

A REVIEW OF COMMUNITY TB CARE INTERVENTION IN NIGERIA – A CARE STUDY OF NGO INTERVENTION – A CAPSTONE PROJECT

A Case Study by Kingsley Chinedum Ochei, Nigeria
(MSc (MMLS), PhD Public Health Student of Texila American University)
Email: us2winikings@yahoo.com

INTRODUCTION

Global burden of TB (1 Frequently asked questions about TB and HIV - http://data.unaids.org/pub/FactSheet/2006/TB_HIV_QA

One third of the world's population is infected with *Mycobacterium tuberculosis*, the bacterium that causes tuberculosis (TB). The vast majority of these people never develop active disease; only 5-10% of people infected with TB actually develop TB disease during their lifetimes. However, co-infection with HIV makes TB disease much more likely and 10% of people with TB and HIV co-infection will develop TB disease each year. In its Global TB Control Report for 2008, WHO estimated global TB prevalence of 14.4 million and incidence (new cases) of 9.2 million (139 per 100,000 population) for 2006. The Africa Region has the highest incidence rate per capita of 363 per 100,000 population. It is noteworthy that only 5.1 million (55%) of the estimated new cases were notified to WHO. Sub-Saharan Africa, South East Asia, and Western Pacific regions accounted for 83% of the notifications. Nigeria and South Africa were ranked 5th and 4th respectively among the top five of the 22 high burden countries with India, China, and Indonesia occupying the top three places in that order. There were an estimated 1.5 million deaths from TB in HIV-negative people and 0.2 million among people infected with HIV.

TARGETS AND STRATEGIES FOR GLOBAL TB CONTROL

Set within the framework of the Millennium Development Goals (MDGs), the global TB control targets halting and then reversing global TB incidence by 2015 relative to 1990 levels. Other important non-MDGs targets are the outcomes targets first set by the World Health Assembly in 1991 to detect at least 70% of new smear positive cases in Directly Observed Treatment – short course (DOTS) programs and to successfully treat 85% of detected cases; and impact targets of halving prevalence and death rates by 2015 relative to 1990 levels.

Designed to achieve the 2015 impact targets as well as targets for case detection and treatment the Stop TB strategy is the primary strategy for global TB control. Launched in 2006, the Stop TB strategy has six major components (See Textbox 1) with DOTS as the central TB service delivery approach. The DOTS program has 5 elements (See Textbox 2), is almost universally accepted and is being implemented in 184 countries worldwide accounting for 99% of all estimated TB cases and 93% of the world's population in 2006. Almost 700,000 TB patients were tested for TB in 2006, up from 470,000 in 2005 and the number of TB patients enrolled on ART in 2006 was 67,000, more than doubled the 29,000 in 2005. Through health systems strengthening approaches, diagnosis and treatment of TB is fully integrated into general health services in most countries. Among the 22 high-burden countries that collectively account for 80% of the TB cases globally, 14 are scaling-up public-private mix approaches, 13 have conducted knowledge, attitude, and practice (KAP) studies to inform the design of their advocacy, communications and social mobilization activities, and 20 have reported community involvement in TB care and prevention.

COMMUNITY TB CARE

A report on community participation in TB care commissioned by WHO and based on extensive CTBC project reviews in Latin America, Asia, and Africa concludes that CTBC can contribute significantly to achieving the goals of national TB programs (NTP). The report recommends NTPs form partnerships with communities based on the principles of subsidiarity, solidarity, and responsibility. The Africa review entitled "Community TB Care in Africa" project was conducted in 8 districts in 6 countries severely affected by TB/HIV – Botswana, Kenya, Malawi, South Africa, Uganda, and Zambia - concluded these CTBC projects are effective (TB-case finding and treatment outcomes) affordable (costs and cost effectiveness) and acceptable (social science qualitative assessment). The report recommends NTPs should consider harnessing community contribution to TB care where there is the need to increase access to effective TB care. Similar results have been obtained in a community-based project in rural Central Sulawesi in the Republic of Indonesia in 2001.

BURDEN OF TB DISEASE IN NIGERIA

Nigeria's population is currently estimated at 144 million people, the largest in Africa and 10th largest in the world. TB is a huge public health problem in Nigeria. No nationwide TB prevalence study has ever been carried out in the country; however, in 2008 WHO estimated this at 616 per 100,000 population and ranked Nigeria 5th among the 22 highest disease burden countries in the world and 2nd only to South Africa on the African continent. Nigeria's generalized HIV epidemic with a 4.4% prevalence rate is an important driver of its TB epidemic as about 30% of HIV positive people also have TB disease.

STRATEGIES AND TARGETS FOR TB CONTROL IN NIGERIA (FMoH ANTENATAL CLINIC SENTINEL SURVEY 2005 REPORT)

In response to the high TB disease burden in the country, Nigeria officially launched the National TB and Leprosy Control Program (NTBLCP) in 1991 with a mandate to coordinate TB and leprosy control activities and spearhead efforts to reduce the burden of the two diseases and adopted the DOTS approach as the primary mechanism for the delivery of TB services in 2002. The components of the national TB control program are shown in text box 3 and include community TB/HIV collaboration and Community TB Care (CTBC). Key objectives of the current TB control strategic plan 2005-2010 include to detect 70% of estimated sputum smear positive TB cases, cure at least 85% of detected smear positive TB, and reduce by 25% the incidence of TB among people living with HIV/AIDS (PLWHAs).

Strategies for achieving these objectives include expanding the DOTS program nationwide, political commitment, TB diagnosis through quality assured acid fast bacilli (AFB) microscopy, uninterrupted supply of ant-TB drugs, and effective M&E through a standardized recording and reporting system. Major technical and financial support for the Nigeria's NTBCP is provided by the development partners including WHO, GFATM, the United States Agency International Development (USAID), and the Canadian International Development Agency (CIDA), international not-for profit organizations notably the International Federation of Anti-Leprosy Associations (ILEP) such as German Leprosy Relief Association (GLRA), Netherland Leprosy Relief (NLR), Damien Foundation Belgium (DFB) and The Leprosy Mission (TLM); and private healthcare providers.

PROGRESS TOWARDS REDUCING THE BURDEN OF TB IN NIGERIA

Nigeria is making progress, albeit slowly, in its fight to reduce the burden of the TB disease primarily through DOTS expansion and enhancement since 2002. The DOTS program has been rolled out nationwide to all 36 states and the Federal Capital Territory (FCT) Abuja, reaching 91% of the country's 774 local government areas by 2007. Twenty 22 LGAs have no functional DOTS program including 10 LGAs in Kano State.

There were 2,321 DOTS facilities at the end of 2007 in the country. However, access to DOTS services remains poor and the NTBLCP 2006-2010 Strategic Plan estimates that less than 50% of TB patients are accessing these services. It is noteworthy that the DOTS program has contributed significantly to reaching a total of about 365, 000 cases of all forms of the disease between 2002 and 2007. The NTBLCP reported a massive increase of 177% in registering all forms of the disease in 2007 (86,000) relative to 2002 (31,000), in part due to a US\$68 million 5-year grant for TB programs from the GFATM in 2005. Kano State (one of two states where GHAIN is piloting the community TB care (CTBC) project, along with Lagos, Kaduna, and Benue states are the highest contributors to the national TB burden with more than 4,000 each in 2007 against a national average of 2,330 cases .

Most secondary and tertiary health facilities and an increasing number of primary care facilities provide TB microscopy nationwide. However, detection rates for smear positive TB cases remain very low at 31% in 2007 (national target – 70%), having risen steadily from 15% in 2002 to 26% in 2004 to 29% in 2006. Kano and Cross River states' case detection rates in 2007 were 30% and 33% respectively. Nigeria is making progress in treatment success rate of smear positive TB, which has increased from 73% in 2004 to 79% in 2007. The national target is 85% by 2010. Kano and Cross Rivers states have treatment success rates of 81% and 78% respectively in 2007. According to the NTBLCP Annual Report 2007, TB death rate declined steeply from 11% in 2006 to 6% in 2007. HIV is a key driver of the TB epidemic in the country, yet only 12 states were providing comprehensive

TB/HIV collaborative care in 2007. In the absence of a massive scale up of TB/HIV collaborative activities in the country, it is unlikely that Nigeria will reach its objective of reducing by 25% the incidence of TB among PLWHAs. Despite the fact that the Stop TB strategy and the NTBLCP Strategic Plan 2006- 2010 both include CTBC as important component of the TB control program, there are very few CTBC programs in Nigeria as comprehensive as the FHI led GHAIN pilot projects in Nassarawa LGA in Kano and Yakurr LGA in Cross River states started in 2007. GHAIN started six new CTBC projects in late 2008 in the Federal Capital Territory (FCT) Abuja, and Enugu, Sokoto, Bauchi, Taraba, and Edo states.

The NTBLCP strategic plan calls for establishment of CTBC projects in at least 5 LGAs per state by 2010. Once established it is expected that these communities will assume at least 25% overall responsibility of TB patient management. Training for a very small number of people on CTBC has taken place under the GFATM Round 5 grant but actual implementation of CTBC activities is yet to start

THE GHAIN CTBC PROJECT

Following USAID Nigeria's evaluation of its support to TB prevention and control activities in Nigeria, the USAID-funded Global HIV/AIDS Initiative in Nigeria (GHAIN) was identified to undertake pilot CTBC activities, based on its existing infrastructure and wealth of experience in TB care. GHAIN worked with the NTBLCP and associated State TB and Leprosy Control Programs (STBLCP) to identify three LGAs in which to pilot the CTBC project. Nassarawa LGA in Kano State and Yakurr LGA in Cross River State were designated as pilot sites for FHI and Ajeromi/Ifelodun LGA in Lagos State was designated pilot site for German Leprosy Relief Association (GLRA), a member of the consortium implementing the GHAIN project. The purpose of the pilot CTBC project in the 3 LGAs is to support the NTBLCP strategic plan 2006-2010 of introducing community TB care in 6 states, strengthen TB diagnosis and treatment services within the selected LGAs, and support the strengthening of the NTBCP CTBC M&E system. The review covers only Nassarawa and Yakurr LGAs where FHI is the technical lead within the GHAIN project consortium for the CTBC project.

Nassarawa LGA is a poor urban area within Kano metropolis whereas Yakurr LGA is a hard-to-reach rural area. The GHAIN CTBC pilot project activities were organized in two phases: a preparatory phase with no CTBC services being delivered followed by an implementation phase in which TB services were delivered in the two LGAs. The preparatory work in both LGAs started in about July 2007. Service delivery activities in both LGAs started about the same time, in earnest in January 2008.

The GHAIN project, led by FHI, is implementing the CTBC project as a component of its HIV/AIDS, Sexual and Reproductive Health, and TB (HAST) service delivery approach. The HAST approach is designed as a holistic, integrated decentralized disease management approach at the LGA level with operational structures that enhance health promotion, screening and early detection of the three diseases. This delivery approach integrates the three disease programs to obtain synergies and strengthen the health care delivery system with a focus on improving governance, health management information system, logistics, supply chain management, and patient referral between and among healthcare facilities and the community. Important intentions of the approach are to private partnership and provide opportunities for meaningful involvement of communities, community-based organizations, and community volunteers.

METHODOLOGY OF THE REVIEW

DOCUMENT REVIEW

Many documents were reviewed. These include the GHAIN CTBC proposal to USAID, project baseline assessment report, and progress reports and M&E documents of the CTBC project. Documents detailing FHI experience in TB work in other countries especially Asia were also reviewed. Documents relating to the NTBLCP in Nigeria were reviewed including its strategic plan and annual reports and the Nigerian Country Coordinating Mechanism TB proposals to, grants from, and reports to the GFATM. Other documents that were reviewed include WHO and UNAIDS documents on TB and HIV generally and specifically on Nigeria. A List of the Documents Reviewed is attached as *Appendix 1*.

FINDING FROM THE CTBC PROJECT REVIEW

1. Implementing CTBC within the LGA HAST Services:

The baseline results provided evidence used to strengthen critical areas of the LGA healthcare delivery system including a responsive governance structure, good management, physical infrastructure restoration and maintenance, improved PHC workforce competencies, and an effective M & E system. The HAST approach has increased access to improved healthcare for the three diseases by creating effective partnerships between the community and the LGA

programs of the three diseases based on the principles of subsidiarity, solidarity, and responsibility. Table 1 shows improvements in the key services delivery infrastructure with regard to the CTBC project with accompanying text describing key areas in which the HAST approach has strengthened the overall health system at the LGA level.

Table 1 : Improvements in service delivery capacity in Nassarawa and Yakurr LGAs as a result of CTBC project

S/N	Data Element	Nassarawa LGA baseline (July, 2007)	Nassarawa LGA (Sept, 2008)	Yakurr LGA Baseline (July,2007)	Yakurr LGA (Sept ,2008)
1	No of Wards		11		13
2	No of Health facilities in LGA		15		24
3	No of wards covered by CTBC	0	11	0	13
4	No of health facilities involved in CTBC project	0	4	0	10
5	No of health workers trained in CTBC	0	40	0	38
6	No of AFB microscopist trained	0	5	1	5
7	No of TB microscopy laboratories used for CTBC	0	2	1	2
8	No of CVs trained for CTBC	0	40	0	38
9	No of CBOs involved in CTBC	0	5	0	4

10	No. Of LGA CTBC communities	0	1	0	1
11	No of functional Ward development committees	0	11	0	13
12	No of DOTs sites in LGA	0	4	3	11

2. *Improvement of workforce for HAST services*

The Ministry of Health (MoH), particularly at the PHC level, suffers from chronic shortage of skilled health workforce. In support of its HAST services, GHAIN in collaboration with the MoH developed training curriculae for HIV/AIDS, STI, and TB and Standard Operating Procedures (SOPs) based on the Integrated Management of Adult Illness (IMAI) strategy, which it uses to train health workers. GHAIN has found the curriculae and SOPs good and user-friendly.

3. *Strengthening physical infrastructure to deliver the HAST services:*

The baseline assessment indicated many of the physical infrastructures necessary for delivering quality HAST serves were in need of repair and/or replacement. GHAIN made a modest financial investment in refurbishing selected facilities including the provision of additional space to provide services such as HIV counselling and testing (HCT), prevention of mother to child transmission (PMTCT) of HIV, laboratory diagnosis and TB- DOTS. Additional support included the provision of basic laboratory equipment and consumables including microscopes and the supply of computers for data storage and management.

4. *Strengthening the management of Health services*

5. *Integrated and strengthening of the M&E system*

DELIVERY OF CTBC SERVICES

The delivery of TB services started in earnest in January 2008 following the completion of the capacity building interventions for the 2 LGAs carried out by GHAIN between July and December 2007. The utilization of key TB services between January and September 2008 including number of TB suspects referred by CVs for AFB sputum microscopy, TB patients placed on treatment, and number of TB patients receiving support from CVs in the community is presented in Table 2 for both Nassarawa and Yakurr LGAs.

Poor services with inadequate recording and reporting capabilities makes it impossible to get similar utilization data in Nassarawa and Yakurr LGAs for the period January - September 2007 for comparison purposes; both LGAs were selected as CTBC project sites precisely because of

these challenges. The review therefore decided to compare TB services utilization in Yakurr LGA (CTBC intervention area) with Ikom LGA (conventional TB-DOTS expansion area) in Cross River State and Nassarawa LGA (CTBC intervention area) with Unguggo LGA (TB-DOTS expansion program) in Kano State.

Comparison LGAs, as much as possible, were paired to have similar critical confounding variables such as geographic terrain and socio-economic status. The major difference between the pairs is the presence or absence of CTBC project activities. This data is included in Table 2 for the period January – September 2008.

The TB prevalence is not known for the states or the LGAs. It is not unreasonable to expect that TB prevalence rates will not be significantly dissimilar between LGAs in the same state with similar geographic terrain, transport and communication infrastructure, socio-economic status, and health infrastructure. A comparative analysis of the data shown in Table 2 between Nassarawa LGA and Unguggo LGA in Kano State, and between Yakurr LGA and Ikom LGA in Cross River State is shown below:

Table 2: TB service statistics Jan-Sept 08: CTBC project LGA vs. non-CTBC LGA (January to September, 2008)

Data Element	Kano State		Cross River State	
	Nassarawa LGA (CTBC project areas)	Unguggo LGA (non-CTBC area)	Yakurr LGA (CTBC Area)	Ikom LGA (non-CTBC area)
Population Estimates for 2008	634,000	433,000	215,000	298,000
No of sputum AFB positive smears	901	165	428	409
No of sputum AFB positive smear s done	153	40	91	60
No of TB patients started on Treatment (new casea)	201	75	120	82
No of TB suspects referred by CVs for diagnosis	521	0	202	3

No receiving DOTs in community of TB patients on treatment	55	0	30	5
No of TB microscopy units participating in EQA	2	1	1	2
No of stock out of anti – Tb drugs		yes	NO	NO

CONCLUSION

Nearly 15 months since the CTBC projects began and only 8 months into the delivery of TB services in the communities, the review guardedly makes the following conclusions:

1. The Yakurr LGA CTBC project is efficient and effective in increasing access to quality TB prevention, treatment and care and support services; however, the efficiency and effectiveness of Nassarawa CTBC project needs improving by ensuring that anti-TB drugs are available for TB patients at all times and that prolonged stock-outs of anti-TB drugs are a thing of the past. The review team is convinced that similar efficiencies and effectiveness can be realized in other communities identified for future CTBC expansion if anti-TB drugs are always available and stock-outs avoided.
2. The CTBC project is relevant to the national TB control program and acceptable to communities as a mechanism for providing quality TB services in Nassarawa and Yakurr LGAs. The CTBC approach for TB control will continue to be relevant as long as TB remains a major public health challenge in a resource-constrained Nigeria. Poor and hard to reach communities will continue to accept CTBC projects as long as these increase access to quality TB services. Community acceptance of CVs as key players in TB control will improve with community education and the generation of huge TB cure rates for TB patients receiving care and support from CVs.
3. With moderate effort by all stakeholders, the CTBC project can be scaled up and rolled out to other LGAs in Cross River and Kano States. Community volunteers are a critical element for the success of the CTBC project and their motivation is central to this. Nassarawa LGA in Kano state motivates its CVs by paying a monthly stipend to them; Yakurr LGA does not pay any stipends and has witnessed some attrition in CVs numbers but has replaced these. Yakurr LGA authorities and those of other LGAs that will implement CTBC projects in future should adapt Nassarawa LGAs mechanism of support for the CVs.

4. The CTBC project is heavily dependent on external sources of funding. It is therefore highly unlikely that it can be sustained when donor support is withdrawn without significant political commitment and very substantial and sustained financial investment from federal, state, and local governments.

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