

# Malaria Epidemic Detection Initiative in Oromia, Ethiopia

*A partnership between Addis Continental Institute of Public Health , Tulane University, the Oromia Regional Health Bureau, MEASURE Evaluation & the United States Agency for International Development*

## LOGOs

### Progress on Malaria Epidemic Detection Site: Data collection ongoing

All Malaria epidemic detection sites started data collection in April 2010; data collection tools were produced and distributed after the training of health facility staff at each of the ten sites. The registration forms for OPDs (adult and under five) and lab registries are each prepared in triplicate carbon copies. The original copy of the registry form is being collected and transferred to ACIPH database; while the other two copies remain in the health system for local use by health centers and woreda/zonal offices. The data collection tool contains data-points that are used to analyze relevant indicators of malaria epidemiology. The major indicators to be computed from the data



Review meeting at Asendabo, August 7/2010

are percent of patients with suspected malaria, percent of patients with suspected malaria sent for laboratory confirmation, percent of patients testing positive for malaria, and test positivity rates; these indicators are also computed for major age categories (<5 years & 5 years and above). Apart from the routine data recording and collection at OPDs and laboratory departments, all tested slides are stored at each health facility and samples are collected randomly

for further quality control activities during every supervision visits.

An additional important aspect of the surveillance activities, **Lab quality control** was started and consists of cross-checking samples of slides collected from each health facility by the quality control personnel at ACIPH. Results of the quality assessment will be disclosed to epidemic detection sites during supervision visits. Additionally, the results of the

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quality assessment will be communicated to relevant stakeholders and be used to propose appropriate additional quality assurance activities at health facilities.

**Supportive supervision** is being conducted bi-weekly for primary sites and monthly for secondary sites by the ACIPH malaria epidemic detection team. During the supervision visit, copies of the completed data collection

sheets are collected and discussions held to improve the recording and reporting processes. A supervisory checklist is used to assess the outpatient department (OPD), the laboratory, and the medical stores of the health center. Following each supervisory visit, the team discusses the performance of the sites in order to provide appropriate and consistent feedback to the sites. The supervision has greatly helped to improve the quality of data over time.

### First quarterly review meeting held at the primary sites

The first quarterly review meeting was conducted in five primary sites. About 95 people participated including representatives of Zonal Health/Woreda Health offices and all health workers from each site. The purposes of this review meeting was to share information for stakeholders on activities carried out, the preliminary results (April to June 2010) from the sites; provide in-service training to improve the data recording and collection process, and provide feedback on achievements, challenges, actions taken and the way forward.

During the review meeting, discussion points were first raised by the malaria team from ACIPH. These included, continuous stock out reports across the sites, incompleteness and inaccuracy of recorded data, and

perceived workload by the HC staff and its effect on the quality of data recording.

The health facility staff and the woreda/zonal representatives in all sites agreed on the need for continuous stock out reporting and existing problems with data quality. They also discussed causes of the above mentioned problems and promised to take action on these items. Regarding perceived workload at epidemic detection sites, the malaria team evaluated the workload based on the number of total patients registered at OPDs and found that generally workload fell below Business Process Reorganization standards. The team proposed that improving

data quality as well as reducing under reporting in the future might give a truer picture of the workload in each sites, and provide an opportunity to advocate for expanded human resources at sites.

Conducting this meeting in the presence of decision makers and health professionals from the HCs, who were directly involved in data collection, provide evidence-based information on the malaria trend in their respective health centers, and created an opportunity to understand major challenges.

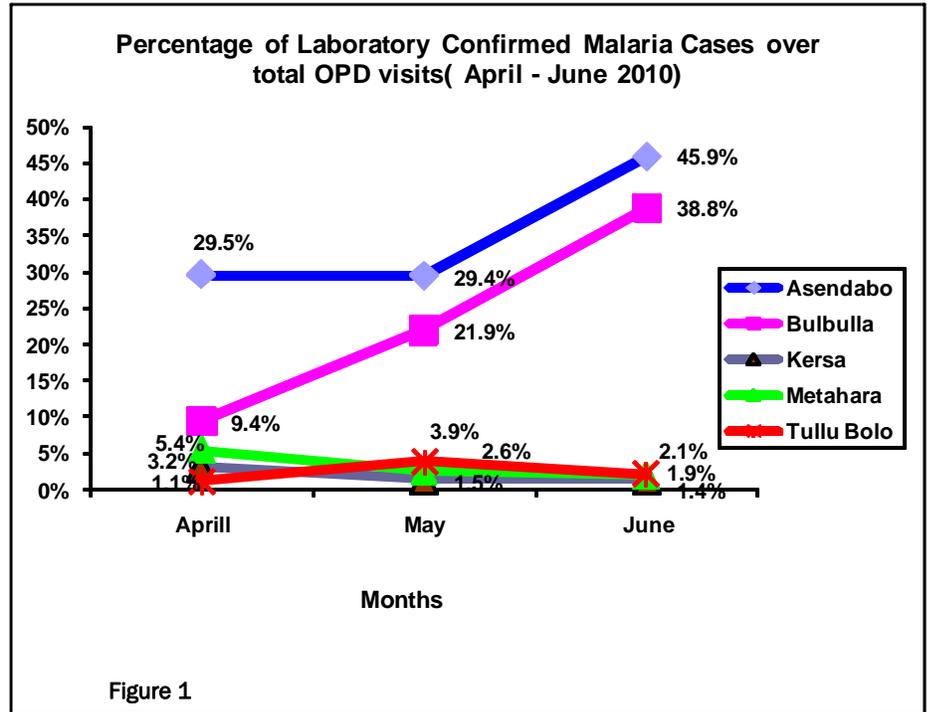
### Selected Results from Primary Sites (April to June 2010)

Suspected malaria cases comprised 58% of the patient population in Asendabo, and 50% in Bulbulla; whereas for the rest of three sites, this indicator ranged from 10 to 20% .

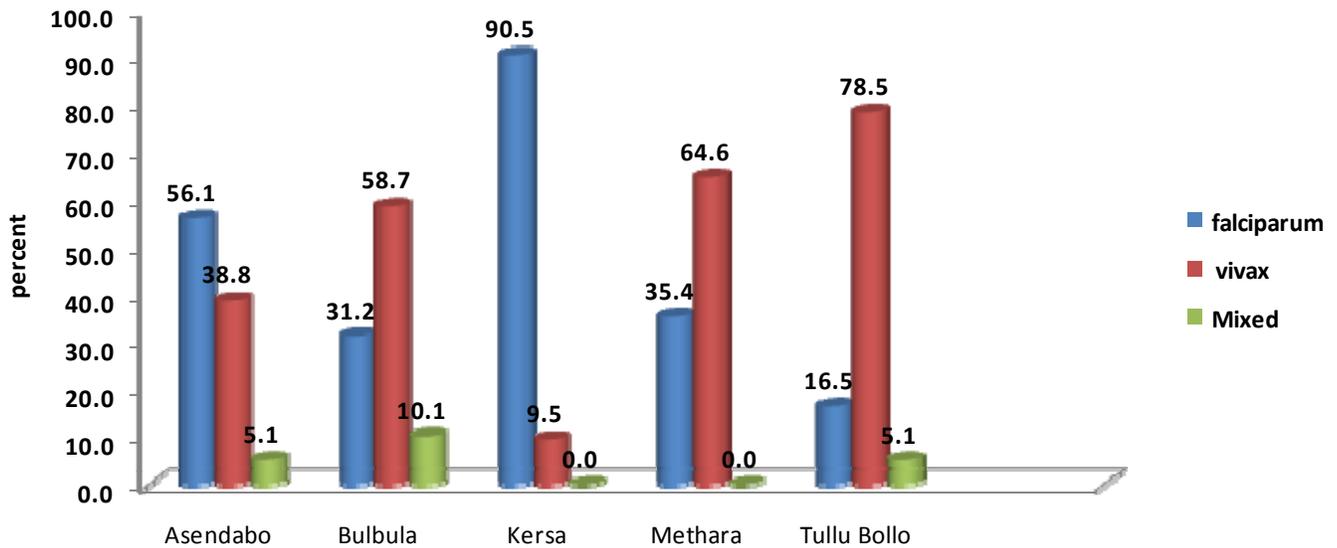
The burden of malaria at the epidemic detection sites (Total laboratory confirmed cases out of the entire outpatient population) increased dramatically from April to June in both Asendabo and Bulbulla while others remained nearly constant with low numbers of confirmed cases (Fig 1).

Test positivity rates (TPR) at the epidemic detection sites, remained largely constant or decreased over the period, in Bulbulla, however, an increasing trend was observed. Moreover, the positivity rate for the month of June was 52.4% which is the highest TPR observed at this site during the project and is additionally higher than in the previous year. *P.vivax* remains the predominant species in that location.

In Asendabo, the test-positivity rate decreased significantly over the last three months (from 69% to 32%). However, this rate remains higher than all sites except Bulbulla. The predominant species over this period was *P. falciparum*. In Kersa, the dominant species was *P. falciparum* (90%), however, case numbers remained low, In Metehara and Tulu Bolo *P.vivax* was predominant, comprising 65 and 78% of the actual



## Species distribution of Confirmed Cases (April-June 2010)



cases respectively. (Fig 2 and Fig 3). Three of the primary sites, Bulbulla, Asendabo, and Metahara share significant burdens of both major species. Highlighting the need for high quality microscopic or Rapid Diagnostic Test based species identification in each site.

The increasing trend in malaria burden in Bulbulla and Asendabo is likely related to annual increases during the rainy season, however, determining if such a trend represents a true epidemic requires high quality historical data. Which is currently being collected by ACIPH supervisors.

### Training for lab technicians

Training in quality assured malaria microscopy was conducted for lab technicians at all participating health facilities in collaboration with by ICAP and ACIPH at Adama on August 2-5/2010.

This process is meant to ensure that lab technicians at each site have the necessary tools and skill set to perform their role in epidemic detection to high quality standards. Further, it will ensure that data coming from laboratories at each site meets high standards and is not compromised by poor microscopy.

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Addis Continental Institute of Public Health Supervisor conducts a supervisory visit at Welenchiti Health Center. Supervisory visits provide opportunity for Health Center Staff to Communicate problems, with data collection and reporting as well as more general issues within the health center. Additionally Supervisors aid in discussing the results of data collection and provide supportive services such as assistance in remediating stock outs of anti-malarial drugs.