Active case finding for TB in prison population using chest x-ray as screening tools

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Why active case finding using chest x-ray as screening tools in prison?

- Low detection rate at 70% (GTB report 2014)
- In 2013, the risk of developing TB among prisoners was five times high compared to the general population.
- High risk of spreading disease in prison due to overcrowding.
- In 2012, the TB prevalence survey showed 57% of detected prevalent TB cases should have been missed if chest x-ray was not done as a screening tool.
- The current screening approach was symptom-based only.
What was done to address the problem?

- Systematic screening using CXR were done and any abnormal chest result provided sputum for genexpert examination
- Two Mobile x-ray trucks were used and two team composed by MD and radiologist technician
- Step:
  - Develop an electronical register for M&E
  - Orientation meeting with all directors of prisons
  - Establish list of all prisoners
  - Sensitization day in all prisons
  - Identification of peers educators and organization
  - Quality control of CXR was done by radiologist (all abnormal plus 10% of normal CXR)
Where was the intervention implemented

- mobile digital x-ray carried by truck
- The first round was conducted in 14 prisons from December 2013 to April 2015
- The second round in 9 prisons from March 2017 to July 2018
Result of two rounds of active case finding conducted in Prisons

We observe a reduction of 11% of presumptive TB and 4% detection rate.

Increase in notification rate during the first session.
Result of two round of active case finding conducted in Prisons

The notification rate decreased in almost all prisons and the average reduction is 51%.

![Bar chart showing notification rates](chart.png)
Challenges and wayforward

- Challenges:
  - Break down of mobile CXR Trucks

- Wayforward
  - ACF using sensitive screening and diagnostic tools among HRG recommended and adopted as strategy
  - Reinforce the early detection by screening all new prisoners at the entry and involvement of peers educators in identification of coughers at different blocs
Let us UNITE TO END TB

MURAKOZE CYANE

Thanks Merci beaucoup