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Malaria Update

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Workshop on Engaging Provincial Authorities

Epidemiology & Disease Control Division (EDCD) organized a 2-day workshop with the support of Save the Children/Global Fund for engaging provincial authorities to help the country achieve malaria elimination. The objective of the program was to share the status of malaria in the country and share challenges/opportunity in new federal structure for malaria elimination.

The chief guest for the program was Mr. Mahendra Pd. Shrestha from Ministry of Health & Population (MoHP). Similarly, there was presence of Directors from Health Directorate at Province 3, Gandaki Province and Sudurpaschim Province. The workshop was successfully conducted with active participation from delegates representing Provincial Ministry of Social Development (MoSD), WHO, JHPIEGO, Save the Children International, Vector Borne Disease Research & Training Center (VBDRTC) and Sukraraj Tropical & Infectious Disease Hospital.



Dr. Bibek Kumar Lal, Director of EDCC addressing the program (inset at top left) and group picture of the participants.

In the program, Dr. Bibek Kumar Lal, Director of EDCC, proposed and presented the concept and need to form a Nepal National Malaria Elimination Steering Committee (NNMESC). During his presentation, he also highlighted the objectives, roles & responsibilities, members for the NNMESC. He further elaborated and discussed the need to form a similar steering committee at the Provincial level with a link to the NNMESC from all 7 provinces. The program also had presentations from EDCC and WHO on Malaria Current status, Malaria Global Updates and WHO Framework for Malaria Elimination.

A group work was also organized during the event where detailed discussion took place on the topics such as strategic information on micro-planning, testing, treating, tracking, prevention, surveillance and enabling environment. The program helped identify the priority areas for EDCC to focus on, ensuring reporting from the private as well as public sector through the HMIS/DHIS2, forming a NNMESC in Provincial and Central level, strengthening QA/QC system across provinces, strengthening surveillance system & case notification, cascading malaria information down to the local level, preparing a special plan for upper river valley areas where malaria exists, initiating active case detection in focus area and conducting vector bionomics study among the main areas.



Chief Guest Mr. Mahendra Pd. Shrestha from MoHP during opening remarks (left) and Dr. Sean Hewitt, WHO consultant sharing his findings of malaria surveillance assessment.

ToT on Severe Malaria Management



ToT on management of Severe Malaria at Province 2.

Training of Trainers (ToT) on management on severe malaria for physicians was successfully conducted in all 7 provinces. The training was organized by EDCD with supported by Save the Children/Global Fund.

The training was organized to make the physicians working in tertiary care centers and hospitals across high and moderate risk areas, on the management of severe malaria as per National Malaria Treatment Protocol (NMTP). The platform was also utilized to orient medical officers on the current national malaria elimination program and case notification using the existing Malaria Disease Information System (MDIS). All together 164 participants were trained within the period between June to October 2018.

Microscopy Training to Private HFs

Epidemiology & Disease Control Division (EDCD) with technical support from VBDRTC and Save the Children/Global Fund, and financial support from JHPIEGO organized a 2-day workshop on malaria microscopy training for private sector health facilities at Chitwan district. The workshop was conducted in 3-batch from 17th to 22nd December where altogether 56 lab personnel from more than 25 private hospitals across Chitwan participated.

The aim of the program was to enhance the knowledge & skill of the lab technicians/assistants working at private health facilities for malaria diagnosis and report the MP testing done to help the program reach the set ABER targets and head into elimination. The participants received basic but very useful practical skills on malaria microscopy and use of RDTs in diagnosis of malaria. The private health facilities were given orientation on MDIS and also on the recording and reporting system. On a long run this initiative would hopefully bridge the lack of coordination and communication and improve the recording and reporting system across all private facilities.

Insecticide Susceptibility Test

During this period, entomological team from EDCD and regions conducted a preliminary study on insecticide susceptibility test in Banke, Bardiya and Surkhet. For this study, active focus areas such as; Daspurwa village of Duduwa Rural Municipality, ward no. 2 at Banke, Balati village of Thakurbaba Urban Municipality, ward no. 2 at Bardiya, and Salkot village of Panchpuri Urban Municipality, ward no. 3 and Guttu village of Chaukune Rural Municipality, ward no. 7 in Surkhet were selected to collect the mosquito for conducting insecticide susceptibility test following the WHO guideline.

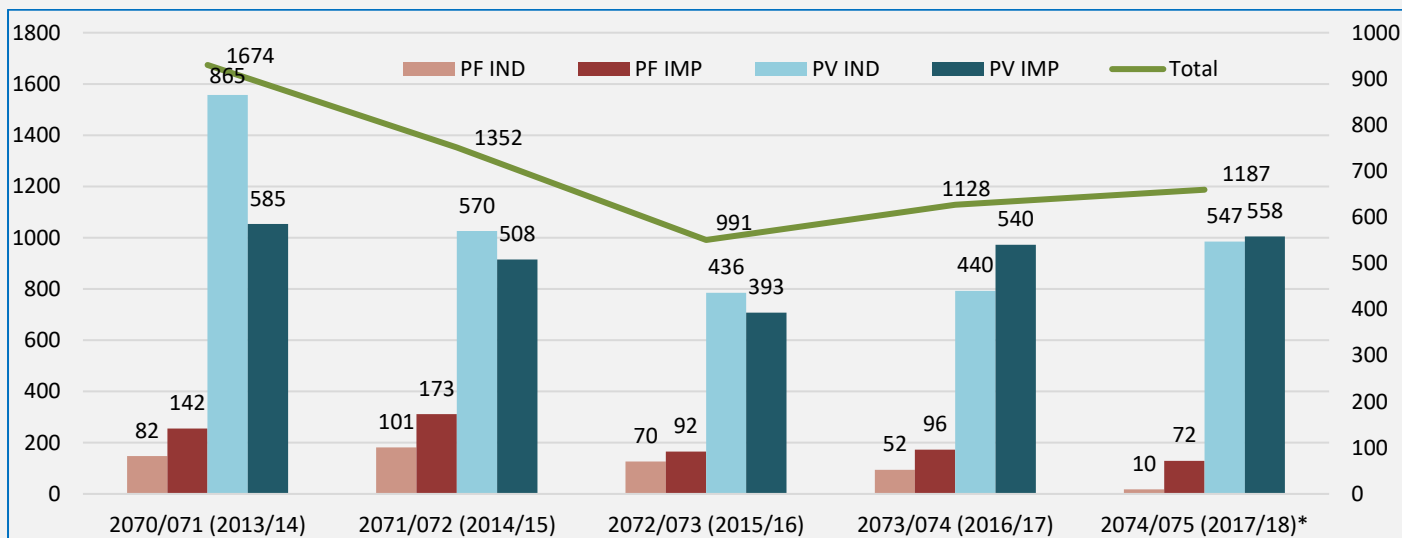
The field team identified that *An. annularis* was the predominant vector in the selected study sites of Banke and *An. fluviatilis* was found predominantly in the sites across Bardiya & Surkhet. The susceptibility test was performed in both the vectors with all three insecticides i.e. Deltamethrin, Alphacypermethrin and Lambda cyhalothrin. The insecticides from the Pyrethroids groups were chosen for the study as the national program uses these insecticides for the regular vector control program through IRS. Furthermore, *An. Pseudowillmori*, the second predominant vector in Bardiya, was also tested against Deltamethrin and Alphacypermethrin.

The preliminary study results indicated that mortality for *An. annularis* were less than 98% by all insecticides (Pyrethroids) tested. This raises the concern on possible development of resistance in *An. annularis* to the insecticides being used in Nepal. Therefore, the study recommended to test *An. annularis* against insecticides currently in use across different geo-ecological areas of Nepal.

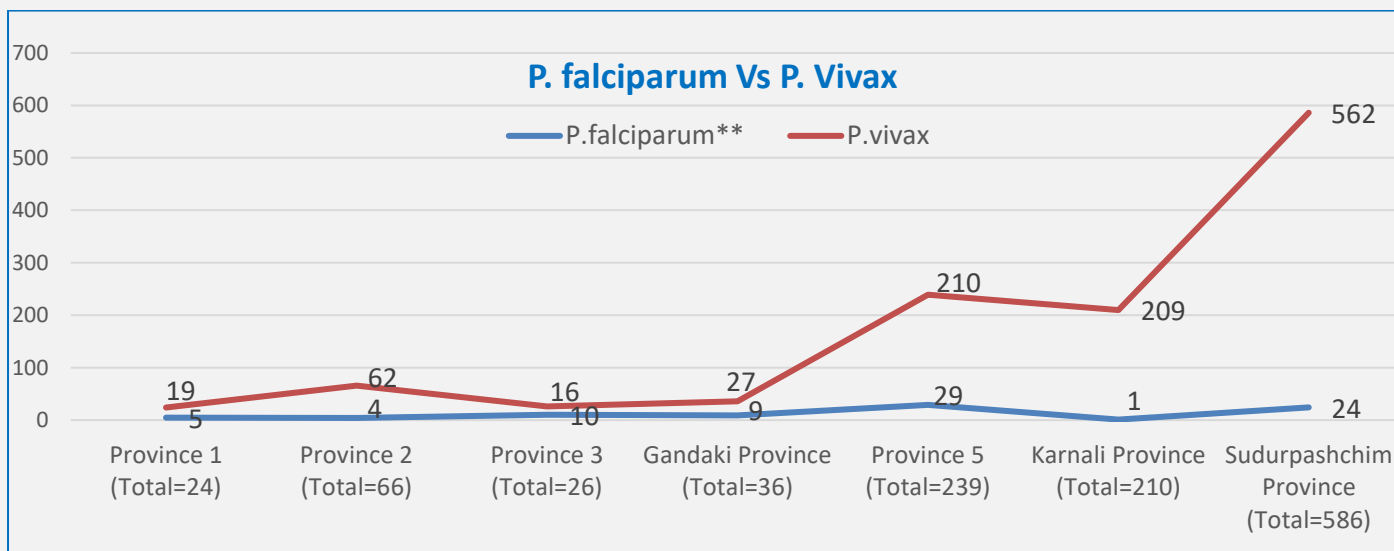
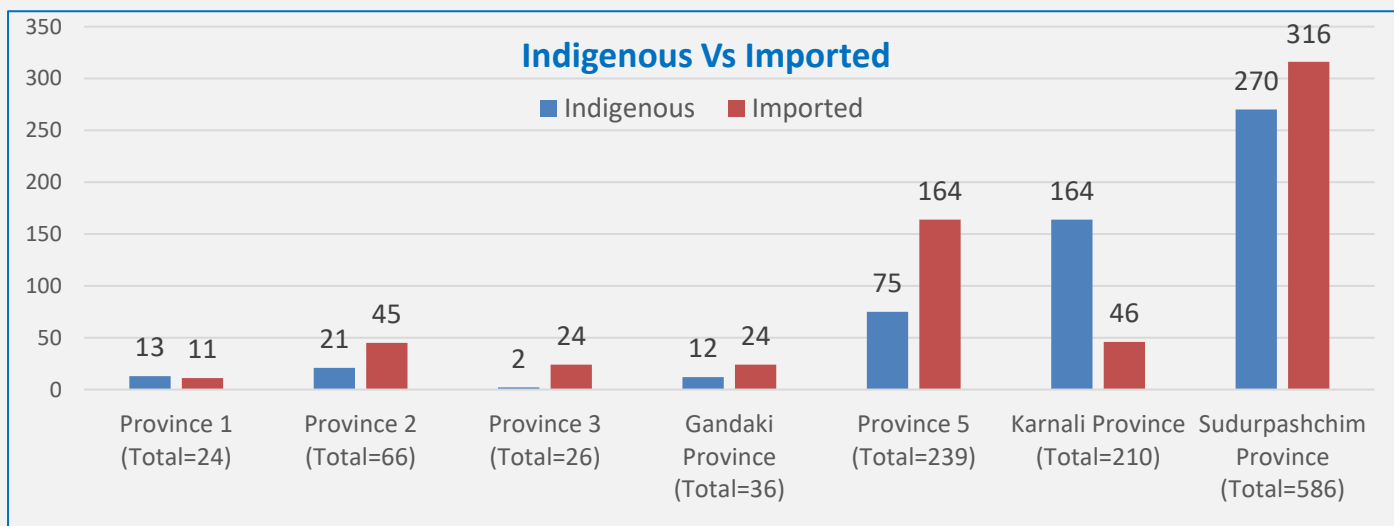
On the other hand, mortalities of *An. fluviatilis* were 99.2 to 100 % by all the insecticides tested. Similarly, mortality of *An. pseudowillmori* had been found to be 100% by both insecticides tested in this test series. This indicates that these vectors are still susceptible to the insecticides currently being used in Nepal.



Confirmed malaria case trend by species and origin

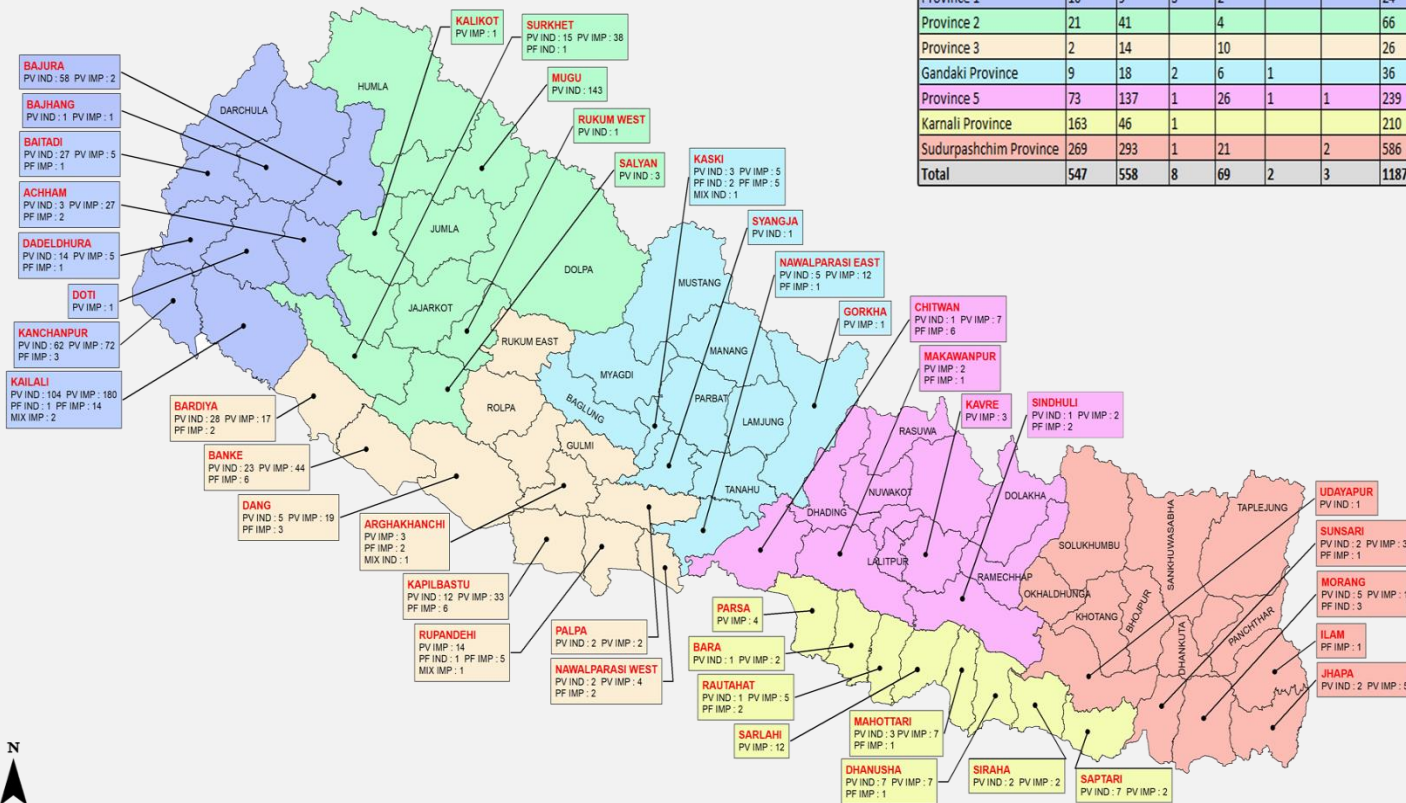


Malaria case distribution by province for fiscal year 2074/075 (2017/18)



Data Source: DoHS Annual Reports/HMIS, *Report to be published; **P.falciparum + mixed infection

Map of malaria case distribution in fiscal year 2074/075 (2017/18)



(Data Source: HMIS)

Glimpse of Program Activities



Malaria slides verification at DHO Lab in Rautahat district.



Patient follow-up for primaquine adherence status at Sahidnagar-7 in Dhanusa district.



Verifying HMIS 9.3 data vs DHIS-2 data of health facilities from Sarlahi district.

