

Clinical evolution of patients suspected of tuberculosis missing microscopic examination in rural Ethiopia

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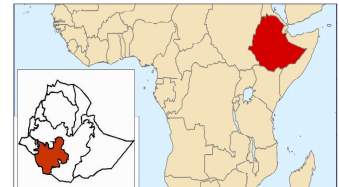
TB Control in South Ethiopia: a persisting low detection rate

The main obstacle to TB control in the rural population of South Ethiopia (SNNPR Region) remains the **very low detection rate**. In Dawro and Gamo Gofa Zone, the CDR was below 17% in 2009. The reasons are to be found in geographical isolation, high population density, poor accessibility and status of Health Facilities and Diagnostic Units, lack of information at community level, and the abandon of vertical programmes generating a loss of focus on TB by the health actors.

Inter Aide TB Control Program

Inter Aide has conducted tuberculosis control programs in Wolayta Zone between 2003 and 2009, and in Dawro Zone since 2010. It focuses on the main gaps preventing an effective application of the National Tuberculosis Control Program:

- at field level:** increasing case finding through information campaigns, set-up of referral system, on-site sputum collection in isolated areas...
- at diagnostic unit level:** improving quality of the services and capacities building.
- at Health Centres level:** mobilizing the health professionals toward the TB challenge.



What would be the effectiveness of tracing lost and negative cases versus a strategy mainly focusing on a mere referencing of the suspected cases in this particular context?

Study rationale

The referral system aims at facilitating the access of patients to the governmental health facilities. The facilitators' role is to inform the population, identify suspect cases and refer them to the health facilities. In 2008, 4 665 symptomatic cases were referred among whom 1843 were diagnosed as TB, a 43% diagnosis rate. Lost cases are patients considered as TB suspects by the field facilitators not attending any diagnostic facility. The question of the lost cases status became central, as part of the project strategy depends on the estimated TB prevalence among this group. Our hypothesis was that the prevalence was lower in this group than in the screened population of patients.

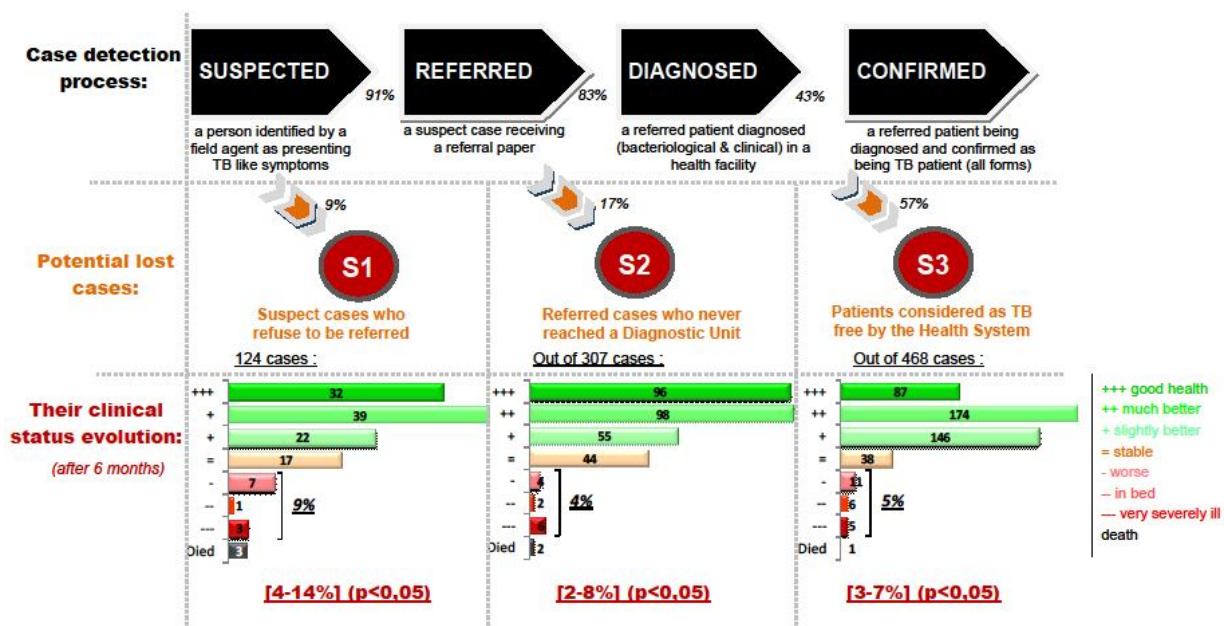
Protocol

From June to November 2008, a follow up has been organized in Wolayta for 431 "potential lost cases". A comparison group has been set up with 468 consecutive cases of smear negative sputum considered as TB free by the OPD's clinicians. Their clinical condition has been checked by facilitators every 2 months during 6 months, and registered as improved (+ slightly better, ++ much better, +++ good health), stable, died or worsened (- worse, -- in bed, --- very severely ill)

Results:

A worsened condition was observed in 5,3% (23/431) of the lost cases during the 6-months follow-up, including 1.2% deaths (5/431). During the same period a worsened condition was observed in 4,7% (22/468) of the comparison group including 0.2% deaths (1/468), which indicates no significant difference between the 2 groups.

CLINICAL EVALUATION OF TB PREVALENCE AMONG LOST & NEGATIVE CASES



Conclusion

The TB-suspected cases having missed microscopic examination and those with smear negative sputum had a similar proportion of deterioration, i.e. about 5% in 6 months. Considering all deteriorations as a consequence of tuberculosis (which is a high hypothesis), there would be 8 times less TB cases among the defaulters than among those with a sputum smear performed. The effectiveness of the programme would therefore not be significantly enhanced by specific proactive measures toward the lost potential cases.