

Comparison of Two Methods of Leprosy Case Finding in the Circle of Kita - Mali

A. Tiendrebéogo et al.

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Detection rate Survey

Sample size (one-tailed comparison test, α of 5% and power of 90%):

- 65'000 persons
- cluster sampling of villages over 1'000 inhabitants

Randomly selected villages:

Passive detection: 37 villages – pop: 80'135

Active detection: 32 villages – pop: 69'518

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Methodology

Passive case finding

- A) Health education sessions about leprosy signs in villages done by nurses from the nearest health centres
- B) Counselling of people with suspect signs; referral to peripheral health centre (HC)
- C) Examination of suspicious cases by nurses at HC
- D) confirmation of the leprosy diagnosis by specialized nurse at district level (new case) (over 12 months period)

Active case finding

- A) Health education done by mobile team (1 doctor & 2 nurses)
- B) Immediately after, nurse's examination of suspicious cases
- C) "on the spot" confirmation of case by the mobile doctor (new case) (over 2 months period)

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Results: 1) Active

$P=40$, 4 already on MDT, 36 requiring treatment
30 new cases (never treated before) of which:

- none are disabled
- Multi-bacillary (MB): 40%
- Children: 40%
- 20% single skin lesion
- 93.3% living in village more than 15km from PHC; !In one village 60km away from HC: 15 cases!
- detection rate: 4.31/10'000

2) Passive

$P=15$ new cases: 12 of which:

- Disabled: 16.7%
- MB: 58.3%
- No child or single lesion patients
- 66.7% living less than 15km from PHC; less than 25% from village more than 30km away
- detection rate: 1.5/10'000
- 36\$/new case

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Advantages of Active CF

Detection rate 2,5 higher than national detection rate in Mali(1997)
Detected 9 news cases at 10-14 years and 9 new cases at 35-39 years which are ages of great incidence in natural history of leprosy
Detects cases in remote areas which would not be detected otherwise
Earlier detection: so shorter treatment for PB patients and single lesion. Also less people with disabilities and leprosy reactions (compensation for higher cost?)

Risk: Over-diagnosis of new cases due to self-healing cases (indeterminate form of leprosy) but risk is acceptable

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Advantages of passive CF

Better strategy for health service integration (easily combined with other components of Primary Health care (ex. EPI or TB control program)

But can also be more costly because requires program of training, retraining & supervision of HC (for good quality diagnosis)

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What the authors recommend...

Compensate cost of active CF by only doing it in remote areas & repeat every 2-3 years