

# Annual Summary Report of Malaria Surveillance Initiative in Ethiopia

## Introduction

Malaria epidemic detection surveillance initiative was commenced by a joint venture of Presidents Malaria Initiative (PMI), Tulane University (TU), Addis Continental Institute of Public Health (ACIPH), and Oromia Regional Health Bureau (ORHB). The surveillance was instated with the aim of providing high quality data on clinical malaria incidence, conduct data quality assurance and contribute for better use of surveillance data in the malaria control and prevention with peculiar emphasis to epidemic detection and containment.

The project was started on January, 2010 and actual data collection has been implemented since April, 2010. Currently 10 health centers and 25 health posts in Oromia region are included in the surveillance program. This is therefore the annual summary (report) of the project.

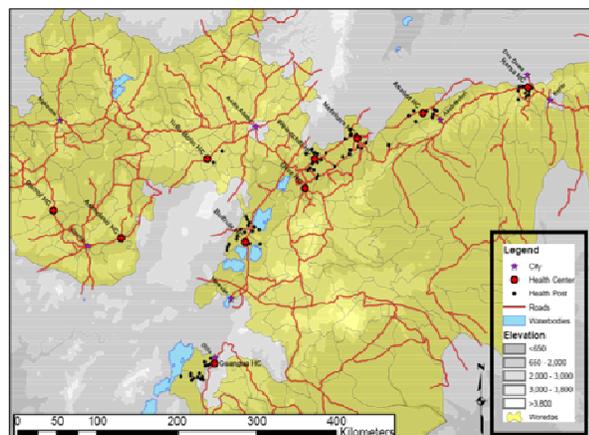
## Activities performed

Lots of activities have been implemented in the past one year to bring the project to this level. Summary of the major activities are discussed below.

**Office arrangement:** Project office has been well set where officers have been recruited with their responsibilities identified. Currently the project's office is located in Addis Ababa, at Gabon Street, Y&H building. It has a total of six rooms including mini conference room. The office is equipped with computers, printers, telephone, fax and broad band internet connection.

**Staffing:** Three experts on malaria surveillance were employed at the starting of the project. These staffs have been actively working since the conception of the project. In addition one who is WHO certified malaria microscopist was employed to undergo laboratory quality control tasks. All the year through the number of staffs at ACIPH has been increasing and currently there are a total of 11 staffs who are actively working in the project.

**Sentinel sites:** Ten health centers namely; Bulbula, Asendabo, Tullu Bollo, Matahara, Kersa, Wolenchitti, Dembi, Asebot, Dhera and Guangua were selected through participation of stakeholders including ORHB, to serve as sentinel sites for malarial epidemic detection surveillance. The criteria used for the selection of the health centers were epidemiology of malaria and facility accessibility.



**Relationship with stakeholders:** Memorandum of understanding (MOU) was signed between ORHB, ACIPH, TU before the commencement of the actual work. Based on The MOU Working relationships have been established with other relevant stakeholders like PMI-USAID, ICAP-malaria project, Ethiopian Health and Nutrition Research Institute (EHNIR), MSH and The Malaria Consortium. ACIPH was also represented in the PMI regular meetings and shared the experiences of other partners. And the office of ACIPH was visited by PMI delegates.

In order to keep the health professionals and other concerned bodies updated, a newsletter has been published and disseminated every quarter.

**Data collection tools:** three data collection have been developed by ACIPH and TU/USAID for data collection from health centers, these are adult OPD register, under five OPD register, laboratory OPD register. A tool has also been developed for the data collection in the health posts. In addition a supervisory chick list has been developed to undergo supportive supervision in both the health centers and Health posts.



Initial training on malaria surveillance

**Trainings:** health professionals from the respective health centers, Woreda, Zonal, and Regional Health offices were trained on surveillance in general and utilizing the data collection tools in particular. Training on microscopic malaria diagnosis was also conducted for laboratory technicians in collaboration with ICAP.

**Initiating sentinel surveillance:** Ten of the selected health centers were categorized as primary and secondary in order to establish excellence in the primary sites. The five health centers selected to serve as primary sentinel sites are Bulbula, Asendabo, Kersa ,Tulubolo and Metehara while the rest are categorized as secondary sites. In 2011 the Surveillance activities will fully be established in the entire sentinel

**Supportive supervision:** Supportive supervision is being conducted in which the primary and secondary sites are supervised every 15, 30 days respectively. Supervisory check lists have been used to undergo the supervision and regular meetings were held between the supervisors after each visit. This has helped in improving the communication between the health professionals working in the health center and ACIPH experts. In addition it helps in solving problems and improving the surveillance on time.



Joint Supervision in Seyo Adami Health Post

In October, 2010 a joint technical supervision was conducted

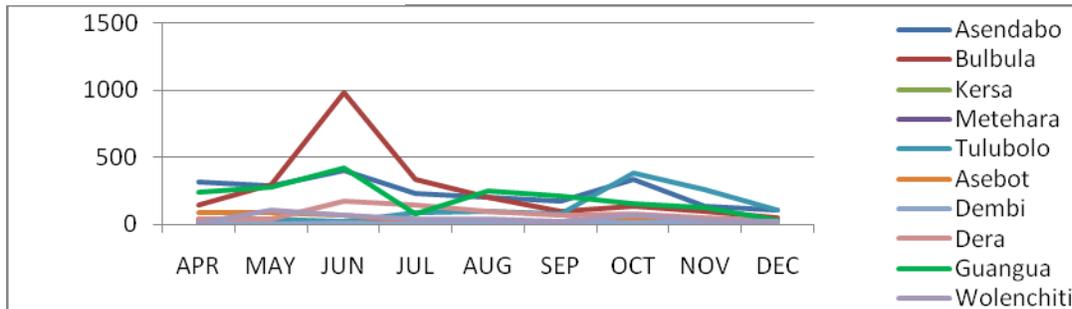
by a group of experts from ORHB and ACIPH. The aim of the supervision was to assess the overall situation and encourage the participations of health professionals and it was held in all the health centers. Different issues were discussed and consensus was reached.

**Laboratory quality control:** the quality control was started in line with the initiation of the surveillance and a protocol was developed by ACIPH team. In this process 10 (5 positive and 5 negative) samples of slides will be collected in a month and the slides are blindly rechecked by an experienced laboratory professional at ACIPH. Then the level of agreement between the facility result and the quality control are analyzed. And appropriate feed backs are given for the health facility laboratory. In this regard considerable findings have been in place. Based on the findings some labs like the one in kersa were totally unable to meet the required species level agreement with the Control result in ACIPH. The reason for the failure has been identified to be lack of properly working microscope. ACIPH was able to procure a new microscope to solve the problem

**Data collection and analysis:** To contribute for better use of surveillance data in the malaria control and prevention decision making, peculiarly in the early malaria epidemic detection and containment, Data are collected analyzed and interpreted. The vivax malaria epidemic that has been detected and contained by the surveillance process in October in Tulubolo was atypical example. A five year retrospective (1997-2002 E.C.) data on malaria laboratory test was collected from five of the primary sites.



Asendabo Health Center Laboratory  
Diagnosing and recording Results



Malaria trend over the nine months in all sites

The collection of retrospective data from health posts where such a data has already been collected from the seven health posts in Asendabo. And this data is used to establish a threshold level for epidemic detection. Data collection with the aim of early detection and containment of malaria Epidemic will be scaled up in that agreement has been made to use SMS technology with APPOSIT.

**Review meetings:** quarterly review meetings were conducted in the primary sentinel sites. Health professionals in the respective health centers and officials from the Worda, and zone health authorities have attended the meetings. Different issues like incompleteness of registrations, stock out of anti malaria drugs and incentive have been discussed during the meeting.



Review meeting held at Metehara Health Center

**Expansion of the surveillance to health post level:** after conducting an assessment in 3 representative Wordas, expansion was done as a pilot in seven health posts that are under Asendabo health center. This was done with the intention that data from the health posts will show cases by person, place and time in the smallest sampling frame. Currently the total number of health posts under surveillance has reached 25. (i.e. 7 at Asendabo HC, 6 at kersa HC, 12 at Bulbual HC.). Data generation has already been started from the seven health posts in Asendabo where it was possible to get important information.

## Challenges

- The level of understanding on surveillance and commitment differs from site to site.
- High demand for incentives
- Incompleteness of data
- Staffs turn over and the need for training for the new comers
- Inadequate recording
- Lack of ownership of the project at the health facilities (less accountability and responsibility of the staffs in the health centers).
- Inadequate stock management of anti malarial
- Introduction of HMIS in some sites have affected the routine data collection on malaria.

## Recommendations and the way forward

- Producing information useful for malaria prevention and control
- Strengthening expansion to health posts
- Continue with need based training and re-design, simpler data collection methods.
- Keeping good relationship with appropriate stake holders.
- Scaling up data collection using modern technology.