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Perspectives on Community Tuberculosis Care in Nigeria

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Author's contribution

The sole author designed, analyzed and interpreted and prepared the manuscript.

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Review Article

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ABSTRACT

Tuberculosis (TB) has been declared a public health emergency in Nigeria. Currently, the country has the highest TB burden in Africa and the third in the whole world behind China and India only. Further complicating the efforts at combating this ugly scenario is the rising multi-drug resistant tuberculosis (MDR-TB) whose emergence can go a long way in nullifying the previous efforts in controlling TB in Nigeria. From 665 MDR-TB cases notified in 2013, the number of such cases has been estimated to climb to 29, 469 cases in 2020.

In 2006, World Health Organization (WHO) developed a new six point Stop TB strategy; empowering the community to take charge in TB prevention and control is one of the key points. Similarly, Community Tuberculosis Care has been piloted in Botswana, Kenya, Malawi, South Africa, Uganda and Zambia in a multi-national project to evaluate community contribution to TB care and found to be effective, acceptable, affordable and cost-effective.

Down the years, many efforts have been employed in the prevention and control of TB in Nigeria. Some degree of success has been noticed but with the current statistics; there is a lot more that needs to put in place. Community Based Tuberculosis Care (CBTC) will go a long way in reaching the un-reached, improving the case-detection rate and reducing stigmatization of patients. All these will align Nigeria to the Post-2015 global goal of not just controlling but ending the global epidemic.

Keywords: Community; tuberculosis; multi-drug resistance; care.

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1. INTRODUCTION AND BACKGROUND

In Nigeria, almost thirty people die of TB every hour! [1] TB claimed 1.7 million lives worldwide in 2009. The highest number of deaths was in Africa. In year 2013, Africa carried the greatest proportion of new cases per population with 280 cases per 100 000 population. In year 2010, Nigeria ranked 10th among the 22 high-burden TB countries in the world, with Lagos, Kano, and Oyo states having the highest TB prevalence rate [2]. 2014 World Health Organization (WHO) report projected Nigeria as the country with the highest TB burden in Africa and the 3rd in the whole world [3]. This indeed calls for action.

Over the last two decades, Directly Observed Therapy Short Course (DOTS) Strategy in TB management has been operational in Nigeria. However, TB still constitutes a public health challenge [4]. Despite the fact that DOTS has recorded significant improvement in the detection, treatment and control of TB in Nigeria; neither the set target for the detection rate nor the cure rate has been achieved [5]. There are quite a number of challenges militating against the success of TB prevention and control in Nigeria. Community Tuberculosis Care (CTBC) in Nigeria will go a long way in addressing these challenges.

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). It has been piloted in Botswana, Kenya, Malawi, South Africa, Uganda and Zambia in a multi-national project to evaluate community contribution to TB care and found to be effective, acceptable, affordable and cost-effective. There are scanty CTBC programs in Nigeria. However, the few that has been commissioned have been found to be effective and efficient. An example is the USAID-funded Global HIV/AIDS Initiative in Nigeria (GHAIN) which was identified to undertake pilot CTBC activities in three Local Government Areas [6].

This paper will review some of the specific challenges to TB care in Nigeria and discuss how they can be addressed through CTBC.

2. METHODS

A number of documents were reviewed. Seven documents of the World Health Organization

(WHO) on Tuberculosis were reviewed which included Global reports on TB and the organization's position on CTBC. Eight of the documents reviewed were on the state of TB in Nigeria. Nineteen of the documents were on different researches carried out in Nigeria on the state of TB and CBTC. Thirteen documents were on different researches conducted on CBTC in different countries in the African continent and beyond. All these forty-seven documents were selected from an internet search. These provided a basis for the perspectives on CBTC in Nigeria which is the focus of this paper.

3. FINDINGS

3.1 Global Trends in TB Prevention and Control

In 2006, WHO developed a new six point Stop TB strategy which builds on the success of the DOTS while also addressing the key challenges facing TB. Empowering people with TB, and communities is one of the key points [7]. However, WHO has developed a post-2015 global strategy called 'the End TB strategy.' The goal of the strategy is to end the global epidemic by 2035 with targets of 95 percent reduction in TB deaths and 90 percent reduction in TB incidence. The strategy also targets a zero catastrophic costs for TB affected by the families by 2020 [8].

Two out of six WHO regions have achieved all three 2015 targets for reductions in TB disease burden (incidence, prevalence, mortality): The Region of the Americas and the Western Pacific Region. The South-East Asia Region appears on track to meet all three targets [8].

3.2 National Prevalence Survey for TB

The first ever National Prevalence Survey for TB was done in the year 2013. Before the release of these results, indirect best estimates have been relied on over the years and this has been found to be grossly under-reported. Compared to the previously published best estimates, the new estimates in this report are 200% higher for incidence, 100% higher for prevalence and 400% higher for mortality. The survey showed a doubling of the estimated overall prevalence of TB and a tripling of the estimated incidence compared to previous WHO estimates [8].

This has far reaching implication on the management of TB in the country. It shows TB

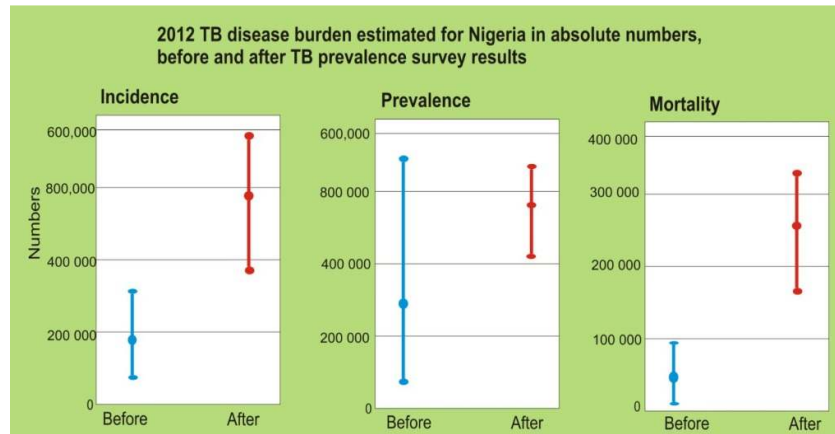


Fig. 1. National TB prevalence survey absolute numbers result
 Adapted from: World Health Organization (2014) global tuberculosis report 2014

management has to be really overhauled. TB control efforts in Nigeria have suffered too long [9]. TB control effort in Nigeria has been fraught with quite a number of challenges. Many of these are discussed in this paper. It has been discovered that CBTC will go a long way in addressing these challenges.

However, community-based TB services in Nigeria are yet to be organized. The 2015 Global Report of World Health Organization on TB shows that community contribution to TB case notifications and treatment support for TB patients is not available [10]. This is indeed a call to action to organize the community based TB services in Nigeria.

3.3 Multi-drug Resistance TB in Nigeria

In 2010, more than 7, 000 cases were reported with MDR-TB and nearly 17 per cent of TB burden were MDR-TB patients among newly infected and re-treated TB patients. Nigeria started MDR-TB treatment in 2010 after a successful pilot in MDR-TB treatment centre in University College Hospital, Ibadan, Oyo State. A year later, MDR-TB treatment was scaled up nationwide. In 2013, 2.9% of the TB cases were MDR-TB cases, according to the WHO Global TB Report 2014. There were about 426 patients who were started on MDR-TB treatment in 2013 [11].

The introduction of new molecular diagnostics tools such as Gene-Xpert machines in 49 facilities in 30 states and Federal Capital Territory as on December 2013, yielded detection of more MDR-TB cases than had been

envisaged for treatment under the Global Fund grant. The implication of this is that MDR-TB cases are more with us in Nigeria than we have detected. In fact, report has it that Africa is the region with the lowest case detection rate worldwide. The World Bank placed the 2011-2013 detection rates of all forms of TB at 16%. This happens to be one of the lowest all over the world! [12].

The Nigerian government sanctioned US\$1.42 million to procure quality assured Second Line Drugs (SLDs) that will be used to provide treatment for 500 multi-drug resistant TB (MDR-TB) patients. The delivery of the drugs has commenced as at June, 2015 [11].

3.4 Community TB Care

The focus of health in the 21st century is the community. Community-based TB activities can be defined as activities that are conducted outside the premises of formal health facilities, within community-based structures (for example, schools and places of worship) and households [13]. Community engagement is defined as the process of working collaboratively with and through communities to address issues affecting their well-being [14].

Such activities can be implemented by community health workers and community volunteers regardless of whether they are employed and supervised by a government department or by a nongovernmental organization (NGO). Community engagement can increase TB case detection and notifications and also help to improve treatment outcomes.

3.5 Why Community TB Care?

The concept of community involvement in the delivery of health to people is not new [15]. It has its roots in the action that communities have always taken to protect and support their members. The International Conference on Primary Health Care in Alma-Ata in 1978 stated in clear terms the efficacy of organized community participation and ultimate self-reliance with individuals, families and communities assuming more responsibility for their own health [16].

However, the approaches that have been used over a long time in combating TB have not really focused on the community participation. In Nigeria for example, Advocacy, Communication and Social Mobilization (ACSM) and Public-Private-Mix (PPM) is on the weak note [17].

Community TB care is not a substitute for DOTS strategy. On the contrary, it is one of the efforts aimed at expanding this strategy. In fact, it builds on the positive experience of the DOTS strategy.

The following are reasons why Community TB care proves needful in controlling TB:

- TB facility and “professional” health worker-based treatment has led to congestion in hospital and medical departments. It has also resulted in overstretching of human, material, and logistic resources [18].
- Dr Rui Gama Vaz, the WHO representative in Nigeria stated that 15% of the three million people undiagnosed for TB in the world are in Nigerian community! [11]. They need to be detected.
- Community participation can help foster ownership of TB care and support for TB patients, hence, reducing stigma towards TB [18].
- It has been piloted in Botswana, Kenya, Malawi, South Africa, Uganda and Zambia in a multi-national project to evaluate community contribution to TB care and found to be effective, acceptable, affordable and cost-effective [13].
- TB clients are not likely to complete the therapy if they are not well monitored at the community level.
- It has been proffered to be the solution to the estimated one third of cases of TB which are still either not diagnosed or not reported.

- It will go a long way in preventing the spread of MDR-TB, whose emergence of MDR-TB has posed a serious threat which may wipe out the previous achievements in controlling TB.
- It will reduce stigma towards TB patients.
- It will foster community ownership of TB care.

3.6 Current Community TB Programs in Nigeria

CBTC is not a new initiative in Nigeria. The Federal Ministry of Health in Nigeria under the National Tuberculosis and Leprosy Control Programme in the year 2012 outlined the following guidelines for community TB care in Nigeria:

- Effective community engagement through situation assessment, advocacy, communication and social mobilization.
- Capacity enhancement through training of community volunteers/treatment supporters for TB care.
- Patient empowerment and mobilisation for TB care in the community.
- Adopt a patient-centred approach to TB care.
- Programme strengthening through establishment and strengthening of the recording and reporting system, supervision, monitoring and evaluation.

The question that comes to heart is this: ‘How far have these issues been operationalized in the prevention and control of TB?’

4. BARRIERS TO OPTIMAL TB CARE IN NIGERIA

Tuberculosis prevention and control in Nigeria has been fraught with quite a number of challenges. It is worthy of note that quite a number of these challenges can be surmounted if CBTC is well operationalized. Some of them are outlined below:

4.1 Shortage of Health Professionals

This is a major issue as far as prevention and control of TB is concerned. Otu [16] discovered a shortage of skilled TB health workers at Primary Health Care (PHC) level. Anochie et al. [17] also posited that basic and applied scientists specializing in TB are still few.

4.2 Attitude of Health Care Workers

TB treatment involves a lot of interaction between patients and health care workers.

Ibrahim et al. [19] concluded from the findings of a research done in Plateau State, Nigeria that attitude of the health care workers towards the patient remains important factor that can keep the patients on treatment or make them break the treatment or abandon it [20]. This was corroborated by a study in India where it was reported that the unfriendly attitude of health care workers might make patients feel threatened and unwelcomed leading to treatment interruption [21].

Similarly, some studies on healthcare-seeking behaviour of patients revealed that health workers exploit patients and are often unfriendly, especially with poor patients. Some of them even sell the supposedly free drug! This is very worrisome. Patients who are treated with love and empathy by the health care workers will probably be more willing to stay on their treatment to completion [20].

The psychological stress of taking the medications coupled with the side effects is enough source of worry for the patient. They need to be supported.

4.3 Misconception on the Part of Patients

Many studies in Nigeria and other parts of the world have shown that patients' misconception about TB is mostly inimical to appropriate health seeking behavior, thereby reducing the chances of completing treatment and achieving cure [21,22,23].

The study in Nigeria noted that only about half of the Health Care Workers (HCWs) engaged in health education with their TB patients! Health Education remains one of the proven ways of addressing misconceptions.

4.4 Funding

From the Fig. 2, it will be noted that there is a significant degree of under-funding for TB in Nigeria. The domestic funding is at low ebb. Down the years, it can be seen that the major funding to combat TB in Nigeria is from the international bodies.

However, Vasall and Mustapha [1] in a white paper report on the current state of TB in Nigeria

noted that before the country can meet the WHO target by 2035 of reducing deaths from TB from the current 245,000 to 24,500; the annual total cost was estimated at around US\$406 million (or around 81 billion Naira). This is US\$ 341 million (or around 68.2 billion Naira) above the current TB programme budget funding of around US\$65 million (or 13 billion Naira).

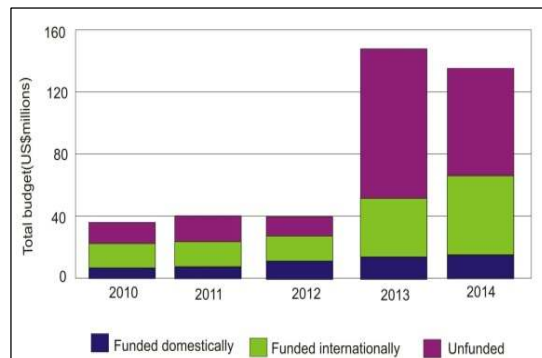


Fig. 2. Degree of funding for tuberculosis in Nigeria

Adapted from: Vassall and Mustapha [1]

It is also higher than the budget estimate of WHO which is US\$139 million (or 27.8 billion Naira), primarily due to the additional costs for health systems strengthening and treating MDR-TB.

This has a lot of implication for the Nigerian economy. This shows that more pragmatic efforts need to be taken by the government in a bid to increase the degree of funding for TB at all levels.

Lately, the Nigerian government has taken pragmatic steps as far as combating MDR-TB is concerned. Notable among these efforts is the US\$1.42 million to procure quality assured Second Line Drugs (SLDs) to provide treatment for 500 multi-drug resistant TB (MDR-TB) patients. The delivery of the drugs has commenced as at June, 2015 [11].

December 2013 witnessed the introduction of new molecular diagnostics tools such as GeneXpert machines in 49 facilities in 30 states and Federal Capital Territory. This yielded detection of more MDR-TB cases than had been envisaged for treatment under the Global Fund grant of US\$16 million [11]. This led to the government's efforts to procure these drugs.

However, it is worthy of note that if the WHO target will be met, government funding needs to be scaled up.

4.5 Loss to Follow Up

Amoran et al. [24] in a study discovered that an overall default rate of 14.4% was noticed among the TB patients attending clinic for treatment from 1st April 2004 to 30th June 2007. This is much higher than the WHO recommended rate of 3%. CBTC will help to track these clients and discover the reasons for default. Throughout the world, TB patients were burdened with a wide range of medical and social problems! They need to be encouraged. Furthermore, patients with inadequate knowledge of the duration of the treatment may feel that they are cured and thus stop the treatment [20].

4.6 The state of the Private Health Sector

The private health sector is often the first point of contact for many patients with tuberculosis [25]. The private sector provides for more than 50% of health care needs of the population in Nigeria [26]. TB efforts planned without giving sufficient attention to this sector is grossly deficient. TB control efforts in Nigeria have suffered too long due to weak private sector participation and low recognition for clearly defined roles and responsibilities within the health sector reform of government [9]. Before most Nigerians go to a government facility, most will have first contacted these private practitioners. This has a lot of implication for TB prevention and management efforts in the nation.

In an effort to increase tuberculosis (TB) case detection, the Kaduna State TB program in Nigeria started Public-Private Mix (PPM DOTS) in 2002. This study assessed and compared the TB case management practices and treatment outcomes of the public and private health facilities involved in the TB program [27].

This comparative cross-sectional descriptive study which was carried out in 5 private and 10 public health facilities providing TB services for at

least two years in the four Local Governments Areas where both public and private health facilities are involved in the TB program. The heads of the health facilities were interviewed and case notes of all the 492 TB patients registered in these facilities between January 2003 and December 2004 reviewed [27].

It was discovered from this study that the private health facilities significantly saw more TB patients, an average of 51 patients per health facility compared to 23 patients in the public health facilities. There was better completion of records in the public health facilities while patient contact screening was very low in both public and private health facilities, 13.1% and 12.2% respectively. The treatment success rate was higher among patients managed in the private health facilities (83.7%) compared to 78.6% in the public health facilities.

The Coordinator of The National Tuberculosis and Leprosy Control Programme (NTBLCP) gave the above statistics while highlighting the role of the private sector in TB Management in Nigeria. The aim of this initiative that was launched in year 2008 is to contribute to at least 15% of total TB cases detected by the end of 2015 [28].

The Table below was adapted from the 2015 WHO Global Tuberculosis Report where it was stated that the PPM initiative contributed to 14% of case notification in the country.

These above statistics have been able to highlight the very crucial place the private sector stands in the community. It suffices to call to question the quality of TB care that is accorded these ones by the private health sector. Similarly, there are quite a number of things that the private health sector needs to put in place.

In a study conducted in Enugu, Eastern Nigeria to evaluate the implementation of Directly Observed Treatment Short Course (DOTS) by private medical practitioners; it was discovered

Table 1. Public private mix DOTS updates in Nigeria geo-political zones

Zone	Private for profit	Private not for profit	Total
North central	7	16	23
North East	32	8	40
North West	22	12	34
South East	106	38	144
South South	60	3	63
South West	76	24	100
Total	303	101	404

Adapted from: Obasanya n.d: Update on PPM-DOTS in Nigeria

Table 2. Contribution of public-private mix to notifications of TB in selected countries

Country	Number of TB cases notified by private sector care providers	Total number of TB cases notified	Contribution of private sector care providers to total notifications
Bangladesh	22 960	196 797	12
Ethiopia	16 876	119 592	14
India	194 992	1 683 915	12
Iran	3 093	10 395	30
Iraq	3 803	8 341	46
Kenya	18 200	89 294	20
Malawi	3 500	17 723	20
Myanmar	25 978	141 957	18
Nigeria	13 031	91 354	14
Pakistan	55 254	316 577	17

Adapted from: World Health Organization, (2015). The 2015 global tuberculosis report

that none of the private practitioners used the appropriate drug combination, dosage and duration. Most of the private practitioners (61.5%) did not follow up their tuberculosis patients. In fact, 72.1% did not have facilities for tracing defaulters [26].

Although 321 (94.4%) of private practitioners would like to be provided with information about national tuberculosis control programme (NTP) only 32 (26.2%) of them had never participated in a continuing medical education (CME) on tuberculosis.

4.7 Side Effects of Drugs

Bello [5] posited that side effects of anti-TB drugs are worrisome to the patients and could increase defaulting rates. About half (52.8%) of the patients that received proper counseling on medication at the hospital did not adhere to anti-TB drug dosage regimen.

4.8 Delay in Presentation to a Health Facility

Delay in presentation to a health facility contributes to delays in initiating TB treatment, and can result in greater morbidity and mortality for the patient [29].

Odusanya and Babafemi [30] discovered that majority of TB patients at a chest clinic of a general hospital in Lagos, Nigeria centre did not present early to health facilities and continue to serve as reservoirs of infection. Another study carried out in Ibadan, Oyo State, Southwestern Nigeria also showed 66.4% delay among TB patients in Ibadan.

4.9 Case Detection Rates in Nigeria

Nigeria's case detection rate for all forms of TB currently stands at 16%. One of the lowest case detection rates in the world! [1] Worldwide, an estimated one third of cases of TB are still either not diagnosed or not reported. Even when people with suspected TB are identified, the disease is often diagnosed and treated late [13]. Late case detection rate is very dangerous for TB management. TB has been said to be the 2nd most deadly infectious disease! [1]. This means that it causes more damage and can be more difficult to treat. If a person has active pulmonary (lung) TB, this means also that more people will be infected if the person is not treated.

In fact, Dr Rui Gama Vaz, the WHO representative in Nigeria stated that 15% of the three million people undiagnosed for TB in the world are in Nigerian community! [9] The primary cause of this low rate of case detection is a lack of access to high quality TB services.

4.10 The Rural Community

Two categories of location exist as far as the Nigerian society is concerned. This is the urban and the rural. This classification is based on the availability of infrastructure development and government presence [18]. The urban areas have very good roads, stable electricity, good hospitals and other social amenities. This is much unlike the rural areas where a good number of these aforementioned amenities are not available. Many studies have shown that rural areas are not well catered for in TB prevention and care.

Otu [16] noted that the Directly Observed Treatment Short course (DOTS) has sub-optimal population coverage with shortage of skilled TB health workers at Primary Health Care (PHC) level. Amochi et al. (2013) affirmed that the rural areas are greatly and painfully neglected in TB prevention and care. Most of these areas lack functional hospital facilities and staff to care for TB cases and most non-governmental organizations (NGOs) limit their activities [18].

4.10.1 Long distance of patients from treatment sites

The major factors associated with patients interrupting treatment were long distance of patients from the treatment sites [19]. Access to TB treatment is one of the key determinants for effective TB control services. Distance may limit patient access to the services especially for the daily direct observation of the treatment (DOT) which takes place in the health facility during the intensive phase of treatment.

4.10.2 Home based TB care

In a study conducted in a bid to clarify the cost implication of using home based care as against the facility-based care in the treatment of MDR-TB cases in Nigeria; it was discovered that treatment of MDR TB using home-based care is expected to result in similar patient outcomes at markedly reduced public health costs as facility-based care [31].

The average expected total treatment cost for a Nigerian patient treated for MDR TB was estimated at US\$ 2095 for facility-based care and \$ 1535 for home-based care, a potential saving of 25%. One of the major reasons for this difference is the significantly more intensive, and therefore more costly, nursing care in hospitals. In 2013, a total of 426 patients were initiated on facility-based MDR TB treatment in Nigeria. Thus the potential savings through home-based care are US\$ 223,204 per year [31].

However, home based care services is still an evolving field in Nigeria. It needs to receive more attention.

5. SURMOUNTING BARRIERS TO OPTIMAL TB CARE THROUGH CTBC

5.1 Involvement of More Participants in TB Prevention and Control

One of the aims of CBTC is to involve more than the health professionals in TB care. CTBC

emphasizes the involvement of a lot of participants in TB prevention and control. Center for Disease Control and Prevention outlined some of the participants that are involved in CBTC [18].

They are as follows:

- **The District TB Coordinator:** Supervises and coordinates TB community care in the district.
- **The Health Facility Staff:** Trains Community TB Treatment Supporters. Examples are: A former TB Patient living in the same community who has completed treatment. He also educates and supports TB patients among some other roles.
- **TB Treatment Supporters:** These are not necessarily health practitioners. They are laymen in the society but they must have undergone training.
- **Non-Governmental Organizations and Civil Society Organizations:** CORE Group TB Working Group (2013) was able to identify the following areas of TB programming as a natural fit for NGO and CSO community-level work [19]. They are:
 - **Case Finding or Case Detection:** Local people and organizations are in a good position to help identify people with symptoms of TB and link them to services. Also helps to provide Isoniazid Preventive Therapy for people who have been exposed to TB in a bid to prevent latent TB infection.
 - **Treatment Support:** A TB patient that is not supported is not likely to complete the therapy. TB treatment entails taking pills regularly over the course of six months to several years. This can present challenges including experiencing side effects, forgetting, losing, or running out of medicine, and having social and emotional complications. This speaks volumes of the need for support.

5.2 Improved Funding for CTBC

Many results have been seen from the funding of CTBC projects in Nigeria. Notable among this is the global fund which happens to be a major partner of the National Tuberculosis and Leprosy Control Programme (NTBLCP) in its fight against tuberculosis in 36 states plus Federal Capital Territory. Global Fund-supported Community TB program in Nigeria has coverage in 24 states,

236 LGAs and 720 Communities/wards of the federation. This program has been able to mobilize people and resources towards the elimination of TB in their respective communities through the engagement of 420 community based organizations (CBOs) [32].

Similarly, Dr. Queen Ogbuji, Association for Reproductive and Family Health (ARFH) TB Project Coordinator, stated that ARFH in collaboration with a local NGO Health Alive Foundation, has trained over 4400 Community volunteers (CV) and has built the capacities of 420 CBOs to support the control of TB in their communities. These CBOs have held field activities such as advocacy, communication, social mobilization and other community TB cares programmes [32].

This speaks volumes on the prospects for CBTC in Nigeria. If funding for CBTC is increased, more people will be reached and the TB targets will be met.

5.3 Addressing Accessibility Issues in TB Care

Nissen et al. [33] deduced from a research conducted on TB patients that limited financial resources, i.e. lack of money for transportation can lead to non-adherence to follow up. CBTC removes the need to attend the clinic daily for TB treatment and this may help to address some of the barriers— which include—long distance to treatment sites—faced by patients receiving DOT. Free TB treatment policy is being implemented in Nigeria. This is aimed at reducing cost to the patient. However, the patients have to pay their travel cost to the clinic to access the service. Many of these patients are not able to afford this cost. Hence, CBTC that involves family members, TB supporters and volunteers in the monitoring of DOTS therapy will go a long way in addressing accessibility issues for the clients.

5.4 Organization of the Private Sector

The private sector (both for-profit and non-profit), non-governmental organizations, faith-based organizations, community-based organizations and local communities also provide considerable services at all the levels of health care including TB care [9]. WHO has placed the contribution of the private sector to the TB management efforts in Nigeria at 14% [14]. The crucial role of the private sector has been highlighted in this

discourse. TB management efforts in Nigeria will scale higher with better organization of the private sector.

5.5 Supporting Clients Experiencing Side Effects

The client in the 21st century is an active participant in his care. Also, the family needs to be well carried along. In TB management, it has been noted that the degree of stigmatization of the clients is on the very high side. There are many studies that have been conducted that have attested to this [34-36].

CBTC will be able to provide the much needed support for the clients, thus reducing stigma and improving their individual experiences during treatment [37].

5.6 Improving Case Detection Rates

CTBC programs train TB volunteers and supporters who help in prompt detection and referral of cases. This will help to improve the low case detection rate of Nigeria.

5.7 Making Provision for the Rural Community

CBTC has the ability to reach the interior; the very core and underserved areas of the community. Global Fund-supported Community TB program in Nigeria has proved worthwhile in meeting the needs of the patients in the hard-to-reach areas. However, the activities need to be scaled up as there are still more yet to be reached.

5.8 Reducing Loss to Follow Up

CTBC will go a very long way in tracing patients interrupting treatment and help them return to treatment [37]. A client that is not supported at the community level is not likely to complete the therapy due to the side effects, long distance, psychological effects, financial issues, to mention but a few.

5.9 Facilitating Home-based Care

Many clients prefer to be treated at the home front [37]. Home-based TB care has been proffered to be cost effective when compared to the facility-based. However, home-based care is

yet to be organized in Nigeria. This should be given a pride of place. By so doing, TB prevention and control can be better managed.

6. RECOMMENDATIONS

The following actions are recommended in a bid to re-position the TB management system in Nigeria for better result this year 2016 and beyond:

- Many Nigerians are not aware that the country is one of the high-TB burden countries in Africa and the world. Much awareness needs to be made by all participants in CBTC and the cooperation of the populace sought on how to line up with WHO's post-2015 global strategy called 'the End TB strategy.
- The federal, state and local governments need to give their financial support in order to see that CTBC is fully operationalized.
- The government of Nigeria and the National TB control program should support and promote the involvement of all eligible private health care providers under the Public-Private Mix directly observed treatment short course strategy (PPM-DOTS) to ensure availability and accessibility of the services to patients.
- It is important that the government should routinely monitor and evaluate the management of TB by the private practitioners
- Periodic refresher training for community-based volunteers is necessary. The training should be very role specific.
- Monitoring of the CBTC services through timely audit and appraisal is crucial to the success of the programme.
- More researches are encouraged in a bid to make evidence-based decisions that will give clients the best experiences.
- The place of external funding in TB management cannot be over-emphasized. More support should be sought from local and international bodies to fast-track the pace of operationalization of CBTC in the nook and crannies of the country.

7. CONCLUSION

TB in Nigeria is a public health emergency! Although, a dearth of researches done in Nigeria on CBTC was noticed during the literature search; notwithstanding, the few documents reviewed in this paper has set the case for CBTC

in Nigeria. CBTC will go a long way in addressing the challenges facing TB management currently in Nigeria. All hands must be on deck to rid Nigeria of this infectious disease in line with WHO's post 2015 agenda- ending tuberculosis by 2035; thus making the nation a better and safer place to dwell.

Community TB care will indeed see to it that healthy people are living in healthy communities.

CONSENT

It is not applicable.

ETHICAL APPROVAL

It is not applicable.

COMPETING INTERESTS

Author has declared that no competing interests exist.

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