

## **AFB Microscopy Smear Fixing and Referral Contributes to TB Case Detection in Oromia, Ethiopia**

**Jemal Seid, Mohammed Jemal, Solomon Negash\* and Gebi Kabeto**

*Guji Zone health Department, and Oromia Regional Health Bureau, Addis Ababa, Ethiopia*

**\*Corresponding Author:** Solomon Negash, Guji Zone health Department, and Oromia Regional Health Bureau, Addis Ababa, Ethiopia.

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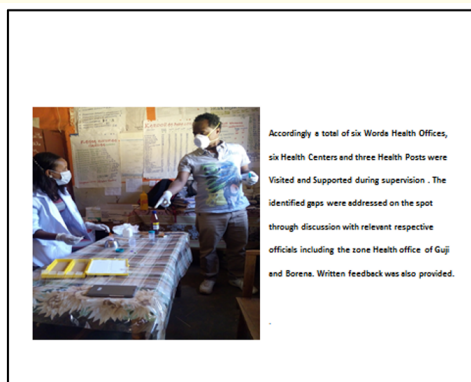
### **Back Ground**

AFB microscopy is one of the main diagnostic tools for the Diagnosis of Tuberculosis in Ethiopia. There are about 3808 AFB microscopy diagnostic centers in Ethiopia and about 1412 were found in Oromia region. However, due to high turnover and scarcity of Lab professional in the region nearly 25% of the diagnostic centers became non diagnostic.

### **Intervention**

Oromia regional Health Bureau in collaboration with challenges TB Ethiopia has designed a strategy to improve the diagnostic coverage by slide referral in areas where there is no lab professional.

- Zones and woredas with non-diagnostic facilities were identified.
- Training material was developed by ORHB/OL and Challenge TB Ethiopia.
- Slide referral site to examine the slide were selected with the woreda.
- Training was given for non-diagnostic sites (non- lab laboratory professionals at least two from each facility).
- Two days training on both theoretical and practical training was organized at the testing site (slide staining and reading site).



**Figure 1:** Adolla Reddee Rural Woreda TB Focal Person Demonstrating Slide fixing for HEW at Anfarara Health Post, Guji Zone, December – Jan, 2019.

## Results

From January –December 2019 the slide referral was implemented in three zones of the region (Guji, Borena and W. Haraghe). In one year period sputum samples were collected, smeared and referred for 3420 TB presumptive, and 138(4%) of them were diagnosed smear positive. The overall smear positivity rate was about 3.8% smear positivity as shown in the table below.

Period	Total Presumptive	# Of Smear Positive Cases	Total # Slide Collected And Examined	# Of AFB Negative Slides	# Of AFB Positives Slides	SPR
Jan-Mar,2019	34	10	71	52	19	2.70%
April-June,2019	376	28	746	690	56	7.50%
July- Sept,2019	452	22	895	850	45	5.00%
Oct-Dec,2019	2558	78	5098	4958	140	2.70%
Total	3420	138	6810	6550	260	3.80%

**Table 1:** Bacteriologically TB cases identified through sputum smear fixing and referral from January- December 2018.

## Conclusion

The smear fixing and referral contributed (138) 0.8% of the 16274 bacteriologically confirmed Cases reported form January –December 2019. This finding showed that if the smear fixing and referral is scaled up in non-diagnostic facilities it will contribute more to improve TB case detection in the region

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