

Exploring Barriers and Facilitators in Implementation Fidelity of Malaria Screening Intervention at Nepal-India Border Point of Entry Health Desks

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Background and objective

- Global estimation in 2020- 241 million malaria cases
627,000 deaths
- SEARO contribution 2% to global malaria cases
- Nepal aims for Malaria Free by 2025
- Nepal shares porous border with India and imported malaria cases are not decreasing in the same rate as indigenous cases
- Malaria elimination strategy stresses on year-round border screening
- 13 point of entry (POE) health desks in Nepal-India border
- Need for intensification of case finding

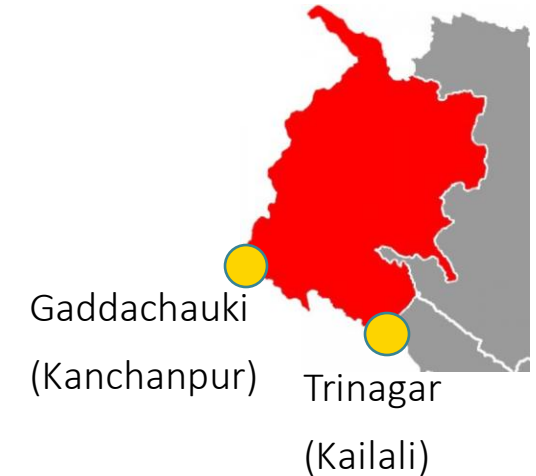
Objective

To assess the malaria screening intervention as per the available protocol, including barriers and facilitators in point of entry health desk at Nepal-India border located in Sudurpashchim and Lumbini Provinces.

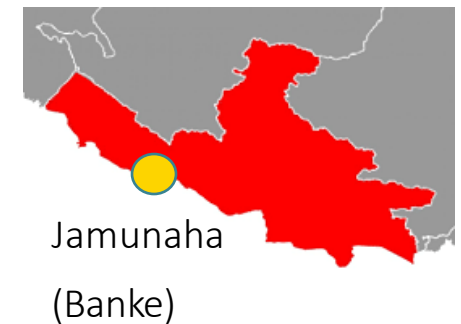
Methods

- An Implementation Research, Concurrent Mixed Method
- 3 POE across 2 provinces
- Ethical approval
- Malaria cases and testing trends- Secondary data
- Non-participatory observation
- 19 KIIs with different stakeholders from POE, municipal, province and federal health officials including partner organization
- 15 client interviews with suspected and confirmed migrant populations at specific border posts
- Descriptive and trend analysis was done from secondary quantitative data.
- Thematic analysis was done for qualitative data

Sudurpashchim Province

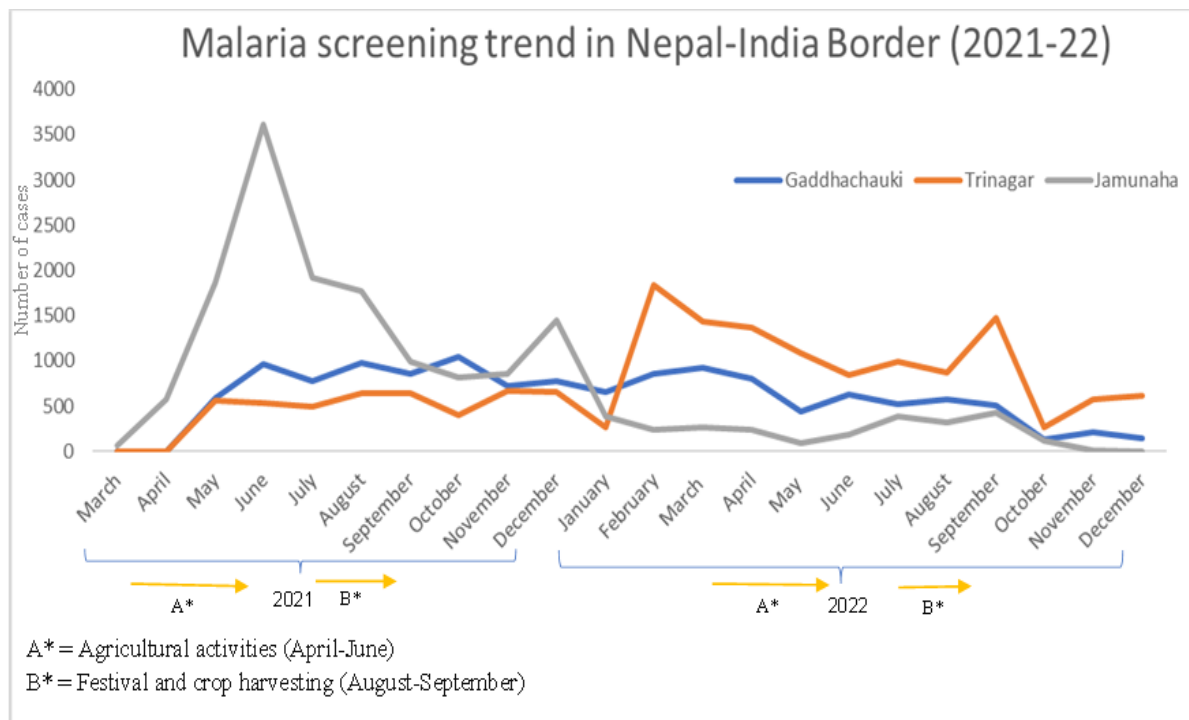


Lumbini Province



Results

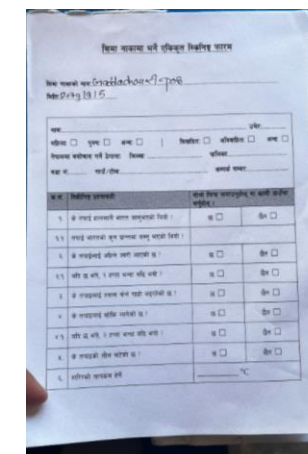
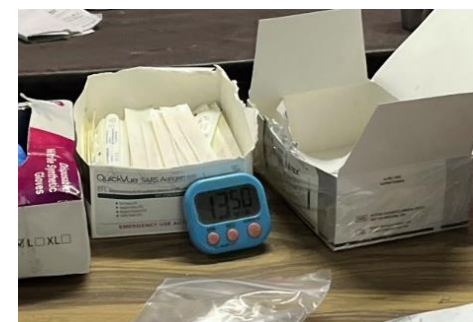
Malaria screening trend in 3 selected borders



Source: Aggregated data from the google sheet from selected border posts (Gaddhachauki, Trinagar, Jamunaha)

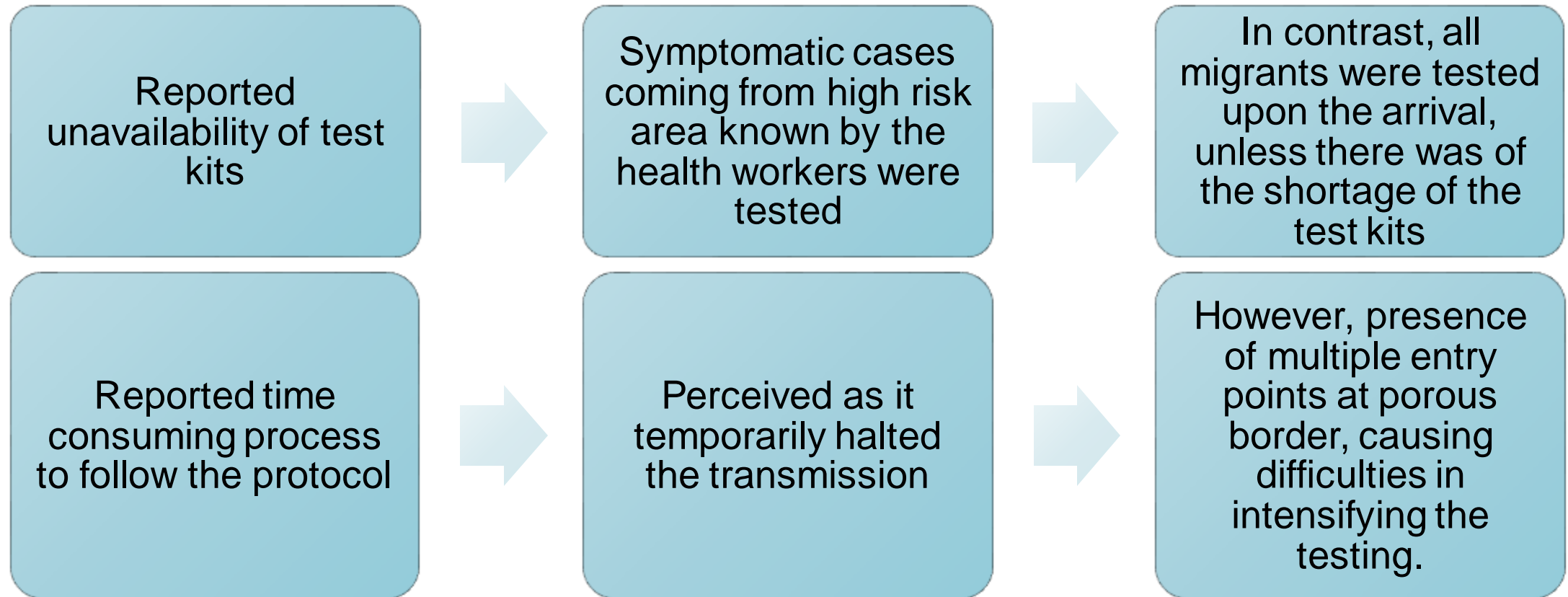
Total testing
 POE Gaddhachauki = 13117
 POE Trinagar = 23449
 POE Jamunaha = 16598

- Fluctuating malaria screening trend
- 10 cases were identified between Mar 2021-Dec 2022.
- Discontinuation of screening
- Inconsistencies in
 - Availability of malaria testing protocol
 - fulfilling the health declaration form
 - Providing information before testing
 - finger prick
 - Waiting time for results



Theme 1: Factors affecting the Adherence to the protocol

Theme 1: Adherence



QUOTES

“The suspect did not meet today's criteria. Those people who have **obvious signs and symptoms**, Also, the kits are less available... we are also not able to follow the protocol as standard as there would always be rush, we have to take care of many migrant population...” (Health worker, POE, KII)

“...there is a high burden of malaria cases in province due to the open border. However, **not all points of entry have been approached**, and testing are intensified based on the perceived risk.” (Province focal person, Lumbini, KII, p.#12)

Theme 2: Structural and Service Factors

Sub theme: Availability of the health workers at POE

Missed opportunities for testing during evening hours

Communication barriers

Challenges in dealing with dynamic migrant population, including exposures to the health risk

untimely provision of staff allowances

“For both morning and evening shift, the health assistant and lab assistant must be there to ensure effective testing because of one stay on leave; it would be difficult to manage the flow of migrants.”
(Health worker, POE, KII)

“...staffing is not fulfilled. As proposed that there would be an allocation of medical officers, but it is not present; instead, Auxiliary Nurse Midwife (ANM) is the head of the team and employees of different sectors are being employed there, creating inconvenience in internal collaboration.” (Health office, Kanchanpur, KII)

Sub theme: Physical Infrastructures and Attributes of the screening area

- Equipped health desks
- Temporary structures
- Permanent structures
- Far from road network or marketplace
- And exit area close to the proximity of the temple



Gaddhachauki POE



Trinagar POE (Temporary)



Trinagar POE (Permanent)



WASH station



Jamunaha POE (Permanent)

QUOTE

“Yes, also as our **space is temporary** and it will be congested, and it would be difficult to manage and at other times there would be **rainfall** as well. We had pamphlets for malaria, but the **monkeys** would snatch and tear them. They would tear the tents, there would be **theft of logistics and damage in lights and display board.**”

Sub theme: Limited awareness activities



Availability of Posters and LCD monitor mostly focused on COVID-19 and other diseases

few pamphlets related to malaria.



“They would know only after they come here. They get information from police officials that they can leave only if they get tested otherwise, they will know only after they would come.” (Health worker, KII)

QUOTE

Theme 3: Migrant population Responsiveness



- **Variation in behavior and awareness** among migrants regarding the need for screening.
- Fear of losing belongings and security concerns
- Reported time consuming screening process

QUOTES

“No one checks anything there. No one gets checked, only stuff get checked not the human body only stuffs like if there is a weapon or anything that gets checked not people”
(Migrants, client interview)

“I knew it. There were brothers who had told to get tested. They had told that we cannot say no.” (Migrants, client interview)

“...the migrants will arrive here with their belongings. They would go to the bus park by auto. The drivers will cross the border to India side and carry their stuff which it has been difficult for us. They would say they would keep their stuff and divert and elope.” (Health worker, POE)

Sub theme: counseling

Theme 4:Contextual factors

Inadequate counseling to the migrants

“They did not share anything. They just told me to go through this way. I also did not ask them.” (migrant population)

Sub theme: Monitoring and Evaluation

Orientation on malaria testing based on government guidelines in the regular meetings

Training needs

Close coordination and engagement between province and local level

Migrants get irritated to wait even for their results

QUOTES

“We don’t visit PoE frequently. We haven’t been able to perform as per the schedule, but we have online chat group to know their update...” (provincial health directorate, KII)

“I joined PoE in June 2022, it has been 6 months already, and I have not received any. It would be okay, if I had received as I got hired here about how we do data entry. Until now we have learnt by seeing others doing their duty.” (Health worker, Jamunaha, KII)

Sub theme: Political commitment and administrative barriers

Administrative hurdles, power dynamics and influence of police officials and health workers

Concerns regarding adequacy of budget allocation for malaria program

Disease priority influenced by administrative planning.

“We must stay as a guard to convince them to go inside the health desk, if they do not listen then there will be a fight in the crowd, we must shout, and we would not be able to convince them. The security personnel have dress and power. We, the health workers cannot speak loudly” (Health worker, Jamunaha, KII)

“The budget from provincial health directorate is inadequate to frequently orient the organization working at border and security personnel.” (Provincial health directorate, Banke, KII)

Sub theme: Adaptation in the integrated screening system

Opportunities provided by COVID-19 for testing malaria

Decreased cooperation due to decrease in COVID-19 cases and perception of lower transmission risk.

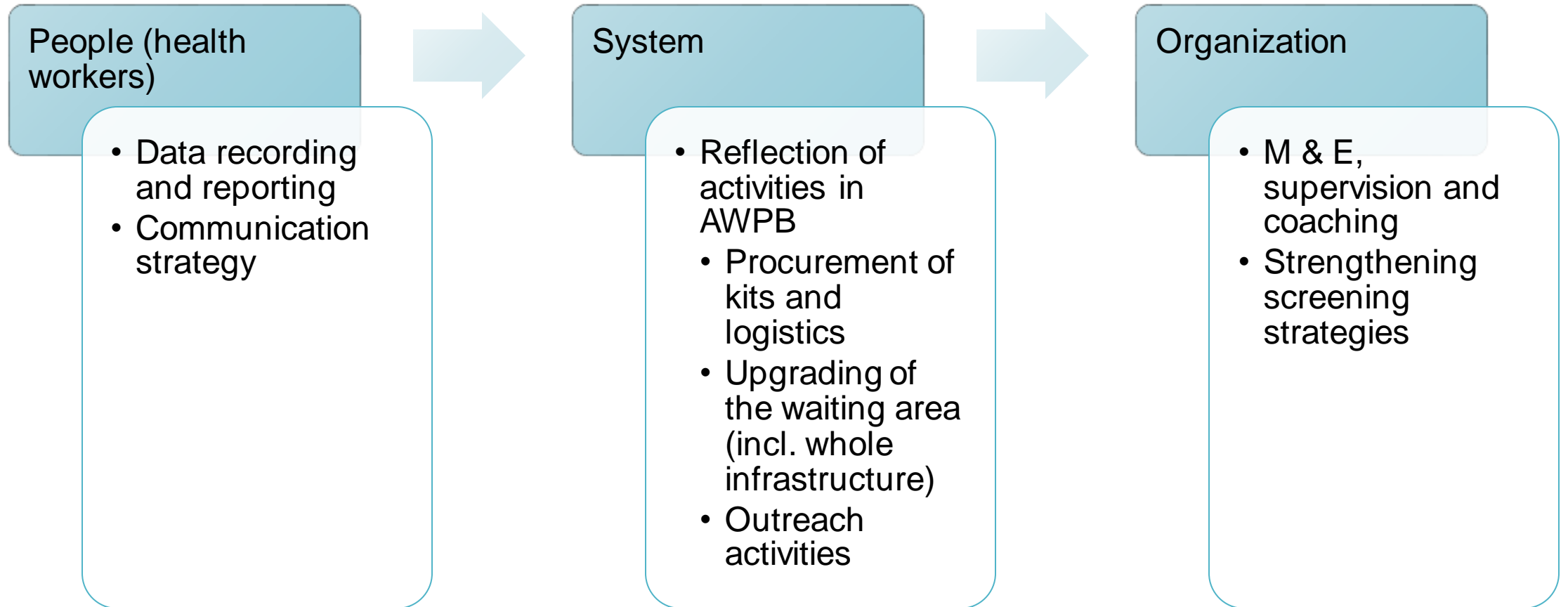
Nature of malaria and raised concerns over reliability and sensitivity of RDT

“We may not be attain the European standard, however, because of presence of COVID-19 it provided us opportunities to conduct testing for malaria and we could target other infectious diseases.” (DHO, Banke, KII)

Conclusion

- Despite the progress in reducing imported cases and halting malaria transmission at the point of entry health desks
- challenges remain in ensuring consistent and high-quality implementation of malaria screening strategies
- Role of cross cutting/non-health sectors in health
- Importance of local government in federal context
- Addressing barriers and leveraging the facilitators

Take away message



THANK YOU

About Me

Aney Rijal (She/her) is a dedicated public health professional, holding Master's in public health with a specialization in Implementation Research.

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