The second quarterly review meetings of the malaria epidemic detection project were conducted in the primary sites (Kersa, Metehara, Bulbula, Tulubolo and Asendabo) on February 2011. A total of 88 Health professionals in the respective health centers and official from the wereda and zonal health authorities have attended the meeting. The objectives of this review meeting were to update stake holders on activities carried out in their respective quarters, feedback on the quality of data recording and reporting, and show the status of malaria in their respective sites in terms of malaria cases and finally discuss the gaps in the process and forward possible solutions.

Issues raised during the discussion sessions were, incompleteness of registrations for some important variables; (in some sites such as Asendabo OPD recording was totally stopped), the issue of lab quality, and stock out of Anti-malaria drugs from the supervisors side. The participants have also raised issues such as multiple recording formats other than the malaria epidemic detection surveillance which creates work load, and incentive. The participants have appreciated the effect of incomplete data for interpretation; they attributed the problem to the multiple registrations they had to complete and; suggested to look for a
mechanism to avoid multiple registrations. In addition, the participants demanded incentives which may motivate them to continue. Regarding lab quality, they agreed to improve and the new microscope delivered to kersa health center for the same purpose. Anti malaria drug stock out reported from the health centers main store and health posts as well, this problem should be solved with the involvement of all stakeholders. Extending malaria surveillance for epidemic detection to health posts is a crucial next step in improving malaria epidemic detection and surveillance.

Pilot Study on Malaria and Travel in Bulbulla Health Center

Bulbulla Health Center will host a pilot study to explore the capture of travel histories using OPD based registry. Graduate students from Tulane University and the Addis Continental Institute of Public Health will be based at Bulbulla Health Center during the study and will conduct interviews with patients which cover travel history and social and demographic information for patients who have been tested for malaria. The study will help to answer several questions including whether travel history is associated with P. falciparum and P. vivax malaria infection, and which villages in the area might be hotspots for malaria transmission? The main purpose of the study is to explore whether the incorporation of inquiries about travel history into routine patient history taking could improve the sensitivity and accuracy of routine malaria surveillance and improve epidemic detection. If the pilot study is successful the Epidemic Detection project will use the lessons learned to pilot travel tracking in appropriate locations, and the methods used in the pilot study to identify hotspots of transmission in other facilities. Cameron Taylor, the Tulane University Student who will be based in Bulbulla has experience working in Malawi collecting geographic data for malaria and has worked with the Epidemic Detection project collecting and compiling geographic data to help produce health center and health post maps.

She will travel to Ethiopia in mid-May and remain there during the course of the study. She will also assist the Epidemic Detection Project in various activities including the preparation of datasets for the dissemination and analysis based on location.

The study will involve recruiting patients from the health center after they have had a malaria test performed by the laboratory technician or technologist. Consenting Patients with a malaria laboratory diagnosis (confirmed malaria) for either Plasmodium falciparum or Plasmodium vivax or a confirmed negative diagnosis for malaria will then be asked as series of questions regarding their household and their history of travel outside of their village of residence.

The villages involved in the patients residence and travel his-
Selected results from the sentinel sites

Figure 1: Trends in confirmed malaria cases since April, 2010.

After the peak malaria season the trend has shown reduction and remained low till March except for Guangua HC which had a rise in the number of cases after February, 2011. The rise in Guangua in March was large enough to be indicative of a possible epidemic, currently ACIPH and the Woreda health department are investigating.

Figure 2: Proportion of infections caused by P. falciparum vs. P. vivax since April, 2010

Kersa reports the highest proportion of cases due to P. falciparum consistently. With the exception of Kersa, Metehara, Guangua and Welenchiti, most sites have seen reduction in the proportion of P.f. cases in the last quarter.

Health Post data cover only a three month period.
Figure 3: Distribution of malaria confirmed cases by species type, for the primary sites, since April, 2010

The species distribution shows that *P. vivax* was the dominant species in the primary sites over the past year. Typically the species distribution nationwide is said to be (*P.v* = 40% & *P.f* = 60%).

Sentinel sites may not be perfectly representative of the national burden of disease as they are not randomly selected, however, they may be representative of trends over time. Interestingly the change in species distribution over time in the sites may be reflective of both seasonality of transmission which likely has a larger effect on *P. falciparum* incidence than on *P. vivax* incidence due to the potential of *vivax* cases to suffer relapsing malaria symptoms without new infections.

For Further Information, please contact either ACIPH or Tulane University

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