3.Inaccuracy in data recording and reporting	• Continuous training on Recording and Reporting to all staff including frontline workers	Swift	Red
	• Regular monitoring of recording and reporting	Swift	Red
	• Monthly meeting focusing on progress of malaria elimination and decision making, planning etc.	Swift	Grey
4. Delay in release of incentives to ASHAs	• Transparency in online data entry and linkages with incentives	Challenging	Yellow
	• Supportive supervision in terms of field visits and mentoring to motivate ASHAs (conflict management)	Challenging	Red
5. Lack of clarity in malaria specific responsibilities	• Clarity in roles and responsibilities for ASHAs and ANMs for malaria related work in simple and easy language (integration of all work)	Swift	Yellow

among staff (ANMs as supervisor to ASHA)			
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From the analysis of the above table the prioritized actions readily doable and possible to execute in less than a year are; regular training and refresher training, stakeholder engagement, capacity building, regular monitoring and Supervision.

Enablers of Malaria Elimination Programs:

The five most important enablers for involvement of ASHAs in Malaria Elimination Program are identified as follows:

Shortlist of five most important Enablers	
1	ASHAs Mobilization for active surveillance
2	Incentivisation of ASHA in Malaria program
3	Availability of logistics to ASHA (Slides /Lancet) and microscopic examination
4	Trained and qualified Lab staff
5	Basic knowledge on prevention of Malaria among ASHAs

In the following table some suggestive actions are listed out to sustain these best practices which will help to Eliminate Malaria

Best Practices	Supporting actions required to sustain the best practices
• ASHAs Mobilization for active surveillance	Continuous training and refresher training for ASHAs with onsite mentoring for skill up-dation
• Incentivisation of ASHA in Malaria program	Verify the slides sent and incentive received on the basis of records and reports
	Encourage ASHAs to screen all fever cases in the community for getting better amount
• Availability of logistics to ASHA (Slides /Lancet) and microscopic examination	Co-ordinate with the store department
	Cross verifies the expenses and reports
	Maintain buffer stock at HWC/ Sub center
	Use latest updated version of microscope (rather old one)

• Trained and qualified Lab staff	Utilize the lab staff training competence for ASHAs for demonstration of preparing quality slides
• Basic knowledge on prevention of Malaria among ASHAs	Enhance knowledge by conducting meetings and sharing knowledge with other ASHAs

5. Final recommendations and conclusions

Involvement of ASHAs (Accredited Social Health Activists) in active case detection in the malaria elimination program helps for early case detection and treatment at e which will prevent death and disease transmission. For the active involvement ASHAs in achieving Malaria Elimination by 2030 some recommendations are made on the basis of capstone field visit. Firstly, Regular and refresher training for RDT and blood smear collection helps to enhance the knowledge, skill and competency of ASHAS and helps to improve the quality. Secondly, Improved functionality Village Health Sanitation and Nutrition Committee (VHSNC) and Self-Help Groups (SHGs) to improve their functionality will help to active involvement of local stakeholders. This will also support ASHAs to work in the community. Thirdly regular monitoring and supportive supervision through field visits and mentorship sessions motivates ASHAs for their active involvement and better work performance. Giving them advice, encouragement, and constructive comments may assist in alleviating their anxieties and promote active participation in malaria elimination efforts.

7. Annexes:

National Vector Borne Disease Control Program

PART I- Service Statistics

Health Facility Name: Govindgarh Community Health Centre

	2020	2021	2022	Remarks
I. Malaria				
A. Microscopy				
1. Total Blood Smear Examined for Malaria	2160	3693	4636	
1.1 Active Blood Smear collection (ASHAs)	975	1335	1685	
1.2 Passive smear collection	1185	2358	2951	
2.ABER (Annual Blood Examination Rate)	10.08	13.59	16.33	
1. Malaria (Microscopy -P Vivax Test +ve)	0	0	0	
2. Malaria (Microscopy -P Falciparum Test +ve)	0	0	0	
Annual Parasitic Incidence (API)	0	0	0	
Slide Positivity Rate (SPR)	0	0	0	
Slide Falciparum Rate (SFR)	0	0	0	
B. Malaria RDT				
RDT conducted for Malaria	146	202	19	
Malaria RDT Conducted P Vivax Test +ve)	3	16	2	
Malaria RDT Conducted P Falciparum Test +ve)	0	0	0	
Patients Treated on Outpatient Basis for Malaria	3	16	2	
Patients admitted with Malaria	0	0	0	
Deaths Due to Malaria	0	0	0	
II. Dengue	28	704	234	
RDT Test +ve	1	684	202	
Elisa Test +Ve	0	0	0	
Patients Treated for Dengue as outpatients	1	300	190	
Patients Admitted for Dengue	1	384	22	
Deaths due to Dengue	0	0	0	

PART II: Observation and assessment checklist

A	Laboratory	
1	Lab Technician Availability	Partial
2	Blood Microscopy for Malaria	Being done
3	Maximum Testing Load for Malaria (Per Day)	Approx. 20
4	Reporting of Blood Test for Malaria	
	Usual Time taken to give report	1 day
	i) OPD Samples	6 hours
	ii) Field Samples	12 hours
	a) Documentation (Check the register for few reported cases for time taken)	
	i) OPD Samples	Documented in register
	ii) Field Samples	Documented in register
5	RDT for Malaria (Antigen)	Bivalent (Pv & Pf)
6	RDT for Dengue (Antigen)	
7	Training of LTs in past five years	Yes, trained within 2 years
8	Resource Availability	
	a) Functional Microscope	Yes
	b) Reagents	Yes
	c) Glass Slides	Yes
	d) Lancets	Yes
	e) Hollow/Injection Needles used for Finger Prick	Yes

	f) RDTs for Malaria	Yes
	f) RDTs for Dengue	Yes
9	There is arrangement for segregation of BMW at the session site.	Yes
B	OPD and Service Provision Area	
1	IEC Related to NVDCP displayed in Facility	Yes
2	Display of treatment guidelines for Malaria	No
3	Provision for temperature measurement of Fever Cases	
	a) Thermometer	Yes
	b) Temperature being Measured	Yes
4	Recording and reporting of Fever Cases (Check registers/ask Providers)	
C	Drug Dispensing	
1	Drug Availability	
	a) Chloroquine Tablets	Yes (Available, no supply issues/stockouts in past) 500 tab till Apr 2022 200 used till Mar 2023
	b) Artesunate Combination Therapy	Yes (Available, no supply issues/stockouts in past) 2 kit available (6 boxes in 1 kit)
	c) Injection Artesunate	No
	d) Quinine Tablets	No

	e) Quinine Injection	Yes (Available, no supply issues/stockouts in past)
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Part III. B. Provider Interaction – ASHA / ANM

Demographics

Anita Danka (ASHA) Dhoblai Subcentre

1. Age: _34_Yrs

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

3. आपने NVBDCP/मलेरिया/चिकुनगुनिया/डेंगू इत्यादि के लिए चलाये जा रहे राष्ट्रीय कार्यक्रम में किस तरह का कार्य किया 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

5.आप गांव में लोगों में मच्छर जनित रोगों के प्रति जागरूकता बढ़ाने के लिए 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

6.RDT के बारे में आपको पता है? क्या आपको इसके इस्तेमाल की ट्रेनिंग मिली 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

7.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 don't 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

Field Visit: Summary of Activities

First Visit: Date: 24 march 2023

Visit area: Govindgarh CHC and Dhablai Sub Centre

- Objective:
 - Introduction to staff and program
 - Understand the mode of service delivery
 - Interview with MO

S.N	Time	Activities	Respondents	Remarks
1	10:10	• Reached CHC Govindgarh		
	10:00- 10:30	• Administrative work with the help of research officer Mr. Haidar • Introduction and meeting with senior medical officer and other lab staffs	MO	
	10:30 -11:30	• Visit different department of CHC	Lab Staffs	

	11:30-12:00	• Interaction with laboratory staffs • Service statistics collection • Study of register for malaria and dengue recording and reporting		
There was visit from upper authorities in the CHC so the staffs could not give time to us. SO interview with MO and observation checklist could not be done. The MO suggested to visit Sub-center Daulai.				
	12:00-12:15	Travel to Daulai sub-center	CHO: Naaz Parween	
	12:15-12:30	Observation of MCHN Day	CHO, ANM, ASHA	
	12:30-1:00	Interview with ASHA	ASHA: ANITA DANKA	
	1:00-1:30	Interview with ANM	ANM SANJU CHAUDHARY	
	1:30-2:00	Rest and refreshment		
	2:00 onward	Travel to university		

Outcome:

- Introduction to staff and program
- Understand the mode of service delivery
- Visit to basic health center of India that is subcenter: Dhoblai SC
- Interview with 2 ASHAs
- Interview with ANMs
- Interview with MO could not be done due to some supervision from upper authority

Field Visit Summary:

Second Visit

Date: 29 March 2023

Visit area: Govindagad CHC

S.N	Time	Activities	Respondents	Remarks
1	10:30	• Reached CHC Govindagargh		
2	10:30- 10:30	• MO could not be met due to “health right strike”	MO	
3	10:30 -11:30	• Interview with lab staffs Lab Incharge	Lab Staffs	
4	11:30-12:00	• Filled observation checklist	Laboratory OPD Pharmacy Drug Store	Verification with e-aushadi

Field Visit Summary:

Third Visit

Date: 31st March 2023

Visit area: Govindagad CHC and community

- Objective:
 - Interview with MO
 - Interview with patient

S.N	Time	Activities	Respondents	Remarks
1	10:10	• Reached CHC Govindgargh		
	10:00- 11:30	• Interaction and interview of Senior Medical Officer	Dr.Manvendra Singh Solanki	MO was over occupied with patient so we we interviewing in breaks
	11:30 - 1:30	• Visit to community searching for old patient of Dengue • Interview of Patient	Patient	Helped by ASHA

	1:30-2:00	Returned to university		
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Outcome:

- Interview with senior medical officer
- Interview with patient

Field Visit Summary:

Fourth Visit

Date: 20 May 2023

Visit area: Govindagarh CHC

- Objective:
 - Interview and doubt clear with MO
 - Interview with lab staffs
 - Collection and doubt clear about service statistics

S.N	Time	Activities	Respondents	Remarks
1	10:10	Reached CHC Govindgarh		
	10:00-11:30	Interview with SMO	Dr. Manvendra Singh Solanki	MO was over occupied with patient so we we interviewing in breaks
	11:30 - 1:30	- Interaction with lab staffs - Service statistics collection	Lab staffs	
	1:30-2:00	Returned to university		

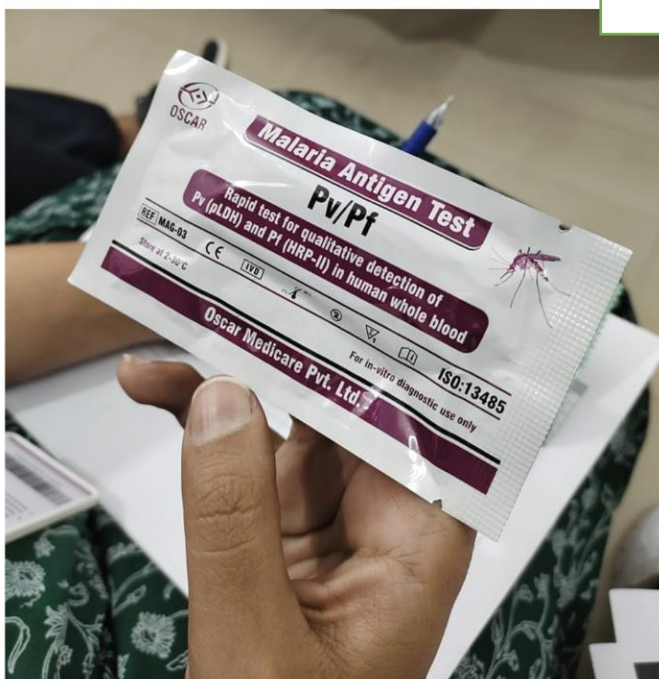
Outcome:

- Interview with sernior medical officer
- Interview with patient

Picture Gallery



DAY 1



8. References:

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