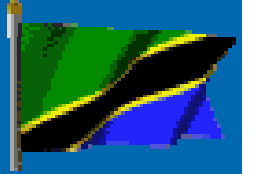


Routine surveillance of MDR TB in low income countries: Experience from Tanzania

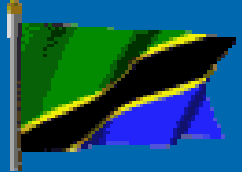
T.M. Chonde

Central TB Reference Laboratory, Tanzania



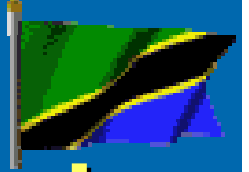
Presentation outline

- Introduction
- NTLP lab network
- Screening and patient registration
- Sputum collection and transportation to culture laboratories
- Results
- Challenges
- Way forward
- Conclusion



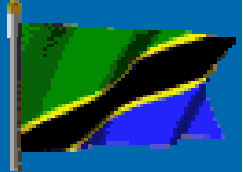
Introduction

- Routine DRS is done from AFB pulmonary sputum positive only
- WHY?
 - Knowledge of susceptibility patterns among sputum smear positive cases will directly reflect the pattern of strains that are transmitted in the community,
 - Cases can be identified rapidly in peripheral laboratories, and additional specimens can be obtained and submitted immediately following the diagnosis
 - The number of bacilli in sputum cases is sufficiently high to tolerate some loss of viability during transport



Tuberculosis laboratory network in Tanzania

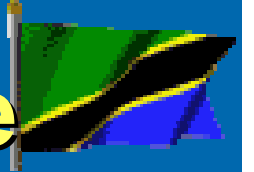
- Three levels: peripheral, Zonal and Central level.
- Linked with SNL for QA of anti tuberculosis drugs.
- About 700 AFB diagnostic centres (Coverage = 1 diagnostic centre per 50,000 population)



Screening of TB suspects

- Done at Out Patient Departments (OPDs) by Clinicians
- Diagnosis using Ziehl Neelsen method.
- Initiation of TB treatment is done by front line health workers following DOT approach
- Registration of patients is done by DTLC

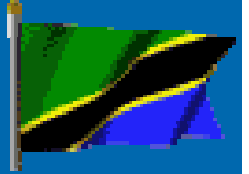
Identification of cases for routine MDR surveillance



- Routine MDR surveillance is done on:
 - All relapse cases
 - Smear positive return after default
 - Treatment failures
 - Chronic excretors
 - 25% of smear + ve new cases

- Samples for culture are sent to CTRL and Zonal labs by DTLC

Sputum collection and Transportation to culture labs



- Transportation : Post office mail services or by private buses (TT > 7 days)
- Done by heads of the referral labs - provided by NTLP a motor cycle or a car in the case of CTRL.
- Parcels posted by EMS are delivered to laboratory by post office courier men.

RESULTS

Susceptibility status in retreatment positive strains tested during 2002 - 2006



	2002	2003 (First half)	2005	2006
Total	n= 114	n = 25	n= 299	n =122
Fully susceptible %	77	80	92	83
Any resistance %	23	20	8	17
MDR -TB %	6	0	1	7

RESULTS

Susceptibility status in new smear positive strains tested during 2002 - 2005



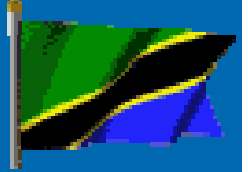
	2002	2003 (First half)	2005
Total	n= 729	n = 196	n= 313
Fully susceptible %	93	97	90
Any resistance %	7	3	10
MDR -TB %	1	0	3

PLERIMINARY RESULTS

Susceptibility status in new smear positive and retreatment strains tested from patients enrolled in drug resistance survey June – Dec 2006

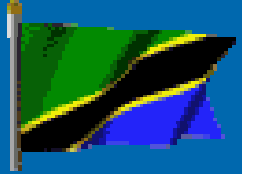


	New smear pos. cases	Retreatment
Total	n= 369	n = 49
Fully susceptible %	94	84
Any resistance %	6	16
MDR -TB %	1	0



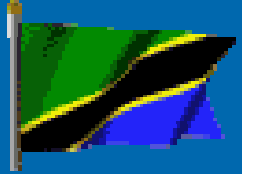
Challenges

- Inadequate samples submitted for culture and drug susceptibility tests
- Long specimen transport time to culture labs
- High postage costs
- Erratic electric supply and water shortage at culture labs



Challenges

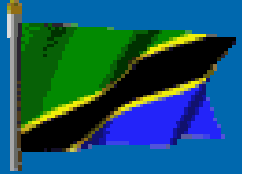
- Interruptions of routine work at central lab due to renovation works
- Shortage of qualified health personnel
- Incomplete information on patient lab request forms
- Weak supervision
- Inadequate Quality Control measures



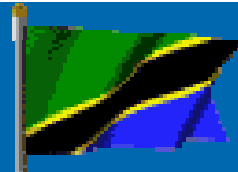
Way forward

- Strengthen mechanism for monitoring the collection and transportation of specimens to culture TB labs
- Strengthen in-service and refresher training in primary culture isolation
- Strengthen supervision at all levels

Way forward ...



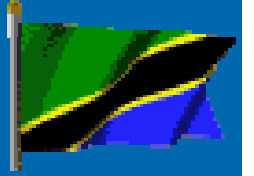
- Decentralize further TB culture laboratory facilities
- Provide a rapid culture system for central laboratory



Conclusion

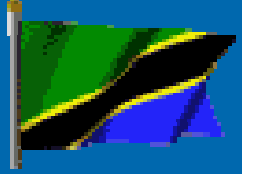
Regardless of the difficulties encountered during the routine surveillance, we were able to provide information on the existence MDR-TB strains in the country. The numbers MDR-TB strains isolated under routine surveillance from 2002 to 2006 were low.

Last but not least.....



Thank you for your attention





Acknowledgment

- NTLP
- NIMR
- KNCV
- All health staff involved in TB drug surveillance activities