

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

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# Detection rate Survey

- Sample size (one-tailed comparison test,  $\alpha$  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

# 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)

# 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**
  - cost/new case: 72\$

# 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

# 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

# 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)

# What the authors recommend...

- Compensate cost of active CF by only doing it in remote areas & repeat every 2-3 years
- For eradication of leprosy in endemic regions: **combination of both methods**