



# TB DEATH AUDIT - MALAWI

Malawi has been greatly affected by TB and HIV/AIDS and has been facing very high death rates amongst TB patients. On average about 13 % of TB patients die each year in Malawi. Various factors contribute to the high TB death rate including TB/ HIV co-infection, mis-classification, poor recording systems and poor clinical care.

### Objectives:

Confronted with this challenge the National TB program began a series of TB death audits at all hospitals. In 2007 TB CAP supported two of these audits in Zomba and Mangochi districts. The main objectives were to establish the cause of death in the deceased TB patient, to provide recommendations to improve the clinical care provided to patients by enhancing teamwork among district TB team members and nursing staff.

### Methodology:

Meetings were held with those involved with the provision of care to TB patients. Together they tried to ascertain the actual cause of death amongst patients admitted in TB wards by sharing the case notes and discussing the management of the cases. This data was then recorded and analyzed.

### Key Findings:

This process revealed several reasons why the death rate was above what would be expected. Firstly, many of the deaths occurred because of late case detection and/or because patients sought medical care at a late stage of their illness. It was

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found that clinicians did not adhere to TB control activities despite the District TB Officer having access to TB manuals. Some patients were being put on TB treatment without following the TB diagnostic protocol, which lead to a wrong diagnosis and treatment, whilst other patients died before the necessary laboratory results were available. Despite patients having their history taken on admission, in many cases insufficient information was gathered and this hampered the correct diagnosis being given. Finally, there was poor communication and a negative attitude amongst health workers.

### Actions:

As a result of the findings, a range of actions were undertaken to counter the issues discovered. In order to better monitor the condition of the patients, ward rounds were increased to twice a week. Full time clinical staff

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were allocated to TB wards along with a specific clinician to coordinate TB clinical services. Staff were asked to write more comprehensive case notes, record more details on the patients' conditions and to monitor the patients' vitals on a daily basis. Finally a strengthening of coordination between the TB section and other sections, e.g. Laboratory, Outpatient Department, etc. was implemented and investigations to identify other super-infections were conducted.

### Results:

Following the audits the death rate of TB inpatients has significantly decreased. From July-September 2007, the inpatient death rates for Zomba and Mangochi were at 12.7 and 15.4% respectively, the most recent (October to December 2009) data on inpatient deaths reduced even further to 3.8 and 5.7% in Zomba and Mangochi, respectively.

Country Population	13,925,000
Est. number of new TB cases	48,144
Est. TB incidence (all cases per 100,000 pop)	346
DOTS population coverage	100%
Rate of new SS+ cases (per 100,000 pop)	132
DOTS case detection rate (new SS+)	41%
DOTS treatment success rate, 2006 (new SS+) (%)	78%
Est. new adult TB cases HIV +	68.1%
MDR-TB among all new TB cases	2.3%
All data is for 2007. WHO Global TB Report 2009	

### IN SUMMARY

- Before TB CAP intervention the death rates in Zomba and Mangochi were at 12.7 and 15.4 %
- The high death rate is attributed to factors such as: TB/HIV co-infection, mis-classification, poor recording systems and poor clinical care.
- Corrective actions included: Higher levels of monitoring/case notes and increased coordination.
- Since the actions have been undertaken, the death rate is down to 3.8% and 5.7% in Zomba and Mangochi, respectively.

