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Evaluation of the tuberculosis control programme in a southwestern State, Nigeria

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Abstract

Background: This study aims to assess the current status of the control programme and the problems faced at the operational level of TB control in Ekiti State.
Methods: The study was carried out in Ekiti State, south west of Nigeria. Ten Local Government Areas (LGA) out of the 16 LGAs in the state, selected by simple random sampling, were evaluated. The tuberculosis control programme officers were interviewed for this study with semi structured questionnaires and checklists were used to obtain information on funding, training, personnel and constraints of the TB control programme. Outcomes were compared with targets for the National TB and Leprosy Control Programme indicators
Results: The treatment success rate was 93%, clinic coverage was 39% of target and trained personnel met 100% of the state target. None of the LGAs however had a budgetary allocation for TB control. Drugs were provided by the donor agency. Activities like drug collection, clinics, report writing and public awareness campaigns did not meet specified targets. Finance and lack of stationery were the major perceived constraints to the control programmes.
Conclusion: The TB control programme has recorded some achievements however the evident donor dependence and lack of counterpart funding seem to be limiting the full implementation of the TB control programme in the State. Increased state ownership is required for the Stop TB and MDG targets for TB control by 2015 to be met.

Keywords: TB control; assessment; constraints; south-west Nigeria.

Introduction

TB is still a major public health problem in Nigeria, with the country ranking fourth among the 22 high TB burden countries which collectively bear 80% of the global burden of TB.[1] Following the Abuja Declaration to Stop TB in 2001, several control strategies have been instituted all over the country. The National TB and Leprosy Control Program (NTBLCP) launched in 1991 coordinates and provides strategic direction for TB control activities in Nigeria. Since 2002, the coverage of Directly Observed Treatment Shortcourse (DOTS), the internationally recommended strategy for TB control has increased rapidly from 55% in 2002 to 91% in 2007 with the support of donor agencies. The declaration of TB as a national emergency in 2006 led to an increase in TB control activities through both domestic and external funding.[2]

Measured in adult lives saved and the potential to save lives, no other health intervention has achieved the significant results or proven effectiveness as the DOTS strategy in TB control.[3] Therefore periodic evaluation of the success and constraints of the programme is essential especially in a developing country like Nigeria where the burden of TB is still significant. There has been no detailed information outside official reports on the current status and constraints faced in the implementation of the DOTs strategy in TB control in the country. This study aims to assess the current status of the control programme and the problems faced at the operational level of TB control in the country using Ekiti State as a case study. Information from this study will be useful in developing effective measures to enhance the sustainability and continued success of the programme. It will also guide national and international responses to the challenges of TB control in resource poor countries.

Materials and methods

The NTLCP operates at all three tiers of government, with each level having a control officer in charge of coordination in all the 774 local government areas in the 36 states of the country and FCT. The study was carried out in Ekiti State, south west Nigeria. The state has an estimated population of 2.3million according to the 2006 census. The inhabitants of the state are mainly farmers. Ten local government areas (LGA) out of the 16 LGAs in the state, selected by a simple random sampling, were evaluated; the LGA being the unit of investigation in this study. The tuberculosis control programme officers were interviewed for this study. A semi structured pre-tested questionnaire and checklists were used to obtain information on funding, training, personnel and constraints of the TB control programme. Outcomes were compared with targets for the National TB and Leprosy Control Programme Indicators[4] such as treatment success rate, population coverage of TB facilities, LGA coverage of DOTS services, activity implementation rate. The political commitment to the programme was also assessed. Permission to conduct the study was obtained from the Ekiti State Ministry of Health and informed consent was obtained from participants before administration of questionnaires. Confidentiality of information from participants was maintained. Data was analysed with SPSS version 15 software.

Results

Table 1 shows the TB control indicators as it compares with the targets for the state. The treatment success rate was 93%, clinic coverage was 39% of target and trained personnel met 100% of the state target.

Staff

As shown in Table 2 all LGAs had medical officers of health and TB control officers. Among the TB control officers there were equal number (40%) of environmental health officers and community health officers. The mean number of years which had been spent on the job by these staff was 5.2 years.

Activities

The activities of the TB control officers are as shown in Table 3. Drugs were collected quarterly in 70% of LGA. Clinics were held monthly in 60% of LGAs. No LGA conducted

Table 1: Tuberculosis control indicators

Indicators	Number	% of target
Epidemiological indicators		
Newly diagnosed TB patients	301	93
Case detection rate (Newly diagnosed smear positive TB patients)	215	80
Treatment success rate (smear negative + treatment completion)	200	93
Health service Indicators		
Peripheral Multi drug therapy clinics	44	39
Peripheral TB clinics	6	60
Hospitals cooperating with programme	0	0
Beds for TB patients	59	30
Population coverage	1:52,000	
Laboratories	8	50
Support Indicators		
Microscopes	7	40
Motorbikes for control officers	11	65
Senior staff trained in TBL control	10	100
Supervisors trained in TBL centre Zaria	16	100
Supervisors refresher course in Zaria	0	0

Table 2: Staff

Variables	N=10(%)
Staff categories	
Medical officers of health	10 (100)
Nurses	3 (30)
Community health officers	9 (90)
TB control officers	10 (100)
Laboratory attendants	8 (80)
Designation of TB control officers	
Nurse	2 (20)
Environmental health officer	4 (40)
Community health extension worker	4 (40)

public awareness campaigns but 80% sent quarterly reports.

Funding

The TB control programme is funded by the German Leprosy Relief Association (GLRA). Forty percent had other nongovernmental organisations (NGOs) involved, 40% had imprest for day to day activities. None of the LGAs however had a budgetary allocation for TB control.

Integration

The TB programme was said to be integrated into the primary health care services in all LGAs.

Treatment Outcomes

Of the 215 patients with sputum positive pulmonary TB treated in the preceding year, the cure rate was 40.7% while 52.3% completed treatment. The mortality rate was 0.5% and treatment failure 4.5%. See Figure 1.

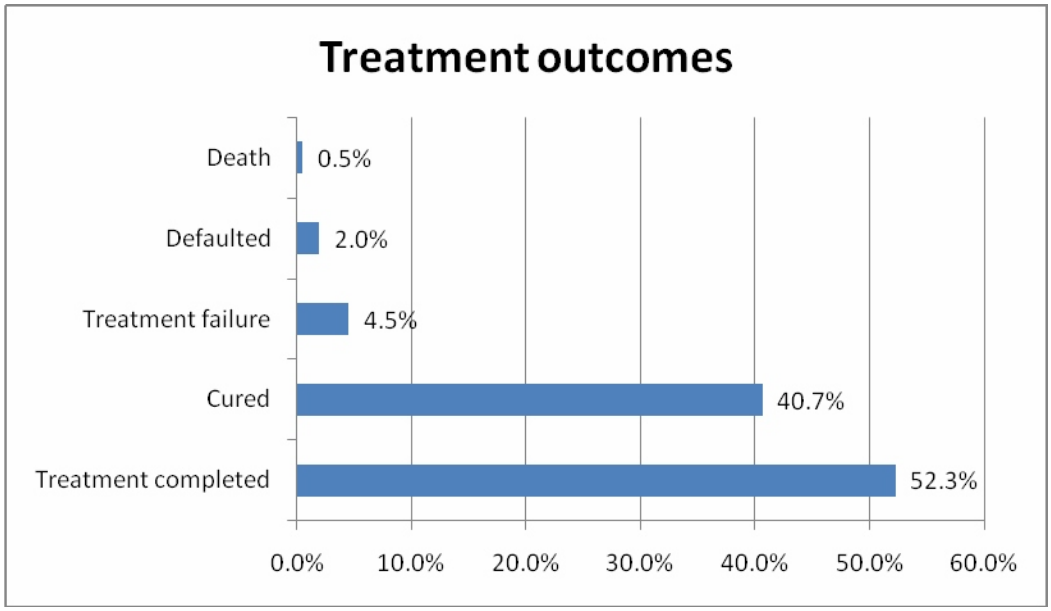
Perceived constraints to the TB control programme

Perceived constraints to the TB control programme are as shown in Figure 2. Finance was reported by all the respondents and 70% stated lack of stationery as the major constraints to the control programmes.

Table 3: Activities

Activities	N=10(%)
Drug supply	
Quarterly	7 (70)
On demand	3 (30)
TB clinics	
Daily	4 (40)
Monthly	6 (60)
Health education classes	
Monthly	6 (60)
On demand	4 (40)
Public awareness campaigns	0 (0)
Report writing in the last 1 year	
3 times	2(20)
Quarterly	8(80)

Figure 1: Treatment outcomes



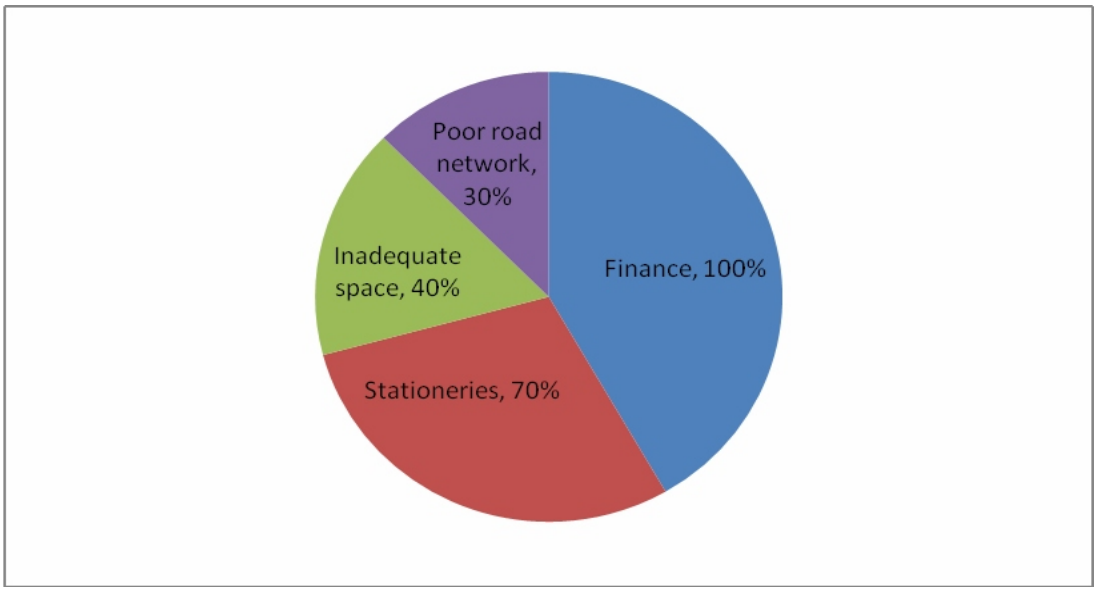
Discussion

This study evaluated the TB control program in Ekiti State. The strength of the programme appeared to be in the availability of trained personnel. This contrasts to other reports which had identified constraints in human resources as one of the main barriers towards achieving control targets for TB in high burden countries.[5] Each of the LGA had a Medical Officer of Health and trained TB control programme officers. The non-existent efforts towards worker re-training would however make it difficult for staff to keep abreast of current management and control strategies.

All epidemiological indicators appeared also to have been close to the state targets for the year. The case detection and treatment success rate exceeded the minimum of 75% and 85% respectively specified by the NTLCP[4] as evidence of significant TB detection and case holding .

With regards to structural facilities, health facilities rendering services to TB patients were inadequate; none had the targeted number of health facilities per LGA which is 10 to facilitate access for patients in the DOTS

Figure 2: Perceived constraints to TB control programme



program. The population coverage ratio was therefore less than the recommended 1:25,000 indicating inadequate access to DOTS treatment centres. Microscopic centres were also less than the requirements specified by the NTCLP.[4] One fifth of LGAs had no functional laboratory and as such diagnosis of TB cases would have to be made in neighbouring LGAs. This is in direct contrast to the strategic plan for DOTS expansion as stated by the Abuja declaration which stated that funds were to be mobilised to procure laboratory equipment and to establish laboratory facilities in all LGAs.[4]

Activity implementation rates were also grossly deficient as none of the listed activity rates met the national targets. Of particular concern is the lack of public awareness campaigns, an indication of inadequate case finding efforts. This agrees with findings from a WHO survey.[6] Although motorcycles were provided by the donor agency, only 40% of LGAs received a monthly imprest for transportation. Consequently monitoring and defaulter tracing were not often done. Record keeping was also impeded by the lack of stationery because the exhausted stock supplied by donor agency was not replaced by the LGA. These constraints are similar to those of an earlier report.[7]

TB drug procurement is entirely ensured by the donor agency and there was no budgetary allocation for TB control programme in the State. The long-standing barriers to the achievement of the global targets documented by other studies [8] seem also to be prevalent in Ekiti state. The evident donor dependence and lack of counterpart funding appeared to be the major constraint to the expansion and full implementation of the TB control programme in the State. The apparent achievements seemed to be largely resulting from external funding alone as also reported by other studies.[9-10]

Conclusion

The national sustainability workshop which culminated in the Abuja Declaration to Stop TB in Nigeria was endorsed by federal and state representatives and other partners. However it appears that in this State DOTS is entirely being implemented, by the sole support of external donors. Increased state ownership of TB control will be required if DOTS is to be expanded and the chances of Nigeria reaching the Stop TB and MDG targets for TB control by 2015 improved.

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